

Analyze the Data not the Drivel

Trust is for imbeciles!

https://analyzethedatanotthedrivel.org

John D. Baker

Friday 31st July, 2026

This document is a collection of my blog entries from 2009 to the present. The opinions expressed here are entirely my own. They do not reflect the views of employers, colleagues, friends or family members. I aim to increase your blood pressure; if it isn't rising the message isn't getting through!

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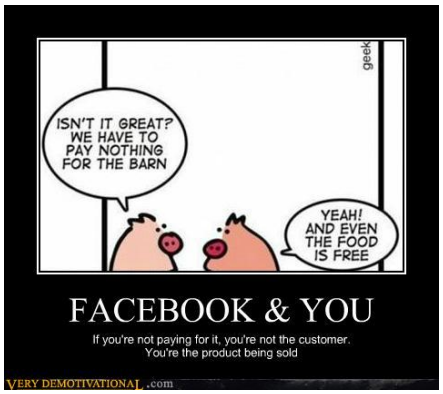
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2009

What's In it for Facebook?

Posted: 05 Sep 2009 22:44:50



Facebook is huge: they brag about a user count well north of one hundred million. If only 0.5% of their users are active that's 500,000 *concurrent users.* How many expensive servers does it take to support such a load? How much does Facebook shell out for bandwidth? What does it cost them to house the stables of *twenty something* web programmers required to keep their pages up and humming? Here's a hint for all you, *"information wants to be free,"* socialists out there; **it's not free!**

Sites like Facebook blow through hundreds of thousands of dollars every month just so you can tag your friends, play silly games and post pictures of your pets. Here's an old guy question; *what's in it for Facebook?*

Do any of you seriously think Facebook is doing this for the good of mankind? Well, I hate to harsh your mellow, but nobody, and I mean *absolutely nobody*, does anything for the good of mankind. There is always payment in some form. The form varies. I prefer cash; it's crass; it's direct and it's bullshit free. The downside: there can be tax liabilities. Maybe you prefer payment in the form of self delusions: "I'm doing all this volunteer work because I am a good person." Perhaps you take Mother Teresa accolades, adulation and Nobel Peace Prizes, (going to murders and charlatans these days), and if you are a *class A numnut that ultimate noncash payment: The Order of Canada.* Live in Canada long enough, sticking to your politically correct guns, and it's yours for the taking.

Getting back to those silly Facebook games and pet pictures. Every time you boot one of these irritants it asks if it can rip your name and contact information. You want to play so you press yes. With a mouse click another marketer gains access your email, name, address and friend list. Then the silly game runs and you divulge more of yourself to perfect strangers that are spending long hours programming diversions for the *good of mankind.*

I don't care if some random manufacturer of crap learns that my favorite color is purple: ancient royalty you know. They may send me some purple junk email that will be mutilated by my spam terminators. But I am one among millions. If the same email goes out to millions a few may respond in the warm cashy way marketers seek. Facebook is a gigantic indirect marketing and data mining operation that pays the bills by parceling out user information to third parties. These parties are selling everything from soap to politicians. This is what's in it for Facebook.

I haven't seen Facebook's books so I don't know if this is a sound business or another venture capital delusion that will implode when the money runs out. Time will soon tell. In the meanwhile here is some Facebook advice.

1. **Google your name. If your Facebook page shows on the first page be very careful about what you post.** Employers are now searching social networks when screening potential employees. They will be thrilled to hear about how you puked all over the late night buffet while climbing down from your last crack high.
2. **Facebook friends are not necessarily real friends.** Does anyone have 718 real flesh and blood friends? Nobody is that popular. Nobody wants to be that popular.
3. **The more silly games, groups and postings you deploy the deeper and thicker your on-line profile becomes.** All this crap, be honest it's mostly crap, might outlive you. Do you really want your epitaph to read: Iced 1,724 in Mafia Wars.

Have I harshed your Facebook mellow?

Fake Programming

Posted: 09 Sep 2009 21:36:47

I have been a *fake programmer* for a long time. A fake programmer is someone who writes software to crush personal irritants. Fake programmers are not hackers; they don't enjoy the process of software creation; they don't work for the man and they make piss poor cubicle dwellers. Fake programmers detest industry standards and will wage silent, passive aggressive, war on anyone foolish enough to insist on them. The typical fake programmer is boiling with rage, *"what do you mean there's nothing out there that solves my problem!"* When confronted with nasty problems fake programmers will:

1. Look for ways to ignore them
2. Try to pass the buck
3. Live with suboptimal crap
4. Whine
5. Complain about lesbians on welfare
6. Yell at morons on TV
7. Write snarky blog posts

and if all else fails: **write some damn software**.

By the time the fake programmer has decided to code he is looking for the quickest and least painful solution to his problem. Remember the fake programmer doesn't care about your problems and won't live by your rules. He only wants to kill his problem and get his blood pressure back to normal.

Fake programmers will use industry standard languages and tools if they provide the quickest fix. Of course this is rarely the case. At this point fake and *real* programmers diverge. Real programmers will stick to their standard software guns and plod along. The fake programmer says screw that; let's stake out this vampire!

I recently drove a stake through the — "no decent IBM/Cognos Planning model diagram tool" — vampire. In my day job I wrestle with financial planning software. Corporate planning software is an *irritant rich* environment. My biggest complaint was the lack of an automatic way to quickly and accurately outline the contents of a Cognos model. Without such a guide you will be at the mercy of "documentation", (don't make me laugh) , or worse, Cognos Planning's ultra-sucky user interface. Either way you can kiss your weekends good bye.

Fortunately, I am an excellent fake J programmer. J is my favorite programming language. What's J you ask? You have never heard of it and that's to bad for you! You have deprived your brain of a tool of thought and my human side feels for you: of course the outer fake programmer doesn't give a rat's ass. Using J's excellent graphviz addon I can generate two Cognos Planning `*.csv` files containing model metadata and then apply my `analystgraphs` script to generate accurate, blood pressure reducing, diagrams like figure 1 on page 13:

If you are interested in these diagrams feel free to download and use my J scripts. Of course you will have to learn enough J to run them.

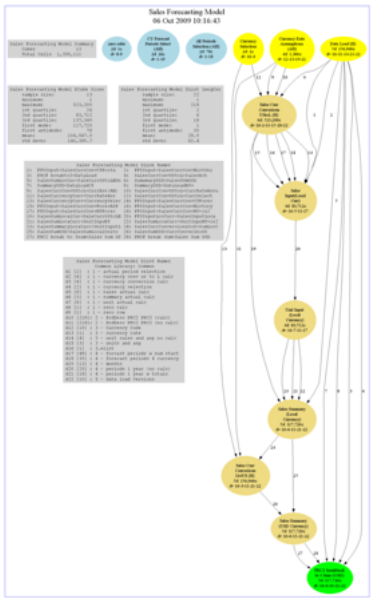
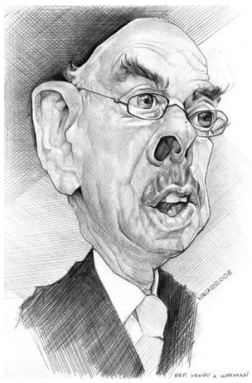


Figure 1: Cognos Planning model structure

Laws or Suggestions

Posted: 13 Sep 2009 21:15:38



Henry Waxman

The other day while torturing myself with CNN I heard Henry Waxman, that living argument for congressional term limits, tell us that the new, all singing and dancing, US health care bill would not fund abortions or pick up the tab for illegal immigrants. Maybe Henry is telling the truth, hey it could happen, pigs can fly if they're dropped high enough, but I suspect Henry is confused about laws and suggestions.

Laws come in many forms and flavors but all laws mathematical, scientific and legal have a common trait: *enforcement*. Mathematical laws, theorems if you will, are self enforcing. If you accept the fundamentals or axioms of a theory and adhere to clear logical rules of inference you don't have a choice about accepting valid results or proofs. A sure sign of *crankhood* is the steadfast refusal to accept mathematical results. To this day we still run into circle squarers. They're a dying breed and I find their insanity kind of cute. If only π was an algebraic

number there would be hope but fortunately it's transcendental and there isn't. Even the FSM, (Flying Spaghetti Monster — or God for you fundamentalists), cannot square the circle with a straight edge and compass; it's an absolute impossibility. Mathematical laws are not girly men. They're tough enough for any neighborhood and won't back down even for deities.

Scientific laws also police themselves. You aren't going to build a perpetual motion machine, get colder than absolute zero, force mass faster than the speed of light or convince a stubborn coin that its past has any bearing on the next toss. Nature is a tough cop and she isn't going to take crap from anyone. Mathematical and scientific laws are called laws because you are forced to obey. Law and enforcement is symmetrical; you don't get one without the other.

When we enter the legal domain this symmetry breaks down. **Legislatures, parliaments and dictators can pass any law they want but unless they enforce it it's not a law; it's a *suggestion*.** Have you ever driven down the freeway at the speed limit and watched all the cars, even the ones driven by little old ladies, zip past you? Are all these drivers breaking the law? In some looney legal universe yes; in the real one they are *ignoring the suggested speed limit. Without cops there are no speeders!*

As a matter of personal policy I ignore all *legal* suggestions. I only obey enforced laws. Without parking tickets I would always park in the handicapped spots; they're more convenient. Without the IRS I wouldn't pay a dime of taxes. Without prisons I would steal with impunity. I'm not a bad person just an honest one. *Human legalities only become law when enforced.* Now Henry's health bill may contain verbiage forbidding payments for abortions and illegals but unless they're is a corresponding, rigorous and funded enforcement regime to insure that Henry's suggestions become laws he's just spouting bullshit.

Lens Lust

Posted: 22 Sep 2009 19:34:40

I suffer from a common and debilitating condition commonly referred to as NEM: ***Not Enough Money!*** NEM imposes all sorts of conditions and hardships on its victims. In my case NEM limits my lens lust. Without NEM I would have warehouses full of the finest cameras and lenses but as a lowly *NEMite* I am forced to choose wisely.

For months I have had my eye on the Nikon *ƒ1.8 35mm AFS DX* prime. My logical reasons for lusting after this lens are:

1. I have a DX format Nikon AFS DSLR.
2. The FOV, (field of view), of standard 50mm lenses mounted on DX cameras is to narrow: 35mm is about right.
3. *f3.5*, the standard kit lens aperture, is simply not fast enough.
4. My *NEMly* budget is limited.
5. Modestly priced prime lenses often out perform far more expensive zooms.
6. I have had good results from prime lenses in the past.



AFS ƒ1.8 35mm

I knew I wanted a lens like this even before Nikon started offering it. For the last three years legions of Nikon users have been waiting for modern, reasonably priced, AFS primes. During our long wait it seemed like every Nikon lens announcement was another chintzy *slow* starter zoom or a ridiculously overpriced fast zoom. When the global economy went in the tank *this* lens appeared. My first thought; they're offering something that people will actually buy in a recession.

After the *ƒ1.8 35* appeared buying one proved difficult. Remember those legions of Nikon users: lots of them wanted this lens. For months you couldn't find this item in stock anywhere. The other day I read that it was available at B & H so I hopped online and ordered instantly.

So how does it work?

It's apparent from the raw *NEF* files that it's sharper and renders straight lines better than the kit 18-55mm lens. The *ƒ1.8* also does something I have dearly missed. If you crank open the aperture you can produce a nice blurred background: bokeh baby!



Bluffton clown. Of course I am referring to the head of IT, Kevin Synder, at Franklin Electric.

My Olympic Spirit

Posted: 03 Oct 2009 16:31:29

The US tax payer dodged a bullet yesterday (October 2, 2009). The IOC, that cabal of corrupt whores, awarded the Olympics to Rio instead of Chicago. I've seen Rio, it's a beautiful city, and I pity the poor people there that will soon be paying out the wazoo for the dubious honor of enduring another installment of the world's largest publicly funded real estate orgy followed by a two week drug enhanced circus of the inane.



Christ the Redeemer in Rio de Janerio

Google Earth Image Touring

Posted: 04 Oct 2009 12:00:08

In a scientific poll of one, (I sampled myself), Google Earth was voted the greatest free program on Earth. The brilliant developers at Google have managed to turn the most unlikely subject, *geography,* into a video game. And what a game it is! Google

Earth doesn't troll around in an adolescent make believe world. Google Earth serves up the real thing. This would be amazing enough but with Google Earth you can explore the Moon, Mars and the night sky as well. If you have any *geographic or astronomical needs* get Google Earth.

I got into Google Earth a few years ago when I started geotagging old pictures. Locating old, pre-GPS pictures, is one of the better Google Earth games. My mother snapped this picture of me in 1964. I am standing in front of the Uintah mountains in north eastern Utah.



Me near Redwash Utah

1964 was long before GPS was even a dream. To find *exactly* where I was standing I turned on Google Earth's terrain feature and slowly followed the adjacent road until all the landscape features matched up.

For famous sites it's not this hard. Here I am at Stonehenge. Stonehenge is a Google Earth *nobrainer*.



Me Stonehenge

Over the last few years I have geotagged hundreds of images. It's something I will continue to do until I drop dead. Online picture sites like SmugMug provide automatic

mapping of geotagged images but Google Earth does a much better job if you do a little KML programming. KML is an XML namespace used by Google Earth and Google Maps. It can be used to *tour* geotagged images. When KML files are compressed, (any ZIP utility will do), they are given a KMZ file extension. KMZ files can be loaded by Google Earth.

The attached KMZ file `geotagged.kmz` was generated by a J script I put together to query my geotagged SmugMug pictures. When loaded into Google Earth it spins around the world pausing to display all the pictures I have geotagged. I realize few will be interested in my pictures but it's not hard to extract the KML embedded in `geotagged.kmz` and adapt it to your pictures. Go forth and hack my friends.

Nobel Peace Prize Idol

Posted: 09 Oct 2009 17:03:39

My doubts about the Nobel Peace Prize started when Henry Kissinger and Le Duc Tho won during the Vietnam war. In my naive youth I thought a peace prize might have something to do with *peace*! I was so cute and unsophisticated in those days. As I aged I developed a robust sense of irony but when Yasser Arafat won the peace prize I was again dumbfounded. How could an outright unrepentant murderer qualify for a peace prize? Clearly my sense of the absurd needed work. I labored long and hard and when Jimmy Carter won for not being George Bush I took it in stride. Then Al Gore won for saving the Earth from global warming. Again my cynical detachment required tuning. What did global warming have to do with peace? Did I miss all the brutal carbon dioxide wars? Finally I understood. *The Nobel Peace Prize has nothing to do with Peace!* Of course I still foolishly harbored some illusions that you had to do stuff. This morning, upon learning that Barak Obama had won, I divested my final illusions about the peace prize. The Nobel Peace Prize is now worth less than a *Canadian Idol* win. At least some Canadian Idols can sing and dance.

F# Sirens are Seducing

Posted: 21 Oct 2009 20:18:03

For the last few days I have been playing around with an early release of F#. F# looks like it might be a .Net language that I can stand! The alpha-geeks at Microsoft Research have convinced their corporate masters that the world needs a *functional*

programming language that can be compiled and executed as efficiently as traditional imperative and object oriented languages.

As a long time user of interpreted functional programming languages I can only say: *it's about freaking time!*

F# appeals to me for a number of reasons:

1. I am familiar with many of the concepts of functional programming. Coming from the APL world I have been using many of these ideas for decades.
2. F# can use .Net facilities. It can call, and be called, by any of the .Net languages. Lack of *deep supported* integration with host facilities has always hurt languages like J. You pretty much have to roll your own for everything.
3. F# can be compiled to virtual machine code just like C#. APL, J, K and others do not compile well. Heroic attempts have been made to compile APL and similar languages but sometimes heroes fail.
4. F# supports asynchronous and parallel programming. The typical computer these days has two, four, eight or more processors. In the very near future your grandmother's PC will have eight or more 64 bit processors and perhaps hundreds of gigabytes of *real*, (not virtual), memory. Programming such machines with conventional languages and tools will be, as one blogger noted, insanely complicated. F# may provide a means to focus the power of such machines without sweating blood.

I have ordered Programming F# and now I actually have something to look forward to in Visual Studio 2010.

Counting Gods

Posted: 26 Oct 2009 16:28:33

How many fingers do you need to count gods? If you are like most people you simply assume the set of gods is enumerable and then you start fighting over which value in the set of positive integers $\mathbb{Z}_{\geq 0}$ or $0, 1, 2, 3, \ldots$, is correct. This process is elegantly explained by this flowchart.

I have a simple question. Is the set of gods enumerable? For all you *innumerates* out there a set is enumerable *if-and-only-if* its members can be counted. It's a rather

astonishing fact that many humdrum sets cannot be counted. Do you remember line segments $\overline{AB}$ from school geometry?

The number of points in *any* nonzero length Euclidean line segment $\overline{AB}$ cannot be counted. There are more points in $\overline{AB}$ than there are counting numbers. If you don't believe me check out Cantor's diagonal argument and savor a classical mathematical treat.

Once you get your head around the idea that some things cannot be counted the notion of counting gods looks ludicrous. Why do you expect to tally your supreme beings with ordinary counting numbers when they cannot deal with line segments? Perhaps god counting requires more than positive integers!

Perhaps the bloody disputes between atheists $GodCount = 0$ and deists $GodCount > 0$ can be resolved with rational numbers $\mathbb{Q}$. How about fractional 1/2 gods? Let's just split the difference and all get along. Unfortunately rational numbers will not satisfy *ultrapolytheists*, believers in more gods than you can count, because you *can count rational numbers*. Ultrapolytheists need to get real $\mathbb{R}$ – the numbers - anyway.

Counting gods is a complex problem. Electrical engineers cannot deal with the wiring in your fridge without complex numbers $\mathbb{C}$. Maybe a god count of $3 + 7i$ is the ticket

If this sounds silly, condescending and sarcastic congratulations your bullshit detector is working. However, ridiculous as this little diatribe is, *it is as sound as any mainstream religious doctrine*. So if you find this absurd and, you have a fixed god count in your little head, who is really being silly?

Hard Ass Skeptic Rules

Posted: 29 Oct 2009 14:05:06

I am a hard ass skeptic. A hard ass skeptic is somebody that holds:

1. Ghosts do not exist
2. Gods do not exist
3. UFOs are not alien spaceships
4. There are no Yetis
5. There are no psychics
6. 9/11 was not an inside job

7. Life after death is nonsense
8. Reincarnation is more nonsense
9. Somebody called Christ did not rise from the grave
10. Mohammed did not ascend to heaven
11. The world will not end in 2012
12. Heaven and Hell do not exist
13. You cannot build a Good and Evil meter

Hard ass skeptics are often accused of being sour, bitter, judgmental *know-it-alls* by the usual crew of credulous buffoons. Cry me a river people! No matter how many idiotic ghost hunting shows you put on the history channel you are never going to convince a hard ass skeptic that ghosts exist. Just so we can all get along I am going to disclose how you can win an argument with a hard ass skeptic.

The key to marketing ideas to hard ass skeptics is to understand what hard ass skeptics consider valid arguments. Hard ass skeptics will consider only two types of arguments:

1. Mathematical proof
2. Hard science

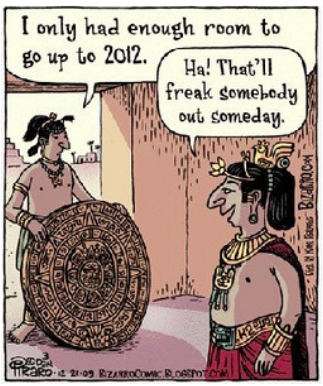
If you cannot couch your argument in these terms just shut the fuck up. You are wasting your breath and the hard ass skeptic's time.

I know this is harsh but it gets worse. Mathematicians and scientists make mistakes: lots and lots of mistakes. How does the hard ass skeptic deal with this *inconvenient* truth? The typical hard ass skeptic simply doesn't have enough time, skill or expertise to filter the rubbish from the rubies. ***So the hard ass skeptic assumes it's all crap until there is verified overwhelming evidence to the contrary.***

Finally, hard ass skeptics *put the burden of proof on a supposition's supporters.* It's not the hard ass skeptic's job to prove you are wrong. It's your job to prove, beyond any reasonable mathematical or scientific doubt, you are correct. So please stop whining about how we haven't proved that psychics, Yetis or Heaven do not exist. It's not our job and it never will be.

2012 Business Opportunity

Posted: 11 Nov 2009 18:23:00



Are you an unscrupulous deranged crank with the track record of a government budget forecaster? Do you have no shame and assume everyone around you is an inbred moron? Can you say one thing one day and the opposite the next and see no contradiction? Do you consider "evidence" to be shit that you make up whenever you feel like separating fools from their money? If you answered yes to any of these questions then you might have a bright future as a 2012 entrepreneur.

But you have to act fast. End of the World deals only come around every few years. Seize the moment *or you may have to wait months* before the next opportunity to scam credulous dolts. My advice: strike while the iron is hot. After 2012 the only people making any money on 2012 will be sour skeptics telling us I told you so and we all know how much that pays.

Since we have no qualms our only problem is marketing. We have to find the right 2012 product. The field is getting crowded and we must exercise caution. 2012 entrepreneurs welcome competition like drugged out bike gangs welcome competition. With this in mind we have to rule out:

1. Movies: 2012 opens this weekend and if the critics can be believed we now have a viable substitute for water boarding and Itsy, bitsy, teenie, weenie, yellow polka dot bikini looping endlessly.
2. TV specials: The History Channel has locked up this market segment with one mind draining special after another. If I even see the number 2012 on the History Channel again I will climb up the nearest Mayan pyramid and cut my own heart out!

3. Survival gear: What's a girl to wear when the world ends. Get your end of the world gear now before the panic, or intelligence, sets in.
4. T-Shirts: Every disaster needs one.
5. End of the World Party Catering: Annihilation on an empty stomach is so 2011.
6. Mayan Resort Holidays: This one actually makes some sense. The prospect of heaping scorn on scores of new and old age nitwits on December 22, 2012 would warm my cold skeptical core.

Let's face it breaking into the 2012 market is hard. It takes an imaginative opportunistic whore to come up with a market worthy 2012 scam. I'm out of ideas; maybe you can do better.

Let's Hang Congress

Posted: 07 Dec 2009 19:34:01

As Mark Twain once rudely noted:

> *It could probably be shown by facts and figures that there is no distinctly native American criminal class except Congress.*

Regardless of your political or sexual orientation it's hard to disagree. The current Congress is the largest collection of brain-dead fuckwits since the previous Congress and no doubt the next Congress will be even worse. What's a bereaved citizen to do?



How about the simple obvious solution: *let's hang everyone in Congress!* It's simple, direct and effective. Left wingers will be delighted because a lot of right wingers will hang. Right wingers will be delighted because even more left wingers will hang. Independents will be thrilled because left and right wingers will hang.

Now I know what you are thinking, "If we hang Congress won't it be more difficult to find people to run for office?" I have to agree; hanging doesn't seem like much of

an incentive. We have to strike a balance between hanging and the grotesque perks of Congress.

Currently there are 535 members of Congress. Let's get a big jar of jelly beans and number the beans from 0 to 534.

```
0, 1, 2, 3, ..., 534
```

Then every year, instead of listening to boring State of the Union speeches, we hold a public drawing. Some lucky blindfolded child, *(because we are doing it for the children),* will reach in the jar and grab a bean. If the bean is numbered 0 we hang everyone in Congress. If another number comes up it's back to the trough for another year.

The typical member of Congress serves about ten years: thank you Google. What are the chances the average Congress will swing? This is easy to *estimate*. Generate 10 random integers between 0 and 534 and see if 0 pops up. In the J programming language:

```
   ? 10 $ 535

195 467 514 498 79 345 306 344 450 530
```

This lucky Congress survived. If we run this experiment ten million times we get:

```
  10000000 %~ +/ 0 e."0 1 ? 10000000 10 $ 535

0.0185448
```

or a 2% chance of hanging. Considering the prerogatives, pork, perks, and pensions of Congress a measly 2% chance of hanging seems about right. Most of the time it's business as usual and every now and them the public enjoys the spectacle of *terminal term limits.*

2010

Why Code when you can Steal

Posted: 28 Jan 2010 15:33:30

I am learning C#.

Two years ago I swore a blood oath not to learn anymore programming languages. It's been obvious for decades that you seldom find any *new and important ideas* in programming languages. What you typically find are old ideas renamed and wrapped in a new syntax. Virtually all key concepts in programming are over twenty years old and many are far older. My disgust with new languages started with a single word: refactoring!

When I met refactoring it seduced me with its sleek geeky'ness. What could this wonderful word mean and what thrilling concept did it clothe? Well it basically means cleaning up your abhorrent code so that you can make some freaking sense of it! All competent programmers, dating back to Ada Lovelace (1815-1852), have been refactoring all their goddamn coding lives. *Refactoring is geek marketing: the same old shit in a glistening new package.*

C# is as free of new concepts as I expected but the language has its strengths. C# has managed to inherit most of its predecessors gifts without introducing untested features. C#'s designers restrained themselves and it shows. The language is clean, easy to learn, and integrates elegantly with .Net libraries.

This is all good but what makes it better is that you can steal tons of C# code. Google and Bing are my accomplices. When I want to find out what a DataSet does I just pop a query and dredge up nuggets like: Creating A Data Set From Scratch in C#. In the old days you had to read dense language documents like the J Dictionary and think for yourself.

Thinking for yourself is so 20th century; why code when you can steal!

Command Line C# SmugMug API Metadata Download

Posted: 03 Feb 2010 21:26:51

I have a skeleton in my photographic closet! I enjoy hacking pictures as much as I enjoy shooting them. Before digital photography I got my jollies the old fashioned

way with *chemicals*: dark room chemicals. I still get all emotional when I *remember the scent of a fixer.* Ahhh — those were the days.

Now, instead of inhaling fumes in the dark, I hang out on picture sites: SmugMug is my current favorite. Over the last year I have uploaded thousands of carefully cataloged images: you can view them here. I may not be much of photographer but when it comes to image metadata my anal analytic side shines. I can EXIF, IPTC and GEOTAG with the best of them.

Because I tweak metadata online, and I suffer from a *retentive* character flaw, it's only natural that I would seek to download my sacred metadata. This is what SmugMug's API is for! When I started experimenting with the SmugMug API I made the mistake of reading the documentation. SmugMug documentation is, at best, a "work in progress." It may help but probably not! I found trolling the web looking for code examples more productive.

To help the next SmugMug API geek I am posting a fragment of a simple command line C# metadata dump utility I put together. The core of the program is shown below and all the C# source is available here. This program is to trivial to license so help yourself.

```
namespace SmugMugMDDumper
{
  class Program
  {
    private const string xmlHeader = @"<?xml version=""1.0"" encoding=""UTF-8""?>";

    // defaults - insert your own SmugMug apikey, password, email here
    // defaults are used if corresponding command line arguments are missing
    private const string apiKey = "<YOUR SMUGMUG APIKEY>";
    private const string passWord = "<YOUR SMUGMUG PASSWORD";
    private const string emailAddress = "<YOUR SMUGMUG EMAIL>";
    private const string outFile = @"c:\temp\smugmugdata.xml";

    static void Main(string[] args)
    {
      try
      {
        DataSet ds = new DataSet();
        XmlDocument doc = new XmlDocument();
        Arguments comline = new Arguments(args);
        SmugmugMetaData smugmd = new SmugmugMetaData();

        // parse and set any command line arguments
        if (comline["help"] != null)
        {
          string __helpMsg = @"
Typical command line calls:
SmugMugMDDumper.exe -apikey:""yourkey"" -email:""email"" -password:""boo"" -output:""c:\test\smugdata.xml""
SmugMugMDDumper.exe -output:""d:\mystuff\smuggy.xml""
```

```
SmugMugMDDumper.exe -password:""newpassword"" -output:""c:\temp\out.xml""
SmugMugMDDumper.exe -help";

          Console.Write(__helpMsg);
          return;
        }

        string __apiKey;
        if (comline["apikey"] != null) __apiKey = comline["apikey"];
        else __apiKey = apiKey;

        string __emailAddress;
        if (comline["email"] != null) __emailAddress = comline["email"];
        else __emailAddress = emailAddress;

        string __passWord;
        if (comline["password"] != null) __passWord = comline["password"];
        else __passWord = passWord;

        string __outputFile;
        if (comline["output"] != null) __outputFile = comline["output"];
        else __outputFile = outFile;

        // start output file - open SmugMug session - uses https
        smugmd.WriteToFile(xmlHeader + "<SmugMugData>", __outputFile);
        string __sessionID = smugmd.StartSMSession(__apiKey, __emailAddress, __passWord);

        // collect all galleries
        ds = smugmd.GetGalleries(__sessionID, __apiKey, __outputFile);
        DataTable myTable = ds.Tables[0];
        DataRow myRow;

        // image metadata for each gallery
        smugmd.AppendToFile("<GalleryImages>", __outputFile);
        int rowcnt = myTable.Rows.Count;
        string rowstr = "/" + rowcnt.ToString() + "]: ";
        for (int i = 0; i < rowcnt; i++)
        {
          myRow = myTable.Rows[i];
          Console.WriteLine("gallery [" + (i + 1).ToString() + rowstr + (string)myRow["Title"]);
          doc = smugmd.GetGalleryImages(__sessionID, __apiKey, (int)myRow["id"], __outputFile);
        }
        smugmd.AppendToFile("</GalleryImages>", __outputFile);

        // complete output file - end SmugMug session
        smugmd.AppendToFile("</SmugMugData>", __outputFile);
        smugmd.EndSMSession(__sessionID, __apiKey);

        Console.WriteLine("[Complete] output file: " + __outputFile);
      }
      catch (Exception ex)
      {
        Console.WriteLine("[Fail] SmugMug Metadata Dumper Failure - error message: " + ex.Message);
      }
    }
  }
}
```

SmugMug Duplicate Image Hunting

Posted: 05 Feb 2010 18:07:45

One of the many things the developers of Thumbsplus got right was a proper normalized database schema. When I first inspected the layout of a Thumbsplus database I knew I was in good hands. In Thumbsplus image files get unique keys and image galleries are simply lists of image keys. Images can appear in any number of galleries, without duplication, just the way the gods of database design intended.

Assigning unique keys and grouping by key lists is *so correct* that it was a shock to discover that SmugMug, until recently, eschewed this principle. Prior to a recent upgrade if you wanted to display an image in more than one gallery you had to … *shudder with horror* … make copies! Whenever I made an image copy I felt like I was masturbating in an art museum.

This outrage is now fixed and you can place an image in as many galleries as you want without copying. Unfortunately there is a *residual* problem. How do you hunt down and exterminate all your bogus copies? In an acronym: MD5. SmugMug assigns MD5' s to all images. If two MD5's are the same there is an extremely high likelihood you are dealing with copies. So all you have to do is find images with identical MD5's and delete the extra copies. The following J verb uses image tables created from the XML captured by my SmugMug metadata dumper to do just this.

```
SmugDupsFrMD5=:3 : 0

NB.*SmugDupsFrMD5 v-- duplicate SmugMug images from MD5.
NB.
NB. monad:  btct =. SmugDupsFrMD5 clDirectory
NB.
NB.   SmugDupsFrMD5 'c:\pd\docs\smugmug\data\'

NB. read table files
path=.tslash y
albums=. readtd2 path,SMUGALBUMTABLE
images=. readtd2 path,SMUGIMAGETABLE
images=. }. images [ imhead=. 0 { images

NB. all duplicate MD5's
pos=. imhead i. <'MD5'
md5=. pos {"1 images
dup=. md5 #~ -. ~:md5
images=. (md5 e. dup)#images
```

```
images=. (/: pos {"1 images) { images

NB. remove images with matching smugmug pids
NB. these are proper virtual images and not copies
pos=. imhead i. <'PID'
pid=. pos {"1 images
dup=. pid #~ -. ~:pid
if. #images=. (-.pid e. dup)#images do.

  NB. retain selected columns and insert album names
  images=. (imhead i. ;:'FILENAME GID PID MD5 ALBUMURL') {"1 images
  albums=. ((0 {"1 albums) i. 1 {"1 images){ 1 {"1 albums
  images=. albums (<a:;1)} images

  NB. group by MD5
  images=. (~:3 {"1 images) <;.1 images
  images=. >&.>@:(<"1@|:) &> images

  NB. order MD5 groups by galleries in groups
  NB. this results in a good order for editing
  NB. out the duplicates on SmugMug
  images=. (\:&.> 1 {"1 images) {&.> images
  (\: 0 {&> 1 {"1 images){images
else.
  NB. no duplicates
  0 5$''
end.
)
```

More on SmugMug Duplicates

Posted: 11 Feb 2010 20:22:13

In my previous post I described a method for eliminating duplicate SmugMug images based on MD5's. This method does not get all the duplicates.

If you uploaded the same image to different galleries, at different times, the SmugMug MD5's may differ. I don't know what SmugMug rolls into their MD5 's but I suspect it's more than image data.

To get all the copies you must remove duplicate picture ids , file names and MD5's. Furthermore, to maintain a pure duplicate free state, you need to check these items often. Now, after uploading or rearranging pictures, I update my SmugMug metadata

and execute this J verb to insure I don't introduce duplicates.

```
CheckSmugDups=:3 : 0

NB.*CheckSmugDups v-- checks duplicate SmugMug images.
NB.
NB. monad:  CheckSmugDups uuIgnore

'albums images'=. readsmugtables 0
images=. }. images [ imhead=. 0 { images

NB. images should be unique in three ways:
r=. ,: 'PID unique: '; # ~.(imhead i. <'PID') {"1 images
r=. r, 'MD5 unique: '; # ~.(imhead i. <'MD5') {"1 images
r=. r, 'FILENAME unique: '; # ~.(imhead i. <'FILENAME') {"1 images

if. 1 <# ~. ;{:"1 r do. smoutput 'duplicates present' end.
r
)
```

Setting Good SmugMug Key Words

Posted: 17 Feb 2010 19:57:50

Finding good key words is not easy. In many ways it is like creating a good book index. Decent book indexes are carefully constructed by *human readers* that understand what is being indexed and why certain terms *should be included.* Superior indexes showcase the gems and bury the garbage. There is a lot of mediocre software out there that purports to automate this task but I remain unimpressed. Machine indexing is like machine language translation: they both suffer from a lack of *real* understanding. I was reminded of how difficult indexing is while writing some code to update my SmugMug key words.

My first attempt at computing key words followed this recipe:

1. Run my little C# SmugMug metadata dumper to update image metadata.
2. Sift through the image metadata and extract all current key words.
3. Remove common English words from current key words.
4. Similarly, extract all image caption text and remove common English words.
5. Sort the remaining caption text key words by frequency.
6. Append the frequency sorted caption key words to corresponding current key words.

7. Take at most seven words from the appended list as key words.

My thinking was high frequency *uncommon* English words would make good keys. This is generally the case but the removal of common English words from currently assigned keys was a big mistake.

I take care when naming image files. SmugMug picks up words in image file names and uses them as default key words. If you have good file names you will get useful keys automatically. Removing common English words from file names deleted words that were present for good reasons. For example: two common English words, "before" and "after," are used in the file names of image restorations like this picture I took in Cyprus way back in 1968.



I think "before" and "after" are perfectly good keys for this image.

To avoid such problems I now leave file name words intact and augment these words with high frequency caption text words and print size keys like: 4x5, 4x6, 5x7 and 8x10. Print size keys is another story. You can view my entire list of SmugMug keys here.

Assigning SmugMug Print Size Keys

Posted: 21 Feb 2010 21:56:27

I believe that a picture's aspect ratio, its *width* divided by its *height*, should be tuned to its contents. Consequently, I am not a slave to standard aspect ratios and print sizes like the ones shown in Table 1 on page 32.

Over the years I have clipped and cropped my pictures producing a large number of *nonstandard* ratios. This is not a problem until I decide to order prints.

Pictures sites like SmugMug offer many standard sizes but they cannot accommodate every crank with an aspect to grind. To print a strangely shaped picture on SmugMug you have to open up the website's print selection tool and fit one side or your picture

Aspect Ratio (Short/Long)	Print Sizes (Inches)
0.5	4x8, 5x10, 8x16, 10x20
0.7	3.5x5, 7x10
0.666666667	4x6, 8x12, 10x15, 12x18
0.714285714	5x7
0.772727273	8.5x11

Table 1: Print size aspect ratios

to a standard print size. This leaves part of the print blank and is often called the letterbox method. Letterboxing is not ideal but it gets the job done.

For standard print sizes there is a much better way. The following J verb takes the pixel dimensions of my images and computes standard, 300 DPI, print size keys like: 4x6, 5x7 and 8x10. After assigning print size keys you can select and print all standard sizes with a few mouse clicks.

```
smugprintsizes=:3 : 0

NB.*smugprintsizes v-- compute largest print size for given dpi.
NB.
NB. Computes the  largest  print size  (relative  to  DPI x)  for
NB. SmugMug images. Only images that have aspect ratios  close to
NB. the ratios  on  (SMUGPRINTSIZES) are associated  with a print
NB. size.
NB.
NB. monad:  st=. smugprintsizes btclImages
NB.
NB.   'albums images'=. readsmugtables 0
NB.   smugprintsizes images
NB.
NB. dyad:  st=. iaDpi smugprintsizes btclImages
NB.
NB.   200 smugprintsizes images

SMUGPRINTDPI smugprintsizes y
:
nsym=.s:<''

NB. reduce image table on PID
images=. }. y [ imhead=. 0 { y
pidpos=. imhead i. <'PID'
if. 0=#images=. images #~ ~:pidpos {"1 images do. 0 2$nsym return.end.
```

```
NB. compute print sizes table
pst=. printsizestable SMUGPRINTSIZES

NB. image dimensions short x long
idims=. _1&".&> (imhead i. ;:'WIDTH HEIGHT') {"1 images
'invalid image dimensions' assert -. _1 e. idims
idims=. (/:"1 idims) {"1 idims

NB. aspect ratio and print area (square inches)
ratios=. SMUGASPECTROUND round %/"1 idims
areas=.  SMUGAREAROUND round (*/"1 idims) % *: x

NB. mask table selecting images with ratio
masks=. (SMUGASPECTROUND round ;0 {"1 pst) =/ ratios
if. -.1 e. ,masks do. 0 2$nsym return.end.

masks=. <"1 masks
pids=.  s:&.> masks #&.> <pidpos {"1 images

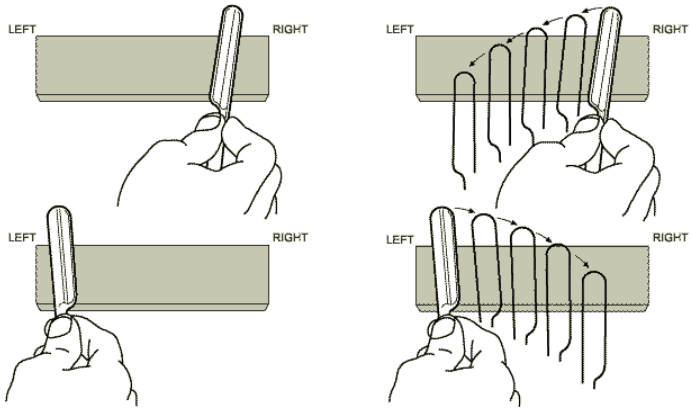
NB. largest print area for selected images at current DPI
masks=. (1 {"1 pst) </&.> masks #&.> <areas
pids=.  (<"1&.> masks #"1 &.> pids) -. L: 0 nsym
sizes=.  <"0&.> 2 {"1 pst
; |:&.> ; pids ,: L: 0 (# L: 0 pids) # L: 0 sizes
)
```

Honing my Powers of Indifference

Posted: 11 Mar 2010 19:17:54

For years I thought it was rude to ignore people now I glory in it. In our overly social networked age it is vital to hone your powers of indifference. We cannot care about everyone or everything and we shouldn't even try. Here are some people and issues I am ignoring.

1. **Gay Marriage:** Gay marriage is not a human rights issue. The real problem is a property issue. When gay dudes expire their partners frequently complain, (gay people complaining how novel), about how mean and nasty people are about settling estates and dividing up the booty. What the hell does this have to do with marriage? I am in favor of abolishing all tax and property distinctions between the married and unmarried and reinforcing property rights.



It frosts my balls that unmarried wage earners subsidize married people with higher per capita taxes. It pisses me off that drag queens cannot leave their millions to their bum buddies without sleazy estate fights. If your property rights are not protected your human rights are irrelevant.

2. **Global warming:** Yeah, the world is slowly warming and it might be a problem by the middle of this century. Unfortunately by the middle of the century I am dead so, for me, global warming is like the increase in the Sun's luminosity a billion years from now or, even worse, when all the stars go dark in a few hundred trillion years. Fifty years, a billion years, a hundred trillion years it doesn't matter I am still dead. Next issue please.

3. **President Obama**: I had a bad feeling when I heard his infamous oceans rolled back speech during the Democratic convention. It was one of those spectacularly stupid remarks that forever stain one's reputation. Well after two years of campaigning and one year of inept governing it's official: nothing to learn here. My strategy now is to limit this administration's damage to *moi!* The rest of you can enjoy your hope and change.

4. **Creationists**: Life does not make sense without evolution just like mountain ranges and deep-sea trenches do not make sense without continental drift. Very few creationists rail against continental drift because we can see it happening. The VLBI radio telescope array is calibrated on a regular basis because the antennas are sitting on moving continental plates and the precise millimeter scale distance between them is always changing. The process of evolution is still up and running and will be long after all creationist dipshits are fossilized.

5. **Stock Tips and other Financial prognostications**: Investing your own money is a wonderful education in the fallibility of prophets. If it was so damn easy we would all be rich. I observe the contrary.

6. **CNN. MSNBC, FOX, ABC, NBC, CBC and BBC news**: Please just FOAD and free up some valuable bandwidth. You are no longer relevant and are simply wasting our time.

Only Now at the End do you Understand

Posted: 16 Mar 2010 17:06:44



It's easy to see why other generations detest boomers. Without a doubt this cohort, my cohort, is the most spoiled, self-indulgent, pompous and delusional generation in western history. We were born in boom times and grew up thinking they would last forever. Well, I am happy to report that nothing lasts forever. The boomers, now entering their twilight years, are about to come face to face with reality and reality is a mean castrating bitch.

Boomers, the generation that fought no serious wars, (Vietnam doesn't count most boomers dodged that conflict with student deferments or outright draft dodging), suffered no serious economic downturns, swallowed socialist drivel about "doing only meaningful work" and seriously believed the government would look after them in their old age are now discovering that:

1. They have not saved enough.
2. Finding even meaningless work cannot be taken for granted.
3. The government takes more than it will ever give.
4. They will have to work until they drop or starve.

Boomers have nobody to blame but themselves. They enjoyed the highest incomes in history but instead of following the ancient maxim: *good times are when you get ready for bad times.* They binged on a diet of junk consumer goods, over leveraged real estate and various stock market Ponzi schemes. Well the bill has come due! Hope you enjoy your golden years of Wal-Mart greeting: I'd urge you to apply now.

WordPress to LaTeX Hack

Posted: 12 Apr 2010 16:48:58

I have stumbled on another coding nuisance. Last weekend I spent a few moments exploring ways to export and print this blog in a nice typeset fashion. I first tried Blurb's book making software. It has a nice feature that automatically downloads blog posts and formats them as ready to print books. Sounds great ehh? Download your precious blog rants, press a few buttons, generate a slick PDF, upload it to a site like Lulu and then wait a few days for your blog to appear in hardcover. As usual the devil is in the details.

Blurb's book making software makes a mess of:

1. Any LaTeX inclusions. All LaTeX code is echoed verbatim as ASCII. I suppose we should be grateful that it's not deleted.
2. Source code listings are mangled beyond repair. Your elegantly formatted code comes out worse than HEX dumps.
3. Embedded images are improperly placed. When it comes to blogs restricting image inclusions to *simple center of the page layouts* pays big dividends. Wrapping text around images may *look ok on your blog* but RSS software like Google Reader will wreck it. Apparently simple center of the page layouts is too much for Blurb. The default layout stuffs square thumbnails in the margins: *arghhhh……*
4. Web Links are inserted as verbatim footnotes at the end of each posting. The link footnotes often sprawl onto extra pages that have only one or two lines. I can see why book publishers might not care about efficient page allocation ($$$) but I certainly do.

After hitting all these shortcomings on my first test I abandoned Blurb and started searching for ways to export WordPress blogs as LaTeX. There are a number of useful tools for converting LaTeX to WordPress. Some of these tools are used by Fields Medal winners: see Terence Tao's blog. Unfortunately going the other way does not appear to be well supported. Damn!

After failing to come up with an acceptable WordPress to LaTeX freebie I downloaded this blog in WordPress's XML export format and took a look. To my surprise WordPress XML is what I call *good XML.* Good XML is designed to be read and understood by human beings! This contrasts with *bad XML.* Bad XML is essentially

a binary format that some idiot decided should be rendered as XML. Bad XML is useful when you want to slow down computers.

Converting WordPress XML to LaTeX looks simple enough to make a nice C# coding exercise. When I have hacked up a converter that panders to my idiosyncratic tastes I will post the source code.

Why I Still Use my Ten Year Old Garmin GPS

Posted: 22 Apr 2010 19:17:57



Garmin Etrex GPS

Last year I joined the swelling ranks of Smartphone users. My device belongs to the *BlackBerry* or BB clan. There are many things I like about the BB but my favorite feature is simply that my employer picks up the tab. Every month I get a corporate *guilt report* listing my BB charges and every month I tell myself there is no freaking way I would pay such bills with my own money. If I had to pay for the BB I would gladly toss it aside and revert to my normal uncommunicative self. I don't need to be constantly in touch and frankly people who do are sick puppies that should be put down.

My favorite Smartphone apps are GPS driven online maps. I've always been a map freak. When I was child I taped National Geographic maps on my bedroom walls. In college, when my drug soaked classmates were decorating with rock band posters, I was framing maps of the mid-Atlantic ridge and the *real* dark side of the Moon. Even now, given a choice between lame art or antique maps, I prefer maps. Online maps and applications like Google Earth represent all that is good about civilization.

The same cannot be said for phone companies!

The BB has a built-in GPS receiver. When I first learned of this my heart was all-a-twitter. No longer would I have to carry around my ancient Garmin Etrex. Don't get me wrong I love my Etrex, My Etrex is a simple rock solid device that *functions as designed.* It has served me for a decade without complaints, upgrades or failures. It has never let me down! How many ten-year old computers are you still running? Much as I love my Etrex it's not what the cool kids are GPS'ing with these days. I was looking forward to putting Etrex out to stud — winning race horses have the best vertebrate retirement plans — and getting with the Smartphone program.

Then I learned that most Smartphones cannot function as *standalone* GPS units. To receive public GPS signals on a Verizon BB you need to be connected to the cell phone network and your application must be blessed by Verizon. What the fuck? Are you shitting me? Do you mean to tell me I have to pay a phone bill to access free GPS signals that I can still receive – *for free* – on my ten-year old Etrex. This heinous and vile rip-off ignites a firestorm of rage in my heart. Water-boarding is to humane for Verizon executives!

I will not be retiring my Etrex until all GPS enabled Smartphones can pick up, display and record GPS positions without being connected to phone networks.

The Reports of Library Death are Exaggerated

Posted: 15 May 2010 15:15:24

Not so long ago the pundits were predicting the Internet would kill public libraries. Boy were they wrong! Libraries have become the biggest and most successful Internet cafes around. I've been to *Internet enabled* public libraries all over the country and they are *extremely* busy. The downtown Los Angeles library has an entire room devoted to teens and it is always full!



Los Angeles Library Fountain

Now I hung out in libraries when I was fourteen but then I was a virgin nerd. All the cool kids were smoking dope and making out in parking lots. Only the socially inept and plus 120 IQ crowd ever ventured into libraries. Hence libraries were quiet and empty: great places for afternoon naps. Not anymore! Now libraries are filled with kids playing computer games, Facebooking, chatting and whatever else kids do on computers. And, it's not only kids. The downtown Fort Wayne library, an excellent small city library, has a big computer room and the last time I was there it was overflowing with adults. I imagine a lot of them were looking for work. If you're broke and need to browse job sites head to the public library. The Internet has turned libraries into the coolest joints in town.

The Internet has also leveled the playing field between big and small city libraries. Bluffton Indiana is a dinky little town but it's public library is better than the Nepean or Orleans libraries in Ottawa: cities that are ten times Bluffton's size. The same

holds for the Fort Wayne's public library. Fort Wayne is a small run down mid western city. If you drive around the place it doesn't impress you but go to the public library and check out the mathematics and history stacks. Mathematics is a good test of library quality. Public libraries seldom compete with University libraries when it comes to mathematics but the Fort Wayne library does surprisingly well. You find real honest to god mathematics tomes on its shelves. Its history stacks are first class and the biggest surprise; it's a world-class genealogy library. It's rated number two in the entire US for genealogy. Only the obsessed Mormons out in Salt Lake City have a better collection. After sampling Indiana's libraries I decided there was more to this state than corn fields and basketball.

Everybody Abandon Facebook Day

Posted: 21 May 2010 18:51:24

Yesterday was the first ever Everybody Draw Mohammed Day. My favorite Everybody Draw Mohammed cartoon is shown below.



Da Glory-ass Koran

For the troglodytes among us Everybody Draw Mohammed Day was a sarcastic reaction to years of bullying, death threats and fatwas issued against cartoonists for the horrible crime of drawing caricatures of Mohammed. The point of Everybody Draw Mohammed Day was to drive home the simple fact that when it comes to free speech there are no sacred cows or prophets! Nothing is beyond *offensive satire.*

For me free speech is an absolute *inalienable* right that overrides nonsense like religious belief. If you attempt to regulate my speech I will resist. The harder you push the more I will push back. If you curtail or regulate my speech I will scream louder. If you pass laws restricting discourse I will break them. If you suppress my voice I will stop debating and start shooting. And, if you think I am bluffing go ahead and call me on it.

Given the depth of this conviction I was sorely disappointed to see that Facebook dropped The Everybody Draw Mohammed Day page. The cowardly weasels weren't even responding to official complaints. They just decided to self-censor themselves and a hundred thousand Facebook users as well. Of course they had their reasons

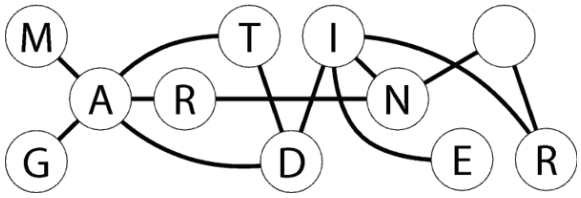
but let's cut the crap. They have shown us that when cards are in play they have no core beliefs beyond pimping user data to third parties for cash.

I cannot endorse such behavior so I deleted my Facebook account. This was not an empty gesture for me. As a divorced father living in another country I enjoyed seeing Facebook posts from my kids on a regular basis but sometimes we have to give up things we like when they clash with principles.

So I am inviting all that sincerely uphold free speech to join with me on June 5, 2010, (the day Facebook allegedly deletes my account), to celebrate **Everybody Abandon Facebook Day** by deleting your own Facebook account.

Oh Crap Martin Gardner has Died!

Posted: 24 May 2010 15:21:50



Martin Gardner

Last night I heard of Martin Gardner's death at the age of ninety-five. When someone lives into their nineties death is not unexpected but in Gardner's case it still saddens me. Martin Gardner's famous Mathematical Games column set a standard for mathematical exposition that has yet to be equaled. He proved, month after month for twenty-five years, that popular writing did not have to dumb things down to misleading trivialities but could, in fact, inspire, thrill and challenge specialists and children alike. There probably isn't a mathematician, physicist, computer scientist or engineer of my generation that didn't grow up reading Gardner's column.

When I was getting ready to teach mathematics as a CUSO volunteer in Ghana I decided to collect all of Martin Gardner's columns. During my school years Gardner's columns served as an antidote to *curriculum mathematics.* Curriculum mathematics, in many public school systems, is horribly *ahistorical.* There is no rhyme or reason why certain mathematical topics are covered and others, the vast majority, are ignored. Gardner's columns filled in the gaps and resurrected the beauty of even the dullest

bits of curriculum mathematics. As a new mathematics teacher I couldn't think of a better resource so I wisely photocopied Gardner and ignored textbooks.

In Ghana I lived without TV, radio, recorded music and sometimes newspapers but I didn't care! On many nights I slowly read through my big pile of Mathematical Games photocopies. The effect of reading *all the columns* was striking. Taken one at a time Gardner's entries were always interesting but when read from start to finish you come away stunned by the level of erudition. Genius is an abused word. Our silly media makes everyone a genius for 15 minutes. In Gardner's case the word is apt. I will miss the man.

Plug the Damn Hole

Posted: 26 May 2010 18:31:51

I see Obama's awesome intellect has been working overtime. I guess this is plan B after plan A was scuttled by a raging homophobe. Forgive my "hickness" but if a homophobe could actually plug the damn hole I would gladly overlook some queer queasiness.



Click for gushy goodness

A C# .Net Class for calling J

Posted: 28 May 2010 14:48:18



One of my favorite programming tools is J. In skilled hands *J is a spear in a world of bent spoons.* In my day job I rarely encounter programming problems that cannot be brutally dispatched with a few dozen lines of J. Most accomplished J programmers laud the elegance and power of the language and frequently remark on how learning J changed the way the way they think about programming. If you are intrigued please take a look but a word of caution. Learning J is like learning Calculus. Don't expect to progress beyond the trivial without a substantial intellectual effort on your behalf.

J has many strengths but current implementations also have some serious shortcomings.

1. J's GUI user interface tools are primitive compared to what you find in Microsoft Visual Studio or Java Eclipse environments.
2. It is difficult to use J in mixed language projects. J can make C style API calls and the Windows version sports a COM interface. Both of these call mechanisms are solid and work well but the C API struggles with many C++ libraries and COM is now considered a legacy technology in Microsoft .Net circles.
3. .Net executables can call J but J cannot *easily* call .Net executables.
4. There are very few useful J libraries. Python programmers often find complete solutions to their problems in libraries. With J you often end up writing your own libraries This fosters an independent frame of mind at the expense of productivity.
5. Packaging J solutions is largely *ad hoc* and platform dependent. It's not like C# or Java where you get a nice self-contained install package.

To deal with J's deficiencies I cheat and use other languages and tools. This is getting the best of both worlds or Miley Cryrus'ing it! Miley Cryus'ing in Windows environments leads straight to .Net and the premier .Net programming language C#. J is not a .Net language but J can be called from C# by COM or by C style API calls. This JServer class uses COM. JServer was inspired by Alex Rufon's J Wiki essay but differs in that all JServer calls are strongly typed. There is no point in using strongly typed languages like C# if you are constantly casting objects. Use the type checking Luke!

The following JServerTest code snippet shows JServer calls.

```
using System;
using System.Collections.Generic;
using System.Text;
using System.Data;
using JServerClass;  // add reference to JServer.exe

namespace JServerTest
{
  class Program
  {
    static void Main(string[] args)
    {
      // create new j exe server - load only the j profile
      JServer js = new JServer(JServer.JScriptType.OnlyProfile);

      // make server visible/invisible/visible
      js.jShowServer = true;
```

```
System.Threading.Thread.Sleep(200);
js.jShowServer = false;
System.Threading.Thread.Sleep(200);
js.jShowServer = true;

// do tests - create j nouns that interface can fetch

js.jDo("18!:5 ''"); // should be in base locale

// atoms - rank 0
js.jDo("byteAtom=. 'A'");
js.jDo("boolAtom=. 1");
js.jDo("intAtom=. 42");
js.jDo("doubleAtom=. 1x1"); // e in j notation

// arrays of rank 1 and 2 - higher rank arrays are not
// explicitly supported by the C# interface
js.jDo("boolArray=. ?50#2");
js.jDo("intArray=. 10 10$?100#10");
js.jDo("doubleArray=. 5 10$(?50#50) % ?50#50");
js.jDo("byteArray=. 20 30$'goaheadbyteme'");
js.jDo("stringArray=. ;:'not by the hair of my chinny chin chin'");
js.jDo("stringArray2=. 11 7$stringArray");

// get tests - fetch j nouns - get and set are C# overloads

// rank 0 gets
byte byteAtom;
js.jGet("byteAtom", out byteAtom);
bool boolAtom;
js.jGet("boolAtom", out boolAtom);
int intAtom;
js.jGet("intAtom", out intAtom);
double doubleAtom;
js.jGet("doubleAtom", out doubleAtom);

// rank 1 and/or 2 gets
bool[] boolArray;
js.jGet("boolArray", out boolArray);
int[,] intArray;
js.jGet("intArray", out intArray);
double[,] doubleArray;
js.jGet("doubleArray", out doubleArray);
byte[,] byteArray;
js.jGet("byteArray", out byteArray);
string[] stringArray;
js.jGet("stringArray", out stringArray);
string[,] stringArray2;
js.jGet("stringArray2", out stringArray2);

// set tests - set copies of fetched nouns in j and test
js.jSet("byteAtomC", byteAtom);
js.jDo("byteAtom -: byteAtomC");   // should be identical - result 1
js.jSet("boolAtomC", boolAtom);
js.jDo("boolAtomC -: boolAtomC");
js.jSet("intAtomC", intAtom);
js.jDo("intAtomC -: intAtom");
```

```
      js.jSet("doubleAtomC", doubleAtom);
      js.jDo("doubleAtomC -: doubleAtom");

      js.jSet("boolArrayC", boolArray);
      js.jDo("boolArrayC -: boolArray");
      js.jSet("intArrayC", intArray);
      js.jDo("intArrayC -: intArray");
      js.jSet("doubleArrayC", doubleArray);
      js.jDo("doubleArrayC -: doubleArray");
      js.jSet("byteArrayC", byteArray);
      js.jDo("byteArrayC -: byteArray");
      js.jSet("stringArrayC", stringArray);
      js.jDo("stringArrayC -: stringArray");

      // no overload for this case - it's not
      // as important as the rank 1 case
      //js.jSet("stringArray2C", stringArray2);

      // Datatable's are supported by the interface
      // as they can be quickly displayed and manipulated
      // in DataGridView objects
      DataTable dt = new DataTable();
      dt.Clear();

      // generate test j datatable representation - the interface
      // loads a support locale CSsrv that contains the necessary
      // j verbs to support these representations
      js.jDo("DTTEST=: testDataTable_CSsrv_ >:?100 10");

      // get the datatable
      dt = js.jGet("DTTEST");

      // set a copy of the datatable back in j and test equivalence
      // slight differences in floating number character formats
      // are reconciled with (testDataTableMatch)
      js.jSet("DTTESTC", dt);
      js.jDo("DTTESTC testDataTableMatch_CSsrv_ DTTEST");

      // wait five seconds before shutting
      // down so user can view the j exe server
      System.Threading.Thread.Sleep(5000);
    }
  }
}
```

The Real Problem with Enterprise Software

Posted: 11 Jun 2010 14:36:00

Only the gifted analytic minds of IT management and know it all programmers have the intelligence work ethic and superb taste required to select enterprise software. Speaking as an ITite, (one who works in IT), I can report that we are so gifted, so

far-seeing, so utterly and totally awesome in our views that only ignorant *tuggles*, (non technical types), would dare challenge our recommendations. Even better, the same plodding sleep deprived determination that we use to code computers into submission can be applied to human adversaries. We can wear you down with one technical objection after another until you finally give in and make the correct selection.



And what is the correct selection? ITites assert that the *correct solution is the one that always puts them in absolute control* of clueless tuggles that seem determined to have their own way *when we know their way is wrong wrong and wrong!* To paraphrase the leading reptilian philosopher of our age: **control is key when talking about IT.**

Because control is key enterprise software must extend and consolidate ITite empires or it will be rejected. Rejections will take the form of complaints about, cost, performance, scalability, standards compliance, or my current favorite *uncloudable:* software that cannot run in the cloud. Some of these arguments may have merits but usually the selection boils down to human prejudice and personal comfort zones.

There is one poisonous consequence of this madness that really pisses me off. To kowtow to IT control freaks enterprise software vendors have made heroic efforts to prevent people from using and mastering their software. We are used to downloading software and giving it a try. I challenge you to try this with Cognos/IBM, Microsoft BI, Oracle/Hyperion or, the worst of the lot, SAP software. Not only will you not be able to download useful free trial versions but in many cases you won't even be able to get your hands on manuals! How lovely: a complex suite of software that you have to pay to read about!

Enterprise software vendors are rightly horrified by the prospect of their wares turning into commodities. A commodity, in business speak, is something that you cannot mark way the fuck up! Of course all this stuff is grossly overpriced with inane gouging support contracts piled on. Do not despair enterprise software vendors are piling wood on their own funeral pyres. They are creating perfect conditions for low-cost, or open source providers, to knock them off and party on their graves.

To help set the cremation fires ablaze I abide by following sacred consulting principle. ***Don't waste your time on systems that you cannot take with you.*** This is the real problem with enterprise software; you cannot take it anywhere!

I did not have sex with that Oil Spill!

Posted: 16 Jun 2010 18:55:00



I would like to thank BP for accidently creating a teachable moment for our political class. Prior to the gulf cluster-fuck the most ethical congress in history did not know that fluid dynamics is one of the hardest of the hard sciences. But, after two months of heroic attempts to contain the spill with blame games, bribes, threats, legislative initiatives and golf it's finally dawning on the powerful minds that rule us that fluids cannot be bought-off, community-organized, press-marginalized or change-the-channel ignored. Reality is such an unfair bitch.

Last night, sensing a disturbance in the zeitgeist, Obama subjected our nation to a rousing *I did not have sex with that oil spill speech*. The One's words soared but we, the little unworthy peons, were as unmoved as oil soaked pelicans. Even our Obamabot leg tinglers failed to detect executive command.

I wish I could say I am disappointed but I wrote this government off a longtime ago. The stark fiscal, technical and rhetorical incompetence they display every day is no more surprising than sunshine. The oil spill is an infuriating accidental disaster but it's not the biggest spill confronting us. That would be our insane, reckless and entirely man caused deficit spending.

Let's do some arithmetic. Let's assume the unhinged moonbats turned reservoir engineers have pulled the correct gulf spill rate of 100,000 barrels/day out of their asses. Let's also assume an oil price of $80 dollars/barrel. When you multiply everything together you find that

```
8000000 = 1e5 * 80
```

eight millions dollars of oil is spilling into the gulf every day. Sounds bad. Let's compare that to our government's fiscal spill. The deficit for this fiscal year is expected to approach 1.3 trillion dollars. This works out to

```
3.56164384e9 = 1.3e12 % 365
```

roughly 3.6 billion dollars/day or *445 times the gulf spill rate!* If I could plug only one damn hole I know which one I'd choose!

My Tag Wordle

Posted: 24 Jun 2010 20:23:29

I plugged my Delicious ID into Wordle and it made this picture of my popular tags.



My current tag Wordle

It's a pretty accurate summary of what I've been thinking about for the last few months. *We're all more predictable than we think!*

G20 fails to end G20

Posted: 29 Jun 2010 19:20:30



Last weekend I passed through Toronto. The city was bracing for the over priced and utterly pointless G20 dog and pony show. The G20 circus did not disappoint. On cue the usual crew of recreational anarchists left their parents basements long enough to engage the police, set cars on fire and smash store windows. The police responded by arresting hundreds of protestors and holding them *for hours in horrific detention facilities that did not offer vegan food!* Hey, it's Canada, a gluten-free diet is probably enshrined somewhere in the Charter of Rights and Freedoms.

Mirroring the idiocy in the streets the G20 leaders wasted tax dollars in grand style by literally phoning one in for the children. They also muttered something about reducing government debt and doing a better job of pretending to be fiscally sane.

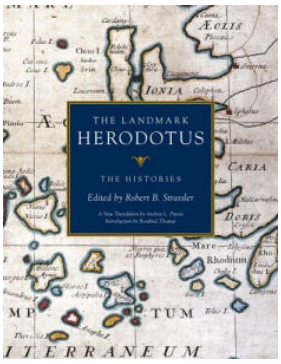
Hey G20! I have a suggestion for that debt reduction thing — how about no more G20 meetings! Video conferencing software does a pretty good job; give it a try!

Given the pitiful track record and high costs of the G20 one wonders why any sane country would host such a boondoggle. Nothing of importance is ever achieved at these photo-ops and if something worthwhile accidently emerges it will be ignored or sabotaged. I know it's good for our rulers to get out and meet with their peers: all work and no play makes Jack a dull boy. Still it's hard, in ostensibly democratic countries like Canada, to sell the public on the awesome benefits of hosting the G20. *Do you remember how the Canadian public refused to fund the G20 when asked in the pre-conference referendum?* Oops sorry, I was thinking of how things should work! Nobody ever asks the public if they want to pay because the answer would be a resounding no.

The G20 is coveted, courted and consummated for exactly the same reason that more expensive boondoggles like the Olympics and the World Cup are: it's a great opportunity to punt public funds to your friends.

This Herodotus is a Hoot!

Posted: 11 Jul 2010 15:00:09



Yesterday, while driving to the mall with my wife, I launched into a lecture on why the iPad and it's Kindle'ly kindred will never replace books. As you are reading this on a 21st century blog you can infer that I am not a technophobic Luddite. Devices like the Kindle are another way to read and for many purposes, (textbooks anyone), such gadgets will be better than traditional books. But, *and this is one big butt-ugly but*, when it comes to the book as a *objet d'art* the iPad is to a book like a bumper sticker is to the Sistine Chapel.

If you don't see this I feel sorry for you; you have never read a *real* book. It's not your fault, publishing, like everything in this sad sorry world, is subject to Sturgeon's Law: "Ninety percent of everything is crap!" Most of the books you find on the shelves of big-box book stores are essentially paper turds — the more current the topic, the more *Oprah'ey* the content, the greater the likelihood of turdhood. Paper turds can be great books. In fact there is a thriving niche industry that specializes in reissuing great classics as low-cost paper turds. Here *the medium is definitely not the message.*

Most of the time we are drowning in a sea of paper turds but every now and then a book appears that literally restores your faith in mankind: *The Landmark Herodotus* is such a book. The instant I opened the cover I knew I was dealing with something special. Book design is a subtle art, when executed at the highest level on the best source material it can produce jaw-dropping results. The design of The Landmark Herodotus is simply the best annotation scheme I have ever seen. Somehow the editors have managed to include thousands of marginal notes, footnotes and elegant place maps that simultaneously elucidate the original *and stay out-of-the-way.* I was completely taken by the end of the front matter.

My reactions are hardly unique. Panagiotis Polichronakis wrote in his we are not worthy review:

> *It's a rude thing, the march of history. It disabuses us, and we must gracefully acquiesce. Every single aspect of The Landmark Herodotus – most certainly including the translation at the heart of it – is superior to anything else that's ever been produced on behalf of the author.*

So this is not only a good translation — it's the best ever! For a book that has been in circulation for over 2,400 years that's a pretty extravagant claim but it's probably true.

Last night I was sucked into Herodotus and managed to pull myself away at 3:00 am after reading the story of Cyrus the Great. Cyrus's story offers up a tasty morsel. Astyages, Cyrus's grandfather, dreamed of a vine growing from his daughter's genitals that grew to cover all of Asia. Now that's a bush! Alarmed Astyages told his Magi about his dream and they told him that he would be deposed by a grandchild: like duh! Being the kingly king he was Astyages resolved to off any of his daughter's offspring. In time Mandane, Astyages daughter, bore a son named Cyrus. Astyages charged his right hand man Harpagos with the task of terminating Cyrus. Harpagos wanted to obey his king but he wussed out when he saw Cyrus's cute little innocent baby eyes. He couldn't kill Cyrus so he did what all government bureaucrats do when faced with a tough choice: he delegated. Harpagos gave Cyrus to the herdsman Mitradates and told him to expose the child and bring back the body so he could be sure the kid was kaput. Mitradates knew he was Median toast if he didn't obey. He took Cyrus home to his pregnant wife and told her we are so screwed if we don't kill Cyrus. Fortunately for Mitradates, his wife and Cyrus she had given birth while Mitradates was away. Unfortunately, *for her baby*, it was a stillborn. Mitradates's wife suggested swapping her stillborn with baby Cyrus and raising Cyrus as their own son. In this way Cyrus survived and grew up as the son of herdsman.

Despite this clever ruse Astyages eventually learned the truth about Cyrus and how his trusted man Harpagos had disobeyed him. But Astyages was cool about being betrayed. He forgave Harpagos and remarked that Cyrus, *being alive and all,* would need some playmates. Astyages then told Harpagos why don't you go home and tell your own boy to come over and keep Cyrus company. He also invited Harpagos to diner. When Harpagos's son arrived Astyages had him killed, chopped up and boiled. When Harpagos arrived for diner Astyages served him chunks of his own son. Harpagos gulped his meat down. Astyages asked Harpagos if the meat was to his liking and added that if wanted more just look in this pot. Harpagos looked in the pot and saw the boiled head, hands and feet of his son.

Stop me if you have heard this family diner story before. Shakespeare severed up a version in Titus Andronicus, South Park took a stab at it with Scott Tenorman Must Die and Jeffery Dahmer seems to have confused this story with a recipe but, no matter how you like your history served, *The Landmark Herodotus is a magnificent hooting feast of a book.*

The 20 seconds that ruined Inception

Posted: 28 Jul 2010 18:24:00



Last week I saw Inception with my daughter. I was seriously considering giving this flick a miss after reading Michelle Malkin's rant about its empty-headed actors. Nothing ruins a movie faster than an actor going off-script! Actors are given scripts ***written by others*** for very good reasons. Most of them have stunted childlike minds that rarely emit ideas worth considering. I have no patience for such nonsense and I certainly won't pay for it. Lucky for Inception its Cineplex competitors were defining a new standard of airbending suckitude — move over Plan 9 there's a new fetid pant load in town.

To my relief the juvenile politics of Inception's actors did not manifest in the movie. Inception is a fine film but it threw away its *slim* chance at greatness in the last twenty seconds. At this point I must issue an all points spoiler alert. **Do not read beyond this paragraph if you want to preserve your faint chance of being surprised.**

Inception is all about the recursive nature of reality and dreams. What is a dream and what is reality? How does dream time relate to real-time? Does such a question even make sense? Are we in a dream? What happens if we dream in a dream?



The movie tackles these themes with technical gusto. The special effects are *so special* you forget about being impressed and just enjoy the story. On this account Inception succeeds were Avatar sounded some sour notes. You cannot fault this movie on technical grounds. Nor can you fault it on cheesy subject matter. How many Hollywood blockbusters deal with the nature of reality?

To avoid getting lost in dreams the Inception dreamers carried a personal test token. The test token is a small object that *behaves one way in dream worlds and another way in reality.* And, *this is crucial to Inception's plot*, only one dreamer should know the token's trick. DiCaprio's character used the spinning top shown above. As some readers have pointed out the spinning top is DiCaprio's wife's token but *he knows* that in dreams the top never stops spinning while in the real world it tips over. By spinning the top he can distinguish dreams from reality.

In the last twenty seconds of Inception DiCaprio's character returns home and starts the top spinning on a table. Throughout the film he has been trying to catch glimpses of his children's faces. In his dreams their faces are always turned away. Finally, they turn their heads and he sees their faces. Then the camera cuts to the spinning token. It's still spinning but it's wobbling and starting to fall.

The film ends before the token falls. I'm guessing the director just couldn't stomach the *focus group happy ending* and spared us the indignity of watching the top fall. Despite the residual uncertainty, *maybe it doesn't fall and this isn't reality but another dream*, the implication is clear enough we are safe and sound and back in the real world. A better ending would have been no top wobbling and no child faces. Then everything would have been marvelously ambiguous and unclear. **Never pander to the audience art is to delicate for that!**

How's that for Inception?

Posted: 29 Jul 2010 15:38:57

This is perfect!



For more of these little nuggets check out Proof.

The Kindle is just like the KKK

Posted: 04 Aug 2010 17:37:00

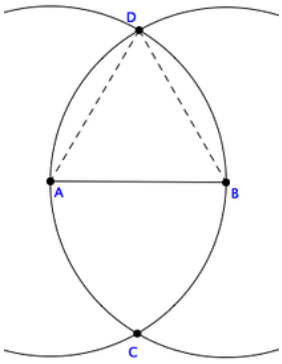
Oh Mohammed in a brothel how much more of this idiocy can we endure? A certain brain-damaged official, (Thomas Perez), in the US Department of Justice apparently

thinks allowing Universities to experiment with delivering textbooks via the Kindle violates the civil rights of the blind. This so is mind-boggling stupid that I thought it was a bad joke. Well it is a joke and it's on us! We are entering the final stages of Pournellian Iron Law paralysis in the United States. Remember a vote for any Democrat anywhere is a vote for submission to morons like Perez.

C. K. Raju: Genius or Crank (Part 1)

Posted: 12 Aug 2010 19:21:14

Lately I have been amusing myself by working through Euclid's Elements. Despite studying mathematics in university, teaching it in high school and *occasionally* using it in my software-soaked day job I never got around to reading Euclid.



Euclid's first proposition

Euclid is routinely lionized as the wellspring of axiomatic mathematics. Before *The Elements* mathematicians were *clearly* out of control! They were running around developing useful methods, (counting, fractions, roots), and – *gasp* – *making unjustified assertions!*

Fortunately, *The Elements* put an end to all that and ushered in the endless age of rigorous axiomatic mathematics. I admire mathematical rigor but my tiny brain can only take so much of it before an all-pervading fog of befuddlement sets in. When I'm all fogged up there are only a few options:

1. Reread and rework until the fog clears.
2. Press on and review later.
3. Give up and abase self.
4. Take a break.

I'm a lazy S.O.B. so option (4), take a break, comes up more often than it should. One of my favorite ways to break away from mathematics is to read about it's *long* history. While tracing the history of *The Elements* I came across the writings of C. K. Raju.

C. K. Raju has written a fascinating book: (the) Cultural Foundations of Mathematics:

The Nature of Mathematical Proof and the Transmission of the Calculus from India to Europe in the 16th c. CE. Raju's book is a bit hard to get your hands on. It's not on Amazon but you can use World Cat to find a copy near you.

Raju's thesis consist of these major points:

1. Significant portions of the *calculus* developed in India long before Newton and Leibniz and Indian methods, particularly series expansions, came into Europe via 16^{th} century Jesuit missionaries.

2. European notions of rigorous mathematical proof evolved from the needs of the Catholic Church to convert Muslims with *impressive* iron-clad logical arguments. The old baffle them with bullshit tactic. Raju claims this *theological* attitude worked it's way into mathematics and resulted in the *bizarre western view* that deduction is superior to observation, experience and induction.

3. The ultimate source of eastern secular knowledge, (mostly Arab and Indian), was systematically suppressed and "Hellenized" by the Catholic Church. The church claimed all the "good stuff" in Arab texts originated with the ancient Greeks and had been *merely preserved by Arab copycats*. It just wouldn't do to credit hated, (remember the crusades), enemies for their good ideas.

4. Insisting on rigorous proof when teaching mathematics, especially to children, is sterile and stupid.

All of this reads like a mathematical Dan Brown novel and oddly the Catholic Church is once again the villain. I was enjoying Raju's account until this passage about Kepler:

> *Why, after all, was Tycho so secretive about his papers, not even allowing his trusted assistant Kepler to see them? In any case, on Tycho's sudden death, Kepler obtained not just Tycho's observations but also the rest of his papers which contained the underlying theory. Being inclined towards heliocentrism, Kepler transformed Nilakantha's "Tychonic" orbits to a heliocentric frame (a simple transformation). This made Nilakantha's variable epicycles come out as ellipses. Being a professional astrologer, Kepler was good at making up stories, and he made up the story about how he had arrived at his results using Tycho's data.*

In other words Kepler is a fraud and he ripped off one of the major discoveries in astronomy, the elliptical orbits of planets, from Indian astronomers. It's one thing to spin plausible stories about how parts of calculus may have seeped into Europe from

unacknowledged sources it's another thing to posthumously accuse someone of fraud.

What would it take to make Raju's case? *How about some hard evidence!* What about Tycho's secret papers, do any of these documents survive and do they contain references to Nilakantha? Now that would be a smoking gun. Of course we don't know of any such papers *but that doesn't mean they didn't exist.* Proof by conspiracy is a very powerful inference rule — 9/11 troofers and ufologists swear by it! What about the claim that the transformation from Nilakantha's variable epicycle **Earth centered system** to a **Sun centered** elliptical orbit system is "a simple transformation." I rather doubt it's as simple as claimed and even if the transformation was, to use the most abused word in mathematics — *trivial*, it still misses the point. The major shift was to abandon all pretense of **Earth centered systems** no matter how mathematically sophisticated! Before Kepler astronomers and mathematicians, in many cultures, toyed with the idea that planets orbit the sun. After Kepler everyone had to grow up. Planets do orbit the sun deal with it!

And it was precisely how Newton dealt with it that made calculus something worth fighting over. Newton's unprecedented and monumental proof that elliptical orbits are a mathematical consequence of the inverse square law of gravity is the dividing line between modern and early science. Nothing like it had ever been done before and even today physics and mathematics students are given to chanting we are not worthy when presented with this brilliant argument. Without Newton's use of the calculus nobody but a few anal mathematicians would give a rat's ass about who invented calculus.

In a later post I will argue that Raju discounts the importance of independent and coequal mathematical discovery in his account.

Binge Pretend Boink

Posted: 16 Aug 2010 18:19:13

The best line in *Eat Pray Love* comes early on. When Liz Gilbert's, (Julia Roberts), marriage is falling apart she gets down on her knees and gives prayer a try. Now Liz, a successful author and full-fledged member of the secular New York literati, realizes this is a bit phony so she considers starting her prayer with, "Hello God, I'm a big fan of your work." I'm a big fan of Julia Robert's work but *Eat Pray Love* makes impossible chick flick demands.

The modern chick flick is a difficult genre. A good chick flick:



Eat Pray Love

1. Caters to women without alienating men.
2. Treats *important but not serious* themes.
3. Is funny in a harmless inoffensive way.
4. Offers up current female fantasies of the ideal man.
5. Pushes soft feminist politics.
6. Goes easy on the ball crushing man hatred.

Eat Pray Love methodically tackles all these points; the film is earnest to a fault! Yet two hours after seeing it you are left with Julia Robert's wonderful smile and a nagging sense that hubris laden narcissists have picked your pockets — *again!* In this way *Eat Pray Love* is the perfect Obama era chick flick. *Not recommended for people with something better to do!*

Resume blues partly alleviated by LaTeX

Posted: 28 Aug 2010 16:26:06

Once again your fearless correspondent is seeking new consulting opportunities. One of the major drawbacks of consulting is the constant need to keep marketing yourself! When it comes to self promotion that old standby, the resume, is still one of your most effective tools. When communicating with potential clients their first question is; "Can you send me a resume?"

Resumes are a black art. There are many, mostly bogus, theories about what constitutes a good resume and an entire cottage industry has sprung up to support resume creation. I am sure you have walked down the *power resume aisle* in your local big-box bookstore marveling at how people can write entire books on composing three page resumes. Maybe you have suffered through a corporate *out-placing* where well dressed *human-resource* types will earnestly criticize your use of bullets and personal pronouns. Whenever people go on about resumes I always think of Monty Python's theory of Brontosauruses.



Click for Brontosaurus theory

Here's the nasty truth: a resume is an advertisement! Do you honestly think anyone would dare to propose a *theory of advertisements?* A good ad gets noticed and helps sell the product. The same holds for resumes.

I have a simple resume style that has worked well. The only complaints I get relate to *file types*. Some clients want plain text, some want Word documents, others want PDFs and most don't care!

Lately I revised the LaTeX version of my resume. LaTeX is my preferred document format. LaTeX source documents are simple text files. You can manipulate them with any text editor on any computer system. Hence LaTeX documents cannot be held hostage by software vendors that *encode your words* in version specific binary formats. If you have ever converted a Word document to an old or new format you will know of what I speak. Because LaTeX files are simple text it's easy to share LaTeX on the web. My current resume borrowed from a number of authors. When I borrow I try to give back. The following links point to the LaTeX source of my resume and the final PDF output. Help yourself but be courteous and maintain the creative common license block in the LaTeX code.

- cvh2010pub.zip zipped resume LaTeX source
- cvh2010pub.pdf final typeset resume

The Return of APL Fingers

Posted: 12 Nov 2010 03:34:29

I am programming in APL again after a six-year hiatus. My APL fingers are rusty but it's amazing how deep muscle memory goes. I still know where all the beautiful APL glyphs' hide on standard keyboards. I've programmed in almost a dozen programming languages but I maintain warm feelings for APL because I lost my coding virginity to her.



APL type ball (1970s)

APL was gentle: abstract, clean, austere and so intoxicatingly elegant. I loved Iverson notation and how it manifested in what remains the most beautiful symbol set ever devised for a programming language. Blinded by passion I overlooked APL's faults but as my ardor cooled I took notice of one glaring APL problem that persists to this day. *Displaying, printing, emailing and now blogging with APL is a pain!* Much has improved with the steady adoption of Unicode but even today handling APL imposes burdens. For example, without the APL385 Unicode font your browser will mangle the following APL characters.

```
!⋆+-/<=>?\^|~¨¯×÷←↑→↓Δ∇∈∘∨∩∪⍨≠≡≢≤≥⊂⊃⊖⊢⊣⊤⊥◇⌈⌊
⌶⌷⌸⌹⌽⍀⍁⍂⍃⍄⍋⍒⍓⍔⍗⍙⍚⍛⍜⍠⍡⍢⍣⍤⍥⍨⍩⍪⍫⍬⍭⍮⍯⍰⍱⍲⍳⍴⍵⍶⍷⍸⍹⍺○
```

By the way, if you have not installed APL385 Unicode I highly recommend downloading and installing it. You can get APL385 at Vector. *Regrettably installing a Unicode APL font will not fix all your APL character problems!* In particular you cannot *reliably*:

1. Copy and paste APL code between APL vendors or between APL and other languages.
2. Typeset APL listings with ubiquitous LaTeX packages like lstlisting.
3. Post APL idioms on Twitter. Twitter's 140 character limit is not such a big deal for APL.
4. Print on arbitrary network printers! It's the 21st century yet office printers are routinely limited by parochial IT policies to a small set of standard fonts.

APL'ers almost relish these irritants after all problem solving is what APL'ers do! We don't go crying to momma; we squash whatever is annoying us and get on with deeper problems.

Currently I am dealing with how to display APL functions on WordPress. WordPress supports a source code highlighting plug-in based on Alex Gorbatchev's excellent

Javascript SyntaxHighlighter. The WordPress plug-in produces wonderful results for well known languages like C# and by defining language specific Javascript classes you can highlight languages like APL. Eric Lescasse has done this for APL+WIN code so it is possible, (given Unicode APL fonts), to render highlighted web friendly APL code. Unfortunately WordPress does not support APL highlighting, (what a surprise), and has banned user Javascript classes on their freebie blogs. Apparently some programmers abuse JavaScript, (another surprise), and uncontrolled Javascript'ing might endanger the WordPress business model.

This leaves the users of peculiar programming languages with a problem. We can pester WordPress to support new languages or we can roll our own. I am starting a campaign to get APL and J on WordPress's list of highlighted languages and while I am waiting for official support I will roll my own. Fortunately, highlighting code for blogs is not difficult. The much maligned MS Word (2007 and beyond) can crank out blog happy APL provided you have UTF-8 APL Unicode text to format. Getting UTF-8'ed APL is the tricky bit. Some APL systems like Dyalog directly support UTF-8 and others are planning to do so. APL+WIN cannot spit out UTF-8 but it's not difficult to transform APL+WIN to UTF-8. The APL Wiki contains some slick APL+WIN functions to convert internal APL text to and from UTF-8.

To get a sense of why all this fuss is worthwhile consider the following APL function taken from Eugene McDonnell's superb essay Life: Nasty, Brutish, and Short.

```
∇ z ← LifeKnuth ⍵;v
 v ← ⍵
 ⍵ ← ⍵ + (1 ⌽ ⍵) + ¯1 ⌽ ⍵
 ⍵ ← ⍵ + (1 ⊖ ⍵) + ¯1 ⊖ ⍵
 ⍵ ← ⍵ + ⍵ - v
 z ← ⍵ ∈ 5 6 7
∇
```

This little function is not the *shortest* APL Life function but in my opinion it's the clearest and most concise description of Life's generation rules out there. Tool of thought is not an empty APL marketing slogan. It's the real deal!

Soon we will all be Software Archaeologists

Posted: 06 Dec 2010 03:23:13

One of my pet peeves is the ridiculously short lifetimes of digital media. I remember

9 track mainframe tapes and 5.5 inch floppies: technologies that thrived in an ancient bygone epoch known as the Eighties. Good luck trying to read 9 track tapes or 5.5 inch floppies today! You will have better luck with older paper punch cards. Punch card readers are hard to find these days but *you can see the damn card holes with your own eyes!* In fact you don't even need eyes to read punch cards. I once knew a blind mainframe programmer that banged out massive FORTRAN programs by feeling the holes on punch cards. Try that with a USB flash drive.

Of course I appreciate that you can stuff the data from an entire filing cabinet of 5.5 inch floppies onto one modern USB flash drive but I am *disturbed* by the fact that all those gigabytes will soon be *more unreadable than cuneiform*. I am not the first to worry about our distressed digital data. Kevin Kelly considers the word "storage" a dangerous misnomer and advocates the use of "movage" instead. *You had better move your data from old to new formats or you will lose it!*



Rosetta Ball

Movage is one of the reasons I have not jumped on the *eReader* bandwagon. Replacing myriagrams of books with one lightweight tablet is appealing but **iPads and Kindles are not stable!** High quality books have shelf lives measured in centuries. With digital media you're lucky to get through a decade. It's a good bet you won't be able to read what's on your *eReaders* in ten short years! You poor dumb suckers will have to repurchase your library just like you repurchased your record and movie collections. It's not in Amazon's or Apple's interest to worry too much about media durability. Fortunately some people do worry about media stability. Check out The Long Now's Rosetta project for what I consider a stable medium.

To belabor this point, while I was unpacking boxes of old-fashioned books, (we recently moved again), I came across a notebook I put together for a poster I presented at the *1994 APL conference in Antwerp*. My notebook contained a paper version, *still eminently readable*, and four 3.5 inch disks. My oldest computer has a vestigial 3.5 inch disk drive so I tried copying these sixteen year old disks. Some of the disks were unreadable, (surprise surprise), but I was able to recover a directory containing my poster's source. Some of these files were old Microsoft Word documents. Word 2007 could not read them! Even when bits survive changes in software can render them useless. Fortunately I loathed Word in 1994, a sentiment I still maintain, and wrote my poster in LaTeX.

LaTeX source is dull ASCII text. Civilization will collapse before we lose the ability

to read it! Of course LaTeX, like Word, has changed since 1994 so, just for the hell of it, I decided to compile this old document with MikTeK 2.9. It didn't compile; I was missing some old graphics macros and a key style file. It didn't take me long to fix these problems. I replaced the graphics macros with standard `\includegraphics{}` commands and converted all the Windows `*.bmp` files to `*.png` files. Google even found the long-lost missing style file `qqaaelba.sty` in arxmliv. After making these trivial changes `pdflatex.exe` gobbled my poster source and moved *Using FoxPro and DDE to Store J Words* into the 21st century.

A Black Swan Song

Posted: 19 Dec 2010 05:15:26



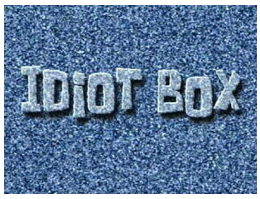
There's a lot to like in The Black Swan. To begin, you simply cannot beat the soundtrack! Tchaikovsky delivers a bit stream worthy of high quality digital cinema sound systems. Natalie Portman gives the best performance of her career — now I see what the young Darth Vader and that creepy V guy saw in her! And, to cap it off, The Black Swan elegantly solves the "ballet guy problem." Real guys don't do, watch, or appreciate ballet but throw in some hot lesbian ballerina on ballerina action and suddenly you're up for a skinny dip in Swan Lake just to cool down.

I was expecting a euroweenie art film but the Swan exceeded my expectations by being — what's that word — *entertaining*. I particularly enjoyed being fooled until the last scene. There is nothing I hate more than figuring out what's going on in a movie. I demand that lovely confused state of mind before all is revealed. And for the denouement, I expect coherence and logic. I was not disappointed. The Black Swan is a film ballet, NASCAR and psych patients can all enjoy for roughly the same reasons: enthusiastically endorsed.

2011

It's all over for Broadcast TV

Posted: 12 Jan 2011 06:21:21



Human beings are worthless lumps of lazy protoplasm. We only change our bad habits when that bitch — *reality* — forces us to reconsider our wayward ways. In this respect the great recession has been a wonderful teacher. It's sat us down and made us stare at the books. And arithmetic, being what it is, has brought out the savage budget slasher in all of us.

The amount of money we were handing over to the cable company for the privilege of watching crap on TV could not be justified. We cut it off — no cable, no satellite, no HD, nada zip zilch! When annualized that's $500 bucks. What the hell were we thinking? $500 dollars wasted on TV. Thank you recession.

OMG no live TV - how do you survive? Being old farts we starting reading more but then one day, in the midst of acute Family Guy withdrawal, we tried streaming. It had been years since I last tried watching video on computers. Five years ago streaming video was more like steaming pile of video. I didn't expect things had improved but I was wrong. On high-speed internet connections streaming is now *good enough* to replace TV. For months we've been enjoying free streaming sites like Hulu. I really enjoy some old, rarely seen, classic TV programs. Check out this episode of Alfred Hitchcock Presents. It's a neat story with a probability lesson and a hard ass skeptic ending.

The UN Space Treaty is Holding Us Back!

Posted: 14 Jan 2011 21:55:24

2011 marks the 42'nd anniversary of the Apollo 11 moon landing. 42 idiot infested years have passed since that glorious day and nothing that has happened since comes within a nautical league of matching it. My vile boomer generation has downplayed the significance of space exploration for decades. I remember getting a shrill lecture from my left leaning fifth grade teacher about what a waste of money the space program was. Being a self-assured child so I told my teacher he was preening unimaginative Neanderthal. This landed me in detention but I refused to apologize.



Apollo Earthrise

Manned space flight has been in a depressing, decades long, holding pattern. The real advances in space exploration have come exclusively from unmanned probes and robots. While astronauts have been going round and round in that orbiting boondoggle known as the International Space Station the Voyagers are on the brink of interstellar space, probes are on their way to Pluto and Mercury, Cassini is orbiting Saturn, a small armada of orbiters and crawlers are exploring Mars, low-budget missions discovered water on the moon, space telescopes like Chandra, Hubble and Spitzer have shown us wonder after wonder and, capping it all off, WMAP determined the age of the entire frigging universe. Compare these awesome achievements to ISS astronauts unplugging zero-G toilets.

Why has so little been accomplished? I can think of two good reasons.

1. Exclusive government control
2. The UN Space Treaty

Until recently only governments could afford space programs. In the early days of space exploration government control made sense but that era is coming to an end. In a few decades private entities will be able to mount manned Mars expeditions and send robots anywhere in the solar system and beyond. The technology is coming along nicely but I am afraid the politics will soon be a gigantic millstone around our necks. The millstone takes the form of the absurd UN Space Treaty.

The UN space treaty is another sorry artifact of the 1960s. It reads like a bunch of unwashed socialist hippies got together and decided to ban capitalism in space. There is no other way to explain ridiculous terms like:

1. *The exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind.*
2. *Outer space is not subject to national appropriation by claim of sovereignty, by*



Green: UN Space Treaty nations

means of use or occupation, or by any other means.

3. *States shall be responsible for national space activities whether carried out by governmental or non-governmental activities.*
4. *States shall be liable for damage caused by their space objects.*
5. *States shall avoid harmful contamination of space and celestial bodies.*

Suppose some daring entrepreneur decides to mount an asteroid mining expedition. This is not as crazy as it sounds. Asteroids are relatively easy to get to and very easy to get off of. They also contain mountains of valuable rare earths, platinum and gold. Eros alone holds well over 20 trillion dollars of metals. You could pay off the US national debt by mining one dinky asteroid! One day, not very long from now, robot asteroid mining will make a compelling business case. To bad the UN Space Treaty outlaws it.

If you have to pay off all of mankind (#1, #2) your compelling business case evaporates. Environmentalists, (yeah space environmentalists), would complain that mining damages and contaminates a celestial body (#4, #5). Finally, even if the operation was 100% privately funded, various governments could legally ransom our daring entrepreneur or shut him down (#3). These tactics have already been tried. Remember the hysteria that preceded the launch of Cassini. A pack of morons decided that the Plutonium powered RTG on Cassini posed a grave threat to all mankind and started citing the UN Space Treaty in hopes of blocking the launch. Cassini was not a money-making operation so we ignored the loons. Asteroid mining will be another thing all together. Everyone will want their cut. With the UN in charge we're going to feel like the *probed* subjects in this Kids in Hall video.

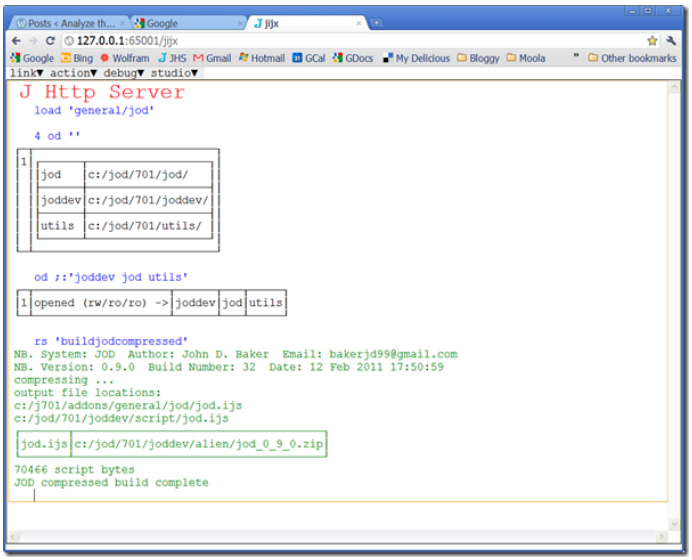


Click for anal probing aliens

J 7.01 Now Playing in your Browser

Posted: 12 Feb 2011 22:01:31

Big changes are afoot for J programmers. With the release of J 7.01 JSOFTWARE has taken the risky step of deprecating two well established user IDE's and replacing them with brand new GTK and Web browser-based interfaces. As we all know new software is not necessarily better software, (remember that risky bit), but in this case the changes make sense.



J 7.01 running JHS on Chrome

Early J systems were largely Windows-Centric. Yes, J has run perfectly well on strains of UNIX/Linux and the Mac for over a decade but I think it's fair to say that J IDE's were biased toward Windows. JSOFTWARE was well aware of this

and tried to offer the features of their Windows IDE with a portable Java based IDE. Unfortunately the Java IDE, like Java itself, failed to live up to expectations.

Now that the many, if not the majority of J programmers, run J on non-Windows, (mostly Linux and the Mac), systems it makes no sense to treat them like second class citizens. So how do you provide a *state of the art portable user IDE* that runs well on Windows, Linux, the Mac, smart phones and various IGadgets. There is no single answer so JSOFTWARE wisely decided to offer two IDEs: JHS and JGTK.

The JGTK IDE is a desktop application that is similar to the older Windows IDE. JGTK is somewhat biased toward Linux but this his doesn't mean it doesn't work well on other systems. I run it on WinXP and Win7 machines all the time. JGTK takes longer to load than the older Windows IDE but once it's up and running I don't see significant performance differences. The JGTK editor is superior to the older Windows editor and I love the side bar and UNIX style code tagging. For a first version JGTK is a nice bit of work that will only improve as J programmers and users pound away on it.

JGTK is nice but JHS is radical. JHS abandons the desktop and turns your favorite web browser into a stripped down J programming environment. I was skeptical when I first heard about JHS but it has won me over. JHS is amazingly effective under Google's Chrome browser. It comes up in a flash and is as zippy or faster than the older Windows IDE. Even better this webby goodness imposes minimal burdens. The JHS web server is often one of the smaller processes running on my machines. I have been doing the bulk of my JOD update work with JHS and I frequently forget I'm using a browser! *Good user interfaces, unlike politicians, get out of your face!*

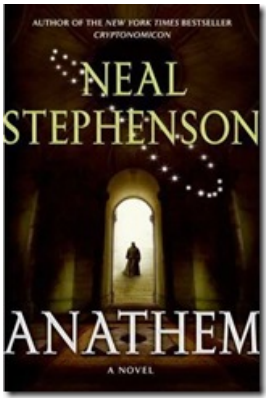
As for my J addon JOD: J 7.01 introduced a number of system script changes that break JOD 0.8.0. I am working on JOD 0.9.0, (a beta version is available in the files box sidebar of this blog), that fixes these problems and implements some planned changes. The biggest change so far: I have moved the JOD interface out of the **z** locale into it's own **ijod** interface locale. How's this for a marketing slogan? **JOD 0.9.x – now with less z stomping!**

Anathem: Plato's Parallel World

Posted: 21 Feb 2011 01:02:08

About the best thing anyone can do for you is to suggest a *good book*. When I was in my teens my aunt pointed me at Tolkien: a shrewd call. I was at the perfect age

for a romp in Middle Earth. In the 1990s a consulting client introduced me to Neal Stephenson. I started with Snow Crash and Hiro Protagonist. How can you not love a character named Hiro Protagonist? I went on to The Diamond Age, Cryptonomicon, (Stephenson's best work), The Baroque Cycle and now Anathem.



All authors get in ruts. Since Cryptonomicon Stephenson has been in a *books about very smart characters rut.* Fictional intelligent characters, particularly software types, scientists, mathematicians and so forth are often cut from the same cloth. This is why The Big Bang Theory works! This is not a literary flaw! Speaking as a bona fide software type I can assure you that smart tech types *are* alike. Logic drives capable minds down adjacent roads. The history of mathematics and science is littered with tales of brilliant individuals independently coming up with similar, if not identical, ideas. It's almost as if mathematical ideas exist *outside* the minds that *discover* them. This is one of the major themes of Anathem.

The world of Anathem is Arbre. Arbre is eerily similar to Earth. Arbre is Goldilocking around a Sun like star. It has a moon, large oceans, a "nitrogen oxygen" atmosphere and even enjoys plate tectonics. Plate tectonics is probably not that common for Earth sized rocky worlds. The Earth lucked out because a large chunk of the Earth's crust is orbiting us in the form of the Moon. Venus wasn't so lucky, or unlucky, depending on how you feel about crust stripping planetary impacts. Arbre is also inhabited by "people" that could be our neighbors.

Arbre's history seems a few thousand years longer than ours; they've repeatedly wreaked their planet with catastrophes like ethnic pogroms, global warming and nuclear war; things we're only working on. Stephenson works his magic building up Arbre in our imaginations. The result is a solid real world. I applaud the authors achievement. Arbre, like Dune and Middle Earth, will stick with you.

There are big cultural differences between Arbre and Earth. On Arbre society divides into the Secular and Mathic worlds. Arbre's secular world is familiar. It has brain-dead TV, (just like MSNBC), highways, gas stations, suburbs, tacky tourists, wacko religious cults and even big box stores — *they're not called Arbre-Marts.* It's the Mathic world that needs elaboration.

The Mathic world consists of a large number of walled, self isolated institutions called maths. The maths are populated by avout. A math is a cross between an Earth monastery, university and scientific society. Each math voluntarily cuts itself off from

the secular world on one, ten, hundred and thousand-year cycles. Our preening public intellectuals might see themselves as avout. They flatter themselves. The avout have all taken a vow of material poverty. They are allowed three possessions. There are no tenured Mercedes driving poseurs among the avout. Stephenson makes it clear that not all avout are intellectually gifted or suited for a life of the mind. Many of them become gardeners. If only our second raters did the same.

Stephenson devotes many pages to the details of mathic life. We learn about their rituals, clock winding is central, they're distinct philosophical orders, avout fashion trends, (challenging with only two articles of clothing), their diet and sex lives. By the time Stephenson is ready to release the avout you feel like you've been holed up in a math. I won't ruin Anathem by summarizing. Let's just say that a young Frau Erasmas and many of his friends and mentors will suddenly find themselves outside the gates of their math to deal with a historic emergency. After the avout leave the maths it's a great ride: very much in the mold of the Waterhouse's adventures in Cryptonomicon and The Baroque Cycle. Along the way Stephenson wows us with countless philosophical allusions and micro *in-plot* seminars. Remember, the at large avout are uniformly brilliant; they're not going to chat about reality TV. Imagine Plato as a Kung Fu star. Between ass-kickings the characters calmly entertain ideas like Plato's world of pure mathematical forms, (known as the Hylaen Theoric World on Arbre), is an actual parallel quantum cosmos that somehow leaks information into receptive minds in "neighboring" cosmii. Somehow Stephenson makes these lectures riveting.

Anathem is excellent on many levels but one flaw bars it from the pantheon of great books. *The characters are insufficiently distinct.* You can tell them apart when absorbed by the novel but they quickly merge into each other. Smart tech types share many *correct* ideas but they do not share the same character. Read Brighter than a Thousand Suns there is no mistaking Oppenheimer for Bohr, or Fermi, or Von Neumann, or Teller. In the real world brilliance exaggerates character. Stephenson exploited this in Cyptonomicon and The Baroque Cycle by casting the very real Turing, Newton and Leibniz as characters. Anathem is not a Dickens novel. There are no Scrooge's, Pip's, or Miss Havisham's, characters that live outside their novels, running around. I fear that it is not even an Ayn Rand novel. Altas Shrugged is a pondering pretentious beast of a book and Ayn Rand couldn't sharpen Neal Stephenson's pencils but here I am, almost thirty years after reading Atlas Shrugged, recalling Dagny Taggart, Hank Rearden and John Galt right off the top of my head. Read Anathem for the world, the ideas and the great ride but if you're looking for memorable characters stick with Hiro Protagonist.

A Walk in the Park

Posted: 25 Feb 2011 21:47:04

At noon on February 23, 2011 I decided to get out of the office and take a little walk in nearby Faust Park. What could go wrong? Lots apparently. Faust park is in western St. Louis. It's distinguished by an absolutely charming butterfly conservatory. The conservatory is a greenhouse that's maintained at 85F year round. Inside the greenhouse thousands of large iridescent butterflies are flying about, alighting on bowls of fruit, visiting feeders and gently touching blooming flowers. I had never seen so many butterflies in one place. Unlike most bugs butterflies are not annoying. As they flitted about they raised the spirits of everyone in the greenhouse. It was delightful; I could have spent my entire lunch break with the butterflies but I wanted to see the rest of the park.

Leaving the conservatory I walked east to check out some historical buildings on the far eastern side of the park. On the way I looked in the carousel building. It was closed so I proceeded to a small white wooden one room school-house. I stayed on the gravel path as I approached the school. When I arrived I could see the building was locked and it looked like all the adjacent buildings were also locked.

My lunch break was coming to an end so I decided to walk across the park lawn back to the parking lot. I stepped on the grass. It gently sloped away from the path. Nothing seemed dangerous and the footing appeared firm.

It wasn't. The grass gave way and I fell. I fell straight down on my heels and then pitched forward. As I went down I heard two soft pops in both knees. I ended up facedown with my hands in muddy grass and both of my legs literally bent out of shape. The pain in my thighs was excruciating. I moaned and cursed and then tried to get up. *I couldn't get up!* I couldn't even straighten my legs. I was beginning to feel I was screwed!

I yelled for help but the school building blocked the view of the parking lot and a children's play area about 100 meters away. I started crawling on what was left of my knees toward the parking lot yelling help, help, help. The ground was cold and muddy and I wasn't making great headway. Fortunately a fellow named Dennis spotted me from the parking lot. He scooted over and phoned 911. He stayed with me until the 911 ambulance arrived. I didn't catch Dennis's last name so if by some remote chance you read this Dennis thanks again. You may have saved my life.

The 911 crew had trouble straightening my legs and dragging me on a wheeled



Faust Park fall location: 38.666526, -90.540996

stretcher over the lawn back towards the ambulance. They managed to get me in the ambulance and then drove me to St. Luke's hospital.

I was triaged, x-rayed and MRI'ed. Around 4:00pm the emergency room doctor told me I had completely severed both quadriceps above my knees. He also said it was extremely rare to injure both legs. Hey I've always been an outlier. They admitted me and scheduled surgery early next morning. I've had the surgery and I am now sitting in a wheelchair with both legs up. I'm writing this on my wife's Mac. I am looking at six or more weeks of painful rehab. I will bore you all with more cripple blogs because it takes my mind off the pain.

iPhoning It In

Posted: 04 Mar 2011 03:23:58



My wheelchair'ed legs

Last week I fell in Faust park and tore the quadriceps muscles above both knees. Right now I am in a skilled nursing home waiting for a change in my "weight-bearing" status. For the time being I cannot stand or even bend my knees. An outing consists of being helped into a wheelchair and rolling around the halls.

The nursing home lacks Internet access so my wife, to cheer me up, got me an iPhone with a good data plan. The iPhone is an awesome little gadget but it's not easy to type on it. I am pecking this blog entry in bed one little character at a time. I know I won't have the energy

to revise my iPhone blog entries so you get what I peck.

Top Ten Invalid Annoyances

Posted: 07 Mar 2011 23:18:36



The way I roll

I have been in the rehab/old-folks home for eight days: long enough to adjust to the routine. It's amazing how quickly we get on with a new normal. This doesn't mean I am comfortable or thrilled with my circumstances. I have a list of invalid annoyances.

Let's do this from least to most annoying.

1. Call bells that ring for hours on end.
2. Marginal cable package: cripples don't need HBO.
3. Late night nurse chats; I had forgotten about noisy hospitals.
4. Butt-plugging food. They have been trying to give me stool softeners since my arrival. If my wife wasn't bringing food I would need them.
5. Locked courtyards. It's winter and the courtyards are locked to protect the elderly. This should be a weather dependent rather than seasonal policy.
6. Inability to put on my socks.
7. Unable to get in or out of my wheelchair without assistance.
8. Cannot shower or bathe until my cuts heal
9. Peeing into a plastic bottle.
10. And the number one annoyance: **cannot wipe my ass.** I suspect my nurses concur.

Cripple Chronicles Continue

Posted: 15 Mar 2011 23:53:21



Invalid

It's coming up on three weeks since I fell and ripped my quadriceps. I am now cleared for passive, gravity assisted, flexing of my knees. This morning I managed a seventy-five degree bend. I would like to reach a full ninety degrees before the end of the week. I suspect my days of greater than ninety degrees are done. The next step is to get up in a walker. I hope this is sooner rather than later. Moving my butt from bed to wheelchair and back is wearing thin. I honestly don't know how some of the elderly residents here stand it. Unlike myself many of them will be in wheelchairs until they die. Getting old isn't for pussies!

I'm not the only one "suffering" from my freaky fall. My poor wife is working hard bringing me meals, (hospital food did not impress her) and pitching in with everyday invalid care. She really is the best wife in the world.

I wish I could say the same about my insurance companies. Today we mailed my application for short-term disability. I will qualify; mine is a classic total temporary disability. They cannot deny coverage without facing a slam-dunk lawsuit but they will be able to impose inflexible rules.

For example, when I am on disability I cannot work and if I work, even a few hours per day, I cannot collect disability. If I had Wi-Fi and my office laptop I could put in a few remote hours even now but I cannot manage a full schedule. I expect I will end up putting in unpaid remote hours unless that is also forbidden. I cannot be out of circulation for long or my little walk in the park might end in unemployment.

Walking: It's not Overrated

Posted: 23 Mar 2011 19:54:00

Rehab has taught me that I really don't like pain! I wish I could report that I am a tough guy; that I can happily take a beating and then ask for more. Alas, that's not me. I've always considered the downside of stupid stunts and, with a few notable lapses of judgement, managed to avoid the self-inflicted injuries of my peers.

I've been more of, "an ounce of prevention is worth a pound of cure," than a, "no



A Record setting walk

pain no gain," guy. Most of the time this is sensible but when you are going through rehab the opposite holds. When your torturers, (therapists), insist on bending your broken body this way and that way, over and over again, I can assure you it's not pain-free.

Of course there is an upside. You do improve and things get better. Today I "walked" twenty-five meters in my braces using a walker. It was a post accident record. Every day the distance and time will increase and in no time I hope to be hiking again. Walking: it's not overrated.

Hospital Staff Training

Posted: 27 Mar 2011 21:24:16

Yesterday I transferred from Surreyplace to St. John's rehabilitation hospital. St. John's it's a mainstream rehab hospital and is better equipped to deal with my situation. Now that I am allowed active leg movements the therapy will get more intense. To be honest I am not looking forward to longer and more painful sessions. Yes, I am a complete girly man when it comes to searing pain! I will have a better idea of what's in store for me after tomorrow.

Whatever happens in therapy they will not be waking me up at 4:30 am to draw blood! You can imagine my delight at being roused from a crappy nights sleep, (try sleeping in python tight leg braces), and then being poked by a zealous staff vampire that took singular delight in telling me this little suck would be a daily ritual. Whoa cowboy: there had better be really good medical reasons for waking me up!

Half an hour later another nurse came in and tried to make me take a stomach lining



Leg pressure pump

pill. People it's 5:00 am I am not going to start pointless drugs at such an hour. Then, shortly after refusing the stomach pill another nurse was back to administer an EKG. Clearly sleep was not on the agenda.

I've been told all these tests were part of a baseline workup and that I will not be subjected to many of them tomorrow. The vampire will have to suck elsewhere. I went through the same thing at St. Luke's and Surreyplace. I don't want to train hospital staff in the delicate art of *me* maintenance but it appears unavoidable.

SmugShot Metadata Mess

Posted: 03 Apr 2011 17:53:02



SmugShot App Logo

While languishing in a series of hospitals and rehab centers recovering from a bad fall I have been amusing myself by taking iPhone pictures and posting them to SmugMug with SmugShot.

SmugShot is a nifty little iPhone app that uploads iPhone pictures and videos directly to your SmugMug galleries. SmugShot is a freebie so I cannot, in good faith, whine about missing features but **SmugShot has one serious deficiency: it strips EXIF timestamps.** Native iPhone jpegs contain EXIF timestamps but after passing through SmugShot only GPS information survives. *I am not sure if this is by design or oversight but I don't like it!*

The fix is straight forward:

1. Download SmugMug metadata.
2. Download all SmugShot pictures.
3. Match pictures with metadata and use upload timestamps as date taken EXIF timestamps.
4. Finally replace the uploaded SmugShot images with the EXIF repaired versions.

Simple but tedious. The following J word manipulates Phil Harvey's superb command line utility exiftool to cleanup the SmugShot metadata mess. The words used by `smugshotexif` are in the J script `SmugShotFix.ijs`. Let's hope the next version of SmugShot fixes the date time issue and hacks like this will no longer be necessary.

```
smugshotexif=:4 : 0

NB.*smugshotexif v--  inserts missing EXIF  metadata  in SmugShot
NB. iPhone uploads.
NB.
NB. The  iPhone  SmugShot  app  removes  EXIF  information during upload.
NB.
NB. dyad:  btclSmugMetaData smugshotexif clPathFile
NB.
NB.   NB. update TAB delimited SmugMug metadata tables
NB.   SmugTablesFrXml2 'c:\pd\docs\smugmug\data\smugheavy.xml'
NB.
NB.   NB. load SmugShot specific metadata
NB.   SMUGSHOTMD=: readsmugshots 0
NB.   img=: 'c:\pictures\2011\Missouri\wip\1204618219_smugshot_9811805.jpg'
NB.   SMUGSHOTMD smugshotexif img

NB. extract SmugMug id from SmugShot file name
spid=. <extractsmugid y

NB. all smugshot pids
pids=. x {"1~ (0{x) i. <'PID'

if. spid e. pids do.

  NB. metadata exists for image insert items
  pos=. pids i. spid

  exif=. setartistcopyright y

  NB. use upload date for the missing original datetime
  date=. ;pos { x {"1~ (0{x) i. <'UPLOADDATE'
  date=. '-:' charsub date
  exif=. date setdate y
```

```
  caption=. ;pos { x {"1~ (0{x) i. <'CAPTION'
  exif=. caption setdescription y

  lb=. pos { x {"1~ (0{x) i. ;:'LATITUDE LONGITUDE'
  if. */ 0 < #&> lb do.
    lb=. _999&". &> lb
    exif=. lb setlatlng y
  end.

  NB. rename as iphone file with original smugshot number
  newname=. '.jpg'&beforelaststr y
  newname=. 'iphone ',('_'&afterlaststr) @:(' [s'&beforelaststr) newname
  shell '/\' charsub 'rename ' , ; ' ' ,&.> dblquote y;newname,'.jpg'

  newname ; exif
else.
  'No SmugShot metadata for';spid
end.
)
```

More on that SmugShot Metadata Mess

Posted: 21 Apr 2011 00:06:49

A few days after posting a J script that fixes EXIF timestamps in SmugShot images SmugMug changed the filename assigned to downloaded SmugShot images. Originally the layout was:

***SmugMugID*_smugshot_*SmugShotID*.jpg**

This layout was inconsistent with the way SmugMug normally handles files. Default SmugMug behavior is to **leave filenames unchanged**. This contrasts with other photo sites, (you know who you are), *that rename your sacred files to suit their indexing schemes.* A few days ago SmugMug corrected this discrepancy and downloaded SmugShot images reverted to their original format:

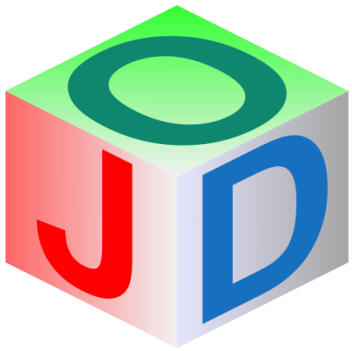
smugshot_*SmugShotID*.jpg

This fix broke `smugshotexif`: see: my previous post. I have modified `SmugShotFix.ijs` to handle the current format and the older one. I will keep tweaking this hack until

SmugShot's sloppy EXIF handling is corrected.

JOD comes to Linux

Posted: 10 Jun 2011 13:00:52



Click JOD Cube for details

For years I have distributed a J Addon called JOD. JOD stands for **J O**bject **D**ictionary. JOD is a code database for the J programming language. Instead of storing my J programs in text files, *like every other programmer in the world*, I break them down into the smallest reusable units. In J parlance I split my scripts into *words.*

If you are an experienced programmer I wouldn't blame you for questioning my sanity. What could possibly be gained by discounting good old-fashioned, superbly supported, ASCII/UTF-8 text files? The short answer, *in trendy software engineer speak,* is refactoring. JOD is a refactoring engine that works at the J word level.

What does *the word level* mean? Program text files are collections of many "words." They roughly correspond to sentences, paragraphs, sections and chapters in ordinary books. When you *reuse*, or quote, a book you typically copy passages and paste them into new contexts. Programmers call this cut and paste programming. We have all cut and pasted; it's a software sin our prophets are constantly nagging us about! JOD minimizes cut and paste programming. You no longer cut and paste or *include* you simply `get` lists of words. J words are closer to English words than you might expect: hence this dictionary approach pays big dividends!

With the release of J 7.01 it's become clear that Windows is no longer the preeminent J platform. The new JGTK interface works well on Windows but it *sings* on Linux.

This is hardly surprising. GTK originated in the Linux/Unix world and still performs best there. Porting JOD to Linux has been on my to-do list for years. The arrival of J 7.01 got me off my butt.

JOD 0.9.3 is the first publicized Linux release. JOD code is 99% J and makes limited use of OS facilities. The port consisted of finding Linux equivalents for a handful of Windows API calls. The always helpful J community provided useful pointers. Joey Tuttle and Bill Lam basically solved my Linux GUID and file handling problems. Thanks guys.

My biggest chore was updating JOD online documentation. In recent months *Google Documents*[1] changed the format of their word processing documents. Google provided an upgrade tool to convert old documents to the new format but it:

1. Did not remap scores of old URLs to new URLs. I had to go through every document doing this one link at a time!
2. Totally wrecked a few documents. I reconstructed JOD Release Notes from version control logs.

Despite these irritants the new format is better. You can attach comments and download documents in ODT, PDF, Word, HTML and ZIP formats. If you find problems with my documents please leave notes.

I am not completely satisfied with some restrictions imposed by JOD 0.9.3.

1. JOD creates dictionaries in user home directories like `/home/user/jod/...` and assumes it has the rights to create, write, copy and erase JOD files and directories.
2. No blanks in file paths, i.e., `/home/i like blanks/but jod doesnt/...` will not work.
3. Dictionary paths must begin with a forward slash, i.e., `/home/is/ok/` but `~is/nada`
4. Volume sizing reports the smallest amount of free space on all mounted volumes and not the free space on the volume containing JOD directories. I just don't know how to do this on Linux.
5. jod.pdf has not been updated.

I am sure there are other problems and limitations that I have missed. For more see: Linux Notes. I will be releasing fixes and upgrades via Pacman and on the JOD page. Give JOD a whirl. It might change your J ways.

[1] *Google Documents* is no longer with us (October 1, 2020) and nobody misses it. Google has a long history of abandoning their creations. You're a fool to rely on them!

A Peculiar Book Club

Posted: 02 Jul 2011 20:23:48

While holed up in a rehabilitation hospital recovering from a nasty fall a coworker invited me to a noon-hour Bible study group. The group conveniently met in my rehab hospital so I rolled upstairs in my wheelchair and started attending their meetings. When I told my wife about this peculiar book club she thought I was suffering from post traumatic shock or had lost my mind. It's not that dramatic! I'm a hard-ass skeptic but I enjoy reading religious and mythical texts. I've plowed though vast swaths of the Bible, the Koran, the Bhagavad Gita, the Iliad, Beowulf, the Epic of Gilgamesh and the Egyptian Book of the Dead. I, like many atheists and agnostics, know far more about these works than believers might expect and consider them jewels of world literature. The Bible, the Koran and the Bhagavad Gita are still taken seriously while the greek gods of the Iliad and deities like Osiris in the Book of the Dead are no longer worshiped! Emerson said it best, *"The religion of one age is the literary entertainment of the next."* Once you accept the view that the Bible is literature you can relax and enjoy the fabulous tales it spins. If, on the other hand, you believe you are reading "inerrant scripture" then you're in for a world of logical hurt!



Jesus makes wine - click for consequences

When I was younger I argued with believers, mostly Mormons in Utah and Muslims in southern Iran and northern Ghana, that only allegorical interpretations of the Bible or Koran made sense. A literal view forces you into never-ending and embarrassing conflict with science and violent clashes with other believers. You would think after millennia of religious warfare we would catch on. You cannot simultaneously be a good Hindu and Christian. Something has to give; *they both cannot be true but they*

both can be false! Believers are aware of these problems but most pull back from logically analyzing their positions. They instinctively know where analysis leads: myth will not hold. In the long run Allah and Jehovah will share Osiris's and Apollo's fate.

This is not a view I will be advocating in my peculiar book club. I am content to let others enjoy their beliefs as long as they have no material impact on me! Atheists that constantly scream about "under god" in the pledge of allegiance or "in god we trust" on the dollar annoy me! Hypothetical entities are far less tiresome than shrieking banshees. If the term "God" irritates you substitute "Santa Claus." As for militant believers of all creeds: we have a problem! The separation of church and state is one of the deepest and greatest things about the United States. It protects all of us from our mutual idiocies. I have no problems with people erecting, *on their own dime*, plaques emblazoned with the Ten Commandments but it annoys me that religious institutions enjoy special tax status. Go to your mosques, churches and temples but pay your damn taxes!

Open Source Hilbert for the Kindle

Posted: 13 Jul 2011 04:02:12



David Hilbert

While searching for free Kindle books I found Project Gutenberg. Project Gutenberg offers free Kindle books but they also have something better! Would you believe LaTeX source code for some mathematical classics.

The best book I've found so far is an English translation of David Hilbert's *Foundations of Geometry*. Hilbert's *Foundations* exposed some flaws in the ancient treatment of Euclidean geometry and recast the subject with modern axioms. Because it's relatively easy to follow, compared to Hilbert's more recondite publications, this little book exercised disproportionate influence on 20$^{\text{th}}$ century mathematics. We still see its style aped, but rarely matched, in mathematics texts today.

I couldn't resist the temptation of compiling a mathematical classic so I eagerly downloaded the source and ran it through LaTeX. *Foundations* compiled without problems and generated a nice letter-sized PDF. Letter-size is fine but I was looking for free Kindle books! I decided to invest a little energy modifying the source to produce a Kindle version. Project Gutenberg makes it clear that we are free to modify

the source. Isn't open source wonderful!

Converting *Foundations* was simple. The main LaTeX file included 52 `*.png` illustrations with hard-coded widths in `\includegraphics` commands. I wrote a J script that converted all these fixed widths to relative `\textwidth`'s. This lets LaTeX automatically resize images for arbitrary page geometries. When compiled with Kindle page dimensions this fixed most of the illustrations. I had to tweak a few `wragfig`'s to better typeset images surrounded by text. The result is a very readable Kindle oriented PDF version of Hilbert's book. There are still a few problems. The Table of Contents is a plain `tabular` that does not wrap well and one table rolls off the right Kindle margin. Neither of these deficiencies seriously impair the readability of the text. If these defects annoy you download the Project Gutenberg source with my modifications and build your own version.

This little experiment convinced me that providing free classic books, in source code form, is a service to mankind. Not only does it allow you to "publish" classics on new media it also fundamentally changes your attitude toward books. Hilbert was one of the great mathematical geniuses of the 19th and 20th century. It's hard to suppress we are not worthy moments and maintain a sharp critical eye when reading his "printed" works. You don't get the same vibe when reading raw LaTeX. Source code puts you in a, *it's just another bug infested program*, frame of mind. You expect errors in code and you typically find them. This is exactly the hard-nosed attitude you need when reading mathematics.

More on Kindle Oriented LaTeX

Posted: 22 Jul 2011 16:09:01



I've been compiling LaTeX PDFs for the Kindle. If you like LaTeX typefaces, especially mathematical fonts, you'll love how they render on the Kindle. It's a good thing because *you won't like the Kindle's cramped page dimensions.* For simple flow-able text this isn't a big deal but for complex LaTeX documents it is!

There are two basic LaTeX $\Longrightarrow$ Kindle workflows.

1. Convert your LaTeX to HTML and then convert the HTML to mobi.
2. Compile your LaTeX for Kindle page dimensions.

For *simple math and figure free documents* mobi is the best choice because *it's a*

native Kindle format. You will be able to re-flow text and change font sizes on the fly. There are many LaTeX to HTML converters. This is a good summary of your options. You can also find a variety of HTML to mobi converters. I've used Auto Kindle; it's slow but produces decent results.

Compiling LaTeX for Kindle page dimensions is more work. First decide what works best for your document: *landscape* or *portrait*. Portrait is the Kindle default but I've found that landscape is better for math and figure rich documents. You can flip back and forth between landscape and portrait on the Kindle but it will not re-paginate PDFs. Of course with mobi this is no problemo!

After choosing a basic layout expunge all hard-coded lengths from your source `*.tex` files. Replace all fixed lengths with *relative page* lengths. For example, 4 inches might become `0.75\textwidth`. If you have hundreds of figures and images to adjust write a little program to replace fixed lengths. I did this while preparing a Kindle version of Hilbert's *Foundations of Geometry.*

The next hurdle to overcome is the Kindle's blase attitude about length units. LaTeX is extremely precise: an inch is an inch to six decimals. This is not the case on the Kindle! You will have to load your PDFs on the Kindle and inspect margins for text overflows. Be prepared for a few rounds of page dimension tweaking! For more details about preparing LaTeX source check out LaTeX Options for Kindle.

Finally, after you have compiled your PDF and loaded it on your Kindle, there are some Kindle options you should set to optimize your PDF reading experience. My next post will walk you through setting these options.

The following `*.tex` file loads packages that are useful for Kindle sizing. It also shows how to print out LaTeX dimensions with the printlen package.

```
% A simple test document that displays some packages and settings
% that are useful when compiling LaTeXe documents for the Kindle.
% Compile with pdflatex or xelatex.
%
% Tested on MikTeX 2.9 - July 22, 2011

\documentclass[12pt]{article}

% included graphics in immediate subdirectory
\usepackage{graphicx}
\graphicspath{{./image/}}

% extended coloring
\usepackage[usenames,dvipsnames]{color}

% hyperref link colors are chosen to display
```

```
% well on Kindle monochrome devices
\usepackage[colorlinks, linkcolor=OliveGreen, urlcolor=blue,
            pdfauthor={your name}, pdftitle={your title},
            pdfsubject={your subject},
            pdfcreator={MikTeX+LaTeXe with hyperref package},
            pdfkeywords={your,key,words},
            ]{hyperref}

\usepackage{breqn}      % automatic equation breaking
\usepackage{microtype}  % microtypography, reduces hyphenation

% portrait kindle page geometry space reserved for page numbers
\usepackage[papersize={3.6in,4.8in},
            hmargin=0.1in,vmargin={0.1in,0.255in}]{geometry}

% landscape geometry
%\usepackage[papersize={4.8in,3.6in},
%            hmargin={0.1in,0.18},vmargin={0.1in,0.255in}]{geometry}

% headers and footers
\usepackage{fancyhdr}
\pagestyle{fancy}
\fancyhead{}      % clear page header
\fancyfoot{}      % clear page footer

\setlength{\abovecaptionskip}{2pt} % space above captions
\setlength{\belowcaptionskip}{0pt} % space below captions

% space between last top float or first bottom float and the text
\setlength{\textfloatsep}{2pt}
\setlength{\floatsep}{2pt}  % space left between floats
\setlength{\intextsep}{2pt} % space left on top and bottom of an in-text float

% print LaTeX dimensions
\usepackage{printlen}

% reduces footer text separation adjusted for page numbers
\setlength{\footskip}{14pt}

% scales page number font size if document is 12pt -> page numbers 10 pt
\renewcommand*{\thepage}{\footnotesize\arabic{page}}

\begin{document}

The \verb|\textwidth| is \printlength{\textwidth} which is also
\uselengthunit{in}\printlength{\textwidth} and
\uselengthunit{mm}\printlength{\textwidth}.

\uselengthunit{pt}
The \verb|\textheight| is \printlength{\textheight} which is also
\uselengthunit{in}\printlength{\textheight} and
\uselengthunit{mm}\printlength{\textheight}.

\end{document}
```

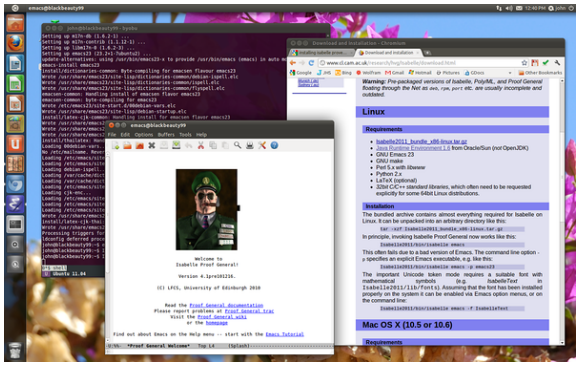
PIP News: Isabelle is Up!

Posted: 24 Jul 2011 19:59:02

Before my fall I launched a PIP (Perpetual Impossible Project). PIPs are long-range risky undertakings that cannot be finished. PIPs contradict and subvert the very notion of tightly controlled corporate style projects: hence their manifest appeal to recusants like myself.

I won't go into details about my particular PIP. Let's just say it captures every delusional notion I have ever entertained. Part of my project involved installing a few Proof Assistants. Proof assistants are programs that verify formal mathematical proofs. There are many proof assistant programs available. These programs are not mathematical magic bullets. They don't prove theorems and they don't make the job of "theorem proving" easier. To use a programming analogy: a traditional proof is like pseudo code while a formal proof is like an assembly language program. If you have ever written a nontrivial assembly language program you have some idea of the sheer effort required to produce a formal proof.

So, if formal proof only makes mathematics more difficult, why bother? This is like asking, so if implementing pseudo code only makes programming more difficult, why bother?



A screen shot of Isabelle 2011 on my Ubuntu machine. To install this program I had to convert a Windows machine to Ubuntu and install a host of Linux tools. Reaching this point represents a lot of water under the software bridge.

Debt Dolts Diddle and Drone!

Posted: 26 Jul 2011 03:42:21

Well well it turns out that when John Boehner isn't crying like a little girl he can deliver a speech. Tonight he smoked Obama like a fine cigar. I tried to flip around Obama's debt limit rant but ended up watching like a gawker at a hospital fire.

Any dolt with a fifth graders grasp of arithmetic can see the US is completely and irrevocably broke! We're in such a deep dark debt hole that we haven't seen sunlight for eons. Financial rickets is setting in; the soft bones of the republic will soon need Viagra.

But don't worry our elected pets have a plan! They're going to borrow and print more money so we can wire up our deep dark dept hole with overpriced union-made lamps connected to a green, made in China, energy source. If the government's math is right the lights should stay on long enough so we can all find our assholes and shove our heads up them!



US Fiscal Policy is the epitome of self-sodomy! I would laugh but we are way past funny.

Cowboys and Aliens and Obama

Posted: 31 Jul 2011 21:47:17



I give this better odds than "quantitative easing!"

Cowboys and Aliens (CB) had me at the title! Throwing Indiana Jones, James Bond and House's 13, (Olivia Wilde - the thinking man's smoking hot babe), into the mix merely turned a ridiculous premise into a cosmically absurd proposition. How could I resist?

There's no point issuing spoiler alerts, like a fine Obama speech, this schizophrenic masterpiece cannot be spoiled.

Yes I hear your little people objections, but bear with me. If we ***throw fun under the bus*** then CB is the cinematic equivalent of a typical Obama speech.

Let's review the evidence:

1. CB mashes together tired old western and science-fiction clichés without the slightest regard for antiquated notions like coherence and plausibility.
2. Obama (OB) mashes together tired old political clichés without the slightest regard for antiquated notions like effectiveness and reality.
3. CB conjures up big nasty bug-like aliens that literally blind the people with science so they can harvest their precious bodily fluids.
4. OB conjures up big nasty Tea Party Republicans that blind the people with arithmetic so they can balance the budget.
5. CB rails against the gold standard. See the movie
6. OB rails against the gold standard. See the Federal Reserve.
7. CB is confused.
8. OB ditto.

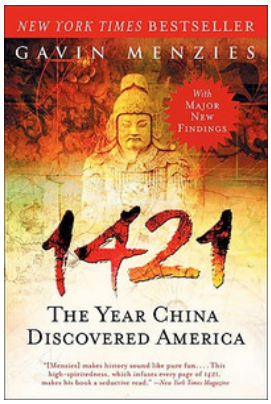
Analogies are never perfect and eventually the $CB = OB$ symmetry breaks down. In CB it all works out! After dispatching the aliens the good guys are better off. When we finally *dispatch* Obama I doubt any of us will be better off.



Jesus what a freak show. Hey it could be worse. I could be Obama's press secretary.

1421: The Crank History of Gavin Menzies

Posted: 11 Aug 2011 05:09:12



Crank history is big business and it's getting bigger. For reasons that infuriate skeptics there is a never-ending parade of pseudo-historians spouting rubbish that is eagerly devoured by a credulous pig ignorant public. Gavin Menzies' ludicrous tome, 1421: The Year China Discovered America, (also titled 1421: The Year China Discovered the World), is the finest example of delusional sophistry I've encountered since Graham Hancock's insane Finger Prints of the Gods.

About the only thing you can say for Gavin's fantasy is that, (unlike Hancock's *Finger Prints* – the "science" behind the movie 2012), 1421 is remotely plausible. It's to bad that *remotely plausible* does not make your case! Skeptics are hard-asses we demand rigorous and repeatedly verified evidence before deeming suppositions *possibly not crap*! By this standard Gavin falls way short. I'm not going to catalog Gavin's many errors, omissions and deceptions. That task has already been done by an army of critics. You can look here and here and here and here. In particular Bill Hartz's exhaustive demolition is a bracing tonic for Gavin's numbing elixir.

To get the gist of Gavin's arguments let's look at one of his claims. On page 241, (paperback edition), Gavin first mentions the *Sacramento Junk*. The Sacramento Junk is *allegedly* the remains of a large wooden ship entombed under a sand bank in the Sacramento river of California. Ok, so far so good! We have a wooden wreck in a river. The Chinese junks Gavin imagined sailing around the world had unique characteristics that would easily distinguish them from plain old Pacific west coast wrecks. For example:

1. They had 15th century teak hulls.
2. Metal bins bolted hull compartments together.
3. They used silk sails.
4. They often carried porcelain, seeds and trade goods.

If the Sacramento Junk is the remains of a 15th century junk it looks like identifying it would be an archaeological no-brainer! All we have to do is sample the site, collect some 15th century teak wood for carbon dating, and bingo the case for the Chinese reaching the west coast of the America's before Columbus is looking promising. Gavin describes drilling into the sand bank, extracting some wood and carbon dating it to

1410. *Isn't science wonderful?*

Here are a few questions.

5. Where the hell is the Sacramento Junk?

Your impressive end-notes mention collecting samples in 2002 and 2003. I believe GPS was up and running. Could we have exact coordinates please?

6. Was the wood teak?

If you're looking for teak ships you might want to consult a wood expert. Teak, even old rotting teak, is easily identified. Look into it.

7. How many samples were carbon dated?
8. Where the hell are the lab reports, sample photographs and other documents?
9. Did you notify the historic relic Nazi's of your amazing Chinese wreck?

You almost need a permit to weed your own damn garden in California for fear of disturbing native artifacts yet somehow you pillaged an ultra-historic wreck without the *save our culture* weenies whining — yeah I once lived in California. With so many simple facts omitted you wonder if the Sacramento Junk is a figment of Gavin's lurid imagination.

Gavin repeats this pattern of building a case for the *Chinese Stopped Here* over and over again and, *without exception*, always omits basic information that would lend credence to his claims. *You need to set your bullshit detector on maximum when sailing with Gavin!*

Common Table Expression (CTE) SQLServer Queries with J

Posted: 13 Aug 2011 22:01:10

I've been blogging long enough to observe that your *awesome posts are often ignored* while your little "one-offs" sometimes strike hit gold. This is particularly true for "code example" posts. When I'm trolling for code — the geek equivalent of trolling for babes — I don't want to read about the author's programming philosophy or what the hell he thinks about the idiot in the White House. **Just show me the code and shut up!**

So, taking my own advice, the following is an example of a SQLSever Common Table Expression (CTE) query.

```
WITH cte1
     AS (SELECT c.obj_id                              AS obj_id,
                a.created                             AS creation_date,
                Datediff(DAY, a.created, Getdate()) AS day_cnt
         FROM   [HIST].[dbo].[History] a
                JOIN [HIST].[dbo].[HistorySummary] b
                  ON a.rowid = b.rowid
                JOIN [HIST].[dbo].[ObjectNames] c
                  ON c.obj_name = b.obj_name),
     cte2
     AS (SELECT cte1.obj_id AS obj_id,
                CASE
                  WHEN cte1.day_cnt <= 30 THEN 1
                  ELSE 0
                END         AS d0,
                CASE
                  WHEN ( cte1.day_cnt > 30 )
                       AND ( cte1.day_cnt <= 60 ) THEN 1
                  ELSE 0
                END         AS d1,
                CASE
                  WHEN ( cte1.day_cnt > 60 )
                       AND ( cte1.day_cnt <= 90 ) THEN 1
                  ELSE 0
                END         AS d2,
                CASE
                  WHEN ( cte1.day_cnt > 90 ) THEN 1
                  ELSE 0
                END         AS d3
         FROM   cte1)
SELECT obj_id,
       SUM(d0) AS OneMonth,
       SUM(d1) AS TwoMonths,
       SUM(d2) AS ThreeMonths,
       SUM(d3) AS Overdue
FROM   cte2
GROUP  BY obj_id
```

CTE queries *essentially* create temporary virtual tables during query execution. They are similar to nested SQL queries but are easier to code, more general, (see recursive CTE queries), and often perform better than their convoluted equivalents. This example creates two virtual tables `cte1` and `cte2` that are then used to compute a quick histogram.

You can call CTE queries with the J ODBC interface. The following assumes a SQLServer ODBC connection dsn history.

```
NB. odbc interface
require 'dd'

NB. read CTE query
HistoryAgeSQL=. read 'c:/temp/HistoryAge.sql'

NB. connect sqlserver database
ch =. ddcon 'dsn=history'

NB. select with CTE query
sh =. HistoryAgeSQL ddsel ch

NB. fetch results
data=. ddfet sh,_1
```

As a final note it's worth comparing the SQL CTE histogram code with J equivalents. The two following J verbs taken from the J wiki, (here and here), compute histograms.

```
NB. computes histograms uses right open intervals
histogram=:<:@(#/.~)@(i.@#@[ , I.)

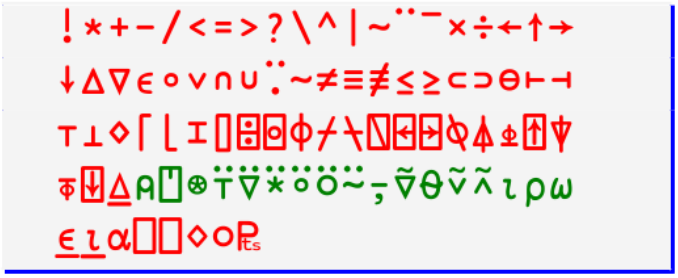
NB. variation on (histogram) uses left open intervals
histogram2=:<:@(#/.~)@(i.@>:@#@[ , |.@[ (#@[ - I.) ])
```

They scale to tens of millions of data points; returning results in a few seconds on my laptop. The SQL CTE, shown above, takes about three seconds running on 180,000 row tables on my employer's full warp servers. If I could convince the masses to adopt languages like J a large part of my job would disappear. Fortunately, *the world is hostile to terse elegance!*

Typesetting UTF-8 APL code with the LaTeX lstlisting package

Posted: 16 Aug 2011 02:27:57

Typesetting APL source code has always been a pain in the ass! In the dark ages, (the 1970s), you had to fiddle with APL type-balls and live without luxuries like *lower case letters*. With the advent of general outline fonts it became *technically possible* to render APL glyphs on standard display devices provided you:



UTF-8 APL characters within a LaTeX `lstlisting` environment. Click for `*.tex` source code.

1. Designed your own APL font.
2. Mapped the *atomic vector* of your APL to whatever encoding your font demanded.
3. Wrote WSFULL's of junk transliteration functions to dump your APL objects as font encoded text.

It's a testament to either the talent, or pig headedness of APL programmers, that many actually did this. We all hated it! We still hate it! But, like an abused spouse, we kept going back for more. *It's our fault; if we loved APL more it would stop hitting us!*

When Unicode appeared APL'ers cheered — our long ASCII nightmare was ending. The more politically astute worked to include the APL characters in the Unicode standard. Hey if Klingon is there why not APL? Everyone thought it was just a matter of time until APL vendors abandoned their nonstandard atomic vectors and fully embraced Unicode. With a few notable exceptions we are still waiting. *While we wait the problem of typesetting APL source code festers.*

My preferred source code listing tool is the LaTeX lstlisting package. lstlisting works well for standard ANSI source code. I use it for J, C#, SQL, C, XML, Ocaml, Mathematica, F#, shell scripts and LaTeX source code, i.e. everything except APL! lstlisting is an eight bit package; it will not handle arbitrary Unicode out of the box. I didn't know how to get around this so I handled APL by enclosing UTF-8 APL text in plain `\begin{verbatim}` … `\end{verbatim}` environments. This works for XeLaTeX and LuaLaTeX but you lose all the lstlisting goodies. Then I saw an interesting tex.stackexchange.com posting about The 'listings' package and UTF-8. One solution to the post's "French ligature problem" showed how to force Unicode down lstlisting's throat. I wondered if the same method would work for APL. It turns out that it does!

If you insert the following snippet of TeX code in your document preamble LuaLaTeX

and XeLaTeX will properly process UTF-8 APL text in lstlisting environments. You will need to download and install the APL385 Unicode font if it's not on your system. **A test LaTeX document illustrating this hack is available here. The compiled PDF is available here.**

```
% set lstlisting to accept UTF-8 APL text
\makeatletter
\lst@InputCatcodes
\def\lst@DefEC{%
 \lst@CCECUse \lst@ProcessLetter
  ^^80^^81^^82^^83^^84^^85^^86^^87^^88^^89^^8a^^8b^^8c^^8d^^8e^^8f%
  ^^90^^91^^92^^93^^94^^95^^96^^97^^98^^99^^9a^^9b^^9c^^9d^^9e^^9f%
  ^^a0^^a1^^a2^^a3^^a4^^a5^^a6^^a7^^a8^^a9^^aa^^ab^^ac^^ad^^ae^^af%
  ^^b0^^b1^^b2^^b3^^b4^^b5^^b6^^b7^^b8^^b9^^ba^^bb^^bc^^bd^^be^^bf%
  ^^c0^^c1^^c2^^c3^^c4^^c5^^c6^^c7^^c8^^c9^^ca^^cb^^cc^^cd^^ce^^cf%
  ^^d0^^d1^^d2^^d3^^d4^^d5^^d6^^d7^^d8^^d9^^da^^db^^dc^^dd^^de^^df%
  ^^e0^^e1^^e2^^e3^^e4^^e5^^e6^^e7^^e8^^e9^^ea^^eb^^ec^^ed^^ee^^ef%
  ^^f0^^f1^^f2^^f3^^f4^^f5^^f6^^f7^^f8^^f9^^fa^^fb^^fc^^fd^^fe^^ff%
  ^^^^20ac^^^^0153^^^^0152%
  ^^^^20a7^^^^2190^^^^2191^^^^2192^^^^2193^^^^2206^^^^2207^^^^220a%
  ^^^^2218^^^^2228^^^^2229^^^^222a^^^^2235^^^^223c^^^^2260^^^^2261%
  ^^^^2262^^^^2264^^^^2265^^^^2282^^^^2283^^^^2296^^^^22a2^^^^22a3%
  ^^^^22a4^^^^22a5^^^^22c4^^^^2308^^^^230a^^^^2336^^^^2337^^^^2339%
  ^^^^233b^^^^233d^^^^233f^^^^2340^^^^2342^^^^2347^^^^2348^^^^2349%
  ^^^^234b^^^^234e^^^^2350^^^^2352^^^^2355^^^^2357^^^^2359^^^^235d%
  ^^^^235e^^^^235f^^^^2361^^^^2362^^^^2363^^^^2364^^^^2365^^^^2368%
  ^^^^236a^^^^236b^^^^236c^^^^2371^^^^2372^^^^2373^^^^2374^^^^2375%
  ^^^^2377^^^^2378^^^^237a^^^^2395^^^^25af^^^^25ca^^^^25cb%
  ^^00}
\lst@RestoreCatcodes
\makeatother
```

New Conan not as Philosophical as Old Conan

Posted: 19 Sep 2011 01:48:35

Bad news philosophers, our preeminent social critic, our font of wisdom, our modern Socrates has succumbed to the malignant Hollywood poisons of reality TV, celebrity whoring, financial ennui and hopeless incompetent governance. Given the forces arrayed against our philosopher king only Vegas bookies on crack would favor his chances. I knew all this when I sat down to view the latest Conan the Barbarian movie but I let hope trump reason — sound familiar. If I wasn't a mainly-manly-man

I would cry for no longer will we ponder religious dissertations like:

> *Crom! I have never prayed to you before. I have no tongue for it. No one, not even you, will remember if we were good men or bad. Why we fought, or why we died. All that matters is that today, two stood against many. That's what's important! Valor pleases you, Crom; so grant me this one request. Grant me revenge!* ***And if you do not listen, then to hell with you!***

Or learn about what's good in life:



Click for what's good in Conan's life

My friends that golden Apollonic age is past! Now we must content ourselves with Eat, Pray, Love travesties like:

> *I live, I love, I slay, I am content.*

When did Conan the Barbarian decide to come out?

Iranian Regime Justice is pathetic Sharia Savagery.

Posted: 30 Sep 2011 16:17:02



Yousef Nadarkhani

I rarely comment on the "news" but the planned execution of Yousef Nadarkhani for the make-believe crime of Islamic apostasy has really pissed me off. Once again the Iranian branch of the "religion of peace" shows its primitive, ass-backwards, subhuman side to a stunned world that finds it hard to believe that *changing your mind about fictitious religious nonsense is punishable by death!* It's rubbish like this that turned me into a hardcore atheist. If this is Sharia then Sharia is shit!

Let's be perfectly clear. I am not condemning Iranians. I am married to an Iranian! I have many lovely Iranian in-laws, and not a single one of them approves of this

atavistic assinity. Like civilized people everywhere their feelings alternate between disgust, shame and rage. While I forgive the Iranian people I condemn the Iranian regime. The government courts that imposed this sentence are pathetic throwbacks. They don't belong in the modern world and one day they won't.

Savages always assume they can bully and terrorize people forever. At first people are easily cowed but even the most egregious assaults fail to deter in the long run. The next time the Iranian masses take to the streets the regime will fall and with the exception of a few *islaminals* nobody is going to miss it!

P.S. Before you go all brave fatwa waving kafir killing jihad warrior on me keep in mind that Missouri is a concealed carry state.

I lose another battle with Gravity

Posted: 09 Nov 2011 17:08:05



24 Hour Fitness

Yesterday I found myself back in Saint Luke's emergency department being asked what day it was. An hour before I had stepped into the shower at 24 Hour Fitness over on Clayton, I had just finished my noon hour workout. I try to force myself to the gym at least four times a week. It's one of my many delusional projects. I've always wanted the lithe, lean muscular body of Spider Man but since I cannot cling to walls I've never managed the trick. As I stepped into the shower I suddenly felt sick to my stomach, it was a good pre-vomit feeling, I briefly thought about sitting down but then I stepped into the hot water and then … the next thing I remember … I was lying on my back on the shower floor with a few nude guys looking down at me. A guy off to my side said, "you were out for bit," another added, "you hit your head when you fell." Apparently, if the news could be believed, I had fallen out of the shower stall on my back. I couldn't remember a thing. *I had passed out in the freaking shower!* My first thought, "oh goody one concussion coming up," I oddly didn't care about my naked body inelegantly sprawled over harsh shower floor tiles for all to admire. See you can get over gym shower shyness.

Of course this alarmed the gym staff, we live in a litigious, sue on the drop of — in this case my body — age. They dutifully took notes and advised me to ride the ambulance to emergency. "It wouldn't be a good idea to drive away and pass out on the highway." They had me there! The EMT guys arrived, strapped me up to an

electrocardiogram, started an IV and then hauled my ass over to Saint Luke's where I am almost on first name basis with the staff. One of the nurses said, "I remember you, weren't you the guy that tore his quadriceps?" I enjoy being recognized if only it was somewhere other than emergency. Emergency staff plugged me into electric doo-dads, drew my blood, measured my oxygen levels measured and shined lights into my eyes. An earnest and very nice resident carefully interviewed me and declared I had experienced a syncopal episode. Google it, it doesn't sound good, I may be a dead man walking or I could have just overdone it at the gym. Time will certainly tell.

Old white guys look at the sky!

Posted: 20 Nov 2011 22:35:44

Last Friday I joined the Saint Louis Astronomical Society (SLAS). In the last twenty years I have been a member of two chapters of the Royal Astronomical Society of Canada: Kingston and Ottawa, the Forth Worth Astronomical Society in Texas, the Minnesota Astronomical Society in Saint Paul and the Orange County Astronomers in southern California. No matter where I go I can see the sky and I can find people who share my interest in it. The SLAS is very similar to other clubs. If you were to walk into a typical astronomy club meeting your overwhelming impression would be: *old white guys like looking at the sky!*

The undeniable old whiteness of astronomy clubs is a concern because it tells you something about the health of our culture. If you think I am pulling your leg or being sarcastic consider the following.

1. **Club members have strong *noncommercial* or *unprofessional* interests in science.** Most are not professional astronomers or even scientists. Few derive any income from their interests in astronomy and many spend insane amounts of time and money building telescopes, observing the sky and keeping up with findings in astronomy and related sciences. What's the point? Wouldn't these people be better off devoting the time they "waste" on astronomy to more productive pursuits? Mind you the same applies to *unprofessional* artists and hobbyists of all types that "waste" comparable amounts of time on their own "pointless" pursuits. Astronomy club members love what they do, and, in my experience, it's a constant and enduring love that never dims or goes away.

Anyone with a real passion knows what I'm talking about.

2. **Astronomy club members respect, understand and value scientific arguments.** We are constantly reading depressing assessments of the public's dismal understanding of science. For example, 44% of the US public accepts that, "God created man pretty much in his present form at one time within the last 10,000 years." Only 5% of scientists accept this nonsense and even 5% seems to high for my skeptical ass. Astronomy club members will poll more like scientists than the general public on this question. A society that depends on science yet harbors ignorant masses that do not grasp or appreciate basic scientific findings will not hold.

3. **Club members welcome anyone with an interest in astronomy.** I have belonged to half a dozen astronomy clubs and without exception they welcome anyone with an interest in the subject. I have never seen somebody turned away, or discouraged, for reasons of race, age, sex, sexual orientation, political or religious affiliations, or social class. Astronomy clubs are about as egalitarian as it gets! It gets better. Most clubs nurture and cherish the youngsters in their midst's. This is partly because we don't see a lot of youngsters and by youngster I mean anyone under thirty!

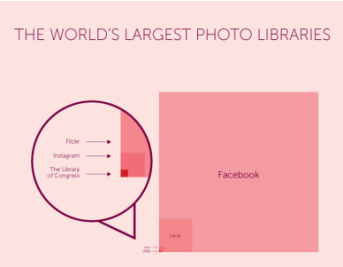
So why are astronomy clubs in North America old and white? Do people think you need expensive telescopes and other pricey gadgets to enjoy amateur astronomy? I've looked at the sky for decades primarily with binoculars. They are still the best way to learn the sky. Has the public's interest in science declined during the last forty years? Is elementary science education worse than it was when I was a child? Is the XBox'ed and Avatar'ed generation bored with looking at faint smudges in the sky? *Finally, do we smell?* I don't know why astronomy clubs are old and white but I do know that I will probably be associated with one until the day I die.

Revenge of the PhD Camera

Posted: 05 Dec 2011 05:01:51

Cameras come in two flavors. There are expensive *serious* cameras used by serious photographers to take serious photographs and then there are PhD, (**P**ush **h**ere **D**ummy), cameras. Serious cameras meet the highest technical standards, lenses are diffraction limited, chromatic aberration approaches zero, pixel counts match Nyquist limits, ISO's exceed retinal sensitivity, auto-focus is instantaneous, color spaces are wide, calibrated and range into the infra-red and ultra-violet. *PhD cameras don't*

go there! PhD cameras provide a button for dummies to push. Over the years I've ying'ed and yang'ed from serious to PhD cameras. It's not that I cannot make up my mind. Camera choice is another eternal struggle sort of like that squabble between good and evil or light and regular beers.



Worlds largest photo libraries



Hipstamatic water meter

When I'm on a serious photography kick I put time, expertise and money into my pictures. For me serious photography is exhausting. I seek out worthy subjects, wait for the *right light*, agonize over composition, experiment with lenses, tweak *f*-stops, adjust shutter speeds and take as many exposures as light and time allow. Then the post shutter ordeal begins. Digital imaging processing makes anything possible. You can take your exposures and like some mad photo-shopping Rumpelstiltskin spin straw into gold. But, as in the fairy tale, there is a high price, perfect images will suck years out of you. Photographers often talk about *workflow* and they aren't kidding. When I start tweaking my workflow I know I'm reaching the end of my serious rope. Photography is one of my hobbies and I never ruin hobbies by turning them into jobs!



Mixing up cell phone color channels

Eventually I snap out of it and resume PhD'ing. Unlike serious photography PhD'ing is effortless and fun. It's always been fun, remember Brownies and Instamatics, but this *is the golden age of PhD photography!* In the last decade PhD cameras have evolved and mutated from cheap plastic boxes filled with grainy high-speed ISO film to sophisticated little internet photo-shopping engines that ride around in our pockets as cell phones. I don't even know why they are called cell phones. My iPhone takes hundreds of images for every *phone call* it

processes. It's really more of an iCamera+iBrowser that can, on rare occasions, be used as a phone. Based on surveys of web image sites I am not the only iCamera user. PhD photography is growing faster than the national debt.

Explosive growth attracts armies of sinners and saints. Every two-bit whore chasing a buck is now writing image processing software for cell phones. In the last two years we've seen apps that stitch panoramas on the fly, apply cheesy photo-shop effects and automatically create HDR images by blending two or more exposures. As Sturgeon's law predicts most of these apps are crap but that's not a problem for PhD photography. The goal is to offer a fun button for dummies. My favorite PhD app is a great little toy called Hipstamatic. Hipstamatic simulates crappy old PhD film cameras loaded with expired film. You can choose a lens, a film and a flash or you can just shake your iPhone and let it randomly select these parameters. Shake and shoot; it's the revenge of the PhD camera.

The Instagram Metadata Massacre

Posted: 14 Dec 2011 23:19:45


Instagram Fingers

I've been playing around with the iPhone app Instagram. I decided to give this freebie a try after a gaggle of soulless self promoting Apple marketing zombies declared it "imaging app of the year." Instagram, like Hipstamatic, (which incidentally stopped working after the last update), crops iPhone images to squares, applies hokey filters and then offers you the opportunity to "share" or print your masterpieces on related websites. Apparently Instagram is already one of the words largest online photo libraries. Considering Instagram images are filtered iPhone shots it's almost certainly *the world's second largest online collection of crappy throw-away shots. Facebook is the largest if you're wondering!*

You probably sense that I am not drinking the Instagram cool-aid. Instagram is a fine fun freebie but it strips EXIF data from the images it drops in the iPhone camera roll. This is the second iPhone EXIF exterminator I have encountered. I have this thing about EXIF data; it annoys me when software massacres it. Here's a little poem:

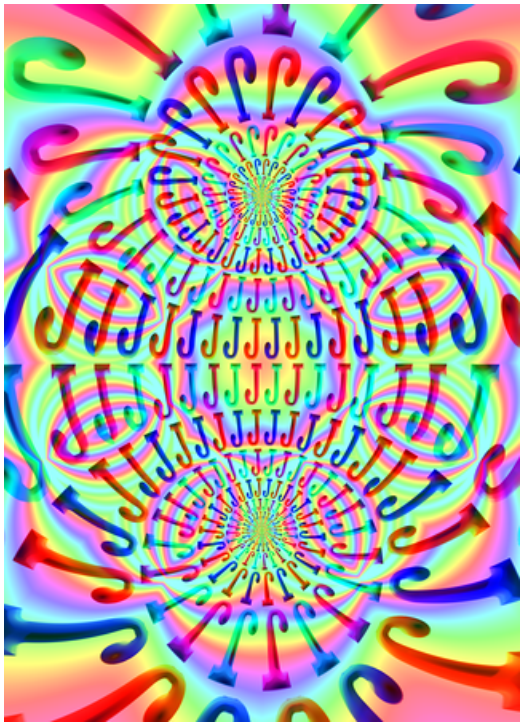
> *Exterminate EXIF - **NOT***
> *Let it be*
> *Set your fricking EXIF free*
> ***Alas, with Instagram, it's not to be!***

Blogging off for Christmas

Posted: 23 Dec 2011 22:02:36

I am celebrating Christmas by combining two of my favorite things: the programming language J and the superb image editor *Picture Window Pro*. The other day the good folks at Digital Light and Color announced 64 bit versions of Picture Window Pro. I was delighted. PWP is my favorite image editor. It's had 16 bit image support since the cows came home and it simply nukes Photoshop when it comes to flat-out crunching performance. I was afraid that the good old-fashioned C programmers that had crafted this program were retiring: perhaps overwhelmed by a sea of mediocre consumer oriented overpriced sludge — *yes Photoshop Elements I'm talking about you!* Fortunately it's not to be! 64 bit multi-core versions of PWP will dramatically extend the lifetime of PWP for this loyal customer.

Speaking of superb good old-fashioned C programs I must give a shout out to J. I've been busy preparing a talk for the up coming J conference so J has been on my mind more than usual. Still all work and no play makes J a dull boy! This morning I rooted around in the J bin directories, sucked some J icons into PWP, and then twiddled transformations to generate some Christmas J monitor wallpaper: download and decorate at will!

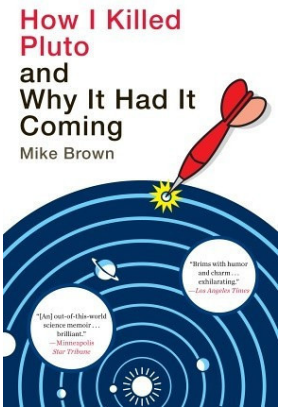


J Christmas Wallpaper

2012

Mike Brown Punts Pluto

Posted: 29 Jan 2012 07:12:40



As a longtime amateur astronomer I appreciate good science writing and Mike Brown's little book How I Killed Pluto and Why It Had It Coming is a wonderful example of the genre. When Pluto was tossed from the pantheon of planets I didn't care. I knew that in previous centuries, when asteroids were first discovered, that they were briefly counted as planets. Eventually asteroids lost their planet status; there were too many of them and they were all dinky compared to real planets. Brown notes this bit of astronomical history by pointing to 19th century textbooks with high planet counts. The same holds for Pluto, Eris, Sedna, Quaoar and all the other known baby ice balls that make up the Kuiper belt. Real planets are massive enough to clear their orbits of crap. By this standard Mars barely qualifies and Pluto does not.

The emotional hysterics that greeted Pluto's demise are still playing out. Some reviews posted here castigate Brown in terms rightly applied to suicide bombers and Obama voters. When Pluto bulks up and starts bullying its neighbors like all manly planets do we'll talk until then I'd advise the puerile Pluto partisans to plumb up their pie holes otherwise we'll have to toss you in the crank bin with the creationists and cold fusion nitwits.

cross posted on Goodreads.

WordPress to LaTeXwith Pandoc and J: Prerequisites (1)

Posted: 12 Feb 2012 01:33:11

There are no quick WordPress to LaTeX fixes Over the next three posts I will describe how to convert WordPress's export XML to LaTeX source code.

I know that many of you are looking for a quick WordPress to LaTeX fix; unfortunately there are no quick fixes. The two formats come from different worlds and are used in different ways. Producing useful LaTeX source from WordPress export XML will

require manual edits. My goal here is to minimize manual edits, produce high quality LaTeX source and to *outline* what you will have to contend with. To get an idea of what you can expect download the LaTeX compiled version of this post.

Visual and Logical composition WordPress and LaTeX are examples of the two basic approaches, *visual* and *logical,* taken by writing software. Visual systems value appearance. It matters what things look like and no effort is spared to get the right look. Logical systems value content. What's said is far more important than what it looks like. Logical systems impose order and structure and typically defer visual elements. As you might expect there is no such thing as a pure visual or logical writing system. Successful systems use both approaches to a greater or lesser degree. Composing WordPress blog posts is roughly 35% visual and 65% logical.[2] LaTeX composition is about 10% visual and 90% logical. The numbers do not line up; there is a basic mismatch here.

Many format X to LaTeX converters tackle this mismatch by attempting to maintain visual fidelity. This is a catastrophic error that renders the entire conversion useless. Here's a hint. If you're using a predominantly logical system like LaTeX you don't give a rodent's posterior about visual fidelity. This method dispenses with all but the most basic of visual elements. No attempt is made to preserve fonts, type sizes, image scale, justification, hyphenation, text color and so forth. The goal is to produce working LaTeX source that can be transformed to whatever final layout the author desires.

Prerequisite Software I use two programs to transform WordPress export XML to LaTeX the J programming language and John MacFarlane's Pandoc. Pandoc is an excellent text mark-up to mark-up converter. It wisely avoids attempting to convert entire complex documents and focuses on getting *parts* of documents right. It does a particularly good job of converting HTML to LaTeX which is a *crucial* part of this process. I use Pandoc to transform the HTML embedded in WordPress export XML `CDATA` elements to `*.tex` files and I use J to preprocess and post process Pandoc inputs and outputs and to stitch everything together into a set of LaTeX ready files.

Download Pandoc from here. I use the Windows command line version. There are Linux and Mac versions as well. Download J from here. The easiest J install is the 32 bit Windows version. Other versions require additional steps to configure and deploy.

[2]Actually this is not bad. Page layout systems are far worse. A typical layout system might be 90% visual and 10% logical making layout systems polar opposites of LaTeX.

If you are already a J user there is no need to install a particular system but you will need:

1. The task library `require 'task'`
2. The utility program `wget.exe`

Both of these components are typically part of the J distribution.

Install and check prerequisites To continue download and install Pandoc and J and run the following tests; if you succeed you're system is ready for WordPress to LaTeX with Pandoc and J: LaTeX Directories (2).

Pandoc Test: Download the test file: `cdata.html` and run Pandoc from the command line:

```
pandoc -o cdata.tex cdata.html
```

`cdata.html` is an example of the HTML code you find in WordPress export XML `CDATA` elements. *Note:* required files are available on GitHub here.

J Test: Start a J session and enter the following commands:

```
require 'task'
shell  'wget --help'
site=. 'http://conceptcontrol.smugmug.com/photos/'
shell  'wget ',site,'i-mNK4RHL/0/L/i-mNK4RHL-L.png'
```

If the shell command is properly loaded and `wget.exe` is found you will see help text. The second shell command downloads an image file. Downloading post images is part of the overall conversion process.

WordPress to LaTeX with Pandoc and J: LaTeX Directories (2)

Posted: 19 Feb 2012 00:32:46

In this post I will describe the LaTeX directory structure the J script `TeXfrWpxml.ijs` is expecting. To convert WordPress export XML to LaTeX with this script you will have to set up similar directories.

LaTeX documents are built from `*.tex`[3] source code files. This makes LaTeX more like a compiled programming language than a word processing program. There are advantages and disadvantages to the LaTeX way. In LaTeX's favor, the system is enormously adaptable, versatile and powerful. There is very little that LaTeX/TeX and associates cannot do. Unfortunately, "with great power comes great responsibility." LaTeX is demanding! You have to study LaTeX like any other programming language. It's not for everyone but for experienced users it's the best way to produce documents with the highest typographic standards.

LaTeX directory structure To use LaTeX efficiently it's wise to pick a document directory structure and *stick with it.* I use a simple directory layout. Each document has a root directory. The root directory used by `TeXfrWpxml.ijs` is:

Windows	`c:/pd/blog/wp2latex`
Linux	`/home/john/pd/blog/wp2latex`

I put my document specific `*.tex`, `*.bib`, `*.sty` and other LaTeX/TeX files in the root. To handle graphics I create an immediate subdirectory called `inclusions`.

```
c:/pd/blog/wp2latex/inclusions
```

The inclusions directory holds the document's `*.png`, `*.jpg`, `*.pdf`, `*.eps` and other graphics files. To reference files in the inclusions directory with the standard LaTeX `graphicx` package insert

```
\usepackage{color,graphicx,subfigure,sidecap}
\graphicspath{{./inclusions/}}
```

in your preamble. Finally, to track document changes I create a GIT repository in the root directory.

```
c:/pd/blog/wp2latex/.git
```

Self contained directories I take care to keep my document directories *self-contained*. Zipping up the root and inclusions directory collects *all* the document's files. This means that I sometimes have to copy files that are used in more than one document. Many LaTeX users maintain a common directory for such files but I've found that common directories complicate moving documents around. You're always

[3] LaTeX uses many other file types but key files are usually `*.tex` files.

forgetting something in the damn common directory or you are copying a buttload of mostly irrelevant files from one big confusing common directory to another.

TeXfrWpxml.ijs files The `TeXfrWpxml.ijs` script searches for these files in the root directory.

`bm.tex`	Main LaTeX root file
`bmamble.tex`	LaTeX preamble

`bm.tex` references `bmtitlepage.tex`. I prefer a separate title page file; simply comment out this file if you create titles in other ways. **The zip file `wp2latex.zip` contains a test directory in the format expected by `TeXfrWpxml.ijs`.** It also has a subset of my blog posts already converted to LaTeX. To get ready for WordPress to LaTeX with Pandoc and J: Using TeXfrWpxml.ijs (3) download `wp2latex.zip` and attempt to compile `bm.tex`. You might have to download a number of LaTeX packages. Once you have successfully compiled `bm.tex` you are ready for the next step.

WordPress to LaTeX with Pandoc and J: Using `TeXfrWpxml.ijs` (3)

Posted: 26 Feb 2012 02:38:53

In this post I will describe how to use the J script `TeXfrWpxml.ijs` to generate LaTeX source from WordPress export XML. I am assuming you have worked through (Part 1) and (Part 2) and have:

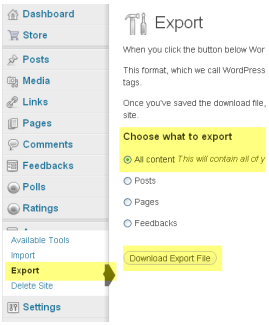


WordPress to LaTeX

1. Successfully installed and tested Pandoc.
2. Installed and tested a version of J.
3. Set up appropriate directories (Part 2).
4. Know how to use LaTeX.

Item #4 is a *big* if. Inexperienced LaTeX users will probably not enjoy a lot of success with this procedure as the source generated by `TeXfrWpxml.ijs` requires manual edits to produce good results. However, if you're not a LaTeX guru, do not get discouraged. It's not difficult to create blog documents like `bm.pdf`.

Step 1: download WordPress Export XML How to download WordPress export XML is described here. Basically you go to your blog's dashboard, select **Tools**, choose **Export** and select the **All content** option.



Tools > Export > All Content

When you press the **Download Export File** button your browser will download a single XML file that contains all your posts and comments. Remember where you save this file. I put my export XML here.

```
c:/pd/blog/wordpress/analyzethedatanotthedrivel.wordpress.xml
```

Step 2: download `TeXfrWpxml.ijs` Download `TeXfrWpxml.ijs` and remember where you save it. I put this script here.

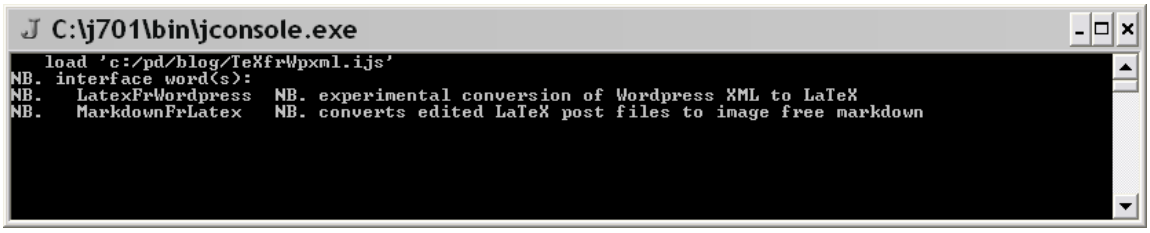
```
c:/pd/blog/TeXfrWpxml.ijs
```

Step 3: start J and load `TeXfrWpxml.ijs` `TeXfrWpxml.ijs` was generated from JOD dictionaries. With JOD it's easy to capture root word dependencies and produce complete standalone scripts. `TeXfrWpxml.ijs` needs only the standard J load profile to run. It does not require any libraries or external references and should run on all Windows and Linux versions of J after 6.02. Loading this script is a simple matter of executing:

```
load 'c:/pd/blog/TeXfrWpxml.ijs'
```

The following shows this script running in a J 7.01 console. The console is the most stripped down J runtime.

Step 4: review directories and necessary LaTeX files The conversion script assumes proper directories are available up: see Part 2. The first time you run `TeXfrWpxml.ijs` it's a good idea to check that the directories and files the script is



expecting are the ones you want to process. You can verify the settings by displaying `TEXFRWPDIR`, `TEXINCLUSIONS`, `TEXROOTFILE` and `TEXPREAMBLE`.

```
  TEXPREAMBLE
bmamble.tex
  TEXFRWPDIR
c:/pd/blog/wp2latex/
  TEXINCLUSIONS
inclusions
  TEXROOTFILE
bm.tex
  TEXPREAMBLE
bmamble.tex
```

If all these directories and files exist go to step (5).

Step 5: make sure you are online The first time you run the converter it will attempt to download all the images referenced in your blog. This is where `wget.exe` gets executed. Obviously to download anything you must be connected to the Internet.

Step 6: run `LatexFrWordpress` Run the verb `LatexFrWordpress`. The monadic version of this verb takes a single argument: the complete path and file name of the export XML file you downloaded in step (1).

```
xml=: 'c:/pd/blog/wordpress/analyzethedatanotthedrivel.wordpress.xml'

LatexFrWordpress xml
```

As the verb runs you will see output like:

```
   LatexFrWordpress xml
Whats In it for Facebook?
downloading: c:/pd/blog/wp2latex/inclusions/demotivational-posters-facebook-you.jpg
1 downloaded; 0 not downloaded; 0 skipped
Fake Programming
downloading: c:/pd/blog/wp2latex/inclusions/672169130_vajvn-M.png
1 downloaded; 0 not downloaded; 0 skipped
Laws or Suggestions
downloading: c:/pd/blog/wp2latex/inclusions/i-B5mfdRF-M.jpg
1 downloaded; 0 not downloaded; 0 skipped
Lens Lust

... many lines omitted ...

downloading: c:/pd/blog/wp2latex/inclusions/i-mNK4RHL-M.png
1 downloaded; 0 not downloaded; 0 skipped
WordPress to LaTeX with Pandoc and J: LaTeX Directories (Part 2)
0 downloaded; 0 not downloaded; 1 skipped
+-++
|1||
+-++
```

When the verb terminates you should have a directory `c:/pd/blog/wp2latex` full of `*.tex` files: one file for each blog post. Now the hard work starts.

Step 7: editing LaTeX posts The conversion from WordPress XML to LaTeX produces files that require manual edits. The more images, video, tables and other elements in your posts the more demanding these edits will become. My blog has about one image per post. Most of these images are wrapped by text. LaTeX has a mind of its own when it comes to *floating figures* and getting illustrations to behave requires far more parameter tweaking than it should. This is a longstanding weakness of LaTeX that pretty much everyone bitches about. My advice is start at the front of your document and work through it post by post. The files generated by `LatexFrWordpress` do not attempt to place figures for you but they do bolt in ready-made figure templates as comments that you can experiment with. Each post file is also set up for separate LaTeX compilation. You don't have to compile your entire blog to tweak one post. The one good thing about this edit step is once you have sorted out your old posts you do not have to revisit them unless you make major global document changes. The next time you run `LatexFrWordpress` it will only bring down new posts and images.

Step 8: compile your LaTeX blog I use batch files and shell scripts to drive LaTeX compilations. I processed my blog with this batch file.

```
echo off
rem process blog posting (bm.tex) root file
title Running Blog Master/LaTeX ...

rem first pass for aux file needed by bibtex
lualatex bm

rem generate/reset bbl file
bibtex bm
makeindex bm

rem resolve all internal references - may
rem comment out when debugging entire document
lualatex bm
lualatex bm

rem display pdf - point to prefered PDF reader
title Blog Master/LaTeX complete displaying PDF ...
"C:\Program Files\SumatraPDF\SumatraPDF.exe" bm.pdf
```

The presence of Unicode APL, see this post, forced me to use luaLaTeX. I needed some very nonstandard APL fonts. **See bm.pdf — also available on the *Download this Blog* page** — to judge the effectiveness of my edits. Producing nice figure laden typeset blog documents is work but, as I will describe in the next post, *producing image free eBooks is a simple and far less laborious variation on this process.*

Turn your Blog into an eBook

Posted: 05 Mar 2012 02:44:38

If you have worked through the exhausting procedure of converting your blog to LaTeX: see posts (1), (2) and (3), you will be glad to hear that turning your blog into an image free eBook is *almost effortless.* In this post I will describe how I convert my blog into EPUB and MOBI eBooks.

eBooks how the cool kids are reading eBook readers like Kindles, Nooks, iPads and many cell phones are optimized for plain old prose. They excel at displaying reflowable text in a variety of fonts, sizes and styles. One eBook reader feature, dear

to my old fart eyes, is the ability to increase the size of text. All eBooks are potentially large print editions. There are other advantages: most readers can store hundreds, if not thousands of books, making them portable libraries. It's now technically possible to hand a kindergarten student a little tablet that holds every single book he will use from preschool to graduate school. The only obstacle is the rapacious textbook industry and their equally rapacious eBook publishing enablers. But fear not open source man will save the day. *The days of overpriced digital goods are over!* I will never pay more than a few bucks for an eBook because I can make my own and so can you! Let's get together and kill off another industry that so has it coming!

PDFs, EPUBs and MOBIs Native eBook file formats like EPUB and MOBI do not handle complex page layouts well. If your document contains a lot of mathematics, figures and well placed illustrations stick with PDF workflows.[4] You will save yourself and your readers a lot of grief. But, if your document is a prose masterpiece, a veritable great American novel, then "publishing" it as an EPUB or MOBI is a great way to target eBook readers. EPUBs and MOBIs can be compiled from many sources. I start with the LaTeX files I created for the PDF version of this blog because I hate doing the same boring task twice. By far the most time-consuming part of converting WordPress export XML to LaTeX is editing the pandoc generated `*.tex` files to resolve figures and fix odd run-together-words and paragraphs. To preserve these edits I use pandoc to convert my edited `*.tex` to `*.markdown` files.

Markdown Markdown is a very simple text oriented format. A markdown file is completely readable exactly the way it is. All you need is a text editor. Even text editors are overkill. You could compose markdown with early 20th century mechanical typewriters; it's a low tech format for the ages: perfect for prose.

The J verb `MarkdownFrLatex`[5] calls pandoc and converts my `*.tex` files to `*.markdown`. I place my markdown in the directory

```
c:/pd/blog/wp2epub
```

and to track changes to my markdown files I GIT this directory. `MarkdownFrLatex` strips out image inclusions and removes typographic flourishes. When it succeeds it writes a simple markdown file and when it fails it writes a `*.baddown` file. Baddown files are `*.tex` files that contain `lstlistings` and complex figure environments that are best

[4] LaTeX is usually compiled to PDF making it one of hundreds of PDF workflows.

[5] All the J verbs referenced in this post are in the script `TeXfrWpxml.ijs`

resolved with manual edits. After removing such problematic LaTeX environments the J verb `FixBaddown` calls pandoc and turns baddown files into markdown files.

Generating EPUB and MOBI files When the conversion to markdown is complete I run `MainMarkdown` to mash all my files into one large markdown file with an eBook header. The eBook header for this blog is:

```
% Analyze the Data not the Drivel
% John D. Baker
```

The first few lines of the consolidated `bm.markdown` file are:

```
% Analyze the Data not the Drivel
% John D. Baker

#['Whats In it for
Facebook?](http://bakerjd99.wordpress.com/2009/09/05/whats-in-it-for-facebook/)

------------------------------------------------------------------------

*Posted: 05 Sep 2009 22:44:50*

[Facebook](http://www.facebook.com) is huge: they brag about a user
count well north of one hundred million. If only 0.5% of their users are
active 'thats 500,000 *concurrent users.* How many expensive servers
does it take to support such a load? .....
```

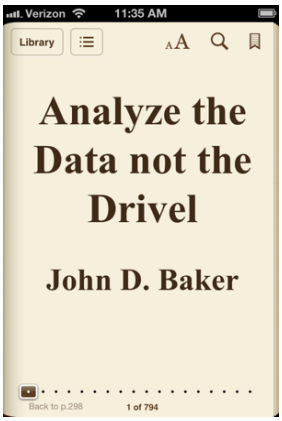
Generating an EPUB from `bm.markdown` is a simple matter of opening up your favorite command line shell and issuing the pandoc command:

```
pandoc -S --epub-cover-image=bmcover.jpg -o bm.epub bm.markdown
```

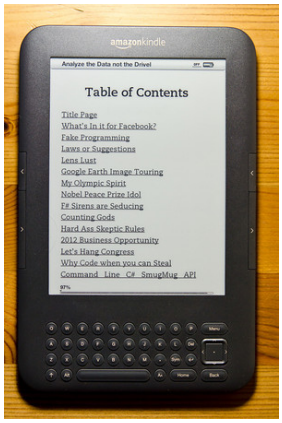
You can read the resulting EPUB file `bm.epub` on any EPUB eBook reader. Here's a screen shot of `bm.epub` on my iPhone.

The last step converts `bm.epub` to `bm.mobi`. MOBI is a native Kindle format. Pandoc can generate MOBI from `bm.markdown` but it inexplicably omits a table of contents. *No problemo:* I use Calibre to convert `bm.epub` to `bm.mobi`. Calibre properly converts the embedded EPUB table of contents to MOBI. Here's `bm.mobi` on a Kindle.

All the "published" versions of this blog are available on the ***Download this Blog*** page so please help yourself!



iPhone loaded with `bm.epub`



Kindle loaded with `bm.mobi`

The Joys of Photographic Waybacking

Posted: 18 Mar 2012 03:37:32

Remember Mr. Peabody's Wayback Machine. Mr Peabody was dog, with a pet boy Sherman, that used his Wayback time travel machine to visit the past. I'm not sure if he ever visited the future; that's a question best left to Rocky and Bullwinkle historians. Well, I have Wayback machines; they're called film and flatbed scanners. I spend way to much time scanning and restoring old photographs. Over the years I've scanned thousands of images. It only takes a few minutes to get a high quality scan but it can take days of image editing to restore old damaged originals. Hence, I always have a backlog of scanned pictures to fix.

My enthusiasm for this endless task waxes and wanes with my general photographic energies. A few weeks ago I upgraded my arsenal of DLSR cameras and lenses. New lenses always give me boast. So lately I've been out pixel harvesting with a lovely little $f2.8$ macro lens. I think she I will be an item for years to come — wide open her bokeh is beautiful. While I enjoy working with my spanking new crystal clear digital images I often find myself wandering in my vast image file directories and picking out old scans to work on. Today I whiled away a rainy afternoon restoring pictures I took over forty years ago. Here's a shot from my ACS Beirut Lebanon boarding school days. This is from an old Instamatic camera. I believe it was my second camera. Over the years my cameras have gotten better and better but they still cannot go Wayback in time.

The Hunger Games: a Libertarian Dead Teenager Movie.

Posted: 24 Mar 2012 23:12:49



I've always enjoyed watching teenagers die. Even when I was a teenager, back in the early Pleistocene, I couldn't get enough adolescent annihilation. Now that I am a certified, some would say certifiable, drooling old fart boomer I enjoy it even more. Youthful folly: it's riveting entertainment for the elderly. Given my macabre inclinations I looked forward to the Hunger Games with the same — *oh my god, lol, like enthusiasm* — of a screeching teenage girl which, oddly, is the movie's target demographic. Well did the Hunger Games disappoint and, more importantly, is it worth ten bucks? In two words: **no** and **yes**.

The world of the Hunger Games is your typical progressive green fascist paradise. The sort of place our global warming alarmists, whale saving eco-warriors, Volt driving poseurs, anti-capitalist philosophers and leader venerating loons would like to live. Panem, the principal nation-state depicted in the Hunger Games, is split into two familiar classes: the haves and the have-nots. The haves live in a gleaming special Capitol city and the have-nots grunge away their pointless little people lives in twelve impoverished out-lying districts. Naked force keeps everything in a nice green line. Sure the people in the Capitol while away their carefree days in an endless who can dress like the gayest circus clown contest while the peons in the outer districts fantasize about bread but sacrifices must be made to manage our carbon footprint.



Lying on my bed and trying to look tough for the camera. I don't think the pajamas are helping. This image is from an old Kodacolor Instamatic slide taken in 1968. In the original scan fingerprints are visible. I take good care of originals but accidents happen. For more before-after diptychs click.

To break the oppressive tedium of face painting, hair dressing and color coordination every year the rulers of Panem select twenty-four lucky teenage Tributes from the twelve out-lying districts and make them fight to the death in Panem's version of ultimate survivor: The Hunger Games. There's some background filler about how the games are a punishment and reminder of a long ago civil war that went badly for the out-lying districts. The games, as one smarmy TV announcer played by Stanley Tucci said, "bring us together." Yeah, there's nothing like raw fear and continual humiliation to bring a people together.

Face paint and swashbuckling hot heroine, (played by Jennifer Lawrence), aside the world of the Hunger Games is the most credible Sci-Fi dystopia to emerge in years. The laws of physics hold in this movie! There's no flying faster than the speed of light, no summoning of magical or supernatural forces and no hinging entire pocahantian plot lines on imaginary Unobtainium. Nothing depicted in the Hunger Games is, as far as we know, impossible. We could build Panem today with off-the-shelf technology. It's probably lost of the popcorn crowd but the world's physical plausibility is a powerful frame for the story because this shit has already happened. The mayhem of Hunger Games is no worse than what transpired for centuries in Roman amphitheatres, Aztec ball courts or medieval jousting tournaments. Humans can be gamed to the death for the filmiest of reasons. This is the real horror of the film; it's not much a stretch from where we've been, to where we are, to what we might become.

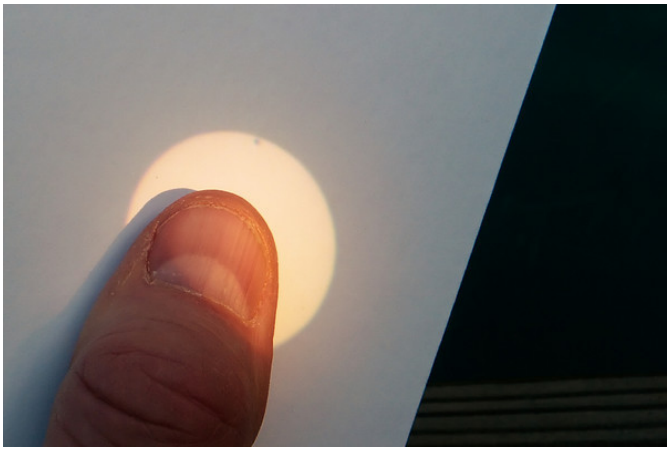
I do not fear imaginary monsters; there are plenty of real ones to worry about and the real Hunger Game monsters are with us now. Our biggest monster is our naive belief that we've put all this aside: that no modern democratic state could degenerate into a tidy Panemian tyranny, that liberty and freedom, once achieved, is eternal. I'm not so sanguine; we're a lot closer to a Panem than you might think. If you handed out firearms to the contestants of your average reality TV show we'd be there: minus the green high-speed maglev trains of course. (Don't worry there's a stimulus boondoggle for the maglev trains.) Ask yourself, if we armed the Kardashians and made them fight to death on TV how many would care, how many would be relieved, how many Vegas bets would be made? I suspect most would dress up in their gayest apparel and party like Panemians celebrating another dead teenager.

2012 Venus Transit and Annular Eclipse

Posted: 22 Apr 2012 23:05:20

I'm gearing up for two big eminent celestial events. On May 20th I'll be near Page

Arizona observing an annular eclipse of the Sun and on June 5th, weather permitting, I'll be in St. Louis watching Venus creep on the disc of the Sun for the last time in my lifetime.



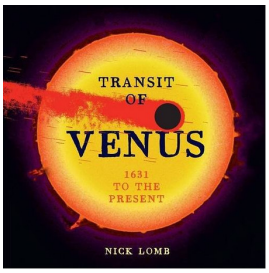
2004 transit of Venus from Ottawa Canada. I used 10x50 binoculars to project an image of the Sun. The little dark spot on Sun's limb is the planet Venus.

Eclipses and transits are spectacular events for amateur astronomers and innocent bystanders. Of the two eclipses offer the greater spectacle. In fact, for sheer unbridled *awesomeness,* it's hard to beat a total eclipse of the Sun! You can add up all the World Cups and Super Bowls ever played and they would barely register on the logarithmic total solar eclipse spectacle scale. The one total solar eclipse I saw easily ranks as the greatest thing I've ever seen and I'm including the births of my children. The May 20th solar eclipse is annular so it's not in the same galaxy as a total but annular's have their charms. At maximum eclipse the Sun appears like a perfect blazing ring of light. In Page it will be 10 degrees above the north-western horizon: a good altitude for composing solar landscape pictures.

By comparison the June 5th transit of Venus will not be a big show. Without proper equipment you won't be able to see it at all. During transit Venus looks like a little black dot on the Sun. The best way to see this event is with telescope or binocular projection. **Under no circumstances should you look directly at the Sun without proper eye protection!** For safe transit viewing techniques look here. In 2004 I used binocular projection to view the last transit of Venus from Ottawa Canada. Transits of Venus come in pairs, eight year apart, followed by over a century before the next pair. After 2012 you will have to wait until 2117 to see another transit of Venus. This is our last chance people. Yeah mortality seriously blows.

Blurb: Nick Lomb's Transit of Venus

Posted: 06 May 2012 20:58:33



Nick Lomb's Transit of Venus 1631 to the Present is the best illustrated astronomy book for general readers since Terence Dickinson and Alan Dyer's The Backyard Astronomer's Guide. Everything about Lomb's book from its eye seizing cover, rarely seen historic photographs and charming well researched commentary is first class. *Transit* is the type of work you steal[6] from and frankly, there is no better endorsement than that. I'm not the only reader to reach this conclusion check out this and this and this.

When prowling our few remaining bookstores I often skip illustrated works. Usually they're dumbed-down rehashes of familiar material but, in *Transit's* case, I learned something on my first randomly browsed page. The chapter introduction for Venus of the South Seas reads:

> *Sometimes scientific expeditions have unintended consequences. The desirability of observing the 1769 transit from the South Seas began a chain of events that would lead to the founding of the colony of New South Wales by the British in January 1788. In effect, modern Australia owes its existence to a celestial event.*

How about that history haters. I knew why astronomers cared about transits of Venus. In 1677 Edmond Halley, of Halley's Comet fame, described a method for calculating the astronomical unit from transit of Venus timings. Venus is close enough to the Earth that its track over the Sun differs for widely separated terrestrial observers. This is the familiar parallax effect. From this small difference you can determine the astronomical unit and if you know the astronomical unit Kepler's third law tells you the distance of every planet in the solar system. This was a huge payoff for 17^{th}, 18^{th} and early 19^{th} century astronomers. This is what got Cook out in the Pacific. It's a great story and Lomb's telling is the best you will find.

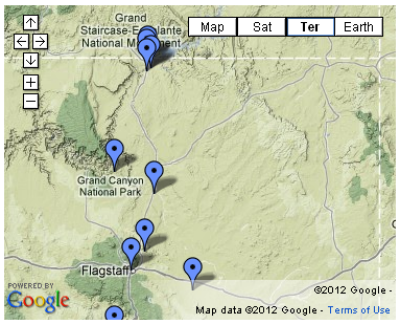
GPX from Google Maps KML J Script

Posted: 17 May 2012 03:50:01

In preparation for my Arizona jaunt to watch the May 20^{th} annular eclipse I spent a

[6] I've picked up a few page design ideas.

few hours on Google Maps selecting locations to visit. Here are my prime targets.



2012 annular eclipse map

After selecting targets the next step is to load them onto my "GPS device." Currently my GPS device is the MotionX GPS iPhone app. MotionX can read GPX files in many ways *but you need GPX files not Google Maps KML files.* Converting KML to GPX is a recurring nuisance. I've used online converters for this chore but today, after being annoyed by this problem for the zillionth time, I dashed off a J script that transforms Google Maps KML to GPX. The main verb `gpxfrmapkml` is shown below. The entire script is available here. Happy KML to GPX'ing my friends.

```
gpxfrmapkml=:3 : 0

NB.*gpxfrmapkml v-- gpx from Google maps kml.
NB.
NB. monad:  clGpx =. gpxfrmapkml clKml
NB.
NB.   NB. download Google map waypoints as kml
NB.   kml=. read 'c:/temp/arizona annular eclipse.kml'
NB.
NB.   NB. convert to gpx and save
NB.   gpx=. gpxfrmapkml kml
NB.   gpx write 'c:/temp/arizona annular eclipse.gpx'

NB. parse kml form waypoint table
dname=. ;'name' geteletext '<Placemark>' beforestr y
wpt=.   ;'Placemark' geteletext y
wpt=.   ('name' geteletext wpt) ,. <;._1&> ','&,&.> 'coordinates' geteletext wpt
hdr=.   ;:'phototitle longitude latitude'

NB. format gpx header
gpxstamp=.   'Waypoints: ',(":#wpt),' GPX generated: ',timestamp''
```

```
gpxheader=.  '/{{headername}}/',dname,'/{{headerdescription}}/',gpxstamp
gpxheader=.  gpxheader changestr GPXFRKMLHEADER
gpxtrailer=. GPXTRAILER

'idx pkml'=. HTMLVARBPATTERN patpartstr GPXSMUGPLACEMARK
rvarbs=. idx htmlvarbs pkml

NB. all row varibles must exist in data header
assert. */ rvarbs e. hdr
rows=. (#wpt) # ,: pkml
rows=. ((hdr i. <'phototitle'){"1 wpt) (<a:;(rvarbs i. <'phototitle'){idx)} rows
rows=. ((hdr i. <'latitude'){"1 wpt) (<a:;(rvarbs i. <'latitude'){idx)} rows
rows=. ((hdr i. <'longitude'){"1 wpt) (<a:;(rvarbs i. <'longitude'){idx)} rows

gpxheader,(;rows),gpxtrailer
)
```

The Wahweap Wow

Posted: 22 May 2012 21:27:58



Glen Canyon dam

Last weekend I was in Page Arizona to visit my parents and catch the May 20th 2012 annular solar eclipse. Page is a little town that owes its existence to the construction of the Glen Canyon dam in the early 1960s. The reservoir behind the dam, Lake Powell, has appeared in so many movies that it should collect royalties. Charlton Heston crashed his spaceship here in the first and only good Planet of the Apes movie. John Travolta nuked the place in Broken Arrow. Even Jesus Christ used Lake Powell as a Dead Sea ringer in The Greatest Story Ever Told.

Page, the dam and Lake Powell did not disappoint. I had a great time toodling around shooting pictures. I only had one day which was partly devoted to the eclipse but I saw enough to give Glen Canyon an unqualified thumbs up. If you're into rocks, desert and water this place is bucket list material. Like MacArthur I will return.

While pleased with Glen Canyon I was surprised by the large number of people who turned out for the annular eclipse. The US park service in conjunction with local amateur astronomers set up viewing grounds on Wahweap Overlook and ran full size shuttle buses from the nearby Carl Hayden dam visitor center. At least four

busloads of eclipse fans were carried to the overlook where they joined more amateur astronomers and serious eclipse photographers that had set up dozens of telescopes and cameras for the big show. There must have been at least four hundred people on Wahweap Overlook and Wahweap was only one of many sites where people set up to watch the eclipse. It's gratifying to see that when a *real star* puts on a show the audience is huge.



Wahweap eclipse fans

Before the eclipse started, and during the early phases when the Moon was creeping on the Sun's disk, I walked around looking through telescopes. Two scopes stood out. One expensive large aperture Hydrogen Alpha scope served up gorgeous high-resolution views of the Sun. In Hydrogen Alpha light solar prominences , filaments and photosphere mottles are clearly visible. The big Hydrogen Alpha scope put on a good show but bang for the buck went to a 15 dollar light funnel that a 14-year-old made by hand and attached to a small refractor. His makeshift funnel projected the brightest and clearest white light image of the Sun. I told him his projection was the best; he was happy to hear it.

As the eclipse approached the annular phase I set up my camera. I didn't have the right filter, only a 4D neutral density, but I thought I'd give it a try. When the light ring formed I fired off a few shots. The filter didn't cut enough light so I immediately gave up and went to plan B. Plan B consisted of covering the lens of my iPhone with eclipse shades and PhD'ing it. I took a few frames and managed to catch the ring. It was a minor triumph of iPhoneography. After that I just gawked through my eclipse shades while the Sun and Moon wowed the masses with their dance. The crowd burst into applause when the ring broke but, sadly, the performers declined an encore.



iPhone image captured by holding eclipse shades over the lens



Lake Powell houseboats

As I have already said, annulars are not in the same awe-inspiring class as totals but this annular, falling where it did, was special. From the overlook you could see the lake, the dam, towering red rock formations and of course the sky. The perfect ring of light was just the icing on the cake of a Wahweap wow!

Brett Kimblerlin Free Speech Hating Criminal SOS

Posted: 25 May 2012 19:19:51

Today I'm joining a free speech blogburst in support of bloggers harassed and threatened by Brett Kimberlin (SOS) and his butt monkeys. Brett has a problem with people pointing out his bomb detonating criminal terrorist past but, unlike your typical effeminate impotent lefty whiner, Brett isn't going to take any truth-telling lying down. No Brett is going to wage scorched earth lawfare and if that isn't good enough get some of his unhinged goons to threaten violence. Yes, Brett practices the restrained dispassionate discourse advocated by The One. Unfortunately Brett has pissed off some real men and women and those of us with gnarly gonads and fertile ovaries will not be intimidated by our intellectual, moral and cosmetic inferiors. So sue me if you want Brett. Threaten me if you have the balls but before you get in my face keep in mind that Missouri is a concealed carry state.



Brett Kimberlin speedway bomber mug shot. Bret doesn't want you to know about his criminal past. Bret needs to FOAD!

RAW development rubs me Raw

Posted: 27 May 2012 22:31:08

I'm exhausted. For the last four nights I've been up late *Lightroom'ing* the pictures I took on my little Arizona annular eclipse trip. I'm a new Lightroom user and I'm not entirely impressed with the program. It's a first class general RAW developer but I don't think it's as good as Capture NX when working with Nikon NEF files. For the nonce I will keep Lightroom'ing away; *you have to master something before you can have a valid opinion about it!*



Lonely Lake Powell boat at dusk

As annoyed as I am about Lightroom I know, from bitter experience, that *when I first process images I only see problems.* The composition sucks. The colors are off. Things are too dark or to light. After a few dozen disappointments the mood darkens and I wonder just *who the fuck took all this shit?* But I solider on, waging relentless pixel warfare, because in few years, when I've forgotten about light curves, sharpening parameters, edge masks, color spaces and all the technical hoo-hah that goes into digital image making, I start seeing the pictures not the flaws. I sometimes catch myself looking at my old pictures and wondering just who took all these great shots. You change your mind about pictures!

This is why I don't use "star" ratings. Most image management systems have ratings. Lightroom has a five-star system, Thumbsplus does something similar and every image management tool I've looked at has a comparable feature. Obviously the masses expect and demand ratings. Too bad the masses are wrong. In the long run ratings are meaningless. You really see this with restoration projects. I've spent days restoring pictures that what I would rate as total crap if I had just shot them. Yet here I am spending long hours on yesterday's crap.

Restoration work also changes your attitude about duds. In my film days I ruthlessly pruned my slides and negatives trashing exposures that didn't meet my standards *of the time*. Now I curse that delusional jackass for throwing away my precious originals. It's surprising how useful duds are; they fill in missing details and remind you of your ever-changing opinions. Save your duds I guarantee you will feel differently about them in a few years and, of course, others will have completely different takes.



Annular eclipse fans

Evil Queens are getting Hotter

Posted: 03 Jun 2012 20:50:25

There's not a lot of good news out there. Our currencies are being sodomized by economic imbeciles. High unemployment has demoralized the masses and forced lobotomized bureaucrats to get off their entitled asses and redefine it. The suck—oops stock—market has returned SFO for a decade. CO_2 levels are rising. The seas are not subsiding; they didn't get The One's memo. Goons are getting nukes. Species are going extinct. The freaking LA Kings are two up in the Stanley Cup finals and, Mohammed in a transvestite musical, the Kardashians are still on TV. In this bleak, soul suffocating, Obamalypse we must take solace from any quarter and I've found one; *evil queens are getting hotter!*

This positive trend surfaced with TV's Once Upon a Time: a rare, well written, series that ripped familiar fairy tale characters out of children's books and deposited them in Storybrooke: a small *fictional* town in Maine. All of our favorite characters are present: Snow White, Little Red Riding Hood, Pinocchio, Rumplestiltskin and, outclassing them all, Regina, Snow White's poison apple wielding nemesis the Wicked Queen played by Lana Parrilla. Regina is no hook nosed NPR feminist hag. This

wicked queen is a high-caliber alpha cougar. Frankly, I envy her victims. Please Regina; make me your next man-toy.



Regina *Once Upon a Time's* wicked queen. Can I be your boy toy?

An even hotter queen is Ravenna, another incarnation of Snow White's mortal enemy, from Snow White and the Huntsman. Huntsman is a dark straight up high-tech rendering of Snow White's tale. The movie is competent but is afraid of veering off well-trodden material. I found it flat and predictable. Great movies astonish, good movies surprise, ordinary movies entertain and bad movies are lauded by liberal film critics.



Ravenna in her spa enjoying some well deserved evil queen *me time*.

Huntsman is ordinary but has its charms. The best character is Charlize Theron's wicked queen Ravenna. Ravenna has an endearing nasty bitch habit. She must periodically slurp up the life force of attractive young women to stay "the fairest of them all." Think of it as extreme celebrity Botox. You may object to Ravenna's ravishing methods but you cannot argue with the results. This wicked queen is setting new standards for maximum babe bad.

As a mainly manly man I thank the FSM for Regina and Ravenna. Evil queening: it's not for obese dykes anymore.

Venus puts a period on our Time

Posted: 07 Jun 2012 01:58:30

I left work early yesterday to scoot down to Forest Park, one of St. Louis's best city parks, and take in the transit of Venus. The St. Louis Astronomical Society

conducted a public outreach event on the grounds of the World's Fair Pavilion. The pavilion sits atop a small hill with a good view of the western horizon. Many club members had set up telescopes for the public. Some scopes projected images of the sun and others used solar filters. It was another large daytime star party. Hundreds of people showed up and patiently waited in telescope lines to get a glimpse of Venus crossing the Sun.

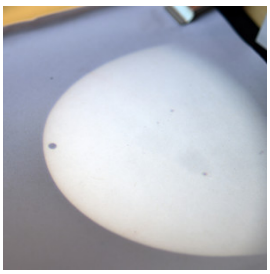


Worlds Fair Pavilion in St. Louis's Forest Park on Venus transit day.

The mood was curious and somber; parents urged their children to look and remember. Many dutifully complied but you could see they were more interested in running around the pavilion than watching a little black dot. Maybe some will remember in the decades to come; maybe one or two will live to see the next transit but for the rest of us the little black dot of Venus is a "period" to the sentence of our time. We will never see Venus's silhouette on the Sun again. Venus will circle on punctuating future epochs but we, my friends, will soon cease to exist — period.

Controlling Cell Phones the new IT Frontier

Posted: 09 Jun 2012 17:08:31



A Sunspotter transit of Venus projection.

It won't be long before your employer starts jamming or confiscating your *personal* cell phone. Wait a minute isn't that a tad hyperbolic? Wouldn't that trigger an avalanche of "freedom of speech" lawsuits? Wouldn't people yell "fornicate elsewhere" and quit? Ahh, if only it were so. I would love to be wrong about this but I have a superb track record when it comes to predicating IT control freak trends.



Personal cell phones are on the IT hit list.

In my long programming career I've never met a "liberty loving" IT manager. There's something utterly intoxicating about being in a place where reliable minions, (dead computers for the most part), completely manifest your vision. I've watched the most libertarian of programmers turn into Dilbertian despots when tasked with network security, software procurement or SOX compliance. IT's first impulse is to control, control and control even if control is counterproductive.

Here's the sad news. *Most IT polices are counterproductive and they never fix the problems they claim to address.* Consider my case. I have never introduced a network virus, distributed proprietary company information or collaborated with competitors. Everywhere I've worked had specific IT policies for these, and other *corporate crimes*, but I could have easily circumvented 95% of them at any time. The only defense any of my employers ever had was *my personal honesty and integrity.*

Unfortunately my personal honesty and integrity is beyond the control of IT and, as I have said before, control is key when it comes to IT. If IT cannot control it they won't even recognize it! This is why we end up with abominations like SOX — perhaps the must ludicrous bit of micro-managing nonsense ever foisted on American companies. Incidentally SOX does SFO when it comes to preventing the Enronesque crimes it was intended to prevent. Don't believe me, ask Jon Corzine about where MF's billions went.

Exactly where do personal cell phones fit into IT policies? When cell phones first appeared they were just phones. Now they're web browsers, cameras, microphones, stereos, GPS receivers and recently full-fledged programming environments. So much power and all outside of IT's control. Most employers keep lists of banned websites. What's the use of tasking neutered lackeys with maintaining a list of banned websites if an employee can whip out an iPhone and browse at will? What's the point of banning USB drives and locking down proprietary files if you can take a quick snapshot of your monitor and post it on Facebook? IT has a personal cell phone problem and

I can guarantee that whatever twisted solution their misguided minds fixate on *it will have nothing to do with employee honesty and integrity.*

Ooh Promethean Tentacles

Posted: 17 Jun 2012 06:02:06

Prometheus breaks the first rule of movies: *don't make your audience think!* Any movie that violates this taboo gets exactly what it deserves and Prometheus is begging for it.



Hey let's wander around in the dark and feed vagina snakes.

Let's get the good stuff out-of-the-way. Prometheus looks great. It throws up one fabulous tableau after another. To all the set designers, CGI programmers and other visual artists that worked on Prometheus take a bow; you did a superb job. I am not kidding when I say this would be a better film if you simply turned off the brain numbing sound track and soaked in the sights. Unfortunately the sound track is left on letting us in on the shallow thoughts of the too stupid to live protagonists.

I won't dissect Prometheus's numerous Promethean logical affronts. The blogosphere has already boiled and rendered that beast. Google the phrase "Prometheus too stupid to live"; the deluge of scorn will restore your faith in mankind. I could join in the script-savaging but I'm a kind, loving and compassionate man. I like science fiction. I want science fiction screen writers to succeed but the poor lost souls need help. Here are three "rules" that might have saved Prometheus.

1. Any "number" that appears in a science fiction movie must be real.

Numbers incite analysis and analysis plops you right back into reality which is not a good place for any movie especially science fiction. Prometheus violates this rule early on.

When the spaceship Prometheus arrived at its multiple-star-grouping destination the film makes a point of informing us that it's 3.27 x 10^{14} kilometers from Earth. My little cinema bound brain went to work. A light year is roughly 10^{13} kilometers thus Prometheus was about thirty light years from Earth. I'd turned my cell phone off to watch the movie so I didn't check the Hipparchus star catalogue but I'm pretty sure

there are no large visible multiple star groupings that close to Earth. It's possible a grouping of nearby brown dwarfs has escaped detection but then the color balance of the giant planet the spaceship was approaching was all wrong.

Flashing bogus numbers distracts and infuriates audiences. If you must insert numbers in your scripts make sure they are 100% scientifically credible.

2. Do not populate your spaceship with suicidal dolts.

It's hard to relate to complete brain-dead tools. About halfway through Prometheus I realized the only creatures acting sensibly were the tentacle waving predatory aliens. They were busy going about their prey stalking ways. I can only imagine what they thought.

"Hey Sam," alien vagina snakes call themselves Sam, "can you believe this fool wants to pet me. I bet his esophagus is going to be really tasty."

"Uh, I don't know Sam; something that stupid couldn't survive in the wild unless it was highly toxic."

"Yeah, you may be right but I'm going take a chance and stuff myself down his pie hole anyway."

Nobody mourns the death of imbeciles. Sympathetic characters should have at least room temperature IQs.

3. Never show superior beings.

Good science fiction works best in the imagination of its audience. Nurturing a sense of mystery, awe and wonder is what this genre is all about. Showing too much kills the imagination and frankly my imagination took a few sniper rounds to the head when a "superior engineer" turned out to be bald, ripped, roid-raging bodybuilder that was as stupid as every other character in this film.

If the Prometheus of myth was as reckless as this "engineer" then Zeus did us a solid when he chained his dumb ass to that rock.

Turn your iPhone into a jPhone

Posted: 23 Jun 2012 15:24:15

Jsoftware recently released a *free* J app for the iPhone. Search for "jsoftware" in Apple's app store and you will land right on it. There are many excellent free iPhone

apps, I have half-a-dozen on my iPhone, but this little jewel sets a new standard for power in your palm.



Let's start with the good news; this is not a crippled version of J. It's the same high-caliber interpreter that J programmers have used on Windows, Linux and Mac machines for years. Anything this app's big desktop brothers can do this little app can do. You won't see the same blistering desktop speed but I think you'll be pleasantly surprised at how fast this app munches numbers. I have run desktop J since the 1990's and J on the iPhone 4 matches or beats what I was seeing on laptops ten years ago. This is the real J deal.

Now for a few caveats — this J app is not a complete J development environment. To meet Apple's restrictive app store rules C-style APIs, JAL addons, GUI tools and third-party libraries like `opengl` and `lapack` are not included. With this app you get the J interpreter and a few of the most useful J addons like `plot`. Despite these limitations this J app is probably the most powerful, *purely local,* calculator available for the iPhone.

Don't believe me? Turn off Wi-Fi and set your iPhone to Airplane mode: Airplane mode cuts off phone and internet access. Now try computing the following on your favorite iPhone calculator.

```
NB. generate one million random numbers and average them
(+/ % #) ? 1000000#10000

NB. generate a 50 50 random matrix, invert it and multiply with the
NB. original - rounding to the nearest 0.0001 to form an identity matrix
round=: [ * [: <. 0.5 + %~
matrix=: ? 50 50 $ 10000
invmat=: %. matrix
identity=: 0.0001 round matrix +/ . * invmat

NB. sum of the diagonal elements of matrix (identity) is 50
50 = +/ (<0 1) |: identity

NB. multiply two polynomials with complex number coefficients
polyprod=:  +//.@(*/)

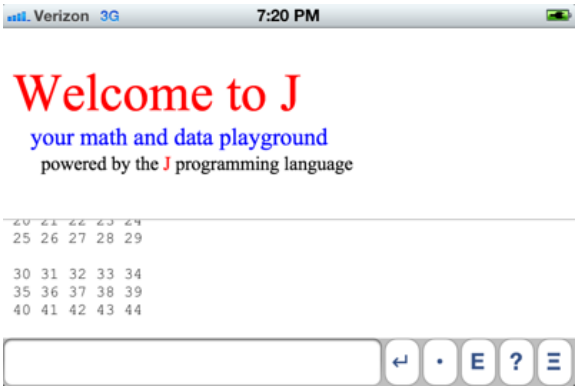
NB. complex number coefficients - AjB is J's notation for A + Bi
poly0=: 2j5 3j7 0 1
poly1=: 1j2 0 3j7 0 0 2
```

```
poly0 polyprod poly1

NB. prime factorization table of 50 random integers less than one billion
(<"0 nums) ,: -.&0 &.> <"1 q: nums=.50?1e9
```

The J app blows through these examples on my iPhone 4 in a few seconds. Of course this is only a tiny taste of what J on the iPhone is capable of. I have managed to run 1000+ line J scripts on this app. The only desktop J code I have not been able to run depends on external compiled libraries like `regex`.

Cell phones are powerful little computers and it's gratifying to finally see software that can focus that power on something other than Angry Birds. If you're interested in learning an array oriented functional programming language or if you're already familiar with J and want to *pack serious computational heat* then this app is for you!



J running on the iPhone

Mac JOD

Posted: 27 Jun 2012 18:39:06

The J addon JOD now runs on Macs. You can update JOD, or install it for the first time, with JAL. JOD now runs on all the major J hosts: Windows, Linux and the Mac.

To keep track of host specific features I have started a series of version documents. The Mac document is here.

At the upcoming J conference, (July 23-24, 2012), in Toronto I will show an iPhone version of JOD. And, as a reward for attending the conference and my little presentation, *Writing Portable J addons*, I will be raffling off hardcopy printed versions of the JOD manual.

An updated PDF version of the JOD manual is available here. For more see The JOD Page.

Playing the Blog hit game

Posted: 10 Jul 2012 03:39:06

On June 5th 2012 my little blog set an all time hit record: 198 robots, spammers and readers incremented my counters. 198 hits would be embarrassing for a major blog like Instapundit but for Analyze the Data not the Drivel it was a "hitnotic" day. I always attribute my triumphs to my utter manly awesomeness but I had to ask; *was anything else going on June 5th, 2012? Nothing much except the last transit of Venus in this century!* The masses were searching for "transit" and hundreds landed on this little entry I wrote a few months ago.

It takes time for a blog post to burrow into cyberspace. Google and Bing are always prowling blog sites and will pick up new posts within minutes but it takes about two weeks before worldwide indexes are updated. Once a post is on search engines readers will find it and when they do it will meet one of these three fates.

1. *Nobody ever reads it again.* This is the fate of most of my posts. I have posts that my dog, if I had a dog, wouldn't read. It's too bad because some of my finest lyrical unhinged rants are my least read posts.

2. *It gets lots of hits followed by a quick return to few or none.* My popular posts follow this pattern. Now that the 2012 transit of Venus is history people will stop searching for it. Popular posts fade faster than old Botox saturated actresses so enjoy your hits *while they last!*

3. *It gets legs and keeps sucking in hits for weeks, months and years.* My normal traffic comes from half a dozen *leggy* postings. My *leggy-est* posting is an *Inception* movie review that I wrote almost two years ago; it's still generating ten to twenty hits per week. *Its ok people nobody really got that movie.*

Finally, *the blog hit game is a long game;* you have to keep playing. The best sports analogy is golf. Golf is the world's hardest game. The gap between a perfect round

of eighteen and what the best players are capable of is insurmountable. Nobody will ever shoot an honest eighteen. A best ball foursome of Buddha, Christ, Mohammad and the archangel Gabriel couldn't shoot an honest eighteen. The Sun exploding tomorrow is more likely than on honest eighteen. Golf sets a bar so high it will never be breached. Artists have similar bars. The perfect novel is impossible. The perfect song is impossible. The perfect sculpture is impossible and I dare say the perfect blog post is impossible but then *it's the impossibility of perfection that keeps things interesting.* Keep at it and the hits will come.

Writing Portable J addons

Posted: 23 Jul 2012 19:58:34

On July 24, 2012 I gave a short talk, *Writing Portable J addons*, at the 2012 J Conference in Toronto Ontario. I try to avoid "death by PowerPoint" with my presentations. Take a peek at the following and see if I succeeded.



Click for J addons PDF presentation

Executioners should be selected like jurors

Posted: 31 Jul 2012 00:16:00

Jonah Goldberg makes an excellent point in his recent column about how the media always exploits shooting sprees to push for gun control but seldom asks — *what should we do with mass murders?* To my right-wingy, death-beasty, vengeance-seeking, cowboy mind James Holmes, the Colorado Dark Knight Rises cinema shooter, is a perfect candidate for the death penalty. Let's review the facts.

1. **Is James guilty beyond any reasonable doubt?** Hell fucking yes! There is absolutely no doubt this little shithead is guiltier than sin. He is so fucking guilty that even a battalion of lawyers couldn't prove otherwise.
2. **Is James mentally competent?** Here tiny lawyer brains will attempt to argue that poor little James is obviously mentally ill because he killed all those innocent people and only mentally ill people kill people. It's tautological drivel like this that's destroyed whatever esteem lawyers once had. It's a pathetic argument but let's play anyway. Was Caesar mentally ill when he came saw and conquered? Was Truman mentally ill when he decided to nuke Hiroshima? I hold that choosing to kill any number of people, either directly or indirectly, is not, ipso facto, proof of mental illness. We don't live in a Kumbaya universe people! Sometimes there are excellent reasons for killing people and, more often than not, murders know exactly what they are doing. James is mentally competent. He carefully, logically and methodically executed his murderous spree.
3. **Was the act premeditated?** Duh — you don't booby trap your apartment or stockpile ammo by accident!

James scored a perfect trifecta; he's absolutely guilty, he knew what he was doing and he carefully planned his murders. Colorado is a death penalty state. *If James retires to a life of cable TV in prison that will be a miscarriage of justice!*

Coloradoans shouldn't worry another nanosecond about the fate of this piece-of-shit. They should be lining up to execute him which brings me to my one problem with the death penalty. If you are unable to kill someone you shouldn't expect others to do it for you. Our current system of *humane execution,* (talk about oxymoronic bullshit), by professional executioners is absurd. It shields society from the consequences of their laws and beliefs and it grants to much power to the state. Life and death belongs in the people's hands. We should select executioners like we select jurors. Maybe if we had to pull the trigger, throw the switch, or swing the head removing axe ourselves we might decide we don't like the death penalty. I know many death penalty opponents think that's the case but it's also possible that we might like it even more. I could easily bludgeon poor James to death hence I can abide the death penalty. Can You?

Where's the Olympic beach?

Posted: 09 Aug 2012 19:16:54

Readers of this blog know that I do not approve of the Olympics. What started out as an eccentric bit of 19th century classics nostalgia has morphed into the expensive, corrupt, drug fueled, real-estate orgy we endure today. Whatever athletic ideals the Olympic movement espoused died on national and corporate altars decades ago. By the time the first national anthem sounds the real gold has long since traded hands. It's disappeared into offshore accounts, kick-back schemes, hidden payoffs and good old-fashioned high roller whoring. Despite the waste, drugs and corruption the public still bends over and begs flaccid IOC sodomites for more because *only the Olympics decides pressing issues like who can best tumble on a mat and catch a ribbon!* What's wrong with you people?

My normal Olympic reflex is to head for the hills and ignore the damn circus. In 2008 I was deep in cell phone blocking redwood forests so I didn't hear a peep about the Olympics. This year I'm not so lucky. Work and family obligations have kept me firmly locked in the Olympic vise. On my own I would change channels or read but I'm not on my own. My wife enjoys the games and her elderly demented mother enjoys them even more.

Dementia and the Olympics are perfect for each other! Last night while watching women's beach volleyball my mother in-law complained about the game's chief virtue: bikinis on tight female bodies. She wanted to know why these women were so shamefully dressed. My wife calmly explained that they were playing a game that's normally played on the beach. "Where is the beach?" my mother in-law retorted. Indeed, where is the beach? It's a perfect metaphor for the billions flushed down the Olympic sewer: connected cronies get rich, the proles ogle some fine ass and the taxpayer doesn't even get a real beach to pound sand on! Again, what's wrong with you people?

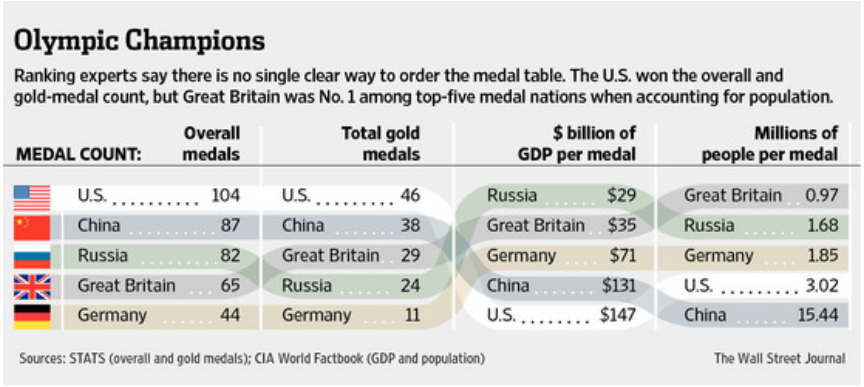


Click for more beach volleyball butts.

Bankrupt Nation Wins the Olympics

Posted: 13 Aug 2012 01:21:58

Thanks to the all squiggling FSM it's *finally* over! We, (citizens of the USA for the rest of you losers), have triumphed! We crushed those upstart crony Chinese communists, smothered our long-standing Russian adversaries and overwhelmed our cocky British hosts. All that remains is to hear the sweet loser chanting about how it's not about medals, or countries, or even wining and losing: what utter horseshit! *The entire obscenely overpriced Olympic spectacle is just one giant primate chest thump.* Today we get to pound our chests, bang the lower ranked females and crap all over the forest floor. God I detest the Olympics.



Final 2012 Olympic Medal Count

Let's look at the *our* triumph from another point of view. The USA is currently running a yearly deficit of 1.27 trillion dollars. Our acknowledged debt is 15.92 trillion dollars. Our unfunded liabilities exceed 120.13 trillion dollars. If you want to depress yourself just load up the Debt Clock and watch the numbers tick inexorably up and up. In short we are completely and thoroughly broke. Dividing the USA medal count into these numbers yields:

1. **Price per medal vs. yearly deficit: 12.18 billion dollars.**
2. **Price per medal vs. acknowledged debt: 153.08 billion dollars**
3. **Price per medal vs. unfunded liabilities: 1.15 trillion dollars.**

Yeah, we're big winners when it comes to piling up debt! I'd happily trade all our medals to balance the budget. Hell, I'd give up *all* American medals from all Olympic games to balance the budget. Now I'm sure many American athletes will object to this deficit reduction plan. Perhaps with all the stress of training, surreptitious doping and getting strangers to pee in bottles they missed the transcendent One's memo: "You didn't win that medal, someone else won that!"

Faith a guilty pleasure

Posted: 02 Sep 2012 23:47:02



It's a quiet Labor Day weekend in the *drivel dome*[7] and your fearless reporter is a tad bored. I could help with the housework or get out and exercise but I have better things to do. Last night while trolling the intertubes for something to watch on Hulu I came across a transcendentally awesome Korean TV series called Faith. I know what you're thinking. I haven't fallen off the skeptical horse. I'm still the same old judgmental know-it-all bombastic boomer asshole you've come to know and love. The series Faith has, as far as I can tell after many long hours of couch research, nothing to do with religious faith. This is one of the many reasons I adore this show.

Faith is basically another Asian martial arts epic. After the demise of the demigod Bruce Lee it's been mandatory for Asians residing east of Himalayas and south of Siberia to work martial arts into the plot whether it makes any damn sense or not. The Chinese, Koreans, Japanese, Vietnamese and other East Asians all follow Bruce's mandate with various spins. Naturally, the most odious and predictable martial spins come from the mainland Chinese. With few exceptions mainland martial arts goes something like this.

Evil plots are afoot that are threatening the unity of the homeland. Nefarious forces, mostly internal, sometimes external, are plotting to bring down the well-ordered Middle Kingdom. A charismatic badass plans to exploit disunity, dishonor the people and shit all over the ancestors. Something must be done! The ruler, usually a wise emperor, or a really hot empress, tasks some typically reluctant super warrior to off the badass. The super warrior may have ambivalent feelings about the current ruler but never about the homeland. Sure the current ruler is a decadent pussy boy with weak Kung Fu and that's too bad for *him* but damn, the country is not going down on my super warrior watch. Predictable mayhem ensues, bodies pile up, evil almost triumphs, gloats too much, and then falls to a combination of super warrior martial arts and old-fashioned hubris. In the end the homeland is saved and the closing credits suggest the super warrior *might* get some serious tail. I find it interesting that Hollywood is constantly destroying western civilization while mainland Chinese films forcefully reiterate that the homeland will always abide. I think it's safe to say there hasn't been an original mainland Chinese martial arts film since Bruce's glory days.

[7] *Analyze the Data not the Drivel* is not suitable for succinct self-deprecating self-reference.

Thankfully the South Koreans are not like mainland Chinese. Without the burden of an oppressive humorless government forever threatening serious consequences for plot *wrong-think* South Koreans can show some humor and originality. Faith is an excellent example. We know right away this is not standard martial arts because the bad guys are mainland Chinese threatening to overrun little Korea. Even odder, our hero and heroine are the oddest of couples. He's a tall 14th century *ultra-ninja-oid* that can shoot lightning bolts from his hands while she is a ditsy 21st century plastic surgeon. It's your basic boy meets time wormhole meets girl story. Faith only gets better after the hero drags the ditsy surgeon back to the 14th century. The result is a comical martial arts chick-flicky self parodying guilty pleasure. You can see the cast members thinking WTF between their lines and is there a better endorsement than that?

Pandoc based J Syntax Highlighting

Posted: 21 Sep 2012 04:30:58

John MacFarlane's excellent command line utility Pandoc is a Haskell program that converts to and from various text markup languages. Pandoc's help option lists its supported input and output formats.

The following examples are Linux bash shell commands. Windows shell commands are identical.

```
$ pandoc --help
pandoc [OPTIONS] [FILES]
Input formats:  native, json, markdown, markdown+lhs, rst, rst+lhs, docbook,
                textile, html, latex, latex+lhs
Output formats: native, json, html, html5, html+lhs, html5+lhs, s5, slidy,
                slideous, dzslides, docbook, opendocument, latex, latex+lhs,
                beamer, beamer+lhs, context, texinfo, man, markdown,
                markdown+lhs, plain, rst, rst+lhs, mediawiki, textile, rtf,
                org, asciidoc, odt, docx, epub
```

Some Pandoc conversions are better than others. Pandoc does a better job of turning markdown into LaTeX than LaTeX into markdown. It's also better at converting HTML into LaTeX than LaTeX into HTML. Pandoc works best when converting markdown, the simplest of its inputs, to other formats. In fact Pandoc does such a good job of converting markdown to HTML, HTML+MathJax, LaTeX or PDF that many writers are now saving their source documents as markdown text knowing they can easily produce other formats as needed.

As handy as Pandoc's markup conversions are this nifty tool also supports syntax highlighting for over a hundred programming languages. Unfortunately, my favorite language J is not on Pandoc's list of highlighted languages.[8] Where have I run into this problem before? Luckily for me pandoc is an open source tool and Pandoc's author has made it easy to add new highlight languages.

Pandoc is a Haskell program. I've been aware of Haskell's existence for years but until I decided to take on this specialized Pandoc hack I had never studied or used the language. Usually when you set out to modify a large program in an unfamiliar programming language you're in for what can only be described as an *f'ing educational experience.* It's a testament to the quality of the Haskell's global libraries and standard tools that a complete Haskell novice can effectively tweak large Haskell programs. Here's what you have to do.

1. Install the Haskell Platform. The Haskell Platform is available for all the usual suspects. I've used both the Windows and Linux versions. I almost installed the Mac version on my wife's Mac but resisted the urge.
2. Get with the Cabal. Cabal is the main Haskell package distribution and build utility. Cabal comes with the Haskell Platform and is easily accessed from the command line. Type `cabal --help` in your favorite shell to view the program's options.
3. Spend sometime playing with Hackage. Hackage contains a large set of Haskell packages including all the source code required to build Pandoc.

After installing the Haskell Platform and familiarizing yourself with Cabal try building Pandoc. This will thoroughly exercise your Haskell system. Instructions for building Haskell packages are here. After reading the package build instructions run the following in your command shell:

```
$ cabal update
$ cabal install pandoc
```

This will download, compile and install a number of Haskell packages. Where Cabal puts the packages depends on your operating system. Cabal saves Linux packages in a hidden local directory. On my machine they ended up in:

```
/home/john/.cabal/lib
```

[8] J has its own syntax highlighting tools but they are not part of a document generation system. Pandoc's highlighters elegantly feed into many output formats making them far more useful.

If you managed to build Pandoc you're now ready to add a new highlighting language. Pandoc uses the `highlighting-kate` package for highlighting. `highlighting-kate` works by reading a directory of Kate editor xml language regex based definition files and generating custom language parsers. We want to generate a custom J parser so we need to download `highlighting-kate` source and add a Kate xml definition file for J.

You can find such a J Kate file here. Download this file by cutting and pasting and save it as `j.xml`. Now do the following.

1. Run the Pandoc version command `pandoc --version` of the Pandoc you just built to determine the version of the `highlighting-kate` package you need.
2. Use Cabal to unpack the required `highlighting-kate` package. This downloads the required package and creates a temporary subdirectory in your current directory that contains package source code.

```
$ cabal unpack highlighting-kate-0.5.3.2
Unpacking to highlighting-kate-0.5.3.2/
```

3. Move into the temporary subdirectory and copy the Kate `j.xml` file to the package's xml subdirectory.

```
$ cd highlighting-kate-0.5.3.2
$ cp ~/pd/blog/j.xml ~/temp/highlighting-kate-0.5.3.2/xml/j.xml
```

4. Configure the package.

```
$ cabal configure
Resolving dependencies...
Configuring highlighting-kate-0.5.3.2...
```

5. Build the `highlighting-kate` package.

```
$ cabal build
Resolving dependencies...
    ... (omitted) ...
```

6. If `highlighting-kate` builds without problems run the command.

```
$ runhaskell ParseSyntaxFiles.hs xml
Writing Text/Highlighting/Kate/Syntax/SqlPostgresql.hs
Writing Text/Highlighting/Kate/Syntax/Scala.hs
```

```
    ... (omitted) ...
```

`ParseSyntaxFiles` scans the package's xml subdirectory and generates language specific parsers. If all goes well you will find `J.hs` in this directory.

```
~/temp/highlighting-kate-0.5.3.2/Text/Highlighting/Kate/Syntax
```

`J.hs`, like all the files referred to in this post, are available on GitHub in the `jacks/jodliterate` subdirectory.

7. Now rebuild the `highlighting-kate` package. This compiles your new `J.hs` parser.

```
$ cabal build
Resolving dependencies...
    ... (omitted) ...
```

8. After rebuilding the package run the Cabal copy command to put the modified package in the expected library location.

```
$ cabal copy
Installing library in
/home/john/.cabal/lib/highlighting-kate-0.5.3.2/ghc-7.4.1
```

Now that the highlighting library is up to date we have to rebuild Pandoc. To do this mirror the steps taken to download and build the highlighting package.

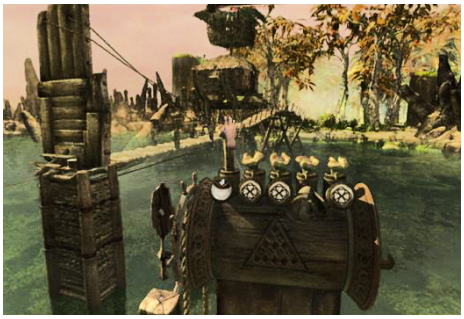
1. Use Cabal to unpack the Pandoc package.

```
$ cd ~/temp
$ cabal unpack pandoc-1.9.4.2
Unpacking to pandoc-1.9.4.2/
```

2. Switch to the Pandoc subdirectory and configure the package.

```
$ cabal configure
Resolving dependencies...
[1 of 1] Compiling Main    ( Setup.hs, dist/setup/Main.o )
    ... (omitted) ...
```

3. Rebuild Pandoc.



Bonebridge puzzle in MYST IV. The highlighted J verb `bonebridge` generates all "likely" lock combinations. Click for a MYST "Haven Age" walk-through.

```
$ cabal build
Building pandoc-1.9.4.2...
Preprocessing executable 'pandoc' for pandoc-1.9.4.2...
    ... (omitted) ...
```

If all goes well a Pandoc executable will be written to this subdirectory.

```
~/temp/pandoc-1.9.4.2/dist/build/pandoc
```

4. You can check the new executable by running `pandoc --version`. The result should display J in the list of supported languages.

Now that we have a Pandoc that can highlight J we're almost ready to blog gaudy J code. However before doing this we need to install some custom CSS. Custom CSS is not available on free *WordPress.com* blogs. To apply custom coloring schemes get the custom package and learn how to use WordPress's custom CSS editor. As daunting as this sounds it's no problemo for my limited purposes. To enable tango style pandoc syntax highlighting on your WordPress blog paste `tango.css` into the custom CSS editor, check the "Add my CSS to CSS stylesheet" button and the press the "Save Stylesheet" button. Now your WordPress blog will be sensitive to the HTML span tags generated by Pandoc.

To show that all this hacking works as intended you can check out the Pandoc generated versions of this blog post. I've posted the original markdown source with PDF, LaTeX and HTML versions. You can generate the HTML version with the command:

```
$ pandoc -s --highlight-style=tango PJHighlight.markdown -o PJHighlight.html
```

To get other versions simply change the file extension of the output `-o` file.

Finally we are ready to post syntax highlighted J code. The following J verb

bonebridge generates all "likely" lock combinations for the MYST IV Bonebridge puzzle in Pandoc's tango style. At one time I was a big fan of MYST computer games. I always enjoyed being lost in a beautiful puzzle which, if you discard the *beautiful* bit, is a pretty accurate description of my programmer day job.

```
bonebridge=:3 : 0

NB.*bonebridge v-- lists totem symbol permutations for bone
NB. bridge.
NB.
NB. The solution to this MYST IV puzzle is similiar to the book
NB. shelf puzzle in Tomanha but requires far more exploration of
NB. the age.
NB.
NB. You are confronted with 5 bones on the lock. All the bones
NB. move independently. You can see the settings for 4 bones. One
NB. bone has a broken display. The four visible bones have 8
NB. symbols on them in the same order. The 5th bone also has 8
NB. symbols and you can "safely" infer they are in the same order
NB. as the visible bones.
NB.
NB. Four bone symbols match symbols found on totem poles
NB. distributed around the age. There is a 5th totem pole but
NB. fruit eating mangrees obscure the totem symbol and I have
NB. never seen it. The totem poles are associated with age
NB. animals. In addition to the totem poles there is a chart in
NB. the mangree observation hut that displays a triangular
NB. pattern of paw prints. The paw prints define an animal
NB. ordering. The order seems to be how dangerous a particular
NB. animal is; big scary animals are at the top and vegetarians
NB. are at the bottom.
NB.
NB. Putting the clues together you infer:
NB.
NB. a) the bridge combination is some permutation of five
NB. different symbols
NB.
NB. b) two possible symbol orders are given by the paw chart
NB.
NB. c) you know 5 symbols and the 4th is one of the remaining 4
NB.
```

```
NB. If this is  the  case  the number of  possible  lock settings
NB. shrinks from 32768 to the ones listed by this verb.
NB.
NB. monad:  bonebridge uuIgnore
NB.
NB.   bonebridge 0

NB. known in paw order
known=.    s: ' square triangle hourglass yingyang'
unknown=.  s: ' clover cross xx yy'

NB. all possible lock permutations
settings=. ~. 5 {."1 tapl known,unknown
assert. ((!8)%!8-5) = #settings

NB. possible ordering - we don't know
NB. what the fifth symbol is but it
NB. occurs in the 3rd slot
order=. 8#s:<''
order=. known (0 1 6 7)} order
order=. unknown (2 3 4 5)} order

NB. keep unknown only in 3rd slot
settings=. settings #~ -. +./"1 (0 1 3 4{"1 settings) e. unknown
settings=. settings #~ (2 {"1 settings) e. unknown

NB. strict row sequence adverb
srsm=.  1 : '*./"1 u/&> 2 <\"1 y'

NB. retain strictly increasing and strictly decreasing rows
grade=. order i. settings
settings #~ ((< srsm)"1 grade) +. (> srsm)"1 grade
)
```

Semi-Literate JOD

Posted: 02 Oct 2012 04:08:52

Despite seven decades of programming experience documenting software remains a challenge. There are many reasons for this sorry state of affairs with the most

important being that programmers simply do not agree on the *need* for documentation. As pathetic as this sounds it's not without merit. It all depends on what you call "documentation."



Writing technical documents for management, marketing or users usually results in excruciating rounds of Dilbertian critiques. Everyone understands your code better than you do. If you provide too much detail, you get complaints. If you use unfamiliar words, you get complaints. If you point out limitations, assumptions or caveats, you get complaints. If you assume basic 8th grade reading levels, you get complaints. If you use nonstandard fonts or *unauthorized style templates,* you get complaints. No wonder many programmers hate "documentation" and blow off the entire problem by making ludicrous claims about "self documenting code." The self documenting cabal may have fooled management but they're not fooling the rest of us. The need for *illuminating* program documentation is as pressing today as it was for ENIAC coders in the 1940s and, when in it comes to illuminating documentation, the best overall approach was pioneered by Donald Knuth over twenty-five years ago and goes by the moniker *literate programming.*

Providing basic literate programming support in JOD has been on my to-do list for ages. I've held off until recently because I have never been happy with my mark up options. JOD directly supports simple J scriptdoc compatible leading comment block formatting. For example many of my J verbs start with a comment block like:

```
betweenstrs=:4 : 0

NB.*betweenstrs v-- select sublists between  nonnested delimiters
NB. discarding delimiters.
NB.
NB. dyad:  blcl =. (clStart;clEnd) betweenstrs cl
NB.        blnl =. (nlStart;nlEnd) betweenstrs nl
NB.
NB.   cstr=. ;20#<'start yada yada end boo hoo start ahh end '
NB.   ('start';'end') betweenstrs cstr
NB.
NB.   NB. also applies to numeric delimiters
NB.   (1 1;2 2) betweenstrs 1 1 66 666 2 2 7 87 1 1 0 2 2

's e'=. x
llst=. ((-#s) (|.!.0) s E. y) +. e E. y
```

```
mask=. ~:/\ llst
(mask#llst) <;.1 mask#y
)
```

Even if you can't spell J I bet you have a good idea about what this "program" does and, if you doubt my claims, I've left you with some examples to try the next time you find yourself in J. Stupid comments may be for losers but telling comments, especially example laden ones, really help! And, if you really find comments distracting, JOD has a deal for you!

```
   ;1{compj 'betweenstrs'
betweenstrs=:4 :0
's e'=.x
a=.((-#s )(|.!.0)s E.y)+.e E.y
b=.~:/\a
(b#a)<;.1 b#y
)
```

`compj` purges pesky comments and reduces tedious long identifiers like `mask` to pure compact J. Getting rid of comments is trivial, putting them back in: not so much! JOD's simple comment block formatting has been very effective but it's hardly literate programming.

Literate programming requires more muscle. Knuth used his own TEX. TEX and LATEX are certainly up to the job, as are many HTML and XML approaches. Unfortunately, all these mark up formats suffer from "distracting taggyness." I can tolerate LATEX but HTML and XML drives me nuts. Yes, there are perfectly fine editors for all these formats, but remember, we are inserting the resulting text into code that we will be looking at for the *rest of our miserable coding lives!* We need a mark up format that's stable, readable, versatile, easy to use and, *this is very important*, easy to ignore! Markdown is such a format. It's almost ideal for program comments and is capable of much more. I've started using markdown in JOD and it's already paying its way.

`jodliterate.ijs` is a J utility script that can generate *semi-literate* LATEX documents directly from JOD groups. It uses a version of pandoc with J syntax highlighting, see Pandoc based J Syntax Highlighting for details. I consider `jodliterate` semi-literate because it's completely at the mercy of the programmer. If you don't store coherent markdown text fragments in JOD all you get is a nice syntax highlighted listing. But, if you actually *write* about your group, `jodliterate` can produce essential documents. `jodliterate.pdf` is an example of this tool being used on itself. Self reference always makes an excellent test case. `jodliterate` will be included in the next JOD release.

Until then you can download the J script from this directory. Enjoy!

Election Reflections

Posted: 09 Nov 2012 23:17:59

About the only surprise coming out of the recent US election was Puerto Rico's foolish vote to seek statehood. *People, you don't board the Titanic after it has hit the iceberg.* In time Puerto Ricans will learn what Quebec separatists have already painfully absorbed. If fence-sitting is your main tactic for extorting favors from larger entities stay on the goddamn fence. The minute you hop off the larger entity goes back to giving less than a crap about you. The new independent senator from Maine should pay attention. Nobody in the larger United States, or anywhere else for that matter, cares a whit about Maine. It only comes up in postcards featuring lighthouses. As a person from an even smaller state Montana, (yes tiny Maine has more people than Montana), I am not belittling you I'm merely pointing out that there aren't enough of you to tip elections one way or the other so the political establishment will not, can not, and never will give a fresh firm shit *unless you're in position to extract favors.* Sending a fence-sitter to the senate is smart politics but only if he stays on the fence! The people of Montana weren't smart enough to elect an independent and reelected a garden variety Obama stooge. This only makes sense if you want to be ignored.

My Iranian born wife is a new American citizen and this was her first presidential election. She reliably cancelled my vote so the political establishment sucked a big goose egg out of our household. During the interminable election I kept reading about couples fighting about their partner's choice. Some went so far as to "misplace" ballots and get snotty about driving each other to the polls. In my naive, brain-dead youth, I used to swallow, "think not what your country can do for you, but what you can do for your country", hogwash. I really felt that my relationship with my country was vitally important, certainly more important than a possibly temporary spouse. People get divorced all the time but their countries abide. Well, not really, I'm a dual citizen; my wife holds three citizenships. Countries matter but if you don't value your wife or husband more than your country you're either in a bad marriage or you're a moron. In a few short years, when our runaway fiscal train finally jumps the rails and plunges into the abyss, a good spouse will be far more valuable than bankrupt government social programs. For lucky bastards like me that's already the case.

Git me a Hub'bery

Posted: 18 Nov 2012 23:51:38

Sometime ago I crossed my machine synchronization threshold. I routinely work on four operating systems, three laptops, a few servers, a bunch of phones and so on. I synchronized the directories I cared about while forming deep and rewarding relationships with file sharing services like Dropbox. Dropbox is great but its success has attracted the attention of paranoid IT micromanagers and it's now frequently blocked on internal corporate networks. The beSOXed imbeciles that set IT policies will not rest until it's impossible to do useful work on *corporate assets* and people wonder why there is so little return on IT investment.

Living without Dropbox and its many peers is annoying but tolerable provided humble USB ports are still useful but restricting plug-in drives is now ***standard not-operating procedure*** in most companies. So if you cannot share files or use USB what's left? Would you believe GitHub?

GitHub is close to total global dominance in the geeky code sharing world. I would not have expected a version control system to attract a fiercely loyal and dedicated cult following but it has. Linus Torvalds, the Linux demigod, started Git when he *correctly observed* that all pre-Git version control system were fundamentally flawed because they *enshrine the overlord peon hierarchy.* The overload, usually some IT nitwit, *manages* the entire code submission, review and backup process and the peons, that would be us, bend over take it. Until Git appeared the majority of programmers despised and detested version control. It was just more IT management bullshit. We put up with it because version control is a necessary evil and paychecks are even more necessary evil. We only wished things could be less evil and then Git appeared.

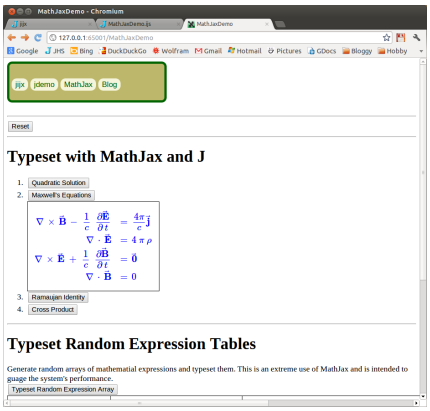
Git dumped the overlord peon hierarchy and adopted the radical notion that all repositories are created equal. When you synchronize Git repositories *everything is synchronized.* Your local copy contains everything the source does. This makes Git a superb peer-to-peer file distribution tool. Not only are you distributing files you're also distributing their complete histories. This, almost biological replication model, has resulted in an explosion of Git repositories and the rise of hub sites like GitHub. Git's dominance would not be possible if it was centrally managed. It's succeeded because it's harnessed market chaos.

I've used Git for over a year and I have often thought about pushing JOD source to public repositories. This weekend I bit the bullet and set up public repositories. Now it's easy to Git me a Hub'bery!

JHS meets MathJax

Posted: 25 Nov 2012 07:19:21

With the release of J 7.01 Jsoftware "deprecated" COM. J 6.02 can run as a COM automation server but J 7.01 cannot. Throwing COM under the bus is hardly radical. Microsoft, COM's creator, has been holding COM's head underwater for years. Many `.Net` programmers cringe when they hear the word "COM" and the greater nonwindows[9] world never *really* accepted it. COM is a complex, over-engineered, proprietary dead-end. Yet despite its bloated deficiencies a lot of useful software is COM based. So with COM going away, at least for J programmers, the hunt is on for viable replacements and while we're hunting let's rethink our entire approach to building J GUI applications.



Screen shot of JHS MathJaxDemo running on Ubuntu

J GUI applications are traditional desktop applications. They're built on native GUIs like Windows Forms and GTK and when done well they look and act like GUI applications coded in other languages. This is all good but there is a fundamental problem with desktop GUIs. *There are many desktop GUIs and they do not travel well.* Programmers have spent many dollars and days creating so-called *cross-platform GUIs* but, if you wander off the Windows, Mac and Linux reservation, the results are not particularly portable. And, as portable GUIs rarely outperform native alternatives, programmers tend to stick in their tribal silos. GUI programming is a bitch, has always been a bitch and will always be a bitch. It's time to divorce the desktop GUI bitch.

All divorces, even the geeky GUI variety, are hard. When you finally cut the knot you're not entirely sure what you're doing or where you'll end up. All you know is that there is a better way and with respect to J GUI applications I believe that JHS is that way. JHS leverages the large CSS, HTML and JavaScript (CHJ) world and in recent years some impressive browser-based applications have emerged from that world. The application that changed my mind about JavaScript and browser-based applications in general is something called MathJax.

[9] On a purely numerical basis there is no greater nonwindows world.

MathJax typesets mathematics. It renders both LaTeX and MathML using fully scalable browser fonts. This is better than what WordPress does. The following Ramanujan identity taken from MathJax examples renders on WordPress as an *image.*

$$\frac{1}{\left(\sqrt{\phi\sqrt{5}}-\phi\right)e^{\frac{2}{5}\pi}} = 1+\frac{e^{-2\pi}}{1+\frac{e^{-4\pi}}{1+\frac{e^{-6\pi}}{1+\frac{e^{-8\pi}}{1+\ldots}}}}$$

MathJax renders the same expression with scalable fonts and supports downloading the expression as LaTeX or MathML text. This is pretty impressive for browser JavaScript. I wondered how hard it would be to use MathJax with JHS and was pleased to find it's *easy peasy.*

Writing a basic JHS application is a straightforward task of setting up three JHS J nouns `HBS`, `CSS` and `JS`.[10] `HBS` is a sequence of J sentences where each sentence yields valid HTML when executed. JHS generates a simple web page from `HBS` and returns it to the browser. `MathJaxDemo HBS` is:

```
HBS=: 0 : 0
navul''
'<hr>','treset' jhb 'Reset'

'<hr>',jhh1 'Typeset with MathJax and J'
configjax
oltypeset''

'<hr>',jhh1 'Typeset Random Expression Tables'
tabledesc
'<br/>','ttable' jhb'Typeset Random Expression Array'
'<br/>','restable' jhspan''
)
```

`CSS` is exactly what you expect: CSS style definitions. Finally, `JS` is application specific JavaScript. `MathJaxDemo JS` matches `HBS` page events with corresponding JHS server handlers. This demo uses ajax for all event handlers.

```
JS=: 0 : 0

 function ev_ttable_click(){jdoajax([],"");}
 function ev_tquad_click(){jdoajax([],"");}
 function ev_tmaxwell_click(){jdoajax([],"");}
 function ev_tramaujan_click(){jdoajax([],"");}
 function ev_tcrossprod_click(){jdoajax([],"");}
```

[10]To learn about JHS programming study the JHS demos and the JHS browser application.

```
function ev_treset_click(){jdoajax([],"");}

function ev_ttable_click_ajax(ts){jbyid("restable").innerHTML=ts[0];
               MathJax.Hub.Typeset();}
function ev_tquad_click_ajax(ts){jbyid("resquad").innerHTML=ts[0];
               MathJax.Hub.Typeset();}
function ev_tmaxwell_click_ajax(ts){jbyid("resmaxwell").innerHTML=ts[0];
               MathJax.Hub.Typeset();}
function ev_tramaujan_click_ajax(ts){jbyid("resramaujan").innerHTML=ts[0];
               MathJax.Hub.Typeset();}
function ev_tcrossprod_click_ajax(ts){jbyid("rescrossprod").innerHTML=ts[0];
               MathJax.Hub.Typeset();}

function ev_treset_click_ajax(ts){
  jbyid("restable").innerHTML=ts[0]; jbyid("resquad").innerHTML=ts[0];
  jbyid("resmaxwell").innerHTML=ts[0]; jbyid("resramaujan").innerHTML=ts[0];
  jbyid("rescrossprod").innerHTML=ts[0];
}
```

Running the JHS `MathJaxDemo` is a simple matter of:

1. Downloading the J scripts in the `MathJaxDemo` folder to a local directory.
2. Editing J's `~config/folders.cfg` file and pointing to your download directory with the name `MathJaxDemo`. You are set up correctly if `jpath '~MathJaxDemo'` returns your path.
3. Loading the demo: `load '~MathJaxDemo/MathJaxDemo.ijs'`
4. Browsing to the site: `http://127.0.0.1:65001/MathJaxDemo`

It's not hard to use JHS as a general application web server. JHS provides many common controls right out of the box but to compete with desktop applications it's necessary to supplement JHS with JavaScript libraries like MathJax. In coming posts I will explore how to use industrial strength JavaScript grids and graphics with JHS.

> *Bill Lam has pointed out that J 7.01 can function as a COM client. The JAL addon `tables/wdooo` controls OpenOffice using Ole Automation which is one of the many manifestations of COM.*

JHS with the DHTMLX Grid

Posted: 04 Dec 2012 05:27:15

Grids are the most important GUI user object. It's hard to think of a user-friendly data munching application that doesn't have a grid beating at its heart. Consequently, any serious *GUI interface contender* must support grids. My previous post showed how to use MathJax with JHS. MathJax is an impressive and important JavaScript library; it clearly demonstrates the potential of CHJ[11] GUI interfaces but let's face it, mathematical typesetting will not win many consulting contracts. Grids won't seal the deal either but their *absence* is a huge "next" signal. To support serious business and technical applications JHS needs grids.

Fortunately, the JavaScript world is grid saturated. The difficulty is not finding a grid but choosing among dozens of candidates. For this demo I Googled around and found DHTMLX. According to this probably biased article the DHTMLX grid performs well on large inputs and, more importantly, there is an open source version.

You have to start somewhere so I opted to use DHTMLX to build a simple CSV file editor. The CSV files I am going to edit are `TAB` delimited text files. Each file has a fixed number of columns with column names in the first row. Here is an example `TAB` delimited file. The idea is to load the file data into the grid. Tweak a few rows and save the result. By increasing the size of the CSV file we can gauge the performance of the grid. Let's get started.

Using the DHTMLX grid requires some preparation.

1. Create a local directory and edit J's `~config/folders.cfg` to reference the directory with the name `GridDemo`. `jpath '~GridDemo'` should return the full directory path.
2. Download the files in the GridDemo folder and copy them to `~GridDemo`.
3. Download the Standard Edition (Version 3.5) of DHTMLX. The distribution file `dhtmlxGrid.zip` contains the grid source and supporting files.
4. Extract the `/dhtmlxGrid/codebase/` directory from `dhtmlxGrid.zip` and copy the entire directory tree to `~GridDemo`.
5. Also extract `/dhtmlxGrid/samples/common` from `dhtmlxGrid.zip` and copy the directory to `~GridDemo`.

When you're finished the top-level of `~GridDemo` will look like the following where names without extensions are directories.

[11] CSS, HTML and JavaScript.

```
calendar            dhtmlxgrid.js          GridDemo.ijs    t100rows.txt
common              dhtmlxgrid_skins.css   imgs            t5000rows.txt
dhtmlxcommon.js     excells                jodoval.png
dhtmlxgridcell.js   ext                    skins
dhtmlxgrid.css      favicon.ico            t1000rows.txt
```

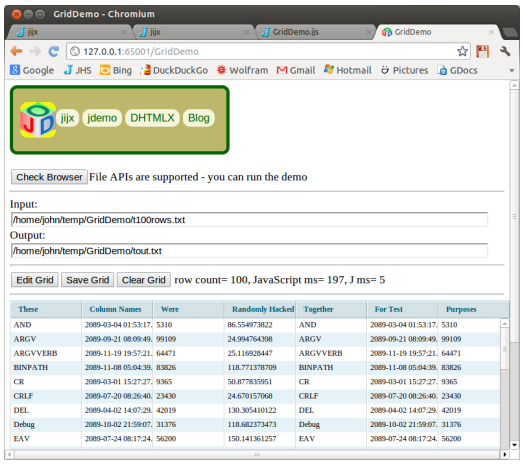
The main J script is `~GridDemo\GridDemo.ijs`. Start JHS and load this file.

```
    load '~GridDemo/GridDemo.ijs'
```

Then browse to this site.

```
    http://127.0.0.1:65001/GridDemo
```

If all goes well you will see the following `GridDemo` page after pressing the `Edit Grid` button.



Screenshot of GridDemo running on Chrome

To load and edit files enter their fully qualified names in the `Input` and `Output` boxes and press `Edit Grid`. To edit a cell double-click it. To save changes press `Save Grid`.[12] There are more sophisticated ways to pick files on JavaScript pages. It's easy to pop up standard host OS file dialogs but it's not particularly easy to determine host directory paths. This post outlines the demons web programmers must slay to select host files. JHS circumvents these difficulties by asking the J server, which is a

[12]The freebie version of DHTMLX does not support grid serialization. Here is how to roll your own.

typically a *local console process*, to do the dirty work. JavaScript's access to local files is limited for security reasons but J has no such restrictions. Use the force Luke!

Three test files `t100rows.txt`, `t1000rows.txt`, and `t5000rows.txt` are included with the demo. On my test machines load times vary from fractions of a second for the smaller files to nine seconds for the largest. This is competitive with the basic `C#` grid control and fast enough for serious work.

In subsequent posts I will explore JavaScript/JHS graphics options and start the process of integrating, grids, graphs and MathJax with JHS.

More about JHS with the DHTMLX Grid

Posted: 05 Dec 2012 04:22:50

I have resolved my DHTMLX standard edition row data extraction problem. The standard edition does not serialize grids or track user cell changes. You have to pay for such luxuries. Because I'm a foul software Grinch and this is just an exploratory hack I had to roll my own. I am posting the relevant JavaScript because I could not find similar examples. Here is how you can fetch rows from standard edition DHTMLX grids and save them as JSON in a hidden `textarea` element. Eric Iverson suggested hidden `textarea`s and they work like a charm.

```
function ev_saveme_click(){

  if ('undefined' != typeof grid0){

    if (0 == grid0.getRowsNum()){
      jbyid("rerowcnt").innerHTML = "No rows to save";
      return;
    }

    var st = new Date().getTime(),  // start time
        ids = grid0.getAllRowIds(","),
        ccnt = 1 + grid0.getColumnsNum();  // includes id

    ids = ids.split(",");
    var rcnt = ids.length,
        tab = new Array(rcnt);

    // header row - tab[0][0] cell ignored
    tab[0] = new Array(ccnt);
```

```
    for (var i = 1; i < ccnt; i++) {
      tab[0][i] = grid0.getColumnLabel(i-1,0);
    }

    // cells with leading row id
    for (var i = 0 , si = 1 ; i < rcnt; i++ , si++) {
      tab[si] = new Array(ccnt);
      for (var j = 1; j < ccnt; j++) {
        tab[si][j] = grid0.cells((+ids[i]),j-1).getValue();
      }
      tab[si][0] = ids[i];
    }

    // prefix row column counts
    var pfx = (rcnt+1) + " " + ccnt + "*";
    jbyid("gridchgs").innerHTML = pfx + JSON.stringify(tab);
    jdoajax(["gridchgs","tout"],"");

    var et = new Date().getTime() - st;  // end time
    jbyid("rerowcnt").innerHTML= " row count= " + grid0.getRowsNum() +
        ",  JavaScript ms= " + et;

  } else {

    jbyid("rerowcnt").innerHTML= "Nothing to save";
  }
}
```

Passing data back to J is fast but the J JSON addon `convert\json` burps on large datasets. For this demo I substituted a simple table oriented parser that is much faster.

King Hobbit Kong

Posted: 16 Dec 2012 22:24:06

The pre-Hobbit hum was not harmonious. It started with the interminable legal battle over who would direct the Hobbit and how to split any spoils. After Peter Jackson's cinematic Lord of the Rings triumph people assumed he would be The Hobbit guy but an envious and embittered clique of Tolkien's heirs felt they weren't getting enough for their stuff and filed suit demanding more. For some reason the spoiled progeny of the famous and accomplished think they're entitled to feed on

their glorious ancestor's corpse — oops estate — forever. We've seen enough of this in the US with the idiot Kennedy clan: none of whom I would trust to drive or fly me anywhere. Even white-bread, holier than thou Canada, cannot shake this affliction. Look at Justin Trudeau — living on his father's fame and full of it right up to his naturally curly eyebrows. Go back far enough and we all have glorious ancestors; unfortunately, this entitles us to *precisely squat* which, in a just universe, would constitute the sum total of royalties due to the current parasitic Tolkien generation.

Once the legalities settled and Jackson got control of the project ominous stories started swirling about "changes" to The Hobbit. One particularly disturbing rumor had Legolas making an appearance. Funny, I've read the Hobbit twice and *missed him in the book!* Whenever people start "improving classics" I get very wary. I'm sure the Hobbit screen writers are very smart and capable but they haven't written a literary classic. If Legolas shows his pointy little ears in The Hobbit they should put bags over their heads and go into hiding *for their own safety.*

After the legalities and plot rumors the technology of The Hobbit made news. The Hobbit was shot at 48 frames per second: twice the standard rate. This was allegedly done to improve 3D projection. The biggest complaint about 3D movies, *other than that they are 3D movies*, is that they're dim and fuzzy. Why this surprises anyone astonishes me. Hey, I've got an idea, let's watch our three hundred million dollar movie through cheap, dark, optically flawed, polarized, throw-away plastic glasses. What could go wrong? The stupidity of hollyweirdos is boundless but what do you expect from Obama worshippers. It's been claimed that 48 frames per seconds allows 3D projectors to present 24 frames per second to each eye and increase projection brightness, compensating for the those cheap dark glasses, without introducing an annoying flicker that plagues lower frame rates. We shall soon see if this is the case or just more Hollywood bullshit. Still, it would have been nice to test this technology on standard cinematic crap before subjecting classics to it.

Finally, if all of the above wasn't enough, The Hobbit, by far the shortest of the famous Tolkien books, is being split into two, maybe three films, with the first installment running around three freaking hours. Wasn't Jackson the guy that took a short, tight, beloved film classic, the original King Kong, and blew it up into a gigantic, tedious, overwrought, hemorrhoid inducing bore that was gutted in less than ten seconds by Robot Chicken! Yes the pre-Hobbit hum was not harmonious so I wasn't expecting much when I plopped my discerning ass in my cinema seat and braced for The Hobbit.

Then three hours passed.

So what's the verdict? I'll try to do this without profanity. First a few warnings:

1. If you have read and enjoyed The Lord of the Rings but haven't read the Hobbit **do not see this film until you have read the book!** The book will not spoil the film but the film will spoil the book.

2. If you're a parent, looking to entertain your sucrose saturated children over the holidays, and you take them to The Hobbit, *before they get a chance to read the book*, you might as well go whole hog and tell them, there's no Santa Claus, the Easter Bunny does not lay hardboiled colored eggs, the Tooth Fairy is mom and dad and little children don't go to an imaginary heaven when they die; they're just dead.

With that out-of-the-way I will publicly confess to enjoying the film labeled "The Hobbit." Yes, my worst fears materialized on an epic scale. This is not, "The Hobbit," but rather Hobbit inspired. So many artistic liberties were taken that I predict a rash of Hobbit, or not Hobbit, critiques will flood the intertubes. The story unfolds with a leaden, worst camping trip ever, pace and even the best scene in the movie, when Bilbo wins his riddle contest with Gollum and makes off with "the precious" ring is tedious. The famous *time* riddle comes across as a mood-lighting lighting aside and is so far removed from the brilliance of the book that it would have been better to just omit it, but you could say the same for at least half the scenes in this movie.

As I left the cinema surrounded by subdued teenagers, many of whom where commenting on how, "that wasn't like the book," I wondered who is this film for? Then it hit me. This is for the fantasy role-playing video game crowd. Many kids spend days immersed in these games. They're used to laconic meandering pointless plot lines. This demographic will find The Hobbit tight, on plot, and will delight in the impressive special effects. Smaug does have beautiful eyes and I really enjoyed the wood trolls. I would have *positively loved* this film if the trolls had eaten the dwarves on the spot and then followed it up with a celebrity chef panel discussion. Maybe we'll get lucky in Hobbit 2, 3, 4, 5, 6, 7, ….

Apocalypse Never or I Told You So Day

Posted: 21 Dec 2012 16:45:49

Let's begin with an apology to the Mayan's. There's not a whit of verified historical evidence that the ancient Mayans predicted the end of the world or that they were any more upset about cycles in their calendars than we are in ours. Modern Mayans



You've burnt the plot and added ingredients that the recipe didn't call for. This isn't Hobbit stew and you call yourself a chef.

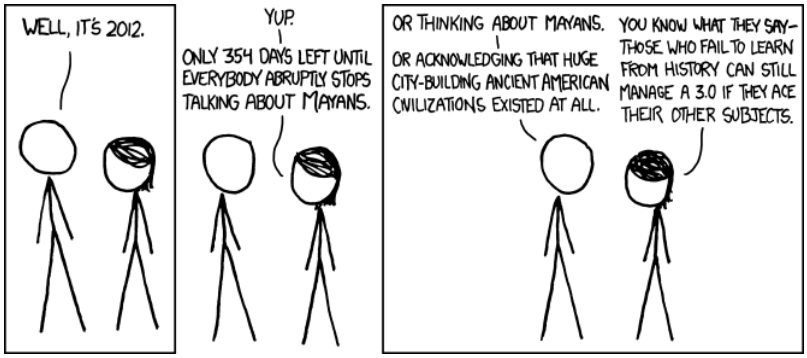
repeatedly pointed this out but arguing with new age morons, schizophrenic doom mongers and pure outright rapacious hucksters is a thankless task. Crazy ideas are easy to market. Just look at who we vote for, the consumer crap that fills our homes, the twaddle that we ludicrously label news and the sheer reams of reason suffocating rubbish that infuses the very core of our increasingly derelict civilization. Believe me; I completely understand the hygienic appeal of apocalypse. A clean, moron free, slate: oh what a glorious day that would be!

Well, it's not the end of the world but it's still a glorious day because the day after the world ends is when skeptics celebrate global ***I told You So Day***. On I told you so day sane and rational people get to rub it in and remind delusional nitwits everywhere that they've been suckered again. My only regret is I told you so day requires a degree of sanity among the insane. Anyone that fell for Mayan doomsday drivel is now rapidly forgetting it and the very craziness that abetted the belief is now rapidly erasing it. Genuinely crazy people aren't rational enough to recognize their errors making them poor I told you so targets. As for hucksters: they're already working the next scam. Skeptics just can't get no satisfaction!

Let's Trade Constitutional Amendments

Posted: 24 Dec 2012 22:28:45

I'm a big fan of stark choices. Stark choices push trivialities aside, expose underlying problems and bring hidden motivations to light. There is nothing more satisfying than watching well nursed notions self-destruct when reduced to stark choices. Here's a stark choice our corrupt ruling class will never put on ballots, or discuss, or dare



XKCD is the best skeptical cartoonist working the intertubes these days. Click for more.

mention.

> We can continue riding our gun-toting financial train wreck or we can repeal the Second Amendment, the right to bear arms, and substitute a Balanced Budget Amendment in its place.

Citizens lose the right to bear arms and government loses the right to borrow and print money. To my tiny programmer brain this seems like a completely fair trade. The Second Amendment was never about creating a safe cozy society. It was all about safe-guarding liberty; it still is. Today, the biggest threat to the liberty of Americans is our own government. If it was cut down to a fiscally sustainable size the need for firearms, to shoot the bastards in DC, would dramatically subside and then all of us, left, right, up, down, top and strange could join hands for one big happy Kumbaya-a-thon.

Yeah I didn't think so.

Still it's fun to play these mind games. If by some miracle, and I'm talking Red Sea parting here, my amendment swap ever got serious consideration, it would be amusing to watch the partisan cockroaches[13] run for cover.

For the left the primacy of the state is everything. Gun control is far more about control than it is about guns and public safety. Faced with the dramatic curtailment of largely wasteful government social programs, a logical consequence of balanced budgets, your typical lefty would happily accept one, two, three, maybe more kindergarten

[13] My apologies to cockroaches. You are fine upstanding arthropods while political partisans barely reach the level of toxic waste.

massacres per year to keep their beloved entitlements flowing.

As for the gun rights crowd: many of them clamor for balanced budgets but I suspect many would go all, "deficits don't matter," if they had to cough up their beloved 9mm pistols, sawed off shotguns and AR-15's.

There is very little intellectual honesty or creativity on either side of this debate and I'm tired of it. If we don't fall off the damn fiscal cliff I'm going push your dumb asses over it. Have a merry freaking Christmas and a less miserable New Year!

Books to Ignore

Posted: 27 Dec 2012 23:31:03

My superpower is indifference. Indifference is the soporific that lets my inner beast nap in peace. Without it I would have long since turned into a murdering psychopath, but I remain calm, rational, nearly ethereal, as I proudly ignore the unhinged idiocy of my fellow human beings. I prize my detachment, my don't-give-a-shit-ness, my lordly disdain, and I work hard to maintain it. Today I'm sharing one of my, how to resist pummeling the morons around you, secrets. Here it is: *don't read rubbish.*

Now, don't fire up your book Barbie; that's not what I'm suggesting. I'm asking you to upgrade your standards and scoot past toxic aisles in your favorite book store. Ignorable books are legion and they're relatively easy to identify. The following rules have served me well.

1. **Do not read biographies of living people.** There are few, if any, definitive biographies of the living for the simple reason that they're almost impossible to write without triggering crippling law suits. Historical figures, and their entire sycophantic bottom-feeding cohort, must be long dead before anything approaching perspective is possible. So put down that Prince of Wales or, don't make me puke, Ted Turner, biography. They're trash, worse than pornography, at least porn facilitates release.

2. **Do not read autobiographies.** Autobiographical fiction, and it always is, is akin to masturbating in public. Only one person is going to enjoy it. Everything I said about biographies goes double for autobiographies. We know you're misleading, omitting, embellishing, polishing, fabricating, composting and just plain lying. If you're one of the rare true worthies, say a Fields Medalist, a hard science Nobel winner, a Caesar, or a Mark Twain then go ahead and indulge

yourself. Your scribbling's will show future generations that bullshit is the only human universal.

3. **Do not read hyphenated anything.** Only mediocre twaddle preens as black-history, feminist-politics, gay-literature, Indian-mathematics, lesbian-drama or aboriginal-stories; the good stuff is known as history, politics, literature, mathematics, drama and stories.

4. **Skip anything with "New Age" in its title, preamble, introduction, appendices or footnotes.** Virtually everything written about new age beliefs, medicine, philosophy and so on is complete and utter garbage. This dreck is for feeble, magical-thinking, childish minds. I genuinely pity the purveyors and swallowers of new-age bilge; they're sad silly people: come the zombie apocalypse the Deepak Copra's of the world are starters.

5. **Eschew political diatribes written solely to exploit current events.** The political diatribe, or insta-history, like autobiographical fiction, may let readers in the future relive our self-deceptions, but we don't live in the future. Most of these books emit a foul, *cash in on my 15 minutes of fame*, stench. I weep for the trees that died to print this crap.

6. **Ignore books that rehash thoroughly debunked cover-ups and conspiracies.** 9/11 was not an inside job, there are no miracle cancer cures, Bigfoot does not exist, the pyramids were not built by aliens, dowsing is crap, Oswald shot Kennedy, and the world did not end on December 21, 2012. Being a hard-ass skeptic clears entire drivel laden bookshelves.

7. **Do not read diet books.** You are not going to learn anything you don't already know. We know why we're fat. We eat too much and move to little. It's really that simple. Get off you're stupid obese ass and stop wasting your money on diet books.

8. **Do not read computer books with high screen-shot densities.** As a programmer I am constantly pawing through computer books and it pains me to report that vast swathes of this technical genre are awful. Stop printing one damn screen shot after another. It's not helping.

9. **Ignore how to get rich books.** Get rich whores are worse than insta-history whores and often far more damaging to the pocketbooks of gullible readers.

10. **Give any book sharing Steve Job's secrets a wide berth.** The necrophages writing this tripe are stunted little animals. Let's feed on the dead,

rich, white guy. Maybe if we eat his soul we'll get rich too.

See that wasn't so bad. With these ten rules you, shrink big-box bookstores to manageable dimensions, speed up online searching, and cut your exposure to rage fomenting mental pollution. I must warn you that there are exceptions my rules and it delights me when I find them. If you can point to books that break my rules please drop a note. *I enjoy being wrong; it's an opportunity to learn something and it's a rare experience.*

2012 Blog Robot Review

Posted: 31 Dec 2012 15:36:11

The WordPress.com robots gave us an amusing end of year blog *attaboy*.



Click for bloggy goodness

Here's an excerpt:

> 600 people reached the top of Mt. Everest in 2012. This blog got about **11,000** views in 2012. If every person who reached the top of Mt. Everest viewed this blog, it would have taken 18 years to get that many views.

Click here to see the complete report.

2013

Argentina or Australia

Posted: 03 Jan 2013 05:42:18

We're planning a major trip for the fourth quarter of 2013. It's been over a decade since my wife and I last sojourned beyond North America so this year we're going to spend a few dollars, before the Obama economy reduces them to useless paper, and see more of the world. Two countries have long topped my must visit list: Argentina and Australia. I'm attracted to each for different reasons. We would like to visit both but resource constraints mandate one. So I thought I would ask you, dear readers, to help us make up our minds.

In Australia's favor, it's a large English-speaking country inhabited with unique flora and fauna. Who doesn't want to see many marauding marsupials?[14] Visiting Australia would let me tick off another continent leaving one, Antarctica, to visit. I know getting around the country would be like a North American road trip and culture shock would be limited or non-existent. From the outside Australia seems like a warmer, drier and less polite[15] version of Canada sans Quebec.

Spanish-speaking Argentina presents a few more cultural barriers, but in Argentina's favor, it has the highest mountain in both Americas, shares one of the greatest waterfalls on Earth, sports a great new world city, Buenos Aires, and is populated with people who have limited respect for their government. Disdain for the ruling class: it's a sure sign of an *enlightened people*.

On the basis of current events this is a no-brainer; Australia easily wins. Australia, like Canada, is a relatively competent and safe democratic state. But, on a darker note, and just like Canada, Australia is overrun with prattling lefties on the government's payroll. I see no serious ideological differences between the CBC and the ABC. Australia, like Canada, still supports the anachronistic British crown, but in their favor, they're on the republican edge and if Chuck, the idiot, becomes king they may finally cross over to the dark side.

Argentina's recent past is problematic. They provoked and lost a stupid Falkland sheep pasture war. They alternate between clueless Peronista cronies and second-

[14] Here in Missouri we often find dead opossums, members of the sole North American order of marsupials, on our highways.

[15] Canadians are too polite. Assholes won't learn if you don't call them assholes.

rate fascists. You know your government is pathetic when Madonna makes musicals about it. The current Kirchner government is hopeless and is wrecking the country's finances at Zimbabwean speed. This is all bad, but taking a contrarian tack, Argentines have already been there done that. When currency collapses and defaults are regular events people plan for them. Argentines have much to teach the world when it comes to ignoring, working around, and sabotaging the designs of our delusional masters. They know their government is incompetent, sometimes dangerous, and not be trusted — especially with money. In this regard they're light years ahead of Americans.[16] Such chaos would scare off tourists in many parts of the world but nobody is raising red flags about Argentina; it's not Gaza or even, post Arab spring, Egypt.

So where should we go? We promise to weigh any hints or suggestions you leave. Click the following link for the first ever Analyze the Data not the Drivel poll.

Should we visit Argentina or Australia?

My Dream of Liberty Encased

Posted: 05 Jan 2013 05:31:35

I have cinematic dreams that I watch as a little sleeping movie critic. I'm sure you're familiar with this weird state of consciousness. You know you're asleep and dreaming; the dream is unfolding around you, but part of your mind, the part that knows you're dreaming, is aware and watching. It's busy taking notes, making snide remarks, lamenting poor production values and snickering at clichés. Sometimes it's surprised and delighted by unexpected turns. This morning I had an entertaining dream.

I was visiting the Statue of Liberty for the second time. I've seen the statue in my waking life and it is well worth the security shakedown you'll get before boarding the ferry at Battery Park. In my dream I knew that many years had passed since my last visit and I was nervous about recent changes. As the ferry pulled up to the statue's island my concerns materialized. The entire island had been "redeveloped." The little park at the base of the statue was gone: replaced by a massive marble covered plaza. Standing in the middle of the plaza was a large, hideous, marble, glass and steel building that completely enclosed the statue. From the island boat dock you couldn't even see Liberty! "Oh crap," my dreaming self muttered. Large signs on the dock warned us about "demonstrative language." We were to conduct ourselves

[16] Don't worry, The One's inept regime is educating large numbers of Americans on the dangers of out-of-control finances. Soon Americans will join more enlightened nationalities, like Mexicans, in their contempt for government.

with quiet dignity while visiting this "shrine of democracy." My dreaming self, and the little sleeping movie critic, both inwardly groaned. Nothing says "democracy" like shutting up and taking whatever's doled out.

I got off the boat feeling hopeful; there had to be a good vantage point to look at Liberty. I was carrying my cameras, so I set off exploring the plaza looking for a good place to take pictures. The plaza was still under construction. Construction fencing blocked off the plaza behind the Liberty building. You couldn't walk around the building, but you could go far enough to see that the walls were completely opaque on all sides except the front, where Liberty gazed at the harbor. Her back and sides were completely hidden and exceptionally thick steel girders buttressed the back wall. "That ought to block incoming planes," my dream self thought. My little movie critic wasn't happy. *Liberty is about open possibilities in all directions.* It's not about being stuffed in a box and hidden from view. All my selves found it difficult to believe that some moron thought it was a good idea to completely cover the thing we were all there to see.

Determined to get a good picture, I turned back from the construction fence and walked along the base of the building. On the way I passed two little men dressed in black; they were staging a puppet show. Only the puppets weren't little dolls on strings they were massive pantomime robots that towered over the tourists. The giant robots were exactly mimicking what the little men were doing. My somnolent movie critic thought, "Cute – the great men are really just little men putting on a big show. If you take away their puppets they're even smaller and more pathetic than the rest of us." I took a moment to congratulate my dreaming self for abruptly injecting this metaphor while also noting it was too blatant for refined tastes.



Leaving the puppeteers, I made my way to the front entrance of the building. It was like every visitor center you have ever entered. A fat black woman with bad breath patted me down and made me run my already checked camera bags through an x-ray scanner. I picked up my camera bags and wandered in the Liberty building until I found a dark series of escalators running up the front of the massive statue. I was suddenly happy. This must lead to a good viewpoint. I walked up the escalator steps fumbling with my camera bags. Immediately, in dream steps, I was at the top of the escalators. They discharged into a small dark brown room at the very top of Liberty. In the middle of the room, wrapped in museum display velvet, a bit of Liberty's crown reflected dim halogen lights. Tourists were touching the

exposed crown bit like they kiss the toes of bronze saints. My movie critic approved, "This is the way we do oppression. We don't beat people up; we don't loudly lord it over them; we don't get in their big fat stupid faces day in and day out. No, we turn important symbols into tourist attractions, wrap them up as venerated national monuments, and because we have nasty sense of humor, we allow well frisked tourists to touch a bit of, 'Liberty', while doing everything we can to deny them real liberty."

At this point I woke up and thought, "Boy John, your subconscious totally nailed it with that one!" *This is how we do oppression.* Being a citizen in the Indebted States of America is exactly like being a crown touching tourist in my dream. We pretend the sliver of freedom we're allowed to touch makes us free but it really only showcases our stupidity and cowardice. A truly free people would tear down the Liberty encasing visitor center and hang the architects from the remains of the plane blocking girders.

A Memo to the next Murdering Dorner

Posted: 15 Feb 2013 04:34:36

No doubt you've been following the breathless media swooning about Christopher Dorner and his Djangoistic, fight the power, murder spree and you're wondering if *you* should take up arms against a sea of troubles and go off some bystanders. Before loading up your assault weapons, making suspiciously large purchases of plant food and diesel oil, or enrolling in flight, but not *landing* classes, I'd like to take a few moments of your busy pre-murder spree day and try to convince you to up your game. Let's face it, walking into a kindergarten and shooting up a classroom of tiny nobodies, while undoubtedly good target practice, means nothing in the great sweep of history. Nobody, *except the nobodies,* cares about the death of nobodies. Sorry, I didn't make the world; I just live here pointing out the absurdities. To seize the long-lasting historical notoriety, you so insanely crave, you have to eliminate people who matter. It sounds simple, but here's the nasty truth: removing people who matter is hard and dangerous work. It requires talent, dedication, planning and foresight: qualities that pathetic psychopaths, like you, often lack.

Still not convinced? Let's run a little "thought experiment." A major lament of would be terminators, and just about everyone else on this planet, is that it seems *absolutely impossible to fix utterly fixable problems.* It doesn't really matter what the problem is. How about peace in the Middle East? We're constantly told that this is a big hard problem. What utter hogwash, formal group theory poses big hard

problems; mathematicians wouldn't even snort "trivial" when faced with a pedestrian and irritating nuisance like Middle Eastern peace. All that's required is a few simple peace treaties, a routine exchange of Jewish and Muslim embassies, a state for the Palestinians and boom, instant peace. How about Korean unification? Same old, same old, a formal peace treaty followed by some judicious mine clearing and wire clipping. If the Germans can do it — so can the Koreans. On a domestic note: how about balancing the goddamn US federal budget? This barely rises to the level of "problem." Any idiot familiar with addition and subtraction is capable of wielding the awesome technology required to match spending with income. So my poor homicidal friend what exactly is the problem?

If you guessed "people" give yourself a big hug. While it's true these so-called difficult problems are, when stripped of bullshit, embarrassingly trivial, it's also true that solving any one of them would inconvenience certain people. If you're a fat little Korean boy-king happily banging hotties in your Commie dynasty palace the prospects of being just a fat little boy banging, well nobody, lacks appeal. If you're a corrupt Saudi prince-thing used to blaming conniving Zionists for all your screw-ups the lack of conniving Zionists would present difficulties. Similarly, how can you be expected to run for Congress, or the Presidency, without making expensive grandiose promises with other people's money? One man's intractable problem is another man's livelihood.

Getting back to our thought experiment: suppose there was a limited supply of *magic brain bombs.* A magic brain bomb can beam into the skull of anyone, at anytime, anywhere on the planet. Once beamed in the brain bomb swells, inducing a bout of excruciating pain, and then explodes, thus ending the miserable life of its target, and because it's magic, nobody can hide or escape from it. You can hunker down in your bunker, hide in a submarine under the ice, melt into the crowd, or surround yourself with a division of secret service agents; it won't matter! The magic brain bomb will beam in and end you. Obviously, magic brain bombs are potent weapons. If some murderous nut, that's where you come in, could get ahold of a thousand magic brain bombs many of our difficult problems could be blown away.

Let's start with Middle Eastern peace. From a masked IP address open a new Twitter account, don't use your real name, and send a few tweets demanding that Abdullah, Ahmadinejad, Morsi, Netanyahu and so on meet to establish diplomatic relations and negotiate a real Middle Eastern peace treaty. Make it clear that you will *blow up their heads* at the stroke of noon (UTC) on a particular day if they fail to comply. Don't expect anyone to pay attention. Twitter is awash in impotent death threats. You cannot even take a sip of water on national TV without attracting them. Bide

your time until the noted hour and then detonate your brain bombs. After they scrape the charred brain tissue off the walls of government offices in Riyadh, Tehran, Cairo, Jerusalem and elsewhere you'll see a new attitude in the Middle East. It will be ugly at first. Clearly this is the work of the Jews, or the CIA, or Jews in the CIA, maybe those meddling Chinese Commies did it, perhaps black helicopters and UFOs were involved. Let the craziness subside then, from another place, and on another masked IP address, start a new Facebook account, again, don't use your real name, and remind the *new* Middle Eastern rulers of their predecessors failure to meet and hammer out a peace treaty. Then, repeat your demand and warn your audience that you will blow up their heads at noon (UTC) on a particular day if they fail to comply. I'm guessing that by the time you've detonated less than a hundred brain bombs you'll find an astonishing, hitherto unknown, willingness to compromise and live in the peace in the Middle East. It might take even fewer brain bombs to fix Korea and balance the goddamn US budget. Deleting the right people, in the right way, at the right time can work wonders.

Brain bombs in wise hands could turn shit hole Earth into something of an Eden. Unfortunately, this is just a thought experiment, even the CIA, or the Jews, or the Jewish aliens in the UFOs, don't have magic freaking brain bombs! For the skeptically impaired: anything with *magic* in it is either a fraud or imaginary. Regardless of the existential status of magic brain bombs I think my point is clear. *Killing nobodies is a waste of ammunition!* To precipitate change we can believe in you need to go big! How big is entirely up to you. Here's one last cautionary note. Going after hard targets is not like waltzing into gun free zones and opening fire. The people most in need of brain bombs are surrounded by others that shoot back. You're probably going to die taking down a king, but you were going to die taking down a Burger King, so you might as well up your game and make a difference. Do it for the children! The only question is; are you psycho enough for the job?

Australia It Is

Posted: 06 Mar 2013 04:50:19

I'm putting up with a little feces storm; it's flying off the fan in all directions.

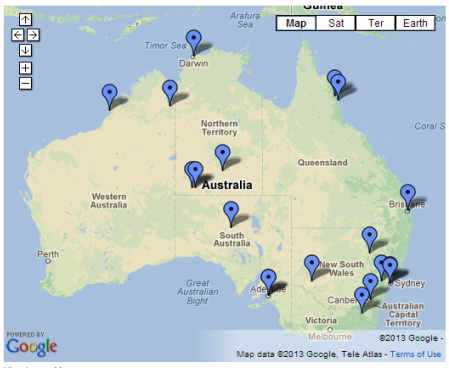
Let's start with work. Lately it's been grueling. I'm coding like a mad twenty something, wasting my weekends for the man and being very much the good little corporate drone. I do my best to avoid crazy hours but I've foolishly allowed myself to *care about the problem.* I'm kind of surprised that in my boomer dotage I am

still capable of going into deep code: that weird state where you have dreams about iterators and interfaces. In my feverish coding dreams I'm always one step from nailing a problem, all that remains is a stupid little tweak, but for the life of me I cannot see it.

Moving on: my wife and elderly demented mother-in-law have fled the US. They're both back in Canada where my wife is attempting to get her mother placed in a facility that can handle her Alzheimer's. My poor wife has looked after her demented mother for almost two years and it's completely worn her down. Caring for the Alzheimer stricken elderly is far more draining than looking after newborns. I've done both and believe me babies are a breeze. And, if one demented mother-in-law wasn't bad enough, this week I learned my mother has a "growth" near the speech center of her brain. We're awaiting biopsy results so we don't know what the "growth" is, but brain growths are never *good news.*

We need a vacation which brings me the results of the first ever ADND poll. I asked a simple question: which country should we visit, Argentina or Australia? I didn't expect any answers but a few readers chimed in and, the last time I looked, Australia was the winner! Until two months ago Argentina was still in the running but it looks like Kirchner is a bigger economic imbecile than Obama. You go girl! Until the economic dust settles Argentina looks like *work* so it's off to Australia in the fourth quarter.

I've started marking places to visit. If anyone has suggestions please drop a note.



Click to browse Australia map

Oz the Gratuitous and Purile

Posted: 09 Mar 2013 20:16:05

The original Wizard of Oz, the one we have all seen many times, is on a very short list of nearly perfect movies. Everything about the 1939 film is superb in excess. It's as fun to watch today as it was over seventy years ago and you cannot *honestly* say that about many films. Because Oz is such a towering film classic it has overshadowed all cinematic attempts to reenter and reimagine Frank L. Baum's world. Without exception every Oz wanna-be, and there have been many, suck like motivated gay prostitutes. Perhaps if we hadn't seen the original, Oz the Great and Powerful, might be judged a "good" film, but we have and this overblown homage underscores, yet again, the magnificence of the 1939 Oz. I have some advice for Baum fans. If you want to reimagine his world — read his damn books! Believe it or not the book, The Wizard of Oz, is as good, if not better than the film classic. As for film makers — just stop it! Oz is close to sacred ground; if you're not a Kubrick-level cinematic genius, *and very few of you are,* all you're going to do is embarrass yourself and induce Dorothy nostalgia in your audience.

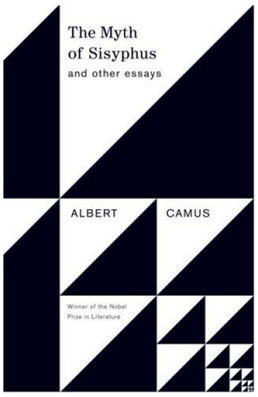


This is not the Oz you're looking for!

Watching Oz the Great and Powerful (OGP) has its own minor schizophrenic charms. On the good witch side OGP is another stunning special effects extravaganza. 21st century movies are now in a weird place; if you can imagine it you can render it on the screen. If the ancient Greeks had a god of special movie effects it's unlikely he could top your average contemporary big budget — tiny brain — movie. For decades producers and directors have strived to out-effect each other and they've finally ended up in a place Sophocles would recognize. Real improvements in modern movies can come from only one place: better stories! It was the telling of the story that distinguished the 1939 Oz. They took brilliant source material and merged it with equally brilliant songs. This is incredibly difficult and rarely achieved. In OGP's case they didn't even try. The suits that ruin Disney these days have a reputation for phoning stories in. With OGP they've out John Carter'ed themselves. I believe a bad Oz witch went all premenstrual on the screen writers. How else can you explain the transformation of classic source material into the Phantom Menace of Oz?

The Myth of Sisyphus: Camus's Absurd Prototype

Posted: 16 Mar 2013 04:37:34



In 1942, with World II raging, readers of The Myth of Sisyphus could easily identify with Camus's absurd man. Not only is man absurd he has reduced his entire world to absurdity. Now, seventy-plus years later, Sisyphus readers are more likely to politely yawn and wonder what the fuss is about. Camus's themes are not trivial or obvious but we, denizens of the early 21st century, are thoroughly habituated to them. Absurd is now beyond mainstream; how else can one explain facile growths like Facebook. Just like homosexuals kidnapped the word "gay" and changed its meaning Camus abducted "absurd" and changed its meaning. The old "absurd", synonymous with ridiculous, nonsensical, ludicrous and preposterous, becomes, in Camus's hands, something few would call absurd. But, part of a great writer's job description is changing the meaning of words, and it's easy to see why the best of us have become absurd men.

Camus's absurd man is a thoroughly honorable creature. He respects reason and wants to understand all things. This is beyond his reach but he doesn't claim it's impossible, only that his own limits make it *personally* impossible. Perhaps you've vainly argued with scientific illiterates that assert evolution is wrong because *they* cannot see how it could work. *If I don't understand it then it cannot be understood.* Absurd men recognize, but do not generalize, their limitations. Absurd men also see that in the long run absolutely nothing matters. In a thousand years all but the greatest of us will be forgotten, in a million years even the greatest will be forgotten, in a billion years only precision instruments will detect our remains and in a trillion years it will be like we never existed. Many red dwarf stars will still be shining long after every microscopic trace of humanity has disappeared. This is an inescapable scientific truth. It's a terrifying banality that is often ignored or wrapped up in sky fairy nonsense. Yet, the absurd man faces cosmic futility without flinching or whining.

Instead of being crushed by a vast, difficult to comprehend, cosmos the absurd man soldiers on. He doesn't curl up, go on food stamps, or complain about lurid Koch brother conspiracies. He gives a middle finger to his fate and then does what he can. *Up yours universe:* this is Camus's *revolt* and, in our time, it's a universal sentiment. This part of being absurd is easily faked; every brain-dead rapper and air-headed celebrity sports *up-yours-airs,* but absurd men do not play at revolt! They

do their best to create without delusions and what idiot would claim celebrities are free of delusions? Many like to think cathedral masons were honoring god. Even in the Middle Ages this was delusional. Most were simply earning a living: if a pile of well-shaped rocks pleased god who knew or cared. Besides, in a geological blink, the same cathedral stones will weather to mud. Camus is very clear: absurd creation is self-consciously ephemeral.

Camus started The Myth of Sisyphus with what's become his most famous line:

> *There is but one truly serious philosophical problem and that is suicide.*

This is one exam question we all face. Cowards run and hide; they turn the knob to eleven and pop sweet — there's an app for that — distractions. The religious create elaborate fantasies and declare war. Pure rationalists drag in Spinoza's objects that long to persist in their being. They don't commit suicide because that's not part of their program. Ironically, only Camus's absurd answer is remotely satisfying. In our lingo: man-up, stop whining, pull your weight, don't take crap, expect nothing, use your head and create. Any modern libertarian would approve.



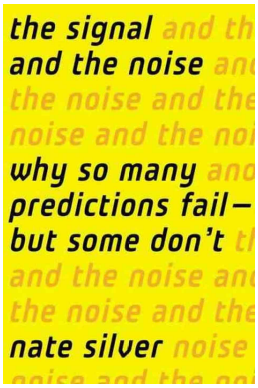
When casting the prototypical absurd man Camus brilliantly chose Sisyphus. Sisyphus put death in chains, claiming immortality for men, but vindictive and jealous gods freed death and condemned Sisyphus to roll a heavy stone to the top of a hill only to watch it crash down and roll it up again, and again — forever. This sounds awful but Camus saw Sisyphus's fate as a blessing. Life sucks when you're pushing your rock up the hill but when it rolls down you get a break. While climbing down Sisyphus has time to think, to absurdly create, and unlike poor doomed mortals, Sisyphus gets an eternity of breaks. This is an absurdly happy fate.

Review: The Signal and the Noise

Posted: 28 Mar 2013 01:41:07

There is nothing like being right to make an impression. After calling the majority of congressional districts in the 2012 US election Nate Silver enjoyed his 15 minutes of fame. Before his election prediction I was only dimly aware of Nate Silver. I knew he worked for the New York Times, but that's no longer an indicator of excellence or even sanity. Heck, even Nobel Prizes no longer guarantee excellence or sanity. Obama, vain narcissist that he is, was embarrassed by the dolts on the Nobel Peace

Prize committee that confused existence for accomplishment.



It wasn't Silver's employer that led me to his book; it was *his stint as a serious poker player* that told me he wasn't a standard NYT brain-dead progressive. ***Progressives do not bet with their own money!*** They bet with other people's money. Anyone that puts *their money where their mouth is* is worth a hearing and Silver is worth a hearing

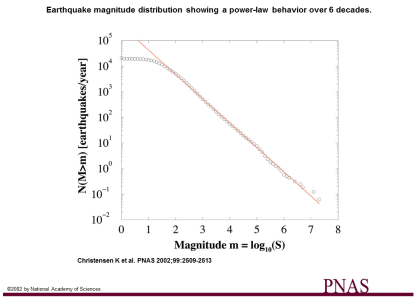
The Signal and the Noise is a series of essays about making predictions. It won't surprise anyone to learn that some fields suffer poor, dare I say idiotic, predictors. Economists and partisan policy wonks are among the worst. Silver's statistics show many of these people are clueless ideologues or cynical liars. They're not even reliable contra-indicators. If only Nancy Pelosi, that Botox saturated crone, was consistently wrong, rather than randomly moronic, we might profit from her emissions.

As bad as some predictors are it's not all bleak. Meteorologists have dramatically improved their forecasts. A few decades ago it was anyone's guess where hurricanes would hit land. Now it's possible to forecast landfalls within a hundred miles two days in advance. The weather service called Katrina before it hit New Orleans. It's too bad so many ignored the warning.

One of the best sections in *The Signal and the Noise* deals with the dangers of "over-fitting", over-fitting occurs when a model ends up modeling noise instead of signal. Over-fitting is an egregious statistical error but human beings are evolved over-fitters. If you "predict" the wind is shaking a bush and it's a tiger you're cat food. If you predict a tiger is shaking a bush and it's the wind you have a bad hair day. Evolution favors the latter. If life is short, nasty and brutish, it pays to over-fit immediate dangers. This is not the case when over-fitting tells you something is highly unlikely when it isn't.

Silver makes a good case for the Fukushima nuclear disaster going down in history as a classic case of the dangers of over-fitting. Earthquakes are currently unpredictable. Silver goes over the history of earthquake prediction and it's sobering. Forecasts made by 21st century geophysicists, armed with petaflop supercomputers, are only marginally better than simple historical means. This is a tough scientific problem made orders of magnitude harder by the difficulty of collecting data. We cannot directly measure stresses twenty kilometers underground. Hence the data feeding earthquake models are *at best* approximate and incomplete. This is unfortunate

because models based on sketchy data are essentially conspiracy theories without black helicopters. You won't find many geophysicists making short-term Vegas bets on the output of their earthquake models.



Power law fit of earthquake intensity — click for details

This doesn't mean that earthquakes are random or lack order. Earthquakes are remarkably orderly over geological timescales. They eerily fit a power-law distribution. This excellent fit makes it possible to pick any point on the Earth and compute an earthquake probability. Such probabilities were computed for the seas near Fukushima but the earthquake model used was over-fitted and it dramatically underestimated the likelihood of magnitude 9 earthquakes. The Fukushima model had been "tweaked" to echo the fact that *rare* magnitude 9 earthquakes had not been observed near Japan in centuries. Instead of following a nice linear log-log plot the Fukushima plot was "bent" and the bend led to the assumption that it wasn't necessary to plan for magnitude 9 earthquakes and potentially huge tsunamis. Here model over-fitting led to seawall over-topping. This is not your average stats 101 screw-up.

Looking back it's easy to see where people went wrong. Maybe evil crony capitalists, bent on saving a few yen on concrete, conspired to sabotage earthquake models before submitting low ball Fukushima seawall bids. Doesn't Lex Luthor do this every other day? Here it's not necessary to invoke super-villains, old fashioned short-term thinking, fortified with professional hubris, is all that's required. Silver makes it abundantly clear that prediction, "especially about the future", is hard but not necessarily hopeless. This is an excellent book for both lovers and haters of statistics.

At the Palliative Care Ward

Posted: 23 Apr 2013 02:36:54

Visiting hospitals is almost as tiring as staying in them. For the last few days my siblings and I have taken turns spending the night with our mother in the Bozeman Deaconess's palliative care ward. She is terminally ill and doesn't want to be alone. Keeping her company is about the only thing we can do for her. I am pecking out this blog entry on my phone while my mum sleeps. It's her sole break these days.

About two months ago my mother was diagnosed with stage four Glioblastoma Mul-

tiforme a nasty aggressive terminal brain cancer. I was terribly upset when I first learned of her illness. This cancer is utterly lethal. If it doesn't kill you it's because something else gets you first. In black humor circles this cancer is called "the terminator" and unlike Arnold's robot this terminator cannot be crushed in a machine press.

We're all adjusting to this new reality in our own ways. I have been surprised at the excessively decent behavior of my greater family, my in-laws and even my "outlaws." My long divorced first wife, a Canadian physician, made the trip from eastern Canada, to help my parents. My dad said, "that was darn decent of her," and it was. My younger brother has shown an ability to care for others that we never noticed before. He is determined to see mom live as long as possible. My chaotic sister has a very effective bedside manner. She's been brushing my mother's teeth and fussing with her scarves and hair. My dad, never noted for doling out care, is spending long hours sitting and talking with mom. My wife, currently tied down in Toronto with her own demented mother, is more upset about my mom than I am. Her sisters are encouraging her to let them look after their mum so she can get west to see mine. Everyone has shown compassion and concern. I may have to reassess my negative view of mankind.

As for myself, I had a few teary moments when I first heard the news, but I have recovered my phlegmatic state. Right now I am more tired than sad. I expect to grieve and mourn soon enough. For now I will keep my mother company and try to steal a few hours of sleep on the bench beside her bed.

Now for a Nursing Home

Posted: 27 Apr 2013 22:23:33

Yesterday my mother left the Bozeman Deaconess hospital and went to a nursing home. The week before she fell on the way to a radiation appointment. The fall was serious enough to put her back in the hospital. The poor woman has been in and out of hospitals for six months. She has terminal brain cancer and is about half way through her radiation treatments. When her radiation and chemotherapy treatments end the focus will be on keeping her comfortable and pain-free until she dies.

My mother's mental state is up and down. The tumor started near her speech centers on the left side of her brain. The surgeons managed to remove most of the tumor and the radiation and chemo have kept the remnant in check. Unfortunately, the cancer and surgery have impaired her speech and memory. She cannot reliably recall

her birthday or tell us what year it is. Sometimes she cannot recall why she is in the rest home and her sense of time is out of whack. Today she was asking for her own mother: a woman who died six years ago.

People have mixed feelings about losing your mind when you're close to death. Some say it's a blessing. It takes away the fear and blunts oppressive anxiety. Others feel it's a premature death. What's the point of living if you cannot remember your life? I've watched Alzheimer's drain people from the inside out leaving breathing hulks where sentient beings once dwelled. Brain cancer is faster but it seldom dulls the fear and comes with a menagerie of cognitive deficits. Believe me sudden unexpected death has many benefits.

One thing is clear, don't expect your golden years to unfurl like some idiotic AARP or Viagra commercial. Forget about banging hotties or gathering around the campfire with a horde of cute grandchildren. You'll be lucky to get out of bed for bowel movements. Old people smell is a real mixture of loaded adult diapers and stale body odor. Live now — there's always time for death.

Evelyn's Eulogy

Posted: 16 May 2013 00:04:44

Last Saturday, May 11, 2013, I attended my mother's funeral and gave this short eulogy.



I will start with an apology. I hope to make it through this without crying. There is a reason husbands, sons and daughters are not encouraged to give eulogies; we don't always make it through them. Never-the-less I am going to talk because if there is one thing my mother loved it was talking to her children, her family and her friends. I have probably spent more time talking to my mother than any other person. Many of you here today have fond memories of talking to my mother. She always engaged with relish, gusto, enthusiasm, intelligence, wit and most importantly respect.

My mother treated everyone with respect. She had only one class: human being, and we were all invited in. Of course mom was aware of social standing, rank, professional achievements and all the other distinctions we sort ourselves with but she wasn't going to treat you differently just because you're the

CEO of an oil company or shot par on the Old Course, and, in Mr. T's immortal words, "I pity the man," *and it was usually a man,* that expected her to fawn over such trivialities. If I where to design a coat of arms for mom it might say *Bane of Bullshitters* - in Latin of course.



I loved talking with mom and her words shaped me in ways that I am still discovering. Of all my teachers she was the greatest. *She laid my moral keel with reason.* She always provided good reasons for me to stop being a moron and seldom resorted to the, "because I'm you're mother," edict. After learning of mom's illness I have spent a lot of time thinking about her. I vainly thought I might go through my memories and craft a biggest hits montage. Where do we get such dumb ideas? Every nook and cranny of my mind is filled with mom. My best qualities are largely her doing — my worst — well, that's my own work. I will never separate out mom because so much of who I am is due to her. Mom is gone but she lives on in the people she influenced.

A few days ago Sharon, an old friend of my sister Aileen, sent us a message about my mom. Aileen, Sharon and my mom basically hung out when Aileen and Sharon were teenagers. This is some of what she wrote:

> I remember Evelyn as a beautiful, extremely intelligent, witty and gracious woman. I am honored to have known her in my younger years, when she accepted me into her family and her heart as if I were another daughter. Those times that I spent visiting with Evelyn and the whole family sharing adventures with them in Scotland, Denmark, Barbados and lastly Frank and Evelyn's 50th anniversary celebration in Toronto at the Royal York Hotel are forever etched in my memory as special highlights in my life.
>
> When Evelyn said goodbye to me at the end of that evening in Toronto, over ten years ago, she gave me a hug and said, "Have a good life Sharon." I've never forgotten her words of good wishes and love and they have stayed close to my heart over all of these years
>
> Thank you Evelyn, your wishes and loving spirit followed me and yes, I have been fortunate to have a good life. You were one of the person's who I looked up to with admiration when I was younger and wanted to be something like you. Although I could never be as good as you, haven't lived the life of high adventure and I haven't been the world explorer and

> traveller that you were, *I was deeply influenced by you.* I always wanted to be someone who wasn't afraid to try new things, wanted to be adaptable, wanted to experience the world, examine the world, understand different cultural and geographic perspectives, know things that you just don't learn staying in one's own back yard, and embrace the whole world in all of its idiosyncrasies and wonderful beauty. You led me to those desires and I think *my life has been better because of you.* I always loved your wittiness, humor and intelligent perspective and enjoyed our many talks about almost everything. *You were like a mother, but even better!*

I'd like to think that people who really got to know my mother feel the same as Sharon.

Ours is a culture of things. We're not encouraged to think about the people in our lives as our most precious gifts but at the end of a life our things do not matter. What matters: who we love, and who loves us! Mom loved all of us and that's why we all love her. Good bye mom.



More Photographic Waybacking

Posted: 23 May 2013 15:25:16

There are three things I like about funerals: meeting old friends and relatives, unlimited quantities of food and browsing old photographs. A few weeks ago my sister and sister-in-law went through my mother's closets and found a stash of old photographs that had eluded my frequent attempts to catalog and archive family pictures.

I have a thing about family pictures. If you want to piss me off make a big pile of your family's pictures and set them on fire! For reasons that are utterly inexplicable to me many of you don't seem to give a damn about your family pictures. My wife's father was a very organized photographer that took hundreds, maybe thousands, of black and white snapshots in Iran from the 1940s to the 1970s. Apparently he took

the time to meticulously label each print with where, when and who information. I would love to paw through his pictures but that's not possible because his kids, my wife's siblings, trashed most of his pictures. The few that survive, like this one of him sitting and reading a newspaper, hint at a *never to seen again world.*



My wife's father reading a newspaper 1955.

Such crimes against imagery are common. My maternal grandmother was also a keen *unorganized* photographer. She didn't label prints or neatly file slides but she shot everything that caught her eye. Over six decades she piled up thousands of images, but when she moved into town, she accidentally sold stacks of what she thought were empty slide carousels to yard sale strangers. Some of the carousels were empty but the rest held the bulk or her slide collection. The surviving images, like this old Kodachrome of my great-grandmother and her sister, constantly remind me of all the great shots I will never see! Don't trash your family pictures you will grow to regret it.

My mother's recently recovered stash held a few gems I had never seen like this great little snapshot of my maternal grandmother with her two daughters: my late mother as a pouty girl and my aunt as a baby. The old car in the background would be marked down as a "distracting element" in many photography classes. This merely shows how bad the advice and guidelines dispensed in such courses can be. The car is an essential element; it turns a nice snapshot into a sweet period piece.

Here's another snapshot of my mother and aunt with a puppy. This picture is almost seventy years old but I still see the same expression on my aunt's face. Your smile is a lifelong affliction; I would recommend getting used to it.



My great-grandmother (light blue dress) and her sister 1950s.

Along with the *amateur* snapshots a number of professional studio portraits turned up. The following is a hand tinted print of my mother as a ten-year old. Color photography obliterated the art of hand tinting. It is rarely seen outside of photographic art classes today. Tinting is often unnatural and hokey but it sometimes lends an eerie painting quality. Here the tinting works. Tinted prints are becoming rare and valuable. Don't throw them away!



Hazel, Alberta (baby) and Evelyn 1940.



Evelyn and Alberta with puppy 1944.



Evelyn age ten hand tinted 1945.

Finally, here's a wonderful never seen portrait of my mother as an eleven year old. This may be the best portrait of my mother at any age. The studio photographer caught her in the middle of a great smile. This picture was taken over six decades ago but I doubt that modern imaging technology could significantly improve it.



Evelyn age eleven studio portrait 1946.

Finding this portrait shortly after my mother's death took away some of the sting. I had a great mother, and because I treat family pictures with the respect they deserve, I have the photographic evidence to prove it.

Too Busy to Blog

Posted: 30 Jun 2013 22:54:21

Blogging is like going to the gym. You tell yourself you're going to do it everyday and then you don't. The last two months have been all about my mother's death and work. Any remaining hours were siphoned off by my other hobbies: photography and reading. Yeah I count reading as a hobby.

If we're going to have the long happy writer-reader relationship that we're all looking for you are going to have to put up with my ticks. I will enumerate them for you:

1. **I blow hot and cold on things.** I am either all in or all out. If I am blogging that's pretty much all I am doing. If I am taking pictures or programming that's pretty much it. Balance is for rocks on pinnacles not me.
2. **I always return to my passions.** I never give up on things I just put them aside. My affection for amateur astronomy has not gone away it's just difficult to indulge it in the wretched quasi-opaque low altitude skies of St. Louis. This city has many charms but clear skies is not one of them.
3. **I don't give a crap about what people think.** This is a problem for anyone that pretends to write. Authors, even lowly bloggers, cannot ignore their audience or they won't have one. My manly impulse is to ignore you, but I will, on occasion, profusely apologize and beg you to keep reading. It's all crocodile tears. My apologies are as insincere as Obama's: another guy that doesn't give a crap about what you think.
4. **I will never change: at least while alive.** Guys get this instantly. A few women have vainly tried to correct my bad habits; they didn't succeed.

To end June on a happy note and, more importantly, to test a nifty WordPress layout feature here's a collection of recent images. All these images, and thousands more, are always on view on SmugMug. Next month I will be a better boy and write the epoch defaming rubbish you all love and crave.

The New SmugMug

Posted: 06 Aug 2013 04:55:48

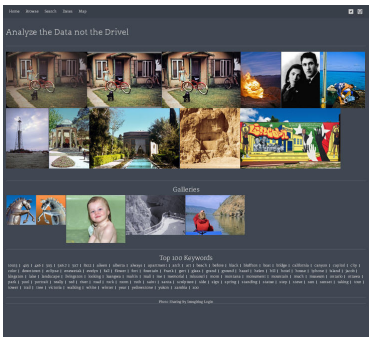
Websites compete in a brutal Darwinian struggle for eyeballs and clicks: adapt or die is an understatement. Every few years users get "upgraded" whether they want





it or not. Generally things move in a better direction. Even twenty-something web programmers aren't completely stupid but setbacks and complete disasters are not uncommon.

My relationship with SmugMug started about five years ago when my Flickr account was suddenly declared "mature" by some faceless administrative ape that couldn't tell the difference between innocent nudes and pornography. I was so incensed I sent Flickr administrators a message they couldn't ignore. I painstakingly deleted all my images, mass deletion was oddly not supported by the Yahoo's that ran the joint, and dropped my account. How's that for maturity? I consider it my sacred duty to punish companies that screw customers. After dumping Flickr I searched around and found SmugMug.



My new SmugMug layout.

There were things I liked and didn't like about SmugMug. SmugMug did a better job of displaying images than Flickr and you could select your *own* damn background color. On the downside, SmugMug has more of an empty art museum vibe than Flickr's busy social whorehouse milieu. For a few days I missed complete morons dropping snide asides on my pictures. The only comments I get on SmugMug come from family members and energetic strangers that find something they like enough to breach SmugMug's spam fortifications. The silence is welcome. This is an art museum after all.

SmugMug offers a number of account types. I am a "power" user. A power account falls between basic and pro accounts. This account differentiation makes sense. SmugMug users fall into three classes.









1. **Basic:** plain folks that want a no fuss picture website.
2. **Power:** nondelusional keen photographers.
3. **Pro:** delusional "serious" photographers.

Only paparazzi, porn, wedding, fashion, sports and National Geographic photographers are making any money taking pictures these days. If you don't fall into any of these classes my guess is that you are spending more on photography than you are making. SmugMug harbors many photographers attempting to sell their pictures. I would never buy a picture nor would I expect to sell one. I see many shots on sale that aren't as good as many I've made for free. There are billions of cameras in the wild these days. Photography is not exempt from the law of supply and demand. When the supply is nearly infinite what do you expect the price to be? This is why newspapers are laying off staff photographers and small photography studios have mostly gone out of business. As a keen amateur photographer this saddens me but as a right-wing libertarian death beast it warms my dark evil heart that most of the "photographers" being discarded are rent seeking nitwits playing Henri Cartier-Bresson. Still photography is no longer a viable personal business! We're deep into another age people. Now that you see where I'm coming from let's get on with what's good and bad about the new SmugMug.

Let's start with the good stuff:

1. **Stretchy layouts:** The new website does a better job of automatically adapting to a variety of display devices. I've browsed my own site on phones, tablets, laptops and giant desktop displays. It looks OK on all of them and great on tablets and laptops.
2. **Easy customization and layout tweaking:** It took me all of ten minutes to figure out the new layout controls. Programming *easy nontrivial* customization is hard. Here the SmugMug programmers have brilliantly succeeded. I know enough about JavaScript, CSS and HTML to roll my own designs but photography is a hobby; I'd rather spend my time taking and refining pictures that writing JavaScript to display them.
3. **Better overall site organization:** The new site organizer is a significant improvement on older methods and allowing deeper directory paths will be appreciated by many.
4. **An improved and better integrated mapping facility:** Displaying geotagged images on old SmugMug was somewhat jarring. The control was clunky

and it didn't match your site design. The new control adapts to your layout and "circle" area browsing is slick and intuitive.

Now for the dark side:

1. **Website migration has hiccups:** My site has over two thousands images. I didn't expect the migration to the new layout to be without problems and it wasn't. For me the biggest problem was the handling of keywords. The new site does not properly display keyword strings if the ";" delimiter is used. I have thousands of pictures with "keywords" like:

   ```
   5x5;capillary;glass;microscope;polywater;ultra;
   ```

   The ";" character delimits separate words. It should be displayed like:

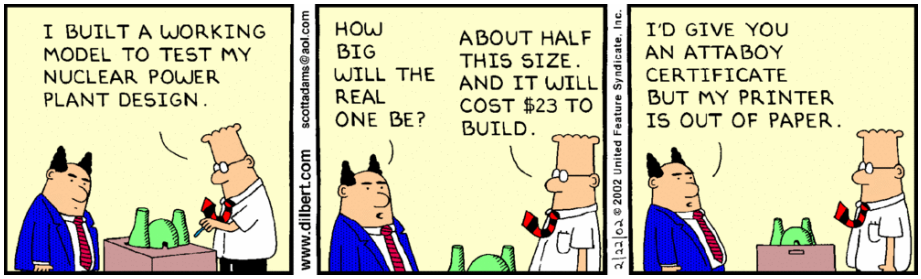
   ```
   5x5 | capillary | glass | microscope | polywater | ultra
   ```

   When you click on the ";" string it is interpreted as a "find all images with all these keywords" request which is usually the very image you are browsing. This is mostly a display problem. The individual keywords were properly parsed and loaded.

2. **Custom API applications break:** I use a custom application I wrote to synchronize my SmugMug online galleries with my offline ThumbsPlus databases. This application issues SmugMug REST API calls to collect and update image metadata. When I migrated I expected this application to stop working and it did. It looks like I need to authenticate my application with the new SmugMug site. There are no *easily found instructions* on how to do this. I hope this is just an oversight and that power users can still run custom API applications.

3. **The new map control is limited to one hundred images:** The slick circle browser map control will only display one hundred images and there is no easy way to set it to map pictures in a particular gallery. The old clunky control allowed two hundred pictures and it could display arbitrary galleries.

I could go on but I program for a living. I know users always whine about change and seldom express gratitude for all the hard work the code monkeys of the world do to keep the lights on. Overall the new SmugMug is better than the old. There are problems but for a first production cut this is fine work. It certainly merits one prestigious Analyze the Data not the Drivel *attaboy* award. See the following to print your award.



Dilbert almost gets an Attaboy. What would we do without Dilbert? For more click and enjoy.

Corporate Social Media Policies

Posted: 07 Aug 2013 21:27:56

You probably work for a company that has a *corporate social media policy (CSMP).* I'm betting that your CSMP's preamble starts with words like, "we would never restrict the free speech rights of employees but *blah, blah, blah, …* It's what follows the "but" that matters. For example my employer does not want anything I write to:

1. Adversely reflect on the "brand."
2. Divulge proprietary or trade secrets.
3. Reflect poorly on company officers and employees.
4. Move our stock price.

This is all just common sense as far as I'm concerned and it irritates me that we now have to sit through more mandatory inane HR training sessions belaboring the obvious. Corporate social media policies join sexual harassment, diversity training and nondisclosure agreements in the ever-expanding pantheon of to be ignored corporate bullshit. In my case my company is safe. I purge my brain of work thoughts the second I leave the company's parking lot. I refuse to carry company cell-phones and I will fight like a cornered badger to keep work at work. There is a difference between being a professional and being a serf.

Companies prefer managing serfs. The ideal employee is the professional serf. You might think professional serfs are as common as unicorns but you're wrong. The young often go through a professional serf stage. If you're a graduate student you're probably a professional serf. If you're a top ranked young programmer working seventy hour weeks on some doomed pile of crap-ware you're a professional serf. If you're an articling lawyer you're a professional serf. If you're a medical intern you're



My wife in front of the Roosevelt Gate: the northern entrance to Yellowstone. The road to Mammoth Hot Springs and the Lamar valley are open during the winter but most of the park is snowed under and the roads are closed except for snow coaches. Winter is a good time to visit the park - no crowds!

a professional serf. Many employers want to meet and exploit you. They know that you will burnout or smarten up but HR's persistent cream dream is to find some naive young genius willing to make the ultimate sacrifice for *their* good.

I went through a professional serf stage but my bad attitude couldn't sustain it. Now I think like a corporation; I put a price on everything! If you want me to give a crap about your servers at 2am on Saturday that will be another $15,000 per year and an extra week of vacation time. I've found that when you're completely upfront about these issues you either don't get the gig, usually a blessing in disguise, or people see they're dealing with a *real professional* and want you even more. Corporations have enough simpering eunuchs on the payroll, having a few ballsy shitheads around gives the joint class.

By now you're probably wondering if I've violated my employer's corporate social media policy. Have I damaged their brand? Have I impugned our CEO? Have I goosed our stock price? Have I exposed proprietary secrets? No, no, no and no! Will I moderate my opinions and think about the company when blogging? No!

Yellowstone and Me

Posted: 24 Aug 2013 06:32:35

I have moved so often that I am no longer from anywhere, but if asked, one place, Livingston Montana, has the strongest claim. Every summer, from infancy to late adolescence, I spent long happy months with my grandparents in Livingston. If you



In the summer of 1967 I snapped this photo of my parents, maternal grandparents and siblings with an Instamatic camera. I was only a teenager but I was already a veteran Yellowstone visitor. We made frequent trips to the park and we all loved the place.

look at a map you'll see that Livingston is close to Yellowstone National Park. In the late 19th and early 20th century the town billed itself as the gateway to Yellowstone. In those days most people reached the park by train and the train went through Livingston on the way to Gardner and the northern park entrance where the famous Teddy Roosevelt arch stands to this day.

Being close to Yellowstone we made frequent family trips to the park. I don't know how many times I've entered Yellowstone. We'd make at least one trip every year and some years we went two or three times. We thought of Yellowstone as our own private national park and we were intensely proud of the place. This hasn't changed. People that live near the park today are as fiercely devoted to Yellowstone as my grandparents and parents ever were.

When I was a child the park service did things differently. In the 1950s and 1960s rangers didn't chase bears into the woods so they hung out on park roads begging food from tourists. Seeing bears closeup was always a thrill. Of course you weren't supposed to feed bears. Signs were everywhere reminding *Boobus americanus* that bears were dangerous wild animals, but the largely ignorant public ignored the warnings with predictable results. Every year at least one moron was killed by a bear. In good years two or three would succumb. Since most of the dead were clueless tourists locals viewed Yellowstone bear attacks as a form of imbecile euthanasia. We were sad when rangers had to put down offending bears. You don't see a lot of bears in the park these days. When they show up the rangers shoo them into the woods; it's easier to train bears than tourists.

After bears geysers were the next biggest thrill. Yellowstone is world-famous for

its geysers. Some estimate that half of the worlds active geysers are bubbling away atop Yellowstone's massive caldera. The immense size and power of the Yellowstone super-volcano was not fully understood in those days but you could see the park was a special, almost magical, place with your own eyes. One geyser, Old Faithful, is emblematic of Yellowstone and most of our park trips included a stop at it.

Old Faithful is not the most spectacular large geyser in the park but it's the most dependable. By some rare geological quirk Old Faithful has been venting at regular intervals ever since it was named in 1870.[17] The interval changes a bit from time to time. The Madison earthquake tweaked the frequency and times vary more than many believe, but if you go to Old Faithful and invest a few hours the geyser will not disappoint. The most dramatic eruptions occur during the winter when super-heated geyser steam blasts into freezing mountain plateau air. Old Faithful in the winter is pure bucket list material. I've watched Old Faithful shoot off dozens of times. I've seen Old Faithful with my parents, my siblings, my grandparents, my children, my nieces, in-laws and some good friends. My experience is not unique. If you've seen Old Faithful I'm betting it was with someone special.

There's more to Yellowstone than bears and geysers. It harbors the largest high altitude lake in North America. It is home to a variety of North American plants and animals. It has one of the most spectacular river canyons and waterfalls anywhere and it shelters, in scalding geyser waters, rare ancient extremophiles that are among the oldest life forms on Earth. The park doesn't need me to sell it. It's one of the world's very special places.

As I entered my teenage years we moved to Iran where I spent a year before moving to Lebanon for school. During this time I saw large chunks of the Middle East, Egypt, Turkey, most of Western Europe and England. We returned to Canada. From Canada I moved to Ghana, then Denmark, then Barbados, then western Canada, then eastern Canada, then back to the US. I've seen dozens of national parks in many countries and many are spectacular. With so much to compare it against I started thinking of Yellowstone as, "a been there, done that", "nothing to see here", "not worth the hassle," bore! Doesn't everyone have a boring old Yellowstone in their backyard? I was blasé about Yellowstone for years until two notable events and advances in geology made me reassess my feelings about the park.

Remember the great Yellowstone forest fires of 1988. Dramatic images of vast fires filled newscasts for weeks. The park service endured abuse from all quarters for letting

[17] Nobody knows who first discovered Old Faithful. It was known to Native Americans long before it was named "Old Faithful."



My kids waiting for Old Faithful to erupt in the summer of 2000. Watching Old Faithful is like a family reunion for me. I've seen it shoot off with most of the special people in my life and even when I was by myself I was always thinking how others would love this particular eruption.

the fires rage. Fire has always been important for North American evergreen forests. Years of fire suppression in the US and Canada slowly produced dense tinderbox forests that blaze when set alight. The great Yellowstone fires of 1988 punctuated this point. We now understand that fire is necessary for the long-term health of forests, but explaining this to outfitters, tour operators and other businesses that depend on moving tourists in and out of parks remains a hard sell. A few years after the great 1988 fires I visited the park with my young children. I was expecting a burned out wasteland but I was surprised by verdant undergrowth and the largest fattest elk herds I had ever seen. Between the black timbers lush ferns and other plants burst forth by the billions. It was a good time for ungulates. I know it pisses people off when experts are right but the experts were right about forest fires. Fortunately the braying nitwits soon had something even more controversial to whine about.

The most famous animal in the park these days was absent during my youth. I am talking about wolves. Wolves had been exterminated in Yellowstone for the usual fallacious bullshit reasons in the early 20th century. When people started seriously entertaining the idea of reintroducing wolves to the park every brain-dead rancher in the west decided to go on TV and show the world that westerners are every bit as ignorant as Yellowstone bear-food tourists. I remember one particularly eye-rolling twit going on about how kids waiting for school buses at lonely winter ranch gates would fall prey to bloodthirsty wolves. It didn't matter that there have been very



Most of Yellowstone is a high elevation plateau. It's great habitat for deer, elk, bears and now wolves. There are mountains in the park but they are not as impressive as the Tetons to the south or the Absaroka range to the north.

few *authenticated* wolf attacks on people or that there were good ecological reasons for reintroducing wolves. Ranchers the world over subscribe to what I call rancher ecology. *If it's not a cow or a rancher shoot it!* I've endured this sentiment in the US, Canada, Brazil and Ghana. Grow up people; you're embarrassing us! If you're really this stupid having bloodthirsty wolves pick off your idiot spawn would help us maintain our species IQ.

The park service ignored the loons and brought the wolves back. What happened, just the biggest and most successful species reintroduction in national park history? Watching wolves reestablish themselves has made it crystal clear how important top predators are to functional ecosystems. Before the wolves came back the elk and deer, like welfare recipients, had gotten stupid and lazy. Their biggest problem was avoiding traffic. The wolves changed all that. Now if they're not on their hooves they're probably going to get eaten. The presence of wolves has had many unexpected benefits. The elk no longer clear out the underbrush near streams; this has led to a profusion of wild flowers and other plants that were rarely seen before wolves. The denser plant growth has provided habit for insects that feed birds. The slower moving waters are more suitable for native fish and beavers. The park is in better shape than it has been at any time in my life and we can credit the work of *Canis lupus* for a lot of it.

And, despite the western whining, the biggest beneficiaries of wolf reintroduction have been, you guessed it: *Homo sapiens.* Lots of people are making money on Yellowstone wolves. Every winter thousands of people make their way into the Lamar valley to watch and hear wolves. People come from far and wide and occasionally the wolves put on a riveting show for them. Yes they occasionally stray from the park and there have been livestock losses. Whenever a sheep of calf gets eaten the rancher press covers it like a mini 9/11 terrorist attack. In some cases the attacks *occur in the*

park. It's not widely known that domestic animals graze national forests and parks. Hey, if your cow is eating state subsidized grass stop whining about occasional losses to wildlife. You're damn lucky the stupid public tolerates grazing on public lands. In pure economic terms wolf introduction has been a rare government money-maker. Perhaps if *Congress assholus* were reintroduced to their natural habit, *prison*, similar benefits would ensue.

Wolf reintroduction put Yellowstone back in the news but advances in geophysics and geology vaulted the park's status to global icon. There aren't very many super volcanoes in the world and there are even fewer active super-volcanoes. This is probably a good thing. Too many of these puppies blowing off would seriously depress the market and no amount of quantitative easing would excavate your baked ass from cubic kilometers of volcanic ash. Geologists have been aware of Yellowstone's violent volcanic past for decades but it wasn't until the age of high precision GPS monitoring and satellite radar that the alarming dynamism of the park made headlines. We're not used to landscapes "breathing" but something like that is going on in the Yellowstone caldera. The entire plateau goes up and down in amazingly short times. It takes a lot of energy to move a few hundred square kilometers of rock in a matter of years. Yellowstone ground movements have been monitored since the 1920s and they are so marked that even the public notices. Now that we better understand the monster that lurks under the park everyone expects it to wake one day and blow the joint sky-high. Maybe we'll get lucky and see it blow in our lifetime. The last time the Yellowstone super-volcano erupted *Homo erectus* walked the Earth. They we're on the other side of the world but super-volcanoes make themselves felt at great distances. I'm willing to bet that evidence of large Yellowstone eruptions will eventually be detected in ancient African or Asian hominid fossils. Yellowstone's super-volcano gives the park real sex appeal. Let's face it, chicks dig bad boys, and bad boys that can waste entire countries are volcanically hot!

Yellowstone's enduring importance has nothing to do with landscapes, geysers, bears or volcanoes. Its major contribution is the *idea of a national park*. In 1872 the US Congress took time out from their usual whoring and profiteering, work they assiduously pursue to this day, and accidentally did something worthwhile; they created the world's first national park: Yellowstone. Despite modern whitewashing this wasn't an act of a farsighted and wise people. Yellowstone was too far away, too high for agriculture, had no known mineral deposits and wasn't even in a state at the time. How the hell can you deliver pork to nonexistent districts? Congress couldn't see how to pillage and profit from Yellowstone so they gave in to a small but determined movement that wanted a park. The congress of 1872 was probably



Yellowstone Lake from West Thumb. Yellowstone Lake is large and deep and most of it lies within the Yellowstone caldera which covers an area three times larger than the lake. Imagine this entire landscape erupting. They're not called super-volcanoes for nothing!

less corrupt and venal than our modern degenerates but they weren't freaking saints and it annoys the hell out of me that partisan revisionists are constantly citing Yellowstone as a wonder of big government. Yellowstone was a product of the corrupt and incompetent Grant[18] administration for Christ's sake. The same dolts that brought you Custer's last stand.

Judging the motivations of the long dead is pure hubris but evaluating the results of their actions is how we learn from history. By any standard Yellowstone was a glorious result. The congress of 1872 set a precedent that spread worldwide. Ken Burns argues that national parks are the single best idea the US government has ever had and I agree. *I shudder to think what Yellowstone would be like if it wasn't a national park.* It would probably be the biggest hive of luxury spas and posturing celebrity scum on the planet. Imagine Aspen, Cannes, Bath, Monte Carlo, Dubai and Hollywood all whored up with natural boiling mud and geyser waters. Instead of being proud of Yellowstone I would be advocating nuking the place. The nukes wouldn't damage the super-volcano but they would cauterize the celebrity infestation. Thank the all squiggling FSM that this nightmare was aborted in 1872. National parks have aborted many such nightmares all around the globe.

In my ideal world parks would cover at least a third of Earth's lands and oceans. We're not there yet, but when we are, people will still look at Yellowstone, the world's first national park, and my personal favorite, as one of the very best.

I write my Congresswoman about Syria

Posted: 02 Sep 2013 05:09:58

[18] Unlike the current occupant of the White House Grant did something that mattered before he was elected president.

> *I just emailed this to my Congresswoman, Ann Wagner, 2nd district Missouri. I'm going to make sure I'm on the NSA's naughty malcontent list.*

Dear Ann,

Your summer vacation from Congress is coming to an end. Soon you will be back in Washington dealing with all our little problems like: runaway deficit financing, relentless FED driven currency debasement, rampant illegal immigration and, finally, what to do about Syria.

You're probably surprised that the Obama administration punted on Syria and threw you this hand grenade. By now you've noticed that the *Light-Bringer's* administration only goes to Congress to steal or print more money, debt limit, ram through hideous partisan, "have to pass it to find out what's in it," bills, Obamacare, or get begrudging constitutionally mandated approval for political appointee hacks. *Of course Obama despises Congress. It's the most American thing about him.*

Ann, you're from Missouri, so you probably know that Missouri's most famous native son, Mark Twain, maintained a complete and robust contempt for the institution you belong too.

> *Suppose you were an idiot, and suppose you were a member of Congress; but I repeat myself.*
>
> *Mark Twain*

No one has characterized the simpering idiocy of Congress better. Mark did not suffer fools well and he certainly wasn't naive or stupid enough to believe his congressman, or congresswoman, *actually represented him.*

Ann, I'm afraid I share Mark's bleak view, but just for the sake of argument, let's assume you do represent me. I did vote for you. And, as I recall, I didn't have to hold my nose or look down ballot for my default, "anyone but that shithead," option. I actually felt you were the best person for the job. That you've kept out of the news, no sex scandals, no outrageous pork projects, no hysterical CSPAN fits, no public bitch slapping and no DUIs[19] makes me think you're actually a decent human being even though you associate with known felons.

Well as one decent human being to another I am asking you to vote no on any motion that authorizes the use of force in Syria.

[19] We set a very low bar for Congress.

I'd bet that I know far more about the Middle East than you or the vast majority of your peers in Congress. I lived in Iran and Lebanon. I was evacuated from Beirut during the 1967 Arab Israeli War. I'm married to an Iranian refugee. She had to flee her native country after protesting Khomeini's thugs in the early 1980s. The Middle East is not a TV reality show for me. When I hear of bombs falling in the Beqaa valley I think about how I camped down the road.

When I say there are no good options in Syria I not running off teleprompter. On one side you have Assad's Ba'athist criminals: essentially modern Nazis. That delusional dolts like your colleague, Nancy Pelosi, thought Assad was a reformer is partly why we think you're all morons. Opposing Assad is a rag-tag coalition of rebels, Islamists and crazy cannibal Jihadists. This is a war that both sides deserve to lose. Firing a few cruise missiles into this mess is not going to alter the outcome or elevate the world's low opinion of Americans. All it will do is add more legions of US hating Middle Easterners to what's already a vast throng.

Ann, how would you feel if some inept clueless foreign power lobbed a few drone missiles into Saint Louis neighborhoods because they objected to local law enforcement? I'm pretty sure you'd be livid: boiling with incandescent rage. Imagine how your mood will improve when you learn the attack was calibrated to avoid mockery. Would you feel a new-found respect for the bombers? I'm guessing your new life's work would be striking back. This is what our remote control war is doing. It's creating far more enemies than it kills.

Ann, do you really want to be a part of this? What we are doing is catastrophically stupid and has to stop. Vote no on Syria.

Respectfully, I'm not kidding, yours

John Baker Saint Louis County

Minnie's Pictures

Posted: 17 Oct 2013 03:11:52

While going through my late mother's pictures I came across a box of my great-grandmother Minnie's old photographs. When my great-grandmother died in 1977 my grandmother Hazel took her pictures and stuffed them in her Hoarder's level junk filled basement.[20] After Hazel's death my mother recovered Minnie's pictures from

[20]If Hazel was alive today she would be a star on TV's Hoarders.



Minnie Raver 1881-1977. Minnie was one of my great-grandmothers. I only knew her as an old lady.

Hazel's hoard and promptly filed them with her pictures where they remained until I found them. Minnie's pictures have already seen off three generations of my ancestors and I'm next in line. Are they worth it?

Many of Minnie's pictures are over a hundred years old. The oldest probably date to the 1870s or 1880s. Despite their age they're in excellent condition. Obviously Minnie took care of her pictures and thankfully Montana basements and attics are often high and dry. I spent an entire day studying Minnie's pictures. Her old portraits are superb examples of small studio 19th and early 20th century photography, see the following wedding portrait, and her snapshots are candid shots of the people she knew and loved. All of which brings me to my current problem. *I don't know who these people are!*

I have never had much of an interest in family trees or the entire quasi-delusional undertaking of genealogical research for the simple reason that most of it is bullshit. *The basic genealogical problem is simple: people have always screwed around and then lied about it.* When you get right down to it you cannot be certain, without DNA testing, that your own parents are your biological parents. There are good reasons to suspect that at least 1% to 5% of children result from cuckolding and for some social classes it may be as high as 30%. In other words your daddy may not be who you think it is! Cuckolding varies with culture, time, socio-economic status and so forth but it's rarely zero. A cuckolding rate of 5% implies that by the time you've traced your ancestors to the great-great-grandparent level there is a 19% chance that an alleged, perfectly documented, ancestor is not really an ancestor. By the time we get back to the time of Christ, roughly 100 generations, there's a 99.99% chance that any alleged ancestor is not really any ancestor. Genealogy without DNA is a hollow



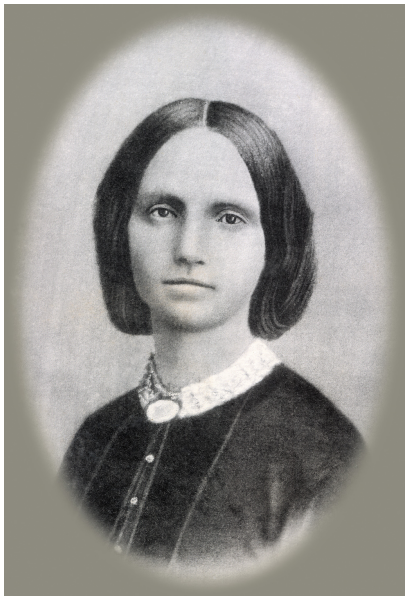
Callie Davis (Minnie's sister) and Frank Smelser wedding portrait 1905

dead-end.

As bad as cuckolding is it's the least of our genealogical problems. Genealogical records are incomplete, contain serious errors and are often complete frauds. As late as the 19th century the settlement of estates was very sensitive to birth order. If you were a first-born son you got everything while your baby brother got squat. It was even worse for women; they got less than squat. In such an environment there is a powerful incentive to forge records. Old handwritten documents may look official to modern eyes but you cannot assume they're accurate. With a well-placed bribe first-born Johnnie suddenly disappears from the record. *People have always lied about the important things.*

Given all these obvious problems I usually ignore people going on about the exploits of their glorious ancestors. Your roots are unreliable people! You really don't know who your great-great-great granny was and if you insist on telling tales about her I will insist on DNA evidence. I know that many of the dead in Minnie's pictures are *probably* blood relatives and some are probably direct great-great or greater grandparents. I cannot be 100% sure they're genetic ancestors but I can follow obvious document breadcrumbs and learn enough about these people to attach stories to their pictures.

I wasn't looking forward to the giant chore of scanning, restoring and researching



Lydia Jane Ayres 1839-unknown

Minnie's pictures[21] but following breadcrumbs was more interesting than expected. It turns out that there's a lot of dead people on the internet. When I started looking for death and marriage records I immediately came across a cemetery record for my own recently deceased mother. It was surprising to find her so soon. There's an active world-wide ghoulish group of people photographing cemetery monuments and posting their findings online. It's ironic but a Facebook for the dead preceded the Facebook for the living. Starting with my mother I backtracked through my alleged ancestors looking for a "Lydia." "Lydia" was scrawled on the back of what looked like the oldest of Minnie's pictures.

If the records are correct I believe this "Lydia" is Lydia Jane Ayres. There is a very good chance that Lydia is one of my great-great grandmothers. Lydia married Albert F. Raver in 1863 in Brant Ontario. Albert was the mother of Minnie's husband Bert Raver.

I didn't find any pictures of Albert Raver in Minnie's collection and that's too bad because I suspect Albert had an eye for the babes. I looked for his death record and found this confusing census entry. Here was an Albert F. Raver with exactly the same age and birth origin remarried to a Lydia L. Raver. At first I thought it was a mistake but Albert's marriage to Lydia L. Ayres was in 1906. That did not compute.

[21]Despite their good condition it was still a lot of work to restore the images posted here. To judge what I had contend with browse this gallery of before and after diptychs.



"Dad's old sweetheart." Probably an old girl friend of Howell Cobb Davis.

Then I remembered a story my grandmother Hazel told me years ago when we were talking about her grandparents. She told me that one of her grandfathers married twice to two women with the same first and last names. She complained about how difficult this made sorting Christmas and birthday cards. I cannot remember if the name was Lydia Ayres but what are the chances? It seems Albert married Lydia Jane Ayres in 1863. Somehow they parted ways and later, at the age of 68, Albert remarried in 1906 a younger Lydia L. Ayres. Having been divorced and remarried myself I can only marvel at Albert's ingenuity. The last thing you want to do in your senile dotage is call a second wife by your first wife's name. Before social security that could have been a fatal mistake. Randy old Albert neatly dodged that bullet.

The randiness was not confined to the Raver branch. Equally intriguing is this old portrait of "dad's old sweetheart." Here Minnie is likely referring to her own father and my great-great granddaddy Howell Cobb Davis. Screwing around, contrary to boomer mythology, wasn't invented in the 1960s.

Minnie lived to 96. I was in my twenties when she died so I remember some of the people in her snapshots. Here's Minnie with her first-born son Vernon standing in Marble Canyon Arizona in 1949. I knew Vernon as a boy. He always posed exactly like you see him her.

You can read the poor guys mind. "Do you really need another picture? Well if that's how it's going be I'm going to assume my petulant spoiled fat boy pose." You cannot blame Vernon. His photographic life got off to a dreadful start. Look at this gem.

In the early 20th century women liked to dress up their baby boys as girls. Vernon got the full girly treatment. You cannot blame him for being scarred for life after such trauma. Here's a clue ladies. Boys are not girls. Gender is not arbitrary. People



Vernon and Minnie Raver Marble Canyon Arizona 1949



Vernon F. Raver 1904-1964

that assert the contrary are idiots. Sorry if that sounds like mansplaining; the truth is not always polite.

I doubt I'll ever get through Minnie's pictures. There are hundreds of images to scan, restore and research. I just don't have the time or energy but in the years ahead I will occasionally pick out and upload attractive images. Here's the gallery to follow if you're interested.

Sorry PBS you already have my Money

Posted: 20 Oct 2013 19:41:15

PBS is begging for money again. PBS is a US public broadcasting network. Like all public English language broadcasters, (CBC Canada, ABC Australia, BBC UK), PBS is filled with tiresome left wingers that do not see themselves as left wingers. It's still easy to find disingenuous tools in these intuitions that publicly declare they're bias free.



Really?

There's nothing but biased broadcasting! The only remotely objective broadcasting is weather forecasting and even that's often ruined by climate change hysterics. Right wingers are equally biased but they're generally more aware of it. Not because they're richer, taller, better educated and more handsome than left wingers but simply because they're exposed to non-stop derision and mockery. If you seek balanced budgets you're obviously a racist, baby killing, privileged white male. *It's only logical.* My answer to insufferable bias is to change the channel or click elsewhere which brings me back to PBS.

FOX News haters have the option of **not watching and not paying** for FOX News. PBS, CBC, ABC & BBC haters have the option of **not watching and paying** for PBS, CBC, ABC & BBC. Do you see the logical asymmetry? There's a missing **not** when it comes to public broadcasters. We are **not** given a choice when it comes to paying for their crap. Lack of choice has another name: coercion. Just try **not** paying for PBS, CBC, ABC & BBC and see what happens? At some point an oppressive and utterly thuggish national taxation authority will come down on your racist, baby

killing, privileged white male head.

Lefties don't see a problem here. What's the big deal? We have elections and vote in legislatures that pass laws that we, as members of representative democracies, approve of. Some of these laws fund stuff we don't like. As a card-carrying lefty I detest military spending and corporate tax breaks but you don't see me going on about it.

Really?

I can trump your lefty love of democracy by demanding more it. **How about public democratic line item budgeting?** I would be absolutely delighted if our duly elected legislatures presented us with a long list of proposed government expenses and then charged us with voting, line by line, for what we like and don't like. Lefties could *democratically* vote down military and corporate taxes. Righties could *democratically* vote down PBS and foreign aid. *Any measure commanding majority support gets funded and everything else gets dropped!* I suspect, if presented with such a list, we'd very quickly come to our financial senses but what are the chances such a list will ever be presented to citizens of the US, Canada, Australia or any other freaking country? Snowballs in Hell get better odds.

So what's a fiscally sane person to do when besieged with the plaintive cries of partially publicly funded entities begging for more cash? **Sorry PBS - you've already picked my pockets.** Coerced charity is not charity. Until you're completely weaned from the government teat you will never get another dime from this racist, baby killing, privileged white male.

Fifty Years of Nauseating Kennedy Nostalgia

Posted: 15 Nov 2013 23:14:46

It's been fifty years since Michelle, a fifth grade childhood friend, interrupted me on the playground of Naples elementary and told me that "President Kennedy has been shot." The news did not impress me. I naively rooted for Kennedy in the 1960 election. *Yes, I was suckered, but I was in the second grade!* I didn't discover the man was a shiny lying whore-monger until years later so cut me some slack. Kennedy dazzled my second grade mind but by November of 1963 whatever passing interest I had in him had dissolved. Despite Michelle's worried tones Kennedy's fate did not concern me but I dearly hoped that we would get the rest of the school day off! My hopes for a premature end of school ended with the recess bell. My first presidential

assassination was off to a bad start and it only got worse.

We spent the day in class with distracted teachers; they were visibly relieved when our school buses arrived. I remember our normally genial driver had his civil defense drill face on. In the early sixties we enjoyed civil defense drills. As I was living in a remote rural corner of Utah the prospect of places like New York City getting nuked was cause for celebration. Civil defense drills were grand apocalyptic holidays. We'd get out of school early, pile on our buses, and then flee into the Uintah badlands. In a real attack I would be home in my basement long before the radioactive clouds killed everyone within a hundred miles of major cities. Maybe our driver thought that without our Marilyn Monroe banger at the helm the entire world would self-destruct. People worry about the silliest things.

I don't remember the bus ride. It took forty-five minutes of highway driving and a change of buses to drop me in the middle of the Redwash oilfield where we lived at the time. Redwash was a small oil camp built to house oil heathens. Rural Utah in the 1960s was almost 100% Mormon and oil people, like my dad and his coworkers, were almost 100% non-Mormon. Oil hicks and Mormon hicks did not mix. When oil was discovered under the Uintah plateau oil people first stayed in nearby Vernal and Jensen but there were too many fights. Oil people like to drink, smoke and whore while Mormons like to lecture, preach and ostracize. Redwash was the solution. We we're twenty miles from the nearest small town and hundreds of miles from the nearest city: Salt Lake City. It was a good place to sit out the end of world but there was a problem: TV reception sucked.

When I got home my parents were glued to our fuzzy black and white TV. The Kennedy news was so riveting that my dad, normally allergic to technology despite being an accomplished petroleum engineer, went outside and fiddled with our rooftop TV antenna. No matter where the antenna pointed reception was awful. We got three channels and only one was watchable. TV talking heads were going on about Kennedy's death. By the time I got home his death was certain. My normal after school routine consisted of TV cartoons, but I could see that there would be no cartoons and I was OK with it. I knew presidents weren't assassinated every day, a little break in routine might be good. I expected the adults would go on about this for a few days and then things would get back to normal.

Boy was I wrong. Two days later I was eating a bowl of Cheerios in our small dining area when my mother stormed out of the living room ranting, "Why don't we all get a gun and open fire?[22]" Ruby had just shot Oswald on live TV. My hopes for a

[22]Not a rhetorical question in hunting crazy rural Utah.

return of afternoon cartoons took a major hit. I don't remember much after Oswald's death because my patience ran out. I didn't watch the interminable lying in state, the never-ending funeral procession, the tiresome media bloviating or little Johnny F. Kennedy junior[23] saluting poor dead dad.

Later on I remember sitting with one of my older friends in an oilfield garbage dump. We had been breaking discarded Mercury filled electrical switches to recover Mercury. At one time I had almost an entire liter of Mercury in my basement chemistry lab. I mixed it with molten lead and poured the mixture into water to form brittle 3D Jackson Pollack'ey insta-sculptures. When I was kid boys were allowed to be boys, we snuck cigarettes, shot out oil field gauges with our 22's, stole welding blasting caps, had fist fights, had rock fights, shot sheep, called girls names and thrust 30-06 rifle bullets into bonfires. It was a golden age. I feel for the poor ADHD drug saturated eunuchs that substitute for boys in today's pussy safe schools. It's hardly surprising so many of them harbor volcanic rage that erupts in mass shootings. As my friend smashed Mercury filled switch tubes he bitched, "Jesus Dupont Christopher Christ, it's been almost two goddamn weeks and there's still nothing but Kennedy on TV. When the hell do we get back to regularly scheduled programming?" I really didn't know but I didn't expect to wait decades.

For years after the assassination we gorged on a steady nausea inducing diet of the handsome young president, so filled with promise, but cut down before his time, propaganda that somewhere between LBJ and Watergate I stopped giving a shit about anything associated with the Kennedy's. When the stories about JFK's drug abuse, whoring and general political ineptitude started surfacing[24] I thought maybe the masses are finally developing some perspective. Kennedy was an average president. We remember him for five things: the Bay of Pigs, the Cuban Missile Crisis, starting the Apollo program, rabid skirt chasing and getting assassinated. Only one thing on that list, the Apollo program, is good! He had a meager legislative impact and everything liberal morons credit him with was actually implemented by the hated LBJ. If Kennedy hadn't been shot he would be rated below Clinton and way below Truman and Eisenhower. Fortunately for Kennedy's legacy, but not for himself, Oswald was a competent sniper.

And now that I have mentioned the "O-word" will all you Kennedy assassination conspiracy nuts just fornicate elsewhere and expire. *It's been fifty years and you*

[23]Little Johnny grew into another loathsome entitled Kennedy. He was a dim witted echo of his dad and the original shiny pony. Perhaps we should encourage Justin Trudeau to take flying lessons.

[24]Before the Internet it was a lot easier to keep the lid on political dirt. Kennedy, like Obama today, was revered by a sycophantic slobbering press.

still haven't definitely made your case. I will admit that a Kennedy conspiracy is possible, just like I will admit that aliens buzzing around in UFO's is possible, but in both cases the "evidence" does not pass skeptical muster. I only change my mind when there are good reasons to do so and in Kennedy's case there are no compelling arguments.

My intense disdain for Kennedy conspiracy imbeciles reached homicidal levels watching Oliver Stone's absolutely execrable film JFK. There is a scene in JFK where two lead characters discuss "the shooting." The film's gun expert authoritatively intones that it was simply impossible for Oswald to fire as many shoots as he did and hit a moving target at such a distance. This is a simple outright lie and I would bet big bucks that Stone, another amoral lying reprobate, knew it when he was filming. How did I know it was pure and utter bullshit? Well I have been to the Dallas Book Depository and I have looked out the window Oswald shot from. When I saw just how far away his target was, it's not that far, I immediately thought — I could have hit Kennedy. It would have been easy for any competent sniper. Go and look yourselves. To test the shooting another fallen liberal icon, Dan Rather, ran a test where he recruited a number of snipers to duplicate Oswald's shooting. The verdict: it was completely possible. Stone was simply lying in the middle of his alleged historical big budget film. I have never watched another Oliver Stone film; don't bankroll your enemies.

For a few months we'll be subjected to a torrent of unbalanced Kennedy retrospectives. The few remaining magazine stands, in the few remaining bookstores, are filling up with Camelot encrusted crud. I only hope the generations born after Kennedy's assassination will show their usual complete lack of interest in boomer nostalgia and let's not fool ourselves Kennedy is pure boomer nostalgia. My hideous self-centered generation has always lacked historical perspective and here we are, fifty years later, still acting like fifth graders. Nobody gives a crap where we were when Kennedy was shot! So enjoy your 50^{th} assassination anniversary because in another fifty years, when boomers are dead and gone, a new generation of American historical illiterates will be asking, "Wasn't Kennedy the dude that nailed Marilyn Monroe on the moon?"

Tipping with Bitcoins

Posted: 02 Dec 2013 02:10:10

For the last two days my elderly laptop has struggled with the bitcoin-qt client while it downloaded and checked the entire Bitcoin block chain. This is one of the fascinating things about this "currency." Its entire global transaction history is public.

It occurred to me that the Bitcoin economy is now large enough to verify basic macro economic equations. You can precisely calculate the "velocity of money" from Bitcoin blocks.

Now that I have synchronized with the Bitcoin network all I need is some coin to play with. If you would like to send me a few micro Bitcoins I will send them right back. I want to observe the transfer process. Please use this address. Think of it as a blog tip jar.



bitcoin: 17MfYvFqSyeZcy7nKMbFrStFmmvaJ143fA

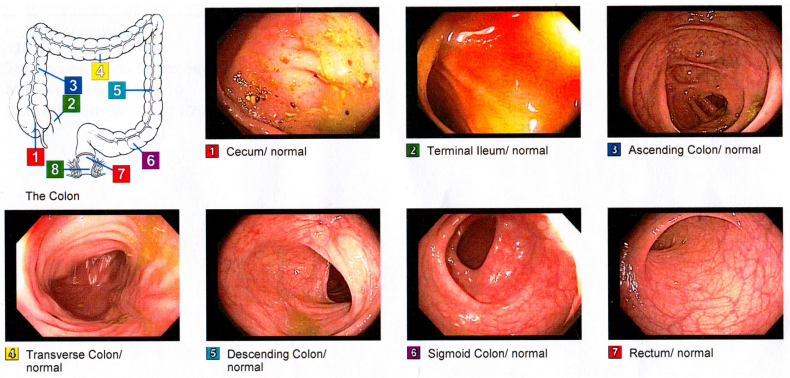
My Colon's Merry Christmas

Posted: 11 Dec 2013 19:30:55

I have just returned from my second colonoscopy. For all you indestructible young'ins out there a colonoscopy is a medical procedure that basically entails stuffing a camera up your butthole to look for evil-doers. Thankfully you're knocked out during the procedure and when you come to you remember about as much as alien anal probe abductees. Colonoscopies can detect and remove precancerous polyps in the colon; it's a rare cost-effective procedure that actually saves lives. If you're an old fart that hasn't been probed I would suggest you ask your doctor about colonoscopies.

My colonoscopy went well. No polyps were found so I don't have to do this again for ten years. The best thing about colonoscopies: the pictures. If you're into colon

porn prepare to feast your eyes otherwise avert them because you will never be able to *unsee* what follows. The notes on my report noted the "good colon preparation" which, in the immortal words of John Harvey Kellogg played by Anthony Hopkins in the definitive crazy health nut mocking movie The Road to Wellville, means "my colon is clean."



Snapshots of my colon. I oddly do not care if the masses gaze on my interior. We all look pretty much the same from this perspective.

Twitter is not Trivial

Posted: 16 Dec 2013 04:10:57

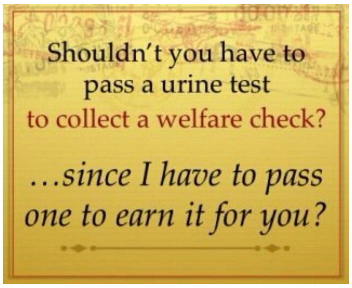
I enjoy being wrong because it doesn't happen very often. When Twitter first reared its itty-bitty head I thought it was one of the dumbest ideas ever. Who wants to "tweet", in an utterly disorganized stream of consciousness way, 140 character messages to total strangers? What could emerge from such inane chatter? Isn't this like looking for meaning in the splash patterns of tossed primate poop? Twitter may still end up being a bad business but it's clearly shown that brevity really is the soul of wit.

Twitter teaches that:

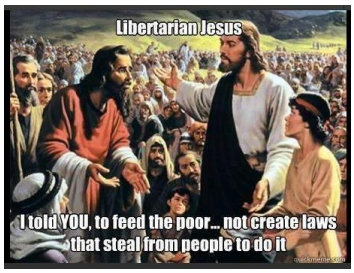
The much maligned common man, the *hoi polloi,* the rabble, the unwashed masses, the lumpenproletariat are collectively a hell of a lot smarter than their delusional masters. Take any media hot topic of the last few years and compare snarky Twitter traffic to the foul self-serving emissions of the drooling, (they only think they rule), classes and you'll quickly see that the *Twitter'atti* not only see

through multiple layers of bullshit but usually arrive at viable solutions long before our self-declared "elites" even perceive a problem.

The public has a collective genius for image captions. The best political cartoons, captioned images and irreverent posters are no longer found in newspapers or "sanctioned" outlets. The best of the best are posted on Twitter. I waste far more time than I should thumbing through captioned Twitter images. I usually see at least one pants peeing funny image every day. Thank you Twitter: laughter is the only medicine that's not encumbered by pharmaceutical patents, co-pays and Obamacare coverage fines.













Twitter is awash in politically incorrect and snarky captioned images. It's one of the sites most endearing qualities.

The 140 character message limit brings people together. This is one of the more surprising Twitter revelations. My Twitter contacts are far more diverse that my email buddies, blog readers, Facebook friends or LinkedIn references. On Twitter I deal with "entities" I wouldn't even cross virtual streets to pee on. I regularly

hear from religious nuts, schizophrenic 9/11 troofers, Big Foot hunters, Austrian and Keynesian economists, far left and right bloggers, porn stars, government agencies, (the IRS is on Twitter), academic organizations, space-faring robots, mathematical theorems, gun nuts, anti-gun nuts, global warming alarmists and deniers, Justin Trudeau fans and, the most delusional of the lot: Obama supporters. You can take anything in 140 character doses!

Not only is Twitter fun it's already logged an impressive public service resume by:

Providing an irresistible honey trap for narcissistic class A assholes. Without Twitter Anthony Weiner would probably still be a corrupt lying New York Democrat congressman or worse, the mayor of New York. Alex Baldwin would still be hurling feces on MSNBC and Dane Deutsch would be happily ensconced in the Wisconsin state legislature. Twitter makes it easy for our, in their own heads only, "elites" to self destruct in public. Self humiliation is the best kind.

Serving as another canary in the liberty coal mine. Distinctions like democratic and totalitarian are almost without merit. One man's democratic republic is another's Gulag. A more meaningful metric is: allows Twitter, bans Twitter. Here's a list of Twitter banners. Only one country on this list surprised me. If your country is on this list you might want to consider emigration, or fleeing, because you are living in regime that cannot tolerate even 140 characters of criticism.

Yes Virginia, Twitter is far from trivial.

Jacks Repository

Posted: 21 Dec 2013 19:30:56



The other day I attempted to browse a J script described in an old blog post only to find that my employer's network monkeys had blocked the file sharing service. I've railed about IT control freaks in the past. They will not rest until it's impossible to do useful work. I fumed and grumbled until I perceived a bigger problem. I have so many references to program code in this blog that it's getting tedious tracking them down. Wouldn't it be nice if my hacks were neatly organized in one coherent repository?

Let me introduce `jacks`. `jacks`, or "J-hacks", organizes the J related code referenced in this blog into a single GitHub repository. Most of the scripts in `jacks` are one-offs but some have proven so useful that it makes sense to store them in a repository and

track changes. From now on `jacks` will be the first place to look for code from this blog. You pull the contents of `jacks` into a new Git repository with the commands:

```
git init
git remote add jacks https://github.com/bakerjd99/jacks.git
git pull jacks master
```

It took me a few moments to settle on the name "jacks." I considered "jokes" because programmers often take their code too seriously and "jocks" because J programmers are wild out of control convention eschewing code jocks but `jacks` won out when I remembered the refrain "jack be nimble, jack be quick, jack jump over" *whatever coding problem is pissing you off.*

APL Software Archaeology .dbi Edition

Posted: 27 Dec 2013 03:39:00

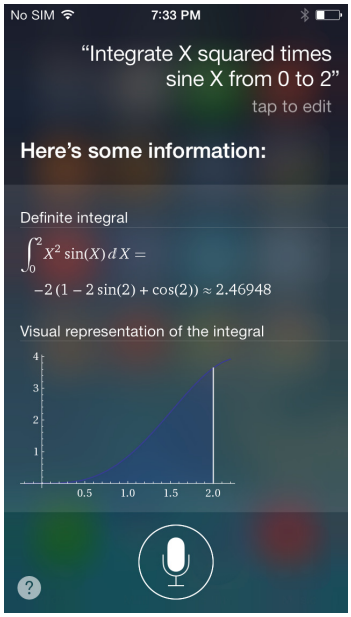


Have yourself a merry little APL Christmas

I joke that my job title should be *software archaeologist* because I often find myself resurrecting, not refactoring, code that dates to primitive and primeval eras. The language I'm typically hired to resurrect is APL. APL, the language with funny symbols, is a software vampire. People keep paying us to kill it but no matter how many stakes we pound through its heart it keeps coming back.

There are good reasons for this. APL embodies many timeless ideas and I'm confident that programming in the future will look a lot more like APL than many expect. If you doubt me just press the Siri button on your iPhone and ask, "Integrate X squared times sine X from 0 to 2." What comes back has more of an APL than `QWERTYUIOP` flavor. Strange Unicode characters are creeping into many mainstream languages. This is a good thing because restricting programming to the miserly key sets of ancient typewriters was, is, and always will be a spectacularly bad idea. Ken Iverson deserves rich accolades for pointing this out more than fifty years ago and beating this drum incessantly during his lifetime. Iverson taught that notation is a tool of thought and that *if you care about ideas you must care about how they are expressed.* Why is this even remotely controversial?

The genius of APL continues to exert influence on many programming languages but APL's rise had little to do with its abstract notation and a lot to do with



Siri's results use appropriate mathematical notations. As we move away from keyboards programming languages and mathematical notation will merge. APL was way ahead of its time in this respect.

how it was implemented. APL was one of the first programming environments that *nonprogrammers* could use. It was the spreadsheet of the late 1960s and 1970s and just like spreadsheets of today a lot of utterly horrid, poorly structured, lame amateur messes were created with it. If you've ever cracked open a gigantic Excel model that looks like it was developed by a roomful of quarreling ADHD afflicted unionized chimpanzees then you know what the standard APL mess feels like. Many programmers blamed APL for this just like gun control advocates blame firearms for shootings. They argued that it would have been impossible to concoct such monsters in *clean* compiled languages like Pascal. "It wouldn't even compile." This is not even wrong. I've dealt with plenty of dreadful messes that *do compile!* The tool is always neutral; don't blame the paintbrush for the painting.

Allowing rubes to code yields mountains of rubbish and the occasional ruby. It will shock many programmers to learn they are not the only smart people in the world. It turns out that nonprogrammers occasionally have good ideas and, miraculously, some of them can ably express their ideas in code. Before spreadsheets such user rubies congealed in APL where some still run. Part of my day job is extracting these precious stones from layers and layers of kluges, hacks, patch jobs, retro-fits and workarounds and recoding them in modern programming languages like C# and JavaScript.

Recently I recovered[25] an ancient inverted file system embedded in the APL systems of my employer and rendered it in C#. This system uses the extension `.dbi`. I don't know who created this system; the code is old. The most recent code comments date from the year 2000 but I am pretty sure that `.dbi` files predate component files in APL+WIN, formerly STSC APL, which pushes the design back to the 1980s or earlier. I know many APL'ers check this blog. If any of you know who created the original `.dbi` APL code please leave a note.

Somehow this `.dbi` system survived unsupported, with few user complaints, for decades of daily use. How is this possible? Astonishingly, good ideas age well and the core `.dbi` idea is inverted data. Modern high performance databases make heavy use of this method. Inversion is so effective that hoary old interpreted APL code still beats compiled and optimized ADO.Net when fetching large numeric vectors and tables.

Restoring the `.dbi` system was a two-step process.[26] I first converted the APL system to J. I used J because it is a close relative of APL but not so close that you can cut and paste. Translating nontrivial APL to J forces you to understand the APL at the nit-bitty level. The translation to J also allowed me to fix the APL interface. The original system used global variables, rampant branches and other lamentable coding practices that C# will not abide. After matching the APL and J systems I then translated the J to C# and then rematched all three systems.

Comparing multiple systems is a very effective testing technique. I found bugs in all three systems. I fixed the J and C# bugs but left the original APL code unchanged. Software archaeology is a delicate field. You don't "fix" old code just like you don't correct errors in cuneiform tablets. Original and important program code belongs in museums with other significant cultural artifacts.

Original inverted file code probably belongs in a museum. This `.dbi` APL code is old but it certainly derives from earlier programs so it's not museum worthy. Even if it was the APL and C# `.dbi` systems belong to my employer. However, I am placing the J scaffold version, which matches the performance of the other systems, into the public domain. The script is available on GitHub. The `.dbi` system gets right down to bits in some cases and illustrates some J techniques for dealing with indexed binary

[25] `.dbi` files held many gigabytes of actuarially tuned data. Dumping them was not an option. We either had to convert to a new store or produce a component that could read old data in new systems.

[26] Restoring old code is somewhat like restoring old pictures. When working on old pictures you're always tempted to *improve them*. With pictures you usually have a choice. This may not hold for old code. Changes in software may force updates.

inverted file data. Enjoy!

Fun with Farsi Text in LaTeX

Posted: 30 Dec 2013 03:41:03

Analyze the Data not the Drivel is a mouthful. This blog needs a short symbolic name. For sometime I have used ADND myself but that's to close to ADHD for comfort. However if we treat ADND as a simple algebraic expression it becomes:

$$ad^2n$$

This is better but still not cool! If we replace Latin characters with colored Farsi equivalents and reverse the order we get:



The new symbolic name and logo for Analyze the Data not the Drivel.

To generate this with LaTeX you need a version that handles UTF-8 Unicode. I used LuaLaTeX. You also need an OTF or TTF font with Farsi or Arabic characters. The following LaTeX snippet generates my logo.

Blogging Bad 2013

Posted: 31 Dec 2013 15:49:06

Another year of **blogging bad**. My mother's death and work were major distractions this year; I fell way short of my post goals but still managed to exceed the previous year's hit count and set a new high. To show their appreciation the good algorithms at WordPress.com sent us an annual report. Mine follows:

The WordPress.com stats helper monkeys prepared a 2013 annual report for this blog.



Click for bloggy goodness

Here's an excerpt:

> The concert hall at the Sydney Opera House holds 2,700 people. This blog was viewed about **11,000** times in 2013. If it were a concert at Sydney Opera House, it would take about 4 sold-out performances for that many people to see it.

Click here to see the complete report.

2014

The Great Verizon Data Famine

Posted: 16 Jan 2014 04:11:02

The other day I visited my local Verizon store for the fourth freaking time! My mission was simple: upgrade my goddamn phone and change our account from my wife's name to mine. In sane retail environments long-standing customers with impeccable payment histories get treated like royalty. I know it will come as a shock to all you parasitic socialists out there but *it is the paying customer, and only the paying customer, that is keeping civilization's lights on!* I understand and appreciate the need for businesses to make profits and for the last three years Verizon has profited from my patronage and I have benefited from their excellent cell service. We had a mutually beneficial relationship but now I'm wondering if this marriage can be saved.

I have no technical complaints about Verizon. The engineers at Verizon clearly know what they are doing but it looks like the administrative and sales division's model themselves on the DMV or Obama's healthcrap.gov. I've seen this before. Most software companies harbor competent to brilliant programmers yet are often fronted by ethically challenged sales baboons. My father, a retired petroleum engineer, used to say, "It's a good thing oil is so valuable and customers are beating down our doors because head office couldn't sell shit to a house fly." I know it's not my place, as a motivated shit seeking house fly, to question the sales practices of multi-billion dollar enterprises but, to quote a very wise old white guy, "you've confused me with someone who gives a crap."

When I first walked into the Verizon store I wanted an accurate answer to this question:

How much will my monthly bill be if:

1. **I pay the full retail cost of the phone upfront.** Old white guys do not buy on credit because old white guys have learned the hard way that *buying anything on credit means you eventually pay more.* I am not interested in paying more. I have a very bad attitude when it comes to paying more. My butthole has been reamed often enough, long enough and hard enough that it's now operating on a strict cash upfront basis.
2. **And if I have an uncapped 4G data plan.** Cell providers constantly go on

about their unlimited data plans yet down in the fine print — old white guys always read the fine print — you typically see "limited to two gigabytes per month." Two gigabytes is not unlimited, four gigabytes is not unlimited, fifty yottabytes is not unlimited; unlimited means arbitrarily high.

It took two trips to the same store to get a simple price quote. The quoted rate was $69.99 per month. This is close to my current rate and since I'm burning another $39.99 per month on Internet cable it looked like I could cancel cable, divert all my residential Internet traffic through an iPhone 4G hot spot and save about thirty bucks a month.

I realized I would have to go on a data diet. 4G connections are faster than 3G but 4G is still *much slower* than cable Internet. The cable provider in St. Louis, Charter,[27] runs at 30 megabits per second. This is about five times faster than 4G. 4G is okay for blogging, modest sub-gigabyte downloads, uploading a few dozen high-resolution pictures and normal web browsing. 4G is not up to *irritant free* HD streaming. You can stream but the image is often downgraded to a blocky low resolution mess. I planned on giving up streaming because TV, whether broadcast or streamed, is still mostly time-wasting garbage. I was looking forward to reallocating my streaming time to good old-fashioned paper[28] book reading.

After doing my research, considering the options and allocating funds I returned to the same Verizon store I had visited three times with the intention of plunking down the full cost of an iPhone 5s and signing another two-year service contract at the price I was previously quoted. Then things went horribly wrong. First, we had to call my wife to change the name on our account from hers to mine. The simple act of changing the account name voided my unlimited data. I went from an uncapped plan to a two gigabyte plan. Then, as a final affront, it turns out that you if you actually want to use your iPhone's hot spot you need to pay another $30.00 per month on top of your normal data plan. In other words my bill would be a few cents shy of $100.00 per month. So, I would pay roughly the same as my current Verizon and Charter bills combined and end up with a connection that is five times slower. Old white guys are slow and stupid but not that stupid.

[27] Charter Internet is a binary operation. When it's working it works very well, but over that last three years I've watched it go down more often than a cheap street prostitute. Right now it's down. Charter outages are annoying but they're usually quickly resolved.

[28] EBooks are developing nasty data mining habits. I have no desire to expose the precise details of my reading to busy bodies. This doesn't mean I am giving up on eBooks but I am giving up on on-line eBooks. I now demand complete control of the eBook file on a device that I can shut off logging and communication. *If you don't control it you cannot trust it.*

Instead of walking out of the store with a shiny new iPhone 5s and another two-year contract I left with my old iPhone 4 and a downgraded, but equally expensive data plan. I am now looking at other options. I will probably retain cable and cut off all cell phone data. Most of my cell phone data moves over Wi-Fi so why pay Verizon, or another provider, $30.00 bucks per month to keep up on Twitter tripe. Verizon's sales did a bang up job here. They convinced a loyal and reasonably happy customer that it's time to take a serious look at the competition. I was planning on a data diet but not a data famine. Can you hear me now!

John L. Dobson R.I.P.

Posted: 18 Jan 2014 12:37:10

At tonight's meeting of the St. Louis Astronomical Society I learned of John Dobson's recent death. John Dobson was widely known as the inventor of the homemade "Dobsonian" telescope and the co-founder of the Sidewalk Astronomers: perhaps the most famous and effective amateur astronomy outreach group in modern times. "Big Dob" light buckets are a staple at star parties around the world and most of them derive from John's original designs. John lived a long life and touched many people including myself.

I briefly met John at a star party in central Texas in the late 1990s. I cannot remember exactly where we were but it was about two hundred miles west of Fort Worth and was one of the best "dark sky" sites within easy driving distance of the Fort Worth Dallas light pollution wasteland.[29] Amateur astronomers abhor, detest, loathe and constantly rage, rage against — street lights. When I see the sky sodomized by one ill placed security light or a hideous blinking radio tower I have to suppress Homeric, (Simpson), urges to kill. Light Pollution is an assault on one of the most beautiful things the human eye can behold, a glorious night sky, and most people are completely and utterly oblivious to it.

Because our central Texas star party was far from the maddening crowds, just the way hard-core dark sky connoisseurs like it, there weren't very many people present and most in attendance where armed with state of the art telescopic gadgetry. This did not quite suit John. I remember he remarked that this was an "astronomer's gathering." Meaning this was a gathering for people who already knew the majesty of night sky. It was John's passion to introduce neophytes to the that glory and judging

[29]The best dark sky sites in Texas are in the Davis Mountains near the McDonald Observatory. The Texas Star Party is held nearby every year.

by the accolades coming in from people who caught the astronomy bug at one of John's sidewalk star parties it's a passion that will outlive him.

John felt it was vitally important for people to see,*with their own eyes,* the craters of the moon, the moons of Jupiter, Saturn's rings, sunspots, the Andromeda galaxy and thousands of other sky wonders. He apparently never tired of watching someone look through a telescope for the first time and until tonight I must confess I didn't really appreciate just how crucial such "first lights" are. As I drove home I started thinking about my top astronomical experiences and soon realized they are some of my top experiences — period. Here's my top ten "first lights" in no particular order. Only the last stands above the others.

1. First look at the moon through a telescope: **Redwash Utah, United States**. When I was in grade school my parents got me a 60mm Tasco refractor. It was a simple, and surprisingly good, little telescope. I've talked to many amateur astronomers over the years and many fondly remember getting started with a 60mm Tasco. Shortly after I got that telescope I set it up and waited for the sky to darken. The moon was not full when it rose; I didn't care. I lined up the scope, fiddled with the focus, and then suddenly, the moon's craters appeared: the sharpness and clarity almost hurt. I've been hooked on amateur astronomy ever since. In retrospect the moon's craters made a bigger impression on me than my first kiss. I don't remember my first kiss, but I'll never forget my first telescopic glimpse of the moon. John never tired of introducing strangers to the moon.

2. Seeing the crescent of Venus for the first time: Redwash Utah, United States. It took me awhile to learn how to properly focus my telescope. The moon was easy but for some reason I never got Venus dialed in until one evening when I turned the knob far enough to condense the unfocused blob of Venus into a sharp little crescent. It was mind-blowing. The seeing on the high Uintah plateau was superb. I have seldom seen Venus so steady, sharp and clear. I felt like Galileo — hell for a brief instant I was Galileo! John loved showing off the bright planets. Venus, Jupiter, Saturn, even Mars and Mercury are all easily visible from the middle of light polluted cities. Sidewalk Astronomers turned these ancient wanderers into modern celebrities.

3. Seeing Jupiter and its four Galilean moons: Agha Jari Iran. Shortly after getting my first refractor my family moved to Iran. I lugged my little telescope half way around the world. The telescope was my hand baggage. In those days airlines were more tolerant of large carry-ons and being a kid I enjoyed extra latitude. After

we settled in Agha Jari I set up the telescope in our front yard. I wanted to check out a bright star that was hanging about twenty degrees above the hills to the southwest. I knew that looking at stars in the 60mm was, with the exception of binaries, kind of dull. Stars appear as points of light in even the largest of telescopes. Only in modern times, by using long baseline interferometry, has it become possible to resolve details on distant stars. Not expecting much I aimed the scope at the bright star and focused. Suddenly a new "solar system" sprang into view. I could see a tiny ball surrounded by four bright spots. For a few moments I thought I might be seeing something new. How could people have missed this? Then I realized it was Jupiter. Big J is still my favorite planet. In John's Big Dobs Jupiter is a super-planet. You can easily see four or more atmospheric bands, shadows of major moons and the Great Red Spot. Even better, it's all visible from city sidewalks.

4. Catching Halley's Comet: Edmonton Alberta Canada. Once you catch the observer's bug it never really leaves you. It may go dormant but something always wakes it up. The return of Halley's Comet roused my inner observer. Halley's Comet is the most famous of all comets. It takes roughly one human lifetime for it to complete its orbit so catching Halley's Comet is something most of us will only do once. The last time Halley's Comet zoomed by in 1910 it put on a spectacular show. Astronomers warned that the 1986 passing would be "disappointing." The comet was further away than it was in 1910. They were right but I was still delighted by what I saw. It was a freezing -30C Edmonton winter night when we drove to the city's southern outskirts to see the comet. Despite the blistering cold dozens of people were parking along the road and getting out of their cars to look for the comet. I knew exactly where to look and it only took me a few seconds to find the fuzzy ball known as Halley's Comet. It wasn't spectacular, but it was historically satisfying. John spent a lot of time educating people about what they would see in the sky. If you understand, even the faintest of objects can thrill.

5. All sky aurora Edmonton Alberta Canada. Amateur astronomers have mixed feelings about auroras. Amateurs that live in aurora zones, Canadians, Norwegians, Argentines and others often bitch about "natural light pollution" until they witness a full-blown all sky aurora. It was another cold Edmonton winter night and I was up late watching the idiot box when a local news alert interrupted programming to report an impressive aurora was underway. Northern lights in Edmonton are common and seldom newsworthy. I had to see what the fuss was about so I bundled up, stepped outside and was immediately transfixed. Auroras are usually silent slithering green sheens. Tonight the sky was blazing green, then red, hinting at purple, then back to

green, red again, rippling and roaring, from the north to south, east and west: all ablaze. I had never seen a display of such magnitude. Giant auroras are not only beautiful they can shut down power grids. I love it: natural light pollution shutting down man-made light pollution. I don't know if John saw great auroras but I know he would have loved them.

6. Comet Bennett near Canmore Alberta Canada. I wasn't looking for Bennett's Comet when I saw it. I was driving back to Calgary from Vancouver with friends. We made a road side stop in the Canadian Rockies near Canmore to relieve ourselves. I trudged out into the snow, unzipped my fly, looked up and saw, just above the dark jagged outline of the mountains, the most exquisite comet. I wasn't sure what it was. It was so striking that we stopped peeing and admired it. I remember saying, "It looks exactly like the comets you see in textbooks." I was right. That passing of Bennett's Comet was canonical. I've seen some great comets since Bennett: Hale-Bopp and Hyakutake were both spectacular but unexpected Bennett is still my favorite. John often reminded people that you don't always need a telescope: just keep looking up.

7. Total Eclipse of the Moon: Tamale Ghana Africa. I taught mathematics for two years in a northern Ghanaian boarding school after graduating from university. The best total lunar eclipse I have ever seen occurred during my Ghanaian years. I reckoned the eclipse would be a great teaching opportunity for my students. The school had and old telescope; it was a small reflector that a previous teacher had donated. The scope didn't have an eye piece so we adapted a microscope eye piece. It worked better than expected. On the night of the eclipse we set up the scope on a second story veranda with a nice southern view. Lunar eclipses are leisurely events. It takes a long time for the Earth's shadow to cover the moon. Before the eclipse began students started peaking at the moon through the telescope. Many of them where as delighted as I was with my first telescopic glimpse of the moon. I remember some of the older, and cooler, students had to reign in their obvious excitement. As the Earth's shadow touched the moon people in small villages around the school started pounding drums. As the shadow crept further and further the drumming got louder and louder and bonfires started popping up all around the school. I didn't expect this reaction. It was the best damn star party I've ever attended. The eclipse was a good one too. At totality the moon was a deep dark blood-red. John took advantage of eclipses, nature's astronomical advertising, to show even more people the greatest show off earth.

8. Annular Solar Eclipse: Syracuse New York United States. 1994 was the

year of Shoemaker–Levy 9: the fragmented comet that smashed into Jupiter with such awesome energy that it blinded sensors on large telescopes and left massive bruises that could be seen in small telescopes. Shoemaker-Levy 9 was a rare major event. We were lucky to see such an impact in our lifetimes, but the 1994 event that sticks in my head was the annular eclipse of that year. Annular eclipses are, according to eclipse snobs, failed total eclipses. The moon is too far away to precisely match the angular size the sun so at totality an annular looks like perfect super bright ring in the sky. It's a rare celestial event that fits into your work day but the 1994 annular eclipse did just that. Totality occurred during lunch hour and many of my coworkers and strangers on Syracuse sidewalks paused to look through eclipse shades and welding glass at the one ring to bind them all. It was Dobsonian sidewalk astronomy at its finest.

9. Glimpsing the Gegenschein: Grand Teton National Park, United States. Seeing the gegenschein requires very dark and clear skies. The tiniest hint of light pollution will wash it out. I'd been observing for years before I saw it. I was south of Yellowstone Park looking directly north. There are no large cities directly north of Yellowstone for hundreds of miles and the park is blissfully black. At 3:00am I noticed a slight glowing that steady increased in brightness. Seeing was superb. I could see 7^{th} magnitude stars with averted naked eye vision. I was alone, in the cold, in the dark. Not John's style but this was a personal first. Sometimes the sky is all you need.

10. Total Solar Eclipse: Zambia Africa. *Total solar eclipses are beyond awesome.* They utterly wowed our ancient ancestors and still blow away the most jaded and media saturated people today. You have to put yourself in the moon's shadow and give yourself to the spectacle. It's worth spending thousands of dollars and going to the ends of the Earth to stand in the moon's shadow. Of all the wonderful and spectacular things I have seen I'd rate my first total solar eclipse above them all. Of all the planets, moons and other bodies in our solar system only the Earth enjoys pure total solar eclipses. By some freak cosmic accident the moon and sun are almost exactly the same angular size in our sky. *It's only when I'm standing in the moon's shadow, during a total solar eclipse that I don't mind being trapped on Earth.*

Looking over my list it's pretty clear that John Dobson had the right idea. The things that stuck were first glances through telescopes and watching special things in the sky with my own eyes. I have spent many long nights tracking objects down in telescopes but after a few years such "serious" sessions blend together. It's those

fleeting first lights that dig in and change how you feel. John Dobson changed how many people feel about the sky. Nice work John.

Bitcoin is a Perfect Protest

Posted: 09 Feb 2014 04:39:30



The most intelligent comment I have read about Bitcoin is that it's a *perfect protest*. Bitcoin went live in 2009 shortly after the 2008 financial crisis. The 2008 crisis was a defining moment. Prior to that date I *believed* that the US government, despite its obvious warts, short comings and long checkered history was still *partly accountable* to the electorate. I didn't buy the widespread cynical notion that modern elections are largely meaningless dog and pony shows that help sell the illusion that *the people* are in charge. I seriously thought there were important differences between Barak Obama, Hillary Clinton and John McCain. It's embarrassing to confess such naivety.

Before 2008 I was a good little cog in the machine: obediently paying my taxes and being a productive member of society. I was a chump: a silly stupid chump, but lucky for me, the "crap sandwich" bank bailout cured my naivety. Despite being overwhelmingly rejected by the public and initially rejected by Congress the crap sandwich was forced down our throats and *all three presidential contenders voted for it.* When push came to shove there were no significant differences between liberal democrats and conservative republicans, both groups lined up to betray and indebt the public and we've been suffering, and will continue to suffer, the consequences for years to come.

The 2008 financial crisis, and the comical US election that followed it, taught me some important lessons:

1. **If none of the above is not on the ballot the election is fraudulent.** The political systems in the countries I have lived in depend on presenting limited, and frankly insulting choices, to the electorate. If anyone is going to seriously argue that Barak Obama and John McCain were the best that a country of three hundred million souls could offer then we are lost. If I was lost in the woods with Obama and McCain I wouldn't take a millisecond of direction from either and might consider getting rid of them on the spot to improve my chances of survival. A candidate must be better than nothing, and

if nothing is superior to the highly gamed political selections put forward then nothing should be on the ballot! I will return to this theme in future posts. The next time you cast a ballot look for none of the above. If none of the above is not present the election is illegitimate and you are being used to put a stamp of public approval on what's very probably a vacuous choice.

2. **You can tell we're dealing with a real issue when the ruling class closes ranks.** Our idiotic media maelstrom is inconsequential noise that is best ignored. Will a society with gay marriage manage their finances better than a society without gay marriage? Will free birth control pills for sluts impact trade balances? Will crosses on public lands constrain money creation? Does the size of Kim Kardashian's ass moderate capital controls? Get in the habit of asking such questions. If the question is absurd, or if the answer doesn't matter, it's a distraction. On the other hand if you see alleged ideological enemies coming together to promote a *critical common good* beware! In 2008 the flamboyant cosmetic differences between liberals and conservatives vanished removing even the illusion of choice. To bailout, or not bailout, was a real issue and with real issues there is no choice. We've recently witnessed rank closing on Edward Snowden. Again, both left-wing democrats and right-wing republicans lined up to declare Snowden a traitor and praise the glories of our NSA surveillance state. Clearly public privacy is another real issue and with real issues there is no choice.

3. **Human beings cannot be trusted with money creation.** The 2008 bank bailout was outrageous for two primary reasons. It lavishly rewarded bad behavior and it created money to do it. Money creation is convoluted; many argue that commercial banks create the bulk of money through loans, others claim the Federal Reserve creates money when buying government bonds and treasuries. The food chain is twisted but nobody disputes that *at the base of the chain money is created out of nothing.* Everything boils down to ledger entries made by sanctioned authorities. There is no mining, there is no collateral, there's nothing but an invisible yoke that's *eventually* placed on the public's head. The invisible yoke has briefly shown itself in the fiery debt limit fights about the *full faith and credit of the United States.* What the hell is the full faith and credit of the United States? It's nothing more than a promise that the government will somehow extract the means to make payments to that long forgotten ledger entry. If the public fully understood that their labor is balanced against *nothing* they would refuse to pay and the entire system would collapse. The system is such a perfect scam it's hard not to admire it. Oh, it

will eventually collapse; fiat money always goes to zero, but in the meanwhile, it affords unlimited fiscal flexibility to the ruling class. Who gets to create money is a real issue and once again there is no choice about real issues.

There has been a lot of nonsense written about Bitcoin but one thing is clear it serves as a brilliant financial foil so I am not surprised to see recent worldwide efforts to suppress it. The most frightening thing about Bitcoin is that it gets people asking questions about money. For example:

1. **Exactly what is money?** Every crank has their own definition of money. What amuses me is that both Gold cranks and fiat cranks have lambasted Bitcoin for being arbitrary and made up. One of the best retorts to this confused drivel notes that Bitcoin is to "real money" like the Flying Spaghetti Monster is to "real religion." Everyone sees the Flying Spaghetti Monster is made up, but – oddly – nobody can mount rational arguments explaining why it's *more made up* than the "real thing." Bitcoin is capable of playing the *role of money,* so in proper contexts it is money.

2. **Why do banking authorities have exclusive money creation rights**? The historic *rationale* was to prevent counterfeiting. Counterfeiting is irresistible to anyone in a position to do it. By giving money creation rights to select authorities and using deadly force on counterfeiters governments could claim they were protecting the "currency of the realm." It is many orders of magnitude more difficult to counterfeit Bitcoins than US dollars or any national currency. To counterfeit a Bitcoin you have to break a hard cryptographic hash. Technology has rendered the rationale for central money creation authorities obsolete.

3. **Should money be created without limit from nothing?** Now that monetary creation restraints, historically ties to gold, no longer exist the only limit on creating money out of nothing is the stupidity of the public. How much debt can you get poor dumb suckers to accept before they rebel? Bitcoins are not created out of nothing. The mining process validates the public ledger, the Blockchain, and insures that nobody is counterfeiting coins or double spending. Mined coins are a reward for valuable network services. Additionally, there is no central creation authority. Competing miners create Bitcoins all over the world. This system is not without fault and Bitcoin variants are exploring technical improvements but the Bitcoin creation process is essentially a mathematically secured network phenomenon and it is much harder to corrupt than bribing a few central bankers.

4. **Why do authorities maintain the right to confiscate private funds?**

A Bitcoin feature that is particularly disturbing to authorities is that it's not difficult to prevent even powerful entities from seizing coins. A coin cannot be moved or spent unless you get its private key. If you do not know the private key a Bitcoin will just sit in the Blockchain taunting goons that covet it. In a Bitcoin economy it will be difficult to garnish wages, block money transfers and seize assets. How will the state survive?

5. **Why must fees be levied when moving money across national borders?** The public has never accepted this little rape. How many of us have lied to custom officials when asked about how much cash we're carrying? I'm guessing a fair fraction of all travelers. We all know it's none of their damn business but being good little cogs we bend over and submit to state sodomy. Bitcoin penetrates borders with the same ease that custom authorities conduct cavity searches. Go ahead cut off coin movement! All you have to do is turn off the Internet, commander all USB ports, block old fashioned paper mail and learn how to read people's minds. Any information storage and transmission device, including the human brain, can be used to move coins. Go fuck yourself customs. One day money will be free to move without your permission or consent!

Obviously we cannot have too many people asking such questions. Mathematically sound, open source, publicly validated and distributed real money like Bitcoin must be ridiculed, harassed and stopped. Left unchecked it will cauterize an important component of state power: arbitrary money creation rights. By providing an elegant mathematical model of how a world without central banking and national currencies might function Bitcoin is a perfect protest: a good idea that our corrupt "leaders" cannot honestly answer.

The Singularity is Not Near Enough

Posted: 05 Mar 2014 17:52:19

Here's a little Google project. Search for life extension technologies and start reading comments about what people think about living five hundred or a thousand years? Some are completely in favor of the idea but you'll find legions of naysayers that are deeply disturbed that the "natural order" of things will soon radically change. Objections run the entire predictable gamut. The religious go on about how this is not part of God's plan. *How would they know?* Marxists and bitter lefties complain that only the rich will be able to afford life extension. It never occurs to them that such technologies might be cheap. How many of you thought you would be

carrying inexpensive 64 bit super computers in your pockets twenty years ago? Environmentalists whine about how this will increase one's lifetime Carbon footprint — seriously — and start mumbling about abuses to Gaia. Paranoid and suspicious types boldly assert that "the government" will use access to life extension to "control us" and pollute our pure bodily fluids. It seems more people want to live short ordinary lives than long extraordinary ones.

Personally I don't have a problem with life extension. I'm in the Woody Allen camp. "I don't want to achieve immortality through my work; I want to achieve immortality through not dying. " Not dying, *ever*, is a mighty big order. If you place any credence on current Big Bang cosmologies it looks like the entire universe is mortal. In a mere 10^{100} years the universe might be completely dark with a temperature that is physically indistinguishable from absolute zero. All the stars, galaxies, black holes and unstable elementary particles will have long since decayed. You might find a free electron every few million light years or so *if you're lucky*. Such a universe is beyond dead as far as sentient beings are concerned. Religious end-times are for pussyfied wimps, metrosexual girly-men and fat feminists. Plausible universal end states are vastly more terrifying that any Last Judgment or Ragnarök. I don't expect life extension to produce lifetimes of 10^{100} years; I would be happy if we eke out a few millennia. There are thousands of trees, deep-sea corals, and freaking sponges that are many thousands of years old? If a sponge can hack a thousand years I really don't think I'll have a problem.

My one serious objection to human life extension is simple. Most of us are dumber than fence posts and even the intelligent have brains infested with patently stupid ideas that deserve immediate and total deletion. Most of us aren't worth preserving until next week let alone the year 3000. I don't exempt myself from this harsh judgment. I've always assumed that if I can understand something it's inherently trivial; that if I can do something it's no big deal; that if I can hack it cannot really hurt. Yet I am constantly amazed at how many cannot meet my pitifully low standards. Do you really want to be surrounded by your grunting, ignorant naked ape neighbors for a thousand years? It's hard to make a more cogent argument for mortality. I know what you're thinking. "That's not fair; people learn and change." Oh, if it were only so. I know people who have never changed their minds about anything. They are the true walking dead; after the mind goes the body is just pus and who wants to extend the life of pus?

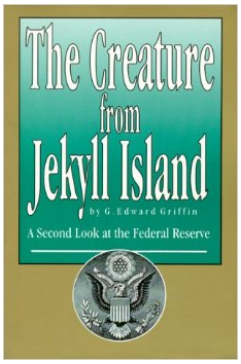
Greatly extending the lives of horribly flawed and limited people will only perpetuate our screwed up world. Minds do not change, they die. If Caesar was still up and about we would probably still be throwing people to the lions, worshipping Greco-Roman

sky fairies and marching off to war every spring. We have to get a lot smarter to *use* thousand-year lifetimes. Fortunately the singularity is coming.

Ray Kurzweil has absorbed lots of abuse. His book, The Singularity is Near, has been mocked as rapture for nerds. My own view is that his thesis is sound but his timeline is whacked. I don't think the singularity, the emergence of superior trans-human intelligence, will happen in my lifetime. I doubt it will happen in the 21st century but it's almost inevitable in the 22nd and 23rd. We are entering an end-time of sorts. Standard *Homo sapiens* will, in a few short centuries, be extinct.[30] We will either be eliminated by trans-humans as a dangerous pest species or we will voluntarily become trans-human ourselves. I agree with Kurzweil that we cannot predict how truly superior beings will live but I'm willing to bet my Bitcoin stash that they will outlive sponges! The singularity is not near enough.

Review: The Creature from Jekyll Island

Posted: 18 Mar 2014 01:23:27



In 2008 whatever residual trust I had in American democratic institutions was irrevocably shattered by the larcenous and criminal bank bailout. If you recall the bailout, the infamous "crap sandwich," was overwhelmingly opposed by the public, initially rejected by Congress, but stuffed down our throats anyway. The sky was falling! The banks had to be saved or the world would end. At the time I knew the failure of half a dozen of world's largest banks would be a disaster – for bankers – and many innocent bystanders, but it was hardly world ending. Asteroids weren't falling, super volcanoes weren't erupting, nukes weren't detonating, in the worst case we would have a short sharp, parasite cleansing, depression followed by the growth of new financial institutions. This is exactly what happened – in Iceland: the only country that refused to bail out their banks. The reward for poor judgment, bad planning and mendacious behavior should be failure. Of course that is not what happened. That ultimate get out of jail free institution, The Federal Reserve, kicked into high gear and rescued a host of institutions that should no longer be with us. It was a complete undemocratic travesty.

I thought the 2008 bailout was an exception; that the entire outrageous chain of events was pulled out of the asses – of asses – on the fly. Edward Griffin's "crazy" history of

[30] This is why I don't worry about Global Warming.

the Federal Reserve, written more than a decade before 2008, clearly shows that the only exceptional thing about 2008 was scale. The Federal Reserve has been saving banker's butts for a century. As long as we have, fiat currency, fractional reserve banking and central banks like the Federal Reserve we'll have, massive government debts, never-ending inflation, (money creation), and the relentless insidious transfer of the costs of bank screwups to an unsuspecting and stupid public. *This is the way the system is supposed to work!* Griffin's footnotes make it clear this was completely understood by the originators of the Federal Reserve over a century ago. In short, the "Jekyll island creature" has pulled off the biggest bank job in history.

Most of *The Creature from Jekyll Island* recounts the fascinating history of central banking in the United States with entertaining asides into the longer history of money. For millennia "money" was largely precious metals: Gold and Silver. There are good, *very long-standing historical reasons,* for this. Even today, given the choice between a pile of paper dollars and the equivalent amount of Gold, most of us would still take the Gold. You would think something that has functioned for five thousand years as global money would be good enough for central bankers but Gold, in the duplicitous language of bankers and their economist fanboys, is *insufficiently elastic.* What this means is that Gold cannot be created and destroyed by *banker will alone.* Barbaric old unreactive Gold, forged in the collision of neutron stars, and unevenly dispersed in the interstellar medium, is just too damn hard to acquire and use as money. What's needed is something that can be "poofed" into being on demand.

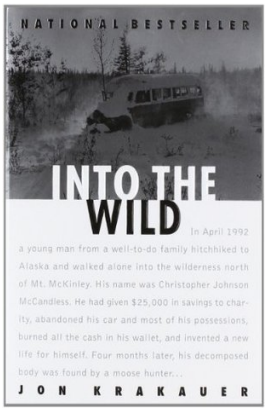
On course the problem with poofed, or fiat, money is getting poor dumb suckers to accept it. That's where the legal tender laws come in. Central bankers are only one side of the bailout ballet. The bankers need the power of the state, with its ability to imprison and execute anyone that balks at taking colored paper for Gold, or gets the silly idea that they can print some colored paper themselves, to really work the fiat magic. In turn the state gets preferential access to newly created, tax levy free, funds to piss away on vote-buying boondoggles. It's a great system for bankers, politicians and their many blood sucking ticks. It's a shame the rest of us get *inflation raped* paying for it.

Griffin ends his book with two flights of conspiratorial lunacy: one pessimistic and the other realistic. If you're wondering, Griffen holds *there is no optimistic scenario.* We're in for a world of economic butt-hurt when the creature dies. The pessimistic scenario is basically 1984 central banker style and the realistic outlines the economic disruptions required to return to a silver based dollar. Griffin is a better historian than a science-fiction writer and *Jekyll* would be a better book without the last two chapters.

Finally, I disagree that there is no optimistic scenario, but I can forgive Griffin for not seeing one twenty years ago. In 1994 there were no new ideas about money: just the same old fiat crap served up on plastic credit cards. In 2014 we have Bitcoin. I hold that the ideas in Bitcoin are the first genuine monetary innovations in decades. The Bitcoin network demonstrates how a "nonpoofed" form of sound money can work without governments or central bankers. Economists are fond of quoting Gresham's law: "Bad money drives out good." With ideas it's the exact opposite: "Good ideas drive out bad." Let's hope the exceedingly bad Federal Reserve idea succumbs to better ideas like Bitcoin as soon as possible.

Review: Into the Wild

Posted: 02 Apr 2014 01:26:18



Anyone contemplating a "return to nature" would be well advised to read Into the Wild first. This gripping little book investigates the last journey of Christopher McCandless: a young man who walked into the Alaskan wilds north of Denali in the early 1990s with the intention of living off the land. He was woefully under-equipped, both materially and mentally, and in less than four months he starved to death.

People fall into two camps when hearing Chris's tale. There is the "too stupid or crazy to live camp" and the "we understand what he was trying to do camp." Like the author, Jon Krakauer, I'm in the more sympathetic camp. We've all imagined putting civilization's bullshit behind us and getting back to a more primal way of life. The human animal evolved in the wild. For over a hundred thousand years we roved the Earth in small nomadic groups of hunter gatherers: civilization is a recent invention and our inner animal is not entirely OK with it.

Chris's desire to experience raw unfiltered nature is universal. When I was Chris's age I took off on long solo backpacking trips. I wasn't acting out Thoreau'esque desires to embrace nature; I just couldn't always find a partner. On one of my trips I got lost in the Canadian Rockies and decided to follow a river down a mountain. It was a mistake and I eventually came to an impassable roaring cataract. For a few minutes I felt a bit of what Chris endured when the Teklakania, a river he had easily crossed in early spring, had swollen into a raging torrent that trapped him in the

Alaskan backwoods. If you live by a river you know they are ever-changing beasts. I am not sure Chris understood this and it cost him his life. I didn't cross my river and Chris wisely chose not to cross his: freezing water and fast currents kill the best swimmers. I spent a day backtracking and eventually found the trail I left. Chris wasn't so lucky. A month after the Teklakania blocked his return from the wilds Chris was dead from starvation.

Chris wasn't ready for his trip and given his superior intelligence I am pretty sure he knew it, but he didn't care and it's hard to understand why. When people embark on new, potentially fatal, endeavors they either prepare or don't realize they should! There are many amusing stories of clueless dolts getting way in over their teeny tiny heads and paying dearly. Hubris, it's not just for ancient Greek heroes; it kills every single day. Part of training for anything is admitting you don't know Jack, and, if you're putting your sorry ass on the line, getting some pointers from people who do! Any good diving, climbing, or kayaking course will quickly drive home the point that mommy nature is one big capricious ass kicking bitch that will crush you without a femtosecond of remorse. Training addresses the Rumsfeldian "known unknowns" by giving us opportunities to recognize dangerous situations while we still have some control over events.

Chris thought he was preparing for his Alaskan adventure. He talked to hunters about stalking game and meat preservation. He studied botany monographs of edible wild plants. He told people who picked him up while hitchhiking to Alaska what he was up to and patiently answered their many warnings and objections. The one thing Chris did not do was spend time with someone who had real Alaskan backwoods experience. This amazing omission rendered his other conscientious preparations delusional and dangerous. Chris's notes, recovered from the margins and blank spaces of books he carried, tell how he slowly learned that he could not wander the land at will. Summer off-trail hiking north of 60^{th} is usually a muddy, boggy, bug infested, energy draining slog. They detail his frustrations trying to smoke a moose carcass. He didn't try the air drying method. Finally, they show that near the end he understood his peril and bravely faced it without self-pity.

To me Chris's biggest mistake was not walking into the Alaskan bush but rejecting his parents, particularly his father. This colored his entire approach to authority figures and made it very difficult for him to seek out and profit from the experience of others. Our hunter gather ancestors worked together to survive. They depended on and learned from each other. They knew that rejecting your clan and wandering alone was extremely dangerous. Well guess what, a hundred thousand years later, it still is! The next time you think about fleeing into the wild keep Chris in mind it

might just save your behind.

Cosmos Reboot

Posted: 12 Apr 2014 00:34:50



I am enjoying Neil deGrasse Tyson's reboot of Cosmos. So far it's as good as the early 1980s Sagan original. Popularizing science is a thankless task. Successful stars like Tyson and Sagan will earn nothing but envy and scorn from their peers. They'll be derided as dilettantes and panderers whoring out science for demeaning public fame and filthy capitalist lucre. "Academic politics is the most vicious and bitter form of politics, because the stakes are so low." Such *trollish* antics are hardly surprising. Watching the success of the *undeserving* drives men (and bitches) mad and academics, despite being a tad smarter than the average bear, are not exempt.

The snarky back-biting of resentful peers is understandable and I'm sure people like Sagan and Tyson eventually come to see it as a laurel. Yes, Cosmos is dumbing down General Relativity, glossing over the fine points of the Standard Model and ignoring many of the complications of DNA/RNA replication but what the Hell do you expect? Nature is a complicated beast and human beings are slightly evolved naked apes. Most of us can barely walk and chew let alone ponder the formal mathematics of renormalization. Cosmos will not to turn people into Nobel candidates but it might teach them enough to think twice about bowing to lunacies like: the Earth is six thousand years old, there was a global flood in recent times, dowsing works, unidentified lights in the sky are alien spaceships, vaccinations cause autism, bigfoot is crapping in backyards, evolution is wrong, global warming is going to kill us all and prophecy is real.

Science is hard on nonsense but only if it engages. The biggest mistake you can make is ceding the battlefield to your enemies. Recently Bill Nye took a lot of heat for debating a creationist. In silly lefty circles *talking to these people only elevates them.* They felt Nye was making a big mistake by sharing the stage with a young earther, but then lefties have always been more comfortable with outright suppression, libelous slander and five-minute hates. *Shut up they explained!* Winning an argument on pure intellectual merit reeks of white male privilege and decent liberal airheads just don't go there. Now I'm more of a crush your enemies, "drive them before you, and hear the lamentations of the women," type of guy. So I'm glad people like Nye,

Tyson and Sagan suit up and slay nitwits.

And, when it came to slaying nitwits, Sagan was in a rarefied class. He debunked Mars facer's, Velikovsky enthusiasts, UFO fanatics and more with characteristic style. Twenty years later his arguments still hold up. Sagan's adherence to the skeptic's creed*, it's not the skeptic's job to prove an assertion false, it's the proponent's job to make its case,* infuriated opponents and delighted "drive them before you" hard-asses like myself. This all happened before the Internet was widely available so I didn't see how deeply Sagan got under idiot skin until he died in 1996.

By 1996 the web had spread everywhere you could make a phone call. I was using 56K BAUD dial-up then and for someone who started with 300 BAUD acoustic modems it seemed like a golden age. The day that Sagan died I remember thinking "it will be interesting to read the public's eulogies." I logged on expecting human decency only to find, *for the first time*, Internet trolls. Large numbers of vicious cretins hated Sagan and actively celebrated his death. The morbidly religious imagined a sodomized Sagan roasting in Hell for the crime of atheism while scores of UFO dolts reiterated the very fallacies Sagan had debunked: the feeble-minded love proof by repetition. I wasn't shocked, I don't do shock, but I was surprised. The tone was everything we've come to expect and love in modern unhinged troll-dom. I downgraded my already low opinion of mankind.

As nasty as Sagan's death celebrations were I consoled myself with the fact that we're not burned alive for entertaining unpopular cosmologies. It wasn't always so as Cosmos attests. Left unchecked the omnipresent goons among us would love to grind Orwell's boot in our faces forever. Part of what holds them at bay is science and its ambassadors like Tyson and Sagan. So thanks Neil, and please continue ignoring your academic trolls.

Blood Morons

Posted: 14 Apr 2014 16:39:03

Here we go again; *literal lunatics* are, for the zillionth time, announcing the end of the world. What's going to do us in this time? Would you believe the next four lunar eclipses? Starting tonight, an unusual*, but not rare,* sequence of four lunar eclipses begins. Some religious loons are claiming this so-called *eclipse tetrad* is a sign of the end times. Oh, if it were only so. Imagine a world cleansed of imbeciles! Unfortunately, as Fred Espenak notes on his highly regarded eclipse pages, there is nothing unusual about this sequence of eclipses. In the last five thousand years we've

had 142 eclipse tetrads. That's about one world ending every thirty-five years. Look around people; we're still here.

It astounds me that there is still a market for such nonsense. Astrology, and that's all this blood moon rubbish is, has been completely, totally, absolutely and utterly debunked. On this the science really is settled! But, when have we ever let science get in the way of a good marketing opportunity, and world endings are well — world ending — sales opportunities. Get your end times before they're gone! Running astronomical scams is easy because large swaths of the public cannot reliably answer basic questions like: does the Sun go around the Earth? Maintaining such levels of ignorance must be exhausting.

You might want to pull your head out of your blood moron ass long enough to observe tonight's total lunar eclipse. It starts around midnight here in St. Louis with totality commencing around 2:00 am. I'll be out there, St. Louis weather permitting, shooting eclipse tracks. With proper framing eclipse tracks make neat pictures. If what I have in mind pans out it will constitute my next post.

Pussydent Hildabeast

Posted: 15 Apr 2014 21:41:44

My blood moon photography didn't turn out because I didn't. Come midnight fatigue, familiarity and spotty weather conspired to send this exhausted W2[31] drone to bed. It's just as well; if you're not doing consider sleeping. In six months I'll get another shot at photographing a blood moon. For the nonce, I'll muse on menstrual moon madness. Exactly what Earth shaking event does this terrible tetrad foretell?

> *Some cry Ukraine*
> *I say are you insane*
>
> *Others holler*
> *The demise of the dollar*
>
> *Moon free bleeding*
> *We're not needing*

[31] W2 is a basic IRS tax form in the United State. I calculate my taxes by hand. I sometimes do the arithmetic on paper just to increase the pain and rage. Taxation should hurt and in my case it does. Taxes are by far the largest "line item" in my budget, but what the heck, lesbians on welfare need free birth control.

Someone on the Internet
Is wrong

But now, in the blood moon discharge, it's clear a fate worse than community organizers awaits a pummeled public. Behold, *Pussydent Hildabeast*,[32] a rough nagging crone, her "hour come round at last, slouches towards Bethlehem to be born?"

Soon we'll beg
Who

To let
The dogs of war out

Ukraine takeaway: Don't give up your Nukes

Posted: 18 Apr 2014 14:07:29

What's the one sentence takeaway from the unfolding Ukraine mess? **Don't give up your nukes!** It's unlikely that any of this would be happening if Ukraine had retained their nuclear weapons instead of turning them in for the magic beans of "international guarantees." It would be interesting to review the anti-nuke sales pitches made to Ukrainian officials; I'm guessing large undisclosed deposits were made to key bank accounts because such stupidity is hard to reconcile otherwise.

Nuclear weapons are so icky and evil that enlightened beings pine for a nuke free world. Why? *Because the world before nukes was just so peachy wonderful!* Surely you remember that awesome world, great states only marched off to world wars every generation or so. The strong never rolled over the weak, and we all lived in peace and prosperity. OK, I'm being sarcastic about peace and prosperity, but consider this, since the advent of nuclear weapons, there have been no, **great state vs. great state**, major wars.[33] The simple truth is: nuclear weapons have done more for world peace than all the naive treaties, peace conferences and marches ever held.

War, despite the propaganda to the contrary, is a fundamentally rational undertaking. There's a famous line in the movie Patton. While watching a long line of trucks

[32] A Pussydent is a *metaphorically ball-less* president and a Hildabeast is Hillary Clinton.

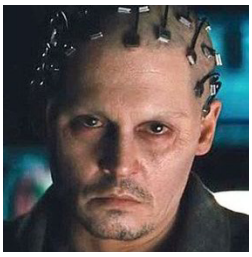
[33] There have been dozens of great state vs. small state and hundreds of small state vs. smaller state wars but no nuclear powers, even relatively crazy ones like Pakistan and India, have come to nuclear blows. I predict that when Iran *shows nuclear* instead of nuking Israel it will suddenly find reasons not to. There's nothing like immediate annihilation to clear the mind.

and armored vehicles roll over Sicilian countryside the great general declares that all human achievements pale in comparison to war. Before getting your peacenik panties in an indigent bloodstained bunch think about what this means. It's an irrefutable historical fact that humans have invested enormous amounts of time and energy planning and executing wars. Some wars are accidental but most are planned, and here's the surprisingly bit, many of the plans make perfect business sense. If you can crush an opponent and advance your interests with acceptable losses what's going to stop you: international law, naive new age dolts, human decency, the UN? How about nuclear weapons? *Nuclear weapons have pushed losses beyond acceptable and that is the only reason great states have not directly engaged in the last seventy years.*

Unfortunately, the old world of a few nuclear states and a naive non-proliferation treaty is unwinding. It was pretty frayed before the Ukraine crisis but now it's dead. Any state that depends on a nuclear armed ally coming their rescue is reconsidering. Can Japan depend on the US to back it up in a conflict with China? What about Australia? Even Canada has to wonder if anyone has their back in the arctic. In the years ahead we are going to see a rash of new nuclear powers. I doubt these new powers will be stupid enough to detonate bombs in the open. Most will follow the Israeli model: acquire the ability but never officially disclose it. I suspect Iran is already a member of this club simply because US intelligence, (don't make me laugh), says otherwise. The world is going to get a lot more scary but don't worry you can only die — in excruciating pain — once.

What's the opposite of Transcendence?

Posted: 19 Apr 2014 01:52:45



Serious science fiction is a demanding cinematic genre; that's why you see so little of it! Most of what passes for science fiction is out-and-out comic fantasy. In the last year only three marginally serious science fiction films made it to wide release: Catching Fire, Divergent and Transcendence. Sadly, they're all pretty awful and Transcendence is the biggest letdown of the three. Here's why.

Transcendence is another riff on *real* AI. Even though we live in a world of talking cell phones and computer Jeopardy champions a sizeable cohort of *AI deniers* claim *machines will never think.* The best answer I've heard to this came from a young woman who noted that, "I am a machine and I think." Well I am thinking machine too

and until there are serious scientific or mathematical arguments demonstrating that minds cannot, even in principle, be simulated by computations, assuming intelligence is algorithmic remains our best working hypothesis. Transcendence gets all this right. None of the characters in Transcendence go on about whether real AI is possible. Even the fearful anti-AI faction takes it as a given; it's what they are afraid of.

If intelligence is algorithmic then it follows that we are nothing more than programs trapped in messy hardware. Separating hardware and software is one of the glories of our age. We take it for granted that if we change the software we change the machine. The other day I killed off my old WinXP laptop and then resurrected it as a Mint Linux device. The hardware is the same but the machine is very different. We cannot do this with brains — yet. The software that makes you, you, is regrettably entwined with the hardware that runs you. Nature has evolved better intellectual property protection than a division of parasitic IP lawyers. One of the great challenges of our age is breaking down nature's intellectual property protection and reading out the software in brains. Transcendence also gets all this right. The best part of the film involves uploading a dying Will Caster, (Johnny Depp), into a bank of quantum computers.[34]

Up until Will goes live on his quantum cores Transcendence is a fine film. I kept pinching myself thinking: they're not screwing it up or dumbing it down. This might be great. Then my hopes were crushed. Before Will went all quantum *supercomputery* he gave a TED'ish talk pointing out that when real AI arrives it will have more raw intellectual capacity than all human brains combined. When transcendent beings emerge in stories the plot often goes straight to pot. This is not a new artistic problem. It's so common in science fiction that I even have a name for it: *the superior being problem.*

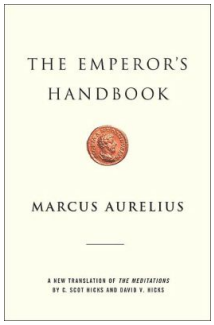
Depicting superior beings poses fundamental problems for feeble brained naked ape authors. Look at what a moron God is in the first few books of the Bible. Scores of fine science fiction novels have been trashed by trying to imagine what truly superior beings would think and do. The only approach that works is oblique. You can suggest the workings of superior minds. 2001: A Space Odyssey is a classic example of doing this right, but for reasons that escape me, many authors take on the inner life of superior minds only to show their own rather mediocre ones. Transcendence didn't even make an honest effort to deal with the superior being

[34]The jury is out on the feasibility of practical quantum computers. If quantum computers can be made to work they will solve certain classes of problems faster than conventional machines but, and this is a big but, they will not expand the notion of what's *computable*. It's rather amazing that what's computable has not expanded since Turing's great theorems of the 1930s.

problem: what a disappointment. Instead of enjoying new ideas I spent the rest of Transcendence wondering why our transcendent protagonist was such a dolt. Not really the transcendent experience I was looking for.

Marcus Aurelius tunes my RSS Feeds

Posted: 10 May 2014 16:08:13



The Emperor's Handbook is a new translation of Marcus Aurelius' classic *The Meditations*. Marcus Aurelius was a second century Roman emperor and stoic philosopher. You probably know him as the old guy (Richard Harris) that chose Maximus (Russell Crowe) as his successor in Gladiator. Marcus is counted among the "five good Roman emperors"[35] and his *Meditations* has been hailed as the single best book ever written by a major ruler. Nowadays every semi-literate hack that's held office dumps memoirs. The more vacuous excrete before holding office! While political autobiography is usually the vilest form of pornography and begs the question; is book burning all bad? There are exceptions and The Meditations is a magnificent example.

The Emperors Handbook is a sequence of short notes. Some are sentences like:

> Not knowing what other people are thinking is not the cause of much human misery, but failing to understand the workings of one's own mind is bound to lead to unhappiness
>
> How shameful and absurd it is for the spirit to surrender when the body is able to fight on!
>
> What is useless for the hive is of no use to bee.

Others take a page or two. It's not clear that Marcus intended to "publish" his notes and this may partly account for their frank and honest elegance. I don't read ancient Greek, the language Marcus used to compose his notes, so I cannot judge his original style but the Hicks brother's English translation is an absolute delight. I often found myself rereading passages aloud to fully savior Marcus's phrases; they ring like poetry and tell like prose. This guy would crush modern Internet trolls!

The most striking thing about Marcus's passages is their stark modernity. If you ignore the allusions to multiple gods and references to 2nd century contemporaries

[35] Most Roman emperors were brutal corrupt monsters.

many of Marcus's 1,800 year old notes might have been composed yesterday. The following would not be out-of-place in the preamble of any modern mathematical logic text.

> Reason and logic are governed by their own laws and employ their own methods. They launch themselves at will, and they head straight for their target. This is why we call actions that seem to us reasonable and logical "right," because they are right on target.

Of course the real measure of any work is: does it change the way you think and act? A lot of Marcus's stoic advice will be hard for us. He repeatedly stresses the importance of playing your part in the greater scheme of things. In his view the universe is either meaningless atoms smashing together or it's arranged by providence. If the first case holds then we should play our part because we are social beings and need the cooperation and support of others to fully prosper. If the second holds then we should strive to find our designated purpose and execute it to the best of our abilities. Either way we should do our duty without whining. A stoic man's "got to do what a man's got to do."

I'm more of a skeptic than Marcus, and I have the benefit of 1,800 more years of history and science to drawn on, so until there is overwhelming, ultra-hard, fully repeatable, and independently verified scientific evidence to the contrary, it's almost certain that life is meaningless and random! The "atoms" that smash together in the 21st century have a richer taxonomy than their hypothetical 2nd century antecedents but they are just as meaningless. The notion that we have a duty or purpose is ludicrous. We are, as Richard Dawkins wrote in the Selfish Gene long ago, robots evolved to propagate genes. And, as many have noted, it's not clear that "intelligent robots" are ideal for gene propagation: bacteria and ants are doing a better job. I cannot accept the unsubstantiated notion of duty so I will not play my alleged part. The greater scheme will have to manage without me.

Though I reject "duty" I still find much of use in The Meditations. Of great value is Marcus's long view.

> Camillus, Caeso, Volesus, Dentatus and to a lesser degree Scipio and Cato, and yes, even Augustus, Hadrian and Antoninus are less spoken of now than they were in their own days. For all things fade away, become the stuff of legend, and are soon buried by oblivion. Mind you, this is true only for those who blazed once like bright stars in the firmament, but for the rest, as soon a few clods of earth cover their corpses, they are "out of sight, out of mind."

That pretty much sums up my approach to the Obama administration. Marcus also has sound advice on Internet filtering.

> Bear in mind that the measure of a man is the worth of the things he cares about.

If you find something predictable and shrill do a quick calculation. Does the signal justify enduring the noise? I went through my long list of Feedly RSS feeds and deleted two prominent sources of noise: The Raw Story and Breitbart. These sites are loud practitioners of *look at this idiot journalism*. One side is predictably far left-wing and the other is predictably far right-wing. Occasionally they cough up something worth a look but usually their articles, and attending moronic troll infested commentary, is a complete waste of time. Is such drivel worthy of my gaze? Applying Marcus's rule I had to cut them loose. Thank you Marcus for pruning my RSS feeds.

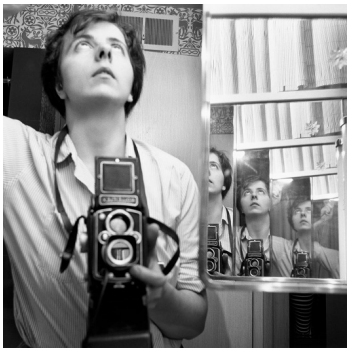
Review: Finding Vivian Maier

Posted: 12 May 2014 23:23:39

I suffer from SLAM (**S**pouse that **L**ikes **A**rt-house **M**ovies). I'm sure you're familiar with this common affliction. It strikes when you want to see Spider-Man 2 but, because you dearly love your spouse, you settle on some "uplifting work of art" that can only be seen in a cramped, look around the pretentious fathead ahead in front of you, dingy art-house cinema. SLAM suffers get a break in St. Louis; there are only two art-house cinemas and their usual yard-sale like fare is dull even by art-house standards. But, as any yard-sale addict will tell you, there are diamonds in the debris and Finding Vivian Maier is a gem.

Finding Vivian Maier is a documentary about a great street photographer, Vivian Maier (1926 — 2009) that you have probably never heard of. I had never heard of her and I'm a keen amateur photographer with a nagging interest in the history and technology of photography. I've read all three of Ansel Adams classic camera books, plowed through many giant histories of photography, and endured as many Photoshop and image restoration tomes as I can stomach. I'm not an artist; I'm a *technisté!* A *technisté* is someone who has technical artistic skills but is not phony enough to be an *artiste*. Vivian Maier is an *anti-technisté*. She's a true photographic artist that showed astonishingly low levels of interest in the craft and technology of photography.

Her story, as one lady in the film noted, is more interesting than her work. Nobody



Vivian Maier 1956. Vivian enjoyed self-portraits and mirrors. This is not vanity. All photographers fall prey to self-reflections. I am certainly guilty.

had heard of Vivian before 2007. She isn't mentioned in giant histories of photography published before 2007 so it's not surprising I missed her. She worked most of her life as a nanny. She didn't hang around with other photographers and she apparently never made a serious effort to show her photographs. Even stranger, she rarely printed her pictures and shot thousands of frames *that she never developed*. She must have been content to look at her negatives if even that. This astounds me! I cannot tell if I have a good shot until I "develop" it. For most of her long life she snapped away in the background and it's likely that her astonishing body of work would have vanished if John Maloof hadn't bought a lot of her negatives at an auction in 2007.

For Vivian the act of capture sufficed and what wonderful captures they are. Her work is being exhibited around the world. I will certainly be looking out for the next show coming my way. You can see some of her pictures here and, for those of you that care, Finding Vivian Maier is much better than Spider-Man 2.

Your Bitcoins are Now Welcome!

Posted: 07 Jun 2014 21:06:28

Recently Coinbase introduced payment pages. Here's my page. Payment pages simplify the process of paying with Bitcoins. In the last six months more and more businesses have started accepting Bitcoins. Once people get cryptocurrencies they inevitably start questioning the legitimacy of national currencies. This is all good. National currencies are part of the past. It's embarrassing to trade *debased presidents* or *unnecessary queens* for goods.

I now pay online fees with Bitcoins when I can. I am doing this for three reasons.

1. **Bitcoin payments are orders of magnitude more secure than credit**

cards, PayPal or other online payment methods. When you pay with Bitcoins you don't spread personal information around. Bitcoin is a nightmare for identity thieves.

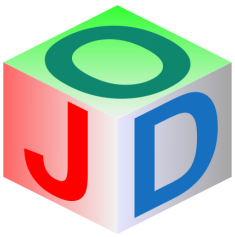
2. **I want to encourage the widespread adoption of Bitcoin as a payment technology.** The entire parasitic financial class must be reformed or destroyed. A good way to kill something is to cut off its air supply. When you use credit cards a big cut goes to banks. Why enrich what you hate? Bitcoin, and its brethren, will help suffocate traditional banks and their despicable government cronies.

3. **The era of government backed legal tender is drawing to an end.** Money is way to important to allow governments to control it. Abominations like the Federal Reserve are as obsolete and morally repugnant as slavery.

To help bring about the glorious day when shitheads in government no longer *create money out of thin fucking nothing* and give it to their bum buddies I am encouraging all of you to start using cryptocurrencies. You can start by tipping *moi*!

JOD Update: J 8.02 QT/JHS/64 bit Systems

Posted: 14 Jun 2014 22:29:17



I have pushed out a JOD update that makes it possible to run the addon on J 8.02 systems. In the last eight months a QT based J IDE has been developed that runs on Linux, Windows and Mac platforms. To maintain JOD's compatibility across all versions of J from 6.02 on I had to tweak a few verbs.

The only significant changes are how JOD interacts with various J system editors. I have tested the system on Windows J 6.02, J 7.01, J 8.02, and Mac J 7.01 systems. I expect it will behave on 32 and 64 bit Linux systems from J 7.01 on, but I have yet to test these setups. My hardware budget limits my ability to run common variants of Windows, Linux and Mac systems.

JOD is still not complete; that's why the version number has not been bumped past 1.0.0. The missing features are noted in the table of contents of jod.pdf, (also available in the joddocument addon), with the suffix "NIMP," which means "not implemented." I will fill in these blanks as I need them. Most of the time JOD meets my needs so don't hold your breath.

If you want to make your own additions to JOD the program and documentation source is available on GitHub. Just follow the links and enjoy.

As a last note: I will be at the J Conference in Toronto (July 24 and 25, 2014) where I will be giving a short presentation and handing out a few hardcopy versions of the JOD manual to one or two JOD fans.

Parsing the Bitcoin Genesis Block with J

Posted: 04 Jul 2014 00:33:11

The genesis block is the first block on the Bitcoin blockchain. Satoshi Nakamoto, the mysterious entity that created Bitcoin, mined the genesis block on January 3, 2009. It's been five years since the genesis block's birth and Satoshi is still unknown, Bitcoin is bigger than ever, and the blockchain is longer than 300,000 blocks and growing.

One of the most important features of the blockchain is its immutability. After the Bitcoin network accepts a block and adds it to the blockchain *it can never be altered.* This makes Bitcoin blocks rare durable binary artifacts. The cryptographic hash algorithms that underpin the Bitcoin protocol enforce block immutability. If someone decides to tinker with a block, say maliciously flip a single bit, the block's hash will change and the network will reject it. This is what makes it almost impossible to counterfeit Bitcoins. Bitcoins have been lost and stolen but they have never been successfully counterfeited. This sharply contrasts with funny money like the US dollar that is so routinely and brazenly counterfeited that many suspect the US government turns a blind eye.

The exceptional durability of Bitcoin blocks, coupled with the mysterious origins of Bitcoin, makes the genesis block one of the most intriguing and important byte runs in the world. This post was inspired by the now defunct post *285 bytes that changed the world.* I would love to give you a link but this post has vanished. A secondary, but excellent reference is John Ratcliff's How to Parse the Bitcoin BlockChain. I am adapting John's nomenclature in what follows.

When programmers start exploring Bitcoin they often cut their teeth on parsing the genesis block. If you Google "blockchain parsing" you'll find examples in dozens of programming languages. The most popular are C, C++, Java, PHP, C#, JavaScript, and the rest of the mainstream suspects. What you will not find, until now, are J examples.

So what does J bring to the table that makes *yet another genesis block parser* worth a look? Let's take a look at Bitcoin addresses. The following is the Bitcoin address of this blog's tip jar. Feel free to send as many Satoshis and full Bitcoins as you like to this address.

```
   tip=. '17MfYvFqSyeZcy7nKMbFrStFmmvaJ143fA'
```

There is nothing deep or mysterious about this funny string of letters; it's just a plain old number in Bitcoin base 58 clothing. So, what is this number in standard format? Here's how it's calculated with J.

```
   BASE58=. '123456789ABCDEFGHJKLMNPQRSTUVWXYZabcdefghijkmnopqrstuvwxyz'

   dfb58=. 58x #. BASE58 i. ]

   dfb58 tip
170961889665498546072642291111250071165223155980465649248 5
```

The second line that defines `dfb58`, (decimal from base 58), is the complete J program! That's it folks. You can troll the internet for days looking at base 58 to big integer converters and it's unlikely you will find a shorter or more elegant conversion program. Not only is the J version short and sweet it's also fast and versatile. Suppose you wanted to convert ten thousand Bitcoin addresses. The following converts ten thousand copies of `tip`.

```
  dfb58 10000 # ,: tip
170961889665498546072642291111250071165223155980465649248 5 170961889665498546072 64...
```

At this point fanboys of mainstream programming languages typically pipe up with something like, "changing number encodings is inherently trivial; what about something more demanding like going the other way, say converting Bitcoin public keys to the base 58 address format?"

The public key in the genesis block is encoded in what many call the "challenge script." Here is the genesis block's challenge script in hex.

```
41 04 67 8A FD B0 FE 55 48 27 19 67 F1 A6 71 30 B7 10 5C D6
A8 28 E0 39 09 A6 79 62 E0 EA 1F 61 DE B6 49 F6 BC 3F 4C EF
38 C4 F3 55 04 E5 1E C1 12 DE 5C 38 4D F7 BA 0B 8D 57 8A 4C
70 2B 6B F1 1D 5F AC
```

Public keys take a number of forms in the blockchain. John Ratcliff's post summarizes the many forms you will run into. The genesis block uses the 65 byte ECDSA form. Converting this form to base 58 requires taking `SHA-256` and `RIPEMD-160` hashes. These hashes are available in OpenSSL which is conveniently distributed with J 8.02 JQT. Here's how to convert the genesis block's public key to base 58 with J.

```
   load 'c:/bitjd/scripts/sslhash.ijs'

   Base58frKey65=:3 : 0

   NB.*Base58frKey65 v-- 65 byte public Bitcoin key bytes to base 58.
   NB.
   NB. monad:  clB58 =. Base58frKey65 clBytes

   ekey=. (0{a.) , sr160 s256 y
   csum=. 4 {. s256 s256 ekey
   Base58Check ekey,csum
   )

   Base58frKey65 }. }: ChallengeScript
1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa
```

The `ChallengeScript` noun holds the bytes given in hex above. The verbs `sr150`, `s256` and `Base58Check` are available in the J scripts sslhash and ParseGenesisBlock that I have put in the jacks repository on GitHub.

The following J verb `ParseGenesisBlock` reads the first full node Bitcoin block file and then extracts and checks the genesis block. `ParseGenesisBlock` tests the various verbs, (functions), it employs. As a side effect it clearly describes the layout of the genesis block and provides test data for anyone that's interested.

If this post peeks your curiosity about J a good place to start learning about the language is the recently released New Dictionary of J. You can download a version of J for Windows, Linux, OS/X, IOS, and Android at Jsoftware's main site.

```
ParseGenesisBlock=:3 : 0

NB.*ParseGenesisBlock v-- parse and check Bitcoin genesis block.
NB.
NB. monad:  clMsg =. ParseGenesisBlock clBlockFile
NB.
NB.   file=. 'c:/bitjd/blocks/blk00000.dat'
NB.   ParseGenesisBlock file

NB. fetch genesis block data
dat=. read y

NB. first 4 bytes are "sort of" block delimiters
MagicID=: (i. offset=. 4) { dat
'MagicID mismatch' assert 'F9BEB4D9' -: ,hfd a. i. MagicID

NB. next 4 bytes gives following block length
offset=. offset + 4 [ BlockLength=: _2 ic (offset + i. 4) { dat
'BlockLength mismatch' assert 285 = BlockLength

NB. next 4 bytes block format version - has changed
offset=. offset + 4 [ VersionNumber=: _2 ic (offset + i. 4) { dat

NB. next 32 bytes is previous block hash - genesis block
NB. has no previous hash and all bytes are set to 0
offset=. offset + 32 [ PreviousBlockHash=: (offset + i. 32) { dat
'PreviousBlockHash mismatch' assert (32#0) -: a. i. PreviousBlockHash

NB. next 32 bytes is the Merkle tree root hash
offset=. offset + 32 [ MerkleRoot=: (offset + i. 32) { dat
grh=. '3BA3EDFD7A7B12B27AC72C3E67768F617FC81BC3888A51323A9FB8AA4B1E5E4A'
'MerkleRoot mismatch' assert grh -: ,hfd a. i. MerkleRoot

NB. next 4 bytes is a unix epoch timestamp - rolls over 7th feb 2106
NB. there is no timezone information - it is interpreted as utc
offset=. offset + 4 [ TimeStamp=: _2 ic (offset + i. 4) { dat
'TimeStamp mismatch' assert 2009 1 3 18 15 5 -: ,tsfrunixsecs TimeStamp

NB. next 4 bytes represents block target difficulty
offset=. offset + 4 [ TargetDifficulty=: _2 ic (offset + i. 4) { dat
'TargetDifficulty mismatch' assert 486604799 = TargetDifficulty

NB. next 4 bytes is a random number nonce
offset=. offset + 4 [ Nonce=: (offset + i. 4) { dat
'Nonce mismatch' assert '1DAC2B7C' -: ,hfd a. i. Nonce
```

```
NB. next 1 to 9 bytes is the transaction count stored as a variable length integer
NB. see:  https://en.bitcoin.it/wiki/Protocol_specification#Variable_length_integer
offset=. offset + vlen [ 'vlen TransactionCount'=: vint (offset + i. 9) { dat
'TransactionCount mismatch' assert TransactionCount = 1  NB. (*)=. vlen

NB. next 4 bytes transaction version number
offset=. offset + 4 [ TransactionVersionNumber=: _2 ic (offset + i.4) { dat
'TransactionVersionNumber mismatch' assert 1 = TransactionVersionNumber

NB. next 1 to 9 bytes is the number of transaction inputs
offset=. offset + vlen [ 'vlen TransactionInputNumber'=: vint (offset + i. 9) { dat

NB. next 32 bytes is the hash of the input transaction
offset=. offset + 32 [ TransactionHash=: (offset + i. 32) { dat
'TransactionHash mismatch' assert (32#0) -: a. i. TransactionHash

NB. next 4 bytes is the input transaction index
offset=. offset + 4 [ TransactionIndex=: _2 ic (offset + i. 4) { dat
'TransactionIndex mismatch' assert _1 = TransactionIndex

NB. input script length is next
offset=. offset + vlen [ 'vlen InputScriptLength'=: vint (offset + i. 9) { dat
'InputScriptLength mismatch' assert 77 = InputScriptLength

NB. script data
InputScript=: (offset + i. InputScriptLength) { dat
offset=. offset + InputScriptLength

NB. sequence number 4 bytes
offset=. offset + 4 [ SequenceNumber=: ,hfd a. i. (offset + i. 4) { dat
'SequenceNumber mismatch' assert 'FFFFFFFF' -: SequenceNumber

NB. output count 1 to 9 bytes
offset=. offset + vlen [ 'vlen OutputCount'=: vint (offset + i.9) { dat

NB. output value - number of satoshis sent
offset=. offset + 8 [ OutputSatoshis=: (offset + i.8) { dat
NB. 64 bit unsigned integer
'OutputSatoshis mismatch' assert '00F2052A01000000' -: ,hfd a. i. OutputSatoshis
OutputSatoshis=: ]`(_3&ic)@.IF64 OutputSatoshis

NB. challenge script length
offset=. offset + vlen [ 'vlen ChallengeScriptLength'=: vint (offset + i.9) { dat
'ChallengeScriptLength mismatch' assert 67 = ChallengeScriptLength
```

```
NB. challenge script - contains elliptic curve signatures
ChallengeScript=: (offset + i. ChallengeScriptLength) { dat
offset=. offset + ChallengeScriptLength
cscript=. ,hfd a. i. ChallengeScript
'ChallengeScript mismatch' assert GenesisBlockChallengeScript -: cscript

NB. challenge script is 67 bytes drop first and last byte to
NB. compute the familiar Bitcoin base 58 address - compare with block explorer
NB. http://blockexplorer.com/block/
NB.   000000000019d6689c085ae165831e934ff763ae46a2a6c172b3f1b60a8ce26f
OutputAddress=: Base58frKey65 }. }: ChallengeScript
'Genesis Block address mismatch' assert GenesisBlockOutputAddress -: OutputAddress

NB. last 4 bytes lock time
TransactionLockTime=: (offset + i.4) { dat
'TransactionLockTime mismatch' assert 0 0 0 0 -: a. i. TransactionLockTime

'Genesis Block Parsed and Checked'
)
```

JD Bitcoin Blockchain Spelunking

Posted: 25 Jul 2014 16:37:05

On July 25, 2014 I gave this short presentation about poking around the Bitcoin blockchain with J at the 2014 J Conference in Toronto Canada.



Click to view JD Bitcoin presentation

There will never be a Literature of Reality

Posted: 31 Aug 2014 20:20:13

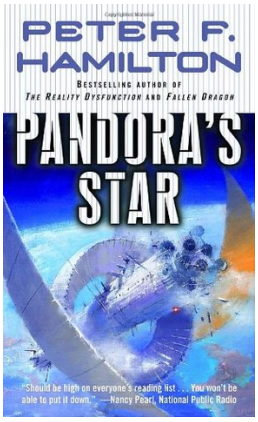
The first job of the myth maker is to shrink the universe. The shrinkage occurs along all dimensions: time, space and mind. You see this everywhere. Immortal vampires and wizards are, at most, a few thousand years old: younger than many *real* trees. Grand science fiction star empires seldom span a single galaxy in a universe of hundreds of billions. Time travelers never set their machines to zero or infinity; they have no interest in creation or ultimate ends. The demigods, super AIs, and other transcendent beings brood unproductively, without original ideas, for millennia. Remember when Elrond reminisced about "being there" when Sauron was struck down three thousand Middle Earth years ago. In all that time the great, wise, and nearly immortal, elves of Middle Earth did not move beyond simple swords. How quickly the battle for Gondor would have gone with a few dozen Abrams tanks and a couple squadrons of Warthogs.

It's hard to fault human authors for shrinking the universe. The real universe, the utterly vast and ancient universe slowly discovered by modern science, is beyond all human scales. Imagine a book that devoted one word to every star in the observable universe. The number of stars in the observable universe is a unit that has a name. It's called a *Sagan* in honor of Carl Sagan. The Sagan is currently estimated to be around 7×10^{22}. Assuming there are one thousand words per page our book would have 7×10^{19} pages.

If we read nonstop at a rate of one hundred pages per hour it would take about 80 billion years, or six times the estimated age of the universe, to read this book. Yet, vast as this book is, it leaves out pretty much everything. There's no mention of the Earth or other planets: so many pages and not even a Hitchhiker's Guide to the Galaxy's "mostly harmless." Reality overwhelms imagination. The magic of Harry Potter is piffle compared to cosmic inflation. Haldane was right. The universe is probably queerer than we can imagine and certainly deeper than we can grasp. Our meager fictions must float in serene little bubbles lest they overrun our short impatient lives. *There will never be a literature of reality.*

Pandora's Star: a Grand Sprawling Entertainment

Posted: 01 Sep 2014 21:00:56



In my fevered youth I was an avid fan of science fiction but as I crossed the Rubicon of middle age I read less and less of the genre. For years I preferred nonfiction: mostly science with a smattering of history and biography. Then, about five years ago, I started reading science fiction again.

What kept me away? Most of the authors of my youth had died: Heinlein, Clarke, Asimov, Bradbury, Anderson, Herbert and Dick – all gone! I had to find new – to me – authors. I knew and loved Neal Stephenson, the author of *Cryptonomicon, Diamond Age, Snow Crash*, and *Anathem*, but after four or five thousand pages of Neal it was time to move on. My first post Stephenson, new to me, author was Iain M. Banks.

Banks specialized in what's often called alien infested space opera. His universes are overflowing with life. Aliens are everywhere, inhabiting niches that most biologists would poo-poo as impossible. I prefer more empty and serene universes but Banks' books like *The Algebraist*, *Surface Detail*, and *Consider Phelbas* whet my appetite for his crowded milieus. I was looking forward to following Banks for years but it wasn't to be. Iain M. Banks died of cancer, at the ridiculously premature age of 59, leaving fans all over the word wanting. There is no greater outrage than mortality!

After Banks' death I looked around for other operatic authors; it didn't take me long to find Peter F. Hamilton and *Pandora's Star*. *Pandora's Star* is a huge, highly entertaining, example of what I call *restrained* science fiction.

Restraint is what separates science fiction from fantasy. Fantasy tolerates an anything goes mishmash of logical inconsistencies. Literature has a term for this: *Deus ex machina.* Modern fantasy is a veritable high-tech *Deux ex machina* factory churning out beta-male vampires that take implausible romantic interests in their food, prepubescent wizards jerking off in boarding school, (Oh it happened), fireproof maximum babes with pet dragons, and armies of oxymoronic brain-dead brain eating zombies. *Only scripture piles on more logical nonsense than fantasy.*

I enjoy fantasy as much as the next nerd but it's not science fiction. Proper restrained science fiction admits a small number of "magic suppositions" but otherwise rigorously adheres to what we know about physical reality. You need some damn science in your

science fiction people. The universe of *Pandora's Star* presumes a few impossibilities; it assumes wormholes and faster than light (FTL) travel. FTL is a standard plot enabling device. Civilizations spanning thousands of light years simply cannot exist, on human time scales, without it. *Pandora's Star* makes three more "impossible" assumptions which I will not divulge because ruining good books should be a capital crime. Aside from these allowed departures from reality the universe of *Pandora's Star* sticks to scientific bricks and unfolds with lovely consistency.

Most science fiction writers make impossible assumptions but great ones take them in unexpected directions. Consider wormholes. Wormholes have been a staple of science fiction forever. Three, not entirely restrained, TV series had contemporary soldiers marching through them every week for years. They've popped up in every two-bit tale that needed quick point A to B plumbing. Wormholes are a cliché and their presence often signals unimaginative hackery. If you're going to confront me with wormholes you better damn well show me something new or I'm outta your lame book. The opening chapter of *Pandora's Star* is one of the most humorous and imaginative use of wormholes in science fiction. A few pages later Hamilton sends trains through wormholes. It's Sheldon Cooper's wet dream: *trains in space.* I had to smile and keep on reading. *Pandora's Star* is a big book, almost one thousand pages, but like all great sprawling books it's too damn short. Fortunately, there's a second book, *Judas Unchained,* that keeps the story rolling. I haven't had this much fun with science fiction since *Dune.* It's that good.

Photospheres Away!

Posted: 30 Oct 2014 16:53:30

Photographers are notorious gearheads. Everybody has a favorite lens, camera, or tripod, and no matter how much gear we have, more is always better! Hey, somebody has to stimulate the moribund Obama economy. Gear lust is not entirely irrational. Good cameras really do take "technically" better pictures than mediocre or poor cameras, but here's the infuriating thing. Technical merit does not make the image!

Image quality depends on many things and changes over time. If you doubt this, imagine you have an old locket that frames a Daguerreotype of your great-great-grandmother. I'd bet that every single portrait on your shiny new iPhone is "technically" superior to that old Daguerreotype , but I'd also bet you'd chuck your iPhone before giving up that old Daguerreotype. An image's quality goes far beyond MTF curves and pixel counts. Photography and geometry are both bereft of royal roads.

In the early days of photography, gear was a serious constraint. Getting a good picture was a technical and artistic struggle. Imagine shooting a panorama using large glass plates covered with a home-brewed ASA 0.5, (you read that right, ASA 0.5), blue light-sensitive emulsion. Despite such limitations, early photographers managed to create some great images. Imagination and gumption have always been the most important photographic tools, with good lenses as a distant third. Well, the 150-year reign of the lens has ended, *software has displaced the lens as the primary modern photographic tool* and Google's Photosphere cell phone application neatly demonstrates this technological shift.



I shot this panorama in the 1960s. I rotated in my grandfather's driveway, shooting an entire roll of film with my Instamatic camera. Many years later, I scanned the prints and used panorama software to stitch the images together. Click on the image for more panoramas.

A photosphere is a panorama on steroids. It's a complete 360-degree look-around image. The Google Photosphere app derives from Google Maps street view. Street views are shot with special multi-lens cameras that look everywhere at once, but some bright spark in Google realized that you could get roughly the same result from a single lens if the photographer was willing to endure a vertigo-inducing dance. Shooting a photosphere takes at least three twirling 360-degree passes. You have to shoot the ground, horizon , and sky. It takes about twenty frames to build a photosphere.

There is nothing new about multi-frame panoramas. Photographers started shooting multi-frame panoramas shortly after the camera's invention. I shot them when I was a teenager. Panorama software isn't new either; it's been around for decades. Two "new" developments make photospheres possible: photosphere viewers and cameras (cell phones), that are more software than camera.

The sphere cannot be mapped onto the plane without distortion. This mathematical fact limits how wide-angle your wide-angle shots can be before they are unnaturally

distorted. A flattened 360-degree view of common rectilinear subjects looks wonderfully, or horribly, weird: straight lines become curves, and areas lose proportionality. Many natural vistas can tolerate such torments, but average street views cannot. Photosphere viewers fix this problem by simulating how we look around. Every time you browse a Google Street View you are running a photosphere viewer.



A photosphere at the top of a waterfall in Taum Sauk state park near Arcadia Missouri. Click for a 360 photosphere viewer.

Shooting panoramas and photospheres is like any other type of photography. It takes lots of practice! It was hard to "practice" shooting such images before cell phones could run stitching and viewing software because you couldn't see what you had until you took your twenty frames back to the "lab" and tediously put them together. Ten years ago, panorama software required a lot of manual intervention. I spent hours putting three or four frames together. I didn't put a twenty frame together until I snapped my first iPhone Photosphere.

The iPhone lens is a pretty crappy short focal-length lens. Any decent camera lens easily outclasses it yet I cannot shoot photospheres with my expensive Nikon's while my cruddy little cell phone can. What's the difference? Software!

iPhone Google photospheres are fun, but they're flaw-ridden. You can easily see stitching errors, blending artifacts, ghost people, and other blemishes. Now that we can shoot photospheres, the race is on to shoot quality photospheres! Software will dominate, but hardware has to catch up to make this happen. Before long, you will be able to buy a special multi-lens photosphere ball camera that you can literally throw into the air. This ought to fix the viewpoint problem for people with good pitching arms, and the rest of us can drop the little sucker from a drone. Photospheres away!



A photosphere on the grounds of the Museum of Transportation in Saint Louis Missouri. Click for a 360 photosphere viewer.



The Panono ball camera is a small multi-lens camera that shoots 360 photospheres by simultaneously capturing images from all its lenses and stitching the result together. It is designed to be thrown into the air. Photosphere baseball is going to be huge!

I Voted for Nothing

Posted: 04 Nov 2014 13:48:02

I have just returned from another biannual exercise in futility: voting in mid-term US elections. Once again my preferred candidate, *none of the above*, was not on the ballot; so, once again, I held my nose and did my best to sabotage the fetid dreams of the rotting things that were. Any barely sentient ape knows that voting, especially in the corrupt US system, is almost a complete waste of time. The choices we're presented with have been exquisitely gamed by armies of conniving manipulative hacks all hell-bent on *not asking the important questions.*

Behold your ballot: the primary process purged principled people leaving a scummy residue of stunted subhuman choices. Most are ignorant delusional leftists, grasping smarmy right-wing car salesmen, or outright apolitical narcissist psychopaths. I wouldn't cross the street to pee on any of them. Where are assassins when you need them?

As bad as voting is the alternative, despotic rule, is still worse so I always haul my cynically enlightened ass to the polls and do what I can to erect roadblocks. I always

vote for divided government by carefully selecting bitter opposites. I will vote for Democrats, Republicans, Libertarians, Independents, even Communists and Greens provided I can pit them against someone they detest, abhor, loathe, hate, and want dead on the other side. I want to minimize agreement and maximize conflict because conflict always results in doing nothing, and nine times out of ten, *doing nothing is vastly superior to political something.* So, until we get some qualified candidates – don't make me laugh it hurts; it's critical to vote in people who want to smash in their opponents heads.

The original republican design of the US government recognized the fundamental importance of doing nothing and divided government into three coequal branches to prevent the political class from doing things just for the hell of it! This basic design has degenerated into an out-of-control executive, a cowardly self-serving congress, a swamped navel gazing judiciary, and an ever-expanding underachieving overpaid bureaucracy that *fills in the details on massive template laws* like Obamacare. It doesn't take much of a constitutional scholar to see that this is not what the originators intended. Today we endure a massive, bloated, expensive, inept, corrupt and stupid government run by simpletons, parasites, and criminals.

Fortunately for us, government isn't nearly as important as political assholes of all stripes think it is! As long as ordinary citizens *can buy off and safely ignore government* they will tolerate its existence. So keep doing nothing boys and girls; it will keep your heads off the bloody spikes you probably deserve.



Incoherent Interstellar

Posted: 11 Nov 2014 03:26:18



Don't look for plot points in Black Holes!

Christopher Nolan has made some excellent commercially successful films like Inception, The Dark Knight, and Mememto. When word got out that he was working on a *serious* science fiction film expectations got out of hand. Those of us old enough to remember the first screenings of 2001 thought maybe, just maybe, we might see something comparable to Kubrick's masterpiece. Well I am sorry to report that Interstellar is no 2001; it's not even a Blade Runner or Nolan's own Inception. Interstellar is a giant, moderately entertaining, incoherent mess.

Much has been made of Kip Thorne's involvement with Interstellar. The Black Hole depicted in Interstellar is based on General Relativity calculations. Apparently the CGI animators uncovered something unexpected in how a spinning Black Hole drags light around it. We are told the Black Hole in Interstellar is the most technically accurate ever seen in the movies. Unfortunately, it's the only technically accurate part of the whole damn movie.

There is no point going over the boners in Interstellar. They are numerous, annoying, glaring, and embarrassing. If you must torture yourself the Bad Astronomer has catalogued Intersellar's most egregious violations. Now I know what you're thinking. John, it's a freaking sci-fi movie, lighten up! You're going on like a character on the Big Bang Theory.

My answer to such ankle biters is simple. Science fiction is as an *Art Form*. An art form has two equal components: art and form! Art, without form, is usually effete garbage, and form, without art, is an income tax return. Greatness only emerges when the two are in perfect balance. The first step in achieving balance is honoring the basic elements of the form. So what are the basic elements of the *serious science fictio*n form?

I've gone over this before but clearly you weren't paying attention. Serious science fiction differs from fantasy in the way it treats reality. Serious science fiction *is allowed a few departures* from physical reality. You can assume wormholes connect different parts of the universe and that it's possible to safely traverse them but that's it cowboy! Outside of wormholes it's physics as usual! This is the science part in science fiction. Great science fiction strictly follows this mandate. Take 2001, the

exemplar of how this is done, anything non-obelisk related in 2001, including HAL 9000, is completely and absolutely plausible. The obelisk is the singular departure from reality in 2001.

Interstellar bombs because it often departs from physical reality for the basest of reasons: advancing a clunky nap inducing plot. I cannot abide such transgressions. It's like watching a prima donna ballerina stop in the middle of Swan Lake, drop her tutu, and take a dump on stage. Now prima donna dumps may be entertaining but they're not ballet. Similarly, Interstellar has its good parts but it's not serious science fiction. In my opinion Interstellar is a bigger disappointment than Transcendence and it makes we wonder if anyone in Hollyweird is capable of making serious science fiction these days.

Ferguson and Dark Matter

Posted: 26 Nov 2014 06:44:07

For the last month the big story here in St. Louis has been Ferguson. At least that's what media hucksters have sold as the big story. You will have to excuse me my interests rarely align with "the news." I don't watch broadcast TV, listen to the radio, or *pay* for newspapers. Despite my media starvation diet I am better informed than broadcast addicts. What's my secret?

Everyday I *read* scores of news stories from many Internet sources. When I gave up broadcasting I worried that I might miss something. Actually the exact opposite has occurred. I usually learn of things long before they are "discussed" in main stream outlets. Contemporary broadcasters remind me of short wave Radio Moscow transmissions in the 1970s. Radio Moscow was an insipid utterly predictable propaganda outlet. Listening to what they said was unnecessary. I could predict with nearly 100% accuracy what their slant on any topic would be. They only surprised me *by what they didn't cover. With propaganda only silence is news.* I bet you feel the same about broadcasters you despise. Is it really necessary to listen to MSNBC, FOX, BBC or the CBC? Their ideological positions are as predictable as Radio Moscow. If your news is not surprising it's not news; it's noise.

Ferguson is a classic case of surprise free news. Everyone agrees that a white police officer shot and killed a black teenager. Such a lovely bare-bones tableau invites creative interpretation and that's exactly what we got. There are hundreds of *predictable* Ferguson authorities. You can Google any viewpoint you want. What's lacking in all the hysteria is what skeptics call *reliable data.*

To me the officer's guilt is similar to your favorite type of Dark Matter. The case for Dark Matter is very strong. Something out there is undeniably affecting the rotation and formation of galaxies. Similarly, in Ferguson we have a dead teenager and a literal smoking gun. Now pay attention; this is where we separate skeptically informed thought from raving ideological demagoguery. The case for Dark Matter is strong but the case for particular types of Dark Matter is close to nonexistent. Detection experiments are ongoing, inconclusive or outright failures. Yeah, the Dark Matter science is not settled. Similarly, the case for the officer's guilt is far from ironclad. Perhaps that explains the grand jury's verdict. If you disagree offer *incontrovertible* evidence.

Of course missing incontrovertible evidence is never a problem for people who have made up their minds. People believe all sorts nonsense, ghosts, demons, past lives, central banking efficacy, but, as I often say, "belief is a bullshit word; you know or you don't know." If you cannot mount a rigorous case that withstands the harshest and meanest of skeptics please calm down and refrain from looting and arson.



Mahin standing beside a reflecting pool in Iran. This picture was taken long before I met her. My wife was still a school girl in Tehran.

2015

Mahin and Carl

Posted: 08 Feb 2015 20:59:53

On the very memorable date of New Year's Eve my wife's mother Mahin died. From now on the dropping ball will remind us of her. Mahin had a long and honorable life. She was loved by children, grandchildren, and in-laws. She was the calm matriarch in the storm of her family. I meet her late in life after marrying her daughter Mali. Mahin was almost eighty then and still living on her own. She liked me and regretted having a son-in-law that she couldn't talk to. In the 1980s Mahin followed her children out of the chaos of Khomeini's revolutionary Iran. She settled in Canada in her late sixties taking on a new country, a foreign language and a new way of life. It would have been a big change for a young person but for someone of Mahin's age it was almost heroic. She got on, adjusted, learned enough English to function, but not enough to properly talk to son-in-laws, and enjoyed life. She never manifested a trace of bitterness or self-pity. She was a strong woman.

In her later years Mahin suffered from dementia. Her children took turns helping her out. We were the last to look after her. She lived with us for nearly two years. Mahin and I similar tastes for the absurd. We both enjoyed the idiotic television show Wipeout. Being knocked on your ass works equally well in English and Farsi. We'd laugh at people plunging into gigantic vats of goo. Dementia slowly ate away at

Mahin's mind. Eventually she required twenty-four care and her daughters placed her in a nursing home in Toronto. They agonized over putting her in a home and did what they could to make her life comfortable. Mali stayed with her sister Sedi in Toronto five months last year to look after Mahin. She went to the nursing home every day to feed her, give her baths, do her laundry and talk to her. Dementia claimed Mahin's English. Nursing home staff could not talk to her or understand her. Mali and her sisters were very fortunate to find a sitter that spoke Farsi. Hiring nursing home sitters is more common than you would think. Many of the residents in Mahin's home had sitters.

Mahin died surrounded by children, grandchildren, her sitter, and nursing home staff. Home staff told my wife and her sisters that everyone loved Mahin. I am sure they tell many families something similar but having known Mahin I don't doubt their sincerity. Mahin was a sweet dignified lady to her last breath.

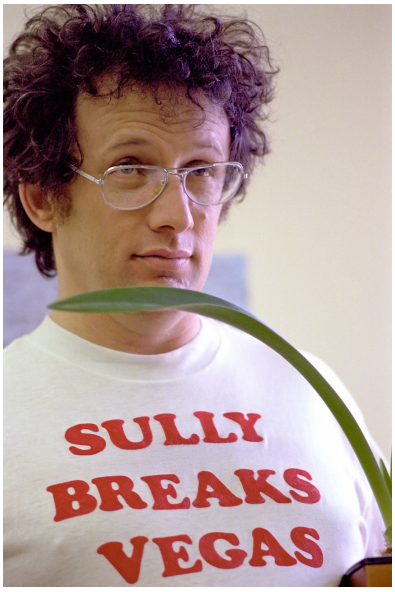
A week before Mahin died I learned from my ex-wife that Carl, an old mutual friend, was in a Calgary hospice and not expected to live out the month. I'm not a particularly friendly person. Oh, I'm pleasant enough and can, when motivated, skillfully navigate social milieus. If you work with me you might even think I am your friend. I'm not! I'm reluctant to form deep friendships. Entering my sixties I can count my real friends on my fingers. Carl was the best friend I ever had. For nearly twenty years, from high school, until the birth of my daughter, Carl was a happy presence in my life.

Carl was a happy presence in the lives of everyone that got to know him and could tolerate his manifold eccentricities. He was everyone's crazy uncle and he relished the role. Since leaving western Canada I moved out of Carl's orbit. We'd trade the odd letter, email, and in recent years, Facebook posts. On the few times that I passed through Calgary I'd always look him up. We'd fall right back into old days blithering. Hearing that he was dying of the nasty form of prostate cancer was a jolt.

Mali petitioned me to call him right away. "You better call before it's too late."

I was reluctant because I don't know what to say to the dying. I missed saying goodbye to my paternal grandfather and I botched my last conversation with my mother. Christopher Hitchens recounts some of the awkward conversations he had with friends and colleagues while dying of cancer in his last book Mortality. Many avoided the sword overhead while others swung it callously. Hitchens didn't know what to feel. None of their goodbyes really helped.

I called Carl more for myself than him. Carl took a few moments to recall who I



Carl Sullivan in his card counting days. He cashed in retirement savings to play Black-Jack in Vegas. He was a very good friend but not exactly your financial go to guy.

was. He was understandably more depressed than I had ever heard him. He was also vague and struggling to respond. Pain medications dull more than pain. I asked if family and friends were about. We aren't comfortable with people dying alone which is strange because no matter how many friends and family members surround us we all die alone. The only hint of the old Carl that came out our chat was when he referred to Nazar: a very old friend that we both enjoyed making fun of. Before hanging up I told Carl I would check in on him later but later never came. He died less than two weeks later.

Death is the most serious thing that will ever happen to us. It forecloses on what's next. We simply cease! There is no childish heaven or burning hell. We are not reincarnated and we don't see ghosts or talk to the dead. If you think or believe otherwise you are simply wrong. I won't argue with you. I am tired of your irrational objections, your contemptible myths, and your weakness in the face of oblivion. The human machine wears out and breaks down. We don't imagine afterlives for our cars so why do we indulge such fantasies for ourselves. As much as I would like to see Mahin, Carl, my mother, or anyone of the hundred billion people who have already died, again I won't and neither will you!

JOD Update: Version 0.9.97*

Posted: 22 Mar 2015 22:53:00

In the last year much has changed in the J world.



1. There are new official J 8.0x builds for all supported platforms.
2. The QT based IDE JDE has matured and is in widespread use.
3. The column oriented J database JD is drawing new users to J and enticing J veterans to reconsider how we use databases.
4. There is a small group of J system builders experimenting with additions, extensions and revisions of core J source code.

In short, there are have been enough changes to revisit and update JOD.

JOD version `0.9.97*`[36] is the first JOD update in many years that mocks the god of software compatibility. In particular:

1. The syntax of the `jodhelp` verb has changed.
2. The `jodsource` addon no longer uses a zip file to distribute JOD dump files.
3. JOD online help will no longer be supported or updated.
4. Volume size is no longer checked before creating new JOD dictionaries.
5. There is a new version of `jod.pdf`.

`jodhelp` changes (#1, #3 and #5): `jodhelp` has always been a *kludge*. In programmer speak a kludge is some half-baked facility added to a system after more essential features have stabilized. The original versions of `jodhelp` pointed at my rough notes. It was all the "documentation" I needed! Then others stared using JOD which resulted in an "evolved" online version of my notes. I originally thought that hosting my notes online would simultaneously serve user needs and cut the amount of time I spent maintaining documentation. In retrospect this *wasn't even wrong!*

I used Google Documents to host my notes. If you've ever wondered why completely free Google Documents hasn't obliterated expensive *Microsoft Word* or hoary old excellent LaTeX I invite you to maintain a set of *long-duration-documents* with Google Documents. During `jodhelp`'s online lifetime the basic internal format of Google Documents changed in a *screw-your-old-documents* upgrade which forced me to spend days repairing broken hyper-links and reformatting. I was not amused; you still get what you pay for!

I originally choose Google Documents because of its alleged global accessibility. Sadly, Google Documents is now often blocked by corporate and national firewalls. Even

[36] The version number is `*`'ed because you are always a point release from done!

when it isn't blocked it renders like a dog peeing on a fire hydrant. All these problems forced me to rewrite JOD documentation with a completely reliable tool: good old-fashioned LaTeX. The result of my labors, `jod.pdf`, is now distributed by the `joddocument` addon and is easily browsed with `jodhelp`.

After `jod.pdf`'s appearance another irritant surfaced: synchronizing `jod.pdf` and the online version. I tried using pandoc and markdown to generate both the online and PDF versions from the same source files but `jod.pdf` is too complex for *not-to-fancy* portable approaches. I was faced with a choice, lower my `jod.pdf` standards, or get rid of something I never really liked. I opted to drown a child and abandon online help. I don't expect a lot of mourners at the funeral.

Using the new version of `jodhelp` requires installing the addon `joddocument` and configuring a J PDF reader. It's also good idea to define a JQT PF key to pop up JOD help with a keystroke. To configure a J PDF reader edit the configuration file:

```
~config/base.cfg
```

this file is directly available from the JQT `Edit\Configure` menu. `base.cfg` defines a number of operating system dependent utilities. Make changes to the systems you use, save your changes, and restart J. The following example shows my `Win64` system settings.

```
case. 'Win' do.
  BoxForm=: 1
  Browser=: 'c:/Program Files (x86)/Google/Chrome/Application/chrome.exe'
  Browser_nox=: ''
  EPSReader=: 'c:/program files/ghostgum/gsview/gsview64.exe'
  PDFReader=: 'c:/uap/sumatra/SumatraPDF.exe'
  XDiff=: 'c:/uap/WinMerge-2.14.0-exe/winmergeu.exe'
  Editor=: 'c:/uap/notepad++/notepad++.exe %f'
  Editor_nox=: ''
```

I use SumatraPDF to read PDF files on Windows. It's a fast, lightweight, program that efficiently renders `jod.pdf`. Good PDF readers are available for all commonly used platforms.

To define JQT PK keys edit the configuration file:[37]

```
~config/userkeys.cfg
```

[37] `userkeys.cfg` is only available for J 8.03 systems.

This file is also directly available from the `Edit\Configure` menu. My JOD specific PF keys are:

```
F3;1;Require JOD;require 'general/jod'
Shift+F3;1;JOD Help;jodhelp 0
F6;1;Dev Dicts;od cut 'joddev jod utils' [ 3 od ''
Shift+F6;1;Fit Dev Dicts;od cut 'jodfit joddev jod utils' [ 3 od ''
Ctrl+Shift+F6;1;Test Dev Dicts;od cut 'jodtest joddev jod utils' [ 3 od ''
```

Pressing `Shift+F3` executes `jodhelp 0` which pops up JOD help.

`jodsource` changes (#2): The `jodsource` addon is a collection of JOD dump scripts. Dump scripts are serialized versions of binary JOD dictionaries. When executed they merge objects into the current JOD put dictionary. I use them primarily to move dictionaries around but they have other uses as well. Prior to this version I distributed the three main JOD development dump scripts, `joddev`, `jod`, and `utils` in one compressed zip file to reduce the size of JAL downloads.

The distributed script `jodsourcesetup.ijs` used the `zfiles` addon to extract these scripts and rebuild JOD development dictionaries. This worked on 32 bit Windows systems but failed elsewhere. J now runs on 32/64 bit Windows, Mac, Linux, IOS and Android systems. To better support all these variants I eliminated the `zfiles` dependency and pruned the JOD development dictionaries. The result is a more portable and smaller `jodsource` addon.

Bye bye volume sizing (#4): Early versions of JOD ran in the now bygone era of floppy disks. It was possible to create *many* JOD dictionaries on a single standard 800 kilobyte 3.5 inch floppy. Compared to modern *porcine-ware* JOD, which many J'ers consider a *huge* system, is lithe and lean. In floppy days it was important to check if there was enough space on a floppy before creating another *huge 48K* empty JOD dictionary. This is a bit ridiculous today! If you don't have 48K free on whatever device you are running you have far more serious problems than not being able to create JOD dictionaries.

Volume sizing code remained in JOD for years until it started giving me problems. Returning the size of very large network volumes can be time-consuming and there are serious portability issues. Every operating system calls different facilities to return volume sizes. Even worse, security settings on corporate networks and cloud architectures sometimes refuse to divulge national secrets like free byte counts.

To eliminate all these headaches this version of JOD no longer checks volume size when the `FREESPACE` noun is zero. To restore the previous behavior you have to edit the file

```
~addons/general/jod.ijs`
```

and change the line `FREESPACE=:0` to whatever byte count you want. Alternatively, you could *NGAF*[38] and just assume you have 48K free on your terabyte size volumes.

Still to come: You may have surmised from JOD's version number that the system is still not *feature complete.* The JOD manual lists a few words that I am planning to implement. I only develop JOD when I need something or I am bored out of my mind at work and need a break. Such intermittent motivators seldom insure project completion but I have found a new reason to finish JOD. To list a book on Goodreads or Amazon you need an ISBN number. The hardcopy version of the JOD manual is a *sort-of-published* book. To complete the publishing process I need an ISBN. If I am going to bother with such formalities I might as well complete the system the manual describes. So there you have it a new software development motivator: vanity.

Cutting the Stinking Tauntaun and other Adventures in Software Archeology

Posted: 12 Apr 2015 18:51:31

The other day a software project that I had spent a year on was "put on the shelf." A year of effort was unceremoniously flushed down the software sewer. A number of colleagues asked me, "How do you feel about this?" Would you believe relieved?

This is not false bravado or stupid sunny optimism. I am not naive. I know this failure will hurt me. In modern corporations the parties that launch failures, usually management, seldom take the blame. Blame, like groundwater, sinks to the lowest levels. In software circles it pools on the coding grunts doing the real work. It's never said, but always implied, that software failures are the exclusive result of programmer flaws. If only we had worked harder and put in those sixty or eighty hour weeks for months at a time; if only we were a higher level of coding wizard that could crank out thousands of error free lines of code per hour, like the *entirely fictional* software geniuses on TV, things might have been different.

[38] *Not Give a Fuck!*



Working with bad legacy code always reminds me of the scene in *The Empire Strikes Back* when Han Solo rescues Luke on the ice world by cutting open his fallen Tauntaun with a light saber. When the Tauntaun's guts spill out Solo says, "I thought they smelled bad on the outside." Legacy code may look pretty bad on the outside, just wait until you cut into it. Only then do you release the full foul forceful stench.

Indulging hypotheticals is like arguing with young Earth creationists about the distance of galaxies.

"Given the absolute constancy of the speed of light how is it possible to see the Andromeda galaxy, something we know is over two million light years away, in a six thousand-year old universe?"

The inevitable reply to this young Earth killing query is always something to the effect that God could have made the universe with light *en route*. God could have also made farts smell like Chanel #5 but sadly he[39] did not. Similarly, God has also failed to staff corporations with legions of Spock level programmers ready and willing to satisfy whatever *au courant* notion sets up brain-keeping in management skulls. The Andromeda galaxy is millions of light years away, we don't live on a six-thousand year old Earth, and software is not created by magic. Projects work or flounder for very real reasons. I was not surprised by the termination of this project. I was surprised that it took so long to give up on something that was never going to work out as expected.

The project, let's call it the *Stinking Tauntaun Project*, was an exercise in legacy system reformation. Our task was adding major new features to a hoary old system written in a programming language that resembles hieroglyphics. I know and regularly use half a dozen programming languages. With rare exceptions programming languages are more alike than different. From the time of Turing we have known that all programming languages are essentially the same. You can always implement one language in another; all programming systems exploit this fundamental equivalence. It's theoretically possible to compile SQL into JavaScript and run the resulting code on an eight bit interpreter written in ancient Batch; I just wouldn't recommend you

[39] If you are the type of person that gets your panties in a knot about the *gender of hypothetical supreme beings* please go away.

start a SOX compliant software project to create such insanity. This goes double if only one programmer in your organization knows ancient Batch! The Stinking Tauntaun Project wasn't this crazy but there were clear signs that we were setting out on what has been accurately described as a Death March.

Avoiding Death Marches, or finding ways to shift blame for them, is an essential survival skill for young corporate programmers. It's not an exaggeration to say that a lot of modern software is built on the naiveté of the young. When you first learn to program you are seduced by its overpowering rationality. Here is a world founded on logic, mathematics and real engineering constraints. Things work, and don't work, for non-bullshit reasons! There aren't any pointless arguments with ideological metrosexual pinheads about "privilege" or "gender." Programs don't give a crap about the skin color of the programmer or whether their mother was an abusive bull dyke. After a few years of inhaling rarefied logic fumes young programmers often make the gigantic and catastrophic mistake that the greater naked ape society in which they live also works on bullshit free principles. It's at this delicate stage when you can drive the young programmer hard. There's an old saying that salesmen like money and engineers like work so in most companies the salesmen get the money and the engineers get the work. As the great sage Homer Simpson would say, "It's funny because it's true!"

Death Marches shatter the naive. Gaining a greater understanding of the nasty world we live in always does a naked ape good but there's a cost; your career will suffer and you will suffer: enlightenment is proportional to pain! The *school of hard knocks* is a real thing and unlike that party school that you boozed through no one graduates alive. I'd strongly recommend a few Death Marches for every working programmer. To paraphrase Tolstoy, "All successful software projects are alike; every unsuccessful project fails in its own way!" You may consider what follows my modest contribution to the vast, comprehensively ignored, literature of software Death Marches.

Code Smell #1: A large mass of poorly written test free legacy code that does something important.

"Refactoring" is a word that I love to mock but the refactoring literature showcases an astonishingly precise term: "code smell." Code smells are exactly what you expect. Something about the code stinks. The Stinking Tauntaun code base didn't just stink, it reeked like diuretic dog shit on choleric vomit. This was well-known throughout the company. My general advice to young programmers that catch a whiff of rotting code is simple: flee, run, abort, get out of Dodge! Do not spill your precious bodily

fluids cleaning up the messes of others.

When recruited a number of experienced hieroglyphic programmers asked me the pointed question, "How do you deal with giant stinking piles of legacy doo-doo?" Maybe it wasn't quite phrased like that but the intention was clear. They were telling me that they were dealing with a seething mass of half-baked crappy code that somehow, despite its manifold flaws, was useful to the organization and couldn't be put out of its well deserved misery.

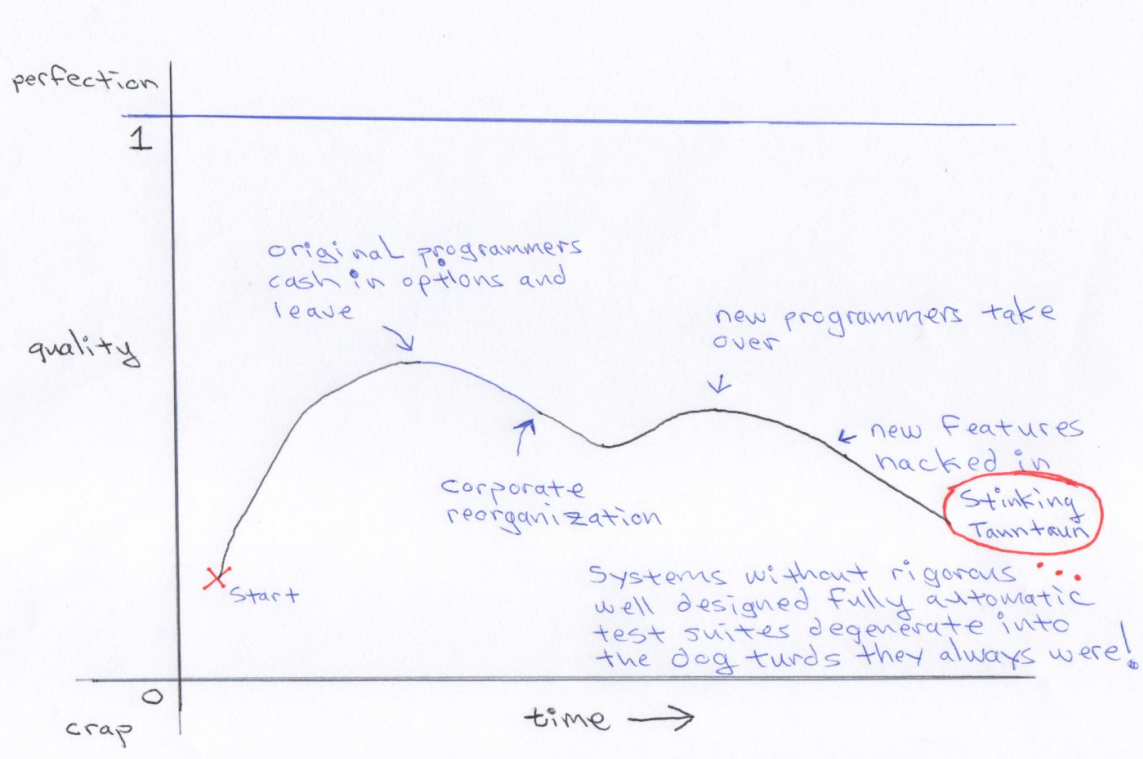
I honestly answered. "Systems that have survived for many years, despite their problems and flaws, meet a need. You have to respect that." I still believe this! Every day I boot up ancient command shells that look pretty much like they did thirty years ago. Why do I use these old tools? It's simple; they do key tasks very efficiently. I try new tools all the time. I spent a few months playing with PowerShell. It's a very slick modern shell but it has one big problem. It takes far longer to load than ancient DOS or Bash shells. When I want to execute a few simple commands I find the few extra seconds it takes to get a PowerShell up and running highly annoying. Why should I wait when I don't need the wonderful new features of PowerShell? The Stinking Tauntaun System also met user needs and, just like I am horrified by the clunky ill-conceived incoherence of old shells, Stinking Tauntaun users held their noses and used the good bits of what's overall a bad system.

Code Smell #2: No fully automatic version controlled test suite.

There is a tale, possibly apocryphal, from the dawn of programming that goes something like this: a young programmer of the ENIAC generation was having a bad day. He was trying to get some program running and was getting frustrated "re-wiring." Our young programmer was experiencing one of the first "debugging" sessions back when real insects came into play. In a moment of life searing insight our young programmer realized that from now on most of his time would be consumed hunting down errors in faulty programs. The tale goes dark here. I've often wondered what happened to the young programmer. Did he have a happy life or did he, like Sisyphus, push that damn program up the hill only to have it crash down again, and again, until management cried stop!

Debugging is a necessary evil. If you program — you debug. It's impossible to eliminate debugging but at least you can approach it intelligently, and to this day, the only successful method for controlling program errors is the *fully automatic version controlled ever-expanding test suite.* Systems with such suites actually improve with time. Systems without such suites always degenerate and take down a few naive

programmers as they decay. The Stinking Tauntaun System lacked an automatic test suite. The Stinking Tauntaun System lacked a *non-automatic test suite*. At project inception The Stinking Tauntaun System had no useful test cases what so ever! Testing The Stinking Tauntaun was more painful than dealing with its code. The primary tester had nightmares about The Stinking Tauntaun.



My *Power-Point-less* illustration of Quality over Time for a system that lacks a *fully automatic ever expanding version controlled test suite.* Systems without well designed test rigs are almost without exception complete crap. Unless someone is paying you huge bucks it's best to start sending out resumes when asked to fix such systems. You can ruin your health stirring your yummy ice cream into the shit but it's almost certain the final mixture will taste more like shit than ice cream.

It's the 21st century people! In ENIAC days you could overlook missing automatic test suites. Nowadays *missing automatic test suites is a damning indictment of the organization that tolerates such heinous crimes against programming humanity!*

Code Smell #3: Only one programmer is able to work with legacy code.

When I was hired there were a few hieroglyphic programmers on staff. No single programmer was saddled with the accumulated mistakes of prior decades. We could divide and deal with the pain. During this happy time our work was support oriented. We we're not undertaking large projects. Then an inevitable bout of corporate reorganization occurred, followed by terminations and a stream of defectors fleeing the new order. Eventually only one hieroglyphic programmer remained*: moi!* Most programmers would have joined the exodus and not taken on the *sins of other fathers* but as I have already pointed out I am a software whore and proud of it. Still even software sluts must avoid ending up like the, "there can be only one," Highlander. Most of those sword duels ended rather badly as I recall.

Code Smell #4: Massive routines with far-ranging name scope.

With noxious fumes already cutting off our air supply we should have stopped in our tracks but we soldiered on because The Stinking Tauntaun System did something important and alternatives were not readily available. The corporation recognized this and started a number of parallel projects to explore New Stinking Tautaun's. I wasn't lucky enough to work on any of the parallel projects. I had to get in the stall and shovel the Tauntaun manure.

We weren't entirely clueless when we started Stinking Tauntaun work. We recognized the precarious hieroglyphic programmer resource constraint and tried to divide the work into units that alleviated it. We decided to implement part of the new features in another programming language and call the new module from the old system. The hope was this would divide the work and possibly create something that might be used outside The Stinking Tauntaun System. This part of the project went reasonably well. The new module is entirely new code and works very well. Unfortunately, it was a small part of the greater effort of bolting new features into The Stinking Tauntaun System.

Stinking Tauntaun code is magisterial in its monolithic madness. The hieroglyphic programming language is famous for its concise coding style yet the main routine in the Stinking Tauntaun System is close to 10,000 lines long! I had never seen hieroglyphic language routines of such length. I've only seen comparable programs a few times in my battle scared career. As a summer student I marveled at a 20,000 line, single routine, FORTRAN program. At first I thought it was the output of some cross compiler but no, some insane, bat shit crazy government drone, (I was working for a government agency in western Canada), had coded it by hand — on freaking punch cards no less! Such stunning ineptitude is rare: most programmers

have a passing acquaintance with modular design and know enough to reconsider things when code gets out of hand. We all have different thresholds for judging *out-of-hand-ness*, for me it's any routine that's longer than sixty lines: including the damn comments.

A 10,000 line routine is a monumental red flag but The Stinking Tautaun's length was not the biggest problem. There is this thing programmer's call "scope." Scope marks out name boundaries. It sets limits on where names have meaning or value. Ideally name scope is limited to the smallest feasible extent. You really don't want global names! You absolutely don't want global names like "`x`," or "`i`," or "`t`," cavorting in your code! Most of the cryptic names in the Stinking Tauntaun System had far-ranging scope. Vast scopes make it difficult to safely make local changes. This makes it risky, dangerous and time-consuming to change code. Large scopes also increase the burden on testers. If tiny changes have far-ranging consequences you have to retest large parts of the system every time you tweak it. All of this sucks up time and drains the pure bodily fluids of IT staff.

Code Smell #5: Assumptions about what is possible quickly prove wrong.

It was looking dark. Timid souls would have run but we plowed on. Our naive hope rested on the theory that we could change a few touch points in The Stinking Tauntaun's code base and then get out of Dodge before the dark kludge forest closed in. My first estimate of how many routines I would have to touch was around twenty. Two months into the project I had already altered over a hundred with no end in sight. The small orthogonal change we hoped to make was not possible because The Stinking Tauntaun System did not sensibly do one thing in one place. It did *sort of the same thing* in many places. You couldn't make a small change and have things sensibly flow throughout the system. I worked to isolate and modularize the mess but I should have just waved my hands and spent my days on LinkedIn looking for another job.

Code Smell #6: A development culture steeped in SOX inspired counter-productive ceremony.

On top of all these screeching sirens yelling stop there were other impediments. I work in a SOX saturated environment. Readers of my blog know that I consider SOX to be one of the biggest time-wasting piles of DC idiocies ever pushed on American companies. Like many "government solutions" SOX did not drain the intended swamp

but forever saddled us with inane time-wasting ceremony and utterly stupid levels of micromanagement. Is Active Directory management really a concern of freaking government? Somehow it's become one! One of my favorite consequences of SOX is the religious ordering of development environments and the sacraments for promoting code changes. During the long bruising Stinking Tauntaun project many releases boiled down to me making changes to one file! Pushing a new version to test should have been a simple file copy.

Of course it couldn't be that simple. Numerous "tickets" had to be approved. Another branch of IT, that was even more stressed and suffered higher levels of turnover than ours, was dragged in to execute a single trivial file copy. In many cases more bytes were generated by all this pointless time-wasting ceremony than I had changed in that single file. Of course all this took time, and as hard as I looked for a *useless-time-wasting-bullshit* category in our web-based hours tracking system, I couldn't find one. There's a management mantra: you can only improve what you measure. Funny how companies never measure the bullshit.

In retrospect we should have junked The Stinking Tauntaun System or opted for a radical rewrite. It's ironic but something like this is what's going to happen. If I was young I would be bitter but I cashed in on this project. In my consulting days I was always on the lookout for Stinking Tauntauns: they were freaking gold mines for those of us that have acquired a taste for the bracing putrid fumes of rotting code.

Dark Energy Entities

Posted: 17 Apr 2015 03:44:02

I've been having fun on a new social media site called Quora. Quora operates on the StackOverFlow principle. People pose questions and others answer. The act of asking of sincere questions, even silly ones, seems to take the wind out of troll sails. Political sites quickly degenerate into primate poo tossing contests. I enjoy pitching poo with the best of them but I demand wit, verve and humor with my insults. Sadly, these qualities are the first to go when vicious trolls tear into partisan believers of any persuasion. Honest political conversations have never been easy. I remember screeching, mostly left-wing, university harridans shouting down heretics forty years ago. I'm sure they would have burned them at the stake if the option had been available. Still there is something about the question that makes people put down their torches and give a heretic a break.

A good question and answer session is like a connect-the-dots cartoon. For example

Javed Qadrud-Din observed when responding to the question:

> Hypothetically, if there is intelligent alien life, with the knowledge and means to traverse space and travel to Earth, what would be their reasons for not making contact?

That aliens might be billions of years ahead of us and

> we would be unable to recognize the evidence of their existence, and such evidence would instead appear to us as aspects of the nature of reality itself.

I thought about this and responded:

> Your observation that some alien intelligences could be billions of years ahead of us and may, "appear as part of nature," made we wonder what might qualify as a manifestation of such beings. It goes without saying that super advanced beings with real immortal ambitions will be somewhat bummed with mere matter. If our, admittedly primitive physical theories hold up, it looks like in the very long run, e.g. 10^{100} or more years, all matter will decay and space will expand into an unimaginably vast void with a temperature indistinguishable from absolute zero. All matter and energy based sentience will be snuffed out: everything, absolutely everything dies. What's left in such a universe? Only Dark Energy survives and prospers. Cosmologists have noted that we appear to live in a Dark Energy dominated universe and the domination started fairly recently, within the last two billion years or so. If intelligent life evolved somewhere in the cosmos six or seven billion years ago that would be plenty of time to advance to the point that such beings could insert themselves into the only durable part of our universe: space itself. So perhaps the accelerating expansion of space is the "part of nature" that gives away the presence of such highly evolved beings.

We may be living in a Dark Energy Entity *Cosmoscene.* It's unlikely that beings able to alter the entire observable universe are going to make contact with pitiful little poo throwing naked apes.

What hobbies do you have? Have you learned anything useful from them?

Posted: 20 Apr 2015 19:55:35

This is my first "cross-posted" entry. I composed this on Quora. I was asked to answer the title question and I did. I probably won't do this very often. Still, a little experimenting is fun.

Answer by John Baker:

The short answer is *many* and *yes*. The longer answer is pretty much everything I do, *that matters to me*, is a hobby of some form or other. Some of my major hobbies are:

1. Amateur Astronomy
2. Photography
3. Blogging
4. Recreational Programming.

Amateur Astronomy has been a lifelong pursuit. I was hooked as a child looking at Venus's crescent through a small refractor in the badlands of Utah. It's hard to relate how much I have learned from Amateur Astronomy or how much it has influenced my life but it is a *lot* and *heavily*. My decision to study science in school and later university were outgrowths of this passion. I have traveled all over the world to view eclipses, see spectacular comets, and tour major observatories. Even today the best possible night for me is to stand alone under clear extremely dark high altitude skies and soak in the gentle light of the Milky Way.

Photography is also a lifelong hobby. I shot my first roll of film on a cheap fixed focus camera when I was eight. I blow hot and cold on my hobbies. Sometimes they utterly dominate my every waking hour. Other times they lie dormant, ignored, waiting for me to pick them up again. Photography is such a hobby. Over the decades it has taught me a lot of chemistry: I started picture taking in the "chemical" era. Nowadays I've absorbed a wide variety of photography related software skills. I've also learned a lot of history. Studying early photographers and how they created some of their iconic images is fascinating.

Blogging is relatively new hobby. I started with the idea that it would be good "composition practice," a way to learn about web site maintenance, and finally a safe way to vent without serving time for assaulting imbeciles. It has met all these expectations and more. It's presumptuous for bloggers to describe themselves as writers but you do acquire a greater understanding of what writers do. That old joke about being a drunk with a writing problem is not far from the mark.

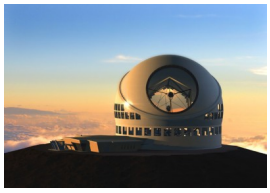
As for recreational programming: despite going into work day after day, year after year, and staring at screens of, *please stab my eyes out,* "work code." I still muster

the energy to work at home on software projects using unconventional programming languages and tools. Many professional peers have poked fun at my eccentric tastes and others have told me I was wasting my time. The joke has been on them. Many that cast these aspersions are no longer employed while my current job is a direct consequence of knowing things the convention bound do not.

I have learned many specific things from my hobbies but the single best thing I've learned is simple intellectual integrity. Nobody is going to do your hobby for you. Paying others to take up your hobbies makes no sense. Cheating on a hobby is crazy. You have to do the work by yourself; you have to learn by yourself; you have to think for yourself! Hobbies refine our individuality; I'd recommend more hobbies for everyone.

Mauna Kea Morons on the March

Posted: 28 Apr 2015 02:34:41



Thirty Meter Telescope

There are two types of stories about major astronomical observatories. There are stories about new discoveries and observation technologies and then there are stories about how batshit crazy people are! Lately a rash of batshit crazy has broken out over the construction of the Thirty Meter Telescope on Mauna Kea. The ignorant press is casting the story as another tale of wanton destruction of sacred pristine aboriginal environments by "big astronomy." On most days I ignore the moron maelstrom but I'm in bad mood today. I couldn't resist venting on The Register. The following is a slightly edited version of my *contribution to the conversation* bitches!

Trigger Warning: searing contempt for tools and fools!

> You are making way too much sense. As a long-standing amateur astronomer and aficionado of major observatories I can state with absolute certainty that if you want to preserve the environment around a mountain one of the best ways to do it is to place a major observatory on it. Large telescopes require large dark zones. If people would turn their damn lights off at night development in dark zones might be permissible but as you are well aware people will not turn their fucking lights off and will look at you like you've just beamed down from starship Looney

Tunes if you try to tell them that light pollution is a real thing. The only way to insure a dark environment is to restrict development and, as you point out, that limits how much money certain cretins can extract. What's happening on Mauna Kea happened before on Mount Graham in Arizona. So called environmentalists fought for decades to block the Large Binocular Telescope because it might stress some squirrels. Well the scope got built and the squirrels are doing just fine and will continue to thrive because their habitat will not be sodomized by condo developers and other invasive lower life forms.

Mixed in with all this phony eco-warrior nonsense is even more phony religious nonsense. I realize it is horribly judgmental and privileged white male of me to say that sky fairies of all types, even "protected class" aboriginal brown people sky fairies, are complete and utter rubbish! Jesus did not rise from the dead, Mohammed did not ascend to heaven, and Pele is not stomping around on Mauna Kea regardless of what native Hawaiians believe. If this offends you demonstrate why your sky fairy is any less imaginary than The Flying Spaghetti Monster. "Belief" is a bullshit word. It will be a pathetic day if the construction of a major 21st century observatory is stopped to placate scientific illiterates and religious primitives.

An Honest Resume Personal Statement

Posted: 05 May 2015 02:59:11

While updating an online version of my resume a nagging web page advised me to include a personal statement: apparently the personal statement is my chance to stand out, make that all-important first impression, and firmly affix my lips to succulent corporate ass.

Being programmer oriented, the web page suggested I write about my first computer. This is just conniving HR speak for, "How old are you?" HR cannot directly ask so they'll probe circuitously. Sorry gals, (HR is a female ghetto), I'm on to you. I am excellent actor and liar. I can play your little game but I am no longer interested. Still your little page made we wonder what my personal statement would be like if I was telling the truth and not spinning like a millisecond pulsar. I think it would look something like this:

I want to solve problems: not create them. You would be surprised how many software organizations cannot tell the difference.

Ask yourself:

1. Does your organization think the orthodox application of trendy project management "methodologies"[40] like agile is a substitute for real insight and work?
2. Do you bind yourself in SOX inspired straitjackets and wonder why programmer morale and productivity has plummeted?
3. Do you have an antiquated remote work policy and insist staff show up for periodic management brow beatings and pointless brain numbing meetings?
4. Are you wedded to standard software tools merely because they are standard?
5. Are you afraid of iconoclastic viewpoints and meekly seek a lowest common denominator consensus?
6. Finally, do you follow industry trends or set them?

Perhaps my bad attitude shocks you.

"Who would hire this guy?" you ask.

It's a fair question. I've had my fill of "Software Theater." I will no longer act like I agree with bad ideas just to get along. From now on I am going to tell people what I really think, not what they yearn to hear.

To work with me your organization must be:

1. Located somewhere I want to live to or have an enlightened 21st century remote work policy.

I am tired of wasting my life in humdrum hellholes because that's where an employer is located. This is inexcusable for 21st century software developers. If you haven't figured out how to manage geographically dispersed remote workers your organization is hidebound, myopic and doomed!

2. Have a positive attitude about novel approaches to problems and encourage programmer autonomy.

[40] I loathe the word "methodologies." The correct word is "methods." Wanton syllable inflation is a reliable bullshit tell.

I have often solved problems with nonstandard tools and techniques only to be told to do it again using a standard tool. Sometimes this makes sense but usually it's motivated by pure organizational fear.

"Oh my God we won't be able to find someone to support this!"

Or even worse, "We'll have to learn something new!"

Companies make a big show about "thinking outside the box" while huddling like bed wetting cowards in the corner of one.

3. Accept the simple fact that work is small part of life and stop trying to manage employees outside of the workplace.

It's amazing what some companies think they can get away with! Would you believe asking recruits for Facebook and Twitter passwords? Don't try this with me; I might punch you! Most companies know that asking for passwords crosses all sorts of inappropriate boundaries but even more enlightened organizations often have a "velvet fist" social media policy that basically tells employees not to involve the company in their personal jackassery. This is a reasonable request but it's usually seen as bullying. Most will shut up: not me! Freedom of speech is fundamental and absolute. Companies that try to silence employees should be ashamed of themselves.

If you're still reading and think, *I like the cut of this guy's jib. We have enough kowtowing eunuchs on payroll: a few ballsy shitheads may spruce this joint up.* I'd suggest you look over my attached resume, peruse my public GitHub repositories, read my blog, browse my extensive photos, and check out what I'm reading. You'll get a pretty accurate sense of who I am, what turns my crank, how I approach problems, and how I deal with difficulties. Unspoken social conventions demand that we suppress ourselves to work. I will no longer do this. *I am what I am; I do what do; I will not change for you.*

Social Security Numbers are Broken beyond Repair

Posted: 17 May 2015 18:24:39

Imagine that you are buying a new set of wheels with cash. Being a cash transaction there is no need to negotiate loans or check credit; you have the money in your wallet. Usually vendors are delighted when handed a thick wad of bills but we are living in unusual, no depraved, times. Before the dealer takes your wad you will probably be asked for your Social Security Number. WTF you think! It's a cash transaction; why

must government stick its inept grasping tentacles in your business?

Of course if you are financing a set of wheels, applying for a mortgage, negotiating a rental, submitting a job application, or buying a fricking big screen TV, you will be asked, over and over again, for your Social Security Number. Why are so many tiresome busybodies obsessing over nine measly, easily forged, digits? Well cowboys and girls, the Social Security Number has morphed into a general purpose personal tracking identifier. Busybodies covet this number because once they have it they can:

1. Check your credit history.
2. See if you have ever been in prison.
3. Determine if you owe money.
4. Track your movements from one state or city to another.

And god knows what else!

When Social Security was setup in the 1930s paranoid right wingers darkly warned that Social Security Numbers (SSNs) would be used to track people and ultimately infringe their freedoms. Silly ancient right wingers: who really cares that they were completely right about SSNs? Only criminals, and evil people with things to hide, care about the widespread abuse of Social Security Numbers. *If you believe this moronic twaddle please leave your Social Security Number in a comment on this blog.* You can trust me! I would never abuse your number.

Now if you're a big government guy or gal you will loudly assert that it's perfectly acceptable for the government to maintain *some identifier* that links you to your Social Security account. On this I agree, some identifier is required, but Social Security Numbers are probably the worst possible way to do this. The ideal Social Security "Number" would:

1. Unambiguously link you to your Social Security Account.
2. Be impossible to counterfeit or fake.
3. Be useless for any other purpose.

The idiotic nine digit scheme used for Social Security Numbers completely fails all three of these tests.

Let's start with unambiguous linking. News flash: your Social Security Number does not uniquely identify you. There are many reasons for SSN duplicates with identity theft being the leading cause. Is it fair to blame SSN numbers for criminal abuse? Yes you dumb fucks! Identity systems must operate on the bedrock principle that people are liars, cheats, and disgusting defecating naked apes. Always assume the

worst of your fellow apes; you will still be disappointed. Good identifier schemes make it impossible to generate duplicates regardless of how thoroughly evil or incompetent people are. Social Security Numbers naively assume we are good people. This is asking for it.

How hard is it to counterfeit or fake Social Security Numbers? It's so damn easy you can go to this website and push a button. While it's unlikely that nine random digits will form a valid SSN it's clearly not rocket science to concoct plausible SSNs. Good identifier keys are unavoidably unique. There are many high quality unique key algorithms. SSNs are crappy keys; any database professional that advocated their use would be fired on the spot.

As for being useless for other purposes: here the failure is so complete, so total, and so absolute, that it's hard to attribute it to mere government stupidity. I don't blame the paranoid for thinking it was a clumsy backdoor scheme to label citizens for other purposes. Heh, even the official government Social Security Page brags that your SSN has *"come to be used as a nearly universal identifier."* Anyone that contests this is an idiot. Every two-bit database out there has an SSN column in it. Many SSNs are still completely unencrypted; they're begging software professionals like me to get into the identity theft business. Keep that in mind the next time some outfit asks for your SSN.

When you make a VISA, MasterCard or Apple Pay purchase with a "chipped card" a onetime transaction code is generated and mixed with your credit card number.[41] This allows the central authority, VISA and MasterCard in this case, to verify your credit *without creating a permanent number that is forever tied to your name.* This scheme is vastly more secure than SSNs but falls short of high quality cryptographic key schemes used in systems like Bitcoin. The QR code on this blog is a Bitcoin address with money in it. Try and steal my Bitcoin bitches! The point is there are sound ways of creating account links that do not invite abuse and tracking. So why the hell are we are still tolerating static, insecure, come and get it identity thieves, broken beyond repair, Social Security Numbers?

[41] One of the consequences of chipping credit cards is that it is no longer necessary to display the number on the card. You only need the number to interact with non-chipped devices. Eventually people will figure this out and start asking for credit cards that do not display the number. I see a great advertising campaign in the future. "You can get our numberless smart card or their numbered dumb fuck card. What's it going to be?"

Copulation, Cooking and Cleaning

Posted: 13 Jun 2015 18:21:29

A refreshing blogosphere development is something called the "manosphere." The manosphere is a mangy collection of young male bloggers that have had it with man hating feminism. I'm an old boomer fart, not exactly the manosphere demographic, but I see their point. I remember when rational feminists[42] set their sights on "equal pay for equal work." I fully supported pay equity and, when you correct for actual hours worked, that battle has been won in *oppressive western cultures.*[43] But, as every married man knows, what women ask for is seldom what they really want.

Equity was never the goal of radical feminists! Radical feminists are nasty menstruating socialists. Their perfect world looks a lot like an old-fashioned new-man communist utopia: a utopia that was rudely rejected for all sorts of Gulag'ey reasons. Sadly, radical feminists don't take rejection gracefully. Once a month their bitter frustrations manifest as malignant misandry. Yeah, "femnazis" are real and they're everywhere! Femnazicism rears its ugly bull dyke head in repressive campus speech codes, phony palimony suits, bogus rape claims, "fat acceptance" campaigns, and tiresome PMS laced whining about how hard it is to find a *real* man. Well ladies, I am going to let you in on a little guy secret; *it's much harder to find a real woman!*

What I am about to say will strike manospherians, and real men everywhere, as obvious but we can no longer count on men being men. There are a lot of misguided white knights and whipped manginas out there so grab your sanitary napkins and brace for reality.

In pre-pussy-boy days, men looked for, fought over, and highly valued "three C" women.

What the hell is a "three C" woman? A three C woman understands men. She has intuitively, or intellectually, grasped that human males are simple short-lived creatures that are biologically programmed to seek three things from woman: *copulation, cooking and cleaning* - the three Cs.

You can determine a man's age by how he sorts his three Cs. When we're young copulation is our absolute number one priority. Given a choice between copulation, cooking and cleaning we'll always pick copulation. When we're older, more settled, and our frantic need for copulation subsides, given a choice of fine cuisine or fine ass,

[42] *Rational feminist* was not oxymoronic when the movement started.
[43] Not such much in Clitoridectomy happy nonwestern societies.

we may choose the former. Finally, in our limp dotage, when Viagra no longer works, gently wiping the dribble off our chins, (cleaning), after a fine meal, (cooking), is greatly appreciated. Ladies if the three Cs are graciously on tap we'll happily put up with any amount of lady-shit. It sounds simple because it is![44]

Bang us, feed us, and cleanup afterwards, *without nagging resentment,* and we will love, cherish, protect, work, and die for you! And, here's the good news; you don't have to be a Victoria Secret maximum babe to pull this off. In purely economic terms any comely young woman who masters the three Cs is literally worth her weight in gold![45] At current gold prices one woman weight is about $2,300.000 US. Amortized over a fifty year marriage that works out to around $45,000 per year. Guys, just try paying for hookers, gourmet takeout, and maid services for a measly $45,000 a year. When you throw *love* into the deal the quality three C woman is the biggest bargain out there. So ladies, if you really want a *real* man, master your three Cs and you'll have your pick of them.

For Carl's Memorial

Posted: 20 Jun 2015 18:06:47

A memorial celebration for the life of Carl Sullivan was held today, June 20, 2015, in Calgary. I was unable to attend but I sent this little note. The world is a little gloomier without Carl.

1969 was a memorable year for many reasons but two "events" stand out for me. It was the year of Apollo 11, the epochal first moon landing. If humans still exist a thousand years from now the first moon landing will still be remembered and lauded. Of less historical, but greater personal interest, 1969 was also the year I met Carl B. Sullivan.

Apollo marked a high water mark for western civilization; we have been steadily degenerating ever since. Similarly, Carl, for me, marked a high *friendship* mark. No event of the last forty-six years holds a candle to Apollo 11 and no post Carl friend holds a candle to Carl.

[44] Male maintenance requires some real work. Men expect to put in long hours looking after the women in their lives and they expect women to reciprocate. Unfortunately modern feminism labels such reciprocation "oppression."

[45] I am assuming a normal female weight of less than sixty-five kilograms. *Obese land fe-whales* are not worth their weight in gold.



Carl in his basement apartment surrounded by his drawings and hugging Puff: one of his long-lived cats. Carl was a good friend for most of my adult life. During the many years I lived in Edmonton I spent a lot of time with Carl. It's rather odd that I have so few pictures of him. I have been an avid amateur photographer since I was eight but I only have half-a-dozen pictures of Carl. I held off "developing" this image because of the reflection in Puff's eyes. Now I see this informal imperfection as a reflection, (pun intended), of Carl's haphazard fun-filled way of life.

I know Carl would enjoy being bonded with Apollo 11. He enjoyed the "weird." His own weird, the weird of others, the world's weird. Carl liked to cast himself as a sage and wizard. He was certainly a sage of the absurd and a wizard of fun.

I have many fond memories of visiting Carl after another exquisitely self-crafted dismaying day only to have Carl wave his wizard's wand and make my gloom bloom. This is an exceedingly rare talent and frankly we were blessed to fall under his spell.

I know Carl was ambivalent about the prospects of an afterlife. His appetite for the absurd did not extend to religion. I am harsher; I expect utter oblivion, but if I am wrong and find myself cast into Hell for a lifetime of misdemeanors, I'll find Carl, (he had his own Hell worthy misdemeanors), and Carl being Carl, will turn Hell into an eternal party!

Goodbye old friend you will never know how much we all miss you.

Turning JOD Dump Script Tricks

Posted: 04 Jul 2015 20:32:40

Have you ever wondered how extremely prolific bloggers do it? How is it possible to crank out thousands of blog entries per year without creating a giant stinking pile of mediocre doo-doo? Like most deep medium mysteries it's not very deep and there are

no mysteries. The spewers, people who post like teenage girls tweet, use two basic strategies:

1. ***Multiple authors:*** *The heroic image of the lone blogger waging holy war against a sea of Internet idiocy is largely a myth. Many popular prolific blogs are the work of many hands. The editor at Analyze the Data not the Drivel eschews this tactic. Apparently he's an incontinent and argumentative prima donna that sane people steer clear of.*
2. ***Content recycling:*** *In elementary school this was called copying. Now that we're all grown up we use terms like, "excerpting", "abstracting", and my favorite "re-purposing." The basic idea is simple. Take something you've written elsewhere and repackage it as something new. Hey, all the cool kids are doing it!*

The following is a slightly edited new appendix I have just added to the JOD manual. I am working to properly publish the JOD manual mostly so I can say that I've written a legitimate, albeit strange and queer, book.

I created this post by running the LaTeX code of the manual appendix through the excellent utility pandoc, tweaking the resulting markdown, and then using pandoc again to generate html for this blog. pandoc is a great "re-purposing" tool!

Finally, re-purposing is not entirely cynical. The act of moving material from one medium to another exposes problems. I found a few editing errors while creating this post that eluded my LaTeX eyes. If you find more this is your chance to tell me what a moron I am.

Dump script generation is my favorite JOD feature. Dump scripts serialize JOD dictionaries; they are mainly used to back up dictionaries and interact with version control systems. However, dump scripts are general J scripts and can do much more! Maintaining a stable of healthy JOD dictionaries is easier if you can turn a few dump script tricks.[46]

1. **Flattening reference paths:** Open JOD dictionaries define a *reference path.* For example, if you open the following dictionaries:

[46] Spicing up one's rhetoric with a double entendre like "turning tricks" may be construed as a *microaggression*. The point of colored language is to memorably make a point. You are unlikely to forget *turning dump script tricks.*

```
   NB. open four dictionaries
   od ;:'smugdev smug image utils'
+-+----------------------+-------+----+-----+-----+
!1!opened (ro/ro/ro/ro) ->!smugdev!smug!image!utils!
+-+----------------------+-------+----+-----+-----+
```

the reference path is `/smugdev/smug/image/utils`.

When objects are retrieved each dictionary on the path is searched in reference path order. If there are *no compelling reasons* to maintain separate dictionaries you can improve JOD retrieval performance and simplify dictionary maintenance by flattening all or part of the path.

To flatten the reference path do:

```
   NB. reopen the first three dictionaries on the path
   od ;:'smugdev smug image' [ 3 od ''
+-+--------------------+-------+----+-----+
!1!opened (ro/ro/ro) ->!smugdev!smug!image!
+-+--------------------+-------+----+-----+

   NB. dump to a temporary file (df)
   df=: {: showpass make jpath '~jodtemp/smugflat.ijs'
+-+--------------------------+----------------------+
!1!object(s) on path dumped ->!c:/jodtemp/smugflat.ijs!
+-+--------------------------+----------------------+

   NB. create a new flat dictionary
   newd 'smugflat';jpath '~jodtemp/smugflat' [ 3 od ''
+-+--------------------+--------+--------------------+
!1!dictionary created ->!smugflat!c:/jodtemp/smugflat/!
+-+--------------------+--------+--------------------+

   NB. open the flat dictionary and (utils)
   od ;:'smugflat utils'
+-+-----------------+--------+-----+
!1!opened (rw/ro) ->!smugflat!utils!
+-+-----------------+--------+-----+

   NB. reload dump script ... output not shown ...
   0!:0 df
```

The collapsed path `/smugflat/utils` will return the same objects as the longer path. It is important to understand that the collapsed dictionary `smugflat` does

not necessarily contain the same objects found in the three original dictionaries `smugdev`, `smug` and `image`. If objects with the same name exist in the original dictionaries only the first one found will be in the collapsed dictionary.

2. **Merging dictionaries:** If two dictionaries *contain no overlapping objects* it might make sense to merge them. This is easily achieved with dump scripts. To merge two or more dictionaries do:

```
   NB. open and dump first dictionary
   od 'dict0' [ 3 od ''
+-+--------------+-----+
!1!opened (rw) ->!dict0!
+-+--------------+-----+
   df0=: {: showpass make jpath '~jodtemp/dict0.ijs'
+-+----------------------------+--------------------+
!1!object(s) on path dumped ->!c:/jodtemp/dict0.ijs!
+-+----------------------------+--------------------+

   NB. open and dump second dictionary
   od 'dict1' [ 3 od ''
+-+--------------+-----+
!1!opened (rw) ->!dict1!
+-+--------------+-----+
   df1=: {: showpass make jpath '~jodtemp/dict1.ijs'
+-+----------------------------+--------------------+
!1!object(s) on path dumped ->!c:/jodtemp/dict1.ijs!
+-+----------------------------+--------------------+

   NB. create new merge dictionary
   newd 'mergedict';jpath '~jodtemp/mergedict' [ 3 od ''
+-+---------------------+---------+--------------------+
!1!dictionary created ->!mergedict!c:/jodtemp/mergedict/!
+-+---------------------+---------+--------------------+

   NB. open merge dictionary and run dump scripts
   od 'mergedict'
+-+--------------+---------+
!1!opened (rw) ->!mergedict!
+-+--------------+---------+

   NB. reload dump scripts ... output not shown ...
   0!:0 df0
   0!:0 df1
```

Be careful when merging dictionaries. If there are common objects the last

object loaded is the one retained in the merged dictionary.

3. **Updating master file parameters:** When a new parameter is added to `jodparms.ijs` it will not be available in existing dictionaries. With dump scripts you can rebuild existing dictionaries and update parameters. To rebuild a dictionary with new or custom parameters do:

```
   NB. save current dictionary registrations
   (toHOST ; 1 { 5 od '') write_ajod_ jpath '~temp/jodregister.ijs'

   NB. open dictionary requiring parameter update
   od 'dict0' [ 3 od ''
+-+--------------+-----+
!1!opened (rw) ->!dict0!
+-+--------------+-----+

   NB. dump dictionary and close
   df=: {: showpass make jpath '~jodtemp/dict0.ijs'
+-+---------------------------+--------------------+
!1!object(s) on path dumped ->!c:/jodtemp/dict0.ijs!
+-+---------------------------+--------------------+

   3 od ''
+-+---------+-----+
!1!closed ->!dict0!
+-+---------+-----+

   NB. erase master file and JOD object id file
   ferase jpath '~addons/general/jod/jmaster.ijf'
1
   ferase jpath '~addons/general/jod/jod.ijn'
1

   NB. recycle JOD - this recreates (jmaster.ijf) and (jod.ijn)
   NB. using the new dictionary parameters defined in (jodparms.ijs)
   (jodon , jodoff) 1
1 1

   NB. re-register dictionaries
   load jpath '~temp/jodregister.ijs'

   NB. create a new dictionary - it will have the new parameters
   newd 'dict0new';jpath '~jodtemp/dict0new' [ 3 od ''
+-+--------------------+---------+------------------+
!1!dictionary created ->!dict0new!c:/jodtemp/dict0new/!
```

```
+-+--------------------+---------+------------------+

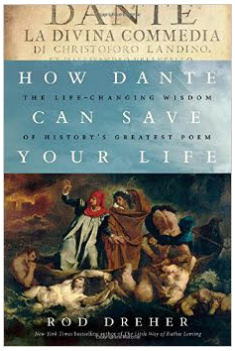
   od 'dict0new'
+-+--------------+--------+
!1!opened (rw) ->!dict0new!
+-+--------------+--------+

   NB. reload dump script ... output not shown ...
   0!:0 df
```

Before executing complex dump script procedures *back up your JOD dictionary folders* and play with dump scripts on test dictionaries. Dump scripts are essential JOD dictionary maintenance tools but like most powerful tools they must be used with care.

How Dante Can Save Your Life: Review

Posted: 12 Jul 2015 19:35:46



Dante's *Commedia* may save your life but I wouldn't bet on this book doing the same. How *Dante can Save Your Life* is both interesting, annoying, and ultimately disappointing. If I had stopped in the middle of this book I would have rated it higher. It certainly started out well but, what can only be described as the author's whining, slowly degraded my view.

The seriously religious do not perceive reliable approximations of reality. They are drifting with their phantoms, looking for things that cannot be rationally demonstrated to exist. Though I admire the discipline and restraint many intelligent religious people exhibit it's simply impossible to take their cherished beliefs seriously. Those of us that *demand* verifiable reasons for accepting propositions will never accede to the belief that the purpose of life is to return to God. The author repeatedly returns to this theme as he reads Dante and shares his own life.

The author, Rod Dreher, and his family endured serious grief. The best part of this book is his retelling of his sister's death from cancer in her forties and her community's out pouring of love and support. I don't think the author would disagree that his sister's death, and the book he wrote about it, greatly contributed to his career as a writer.

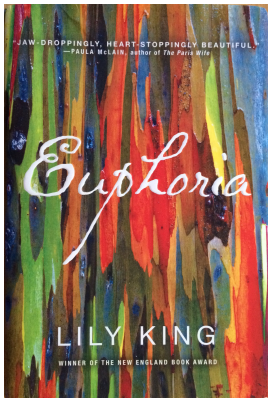
It was at this point the author had a crisis that lead to Dante. Cemeteries are for the living not the dead, *as is myth.* Dante created an extravagant and great myth and like all great classics his epic poem has much to offer readers in any age. The author uses it as a type of self-help book to work through his family problems.

His problems are common. Many of us have seen loved family members die horribly, many of us have suffered crippling injuries, many of have distressing careers, and many of us have family members that are struggling with themselves and us. Yet some of us are tough enough to see life as a random clash of blameless atoms and that whining will not fix anything.

In Dante's view this is the great sin of pride that unchecked leads to Hell. Lucky for us Hell and Heaven are myths. Art, however great, is not reality.

Euphoria: Review

Posted: 18 Jul 2015 16:47:38



Lily King's excellent new novel *Euphoria* derives from an incident in Margaret Mead's life. Margaret Mead achieved fame as a young woman with her 1928 book *Coming of Age in Samoa*. Usually scholarly works do not attract mass audiences but the good bits of Mead's book read like soft-core porn and introduced the radical idea that sexual behavior in adolescence may have strong cultural overtones. Nowadays we lump such deep revelations in the "No Shit Sherlock" category!

Some of this is brilliantly alluded to in *Euphoria*. The strong female character (Nell) had written a popular book that her husband (Fen) envied and peers deprecated. The three main characters, Nell, Fen and Bankson, are social anthropologists doing field research in New Guinea in the 1930s. All three have serious doubts about what they are doing. They obliquely acknowledge the sheer conceit of foreign neophytes descending on an unfamiliar culture and, without speaking the language, being familiar with the environment, or knowing jack shit about the local economy, "decode a people," in a few short months.

Early social anthropologists liked to cast themselves as "anti-missionaries." *Euphoria* echoes this sentiment in a few passages. Anthropologists were there to learn about a culture not obliterate it with Christian sky fairy fantasies. The admirable agnosticism

of social anthropologists, you cannot take one myth seriously when you have studied hundreds, is still blunted by an infantile dedication to the absolute primacy of culture. We are not animals but Rousseauian "blank sheets" that our culture scribbles on. Many contemporary social scientists of the left, "Are there any other kind?" bitterly dismiss criticism of this ludicrous axiom as "White Privilege." The social anthropologists of Mead's day may have been a bit delusional and naive but they didn't create utter bullshit like Critical Race Theory or, I kid you freaking not, Microaggression Theory.

My only complaint about *Euphoria* is that it romanticizes a "soft pseudo-science." Anthropology has two major branches: physical and social. Physical anthropology deals with things like comparative anatomy, radioisotope dating, geological layering, and DNA; it is very much a *real* science! Social anthropology is all squishy, personal, and non-verifiable; it is not a real science. It's not even, to use Rutherford's exquisite burn, "stamp collecting." *Euphoria* makes this all clear to scientifically literate readers. In many ways *Euphoria* is a better introduction to Mead than Mead herself: recommended.

American Star Chamber creates Foreign Passport Business Opportunity

Posted: 24 Jul 2015 03:28:49

Good news citizens: the putrid rogue intellects in Washington D.C. have created a brand new shiny Star Chamber. What's a Star Chamber you ask? It's basically a secret kangaroo court. The US system of *injustice* already employs an alphabet soup of Star Chambers. Perhaps you've heard of FISA and its outstanding work of rubber stamping the surveillance of dangerous American citizens – oops terrorists. Well, I'm happy to report, that the self-aggrandizing assholes that drool us are no longer content with monitoring our terrorist naughty bits; now they're going for what they covet most: our money.

The new Star Chamber law plugs an egregious hole that citizens – oops terrorists – have mercilessly exploited in the past. You see, when an American – oops terrorist – determines that residing in the US and maintaining American citizenship is no longer worth it, said American could simply gather up his holdings, leave the country, and renounce his citizenship. Remember Eduardo Saverin? He was a cofounder of Facebook who did a little arithmetic and figured out that dumping his US citizenship would save him many millions of tax dollars. Eduardo did what any intelligent human being would do. He analyzed the cost-benefit ratio of his citizenship and made the

correct financial decision.

Of course the entire financial position of the US government is predicated on making sure that citizens do not get in the habit of making such cost-benefit analyzes. In the past the old tropes of patriotism, honor, giving back, national pride, and so forth kept many of us from firing up our computers but that's the past. This is the age of hope and change. And many little Eduardo's hope to get out of here with some of their change!

The years of hope and change have led to ever increasing number of Americans fleeing the country. It's only a trickle now but wait until Pussydent Hildabeast takes over. The trickle will turn into a flood and that's a problem because without taxpayers how will Pussydent Hildabeast pay off her cronies, reward her allies, and punish her enemies? It takes a lot of money to bribe – oops run – government.

Fortunately, the new Star Chamber fixes the exile problem. Under the new regime, if the *government thinks you owe them back taxes*[47] they can refuse to issue you a passport. You're a flight risk you ungrateful terrorist – oops citizen – scum. It gets better! If the government thinks you're aiding foreign terrorists they can also refuse to issue you a passport. Of course, what constitutes "aiding foreign terrorists" is completely unspecified. Better not send any *attaboy* ISIS tweets, they might be construed as "aiding foreign terrorists." And, because we are so hope and changey these days, if you dare ask why the government thinks you are aiding terrorists this shiny new law allows them to withhold evidence because: terrorists! Due process is so white privilege! With such an idiotic and oppressive law in place, it's just a matter of time before the US harbors thousands of internal tax and terrorist aiding exiles. They'll be joining a larger cohort of hundreds of thousands of former American drug offense prisoners that are also, oddly enough, frequently denied US passports.

This is all good news! What the morons in Washington have created is a gigantic business opportunity for any country that will issue Americans passports for cash. If you don't already have another passport contrive to get one as soon as possible! You really don't want to be imprisoned here if you run afoul of our increasing fascist authorities.

Milliblog:[48] Religous and Comic Origin Stories

Posted: 06 Sep 2015 19:07:22

[47] Of course the IRS never incorrectly assesses a citizen's – oops terrorist's – taxes.

[48] A *milliblog* is a short blog entry that makes a single point and then gets out of the reader's face.



Joseph Smith
gets his superpowers.

Have you ever noticed that the "origin stories" of religious figures and comic superheroes have a lot in common? Green Lantern is given a powerful ring. Moses is handed magic tablets. Buddha, a wealthy patrician, is horrified by injustice and suffering and decides to fix things: ditto for Batman. A powerful, otherworldly being, comes to Earth to save us. Are we talking about Christ or Superman? The only difference between comic book heroes and religious figures is: comic book origin stories are more plausible. There is a teeny tiny chance that being bitten by a radioactive spider will give you some powers, probably a tolerance for certain arachnid proteins, but there is absolutely no chance that long dead John the Baptist will poof back from the dead to baptize your semi-literate backwoods ass.

What is Required: Print Captions on the back of Photographs

Posted: 07 Sep 2015 20:14:52



I am tired of waiting for "the market" to exploit painfully obvious opportunities so I will now provide guidance, in the form of *milliblog* entries, that tell our less imaginative entrepreneurs just what some of us would buy if we could.

Here's a deep request. *How about printing captions on the back of photographs?*

I just went through the excruciating ordeal of ordering about one hundred prints from SmugMug. SmugMug prints meet my high standards but their online ordering software is clunky and clearly geared toward very small print runs. If you have hundreds of pictures, of varying and custom sizes, the software will punish you. The obvious steps of setting a paper type, selecting all your images, and then letting the software work out the paper size from image aspect ratio is not available. You must go image by image setting one easily derived parameter after another. I would print a lot more if it wasn't such a frigging chore.

As annoying as SmugMug print-ordering is at least I get the prints I want with one major exception. If you check out my online photographs you'll see I use captions like *nanoblog* entries. Many people have told me they really like my captions. One of my pet peeves is unlabeled photographs. I have wonderful hundred-year-old photographs of elegantly posed complete strangers because *nobody left a clue on the back.*

So, in addition to printing timestamps and file names on the back of photographs, include captions as well!

P.S. It takes about five years for the market to meet my obvious requirements; don't hold your breath.

2016

SWAG a J/EXCEL/GIT Personal Cash Flow Forecasting Mob

Posted: 10 Jan 2016 23:14:39

While browsing in a favorite bookstore with my son, I spotted a display of horoscope themed Christmas tree ornaments. The ornaments were glass balls embossed with golden birth signs like Aquarius, Gemini, Cancer, et cetera, and a descriptive phrase that "summed up" the character of people born under a sign. Below my birth sign golden text declared, "Imaginative and Suspicious."

I said to my son, "I hate it when astrological rubbish is right."

I am imaginative and suspicious; it's a curse. When it comes to money my "suspicious dial" is permanently set on eleven. I assume everyone is out to cheat and defraud me until there is overwhelming evidence to the contrary. Paranoia is generally crippling but when it comes to cold hard cash it's a sound retention strategy.

Prompted by an eminent life move, I found myself in need of a cash flow forecasting tool. Normal people deal with forecasting problems by buying standard finance programs or cranking up spreadsheets; imaginative and suspicious people roll their own.

SWAG

SWAG, (Silly Wild Ass Guess), is a hybrid J/EXCEL/GIT mob[49] that meets my eccentric needs. I wanted a tool that:

1. Abstracted away *accounting noise*.
2. Was general and flexible.
3. Used highly portable, durable, and version control friendly inputs and outputs.
4. Reflected what ordinary people, not tax accountants, actually do with money.
5. Is open source and unencumbered by parasitic software patents.

Amazingly, my short list of no-brainer requirements eliminates most standard finance programs. Time to code!

[49] What do you call *dis-integrated* collections of programs that you use to solve problems? Declaring such dog piles "systems" demeans the word "system" and gives the impression that everything has been planned. This is not how I roll. "Mob" is far more appropriate. It conveys a proper sense of disorder and danger.

SWAG Inputs

The bulk of SWAG is a JOD generated self-contained J script. You can peruse the script here. SWAG inputs and outputs are brain-dead simple TAB delimited text tables. Inputs consist of monthly, null-free, numeric time series tables, scenario tables, and name cross reference tables. Outputs are simple, null-free, numeric time series tables. Input and output time series tables have identical formats.

A few examples will make this clear. Table 2 on page 296 is a typical SWAG input and output time series table.

The first header line is a simple list of names. The first name "Date" heads a column of first of month dates in YYYY-MM-DD format. The SWAG clock has month resolution and dates are the only nonnumeric items. Names beginning with "E" like `E0`, `E1`, …, are aggregated expenses. Names beginning with "I" like `I0`, `I1`, `I2` … are income totals. "R" names are reserves: basically savings, investments, equity and so forth. "D" names are various debts. `BB` is basic period balance, `NW` is period net worth and "U" names are utility series. Utility series facilitate calculations. Remaining names are self-explanatory totals. Be aware that this table has been formatted for this blog. Examples of raw input and output tables can be found here.

The next ingredient in the SWAG stew is what many call a scenario. A scenario is a collection of prospective assumptions and actions. In one scenario you buy a Mercedes and assume interest rates remain low. In another, you take the bus and rates explode. When forecasting I evaluate five basic scenarios, grim, pessimistic, expected, optimistic, and exuberant. Being a negative Debbie Downer type I rarely invest time in exuberant scenarios. I concentrate on grim and pessimistic scenarios because once you are mentally prepared for the worst anything better feels like a lottery win.

Table 3 on page 297 is a typical SWAG scenario table. Scenario tables, like time series tables, are simple TAB delimited text files.

Again the first header row is a simple list of names. Most scenario names are self-explanatory but four `OnDate`, `OffDate`, `Method`, and `MethodArguments` merit some explanation. SWAG series methods `assume`, `history`, `reserve`, `transfer`, `borrow`, and `spend` are modeled on what people typically do with cash.

1. `assume` sets expected interest rates and other global assumptions for a given time period. SWAG series methods operate over a well-defined time period. The period is defined by `OnDate` and `OffDate`.

Date	E0	...	Etotal	I0	...	Itotal	R0	...	Rtotal	D0	...	Dtotal	BB	NW	U0	...
2015-10-01	912.00	...	2718.88	4806.00	...	4806.00	130054.17	...	155116.67	0	...	2087.13	159291.79	0	0	...
2015-11-01	912.00	...	2725.78	4812.01	...	4812.01	130054.17	...	155116.67	0	...	2086.23	161378.02	0	0	...
2015-12-01	912.00	...	2732.71	4818.02	...	4818.02	130054.17	...	155116.67	0	...	2085.31	163463.33	0	0	...
2016-01-01	912.00	...	2739.67	4824.05	...	4824.05	130054.17	...	155116.67	0	...	2084.37	165547.70	0	0	...
2016-02-01	912.00	...	2746.66	4830.08	...	4830.08	130054.17	...	155116.67	0	...	2083.41	167631.12	0	0	...
2016-03-01	912.00	...	2753.68	4836.11	...	4836.11	130054.17	...	155116.67	0	...	2082.43	169713.55	0	0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Table 2: A typical SWAG input and output TAB delimited table. This table has been formatted to fit on a single page. Many columns have been elided. Elisions are indicated with … ellipsis.

Raw input files can be inspected at https://github.com/bakerjd99/jacks/tree/master/swag/tabsheets

Name	Scenario	…	Value	OnDate	OffDate	Method	MethodArguments	Description
reservetotal	s0	…	0	2015-09-01	2015-10-01	assume	RSavings=.0.5 [RInvest=.3 [REquity=.3 [ROther=.1	annual nominal percent reserve growth or decline during period
car	s0	…	50	2015-09-01	2035-08-01	history		annualized car maintenance until first death
house	s0	…	912	2015-09-01	2016-08-01	history	BackPeriods=.1	current rent until move
insurance	s0	…	100	2015-09-01	2035-08-01	history		car insurance
living	s0	…	1650	2015-09-01	2044-01-01	history	YearInflate=.5	normal monthly living expenses
salary	s0	…	4800	2015-09-01	2016-08-01	history	BackPeriods=.4 [YearInflate=.1.5	maintain net monthly income until move
reservetotal	s0	…	25000	2015-09-01	2015-10-01	reserve	Initial=.1 [RInvest=.1	stock value at model start
reservetotal	s0	…	130000	2015-09-01	2015-10-01	reserve	Initial=.1	savings at model start
salary	s0	…	4200	2016-08-01	2023-07-01	history	BackPeriods=.4 [YearInflate=.1.5	reduced net income after move until retirement
house	s0	…	2000	2016-08-01	2016-09-01	history		moving expenses
house	s0	…	100	2016-08-01	2044-01-01	history		incidental housing expenses after move
house	s0	…	100	2016-08-01	2044-01-01	history		home owners association payments
house	s0	…	150	2016-08-01	2044-01-01	history		property taxes
reservetotal	s0	…	110000	2016-08-01	2016-09-01	reserve	Initial=.1 [REquity=.1	down payment added to house equity initial setting prevents double spend
loan	s0	…	150000	2016-08-01	2023-02-01	borrow	Interest=.4.5 [YearTerm=.30 [DHouse=.1 [LoanEquity=.1	30 year mortgage rate on house until inheritance
reservetotal	s0	…	110000	2016-08-01	2016-09-01	spend		down payment on house from savings
annuities	s0	…	250	2018-07-01	2035-08-01	history		monthly retirement and other annuity payments end date is unknown
annuities	s0	…	50	2018-07-01	2035-08-01	history		any government pension payments
reservetotal	s0	…	0	2020-01-01	2044-01-01	assume	RSavings=.-2.5 [RInvest=.-5.0 [REquity=.-5.0	market tanks government introduces negative interest
loan	s0	…	10000	2020-07-01	2025-07-01	borrow	Interest=.5 [YearTerm=.5 [DCar=.1	pay balance of car at 5 percent for 5 years
reservetotal	s0	…	7000	2020-07-01	2020-08-01	spend		car down payment from savings
reservetotal	s0	…	180000	2023-01-01	2023-02-01	reserve	Initial=.1	inheritance to savings
reservetotal	s0	…	150000	2023-03-01	2023-04-01	transfer	Fee=.1500 [DHouse=.1	pay off remaining mortgage balance after inheritance fee is closing cost
salary	s0	…	1400	2023-07-01	2035-08-01	history		estimated social security payments spread over expected life
insurance	s0	…	700	2023-07-01	2024-12-01	history		medical insurance in the gap between retirement and spouse Medicare eligibility
annuities	s0	…	100	2024-12-01	2044-01-01	history		any retirement pension payments to spouse
annuities	s0	…	100	2035-08-01	2044-01-01	history		any us social security survivor benefit after first death

Table 3: A SWAG scenario table. This table has been formatted to fit on a single page. Some columns have been elided. Elisions are indicated with … ellipsis.

Raw scenario files can be inspected at https://github.com/bakerjd99/jacks/tree/master/swag/scenarios

2. `history` looks at past periods and estimates a numeric value that is projected into the future. Currently, history computes simple means but the underlying code can employ arbitrary time series verbs.

3. `reserve` manages savings, investments, equity and other cash-like instruments.

4. `borrow` borrows money and sets future loan payments. `borrow` supports simple amortization loans but is also capable of reading an arbitrary payment schedule that can be used for *exotic*[50] loans.

5. `transfer` moves money between reserves, debts, expenses and income series.

6. `spend` does just what you expect.

SWAG series methods adjust all the series impacted by the method. As you might expect the arguments of SWAG methods can be detailed. `MethodArguments` uses a restricted J syntax to set SWAG arguments. Argument order does not matter but only supported names are allowed. Many examples of SWAG `MethodArguments` can be found in the EXCEL spreadsheet tp.xlsx. I use EXCEL as a scenario editor. By setting EXCEL filters, you can manage a large number of scenarios.

The final SWAG input is a name cross reference table. It is another TAB delimited text file that defines SWAG names. You can inspect a typical cross-reference table here.

Running SWAG

To run SWAG you:

1. Prepare input files.

2. Start J, any front-end `jconsole`, `JQT` or `JHS` will do, and load the Swag script.

3. Execute `RunTheNumbers`.

4. Open the EXCEL spreadsheet `swag.xlsx`, click on the data ribbon and then press the "Refresh All" button.

Let's work through the steps.

[50]When borrowing money you should always plan on paying it all back. Insist on a complete iron clad repayment schedule. If such a schedule cannot be provided run like hell or prepare for the thick end of a baseball bat to be rammed up your financial ass.

Prepare Input Files

By far the most difficult step is the first. Here you review your financial status which means checking bank balances, stock values, loan balances and so on. Depending on your holdings this could take anywhere from minutes to hours. I call this updating actuals. Not only is updating actuals the most difficult and time-consuming step it is also the most valuable. Money that is not closely watched leaks away.

I store my actuals in a simple tabbed spreadsheet. Each tab maintains an image of a text file. I enter my data and then cut and paste the sheets into a text editor where I apply final tweaks and then save the sheets as TAB delimited files.

Monthly income, expenses and debts are easy to update but some of my holdings do not provide monthly statements. The verb `RawReservesFromLast` in Swag.ijs fills in missing months with the last known values. When I'm finished preparing input files I'm left with four TAB delimited files, `RawIncome.txt`, `RawExpenses.txt`, `RawReserves.txt`, and `RawDebts.txt`. You can inspect example actual files here.

Start J and load the Swag script.

The SWAG script is relatively self-contained. It can be run in any J session that loads the standard J profile. Load Swag with the standard load utility.

```
load 'c:/pd/fd/swag/swag.ijs'
```

Here SWAG is loaded in JHS.

Execute `RunTheNumbers`

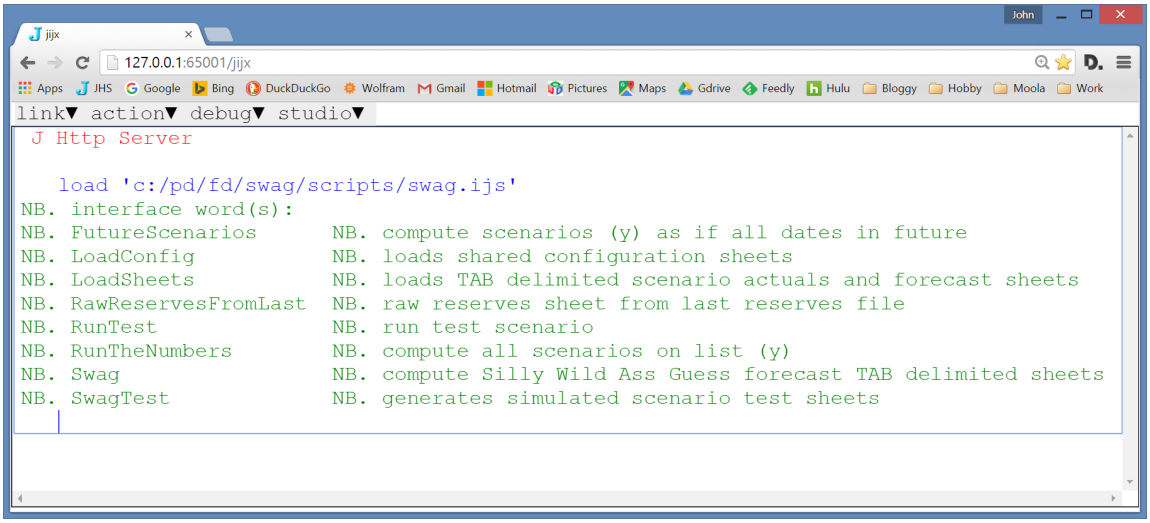
`RunTheNumbers` sets the SWAG configuration, loads scenarios, copies actuals to each scenario, and then evaluates each scenario. Scenarios are numbered. I use positive numbers for "production" scenarios and negative numbers for test scenarios. It sounds more complicated that it is. This is all you have to do to execute `RunTheNumbers`

```
RunTheNumbers 0 1 2 3 4
```

The code is simple and shows what's going on.

```
RunTheNumbers=:3 : 0

NB.*RunTheNumbers v-- compute all scenarios on list (y).
NB.
```




```
NB. monad:  blclFiles =. RunTheNumbers ilScenarios
NB.
NB.   RunTheNumbers 0 1 2 3 4

NB. parameters sheet is the last config sheet
ModelConfiguration_Swag_=:MainConfiguration_Swag_
parms=. ".;{:LoadConfig 0
scfx=. ScenarioPrefix

ac=. toHOST fmttd ActualSheet 0
ac write TABSheetPath,'MainActuals',SheetExt

sf=. 0$a:
for_sn. y do.
  ac write TABSheetPath,scfx,(":sn),'Actuals',SheetExt
  sf=. sf , parms Swag sn [ LoadSheets sn
end.

sf
)
```

`RunTheNumbers` writes a pair of TAB delimited forecast and statistics files for each scenario it evaluates.

Open swag.xlsx and press "Refresh All"

The spreadsheet `swag.xlsx` loads SWAG TAB delimited text files and plots results.[51] I plot monthly cash flow, estimated net worth and debt/equity for each scenario. Figure 124 on page 301 is a typical cash flow plot. It estimates mean monthly cash balance over the scenario time range. Figure 125 on page 302 is typical net worth plot. It estimates mean net worth over time.

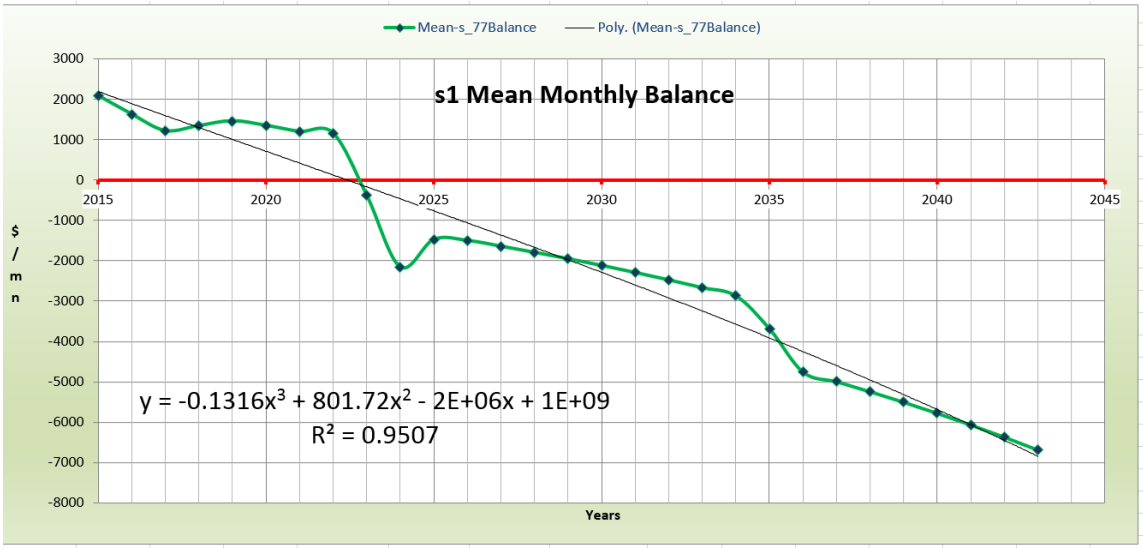


Figure 124: Mean monthly cash flow balance over time. The polynomial displayed on the graph is an estimated trend line. R^2 is a standard fit measure.

So far SWAG has met my basic needs and forced me to pay more attention to the proverbial bottom line. As I use the system I will fix bugs, refine rough spots, and add *strictly necessary* features. Feel free to use or adapt SWAG for your own purposes. If you do leave a note on this blog or follow the SWAG repository on GitHub.

[51] It may be necessary to adjust file paths on the EXCEL DATA ribbon to load SWAG TAB delimited text files.

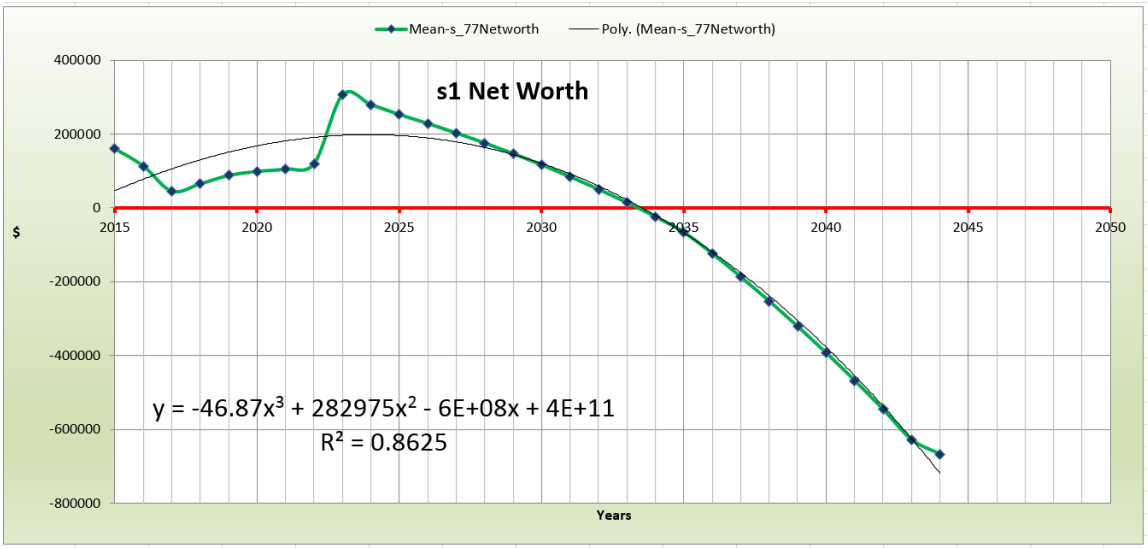


Figure 125: Mean net worth. In this happy scenario we die broke and leave a giant bill for the government. *They can meet me in Hell to collect.*

On Shiny Pony and Witch Berning

Posted: 12 Mar 2016 21:24:48

This week Canada's shiny new Prime Minister Justin Trudeau is hanging out with Obama. You can imagine my excitement: two photogenic lightweights sharing a heartwarming *bromance* on the public's dime. I am at a loss to imagine a more hurl inducing scenario. I shared my feelings with a terse CBC comment.

> As a dual US-Canadian citizen I must avert my eyes when confronted with such unctuous and expensive dog and pony shows. At least, we know who the dog is and who the shiny pony is! In a few short months, the toilet of history will flush on the Obama administration. For this we can thank term limits: one the best ideas in government ehh! This will cure the American Obama problem and ruin Trudeau's play dates for years to come as I'm pretty sure neither Hillary or Trump are compatible with whatever is putting the wave in Justin's hair.

I have safely ignored Justin Trudeau, (Shiny Pony), for decades and no harm will come from continuing this practice. Canada is, in Douglas Adam's immortal words, "mostly harmless." It's one of the things I love about the country. It balances out the

smug, preening, holier than thou, moral posturing that erupts from many Canadians when presented with conundrums like Trump. Batman's nemesis the Joker said it best, "Why so serious?" Canadians take themselves more seriously than the Danes. If you've ever lived in Denmark you'll understand.

Unfortunately, the United States is not mostly harmless. It matters *a little bit* who is elected President. It doesn't matter nearly as much as many Americans think and we can praise the all squiggling Flying Spaghetti Monster for that. Living under a hubris-infused narcissist like Obama would be far worse if we didn't have the luxury of ignoring him. And this brings me to Hillary, (Hildabeast), and Trump. It's going to be difficult to ignore either one of them, and sadly *None of the Above*, my preferred candidate, is not on the ballot. This is a problem.

My solution, as always, revolves around who I hate the most. Animus is my animating principle. Trump is a bombastic tool, but, at least, I don't want to hold his head under water until it stops making nagging noises. The prospect of four years of Hildabeast barking is profoundly depressing. The bitch must be stopped so I'm resorting to extreme measures. Next week I'll cast a primary vote for that old 1960s era western hippie-commie, Bernie Sanders. Sanders has no chance of winning the presidency in November. If by some miracle, he ends up as the Democrat nominee he will be crushed by whatever crawls out of the Republican swamp.

I almost feel sorry for Bernie. Like all 1960s era western hippie-commies, he's a weird mixture of earnest naiveté and historical ignorance. Western hippie-commies differ from their real eastern counterparts. They've never held power, never run anything of importance, and have a serious marketing problem!

Anyone, even remotely cognizant of 20th-century history, will find it hard to overlook the vast pile of corpses various communist and socialist regimes piled up. We're not really sure how many tens of millions died at the hands of Stalin, Mao, Kim Il-Sung, Pol Pot and lesser thugs but it exceeds the toll exacted by the Nazi's. This is beyond historical dispute. You can whine, attempt to change the subject, and hurl as many epithets as you want but it won't change this nasty fact. People's regimes are demonstrably bad for people.

Western hippie-commies like Sanders know this so they rebrand themselves as socialists. Socialists believe that if you only do communism right none of the brutal side effects will accrue. You can have somebody else's cake and eat it too. This is naïve. Ask anyone in Venezuela about the wonders of 21st-century socialism. While you're at it, explain how the socialism of Bernie Sanders differs from the socialism of Hugo Chavez. Spoiler alert: it doesn't!

A primary vote for Sanders is mostly harmless. It's like sticking a cocklebur on Pussydent Hildabeast's hideous hide. Still it amuses me? I must take solace somewhere. Let's Bern the Witch!



The Santa Fe Trail

Posted: 18 Apr 2016 23:41:35

In the last ten years, we've moved five times.[52] In a few days, I will increment that count. We are moving to Santa Fe New Mexico. Our previous perambulations were driven by work. We went where the jobs were and they were all over.

Because I have spent a lifetime moving for work I have no patience or sympathy for people who insist on staying put.

"I can't leave here because … blah, blah, blah," said every lazy whiner ever.

If you have to move to find a job get off your fat ass and move. Humans evolved on the move. Our distant ancestors trekked great distances foraging and hunting. We are happiest when moving. Putting down roots is for plants, not people. *I'll eventually settle down when I'm dead.* Until then I am on the move.

Moving is old hat; what's different this time is picking a place first. For over twenty-five years I've been a *wandering software developer*. This is beyond idiotic. The most portable stuff in the world is software. The internet makes it possible to create software anywhere and deploy it everywhere almost cost-free. There's no need to pile programmers into pits to extract bits. Theoretically, all software developers could work remotely, but in case you haven't noticed, we don't live a theoretical world.

It's easier for management to impose discipline and administer idiocies like SOX compliance if uppity developers are in the same room. Remote discipline is too easily

[52] Frequent moves are a good way to dodge jury duty.



We are building a little house in the hills near Santa Fe. We will have unimpeded views of the mountains to the north. The lack of street lights, combined with Santa Fe's two thousand meter elevation, should make for decent stargazing.

mitigated with the mute button meaning management must come up with good ideas to herd their far-flung cats. Some enlightened outfits successfully manage productive remote developers but frankly most are struggling or openly hostile to the idea.

When it first occurred to me, way back in the 1980s, that commuting to an actual office was unnecessary I thought that within a decade or two most software development organizations would embrace remote work. The cost savings and enhanced access to global talent seemed like total no-brainers. Well, for many reasons, some good, (like getting smart people together), and some stupid, (see SOX), the brave new world of ubiquitous remote workers remains an infuriating work in progress.

I expect this muddle to eventually resolve but in the meanwhile, I am no longer willing to abide locales that do not suit me. So, for this move, we picked a spot, Santa Fe, that mostly meets our esoteric geographic preferences and then started looking for a job. Santa Fe is a small city so it took a little longer to find a good job but this thing called the internet also simplifies job hunting.

I've enjoyed my Saint Louis sojourn but like many Missourians of the 19th century, it's time to head down the Santa Fe Trail.

Milliblog: Photo Captions

Posted: 22 May 2016 22:35:58

This blog is still alive and kicking. I post when I post. Currently, my energies are deployed on other fronts. If you absolutely must get your *Analyze the Data not the Drivel* fix look over my extensive *millibloggy photo captions*. Here's a typical example:



The “miraculous staircase” in Santa Fe’s Loretto Chapel. After paying your three dollar entrance fee you can enter the chapel and see the staircase. When I was there people were milling around while a recorded message told the breathless story of the miraculous staircase. The story goes something like this. The chapel needed a staircase. So some nuns prayed to the sky fairy of carpenters and low and behold a carpenter showed up with a bag of simple tools. Over the next month this remarkably skilled carpenter fashioned this beautiful wood staircase using only his simple tools. Apparently he constructed the staircase from the floor to the upper level without central supports. Even now the staircase lacks the standard central beam of spiral staircases. The masses were amazed! How could the staircase stand without a central support? Surely this is the work of the divine. This is what passes for a miracle among sky fairy believers. It’s the same type of magical thinking that invokes aliens to explain the pyramids. Just maybe the carpenter knew what he was doing and had the technique to pull it off. Occam’s razor people: it cuts deep.

Falling Colors Technology a BHSD Crony that needs Competition

Posted: 05 Jul 2016 20:13:36

BHSD (Behavioral Health Services Division) is a New Mexico state agency that doles out federal and state funds to a variety of small, ostensibly health related, programs. For example, in the state of New Mexico, BHSD runs a program called Synar[53] that attempts to cut down on merchants selling cigarettes to minors. One Falling Colors employee characterized the program as "mostly stick and no carrots." Synar funds a stable of ambush inspectors that descend on merchants hoping to catch them selling to minors. It's a standard bit of well-intentioned government coercion. If you are wondering what's in it for the merchants stop wondering: it's all stick. They lose sales and face fines. If you are wondering why the state of New Mexico supports Synar follow the money. Depending on the dubious statistics compiled by Synar administrators the state could lose millions of dollars of federal grants if the percentage of offending merchants exceeds an arbitrary threshold. Synar, in the twisted minds of state bureaucrats, "generates revenue."

In addition to saving the state from the unconscionable scourge of teenage smoking BHSD also funds a mishmash of programs to prevent drug addiction, help the mentally ill, subsidize methadone treatments and reimburse psychologists, psychiatrists and other health professionals for counseling and other services. BHSD's budget for all these operations is, according to Mindy Hale, roughly fifty million dollars per year. In the greater wasteful schemes of government this is small beans, even for New Mexico, but, it's still fifty million public dollars so it's not out-of-bounds to ask, what are the taxpayers getting for their money?

If you are naïve enough to think the intended *clients* of BHSD's largesse, the teenage smokers, the mentally ill, and the drug addicts, garner the lion's share of that fifty million dollars you're probably a statist or a moron, but I repeat myself. Many years ago a wise old wag, when badgered about the high cost of landing a man on the moon, chirped, "None of that money was spent on the moon!" While some of BHSD's fifty million is directed to clients, *the moon*, the lion's share goes to contractors, service providers, and BHSD internals. Whether the state of New Mexico and the federal government are getting good value for their money is debatable; what's not debatable is that some IT service providers are doing very well from themselves.

[53]The Synar program is named after Congressman Mike Synar of Oklahoma. How many tax dollars would be saved if it was illegal to name things after politicians?



The Falling Colors Technology Logo. This logo was designed by a competent graphic designer. I've observed an inverse relationship between the quality of company logos and the products and services they offer.

Two IT providers consume a significant share of BHSD IT funds: Optum New Mexico and Falling Colors Technology. The founders of Falling Colors, Mindy Hale and Pamela Koster[54], claim Optum bills the state of New Mexico roughly four million dollars per year for the onerous job of cutting checks. It's important to understand that Optum is not dispensing their own money. They are simply managing a pool of funds that are replenished by state and federal tax dollars. Yes, it takes money to manage money. You have to pay auditors, comptrollers, and other financial professionals to make sure the funds are not redirected into questionable pockets. Surely you don't think New Mexico's corruption free government would abscond with unwatched dollars?

Still, four million seems a bit steep for providing a routine service that any experienced financial entity like a bank could do, and to the state's credit, they have recognized this and are in the process of renegotiating Optum's four million dollar fee. Optum has responded with a "this isn't worth the damn hassle" attitude. If they cannot get their four million they're threatening to pull out of the state and cede the check cutting business to others. How much of this is hardball negotiating, corporate whining, or even *the truth*, is hard to determine. The only thing that seems certain is that there is a business opportunity for an IT provider if Optum makes good on their threat and leaves New Mexico.

Falling Colors Technology, a little company that is already extracting about one million dollars per year from the state, is angling to take over Optum's fund disbursement role. *In standard insider crony fashion, they hope to keep this transfer quiet and elude potential competitors.* Why go through all that messy inefficient public bidding? There's only one problem with their *business plan. Falling Colors has absolutely no experience managing funds.* There is nobody on their staff that could be considered a financial professional. They are planning to hire staff, but I have to wonder why BHSD, and the state of New Mexico, are considering flushing millions of dollars

[54]The founders of Falling Colors are questionable sources; their claims should be subjected to a high standard of scrutiny.

through an entity that has no financial expertise and has already received a formal letter of warning for shoddy IT work.

Instead of branching out into lines of business that they have no experience with Falling Colors efforts would be better invested in fixing their core problems and they have lots of core problems. Let's look at what nearly one million dollars or public funds per year buys from Falling Colors Technology.

Your one million is buying a few unreliable, crash prone, insecure, low volume websites geared towards BHSD staff and service providers. When I first ran the following SQL query on the database that backs many Falling Colors websites I was alarmed at the results.

```
SELECT  iq.WeekNumber ,
        AVG(iq.ErrorCount) AS AvgWeekErrors ,
        MIN(iq.ErrorCount) MinWeekErrors ,
        MAX(iq.ErrorCount) AS MaxWeekErrors ,
        STDEV(iq.ErrorCount) AS StdDevWeekErrors
FROM    ( SELECT    CAST(CONVERT(VARCHAR(8), TimeUtc, 112) AS INTEGER) AS DayNumber ,
                    COUNT(1) AS ErrorCount ,
                    MIN(DATEPART(iso_week, TimeUtc)) AS WeekNumber
          FROM      dbo.ELMAH_Error
          GROUP BY  CAST(CONVERT(VARCHAR(8), TimeUtc, 112) AS INTEGER)
        ) iq
GROUP BY iq.WeekNumber
```

Falling Colors websites were crashing about twenty times per day. On some days the crash count exceeded fifty. I thought to myself, "If this doesn't dramatically improve this little company is doomed." I've worked with lots of bug infested software over my long career but twenty to fifty crashes per day, distributed over a few dozen users, was an entirely new level of unreliability.

Why is it so bad? The developers at Falling Colors, like developers everywhere, bitched about "inherited code." Basically, this means they're working with code that they didn't entirely write themselves. Developers complaining about inherited code is so common that software managers rightly label it whining. Software developers bitching about inherited code is like civil engineers griping about inherited bridges. The world is not created fresh every day. The inherited code base is a source of problems but the main reason Falling Colors exhibits such a high crash rate is simply a lack of formal quality control.

Testing at Falling Colors is mostly performed by one beleaguered Business Analyst.

She runs through a series of basic web page checks after significant new releases. This is a very low standard of testing for modern software development. Falling Colors does not practice many common quality control techniques. For example, most development environments support a variety of internal testing tools. Falling Colors is a Visual Studio shop and Visual Studio has built-in unit testing tools and supports a host of third-party add-ons. Developers focused on quality, spend as much time implementing internal units test as they do writing production code. There is an entire coding regime known as TDD that strongly promotes writing tests before you write software to pass the tests. At the end of June 2016, there were precisely zero internal unit tests in Falling Color's code base. In addition to missing internal unit tests, there were no repeatable or scripted tests, no large case tests, and no stress tests. Lack of formal testing combined with misplaced developer optimism is a recipe for high error rates and Falling Colors is really boiling that pot.

Buggy insecure low volume websites are a dime a dozen. There's a lot of crap out there. If Falling Colors cranked out standard public websites we would *click on* and ignore their rubbish. Unfortunately, being intertwined with BHSD, the users of Falling Colors websites do not have the option of *clicking on*. Making things worse, Falling Colors hosts a substantial amount of HIPAA protected information.

HIPAA is a set of federal guidelines that outline how health providers and their contractors must protect information that might be used to uniquely identify people. HIPAA penalties, for both providers and individuals, are severe if protected information is either accidentally or willfully disclosed. You can go to jail for exposing HIPAA protected information.

HIPAA guidelines list common data elements that must be protected. There is only one way to properly protect these elements: *full element encryption.* Every single data element should be encrypted and the keys should be rigorously guarded by a small number of individuals. Even developers, *especially developers*, should never see the unencrypted information. This is the way things should work, but, if you have followed the news about an unending stream of website hacks and data breaches, you're probably aware that this is not how it works in the big nasty world.

It's certainly not the way things are working at Falling Colors. With the exception of website passwords, which were only hashed in the last year,[55] HIPAA data is stored in plain, ready to hack, text. If I were an IT savvy methadone user in the state of New Mexico I would be reluctant to disclose personal information to *CareLink*, *TreatFirst*, *Prevention*, or any of the Falling Colors managed programs. One HIPAA breach and

[55]Yes, incredibly, user passwords were stored as plain text for years. This is monumentally inept!

your methadone habit is on Facebook.

Falling Colors is fully cognizant of their shabby security and are planning to *eventually* fix it. They're taking steps to harden their websites and tighten up their loose databases but they are not, as of the end of June 2016, pursuing a full element encryption regime. Anything short of full element encryption is just putting lipstick on the security pig. Currently, Falling Colors is a HIPAA breach in waiting. *BHSD would be well advised to insist on an immediate and independent full security audit of Falling Colors systems!*

BHSD should also demand a fair and public RFP (Request for Proposal) process when seeking IT contracting services. Currently, some individuals in BHSD, in connivance with Falling Colors, are delicately crafting RFPs that are designed to exclude Falling Colors competitors. This is a blatant abuse of the public RFP process and the perpetrators should be ashamed of themselves. Crony state contracting may be business as usual in New Mexico but it is not in the interests of the pubic, BHSD, or even Falling Colors. Cronies without competition invariably turn into parasites and BHSD, which recently suffered a bedbug outbreak in their Santa Fe offices, has enough of those.

A Bloggy Christmas Letter

Posted: 25 Dec 2016 21:18:40

It's been a year of blogging badly so I might as well end it with a Christmas letter. I won't excuse my absence from these bloggy pages; I have repeatedly warned my readers that I blow hot and cold. I am either all in or all out. For most of 2016 blogging has been *off the agenda*.

In April, I traded my secure well-paying job in St. Louis Missouri for a risky venture in Santa Fe New Mexico. It was a crazy move. The money was about the same, but everything else, benefits, long-term prospects, working conditions, and career opportunities were worse. I didn't care. I was coming up on six years in St. Louis: my longest stretch in any job, and I was looking for any opportunity to move.

I've changed jobs a lot over my long so-called career. I've left voluntarily, I've been downsized, and I've been fired. Being fired is the most dramatic and educational of the three. I was fortunate to be fired from my first "serious" job. I was young, dumb, fearful, and easily taken advantage of. Getting fired fixed all that. You don't understand the working world until you've been fired. I'd recommend it for



Resting on a petrified stump on the trail. Old farts require more rest stops on the way up. I am so glad that trail running was not a thing when I was young. I didn't see any trail runners in Yellowstone today. The presence of bears, wolves and mountain lions, all of which can run trails a lot faster than millennial showoffs, puts the brakes on such behavior.

everyone. Getting fired provides lifetime immunity to one of mankind's most crippling conditions: fear of change. I don't fear change; I seek it out. Moving to New Mexico was a change for change's sake. The only thing unusual about this move was a fixed destination.

In the past, I went where the money was. This time my wife was largely responsible for the location. She was tired of apartment living in St. Louis. We considered buying a house in the area but we didn't view St. Louis as "home." I wanted to live somewhere in the affordable mountain west and she wanted somewhere warm. Santa Fe was warm, mountainous, and, if my new job went well, just barely affordable. So we sold off our bags, packed up my photography gear, and moved west.

Things did not work out. My new job imploded a week before closing on the house we were building. For months we had watched the construction and we were just about to move in when the deal collapsed. I almost enjoyed the predicament. On my birthday, I found myself, unemployed, homeless and uninsured, but at least I had my health! Never undervalue your health.

We scrambled and quickly moved to Bozeman Montana to stay with my father. Since my mother's death three years ago he has spent his summers in Bozeman alone. He was glad to have some company and we were glad to have a place to stay while I resumed the chore of looking for another job. I didn't mind our summer in Bozeman. We hiked a lot, visited Yellowstone a few times, drove up to Glacier National Park, visited Missoula and Butte, and took lots of pictures. I also spent many hours



Evelyn, my mother as a teenager, holding baby Tommy. I have no idea who baby Tommy is but I am pleased with the restoration of this old slide of Hazel's. I am generally dissatisfied with most of my restoration work but every now and then you come close to the image in your head.

scanning, restoring, and annotating old family slides. I found some real gems like this shot of my mother as a young teenager with baby "Tommy."

It took me a few months to find another job because I refused to consider contracting or benefit free employers. Programming jobs are plentiful but programming jobs with stable employers that offer good benefits are not as plentiful as they used to be. Programming's halcyon days are over. Modern trends are all negative and I fear that Trump will not make programming great again. In thirty years AI systems will replace all but the most brilliant and creative of programmers. Corporate IT drones, like *moi*, will join the dinosaurs.

Fortunately, being an old fart, I no longer care about long-term trends. I will be comfortably dead before global warming melts the ice caps and drowns coastal cities. I will also be retired and parasitically feasting on a plethora of millennial and gen-X funded social security programs when AIs decimate the ranks of ordinary programmers. My only concerns are short term. So I was pleased to find a good, *benefit endowed*, job in Meridian Idaho. Meridian is a growing suburb of Boise. Meridian is not as attractive as Santa Fe but the beauty of Idaho's landscape matches New Mexico's. Idaho is actually more mountainous than New Mexico and housing is more affordable. The funds we were about to plow into a New Mexico house will instead buy a larger fraction of a larger house in Idaho. It's not the mountain state we aimed for but the skiing is better, (it's a winter freaking wonderland outside as I write), plus the Pacific coast and Yellowstone are both within an easy drive. It will do for now.

In the coming year, I will strive to blog more often. I see many stark raving diatribes in your future, but as Hillary voters just painfully *discovered*,[56] the worm does not always turn as expected.

[56]It was tempting to use the word "learned" but deplorables of the left have no need of learning; they already know it all?

2017

My Final Facebook Fuckoff

Posted: 08 Jan 2017 01:41:28

It's the start of a new year and much has changed. This week we moved into a new house. Our move has been an eight month and four state ordeal but I am hoping we will be here for some time. I am tired of moving and our frequent moves are confusing our self-appointed digital overlords. This afternoon, after unpacking and assembling the table I am now writing on, I tried to login to Facebook using a borrowed library hotspot. The Boise Library consortium is now lending out Internet Hotspot devices. My wife put one on hold about a month ago and she got an email the other day that the device was ready to be picked up at the Eagle branch. It will be a week or two before our local broadband supplier can wire up our new house so the hotspot perfectly hit our Internet dead spot. We picked it up and I'm using it now.

Getting back to Facebook. My login attempt failed. Facebook detected yet another change in my connection IP address and asked me to verify my account. I've done this before. I was expecting a text or reset email but no, this time the bastards had the sheer unmitigated gall to ask for proper government ID. They want scans of driver's licenses, passports, social security cards and so forth. This was the last straw. I couldn't even login to delete my account so I sent this message to security@facebookmail.com.

> *Dear Security at Facebook,*
>
> *It's so good of you to ask if I was trying to access my account from a new IP. Yes, that new login attempt was me. For reasons that do not concern you I move around a lot. It's irritating that you track IPs and harass users when they go to another coffee shop or library.*
>
> *This has happened in the past and I have jumped through your irritating hoops to reset the account. Prior to, today you did not ask for PROPER GOVERNMENT ID!* ***There is no fucking way in hell I will be uploading scans of driver's licenses, passports, social security numbers, or any other form of official ID.*** *It's bad enough that proper authorities force us to use these documents but, the last time I looked Facebook is not an authority! We don't have to show proper ID to vote in many states but apparently it's required to browse your steaming pile of distracting rubbish.*



My Facebook profile image. Apparently, it is no longer ok to use avatar images on Facebook. I started using this image a few years ago primarily to screw with their facial recognition programs. I will not aid and abet Facebook user profiling. I am not hiding you can browse scores of my pictures by clicking on the gorrilla. Of course, these images are not under the legal purview of Facebook so they cannot legally use them for profiles.

I have always hated Facebook and the only reason I have maintained my tiny footprint in your sewer is to catch a little gossip from real friends and family members. I have done my best to keep my friend list short, my security options on maximum, and my profile information scant and useless. I know you are a giant data mining operation. You entice idiots with cat videos then quietly monitor their mostly boring and pointless lives with the sole aim of selling this information to third parties. Well, count me out! This will be the last byte stream from moi. *If I could login I would delete my account but I since I will not change my lovely gorilla profile picture or give proper ID I will have to simply orphan my account. I have already deleted my phone app and purged my browsers of your vile links. I will never login to Facebook again.*

I always knew this day was coming. I had long ago decided to drop Facebook when a few family members tired of your trash. I don't waste a lot of time on Facebook, but be honest, even you know it's nothing but a complete waste of time.

In this case, parting is not sweet sorrow, it's like being released from an insane asylum.

Anonymously yours

John D. Baker

Affinity Photo Review

Posted: 22 Jan 2017 23:40:20

There's a new image processor on my computers. Recently the chief developer of one of my favorite image editors, Picture Window Pro (PWP), sent out a sad email letting all PWP users know that he is stopping PWP development. He thanked us for over twenty years of support and as a last gift converted the final version of PWP to freeware. You can now download and run Picture Window Pro without a key. PWP is a superb program! It's still the fastest and meanest image editor I have ever used and I am constantly trying image editors. If you're interested in getting a free copy of PWP download the program before the distribution website shuts down.

I was saddened by this news but all good things eventually end. With PWP going away I decided, for the n^{th} time, to look for alternatives. I reconsidered Photoshop. I've used full-blown Photoshop but frankly, I've never been impressed. It's expensive and slow! I use an old copy of Photoshop Elements, mainly to remove blemishes on film scans, but in my opinion, the only Adobe image processing product worth paying for is Lightroom. Adobe is the evil image processing empire. They squeeze you with sluggish performance and abusive subscription payment models and then act like they're doing you a favor. It didn't take me very long to abandon Photoshop (again) and keep looking for PWP alternatives. Lucky for me there's this thing called DuckDuckGo that quickly led me to Affinity Photo.

Affinity Photo is a relatively new image editor that got started in the Mac world and, as of November 2016, is also available for 64 bit Windows systems. Affinity has snagged dozens of positive reviews and, unlike Photoshop, is reasonably priced. I decided to give myself a little Christmas present and bought Affinity Photo.

The Affinity Windows download file is large: over 200 megabytes. Affinity Windows depends on `.Net 4.6.2` which is also installed if it's not on your machine. It took a few minutes to suck down and install all the required bytes but things went smoothly and I eagerly started the program.

Before relating my impressions of Affinity Photo I will describe my *binary image format philosophy*. Image editors typically create and manipulate vendor specific proprietary binary image files. Binary image files like PSDs, NEFs, DNGs, and now Affinity's AFPHOTOs, have a nasty tendency to evolve on vendor whim. This poses fundamental long-term image storage problems. Even if you conscientiously backup and archive your original image files you may discover, a decade hence, that you can no longer load them with current software. I hate this! *Photography is for the*

ages, not the marketing cycles of software and camera companies! If you have ever wondered why the lowly JPG image format still reigns supreme despite its abundant technical deficiencies stop wondering. The JPG format is an open and well described eight-bit channel format. Any competent programmer can write software to read and write JPGs. The same holds for TIFs, PNGs and a few other open formats. This is not true for vendor dominated formats. The specifications, even if disclosed, can change on a moment's notice.

How can photographers deal with *transient* binary image formats? There are two basic approaches. You can convert all your images to an open image format. Some photographers convert camera RAW files to high bit TIFs. Converting large numbers of image files is a tedious and resource hungry process but it's probably the best bet for long-term storage. I use the second lazier approach: maintain at least two independent image programs that can read and write the binary image formats you work with. I use Nikon cameras; they crank out proprietary NEF binaries. Currently, I have four programs on this machine that can read NEFs: PWP, Lightroom, Affinity and ThumbsPlus. I will tolerate proprietary binaries *if and only if* I have options. Don't let software and camera companies box you in.

I started using image editors about fifteen years ago. My first editor came with my first digital camera: a one megapixel HP. I cannot remember the name of this program; I only used it long enough to discover its appalling deficiencies. Within a week I had purchased my first version of Photoshop Elements (PE). I was happy with PE until I encountered posterization (read the link for the gory technical details). Posterization wreaks prints and it's easy to posterize eight-bit channel images. The answer then, as it is now, is to increase your working bit depth. Adobe recommended upgrading from PE to full Photoshop. Why fork over $70 bucks when you can fork over $500? Photoshop Elements has a long history of half-assed support for sixteen-bit channel images and the reason is painfully obvious. If Photoshop Elements fully embraced sixteen-bit channel images there would be very little need for full Photoshop. You could save yourself hundreds of dollars. Adobe decided not to compete with themselves and adopted the time-tested pseudo-monopolistic practice of sodomizing the customer. I did not embrace the butthurt! I started looking for low-cost programs that properly handled sixteen-bit images. It didn't take me long to find PWP.

This early experience shaped my entire image processing approach. Instead of adopting a single monolithic "industry standard" program and joining the *nerd herd* I decided to go my way and use many small programs. Instead of a Goliath, I went

with many Davids.[57] When you take the David approach interoperability moves to the top of the stack. The output of one program must effortlessly become the input of another. How programs play together matters. Additionally, when you apply the David approach, you never look to completely replace your tool set. General purpose tools like Affinity may be able to do all the things more specialized tools can do but probably not as efficiently or as well.

So, before adding Affinity to my trusted tools I asked:

1. Does Affinity play nice with others?
2. Is Affinity's user interface (UI) tolerable?
3. Does Affinity streamline common tedious tasks?
4. What new capabilities does Affinity offer?

With these points in mind let's look at Affinity Photo.

Does Affinity play nice with others?

One of the first things I look for in image processors is *tolerable* loading times. Part the reason I've never been able to stick with full Photoshop is because it takes forever to get the damn thing up. Affinity on Windows easily beats full Photoshop but it's still slower than good old C coded PWP. PWP comes up in a flash. It's one of the many reasons I stuck with it for over a decade. Affinity's loading speed is comparable to GIMP, Photoshop Elements and Lightroom: fast enough to not drive me crazy.

After loading Affinity, I immediately started testing the program's ability to read and write sixteen-bit TIF files. The basic single layer sixteen-bit TIF file format is one of the best supported lossless image formats. It's often the only way to move information from one program to another without trashing bits. JPGs are universal, but every time you write a JPG you lose data: that's the lossy part of JPG compression. Lossy image formats are fine for the web and final presentation but are a total disaster for image editing. Affinity can read and write sixteen-bit TIFs. It can also read and write a number of other important formats like Photoshop Elements PSDs. Affinity converts PSD layers to AFPHOTO layers. It also handles JPGs, PNGs and many RAW formats like Nikon's NEFs. *Affinity plays well with others.*

Is Affinity's user interface UI tolerable?

Once I had satisfied myself that I could slosh bits through Affinity I started evaluating

[57] If you remember what happened to Goliath siding with David doesn't seem like much of a risk.

the program's user interface. UIs have ruined many editors. I'm immediately suspicious when reviewers start lauding a program's UI before spending a few hundred hours using it. UIs either help or hinder. Affinity's UI is decent. If you have ever used a layer oriented image editor you will quickly adjust to how Affinity works. I strongly recommend watching the Affinity tutorial videos; they are among the best video tutorials I've seen and quickly show what the program can do.

Once Affinity is loaded it's pretty zippy. Common image handling operations are fast enough to *fly under my annoyance radar*. Image processing can be very demanding. Don't expect to stitch 500-megabyte panoramas from original RAW files instantly. With current hardware and software, some things will take time. It's fair to say that Affinity's performance compares favorably to other image processors. *I can put up with Affinity's user interface.*

Does Affinity streamline common tedious tasks?

After playing with Affinity for a few days I used the program to help restore some old scanned slides. Old pictures are always damaged; they all need a bit, or a lot, of retouching. The problems most people associate with old pictures, tears, color changes, and loss of tone are usually easily fixed in most editors. The biggest job is removing thousands of scratches, spots, and stains. Most restorers give up and crop or blur away such defects but I'm with Lady Macbeth: "out, out damn spots." Any tool that helps me hunt down and exterminate spotty pests will be lovingly embraced.

The Affinity inpainting brush works a lot better than the corresponding Photoshop Elements healing brush. In particular, it crosses linear backgrounds, buildings, fabric patterns, and so forth without unduly destroying detail. Removing long linear scratches that cross regular structured detail is a soul draining chore. Whenever I see such defects I typically give up and find another picture to restore; I have a big backlog of scans awaiting restoration! This slide (see page 321) of the southern end of Beirut Lebanon, taken by my

father in 1968, is typical of many images in my backlog. There were dozens of long linear scratches running through the buildings. It would have taken hours to fix them with PE. All it took was a few passes with Affinity's inpainting brush to remove them. I was impressed. This single tool significantly speeds up restoring scratched and spotted images and justifies Affinity's purchase price all by itself.

Another Affinity tool that streamlines common image processing tasks is the Affinity panorama tool. Most modern image editors have fairly decent panorama tools and



I am still exploring the Affinity Photo image editor. I used it to restore this scan of a Kodachrome slide my father shot from a hotel window of the south coast of Beirut Lebanon in 1968. The Continental Hotel is visible in the lower left corner of this image. My mother often stayed in the Continental when she visited me in Beirut. I fondly remember having continental breakfast in the Continental. The original slide was overexposed and covered with splotches and sky fingerprints. The retouching tools in Affinity Photo are better than corresponding tools in Photoshop Elements. I particularly like the Affinity inpainting brush; it works well on textured and linear subjects. I was able to remove long scratches cutting through the buildings in this image without unduly wreaking building detail. I also used the inpainting tool to remove a cutoff street light and a car it was shading on the bottom of the image. It's easier to remove objects with Affinity Photo than it is in Photoshop Elements.

building a panorama is easier than it used to be. In the image editing Dark Age, you had to manually select control points and master blend masks to build decent panoramas. It could take hours to align a single image. Current editors use effective automatic control point detection and advanced blending algorithms. In most cases, it's a simple matter of using good capture technique followed by loading the individual images into a panorama tool to generate decent to excellent results.

We are living in a panoramic golden age but there are still problems. I shoot entirely in RAW because RAW preserves the most information and affords the greatest post processing options. Panoramas often encompass scenes of high contrast. Image tones will vary from extremely bright to very dark. It's not uncommon for ordinary panoramas to span twelve or more stops of dynamic range. When processing high dynamic range pictures it's extremely advantageous to do all your work on sixteen-bit or thirty-two-bit channel images. Blending eight-bit panoramas can release *the posterization Kraken*; trust me, you don't want that monster savaging your scenes.

Unfortunately, the Photoshop Elements panorama tool is inherently eight-bit. This means I must do all my major tone adjustments in Lightroom before panorama stitching. Adjusting the tones of a single image is tedious, doing it for many panorama frames is cruel and unusual punishment. Adobe's answer is always the same; give us a lot of money and we'll release you from eight-bit Hell! Lucky for us Affinity gets us out of eight-bit panorama Hell for a lot less.

This panorama (see page 323) of the mountains near the eastern entrance of Glacier National Park was directly generated from Nikon NEF RAW files. All feature detection and blending calculations were high-bit. Tone adjustments were aided by regular tone mapping. Tone mapping is like an automatic Zone System. Compared to what I used to put up with ten years ago Affinity panorama building is almost as easy as scanning scenes with an iPhone. *Affinity significantly streamlines routine retouching and panorama building.*

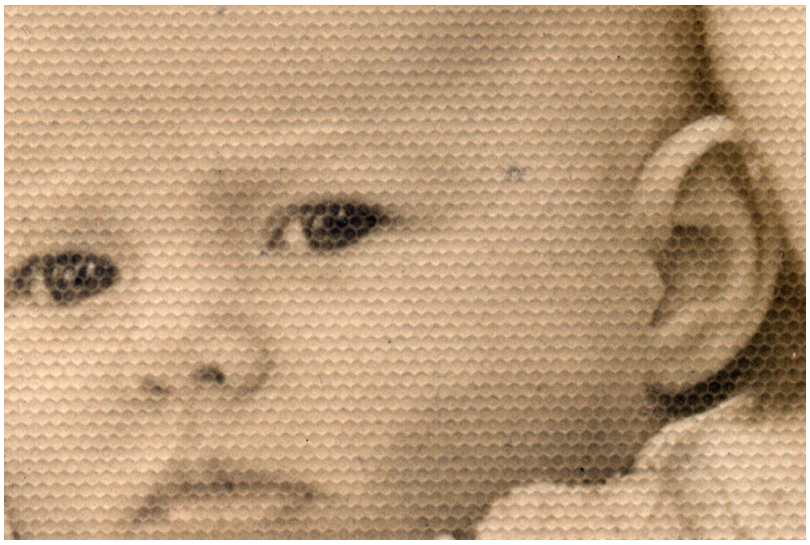
What new capabilities does Affinity offer?

So far, the features I've discussed are common to most image editors. Does Affinity offer anything new or special? There is one Affinity feature, the *FFT (Fast Fourier Transform) Denoise filter*, that greatly mitigates one of my long-standing retouching nightmares: regular patterns.

Many old portraits were printed on patterned paper. This image (see page 323) is a crop of an old (1935) baby picture of my mother.



Looking west from just outside the eastern side of Glacier National Park near Saint Mary. The weather was grim and dark, just the way I like it when I braved the rain to snap the frames that went into this panorama. I built this panorama directly from Nikon NEF files in the Windows version of Affinity Photo. My favorite image processor, Picture Window Pro, is being retired and I am exploring alternatives. I rather like this result.



My mother as a seven-week-old baby. This 1935 picture was printed on patterned paper. Patterned paper often adds luster and depth to photographs but it also makes it more difficult to retouch them. The Affinity Photo FFT (Fast Fourier Transform) Denoise filter can remove regular patterns without unduly softening images.

As you can see the entire picture is covered with tiny regular hexagons. Patterned prints were popular in the early and mid-20th century. The pattern adds depth and luster and has the nice side effect of making prints difficult to copy. Patterns also make retouching difficult. Retouching spots and scratches on patterned backgrounds tends to make them more, not less conspicuous. If only there was some way to remove the damn pattern before retouching. Affinity's FFT Denoise filter does just that.

I applied the FFT Denoise filter to my mother's baby picture and then ran through my regular retouching regime: see the before and after diptych on page 325.

Affinity Conclusion

Affinity, like PWP, is a great value. The first Windows version is already superior to every version of Photoshop Elements I've ever used. It's not as comprehensive as full Photoshop, but if you subtract the marginal features of Photoshop and keep the essential core elements, you've basically described Affinity's feature set. Affinity is a layer editor but it's not a Photoshop clone. The UI is completely modern, RAW development is built in, sixteen-bit layers are the default, and useful stack operations like automatic alignment are a click away. Affinity also supports thirty-two-bit HDR file formats and high dynamic range composites. There's a lot of bang for the buck: strongly recommended!

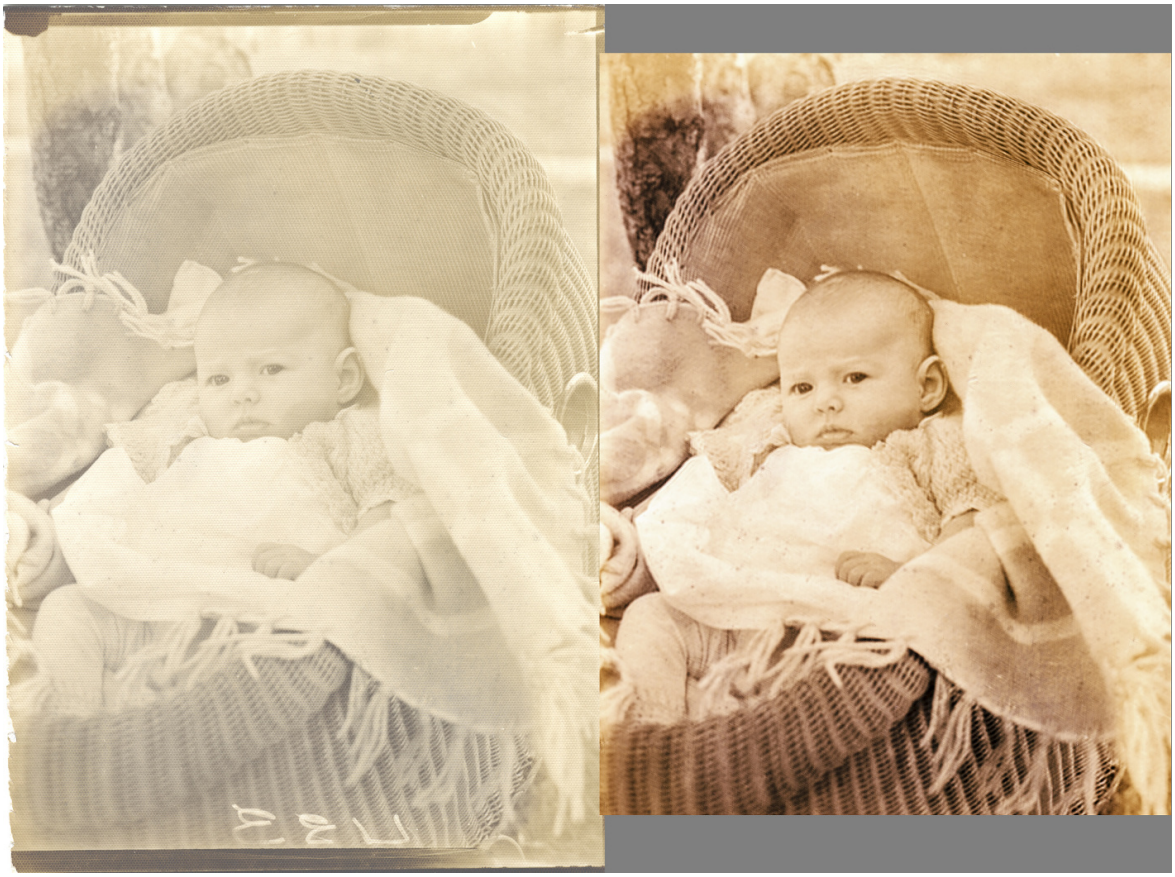
What is Required: Hybrid Books

Posted: 25 Mar 2017 17:15:25

It's time for another product suggestion. Last year I threw out the need for caption printing on the back of photographs. It's an obvious thing to do but only a few vendors *partly support* backside caption printing. Eventually, the masses will notice this glaring deficiency, grab their pitchforks, and demand backside captions. We're not a very smart species but we can learn; especially if we're motivated by fear. Today's suggestion is little more esoteric and lacks the "aha-ness" of backside captions.

The world needs a way to combine the virtues of Books and eBooks.

If you read at all I don't need to convince you that books are nearly perfect. The near perfection of the printed book was brilliantly highlighted in Isaac Asimov's famous 1973 essay *The Ancient and the Ultimate*. Asimov's essay is not readily available on-line and that's too damn bad because he completely nailed it. *The Ancient and the Ultimate* should be required reading in English classes worldwide; it's that good!



For some restorations, the ones that please or annoy me, I create a before and after diptych. I want to convince myself that my restoration work was worthwhile. Most of the time the restored image is better but in more cases than I would like the original scan is superior. And, now and then, I cannot decide which one I like the best. This rendering of an old faded patterned print of my mother as a baby is one of those images. The original print is on patterned paper. The pattern imparts a quality that the restoration lacks. Ansel Adams once wrote that the negative is the score and the print is the performance. For restorers, the scan is the score and the restoration is the performance. Sometimes the music is glorious and clear and sometimes it's rap – rhymes with crap!

Plain old printed books are nearly perfect but nearly perfect is not perfect! eBooks do three things better than printed books.

1. **Duplication**: It's easy to copy eBooks.[58]
2. **Portability**: You can carry entire eBook libraries around on your phone.
3. **Multimedia**: eBooks can easily embed sound recordings and video.

Printed books reign supreme when it comes to:

1. **Durability**: There are printed books that are hundreds of years old that are still *human-readable*. Binary formats and media are infuriatingly unstable. I've complained about this in the past and I will continue bitching until the long-term binary storage problem is solved.
2. **Privacy and Security**: eBook readers, cell phones, tablets, and laptops can be hacked. Plain old printed books do not spy on you or mutate while you're reading them. They also don't bombard you with hard to ignore advertisements.
3. **Aesthetics and Beauty**: Great printed books are extremely valuable works of art. It's going to be a long time before eBooks command such respect.

Given that eBooks have a few virtues that printed books do not the obvious question is, "Can we combine the two and form a more perfect book?" Of course, the answer is yes but, like I warned you with backside captions, don't hold your breath!

A proper Hybrid Book, or *hyBook*, will look, smell, and taste like a printed book. It will have all the glorious heft of a thick well-bound tome but embedded within it's covers will be a machine readable version of the book. Ideally, the embedded digital version would be something like an RFID capable of storing a few gigabytes of data for at least two centuries without bit rot.[59] To maintain a high level of privacy and security the digital version must be completely off-line, passive, battery-free, immutable, and hashed with the hash prominently printed on a number of pages of the printed version. Such a hyBook would combine the virtues of the printed and digital worlds.

hyBooks, like their conventional printed cousins, would be durable and *human-readable*

[58]This only applies to non-DRM'ed eBooks. DRM'ed eBooks are broken. They should be avoided at all costs and their publishers should be tarred and feathered and stuffed head first into septic tanks.

[59]Currently, (March 2017), there is no cost-effective *durable and passive* technology that can store a digital image of a book within its covers for two centuries.

over long periods. This sharply contrasts with eBooks. *eBooks, with their lamentable DRM policies, geographic restrictions, user monitoring, oligopolistic pricing, and built in obsolescence are essentially self-burning books.* You cannot depend on eBook longevity because you don't control them; they can be conveniently memory-holed without warning. With hyBooks you are in control.

Finally, hyBooks mitigate the most important limitation of printed works: duplication difficulty. As we move into an increasing DRM'ed and censored future with every aggrieved party screaming for limitations on free speech it will become more important to preserve, duplicate, and distribute offensive, blasphemous, pornographic, and opprobrious *wrongthink*! With well-distributed and hidden hyBooks functioning as highly redundant off-line backups it will be extremely difficult for authorities to suppress ideas. Whenever some *twad*[60] forces the content of a hyBook off-line it will pop up again somewhere else. To memory-holing censors everywhere hyBooks will be like floating turds; one flush will never suffice. Is there any better recommendation than that?

FCC Follies and Monkey Browsing

Posted: 31 Mar 2017 04:03:15

There is much wailing on the *intertubes* about proposed changes to FCC Internet privacy rules. That horrible orange Russian stooge is desecrating the Lightbringer's enlightened decrees, and the usual suspects are having boringly predictable conniption fits. Apparently, our Internet privacy is *now* under attack, and horrible things will ensue. You poor dumb fucks. You have no Internet privacy; you never did! I'm amused by Obama worshippers wetting their pants over Internet privacy; didn't that entire Snowden thing happen while The One was pushing back the seas? Isn't it a tad hypocritical to whine about the FCC, a very little fish, when great whites, the NSA, CIA, et cetera, are feasting on fools?

Now, pay attention; I am only going to explain this once. If you are concerned about Internet privacy you have to look out for yourself. The FCC is not going to help you. Congress will not rush to your aid. The President, orange or black, will not defend your interests. *Government, as it is currently constipated, only serves the donor class.* Unless you are injecting large bribes into "the political system," you do not have effective representation. I realize it sucks to be a peon, but all is not lost. You don't have any Internet privacy, but you are not powerless.

[60] **Tw**it **a**sshole and **d**olt: pejorative invention is one of my many specialties.

The proposed change in FCC rules is predicated on the assumption that your browsing history is valuable. It seems there are profit-driven corporations out there that care about how many cat videos you watch and whether you swipe left or right. They presume that with enough data mining of your clicks, tweets, and pokes, they can craft cruise missile ads that will fly under your bullshit radar and score direct hits on your "buy our shit buttons." This entire shaky premise can be trivially undermined by simple cheap peon countermeasures.

There are two basic approaches: VPN and Dirty Data.

If you want to stop Verizon, CenturyLink, Charter, Comcast, or some other evil mega-corp ISP from recording your browsing history, start using a VPN service. There are many VPN providers available now, and this FCC ruling will probably encourage the formation of even more. See, the FCC is making VPNs great again!

VPN prevents the man-the-middle from being able to view your browsing history, but unfortunately, all this does is transfer your browsing history from a mega-corp ISP to a mega-corp VPN. If your VPN is in the good old *fuck-You-S-A*, it could still sell your porn rights to the highest bidder. If you go with a VPN provider, choose one that's based outside the US.

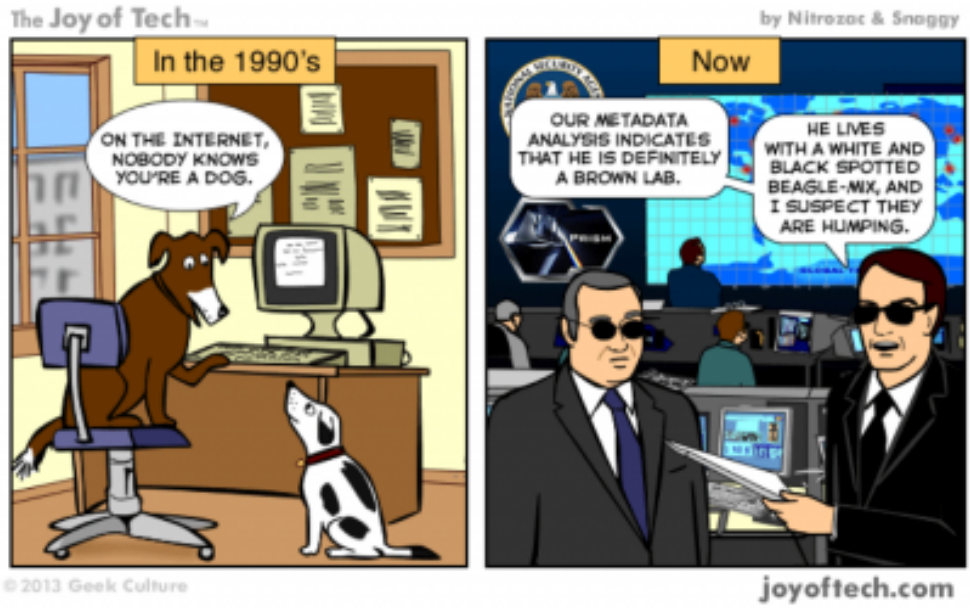
I'm a fan of VPN, but if many peons start bypassing their mega-corp ISPs with VPN, our ever-helpful government will probably amend the abominable DMCA act and declare the personal use of VPN an act of domestic terrorism! I know this sounds crazy, but these days it's a criminal act in the United States for farmers to fix their own damn tractors if the repairs bypass or replace embedded device software. Yes, intellectual property rights are that screwed up!

VPN is a viable countermeasure *for now*, but Dirty Data is a countermeasure for the ages. Dirty Data works by sabotaging data. The idea is simple, cheap, and extremely effective. Before data miners can extract digital gold, they have to purge the garbage in their databases. For most corporations, cleaning data is an ongoing struggle. It's always time-consuming, and expensive, and it always threatens the ROI of analytic projects. If there's too much shit in the ice cream, the mixture tastes more like shit than ice cream. So how do you mix browsing history shit into mega-corp ISP ice cream?

If you have lots of free time and you really, really hate your ISP, you can strike back with *monkey browsing*. Monkey browsing is an updated version of that famous monkey on the typewriter. To monkey browse, visit random websites and randomly click crap on each site. With judicious keystroke timing, it will be a royal pain for

your ISP to extract your real browsing history from your monkey browsing.

Of course, most of us can't devote a few hours a day to monkey browsing but fear not; the *monkey-browser-bots* are coming! It wouldn't be all that hard to automate monkey browsing. Many techniques would work. Trust me, in short order, an army of monkey-browser-bots will be delicately stirring shit into mega-corp ISP ice cream. When the signal-to-noise ratio exceeds mega-corp ISP ROI thresholds, they'll stop trying to filter shit out of ice cream and move to the next corporate delusion. *Peon poop is powerful people!*

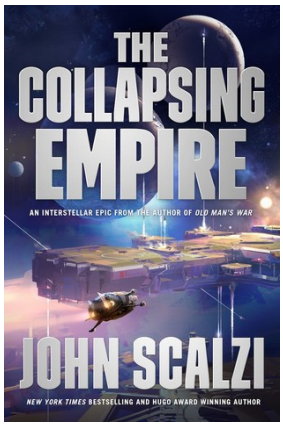


Only cartoonists and comedians are allowed to tell the truth in our grievance-seeking culture. It's not your grandmother's Internet anymore. Surveillance is a fact of life, and as sad as this sorry fact is cheer up! Half the idiots monitoring you are barely capable of locating their own buttholes with both hands and a flashlight. American intelligence agencies have been so wrong, so often, that it's a good idea to always discount whatever they're saying until there is overwhelming independent corroborating evidence. In the meanwhile, you can cheaply punk the "data" they are collecting. Remember, you can whine or undermine!

The Collapsing Empire: Goodreads Review

Posted: 26 Apr 2017 17:13:27

The Collapsing Empire (CE) is a breezy fun to read space opera. Because I rate books on Goodreads mostly on how much I enjoyed them I gave CE a solid four. If you're looking for a few hours away from planet moron (Earth) CE is worth the time. While I enjoyed CE it's unlikely I will be following this series as it unfolds in however many books the author and his publisher manage to flog in the future. I've reached the point in my life where entertainment is no longer sufficient. I demand new ideas and different ways of looking at things from what I read. By this standard CE barely rates a one.



The only moderately new notion here is that of "The Flow." The Flow is CE's magic element. It's the story element that enables a human interstellar civilization. The Flow plays the same role in CE that the ocean does in Moby Dick. The ocean is not considered a character in Moby Dick but try imagining the novel without it! Remove The Flow from CE and you are left with stock characters, stock court politics, stock predictable disputes, and a tiny little universe that, trust me, feels more stunted than a night spent under a clear dark sky looking at real stars.

As a final note: I'd advise the author to refrain from dispensing his opinions about real-world politics. Nothing ruins a book faster than conflating actual authors with their fictional characters. Many years ago I was on the verge of reading Anne Rice's vampire books but then I had the good luck to see an interview of Anne Rice going on about how her characters were her lovers. She wasn't being metaphorical; the woman is nuts. I decided right on the spot that it was unlikely such a delusional nitwit was worthy of my sustained attention. Authors labor under an unspoken Fight Club rule. "The first rule of fiction writing is: stay the Hell out of your fiction writing!"

What is Required: Citizen Environment Sampling Drones

Posted: 01 May 2017 00:34:14

We are well into the drone age. Not long ago drones served only deep-pocketed governments and corporations. This is still the case. Whenever you hear about drone strikes on wedding parties, oops terrorist gatherings, the "responsible" drone is probably a standard overpriced multimillion dollar product of the military industrial crony complex. Why dispatch terrorists with a few bullets when you can spend



It's an airborne "Drone-cue." The age of the drone is just getting started. These gadgets will be put to all sorts of uses. Monitoring the environment, with or without the permission of authorities, is an excellent use of drones.

millions of newly created and freshly taxed dollars instead? War may be hell but business is business.

If things had been left to the druthers of the crony crowd the cozy world of cost-plus drones would have lasted forever but then technology happened. Remember those annoying toy quadcopters that flew around the atriums of shopping malls just a few years ago. You probably thought, "That's a cute toy" Well those cheap little toys have grown up and are now cleaning power lines with flame throwers, carrying drugs across borders,[61] smuggling contraband into prisons, annoying eagles, dropping grenades on ISIS, and taking really great selfies.

Small inexpensive drones are being put to so many creative uses that it's beginning to worry our self-appointed overlords. You don't need crony connections and millions of dollars to launch drone attacks. Any moron with an iPhone and a drone can declare war on the ruling classes. Not many see it but we're entering a golden age of drone assassins. Small drones will continue to improve and diversify. They will fly further, faster and quieter. They will creep, climb, tunnel and bore through any obstacle. Whatever silly government legislation and anti-drone measures authorities concoct will be quickly countered and worked around. The drone genie, like strong encryption before it, is out of the bottle and it isn't going back in. *Basically, if you're somebody that needs killing a drone is being assigned your number right now.*

As much as I enjoy drone enabled asshole termination that's not what I am requiring today. If you've been paying attention to what's precisely labeled "fake news" you've probably noticed that a strange tweeting orange ogre has moved into the White House. Yes, it's the end of the world. One of the ogre's first outrages was to appoint like-minded ogres to allegedly important government posts. Imagine that!

Of great concern to "so-called" environmentalists is the ogre appointed to behead

[61]The advent of drones highlights the utter stupidity of Trump's border wall. How high will the wall have to be to stop drones from flying over it? How many anti-drone-drones will need to be stationed along the wall to secure the border?



Critics of Trump's appointment of Scott Pruitt to head the EPA should keep in mind that the bar for "wrecking" the EPA has been set very low by the Obama administration. It was the EPA that turned the Animas River orange. Yes, it was an unfortunate accident, and sometimes you have to destroy the river in order to save it. Two states and the Navajo Nation are suing the EPA for gross negligence and incompetence and based on images like this I'm guessing they have a case.

the EPA. This cruel EPA slayer is not drinking the Earth first Kool-Aid and appears determined to end the cushy pensioned sinecures of all the left-thinking, environment protecting, comrades. Like I said before, it's the end of the world. Apparently, after a few, and I mean a very few, underperforming EPA comrades are purged this critical government agency will become deaf, dumb and blind.[62] All that wonderful EPA air and water quality data will no longer be collected. Only large infusions of newly created and freshly taxed money can prevent this apocalypse.

For Christ sakes, cry me an orange river!

If you really care about the environment get off your fat corn syrup enlarged ass and collect your own data with drones. I've listened to *cis-lefties* insist they are smarter, fitter and better looking than their evil *cis-righty* counterparts for years. Well, here's an opportunity to prove it. Instead of marching for science why don't you modify or build drones that can actually do science.

One of my favorite scenes in the movie *Erin Brockovich* shows our spunky girl-power heroine played by Julia Roberts[63] sneaking onto the grounds of a power plant to clandestinely sample waste water ponds. She was caught and shooed away but not before she snagged water samples that contained Hexavalent Chromium: the same, *unnaturally occurring*, compound that also turned up in the drinking water of people living near the plant. What a coincidence? Erin may have been a spunky go getter

[62] Considering that the EPA is already deaf and dumb how bad can blind be?

[63] I admit it; I've seen too many Julia Roberts movies. Like many mainly manly men, I have a thing for nice smiles and boobs and no amount of feminist nagging will change that.

but chemistry was the real hero.

Erin was taking a real risk sneaking onto "private property." In many parts of the world, she would have been shot and dumped into the wastewater ponds. How many of us would take such a risk? If only there was a way to reduce the risks of clandestine sampling. If only there was a small, hard to detect, quiet, remote-controlled device that could fly into "forbidden zones", sample areas of interest, and then fly out with physical evidence.

It wouldn't be all that difficult to modify existing drones to do this. It would make a great science fair project. Think of how much better things would be if pinheaded SJWs stopped enumerating new imaginary genders and devoted their time and energy to mastering the technology required to build and operate sampling drones. Instead of being an embarrassing stain on humanity they might actually do some good.

Finally, combine clandestine drone sampling with blockchain based unbannable binary file distribution and it's possible to create the type of "transparency" political buttheads are always blathering about but never actually provide.

I WannaCry about the Plunging Quality of Evil Geniuses

Posted: 18 May 2017 04:23:12

I have something to confess; I have no patience or sympathy for idiots. When imbeciles impale themselves on reality I smirk and guffaw. With such a nasty attitude it won't surprise you to learn that I really enjoyed the recent WannaCry Ransomware cyber attack. Judging from the mewling soiled diaper press you might conclude civilization was dealt a death-blow and that idiot Trump is to blame.

What really happened?

1. The NSA "cataloged"[64] security flaw in Windows XP and didn't inform anyone.
2. The flaw was leaked.
3. Hackers exploited the flaw to infect old Windows computers.
4. They encrypted files and tried to ransom victims using Bitcoin.

It's stupid all the way down!

[64] It's not clear they discovered the flaw but however it was found they withheld it.

To begin, Windows XP is ancient. Microsoft spent years warning people to upgrade to more current versions of Windows. The warnings went on for years and years and years. Yet despite this relentless nagging an army of morons refused to upgrade. Now these shiftless dolts are blaming others.

"Microsoft should support obsolete crap forever for free."

"Teresa May didn't give us enough money to upgrade our computers."

"What's the point of rudimentary computer security when Trump is going to nuke us?"

Most WannaCry victims are suffering self-inflicted wounds. Let's hope some of them bleed to death.

As for the NSA, that festering hive of evil geniuses, you would think they would have learned something from the strong encryption battles and the Snowden affair but apparently not. Judging from recent history the NSA stands for NOT SECURE AGENCY. They're leaking more than a menstruating woman without sanitary napkins. The entire notion of stockpiling software defects to use at a later date is cosmically stupid because it presumes software is static. Software is always changing: sometimes for good reasons. Your backdoor will probably close with the next compiler or OS release. Some quality assurance drone may notice your favorite backdoor and release a patch. This happens all the time, just read the notices that accompany standard updates and patches. At best stockpiling defects is a short-term tactical gimmick. Frankly, I expect more from the deep thinkers at the NSA.

It's sad but evil hacking geniuses still depend on dumb users. The odds of obsolete, unsupported, and unpatched software being able to fend off NSA hacks is low but it rapidly approaches zero when dimwitted dolts respond to phishing attacks. How many "don't click on unsolicited links" warnings must be issued before corporate cubicle warmers smarten up?

"But if I don't click on this link I might miss consuming more useless crap?"

Finally, using Bitcoin for ransom purposes is unbelievably stupid.

WannaCry hackers you're using the wrong cryptocurrency!

The Bitcoin blockchain is darn close to a perfect forensic tool. Once a transaction is recorded on the chain it can never be altered, erased, denied or fudged. You're dropping indestructible breadcrumbs. It's an audit trail on steroids. It's like the idiot WannaCry hackers want to be caught!

Many feeble minds still think Bitcoin is anonymous. This was sort of true in the very early days of Bitcoin when nobody gave a shit about it and no serious money was changing hands. The world has changed. Bitcoin has been outperforming all fiat currencies for the last two years. A single coin is now worth more the $1,700 US – more than an ounce of gold. Serious money is now changing hands in the Bitcoin universe and when serious money is present the usual financial rapists and apex predators, your local taxation authorities, descend like vultures on a carcass.

Because the blockchain is immutable and open it's relatively easy to de-anonymize. An entire software industry has sprung up to do just this. Once you associate a person with a Bitcoin address you can easily and reliably follow the money. De-anonymizing Bitcoin has been going on for years. I just assume the entire blockchain is already de-anonymized which makes Bitcoin just about the worst possible choice for ransoms.

Despite all the amusing stupidity on display here, the WannaCry hack has inadvertently established a proper baseline test for an advanced privacy preserving cryptocurrency. *A proper private and secure cryptocurrency should be a nearly perfect money laundering tool!* I'm looking forward to the day when real evil geniuses, not WannaCry wannabes, stage a massive ransomware attack, collect a massive buttload of untraceable coin, and then spend it right under the noses of the word's taxation and intelligence agencies. When this glorious day arrives we, the little wage slaves, the deplorables, the lumpen-proletariat, will finally have some financial privacy! Remember, if your money isn't free then neither are you!

Until then I just WannaCry!

I Help Fat Little Kim Pick Nuke Targets

Posted: 13 Aug 2017 01:41:56

Guam?

Guam?



Kim, you can't be serious! I realize you live in a self-imposed hermit kingdom where questioning your fat headed notions results in being thrown to actual dogs but surely you're aware of *Baker's Law of American Cluelessness.*

No matter what the topic of conversation roughly one-third of the American public won't have a freaking clue what you're talking about.

I can assure you that an embarrassingly large percentage of Americans have no idea where, or what, Guam is and, even more disturbingly, even if they know it's an island somewhere in the Pacific they may think it's in danger of tipping over if too many people stand on one end.

Let's suppose you lose your mind, (I'm being sarcastic Kim), and nuke Guam. If we don't immediately destroy you can expect this from the American public.

1. Eco-morons and Green-twits will start worrying about nuclear fallout drifting ashore in California and write earnest ignorant Internet screeds about isotopes of Iodine. Kim, as a devoted Korean hater of all things Japanese, I'm sure you remember the great Japanese earthquake and tsunami of 2011. Isn't it great when nature kills your enemies for free? More than 15,000 Japanese citizens died and, oh yeah, the tsunami also wrecked a nuclear power plant: Fukushima. American eco-imbeciles quickly forgot about the earthquake and the thousands of dead bodies scattered by the tsunami and started worrying about traces of Fukushima radiation polluting their pure bodily fluids. If you blow up Guam these idiots will ignore your glorious Guam body count and start agonizing about radioactive kale and the impact of fallout on the transgendered.

2. Old school American commies, (yes Kim we still have them and they're even more delusional than your commies), will look past your selecting Guam as a target, issuing orders to attack it, and them calmly murdering thousands of innocents and find some way to blame a white capitalist guy. *You see Kim, as a nonwhite Asian dude, you have no moral agency.* Even if you think you are making choices it's really just a reaction to what some white capitalist guy did to you, or your bat-shit crazy dad, or some distant ancestor, at some unspecified time in the past. *Nothing is ever your fault.* This is good news for professional western victims but kind of tarnishes your great Asian conqueror image. For western commies, there are no Asian Genghis Khan's.

3. Our uniformly imbecilic *fake-news-ers*, also known as the media, will finally have a topic worthy of 24/7 bloviating. They'll be thrilled that an atomic emergency might result in people watching them again. Of course, they'll quickly sabotage their transient relevance by staging talking-head-a-thons about "proportional responses" to being nuked. If a misunderstood adversary uses a forty kiloton nuke on your civilians is it a crime to retaliate with a megaton?

4. Finally, most of the American public will be deeply pissed. They'll cheer when a submarine pops a thermonuclear cap in your fat ass.

Kim nuking Guam is a big suicidal mistake. Don't get me wrong. I enjoy grand gestures and heroic deaths. Achilles didn't garner eternal glory by coming home from the Trojan War and growing olives. I know you're under pressure to live up to dear dead old dad and to dearer older deader granddad. I know you feel inadequate and will never be worthy of the aggrandizing bullshit you force feed your people. So let me help you by selecting nuke worthy American targets. Don't misconstrue my help. If you hit any of the following we will still exterminate you and your comrades.

Instead of Guam consider:

1. **Washington D.C**: I can't think of a more nuke worthy target. I know D.C. may be a long shot for your tiny-penis-ICBMs but if you can hit D.C. please have a whack. Trump's swamp draining hasn't been going very well. Maybe a swamp nuking would be more effective. The downside of nuking D.C. is that many Americans would secretly cheer it on. We'll appreciate the irradiated swamp but we'll still nuke you in return.

2. **Los Angeles, especially the Hollywood'ey bits**: Americans love their vacuous entertainments and the empty-headed narcissistic preening nitwits that make them. You can't imagine what a death-blow it would be to forego the next Marvel movie or another ManBearPig lecture. We'll miss the Hollywood Sign and the Griffith Observatory but eagerly look forward to next years Dead Celebrity Roll at the *relocated* Oscars. Oh, we'll still nuke your ass, even for Hollywood.

3. **Silicon Valley**: Recent Goolag'ey events have many Americans wondering if the hubris infused innovators of Silicon Valley have lost their mojo. Detonating nukes will take their powerful minds off disturbing notions of gender based intellectual differences and focus them on finding blast proof safe spaces. *Great minds need real problems.* Kim, about the only downside of nuking Silicon Valley, is that Facebook won't be able to tally your "Likes." It sucks to be radioactive rubble. Oh, and we still nuke you.

4. **Portland Oregon and Seattle Washington**: Oregon and Washington would be relatively sane states if these tumors were excised: just saying. Oh, we still nuke your ass.

Kim, you can't win but with judicious target selection, you can *make a difference.* As a wise shoe maker once said: "Just do it!"

Idaho Statesman Regurgitates High Precision Hate Calculations

Posted: 18 Aug 2017 01:53:53

The other day while eating lunch in my employer's cafeteria I picked up the fish wrap version of the *Idaho Statesman*. My employer kindly subscribes to the Statesman and scatters copies around the office so I don't have to spend my money on what is usually a slightly left of center, sane, and boring publication. The *Statesman* is constrained by the decidedly right of center leanings of Idaho but on some days they let their inner left-wing freak fly and boy did it fly when they boldly reported: Idaho named the second-most hateful state in the U.S.

I always thought we were number one!

I read the article to see who beat us in the prestigious hate rankings and would you believe Montana.

Montana?

My Spidey statistics sense started tingling. Was it my fault? In the last year I have lived in both Idaho and Montana, and being a hate group of one, *I hate the sloppy use of misleading statistics*, I may have skewed the rankings. Some co-workers remarked that if I only I had moved from Montana earlier Idaho would be number one.

Whenever I see overtly political opinions expressed with decimals I set my bullshit detectors on eleven and start analyzing the data, not the drivel.

Exactly how were these state hate rankings calculated? Here is how it's done.

1. The South Poverty Law Center (SPLC) has developed a precise scientific instrument that determines if arbitrary groups of people are a hate group. Compared to the SPLC hate group meter LIGO's detection of gravity waves is just trivial physics. In case you are wondering I am being sarcastic. There are no hate group meters! SPLC designations cannot be checked like the mass of the electron can be checked. They are merely expressing opinions about groups they don't like. However, for the sake of calculation, *let's assume SPLC hate group counts reflect some fundamental reality.*

2. State hate rankings are expressed as hate groups per million. For example, Idaho's ranking is 7.1/million. This value is computed by the simple formula.

$$(1000000/StatePopulation) * (SPLCHateGroupCount)$$

Plugging in the SPLC values for Idaho we get:

$$(1000000/1695178) * 12 = 7.078902629$$

Which, when rounded up[65] to one decimal, equals 7.1; this matches the value reported by 24/7 Wall Street: the primary source cited by the *Statesman*.

I put together a little spreadsheet that applies this naive calculation to the ten most hateful states and it completely replicates the 24/7 hate ranking. The recalculated values are shown below and if you really must check my calculations you can download my spreadsheet from here.

State	Population	HateGroups	PerMillionRatio	CalcHateFactor	RepHateFactor
Montana	1,052,343	10	0.950260514	9.502605139	9.6
Idaho	1,695,178	12	0.589908552	7.078902629	7.1
Mississippi	2,990,113	18	0.334435521	6.019839384	6
Tennessee	6,705,339	38	0.149134891	5.667125853	5.7
Alabama	4,884,115	27	0.204745384	5.528125362	5.6
Arkansas	3,000,942	16	0.3332287	5.331659192	5.4
Kentucky	4,450,042	23	0.22471698	5.168490545	5.2
Virginia	8,492,783	39	0.117747033	4.592134286	4.6
Missouri	6,123,362	24	0.16330898	3.919415511	3.9
Indiana	6,663,280	26	0.150076239	3.901982207	3.9

http://worldpopulationreview.com/states/

Now, for extra credit, what is wrong with this calculation? Remember, I am assuming SPLC's dubious and entirely subjective hate group counts are correct and I am using current state populations. So what is wrong? What renders this apparently precise analysis utterly meaningless, deceptive, and frankly so stupid that numerate adults should be embarrassed to parrot such nonsense in public.

If you haven't spotted the problem yet ask yourself. "How big are these hate groups?"

I come from Montana. It doesn't surprise me that Montana harbors ten "hate groups", but what does that mean? It probably means there are a few dozen nuts running around in fatigues kicking dogs and yelling at people to keep off their property. *You need to know how many people are in the "hate groups" to calculate a meaningful per capita statistic.* ***Group hate is not a thing but individual hate is!***

[65]The SPLC is a left-wing organization so they will round-up. White supremacists and other *wrong-thinkers* will round down.

I suspect the 24/7 authors and the *Statesman* know that ratio ranking is, to use a millennial word, "problematic", but we all know the primary purpose of such facile reports (fake news) is to provide a seemingly credible reference that can be re-tweeted, and linked, *ad infinitum* by innumerate partisan dolts when they're enjoying their five-minute social media hates.

Still Totally Awesome

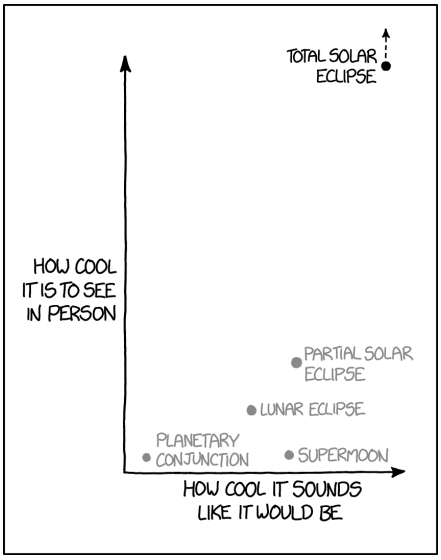
Posted: 27 Aug 2017 20:36:53

The total solar eclipse of August 21, 2017, was my fourth complete solar eclipse. I've seen two annular eclipses, 1994 and 2012, and two total eclipses, 2001 and 2017. Annular eclipses, or rings of fire, are worthy spectacles but nothing compares to a total solar eclipse. Some things have to be experienced to be fully appreciated. Unless you have stood under the Moon's shadow you don't really know what it's like. Pictures and recordings all miss the mark. Maybe one day, when virtual reality directly hooks into all our senses, it may be possible to record totality but until then you have to get under the Moon's shadow and, this is absolutely crucial, *only totality counts!*

Here in the Boise Idaho area, many people decided 99% was good enough. This is not even wrong! The August 21st eclipse took place right in the middle of Western Idaho State Fair and like all make a buck opportunists the fair promoted an "enjoy the eclipse with us event." There was only one problem: Boise wasn't in the totality zone so advertising dollars were spent reassuring fair-goers that 99% was close enough; that a measly 1% difference was no big deal; that it wasn't worth refraining from shoveling junk food down your obese pie-hole on the overpriced midway. Cosmic spectacles cannot be allowed to suppress the bottom line.

Fortunately, I knew better. The difference between 99% and 100% is vast. Solar eclipse awesomeness is not linear! It's actually more like a logarithmic step function with a really big step at totality. XKCD accurately summarized this his with recent eclipse cartoon. He correctly notes that total solar eclipses are off the scale.

There was no way I was going to miss totality, especially when it was almost in my backyard, so we got up at 4:00 am on the 21st and headed east to Mackay Idaho. I'd already driven around southern Idaho and Oregon scouting eclipse watching locations. My preferred location was on Sunset Peak in the Lost River mountain range of Idaho. Unfortunately, Sunset Peak required that we climb the mountain the night before, camp out near the summit, and then wait for the eclipse the next morning. It would



XKCD accurately notes that total solar eclipse "coolness" is off the scale. Totality is on an entirely different plane than partial or annular eclipses.

have been cool. Sunset Peak is slightly over 3,050 meters with nice views to the west and east. It would have been possible to watch the Moon's shadow race over the Boise and Sawtooth mountains, blacking out one peak after another. I was all ready to pack up and go but my wife no longer camps out in tents. This is a problem I am still working on.

With the mountain summit vetoed we checked out the Snake River Valley near Huntington Oregon and Stanley Idaho. Both locations are very scenic but both required traversing easily congested roads. To ensure totality we would have had to go the night before. So we were right back to camping in tents. My third option Mackay Idaho was a nice mixture of, easily reached on good roads, large enough to find parking on public lands, and far enough out-of-the-way to avoid big crowds.

Mackay is about four hours from Meridian. To make it before first contact, shortly after 10:00 am local time, and to miss projected heavy traffic, we started at 4:00 am. In retrospect, we could have left later. Traffic was light on I84 and almost nonexistent on Idaho highway 20. We hardly saw another car until Highway 20 crossed the road to Sun Valley. Sun Valley was in the totality zone but it was too far from the center line for me. Leaving early paid off when we reached Craters of the Moon: a smoke reddened Sun was creeping over the eastern horizon and illuminating the black volcanic flows.

Turning north at Arco Idaho we headed north to Mackay. There was more smoke in the air than I would have liked. The further north we went the thicker the smoke



We left Meridian at 4:00 am and headed east to Mackay Idaho to see the eclipse. On the way we caught the Sun rising over the Craters of the Moon. It was a good start to eclipse day.



Getting ready for totality. This shot shows how much forest fire smoke was in the air. The mountains of the Lost River Range are almost completely obscured in the background. The smoke probably reduced our view of the corona at totality but it increased the darkness and helped cast a deep orange red 360-degree dusk.

got. When we reached Mackay you could smell the smoke. Mackay sits in a valley. Details on mountains to the east and west were obscured by smoke but the sky was completely clear of clouds and at totality the sun would be high overhead. I worried about smoke's impact on the corona but I cheered myself up with the thought that sunblock cream wouldn't be necessary.

Being two hours early Mali decided to nap in the car while I walked around Mackay taking pictures. Main Street was blocked off and street vendors were setting up tented stalls and big meat smokers. Others were busy selling souvenirs. Most of the stores were closed. The eclipse was a good excuse for a holiday. I waited in a donut line and chatted with other eclipse tourists. One Maryland couple had just arrived in a rented car from Salt Lake City. A few Italians had come all the way from Naples. I saw lots of Utah, California, Alberta and Nevada license plates. Total solar eclipses gather the multitudes.

After checking out downtown Mackay I drifted back to the Centennial Rest Stop where Spanish science students were setting up equipment to observe the eclipse.



Mackay blocked off Main Street for anticipated eclipse crowds. The number of people that showed up underwhelmed. The only eclipse complaints I am aware of were made by businesses hoping to cash in on massive crowds. Crowds were down over the entire country. Too many people were scared away by horror stories about traffic and the rest bought the malarkey that 99% coverage is close enough to 100%. Eclipses are not tests. That last 1% obscures a vast unfathomable difference.

They had come all the way from Spain to watch the eclipse in tiny Mackay Idaho. The moon's shadow turns even the most unlikely places into tourist attractions. The scientific utility of total solar eclipses in the 21st century is not what it used to be but eclipses do offer great excuses for globe trekking and the re-enactment of historical experiments. The Spaniards were busy preparing weather balloons and getting ready to photograph the corona. They were also making objective lens solar filters for people who brought binoculars and telephoto lens. I considered having some made for my 16x70 astronomical binoculars but decided against it. Instead, I went back to our car, woke up Mali, and then started hauling eclipsing paraphernalia to the viewing area. Unlike many present, we didn't have a lot of gear: just binoculars, three-legged folding stools, cell phones, cameras, and eclipse shades. Shortly after setting up our stools the Spanish students started counting down to first contact. Shortly after 10:00 am the eclipse started.

At first, people were excited to see the Moon slowly nibble at the Sun's disk but they quickly quieted down. I got the impression that many were questioning the so-called awesomeness of solar eclipses. It's just a boring black cookie-bite Sun. What's the big deal? I think many were also surprised by how long it took for the Moon to cover the sun. I'd seen this phase before so I wandered around the crowd taking pictures while the Moon slowly covered the sun.

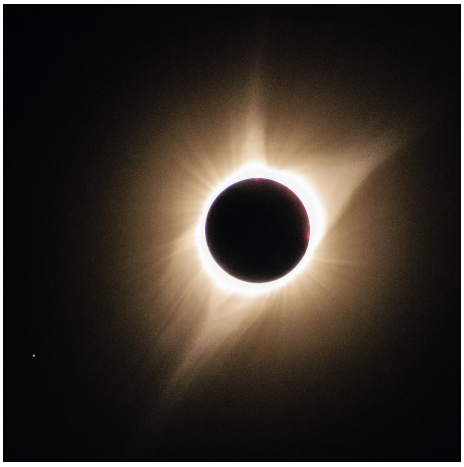
Fifteen minutes before totality the changing light was getting hard to ignore. The



A group of science students came all the way from Spain to watch the eclipse in Mackay Idaho. They brought a collection of telescopes, sun filters, and weather balloons. They released a balloon just before the eclipse, presumably to measure the eclipse induced temperature drop which was considerable. Mackay's elevation is almost 1800 meters. When the Sun goes down the temperature drops. The wind was blowing from the north and their balloon took off towards the south. They probably had a little road trip to recover it.

human eye adapts logarithmically to changing light levels. At this point in the eclipse more than 90% of the sun was covered, dropping light levels by a factor of ten, but it was only in the last five minutes that it became obvious that it was getting dark. I spotted a flock of pigeons gathering on the fences nearby. They were disturbed by the change in routine. As totality approached people started counting down. I peeled off my eclipse shades and glanced directly at the waning light. As the sun squeezed down to a pinhole of brilliant light I saw dazzling rainbow halos around the sun. I'm developing cataracts. When I stare into bright point sources I see rainbow halos. I had never looked at a point source as bright as the Sun and the effect was both beautiful and alarming. I will have to do something about my cataracts in a few years.

At totality, the blasé crowd erupted. Many started squealing, pointing, and yelling. Mali pointed to a flock of pigeons, the same flock I had spotted on the fence before, tearing through the air. I briefly looked all around to see the 360-degree sunset. I was expecting a deep orange dusk all around up but it failed to appear. We were too close to the mountains. Then I pointed my 16x70 binoculars at the eclipsed sun. Three flares were visible and the corona's filaments were as beautiful as ever. The corona was not as extensive as the 2001 eclipse and the core region near the sun seemed brighter. I looked around for planets and stars. Venus was easy. I was expecting to spot Mercury and Mars but the only star I saw near the Sun I later identified as Regulus. I didn't try to photograph my first total solar eclipse but near the end of



I didn't try and photograph my first total solar eclipse but this time I fired off a few 300mm hand-held telephoto shots just to see what might come up. The result was better than I expected.

totality I grabbed my DSLR and fired off a few 300mm telephoto shots just to see what might come up.

Then, as suddenly as it started, the Sun burst forth. One bystander yelled, "Do it again!" The small crowd kept buzzing as more of the Sun was exposed. The consensus was, "Yeah, total solar eclipses are freaking awesome and totality is totally worth seeing." Later, while standing in line to view the Sun and receding Moon through a Hydrogen Alpha filtered telescope, I overheard a fellow in the crowd say, "I'd read about shadow chasers, people who go all over the world to see total eclipses, I thought that was crazy, until today!"

The next total solar eclipse is in 2019. The greatest eclipse is in the Pacific, later the shadow runs over parts of Chile and Argentina. I've always wanted to visit the large observatories in Chile and view the southern sky from the super dark high elevation skies of the Atacama. This with totality is close to amateur astronomer heaven.

Stop Writing Dead Tree Letters to the Editor

Posted: 13 Sep 2017 18:21:01

I don't pay for newspapers anymore and neither should you. The dead tree media is truly and absolutely dead. It serves no function in the modern world and like the What Happened Hildabeast, it needs to FOAD. The collapse of print media and the incontinent wailing of unemployed political operatives with bylines has been duly noted by many and, as much as I love flogging dead horses, that is not why I *blogforth* today. There is one anachronistic section of dead tree newspapers that still amuses

me: letters to the editor.

Who the hell writes letters to the editor these days?

Did these letter writers just wake from a long Rip Van Winkle nap and take up where they left off in the 1960s? Oh, and it definitely is the 1960s. The overwhelming majority of dead tree letters clearly come from the fat furrowed brows of retired old boomer farts that mistake constipation for thought.

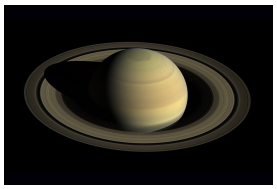
As I have said before, even though I am a boomer, nobody hates them more than me.

There's no point in rehashing the infinitely rehashed. Modern letters to the editor lack the intelligence of blog posts, the pithiness of tweets, the sublimity of poetry or the seriousness of books. They're vain displays. Look at me; I've bamboozled an idiot newspaper editor. Congratulations, you've surmounted a bar low enough for Conga champions.

I think I speak for all of us when I say that we've had enough of your letter antics. Please find your way to the nearest online comments section and unleash your inner troll. And, if you must debase yourself to a larger audience *start a blog!*

Don't be a Weenie Launch Cassini

Posted: 15 Sep 2017 17:27:15



Future generations will remember Bill Clinton for two things, not having sex with that woman and authorizing the launch of Cassini. I was working in Dallas Texas in the months before Cassini's launch. It was 1997 and the Internet was just beginning to disrupt everyday life. Google was morphing from a thesis to a company and abominations like Facebook, Twitter and smartphones were years away. It was a time of CD-ROM games, 56K dial-up modems, bulletin boards, hand crafted HTML websites, and Netscape Navigator. Even in its primitive state the Internet already exhibited many of the things I value and detest about it today. Two events made this abundantly clear. The inane shenanigans that preceded Cassini's launch and the death of Carl Sagan.

I had a few beefs with Sagan. Like all science popularizers he often dumbed things down to misleading levels and, like most *western* academics, he was naive about vicious authoritarian regimes. In Sagan's mind, a handful of exemplary Soviet scientists went a long way toward excusing the Gulag and purges. I overlooked his good-natured

naivety. It was, and still is, a common delusion. Many intelligent people fall victim to the belief that their superior accomplishments endow them with universal wisdom. This is pure classic hubris.

Sagan had flaws but he was also the real scientific deal. He predicted the surface temperature of Venus before it was measured and contributed both scientifically and politically to the success of some of the 20th century's most spectacular space missions like the Martian Viking landers and the epic Voyagers. Even his popular stunts like the Pioneer plaque and the Voyager gold records were classy and compelling. For me, Sagan's most enduring quality was his very public and relentless refusal to buy into irrational bullshit. He rhetorically dismembered idiots that saw faces on Mars and skies full of alien bearing UFOs. The Martian face turned out to an eroded mesa, just like Sagan said it was, and we are still waiting for genuine rigorously authenticated evidence of real UFOs. Sagan's often said, "Extraordinary claims require extraordinary evidence!" It's a maxim I apply every single day and you should too.

The day Sagan died I connected to the Internet with my trusty 56K dial-up modem. I was looking for unofficial Sagan obituaries and boy did I find them. It turns out that UFO cultists did not appreciate Sagan's precise and correct analysis of their unsubstantiated nonsense. Clearly, he was part of the vast centuries old global cover-up. Everyone knows that the Illuminati, the Masons, the Rothschilds, the Jews, and the Jewish aliens in the UFOs, are suppressing UFO evidence: presumably to facilitate draining our precious bodily fluids. *I exaggerate but not by much!* It was my first encounter with unhinged Internet trolls. My already low opinion of the people's intelligence dipped lower. Of course, trolls come in all flavors. There are good trolls, the ones I agree with, and evil trolls, the ones I disagree with. Overall, a free Internet with hate mongering vicious trolls is vastly better than a censored Internet that's been reduced to a giant empty echoing, ruling-class-approved, safe space. "Sticks and stones will break my bones but words will never hurt me."

No matter what you think of the boorish behavior of UFO cultists celebrating Sagan's death it's clear to all, including the UFO cultists themselves that they are, in Douglas Adam's exquisite words, "mostly harmless." No one gives a crap what ufologists (yeah it's a word) think and nobody will pay attention to their ravings until they meet well-defined standards of proof. Sorry guys it's a skeptic's world and we won't be lowering standards of scientific validation for you.

Unfortunately, anti-nuclear don't launch Cassini, nitwits almost aborted what turned out to be an undisputed marvel of our age. I remember these 1997 loons and until

they crawl out from their troglodyte caves, prostrate themselves before the great and powerful Internet, and publicly admit that they were completely wrong about Cassini, that launching the probe was the right thing to do, and that some tiny risks are very much worth taking, I will forever curse, mock, belittle, and remind others of their appalling judgment and sniveling cowardice.

The Cassini launch hysterics began when a pack of dolts noticed the word "Plutonium" in Cassini's press material. Plutonium, oh my god! What are those privileged white devils in JPL up to? The JPL white devils tried to explain how RTG generators work and that a safe reliable compact long-lasting power source was required for operations at Saturn where sunlight is around 0.011 Earth's intensity but math is hard. Way too hard for ideologues triggered by visions of Plutonium saturated Challenger like explosions spreading deadly radiation over a wide area. It was all over hyped rubbish. As of 2017, it's not clear that RTGs have killed a single person in over fifty years of use let alone the tens of thousands the Cassini Cassandras were picturing. The white devils lost patience and did a little back of the envelope calculation that assumed a major Cassini crash that uniformly spread the probe's "deadly Plutonium" over the entire Earth. Given this absurd worst case scenario, how many excessive cancer deaths could we expect? The calculation estimated about 5,000 spread over a lifetime: *not enough to worry about!* Michio Kaku called bullshit on this absurd scenario and quickly concocted his own absurd scenario that had Cassini crashing into a dense urban area with laser guided bomb casualty maximizing effectiveness. This bumped the dark wet dream body count to 200,000. Both calculations were ridiculous. This entire episode is neatly summarized in this Mother Jones (can you believe it) article.

The launch of Cassini and its Earth flyby imposed miniscule risks. Even if things went horribly, *but realistically wrong*, it's unlikely the probe would have killed more than a thousand people. Whenever I hear projected death tolls I convert the statistic into one I care about. *What are my chances of dying?* The Earth's population was roughly six billion in 1997. The chances of Cassini killing me was at most one in million and probably much less. What type of whiny cowardly snowflake would give up the glories of Cassini for one in million odds of something bad happening? I would have accepted much worse odds.

I wasn't the only one willing to take an infinitesimal risk to advance human knowledge. Just before Cassini's launch the anti-Cassini mob planned a march in Washington to screech, wave banners, and go full incontinent leftist ape. In their bush baby brains Cassini had to be stopped. Before 1997 protesters rarely faced counter protesters but Cassini touched a deep nerdy nerve and a small band of pro-Cassini protesters showed up shouting "Don't be a weenie, launch Cassini," and like the Greeks at Marathon,

they drove the stunted grunting anti-Cassini beasts from the rhetorical field. I like to imagine the "don't be a weenie, launch Cassini" ruckus stirred Bill to take a break from dipping cigars in intern vaginas and get on the phone to authorize Cassini's launch.

Today the pro-Cassini protesters would be erroneously described as "alt-right." *Actually, they were simply and absolutely right* as hundreds of thousands of stunning Cassini images, thousands of scientific papers, and dozens of unexpected discoveries about Saturn and its Moons attest. Cassini exceeded everybody's expectations. The Voyagers were the greatest space probes of the 20th century and Cassini is the greatest of the 21st so far. If we're lucky we'll see Cassini surpassed and that is something to look forward to.

EquiFucked

Posted: 26 Sep 2017 22:41:45



If you have the misfortune of dealing with US Fuckancial orifice Insertions (Financial Institutions) you've probably heard of the Equifax hack. Equifax is one of three large companies in the US that collect, without your explicit approval, personal credit information to compute credit scores. Your credit score is a single number that *allegedly* measures how likely you are to pay back loans. Credit scores are no longer used just for assessing creditworthiness. They've slowly become proxies for literacy, intelligence, and honesty. In today's USA, it is illegal in many states to test a job applicant's literacy or IQ. In others, you cannot ask if they have a criminal record. Fortunately, for HR drones everywhere, there are no laws barring credit score enquiries. Oh sure, you can refuse to allow a potential employer to look up your score but if you want the damn job you're more or less forced to bend over and enjoy a scoring.

I first met credit scores in the 1990s. After two decades of living in Canada, I returned to the US for a job. In the early 1990s few companies requested credit scores on job applications but if you tried to rent an apartment the first thing they asked for was a credit score. I didn't have one at the time and this turned out to be a major problem. I calmly explained that I had lived outside the US for my entire working life and had never taken out a US loan, used a US credit card, or secured US credit of any form. I was an alien freak, possibly dangerous, and certainly, someone to be wary of.

My situation wasn't unique. In the 1990s large numbers of American immigrants, both legal and illegal didn't have credit scores but, how can I delicately phrase this, their predominantly dusky hues forestalled aggressive credit score seeking by lawsuit averse bottom feeders. My hue didn't help. My status as an educated, articulate, white guy without a credit score was an unfathomable anomaly to the simpletons that process apartment applications. I eventually straightened this out but I had to get a letter from my employer that disclosed my salary and, even then, the simpletons had to phone my employer's HR department to make sure I wasn't trying to soil a sacred one bedroom dump with my unscored person. The entire episode pissed me off.

Who allowed large, clearly inept, credit agencies to collect detailed personal information on pretty much every person in the US? Even worse, what bit of arcane intellectual property law, gives credit agencies the right to apply, "proprietary" - meaning opaque undisclosed bullshit - algorithms to their pilfered information to compute an index that nobody outside the agencies can vet for accuracy or relevance? Finally, who continues to tolerate their criminally negligent handling of sensitive data? I would be willing to bet big bucks that the EquiFucks didn't even encrypt the data that was hacked. I work with corporate databases and you would be surprised at how often things like Social Security Numbers are stored in plaintext. Meaning any disgruntled ITer, and there are a lot of bitter disgruntled ITers, could easily replicate the Equifax hack.

The EquiFucks know they are in deep dodo. Three company executives conveniently unloaded company stock after discovering, *but before disclosing* the hack, and today the CEO "voluntarily retired." I know it looks like they're pulling the ripcords on their golden parachutes but I'm sure it's all as innocent and kosher as unleavened bread. The EquiFuck is so bad that the traditional stern admonishment to never do it again followed by sizeable donations to political accomplices probably won't cut it this time. I better see some perps in prison.

Sending EquiFucks to prison, while gratifying – their agony will be delicious – won't fix the real problem which is the collection of immutable identifiers like Social Security Numbers. I've raged about the idiocy of Social Security Numbers before and until we move to a proper private and public key based identification system EquiFucks will just keep happening. I could care less if the EquiFucks of the world store my public key. Without my private key, which I, and only I know, it cannot be used to find shit. Of course, this will destroy the business model of financial predators like credit score companies but, paraphrasing Mao, you've got a break a few eggs now and then.

The Mass Kill as Performance Art

Posted: 08 Oct 2017 20:50:08

It's been almost a week since the Las Vegas Mandalay Bay massacre and the idiot media is still looking for "a motive." They remind me of O.J.'s fruitless search for the "real killer." I don't watch the alphabets, except when trapped in airports or, with increasing annoyance, in my employer's cafeteria so I've missed days of mindless speculation but my limited TV sampling confirms what's easily gleaned from more efficient news sources. The killers "motive" is still unknown and the authorities are still looking.

In all the blather about the mysterious highly organized and thoughtful killer, it's never occurred to anyone (on TV anyway), that the lack of an apparent motive is exactly what the killer hoped to achieve.

Consider the usual mass media slaughter script. An individual, or group of individuals, attack and murder a sufficiently[66] large number of "innocents."

If, as is often the case, the attackers are well-known terrorists they will typically gloat and issue more threats. Public threats trigger the idiot media's "analysis."

If the terrorists are Jihadis the idiot media will downplay the attack while issuing stern warnings about not jumping to racist conclusions about an "entire religion." Then, when forced by competing news organizations like Fox or right-leaning bloggers, they will join the fray and condemn the killers while searching for a way to blame Trump.

If the killer is black and the victims are black — well this isn't news! Press the ignore button and complain about anything that can be plausibly blamed on Trump. And, fortunately for the idiot media, that well will never run dry.

If the killer is white and the victims are *mostly white* (bingo for Las Vegas), spend a day or two glorifying the murderer. Review his[67] typically pathetic and meaningless life while running candlelight vigils, peace garden plantings, and out-of-tune *Kumbaya-a-thons* in the background. In more sober moments touch on the "known motive" for the mayhem. Tut-tut the violence, reassure moronic viewers that violence is never the answer. Play a few bars of *Imagine* then, when appropriate mourning turns to anger, use the "known motive" to pivot to what the idiot media wanted to talk about

[66] Sufficiently large is an ever-increasing natural number that is now greater than ten.

[67] The overwhelming majority of mass killers are male.

from the beginning: *gun confiscation.*[68]

The sooner the idiot media can get "the motive" out of the way the sooner they can get down to one of their favorite topics. Sadly, the Vegas killer, being an intelligent and detail oriented psychopath, anticipated this and left no clear motive forcing the idiot media to fixate, like a dog licking its ass, on "the motive" for day, after day, after day. Every day spent discussing "the motive" inflates the killer's infamy. He's already the most famous mass killer in recent history.

Real villainy requires incomprehensible dread and clear motives eliminate dread. When Jihadis kill it's no big deal. Their sky fairy manual exhorts true believers to behead, enslave and tax infidels. It's hard to imagine a violence-free way to realize such goals. When black hating psychopaths open fire in churches the idiot media have ready-made dread dispelling explanations. If you can quickly explain an atrocity it almost ceases being atrocious. But, if the horror can never be explained, if it sticks in your existential craw, it remains a source of terror forever. This is what the killer was really aiming for.

I view the Las Vegas massacre as deadly performance art. The killer has more in common with "artists" that drop their pants in public and pee on crucifixes than cause-driven revolutionaries or garden variety psychopaths. What exactly motivates public "performance" crucifix urination? To even ask the question is to mock it. For one deadly night the Vegas killer staged a performance that upstaged all the other Vegas shows and unlike another showing of *Cirque du Soleil* or *Menopause the Musical* his performance will be remembered forever. *The mass kill is a new art form and the idiot media is its biggest patron.*

Review: The Way We Die Now

Posted: 18 Nov 2017 18:11:53

The Way We Die Now is not the best book I've read this year but it may be the

[68] It's impossible to have an intelligent debate about guns in the US is because neither side is willing to discuss their ultimate goals or take responsibility for their positions. Gun controllers secretly want the second amendment appealed and all existing guns confiscated. Nothing else will satisfy them. They naively think an unarmed society will never be abused by the state. Gun holders often point out that the second amendment was never about creating a safe and secure society but about erecting deadly barriers to government tyranny. Unfortunately, they're unwilling to admit that a heavily armed populace will result in large numbers of firearm deaths. US gun deaths are an order of magnitude greater than comparable western societies: that tree of liberty is more bloodthirsty than expected.

most important. In Seamus O'Mahony's opinion, modern society has forgotten how to deal with death. There are many reasons for this, the collapse of religious belief, the demolition of the extended family, the triumph of the scientific and rational worldview, even our delusions of curing death "real soon now" contribute to our collective denial. Yet death persists. Death remains absolute, sovereign, implacable, terrifying, "majestic and cruel." Even if we realize our *singularity fantasies* and greatly extend life death will never be banished. Even the gods die! We must face death, but must we turn it into a carnival of "medical excess?"

I have seen medical excess. My mother was diagnosed with Stage IV Glioblastoma: a form of brain cancer that is so deadly it's been nicknamed the terminator. Actually, the terminator is flattered by the comparison. Some survived their encounter with fictional terminators. Nobody survives stage IV Glioblastoma: "there is no stage V." When I heard mom's diagnosis I looked for actuarial survival statistics. Credible statistics for common fatal diseases are harder to track down than you might expect. I eventually found a paper that cast survival times in a useful form. Median survival was less than three months for younger and healthier patients than my mother. She died about two months after her diagnosis - right on statistical schedule. The universe does not make personal exemptions.

Her death was inevitable, but the expensive, futile, painful and isolating medical gauntlet she endured was not. She just wanted to go home, perhaps to "turn her head to the wall," perhaps to binge on *The Big Bang Theory* - she still enjoyed a few silly shows. It doesn't matter what the dying choose to do with their remaining hours, but it sure as hell matters that we honor their choices and the *Way We Die Now* makes a compelling case that we are failing "to be brave." I know I acquiesced to the *medial default* for my mother; I still feel I should have fought harder for *what she wanted*.

According to O'Mahony, the *medical default is full intervention* even when it's pointless and wasteful. He also notes that doctors are in a no-win situation. If they suggest doing nothing they're accused of euthanizing patients. If they go full interventionist Rambo they're inflicting needless suffering and profiting from the dying. Both extremes often end up in court, as if we could fix death with more litigation. Obviously, something in the middle is the best course and O'Mahony argues that doctors should not set the middle course.

Our infantile society needs to grow up and face death like adults. Nothing makes our magical thinking about death clearer than Somerset Maugham's[69] observations

[69]The Way We Die Now relates many stories about "celebrity" deaths.

about a "dog's death." Maugham hoped he was lucky enough to die a dog's death! A dog's death is meant to be a horrible thing but is it really worse than human medical excess? When it comes to sick animals we are clear-headed and compassionate. We don't subject them to futile treatments, we make them comfortable and take away their pain. I once had a cat that came down with pancreatitis. She wasted away on the top of our fridge until one day we took her to the vet. Her death was calm and without terror. My cat had a better death than my mother. I suspect many pets die with greater dignity than their owners. This is fundamentally wrong and we all know it.

There are no easy answers; it sucks to be mortal. We can't say until we face it ourselves how we should die so how can we dictate to others? I only hope that when my time comes I have it within me to follow the one bit of advice O'Mahony offers that may apply to all us – "be brave."

Downloading SmugMug Captions with Python and Jupyter

Posted: 24 Dec 2017 20:38:48

This blog post started out as an experimental rendering of a Jupyter notebook. I wanted to see how difficult it would be to convert a notebook to a WordPress.com blog post. Even though Jupyter exports notebooks in HTML and Markdown they do not display well "out of the box." No doubt one could craft CSS that would help but the entire point of Jupyter exports is to cut down on pointless format thrashing. This post is a teaser. If you want to get to the source notebook follow this link to my GitHub repositories.

Why am I doing this?



My photo captions have evolved into a form of *milliblogging*. *Milliposts* (milliblog posts) are terse and tiny; many are single sentences or paragraphs. Taken one-at-a-time milliposts seldom impress but when gathered in hundreds or thousands accidental epics emerge. So, to prevent "epic loss" I want a simple way of downloading and archiving my captions off-line.

If you don't control it you cannot trust it!

When I started blogging I knew that you could not depend on blogging websites to archive and preserve your documents. We had already seen cases of websites mangling

content, shutting down without warning, and even worse, *censoring* bloggers. It was a classic case of, "If you don't control it you cannot trust it." I resolved to keep complete off-line *version controlled* copies of my blog posts.

Maintaining off-line copies was made easier by WordPress.com's excellent blog export utility. A simple button push downloads a large XML file that has all your blog posts with embedded references to images and other inclusions. XML is not my preferred archive format. I am a huge fan of LaTeX and Markdown: two text formats that are directly supported in Jupyter Notebooks. I wrote a little system that parses the WordPress XML file and generates LaTeX and Markdown files. Yet, despite milliblogging long before blogging, I don't have a similar system for downloading and archiving SmugMug *metadata*. This Jupyter notebook addresses this omission and shows how you can use Python and the SmugMug API to extract gallery and image metadata and store it in version controlled local directories as CSV files.

Dear Apple Pay Stop Harassing Me!

Posted: 26 Dec 2017 18:00:41

Dear Apple Pay stop harassing me! I will never sign up for you and no amount of iOS app-nagging will change that. You're pathetic interruptions merely remind me why I "resist" installing every freaking iOS upgrade the Apple mothership foists on its hapless phone users.

I use an iPhone[70]but I am not a member of the bleating iSheep. I've slowly, one unwanted upgrade after another, developed an intense loathing of Apple's holier than thou, we know what's best for the iIdiots, attitude. You're beginning to remind me of the Hildabeast. Remember that foul creature and her well-deserved fate!

Loathing aside, I have a perfectly logical reason for refusing Apple Pay. Unlike the bleating iSheep, I see what you are trying to do. You want to become a financial "middleman." You want to skim an ever-increasing percentage of every transaction your well-trained herd of iSheep makes. I admire your larcenous spirit but if you haven't noticed, we have enough parasitic financial rent-seeking middlemen on this insane planet. Part of the allure and promise of cryptocurrencies is that they show a way to rid the universe of skimming scum like central banks, government fiat, rapacious money transmitters, exchange controls and abominations like Apple Pay.

[70]Unless there are big changes at Apple this is my last iPhone. I want a device that I absolutely control. "If you don't control it you cannot trust it." Any phone that I cannot even be sure is off does not qualify. Burners may be my only option.

Don't ever darken my day with another "activate Apple Pay now" message again. You have been warned!

2018

Government Shutdown and Rapture 2018

Posted: 21 Jan 2018 21:43:58

It's 2018. 2018 has prime factors of 2 and 1009, e.g. $2018 = 2 \times 1009$.

Did anything happen in the years 2 and 1009?

1. In the year 2 Venus and Jupiter were in conjunction. Some speculate this may have been the "Star of Bethlehem."
2. In 1009 the Church of Holy Sepulcher was destroyed.

How odd, the prime factors of 2018 yield two Jesus related events, separated by over a thousand years that are mysteriously tied to his birthplace. Evidently, the Star of Bethlehem marked the beginning, 1009 marked the middle, and 2018 is the end! *Repent, the rapture is upon us!* Better buckle up non-gender specific bovine control officers (cowboys) 2018 is going to be rough.

Just how rough you ask? Imagine hordes of underachieving and mostly useless bureaucrats forced to take an impromptu paid holiday[71] because even more useless legislators cannot agree on how to spend other people's money. Let's hope the government stays shutdown down until the imminent rapture renders it redundant.

My calculations cannot pinpoint the exact time and date of the rapture. My guess would be the first[72] blood moon of the year, January 31, 2018. Get your affairs in order and divest yourself of your worldly bitcoins.[73] Use the address encoded in the QR graphic of this blog.

Hey: If you think this micro-epiphany is batshit crazy take a look at this! It's getting to the point where it's no longer possible to be satirical because somewhere on the intertubes you'll find true believers that go way beyond satire.

[71] None of the furiously furloughed will miss a single damn paycheck. Where can I get a job that pays me to sit on my ass and whine about whatever the idiot talking point of the day is?

[72] 2018 has two total lunar eclipses. If we're not raptured on January 31st wait until July 27th

[73] Sky Fairy consultants, also known as prophets, have high overhead and need substantial donations to maintain their close connections with the divine.

Setting SmugMug Print Size Keywords with Jupyter and Python

Posted: 28 Jan 2018 07:27:10

For the last few weeks, my normal hobbies have been preempted by my obsessive *refactoring* of an old SmugMug keyword setting program. Many years ago I wrote a small application that helped me maintain meaningful SmugMug keywords. I used this application for years until inevitable software changes broke it. Replacing it with something better has been on my to-do list for ages.

I kept putting it off because I knew the tools I used in the past, mostly J and VB, were not well suited to REST API programming. Yes, I know just about any programming tool can be forced to serve, Turning completeness guarantees it, but I have grown weary of programming to prove tiresome points. If a tool makes something more difficult or tedious than it should be then change tools!

The downside of changing tools is that it usually results in learning yet another programming language. I always try to avoid this! I briefly considered languages with decent REST support that I already *sort-of-know*[74], C#, JavaScript, VB.Net and decided that proper 64 bit versions were either too expensive (C#, VB.Net) or that I didn't want to stare at ugly bracket infested syntax for weeks. I'm talking about you JavaScript. Even your fanboys admit that you're an ugly duckling.

I eventually decided to go with Python. I've always found Python code more readable than many other programming languages. This is a widespread opinion. Python is free, open source, and comes with a large diverse set of tools. One of the best tools to come out of the Python world is Jupyter. Jupyter is the first public domain open source literate programming tool that has gained a large following.

I've been a fan of literate programming ever since I read Knuth's seminal book. He used the technique to create some of the best program documentation ever created. I always wondered why literate programming never caught on. I suspected the basic problem was simply that many programmers are not particularly literate. Well, Jupyter is proving me wrong.

[74]Be highly suspicious of people who claim to fully understand any programming language. Only delusional nitwits would make such a claim for any natural language. Does anybody, even luminaries like Shakespeare, truly understand English? We all *sort-of-know* our mother tongues and if we're honest, we're continually surprised by how others make use of it. *Literature, it's a thing.* The same holds for programming languages. Every day I'm surprised, by unusual, stupid, silly, clever and freaking brilliant code fragments in programming languages that I have used for decades.

Jupyter is certainly helping me write and program with such clarity that all my ideas seem trivial.

Compare this notebook, (use the first link for the best layout), to my earlier blog post about setting SmugMug print size keywords.

1. **Nbviewer**: Setting SmugMug Print Size Keywords with Jupyter and Python
2. **GitHub**: Setting SmugMug Print Size Keywords with Jupyter and Python

NumPy another Iverson Ghost

Posted: 31 Mar 2018 21:07:53



During my recent SmugMug API and Python adventures I was haunted by an Iverson ghost: `NumPy`

An Iverson ghost is an embedding of APL like array programming features in nonAPL languages and tools.

You would be surprised at how often Iverson ghosts appear. Whenever programmers are challenged with processing large numeric arrays they rediscover bits of APL. Often they're unaware of the rich heritage of array processing languages but in `NumPy's` case, they *indirectly* acknowledged the debt. In *Numerical Python* the authors wrote:

> *The languages which were used to guide the development of NumPy include the infamous APL family of languages, Basis, MATLAB, FORTRAN, S and S+, and others.*

I consider "infamous" an upgrade from "a mistake carried through to perfection."

Not only do developers frequently conjure up Iverson ghosts, they also invariably turn into little apostles of array programming that won't shut up about how cutting down on all those goddamn loops clarifies and simplifies algorithms. How learning to think about operating on entire arrays, versus one dinky number at a time, frees the mind. Why it's almost as if array programming is a tool of thought.

Where have I heard this before?

Ahh, I've got it, when I first encountered APL almost fifty years ago.

Yes, I am an old programmer, a fossil, a living relic. My brain is a putrid pool of punky programming languages. Python is just the latest in a longish line of

languages. Some people collect stamps. I collect programming languages. And, just like stamp collectors have favorite stamps, I find some programming languages more attractive than others. For example, I recognize the undeniable utility of `C/C++`, for many tasks they are the only serious options, yet as useful and pervasive as `C/C++` are they have never tickled my fancy. The notation is ugly! Yeah, I said it; suck on it C people. Similarly, the world's most commonly used programming language `JavaScript` is equally ugly. Again, `JavaScript` is so damn useful that programmers put up with its many warts. Some have even made a few bucks writing books about its meager good parts.

I have similar inflammatory opinions about other widely used languages. The one that is making me miserable now is `SQL`, particularly Microsoft's variant `T-SQL`. On purely aesthetic grounds I find well-formed `SQL` queries less appalling than your average `C` pointer fest. Core `SQL` is fairly elegant but the macro programming features that have grown up around it are depraved. I feel dirty when forced to use them which is just about every other day.

At the end of my programming day, I want to look on something that is beautiful. I don't particularly care about how useful a chunk of code is or how much money it might make, or what silly little business problem it solves. If the damn code is ugly I don't want to see it.

People keep rediscovering array programming, best described in Ken Iverson's 1962 book *A Programming Language*, for two basic reasons:

1. It's an efficient way to handle an important class of problems.
2. It's a step away from the ugly and back towards the beautiful.

Both of these reasons manifest in `NumPy`'s resounding success in the Python world.

As usual, efficiency led the way. The authors of *Numerical Python* note:

> *Why are these extensions needed? The core reason is a very prosaic one, and that is that manipulating a set of a million numbers in Python with the standard data structures such as lists, tuples or classes is much too slow and uses too much space.*

Faced with a "does not compute" situation you can either try something else or fix what you have. The Python people fixed Python with `NumPy`. Pythonistas reluctantly embraced `NumPy` but quickly went *apostolic!* Now books like *Elegant SciPy* and the entire `SciPy` toolset that been built on `NumPy` take it for granted.

Is there anything in NumPy for programmers that have been drinking the array processing cool aid for decades? The answer is yes! J programmers, in particular, are in for a treat with the new Python3 addon that's been released with the latest J 8.07 beta. This addon directly supports NumPy arrays making it easy to swap data in and out of the J/Python environments. It's one of those best of both worlds things.

The following NumPy examples are from the SciPy.org NumPy quick start tutorial. For each NumPy statement, I have provided a J equivalent. J is a descendant of APL. It was largely designed by the same man: Ken Iverson. A scumbag lawyer or greedy patent troll might consider suing NumPy's creators after looking at these examples. APL's influence is obvious. Fortunately, Ken Iverson was more interested in promoting good ideas that profiting from them. I suspect he would be flattered that APL has mutated and colonized strange new worlds and I think even zealous Pythonistas will agree that Python is a delightfully strange world.

Some Numpy and J examples

Selected Examples from https://docs.scipy.org/doc/numpy-dev/user/quickstart.html Output has been suppressed here. For a more detailed look at these examples browse the Jupyter notebook: NumPy and J Make Sweet Array Love.

Creating simple arrays

```
# numpy
a = np.arange(15).reshape(3, 5)

NB. J
a =. 3 5 $ i. 15

# numpy
a = np.array([2,3,4])

NB. J
a =. 2 3 4

# numpy
b = np.array([(1.5,2,3), (4,5,6)])

NB. J
b =. 1.5 2 3 ,: 4 5 6
```

```
# numpy
c = np.array( [ [1,2], [3,4] ], dtype=complex )

NB. J
0 j.~ 1 2 ,: 3 4

# numpy - make complex numbers with nonzero real and imaginary parts
c + (0+4.7j)

NB. J - also for J
c + 0j4.7

# numpy
np.zeros( (3,4) )

NB. J
3 4 $ 0

# numpy - allocates array with whatever is in memory
np.empty( (2,3) )

NB. J - uses fill - safer but slower than numpy's trust memory method
2 3 $ 0.0001
```

Basic operations

```
# numpy
a = np.array( [20,30,40,50] )
b = np.arange( 4 )
c = a - b

NB. J
a =. 20 30 40 50
b =. i. 4
c =. a - b

# numpy - uses previously defined (b)
b ** 2
```

```
NB. J
b ^ 2

# numpy - uses previously defined (a)
10 * np.sin(a)

NB. J
10 * 1 o. a

# numpy - booleans are True and False
a < 35

NB. J - booleans are 1 and 0
a < 35
```

Array processing

```
# numpy
a = np.array( [[1,1], [0,1]] )
b = np.array( [[2,0], [3,4]] )
# elementwise product
a * b

NB. J
a =. 1 1 ,: 0 1
b =. 2 0 ,: 3 4
a * b

# numpy - matrix product
np.dot(a, b)

NB. J - matrix product
a +/ . * b

# numpy - uniform pseudo random
a = np.random.random( (2,3) )
```

```
NB. J - uniform pseudo random
a =. ? 2 3 $ 0

# numpy - sum all array elements - implicit ravel
a.sum(a)

NB. J - sum all array elements - explicit ravel
+/ , a

# numpy
b = np.arange(12).reshape(3,4)
# sum of each column
b.sum(axis=0)
# min of each row
b.min(axis=1)
# cumulative sum along each row
b.cumsum(axis=1)
# transpose
b.T

NB. J
b =. 3 4 $ i. 12
NB. sum of each column
+/ b
NB. min of each row
<./"1 b
NB. cumulative sum along each row
+/\"0 1 b
NB. transpose
|: b
```

Indexing and slicing

```
# numpy
a = np.arange(10) ** 3
a[2]
a[2:5]
```

```
a[ : :-1]   # reversal

NB. J
a =. (i. 10) ^ 3
2 { a
(2 + i. 3) { a
|. a
```

Informed Naked Ape Protocol

Posted: 08 May 2018 19:09:28

Many think we are living in a golden age of bullshit. That public discourse has never been gaudier or more demeaning. That respect for truth and decency has reached all-time lows. The mental pygmies that hold these opinions don't read or think for themselves. Deceiving ourselves and others is the one thing our species excels at. Lies are the bedrock of art, economics, politics, and religion. Only two tiny slivers of human thought have ever breached the bullshit barrier and approached something that might be credibly labeled truth: hard science, and harder mathematics.

If you think I am going to praise brave men, (and bitches), of science for lighting a candle in the perpetual darkness, (Carl Sagan already wrote an entire fawning book on this self-aggrandizing theme), think again. Scientists are just as flawed and full of crap as the rest of us. Science occasionally succeeds because it has evolved protocols that correct for human bullshit. A good protocol protects us against our worst enemy — ourselves.

My *Informed Naked Ape Protocol*, or *iNap* for short, consists of eleven[75] pithy maxims that force a hard ass skeptical view of things. I will manifest my maxims here and elaborate on each one in following posts.

Informed Naked Ape Protocol

1. Enough people are scum.
2. Trust is for imbeciles.

[75]Why eleven? The last time somebody tried to get the inhabitants of planet moron to follow ten simple rules it didn't work out.

3. "Belief" is a bullshit word.
4. Assume corruption.
5. Analyze the data, not the drivel.
6. Demand full analytic disclosure.
7. Practice relentless verification.
8. Centralized systems are always corrupted.
9. If you don't control it you cannot trust it.
10. Only scientific and mathematical arguments are admissible.
11. Correct errors.

iNap #1: Enough People are Scum

Posted: 17 May 2018 20:45:27

Intelligible systems are built on a few basic principles.[76] While reducing my dour skepticism to the memorable maxims that codify *Informed Naked Ape Protocol*. I repeatedly asked myself what animates unflagging skepticism? What turns naturally cheerful and optimistic people like myself into raging cynics? What motivates noble trolls to put down the pizza and grab the keyboard? *Only one answer sprang to mind: other people.*

Regardless of your politics, gender, education, race, age, nationality, or ethnicity, you have probably noticed there are a lot of scummy people out there.

Why is this?

The answer derives from our evolution. Evolutionary advantages often accrue to individuals that cheat. Cheating is a fundamental behavioral adaptation that has been observed in many animal, bird and plant species. ***Cheating is so common that cheating the system is the system!*** How cheaters might benefit was best

[76]The human preference for systems with a few axioms is an artifact of our primitive intellects. There are few if any human beings that would be comfortable with axiomatic theories that depend on trillions of independent axioms yet we know that such systems exist and remain incomplete. Our drive to reduce things to a manageable set of rules, even when we know it is naïve and futile, amounts to little more than thumb-sucking. It makes our baby brains happy even if it will not solve our problems.

illustrated in the hilarious Ricky Gervais movie The Invention of Lying. In Ricky's world, everybody told the truth until one day he discovered that you could lie. The best scene in the film has Ricky running into a beautiful woman on the street. He tells her that the world is doomed unless she immediately agrees to have sex with him. Given the dire circumstances, she instantly agrees to save the world. Clearly, liars are going to enjoy immense reproductive success in a world of truth tellers. Similarly, scumbags will profit in a world of purely honorable people.

We don't live in a world of purely honorable people or purely scummy people. Human scum density is complicated; it depends on more variables than the weather. Nevertheless, we can infer that human scum density is *seldom zero* and is *often appreciable*.

How big is appreciable?

My bitter sampling of humanity yields an estimate of approximately 0.05 for contemporary American society.[77] It's definitely bad news that 5% of the people around you cannot be trusted or depended on. It's even worse news that human scum, like pond scum, often floats to the upper echelons of society. This is a nasty reality and I wish it wasn't so but reality is often unpleasant and leaves few options: either adapt or be crushed.

The first step in adapting to scummy naked apes is acknowledging the most fundamental fact about them — *enough people are scum!*

[77]Yes, human scum density varies with culture. Some societies are briefly more virtuous than others.

2019

The Return of the Prodigal Blogger

Posted: 05 Oct 2019 20:07:35

It's been ages since my last blog post. Yes, I've been a very, very bad blogger. Lesser men would throw themselves on the metaphorical feet of their readers and beg for forgiveness but if you're expecting apologies you don't know me! I write for myself; if you choose to read my ramblings, well that's on you.

Since my last entry I have:

1. **Retired**. I finally pulled the plug on being a *so-called productive member of society*. Now I'm an old Social Security draining parasite. *Since I no longer pay net taxes I am effectively dead to the state and they would love it if I was actually dead.* Dead people are easier to finance. Unfortunately, I've always been on to the deep state and my new mission in life is to claw back every single tax dollar I ever paid with butt loads of interest. When I snuff off this mortal coil I am going stick you with a giant uncollectable I OWE FUCKING YOU! If you create financially unsustainable systems that encourage abuse, well guess what, you're going to get abused. God, I'm loving being a bitter old man; it's what I was born to be.
2. **Continued to pursue my hobbies, especially photography.** This year (2019) I set the mini-goals of shooting, on average, one picture per day and scanning at least three hundred prints and slides. This may not sound like a lot but it takes *me* time to select the best images, process RAW files, restore film scans, edit or hack pictures, write captions and compute keywords. I treat every uploaded image as a *milliblogging* opportunity. Some of my image captions are longer than some of my blog posts.
3. **Taken on some new family responsibilities and obligations**.
4. **Taken some trips**.
5. **Worked on various personal software projects**.

Arthur C. Clarke once remarked that only unimaginative people get bored. I've always had something on my mind and I've always lived in my head. This has always been my problem and my strength. With retirement, I am casting off my shriveled shackles of pretense. I'm not even going to pretend to care about other people's

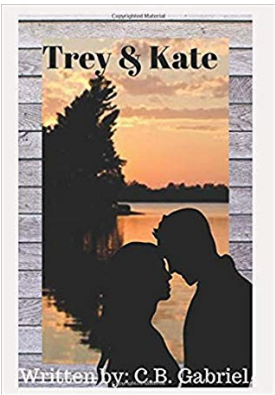
problems. I will think about what I find fascinating and do what I find worthwhile.

Call it retirement privilege snowflakes!

Now get back to work and pay your taxes you have old parasites to support.

Trey and Kate: Review

Posted: 08 Nov 2019 22:00:43



This will be a completely biased review. I have a close relationship with the author so everything I say must be verified. Please buy *Trey and Kate*, read it, and make up your mind. With that caveat out of the way let's get started.

Trey and Kate is a tale about an on and off again Millennial romance that plays out in Kingston Ontario. The two leads are not exactly star crossed lovers. They're both partly broken and struggling with mental illness, past life hallucinations, deficient friends, and uncomprehending divorced families. Kate is bipolar and goes on and off her meds throughout. Trey is stuck in a dead-end barista job: remember Millennials. He's mourning a deceased unloving father and has only two reliable relationships: his cat and his mother. Trey and Kate's dreams hint at a shared past and promise a joint future but offer little practical guidance.

With destiny seemingly on their side, you would expect their romance to go smoothly; it does not. When Kate goes off her meds she's impulsive and prone to risky behavior. The book's best passages detail her sordid bouts of random sex with total strangers. It's almost prostitution but Kate doesn't have the business sense of a prostitute. Of course, this doesn't help her relationship with Trey. To his credit or shame, he forgives her but we're not sure if his forgiveness is self-pity. Trey's self-esteem is so low he finds it almost comical than any woman could love him. Welcome to the club Trey. Trey and Kate's interaction is both frustrating, satisfying, embarrassing, irritating and fulfilling.

Trey and Kate is the author's first book. I know the author struggled to put the book together. Its best parts are purely descriptive and when the author shows us what the characters are seeing and feeling the prose tells. When the text ventures into rhetorical semi-poetic asides it hollows out. *Trey and Kate* feels like a screenplay disguised as a novel. This is partly due to the almost cinematic presence of the

setting Kingston Ontario, a dull stone-filled town that would be unlivable without Lake Ontario, and Kingston's wretched weather which is every bit as bad as it's portrayed in *Trey and Kate*. I'd encourage the author to keep writing, rewriting and experimenting. There are good stories to tell here.

Who Thought Blinking Windfarms was a Good Idea?

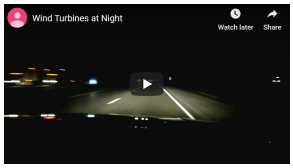
Posted: 10 Nov 2019 18:41:26

One night, a few weeks ago, I was driving west on I86 near American Falls when I spotted a long string of blinking red lights. The lights stretched over a large arc of the horizon. My first thought was "Jesus H. Christ now what?" As an amateur astronomer, I have climbed mountains to get away from light pollution. Now some jackwagon was ruining an entire rural horizon with a goddamn string of synchronized windfarm lights.

May I ask why?

Windfarms blink at night to warn planes they're flying to low. Please! The towers are well under 400 meters. If you are flying a plane below 400 meters in mountainous locales like Idaho you have far more serious problems than running into wind turbines. This is another example of stupid regulation. There is absolutely no good reason for lighting up entire landscapes. It wrecks the view, distracts drivers, (cars on I86 were slowing down to get a better view), wastes energy, rapes the night sky, and reminds everyone what an environmental tax-subsidized eyesore windfarms are. Don't even think of disagreeing. When was the last time you looked at a landscape littered with wind turbines and thought, "This is so much better than it was before."

Yes, I know windfarms are saving us from global warming. If you believe that you are probably exactly the type of person that signed off on ruining an entire county's nighttime view with goddamn blinking windfarms.



Click for sky fornication! Some comments attached to this YouTube clip bitch about how light pollution *is a small price to pay for green energy.* Why pay any price you dumb shits? Keep the wind turbines but turn off their damn blinking lights at night. *It's a landscape sodomizing abomination!*

Sudden Genocide

Posted: 15 Nov 2019 17:23:59

If genocide is sudden, painless, unexpected, complete and absolute, if a people simply vanish without screams, without fear, without *anticipation*, if one nanosecond they are and the next nanosecond they *are not*, and if somehow you are responsible, are you a war criminal or a savior? Ultimately we all vanish, usually with screams, usually with fear, usually with anticipation. For years I've longed for a sudden painless death: a *dismembering* that tears me apart faster than my nerves can relay pain. Imagine such an end for all of us – at once – now. *Why linger?* We will go extinct. There will be a last human. And if the last human dies with screams, with fear, with anticipation how is that better than sudden genocide?

2020

Extracting SQL code from SSIS dtsx packages with Python lxml

Posted: 21 Jan 2020 02:30:48

Lately, I've been refactoring a sprawling SSIS (SQL Server Integration Services) package that ineffectually wrestles with large XML files. In this programmer's opinion using SSIS for heavy-duty XML parsing is geeky self-abuse so I've opted to replace an eye-ball straining[78] SSIS package with half a dozen, "as simple as possible but no simpler", Python scripts. If the Python is fast enough for production great! If not the scripts will serve as a clear model[79] for something faster.

I'm only refactoring[80] part of a larger ETL process so whatever I do *it must mesh with the rest of the mess.*

So where is the rest of the SSIS mess?

SSIS's visual editor does a wonderful job of hiding the damn code!

This is a problem!

If only there was a simple way to troll through large sprawling SSIS *spider-webby* packages and extract the good bits. Fortunately, Python's XML parsing tools can be easily applied to SSIS `dtsx` files. *SSIS `dtsx` files are XML files.* The following code snippets illustrate how to hack these files.

First import the required Python modules. `lxml` is not always included in Python distributions. Use the pip or conda tools to install this module.

```
# imports
import os
from lxml import etree
```

[78] I frequently run into SSIS packages that cannot be viewed on `4K` monitors when fully zoomed out.

[79] Python's readability is a major asset when disentangling *mess-ware*.

[80] Yes, I've railed about the word "refactoring" in the past but I've moved on and so should you. "A foolish consistency is the hobgoblin of little minds."

Set an output directory. I'm running on a Windows machine. If you're on a Mac or Linux machine adjust the path.

```
# set sql output directory
sql_out = r"C:\temp\dtsxsql"
if not os.path.isdir(sql_out):
    os.makedirs(sql_out)
```

Point to the `dtsx` package you want to extract code from.

```
# dtsx files
dtsx_path = r'C:\Users\john\AnacondaProjects\testfolder\bixml'
ssis_dtsx = dtsx_path + r'\ParseXML.dtsx'
```

Read and parse the SSIS package.

```
tree = etree.parse(ssis_dtsx)
root = tree.getroot()
```

`lxml` renders XML namespace tags like `<DTS:Executable` as `www.microsoft.com/SqlServer/Dts\}Executable`. The following gathers all the transformed element tags in the `dtsx` package.

```
# collect unique element tags in dtsx
ele_set = set()
for ele in root.xpath(".//*"):
    ele_set.add(ele.tag)
print(ele_set)
print(len(ele_set))
```

Using transformed element tags of interest blast over the `dtsx` and suck out the bits of interest.

```
pfx = '{www.microsoft.com/'
exe_tag = pfx + 'SqlServer/Dts}Executable'
obj_tag = pfx + 'SqlServer/Dts}ObjectName'
dat_tag = pfx + 'SqlServer/Dts}ObjectData'
tsk_tag = pfx + 'sqlserver/dts/tasks/sqltask}SqlTaskData'
src_tag = pfx + 'sqlserver/dts/tasks/sqltask}SqlStatementSource'

# extract sql source statements and write to *.sql files
total_bytes = 0
```

```
package_name = root.attrib[obj_tag].replace(" ","")
for cnt, ele in enumerate(root.xpath(".//*")):
    if ele.tag == exe_tag:
        attr = ele.attrib
        for child0 in ele:
            if child0.tag == dat_tag:
                for child1 in child0:
                    sql_comment = attr[obj_tag].strip()
                    if child1.tag == tsk_tag:
                        dtsx_sql = child1.attrib[src_tag]
                        dtsx_sql = "-- " + \
                            sql_comment + "\n" + dtsx_sql
                        sql_file = sql_out + "\\" \
                             + package_name + str(cnt) + ".sql"
                        total_bytes += len(dtsx_sql)
                        print((len(dtsx_sql),
                             sql_comment, sql_file))
                        with open(sql_file, "w") as file:
                             file.write(dtsx_sql)
print(('total bytes',total_bytes))
```

The code snippets in this post are available in this Jupyter notebook: Extracting SQL code from SSIS dtsx packages with Python lxml. *Download and tweak for your* `dtsx` *nightmare!*

More J Pandoc Syntax HighLighting

Posted: 20 Feb 2020 02:48:09

Syntax highlighting is essential for blogging program code. Many blog hosts recognize this and provide tools for highlighting programming languages. WordPress.com (this host) has a nifty highlighting tool that handles dozens of mainstream programming languages. Unfortunately, one of my favorite programming languages, J, (yes it's a single letter name), is way out of the mainstream and is not supported.

There are a few ways to deal with this *problem.*

1. Eschew J highlighting.
2. Upgrade[81] your *WordPress.com* subscription and install custom syntax highlighters that can handle arbitrary language definitions.

[81] The pay more option is always available.

3. Find another blog host that freely supports custom highlighters.
4. Roll your own or customize an existing highlighter.

A few years ago I went with the fourth option and hacked the superb open-source tool pandoc. The grim details are described in this blog post. My hack produced a customized version of pandoc with J highlighting. I still use my hacked version and I'd probably stick with it if current pandoc versions had not introduced *must-have features like converting Jupyter notebooks to Markdown, PDF, LaTeX and HTML.* Jupyter is my default *thinking-things-through* programming environment. I've even taken to blogging with Jupyter notebooks. If you write and explain code you owe it to yourself to give Jupyter a try.

Unwilling to eschew J highlighting or forgo Jupyter I was on the verge of re-hacking pandoc when I read the current pandoc (version 2.9.1.1) documentation and saw that ***J is now officially supported by pandoc.*** You can verify this with the shell commands.

The pandoc developers made my day! I felt like Wayne meeting a rock star.

Highlighting J is now a simple matter of placing J code in markdown blocks like:

```
~~~~ { .j }
    ... code code code ...
~~~~
```

and issuing shell commands like:

```
pandoc --highlight-style tango --metadata title="J test" -s jpdh.md -o jpdh.html
```

The previous command generated the HTML of this post which I pasted into the WordPress.com *Classic Editor*. Not only do I get J code highlighting on the cheap I also get footnotes which, *for god freaking sakes*,[82] are not supported by the new WordPress block editor for low budget blogs.

The source markdown used for this post is available here enjoy!

```
tdkeytest=:4 : 0

NB.*tdkeytest v-- test natural primary key columns of TAB delimited text files.
```

[82]WordPress.com is beginning to remind me of Adobe. Stop taking away longstanding features when upgrading!

```
NB.
NB. dyad:  il =. blclColnames tdkeytest clFile
NB.
NB.   f0=. 'C:\temp\dailytsv\raw_ST_BU.txt'
NB.   k0=. ;:'BuId XMLFileDate'
NB.   k0 tdkeytest f0

NB. first row is header
h=. 0{d=. readtd2s y

NB. key column positions
'header key column(s) missing' assert -.(#h) e. p=. h i. s: x

c=. #d=. }. d
b=. ~:p {"1 d

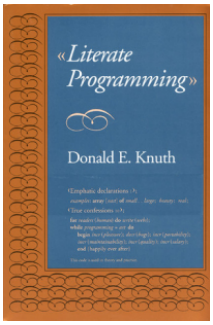
NB. columns unique, rowcnt, nonunique rowcnt
if. r=. c = +/b do.
  r , c , 0
else.
  NB. there are duplicates show some sorted duplicate keys
  k=. p {"1 d
  d=. d {~ I. k e. k #~ -.b
  d=. (/: p {"1 d) { d
  b=. ~:p {"1 d
  m=. +/b
  smoutput (":m),' duplicate key blocks'
  n=. DUPSHOW <. m
  smoutput 'first ',(":n),' duplicate row key blocks'
  smoutput (<p { h) ,&.> n {. ,. b <;.1 p {"1 d
  r , c , #d
end.
)
```

Using jodliterate

Posted: 25 May 2020 19:02:26

The JODSOURCE addon, (a part of the JOD system), contains a handy *literate programming* tool that enables the generation of *beautiful* J source code documents.

The *Bible*, *Koran*, and *Bhagavad Gita* of Literate Programming is Donald Knuth's masterful tome of the same name.



Knuth applied Literate Programming to his TEX systems and produced what many consider enduring masterpieces of program documentation.

`jodliterate` is certainly not worthy of TEX level accolades but with a little work it's possible to produce fine documents. This J kernel notebook outlines how you can install and use `jodliterate`. Jupyter notebooks are typically executed but to accommodate J users that do hot have Jupyter this notebook is also available on GitHub as a static PDF document.

Notebook Preliminaries

[1]:
```
NB. show J kernel version
9!:14 ''
```

```
j901/j64avx/windows/release-e/commercial/www.jsoftware.com/2020-01-29T11:15:50
```

[2]:
```
NB. load JOD in a clear base locale
load 'general/jod' [ clear ''

NB. The distributed JOD profile automatically RESETME's.
NB. To safely use dictionaries with many J tasks they must
NB. be READONLY. To prevent opening the same put dictionary
NB. READWRITE comment out (dpset) and restart this notebook.
dpset 'RESETME'

NB. Converting Jupyter notebooks to LaTeX is
NB. simplified by ASCII box characters.
portchars ''
```

```
NB. Verb to show large boxed displays in
NB. the notebook without ugly wrapping.
sbx_ijod_=: ' ... ' ,"1~ 75&{."1@":
```

Installing jodliterate To use `jodliterate` you need to:

1. Install a current version of J.
2. Install the J addons JOD, JODSOURCE, and JODDOCUMENT.
3. Build the JOD development dictionaries from JODSOURCE.
4. Install a current version of pandoc.
5. Install a current version of TEX and LATEX.
6. Make the `jodliterate` J script.
7. Run `jodliterate` on a JOD *group* with pandoc compatible document fragments.
8. Compile the files of the previous step to produce a PDF

When presented with long lists of program prerequisites my impulse is to *run!* Life is too short for configuration wars. Everything should be easy. Installing `jodliterate` requires more work than phone apps but compared to enterprise installations setting up `jodliterate` is trivial. We'll go through it step by step.

Step 1: Install a current version of J J is freely available at jsoftware.com. J installation instructions can be found on the J Wiki on this page.

Follow the appropriate instructions for your OS.

Note: JOD runs on Windows, Linux, and MacOS versions of J, hence these are the only platforms that currently support `jodliterate`.

Step 2: Install the J addons JOD, JODSOURCE and JODDOCUMENT After installing J install the J addons. J addons are installed with the J package manager pacman. Pacman has three IDE flavors: a command-line flavor and two GUI flavors. The GUI flavors depend on JQT or JHS. The GUI flavors of pacman are only available on some versions of J whereas the command line version is part of the base J install and is available on all platforms.

I install all the addons. I recommend that you do the same.

JOD depends on some J modules like `jfiles`, `regex`, and `task` that are sometimes distributed as addons. If you install all addons JOD's modules and dependents are both installed.

Installing addons with command line pacman Start J and do:

```
[3]: NB. install J addons with command-line pacman

     load 'pacman'    NB. load pacman jpkg services
```

```
[4]: 'help' jpkg ''   NB. what can you do for me?
```

```
Valid options are:
 history, install, manifest, remove, reinstall, search,
 show, showinstalled, shownotinstalled, showupgrade,
 status, update, upgrade

https://code.jsoftware.com/wiki/JAL/Package_Manager/jpkg
```

```
[5]: NB. install all addons
     NB. see https://code.jsoftware.com/wiki/Pacman

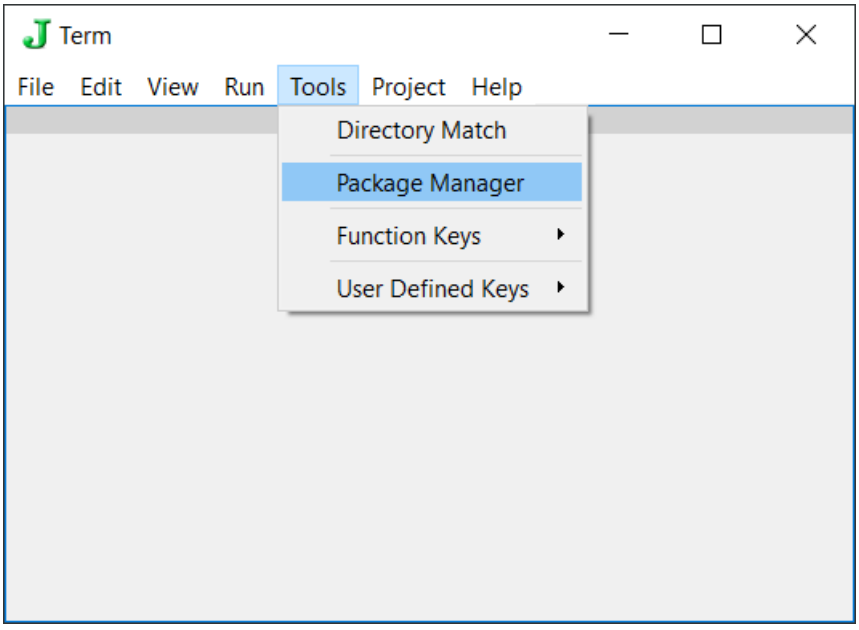
     NB. uncomment next line if addons not installed
     NB. 'install' jpkg '*'  NB.
```

```
[6]: 3 {. 'showinstalled' jpkg '' NB. first few installed addons
```

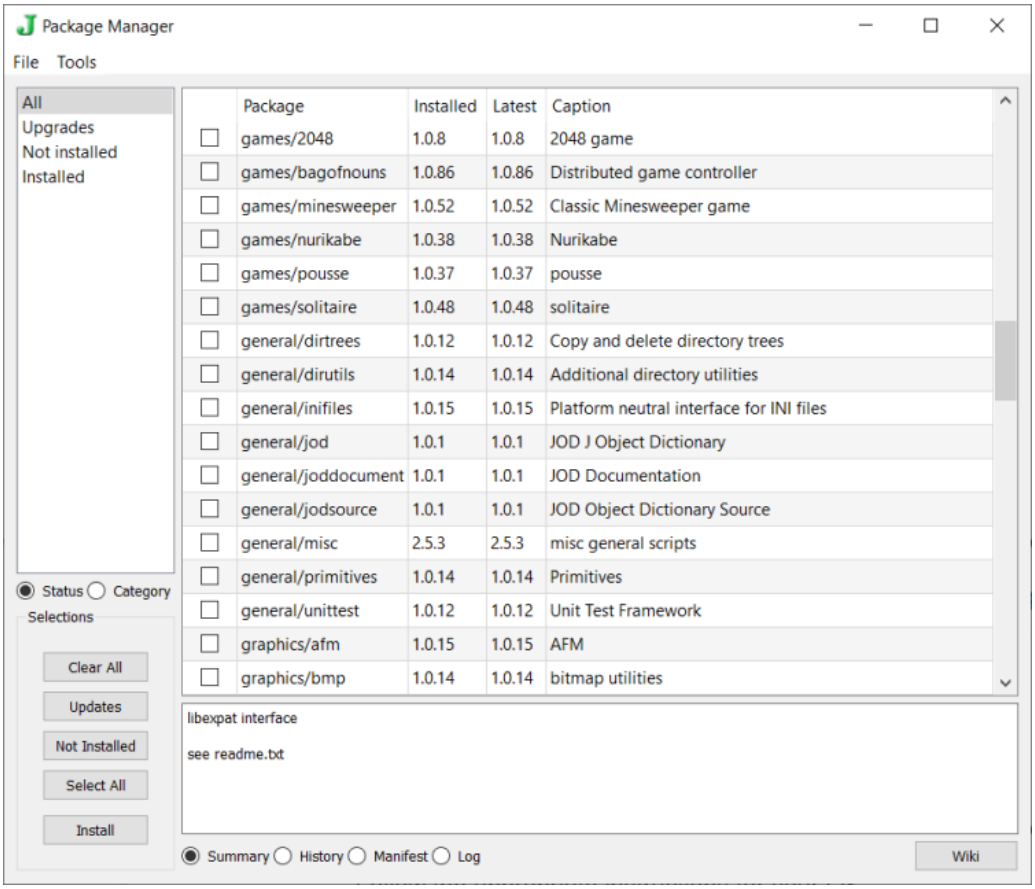
```
+---------+------+------+----------------------------+
|api/expat|1.0.11|1.0.11|libexpat                    |
+---------+------+------+----------------------------+
|api/gles |1.0.31|1.0.31|Modern OpenGL API           |
+---------+------+------+----------------------------+
|api/java |1.0.2 |1.0.2 |api: Java to J shared library|
+---------+------+------+----------------------------+
```

```
[7]: 'showupgrade' jpkg ''  NB. list addon updates
```

Installing addons with JQT GUI pacman I mostly use the Windows JQT version of pacman to install and maintain J addons. You can find pacman on the tools menu.



pacman shows all available addons and provides tools for installing, updating, and removing them.



The GUI version is easy to use. Press the `Select All` button and then press the `Install` button to install all the addons. To update addons select the `Upgrades` menu and select the addons you want to update.

Step 3: Build the JOD development dictionaries from JODSOURCE JOD source code is distributed in the form of JOD dictionary dumps. Dictionary dumps are large J scripts that serialize JOD dictionaries. Dumps contain everything stored in dictionaries. You will find source code, binary data, test scripts, documentation, build macros, and more in typical JOD dictionaries.

`jodliterate` is stored as a JOD dictionary group. A dictionary group is simply a collection of J words with optional *header* and *post-processor* scripts. JOD generates J scripts from groups. Before we can *make* `jodliterate` we must load the JOD development dictionaries. The JODSOURCE addon includes a J script that loads development dictionaries.

Again, start J and do:

[8]:
```
require 'general/jod'
```

[9]:
```
NB. set a JODroot user folder
NB. if not set /jod/ is the default

NB. use paths for your OS
UserFolders_j_=: UserFolders_j_ , 'JODroot';'c:/temp'

NB. show added folder
UserFolders_j_ {~ (0 {"1 UserFolders_j_) i. <'JODroot'
```

```
+-------+-------+
|JODroot|c:/temp|
+-------+-------+
```

[10]:
```
NB. load JOD developement dictionaries
load_dev_tmp=: 3 : 0
if. +./ (;:'joddev jod utils') e. od '' do.
  'dev dictionaries exist'
else.
  0!:0<jpath'~addons/general/jodsource/jodsourcesetup.ijs'
end.
)

load_dev_tmp 0
```

```
dev dictionaries exist
```

[11]:
```
NB. joddev, jod, utils should exist

erase 'load_dev_tmp'
(;:'joddev jod utils') e. od ''
```

```
1 1 1
```

Step 4: Install a current version of pandoc pandoc is easily one of the most useful markup utilities on the intertubes. If you routinely deal with markup formats

like markdown, XML, LaTeX, json and you aren't using pandoc you are working too hard.

Be lazy! Install pandoc.

`jodliterate` uses the `task` addon to *shell out* to pandoc. Versions of pandoc after `2.9.1.1` support J syntax high-lighting.

[12]:
```
NB. show pandoc version from J - make sure you are running
NB. a recent version of pandoc. There may be different
NB. versions in many locations on various systems.

ppath=: '"C:\Program Files\Pandoc\pandoc"'
THISPANDOC_ajodliterate_=: ppath
shell THISPANDOC_ajodliterate_,' --version'
```

```
pandoc 2.9.1.1
Compiled with pandoc-types 1.20, texmath 0.12, skylighting 0.8.3
Default user data directory: C:\Users\john\AppData\Roaming\pandoc
Copyright (C) 2006-2019 John MacFarlane
Web:  https://pandoc.org
This is free software; see the source for copying conditions.
There is no warranty, not even for merchantability or fitness
for a particular purpose.
```

[13]:
```
NB. make sure your version of pandoc
NB. supports J syntax-highlighting

NB. appends line feed character if necessary
tlf=:] , ((10{a.)"_ = {:) }. (10{a.)"_

NB. J is on the supported languages list
pcmd=: THISPANDOC_ajodliterate_,' --list-highlight-languages'
(<;._2 tlf (shell pcmd) -. CR) e.~ <,'j'
```

```
1
```

Step 5: Install a current version of LaTeX `jodliterate` uses LaTeX to compile PDF documents. When `setjodliterate` runs it sets an output directory and writes a

LaTeX preamble file `JODLiteratePreamble.tex` to it. It's a good idea to review this file to get an idea of the LaTeX packages `jodliterate` uses. It's possible that some of these packages are not in your LaTeX distribution and will have to be installed.

To ease the burden of LaTeX package maintenance I use freely available TeX versions that automatically install missing packages.

1. On Windows I use MiKTeX
2. On other platforms I use TeXLive

If your system automatically installs packages the first time you compile `jodliterate` output it may fetch missing packages from The Comprehensive TeX Archive Network (CTAN). If new packages are installed reprocess your files a few times to insure all the required packages are downloaded and installed.

Step: 6 Make the jodliterate J script Once the JOD development dictionaries are built (Step 3) making `jodliterate` is easy. Start J and do:

[14]:
```
require 'general/jod'

NB. open dictionaries
od ;:'joddev jod utils' [ 3 od ''
```

```
+-+--------------------+------+---+-----+
|1|opened (rw/ro/ro) ->|joddev|jod|utils|
+-+--------------------+------+---+-----+
```

[15]:
```
NB. generate jodliterate
sbx mls 'jodliterate'
```

```
+-+-------------------+-----------------------------------+              …
|1|load script saved ->|c:/jod/joddev/script/jodliterate.ijs|              …
+-+-------------------+-----------------------------------+              …
```

`mls` creates a standard J load script. Once generated this script can be loaded with the standard J `load` utility. You can test this by restarting J without JOD and loading `jodliterate`.

[16]:
```
NB. load generated script
load 'jodliterate'
```

```
NB. (jodliterate) interface word(s):
NB. -------------------------------
NB. THISPANDOC      NB. full pandoc path - use (pandoc) if on shell path
NB. grplit          NB. make latex for group (y)
NB. ifacesection    NB. interface section summary string
NB. ifc             NB. format interface comment text
NB. setjodliterate  NB. prepare LaTeX processing - sets out directory writes
preamble

NOTE: adjust pandoc path if version (pandoc 2.9.1.1) is not >= 2.9.1.1
```

Step 7: Run jodliterate on a JOD group with pandoc compatible document fragments This sounds a lot worse than it is. There is a group in `utils` called `sunmoon` that has an interesting *pandoc compatible document fragment*.

Start J and do:

[17]:
```
require 'general/jod'

od 'utils' [ 3 od ''
```

```
+-+--------------+-----+
|1|opened (ro) ->|utils|
+-+--------------+-----+
```

[18]:
```
NB. display short explanations for (sunmoon) words
sbx hlpnl }. grp 'sunmoon'
```

```
+----------------+------------------------------------------------------ …
|IFACEWORDSsunmoon|interface words (IFACEWORDSsunmoon) group               …
|NORISESET        |indicates sun never rises or sets in (sunriseset0) and ( …
|ROOTWORDSsunmoon |root words (ROOTWORDSsunmoon) group                     …
|arctan           |arc tangent                                            …
|calmoons         |calendar dates of new and full moons                   …
|cos              |cosine radians                                         …
|fromjulian       |converts Julian day numbers to dates, converse (tojulian …
|moons            |times of new and full moons for n calendar years       …
|round            |round (y) to nearest (x) (e.g. 1000 round 12345)       …
|sin              |sine radians                                           …
```

```
|sunriseset0      |computes sun rise and set times - see group documentatio …
|sunriseset1      |computes sun rise and set times - see group documentatio …
|tabit            |promotes only atoms and lists to tables                  …
|tan              |tan radians                                              …
|today            |returns todays date                                      …
|yeardates        |returns all valid dates for n calendar years             …
+----------------+-------------------------------------------------------- …
```

[19]:
```
NB. display part of the (sunmoon) group document header
NB. this is pandoc compatible markdown - note the LaTeX
NB. commands - pandoc allows markdown/LaTeX mixtures
900 {. 2 9 disp 'sunmoon'
```

```
`sunmoon` is a collection of basic astronomical algorithms
The key verbs are `moons`, `sunriseset0` and `sunriseset1.`
All of these verbs were derived from BASIC programs published
in *Sky & Telescope* magazine in the 1990s. The rest of
the verbs in `sunmoon` are mostly date and trigonometric
utilities.

\subsection{\texttt{sunmoon} Interface}

~~~~ { .j }
  calmoons      NB. calendar dates of new and full moons
  moons         NB. times of new and full moons for n calendar years
  sunriseset0   NB. computes sun rise and set times - see group documentation
  sunriseset1   NB. computes sun rise and set times - see group documentation
~~~~

\subsection{\textbf\texttt{sunriseset0} \textsl{v--} sunrise and sunset times}

This  verb has been adapted from a BASIC program submitted by
Robin  G.  Stuart  *Sky & Telescope's*  shortest  sunrise/set
program  cont
```

[20]:
```
NB. run jodliterate on (sunmoon)
require 'jodliterate'
```

```
NB. set the output directory - when
NB. running in Jupyter use a subdirectory
NB. of your notebook directory.

ltxpath=: 'C:\Users\john\AnacondaProjects\testfolder\grplit\'
setjodliterate ltxpath
```

```
+-+-----------------------------------------------+
|1|C:\Users\john\AnacondaProjects\testfolder\grplit\|
+-+-----------------------------------------------+
```

[21]:
```
NB. (grplit) returns a list of generated
NB. LaTeX and command files. The *.bat
NB. file compiles the generated LaTeX

,. grplit 'sunmoon'
```

```
+-------------------------------------------------------------+
|1                                                            |
+-------------------------------------------------------------+
|C:\Users\john\AnacondaProjects\testfolder\grplit\sunmoon.tex  |
+-------------------------------------------------------------+
|C:\Users\john\AnacondaProjects\testfolder\grplit\sunmoontitle.tex|
+-------------------------------------------------------------+
|C:\Users\john\AnacondaProjects\testfolder\grplit\sunmoonoview.tex|
+-------------------------------------------------------------+
|C:\Users\john\AnacondaProjects\testfolder\grplit\sunmooncode.tex |
+-------------------------------------------------------------+
|C:\Users\john\AnacondaProjects\testfolder\grplit\sunmoon.bat  |
+-------------------------------------------------------------+
```

Step 8: Compile the files of the previous step to produce a PDF

[22]:
```
_250 {. shell ltxpath,'sunmoon.bat'
```

```
gular.otf><c:/program files/miktex 2.9/fonts/ope
ntype/public/lm/lmmono12-regular.otf>
Output written on sunmoon.pdf (22 pages, 107711 bytes).
Transcript written on sunmoon.log.
```

```
(base) C:\Users\john\AnacondaProjects\testfolder\grplit>endlocal
```

[23]:
```
NB. uncomment to display generated PDF
 NB. shell ltxpath,'sunmoon.pdf'
```

Storing jodliterate pandoc compatible document fragments in JOD Effective use of `jodliterate` requires a melange of Markdown, LaTeX, JOD, and J skills combined with a healthy attitude about *experimentation*. You have to try things and see if they work!

However, before you can *try* `jodliterate` document fragments you have `put` them in JOD dictionaries.

`jodliterate` uses two types of document fragments:

1. markdown overview group documents.
2. LaTeX overview macros.

Markdown group documents are transformed by pandoc into LaTeX but the overview macros are not altered in any way. This enables the use of arbitrarily complex LaTeX. The following examples show how to insert document fragments.

Create a jodliterate Demo Dictionary

[24]:
```
NB. create a demo dictionary - (didnum) insures new name
require 'general/jod'

NB. new dictionary in default JOD directory
sbx newd itslit_ijod_=: 'aaa',":didnum_ajod_ ''
```

```
+-+--------------------+----------------------------------------+------- …
|1|dictionary created ->|aaa327403631806685638405507439206657280913|c:/user …
+-+--------------------+----------------------------------------+------- …
```

[25]:
```
NB. 1 if new dictionary created
(<itslit) e. od ''
```

```
1
```

[26]:
```
od itslit [ 3 od '' NB. open only new dictionary
```

```
+-+-------------+----------------------------------------+
|1|opened (rw) ->|aaa32740363180668563840550743920665728091|
+-+-------------+----------------------------------------+
```

[27]:
```
NB. define some words
freq=:~. ; #/.~
movmean=:-@[ (+/ % #)\ ]
geomean=:# %: */
bmi=: 704.5"_ * ] % [: *: [
polyprod=:+//.@(*/)

wlst=: ;:'freq movmean geomean bmi polyprod'

NB. put in dictionary
put wlst

NB. short word explanations
t=: ,:  'freq';'frequency distribution'
t=: t , 'movmean';'moving mean'
t=: t , 'geomean';'geometric mean of a list'
t=: t , 'bmi';'body mass index - (x) inches (y) lbs'
t=: t , 'polyprod';'polynomial product'

0 8 put t
```

```
+-+------------------------------+----------------------------------------+
|1|5 word explanation(s) put in ->|aaa32740363180668563840550743920665728091|
+-+------------------------------+----------------------------------------+
```

[28]:
```
NB. make header and macro groups
grp 'litheader' ; wlst
grp 'litmacro'  ; wlst
```

```
+-+-------------------------+----------------------------------------+
|1|group <litmacro> put in ->|aaa32740363180668563840550743920665728091|
+-+-------------------------+----------------------------------------+
```

[29]:
```
IFACEWORDSlitheader=: wlst
put 'IFACEWORDSlitheader'
```

```
+-+------------------+----------------------------------------+
|1|1 word(s) put in ->|aaa32740363180668563840550743920665728091 3|
+-+------------------+----------------------------------------+
```

Use Group Document Overview Markdown

[30]:
```
NB. add group header markdown
litheader=: (0 : 0)
`litheader` is a markdown demo group.

This markdown text will be
[transmogrified](https://calvinandhobbes.fandom.com)
by `pandoc` to \LaTeX. A group interface will be
generated from the `IFACEWORDSlitheader`
list. Interface lists are usually, but
not always, associated with a *class group*.

\subsection{\texttt{litheader} Interface}

`{~{insert_interface_md_}~}`
)

NB. store markdown as a JOD group document
2 9 put 'litheader';litheader
```

```
+-+----------------------------+----------------------------------------+
|1|1 group document(s) put in ->|aaa32740363180668563840550743920665728091 3|
+-+----------------------------+----------------------------------------+
```

[31]:
```
NB. run jodliterate on group
ltxpath=: 'C:\Users\john\AnacondaProjects\testfolder\grplit\'
setjodliterate ltxpath
{: grplit 'litheader'
```

```
+------------------------------------------------------------+
|C:\Users\john\AnacondaProjects\testfolder\grplit\litheader.bat|
```

```
+------------------------------------------------------------+
```

[32]:
```
NB. compile latex
_250 {. shell ltxpath,'litheader.bat'
```

```
lar.otf><c:/program files/miktex 2.9/fonts/o
pentype/public/lm/lmmono12-regular.otf>
Output written on litheader.pdf (4 pages, 47726 bytes).
Transcript written on litheader.log.

(base) C:\Users\john\AnacondaProjects\testfolder\grplit>endlocal
```

[33]:
```
NB. uncomment to show PDF
NB. shell ltxpath,'litheader.pdf'
```

Use Macro Overview LaTeX

[34]:
```
NB. add a LaTeX overview - this code will not
NB. be altered by jodliterate the suffix
NB. '_oview_tex' is required to associate
NB. the overview with the group 'litmacro'

litmacro_oview_tex=: (0 : 0)

This \LaTeX\ code will not be
touched by \texttt{jodliterate}.

\subsection{Business Babel}

``Truth management is enabled.''

\emph{Excerpt from an actual business document!}
Obviously composed in an irony free zone.

\subsection{Some Complicated \LaTeX}

\medskip
```

```
\[
\frac{1}{\Bigl(\sqrt{\phi \sqrt{5}}-\phi\Bigr) e^{\frac25 \pi}} =
1+\frac{e^{-2\pi}} {1+\frac{e^{-4\pi}} {1+\frac{e^{-6\pi}}
{1+\frac{e^{-8\pi}} {1+\ldots} } } }
\]

)

NB. store LaTeX as JOD text macro
4 put 'litmacro_oview_tex';LATEX_ajod_;litmacro_oview_tex
```

```
+-+------------------+----------------------------------------+
|1|1 macro(s) put in ->|aaa32740363180668563840550743920665728091 3|
+-+------------------+----------------------------------------+
```

[35]:
```
NB. run jodliterate on group
{: grplit 'litmacro'
```

```
+-----------------------------------------------------------+
|C:\Users\john\AnacondaProjects\testfolder\grplit\litmacro.bat|
+-----------------------------------------------------------+
```

[36]:
```
NB. compile latex
_250 {. shell ltxpath,'litmacro.bat'
```

```
e1/public/lm/lmsy6.pfb><C:/Program Files/MiKTeX 2.9/fonts/type1/public/lm/lms
y8.pfb>
Output written on litmacro.pdf (4 pages, 138976 bytes).
Transcript written on litmacro.log.

(base) C:\Users\john\AnacondaProjects\testfolder\grplit>endlocal
```

[37]:
```
NB. display PDF
NB. shell ltxpath,'litmacro.pdf'
```

Using jodliterate with larger J systems The main `jodliterate` verb `grplit` works with single JOD groups. Larger systems are typically made from many groups.

JOD macro and test scripts are one way to work around this limitation. The JOD development dictionaries contain several macros that illustrate this approach.

[38]:
```
od ;:'joddev jod utils' [ 3 od ''

NB. list macros with substring 'latex'
4 2 dnl 'latex'
```

```
+-+------------+--------------------+
|1|buildjodlatex|buildjodliteratelatex|
+-+------------+--------------------+
```

[39]:
```
NB. display start of macro that
NB. applies jodliterate to JOD code
250 {. 4 disp 'buildjodlatex'
```

```
NB.*buildjodlatex s--  generates syntax highlighted JOD source LaTeX.
NB.
NB. Files are written to the put dictionary's document directory.
NB.
NB. assumes: current versions of pandoc (pandoc 2.9.1.1 or later)
NB.          check noun (THISPANDOC
```

Final Remarks `jodliterate` is an idiosyncratic anal-retentive software utility; it's mainly for people that consider source code an art form. *Nobody likes ugly undocumented art!*

If you have any questions, suggestions, or complaints please leave a comment on this post. To include others join one of J discussion forums and post your queries there.

May the source be with you!

Better Blogging with Jupyter Notebooks on WordPress.com

Posted: 02 Jun 2020 00:48:09

When I discovered Jupyter notebooks a few years ago I instantly recognized their potential as a *technical* blogging tool. Jupyter notebooks support mixtures of text, mathematics, program code, and graphics in a completely interactive environment. It's easy to convert notebook JSON `.ipynb` files to markdown, LaTeX, and HTML so

it's not a big leap to use Jupyter as a *super-editor* for blog posts with heavy doses of code, mathematics, and graphics.

I converted a few simple notebooks into HTML and tried loading them to my WordPress.com blog; the results did not amuse me! Raw notebook HTML is not suitable for WordPress.com.

WordPress.com imposes some serious constraints on low cost and free blogs. You cannot:

1. Use arbitrary JavaScript.
2. Import standalone CSS styles.
3. Use non-standard plugins.

By setting up your own WordPress.org site or upgrading your WordPress.com account you can shed these limitations. I've considered both options but there's just something about software vendors teasing users with basic features while nagging them to spend more on upgrades that gets my goat. I'm used to such abuse from the likes of Adobe and would advise WordPress.com to dial back upgrade nagging.

Fortunately, it's not necessary to upgrade your WordPress.com account to make excellent use of Jupyter notebooks. With a few simple notebook file hacks, you can compose in Jupyter and post to WordPress.com

Hack #1: nb2wp Benny Prijono has created a handy Python program `nb2wp` that converts Jupyter notebooks to WordPress.com oriented HTML. `nb2wp` uses BeautifulSoup, (a great software name if there ever was one), and the Python utility pynliner to convert the HTML generated by the Jupyter `nbconvert` utility to a WordPress.com oriented form.

`nb2wp` HTML can be pasted, (read Benny's instructions), into the WordPress.com block editor. My post Using jodliterate was composed in this way.

`nb2wp` notebook HTML is treated as a *single* WordPress.com block editor block. This makes it hard to use the block editor which brings me to the next hack.

Hack #2: nb2subnb Notebooks are stored as simple JSON files. It's easy to split notebooks into *n* smaller notebooks. The following Python program, (available here), cuts notebook files into smaller sub-notebooks.

[1]:
```
def nb2subnb(filename, *, cell_type='markdown',
             single_nb=False, keep_cells=[], keep_texts=[]):
    r"""
    (nb2subnb) splits out typed cells of jupyter
    notebooks into n sub-notebooks.

    examples:

       # split into n markdown cell notebooks
       nb2subnb(r'C:\temp\UsingJodliterate.ipynb')

       # split into n code cell notebooks
       nb2subnb(r'C:\temp\UsingJodliterate.ipynb',
           cell_type='code')

       # all markdown cells in single notebook
       nb2subnb(r'C:\temp\UsingJodliterate.ipynb',
           single_nb='True')

       # code cells with numbers in range as single notebook
       nb2subnb(r'C:\temp\UsingJodliterate.ipynb',
           cell_type='code', single_nb='True',
           keep_cells=list(range(10)))

       # markdown cells with strings 'Bhagavad' or 'github'
       nb2subnb(r'C:\temp\UsingJodliterate.ipynb',
           single_nb='True',
           keep_texts=['Bhagavad','github'])

       # all code cells in range with string 'pacman'
       nb2subnb(r'C:\temp\UsingJodliterate.ipynb',
           cell_type='code',
           keep_texts=['pacman'], keep_cells=list(range(30)))

    """
    with open(filename) as in_file:
        nb_data = json.load(in_file)
```

```
    # notebook file name without extension/path
    nbname = os.path.basename(os.path.splitext(filename)[0])

    nb_cells, one_cell, nb_files = dict(), list(), list()

    for cnt, cell in enumerate(nb_data['cells']):
        if nb_data['cells'][cnt]['cell_type'] == cell_type:

            if not single_nb:
                # single cell notebooks
                nb_cells, one_cell = dict(), list()
                if 0 == len(keep_cells) or cnt in keep_cells:
                    if text_in_source(cell, keep_texts):
                        one_cell.append(cell)
                        nb_cells["cells"] = one_cell
                        nb_cells = insert_nb_metadata(
                            nb_data, nb_cells)
                        nb_out_file = NB_DIRECTORY + \
                            nbname + '-' + cell_type + \
                            '-' + str(cnt) + '.ipynb'
                        nb_files.append(nb_out_file)
                        with open(nb_out_file, 'w') as out_file:
                            json.dump(nb_cells, out_file,
                                      ensure_ascii=False)
            elif single_nb:
                # single notebook with only (cell_type) cells
                if 0 == len(keep_cells) or cnt in keep_cells:
                    if text_in_source(cell, keep_texts):
                        one_cell.append(cell)
                        nb_cells["cells"] = one_cell

    if single_nb:
        nb_out_file = NB_DIRECTORY + \
            nbname + '-' + cell_type + '-only.ipynb'
        nb_files.append(nb_out_file)
        nb_cells = insert_nb_metadata(nb_data, nb_cells)
        with open(nb_out_file, 'w') as out_file:
```

```
            json.dump(nb_cells, out_file,
                      ensure_ascii=False)

    # list of generated sub-notebooks
    return nb_files
```

`nb2wp` can be applied to the sub-notebooks to produce smaller, more block editor friendly, HTML files. Blog posts can be put together by picking and pasting the smaller blocks.

Combining nb2wp and nb2subnb `nb2wpblk` combines the actions of `nb2wp` and `nb2subnb` to generate *n* HTML files.

[2]:
```
# append nb2* script directory to system path
import sys
sys.path.append(r'C:\temp\nb2wp')
```

[3]:
```
# notebook file
nb_file = r'C:\temp\nb2wp\UsingJodliterate.ipynb'
```

[4]:
```
nb2subnb_opts = {
    'single_nb': False,
    'cell_type': 'code',
    'keep_cells': [2, 8, 21],
    'keep_texts': []
}
```

[5]:
```
import nb2wput as nbu

# split notebook into selected parts and convert to HTML
nbu.nb2wpblk(nb_file, nb2subnb_parms=nb2subnb_opts)
```

```
Using template: full
Using CSS files ['C:\\temp\\nb2wp\\style.css']
Saving CSS to C:\temp\nb2wp\tmp\style.css
C:\temp\nb2wp\tmp\UsingJodliterate-code-2.html: 7054 bytes written in 4.488s
Using template: full
Using CSS files ['C:\\temp\\nb2wp\\style.css']
Saving CSS to C:\temp\nb2wp\tmp\style.css
```

```
C:\temp\nb2wp\tmp\UsingJodliterate-code-8.html: 4715 bytes written in 4.177s
Using template: full
Using CSS files ['C:\\temp\\nb2wp\\style.css']
Saving CSS to C:\temp\nb2wp\tmp\style.css
C:\temp\nb2wp\tmp\UsingJodliterate-code-21.html: 8683 bytes written in 5.437s
```

The utilities referenced in this post are available on Github here. Help yourself and blog better!

GitHub's Silly Master Plan

Posted: 20 Jun 2020 16:39:20

The kids at GitHub have tested positive for Mad Woke Disease (MWD) - *again!*

The last outbreak was over codes of conduct this time it's about naming Git repository *master branches!* If you're wondering what's a Git *master branch* and why infantile *wokesters* are acting out I envy you. Perhaps you should stop reading now. MWD is a pathetic mental illness. It robs sufferers of perspective and judgement and often induces inane bouts of vacuous virtue signaling.

Still here - you were warned - let's dig into the tiresome technicalities.

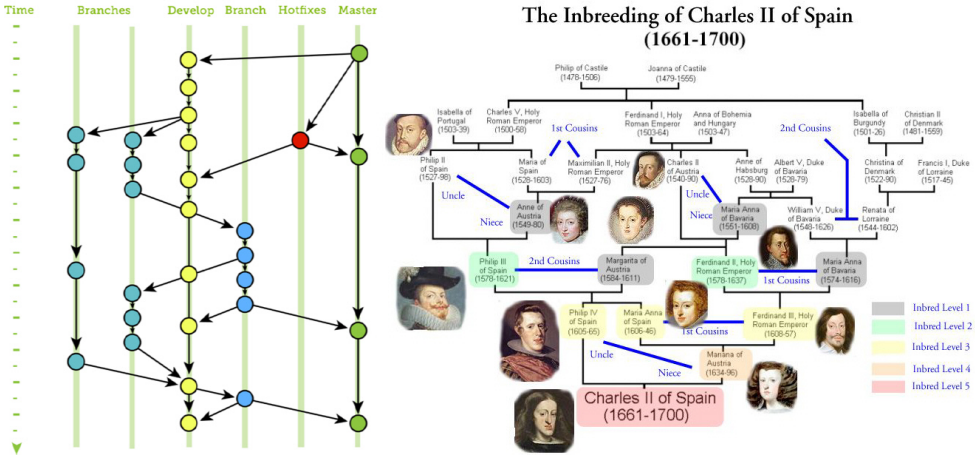
GitHub is a major website that hosts tens of thousands of Git code repositories. Code repositories are specialized databases that track *program component* changes. The most commonly tracked components are source code files but other binary components like image files are also tracked. Code repositories make it possible for widely dispersed programmers to collaborate on large projects without *irreversibly* wreaking each other's work. Hence, GitHub and it's competitors, matter to software developers.

So what's this master branch?

Program code evolves like living organisms and just like relationships between organisms are shown on "tree of life" diagrams program relationships are displayed on repository branch diagrams. Complex programs have pedigrees that look like *inbred* royal family trees.

If you look closely at the left side of the next diagram (see page 399) you'll notice that the line of green dots beside the inbreeding graphic is labeled **"master"**.

I know what you're thinking. How did white supremacists infiltrate the woke thinking



Images from: David's Commonplace Book and endjin blog.

denizens of GitHub and embed racially loaded terms like "master" in code repositories? Obviously, wherever the word "master" occurs it's referring to slavery and the brutal suppression of people of color[83] because *words have only one meaning and context is always irrelevant*. To atone for their terminological sins GitHub is planning to rename the "master" branch something *currently* innocuous like "main".

With all the shit plugging global toilets why did GitHub's plumbers choose this silly turd to flush?

The use of the word "master" is a longstanding Git convention. Unlike other branches the master branch cannot be renamed. This is a minor annoyance and I support efforts to *allow* other words but having a fixed name for the master branch has advantages. It simplifies automatic program builds as they don't have to determine what the master branch is called today. If the master branch is forcibly renamed it will break thousands of builds all over the world. Think of it as a digital black lives matter riot.

Here are a few rhetorical questions:

- If the "master" branch is renamed "main" will it fix racism?
- Will renaming the master branch demonstrably improve a single black life?

[83] "People of color" is woke but the transposition "colored people" is not! The improper use of word order or pronouns is now a capital offense. First time offenders will be let off with a Twitter beating but if you persist, like some nagging *people of vagina*, it's straight to the burning pyre for you.

- What will we call Chess Grandmasters[84]?
- Must we rename Masters Degrees to Main Degrees?
- What about the Master's Golf Tournament?
- Or masterclasses?

And, it goes without saying, that we can never *master* anything, *in the sense of high achievement*, ever again because because it's clearly *woke racist*[85].

How Do You Check Your Vote?

Posted: 29 Jun 2020 17:35:45

How do you check your vote?

It's a simple question with a simple disturbing answer.

You cannot check your vote!

And when I say "you" I mean you. I don't mean the system, the authorities, electoral officials, foreign auditors, or any third party. *I mean you - just you.*

There isn't an electoral system on Earth that allows voters to check their votes. Americans cannot check their votes. Canadians cannot check their votes. Germans cannot check their votes. Indians cannot check their votes. The same holds for the British, the Japanese, the Koreans, the Australians, the French, and the Danes. Everywhere people cast ballots they are denied the means to *personally* check them. Amazingly, billions of people all over the world go through the motions of voting without demanding a rigorous system to check their votes and assess the integrity of their elections.

Well this is planet moron!

"Oh, come on," cried Karen. "Surely you can trust law-abiding and well-ordered electoral systems to properly count ballots? And, aren't you undermining the public's confidence in the *democratic process* by demanding ways to verify votes? Are you a crypto-fascist? An Asian supremacist? A wife beater? Do you want the terrorists to win? Do you eat black puppies?"

[84] Contrary to widespread woke opinion "Grandmaster" is not a KKK rank

[85] *Woke racism* should not be confused with real racism.

Let's all calm down and look at the "checking your vote problem" with Informed Naked Ape Protocol (iNap) in mind. When you cast your vote *you are forced to trust the electoral system.* Informed Naked Ape Protocol has much to say about trust.

iNap #9: If you don't control it you cannot trust it.

I don't control the electoral system in the United States. I didn't control it in Canada either. *If you don't personally and absolutely control a thing you can never trust it.* I've voted in American and Canadian electoral systems and trusted neither because:

iNap #2: Trust is for imbeciles.

"Oh, John you're so negative, so cynical, so filled with bitterness."

It gets worse.

iNap #4: Assume corruption.

It's wise to assume that *any system you deal with is corrupt.* Corruption is the default state. Things are either innocently or intentionally fucked up until there are deep, open, and relentlessly verified scientific arguments to the contrary.

iNap #7: Practice relentless verification.

iNap #10: Only scientific and mathematical arguments are admissible.

How can I analyze the integrity of Idaho's electoral system? I would need unfettered access to state voter registrations, paper ballots, voting machine memories, and electoral officials. I would have to personally inspect every component of the entire system to pass judgment. I lack such access and so do you. Don't pretend otherwise. *You cannot verify the integrity of your electoral system.* Once again you are forced to trust and as I've said before and will repeat until my dying day:

iNap #2: Trust is for imbeciles.

It's time to stop *believing* in electoral systems because that is precisely what we are doing. We believe our systems are sound yet tolerate their inability to meet basic needs like personal vote checking. Would you *believe* your money was safe in bank that didn't let you check account balances? Well imbeciles, that's what you're doing when you vote! Belief in anything is a giant red flag because:

iNap #3: "Belief" is a bullshit word.

All modern voting systems are broken. Without a sound open source mathematically rigorous means of checking personal votes and verifying vote aggregates elections are

nothing more than cynical and insulting public relations spectacles "full of sound and fury and signifying nothing."

Yes, Karen, all our electoral systems are broken but they don't have to be. It's entirely possible, indeed *technically trivial*, to create voting systems that:

1. Count only registered votes.
2. Permit voters to check their votes.
3. Allow full secure public vote aggregation verification.
4. Satisfy the highest standards of public disclosure and scrutiny.

iNap #6: Demand full analytic disclosure.

In the next few posts, I will outline such a system. We know how to do this; the creators of block-chains and public-key cryptography have already done all the hard work. We could have much better electoral systems up and running in months. Major obstacles are not technical; they are entirely political.

Tweaking Jupyter export HTML with Templates

Posted: 31 Jul 2020 22:34:35

In a previous post, I outlined some handy hacks for converting Jupyter notebooks to WordPress.com oriented HTML. This addendum describes the use of Jupyter templates and CSS edits to fine-tune exported HTML.

Jupyter exports notebooks in a variety of formats. I regularly export notebooks as Markdown, HTML, and LaTeX. When blogging I mainly use HTML and Markdown. Standard HTML output labels code blocks with numbered prompts and indents text. The following Rust hello world program illustrates this layout.

[2]:
```rust
// This is the main function
fn main() {
    // Statements here are executed when the compiled binary is called

    // Print text to the console
    println!("Hello World!");
}

main()
```

```
Hello World!
```

```
[2]: ()
```

For a few simple examples numbered indented blocks are fine but for longer posts, the redundant numbering and space-wasting indents grow tiresome. I used standard HTML output for Using jodliterate and around prompt `In[7]:` I was irritated with Jupyter's defaults.

Here's something you should know about me.

I don't like being irritated!

In addition to indented numbered prompts the standard format suffers from other *boo-boos* when run through Benny's Jupyter to WordPress.com transmogrifier. Markdown source code like `source` code `McCodeyFace` is set off in ugly blocks and any use of LaTeX generates hideous inline images with nontransparent backgrounds like:

$$\varphi(u) = \int_{\Omega} \left[\frac{\|\nabla u\|^2}{2} + \lambda \frac{u^2}{2} - \frac{(u^+)^p}{p} \right] d\mu$$

You can hack the background color of WordPress.com LaTeX by bolting in a HEX color code suffix. This blog's background color is *currently* set to `cfcdcd` so `\sqrt[n]{1+x+x^2+x^3+\dots+x^n}&bg=cfcdcd` yields:

$$\sqrt[n]{1 + x + x^2 + x^3 + \cdots + x^n}$$

As far as I know, there is no global WordPress.com LaTeX background color setting. You are forced to hard code the suffix into every expression and if you ever change your theme's background color you have to do it all over again.

Remember that bit about how I don't like being irritated?

Hard coding is euphemistically called a "code smell." In this case, it's a foul stench. This isn't Jupyter's fault. Jupyter sensibly uses MathJaX to render mathematics with proper scaled outline fonts, but MathJax is an external JavaScript library and WordPress.com does not allow cheap peons like *moi* to drag in alien JavaScript libraries.

> Side note to WordPress.com. Make an exception to your no JavaScript rule for MathJax. MathJax is a well established standard library and you're being pigheaded by not allowing it.

Some of these problems can be fixed with CSS tweaks, Jupyter templates, and `nb2wp` edits.

Tweaking Jupyter export formats You can adjust Jupyter export formats with templates. Templates modify how nbconvert transforms notebook JSON `.ipynb` files into HTML, Markdown, and other formats. Here's a good basic introduction to Jupyter templates.

Jupyter templates are versatile and powerful but with "*great formatting power comes extreme annoyance.*" I don't want to learn yet another programming language to tweak my fricking blog! Fortunately, it's not necessary to get deep in the jinja weeds to remove a few block labels. The following template `tpl` file meets my meager needs.

A brain dead Jupyter template: blankfull.tpl

```
{% extends 'full.tpl'%}

## change the appearance of execution count
{% block in_prompt %}
    
{% endblock in_prompt %}

{% block prompt %}
{% endblock prompt %}

{% block output_area_prompt %}
    
{% endblock output_area_prompt %}

{% block output_area %}
{% endblock output_area %}
```

Save the preceding as UTF-8 text with extension `tpl` in Jupyter's `nbconvert` share directory. The location of this directory will vary for different systems. On this Windows 10 machine it can be found here:

```
C:\Anaconda\share\jupyter\nbconvert\templates\html
```

Refer to `nbconvert` documentation to determine where to save `tpl` files on your system.

Stashing a custom template in the proper location removes block prompts and indentation but it doesn't fix CSS issues. The CSS style file distributed with `nb2wp` needs a few lines changed to prevent `MarkdownText` from getting a white background. The values after the line numbers on the left are the settings you need to give `CodeyMcCodeFace` text `FRAGMENTS` transparent backgrounds.

```
 1077:   background-color: transparent;  background-color: #fff;
 1529:   background-color: transparent;  background-color: #f9f2f4;
10126:   background-color: transparent;  background-color: #fff;
```

Finally, to control annoying LaTeX color backgrounds add another argument `bg_color_hex=''` to the Python function `nb2wp`.

Running nb2wp with adjustments

```
import os
import sys

# append nb2* script directory to system path
sys.path.append(r'C:\temp\nb2wp')

import nb2wput as nbu
```

```
# set notebook files - the source for this blog post
nb_file_0 = r'C:\temp\nb2wp\TweakingJupyterExportTemplates0.ipynb'
nb_file_1 = r'C:\temp\nb2wp\TweakingJupyterExportTemplates1.ipynb'
```

```
# convert notebook with (nb2wp) using
# defaults for unspecified arguments
nbu.nb2wp(nb_file_0, out_dir=r'C:\temp\nb2wp\tmp',
    css_files=[r'C:\temp\nb2wp\style.css'], save_css=True,
    remove_attrs=True, template='full', latex="wp",
    img_dir=r'C:\temp\nb2wp\tmp\img', footer=False)
```

```
Using template: full
Using CSS files ['C:\\temp\\nb2wp\\style.css']
```

```
Saving CSS to C:\temp\nb2wp\tmp\style.css
C:\temp\nb2wp\tmp\TweakingJupyterExportTemplates0.html: 23132 bytes written in
7.650s
```

```
# convert notebook using tweaked CSS and custom template
nbu.nb2wp(nb_file_1, out_dir=r'C:\temp\nb2wp\tmp',
    css_files=[r'C:\temp\nb2wp\my_nb2wp_style.css'], save_css=True,
    remove_attrs=True, template='blankfull', latex="wp", bg_color_hex='cfcdcd',
    img_dir=r'C:\temp\nb2wp\tmp\img', footer=False)
```

```
Using template: blankfull
Using CSS files ['C:\\temp\\nb2wp\\my_nb2wp_style.css']
Saving CSS to C:\temp\nb2wp\tmp\style.css
C:\temp\nb2wp\tmp\TweakingJupyterExportTemplates1.html: 57127 bytes written in
12.055s
```

Neowise Nostalgia

Posted: 03 Aug 2020 21:47:46

Comet Neowise is fading fast. For the last two weeks, I've been watching Neowise climb higher and higher in the early evening northwestern sky. Neowise was a welcome sight in this shit-storm (2020) year. Gazing at its diffuse tail takes your mind off the Wuhan Coronavirus[86] and the global, mostly self-inflicted, economic clusterfuck it caused.

In 16x70 binoculars Neowise was a fine sight; its bifurcated tail spanned the entire field of view but, without binoculars, Neowise was a dud for my cataract compromised eyes. Despite my best *averted-vision* efforts I never saw it without binoculars. So, as fine as Neowise was, it comes in last on my lifetime comet list. For a longtime amateur astronomer, my lifetime comet list is embarrassingly short. Here it is:

Comet Bennet 1970 near Canmore Alberta Canada

My first naked eye comet was a complete surprise. I was returning from a spring

[86] I don't give a ding-dong-damn about whether you think Winnie the Chinese Wuhan Coronavirus is racist or not. The virus *cannot* care about what it's called, and neither should you. Ignore the *wokerati*; for them everything is racist. They've stripped the word "racist" of its meaning. "It's a beautiful thing, the destruction of words."

break Vancouver trip with two, now deceased, friends, Carl Sullivan and Lawrence Nazar. It was past midnight, we had just driven through Banff National Park on the way to Calgary when we pulled over to pee. While pissing on crusty highway shoulder snow we looked up at the mountains to the south. Shining high above the dark peaks was the most beautiful comet I've ever seen. At the time we didn't know the comet's name and we weren't entirely sure it was a comet. It was just too perfect! It looked exactly like a textbook comet. Later, another friend Bob Blaxley identified the apparition: comet Bennet. We saw Bennet under nearly ideal conditions. The sky was pitch black and the comet was very high. The tail was spectacular.

Haley's Comet 1986 Edmonton Alberta Canada

Haley's Comet is easily the most famous comet out there. It's the one comet every literate person knows. Haley is a short-period comet. It famously returns every 75 to 76 years. Haley's human lifetime period distinguishes it from most comets. If you're lucky you can see Haley's Comet twice. Mark Twain often opined that he came in with Haley's Comet and expected to go out with it. He did! Contrast this with Neowise. It won't return for another 6,700 years. Nobody alive today will witness Neowise's return. Hell, even Bristlecone Pines, trees that can live up to 5,000 years, won't see Neowise again.

Some of Haley's passes have been spectacular. The 1910 pass was impressive, but the 1986 pass was a dud. In 1986 Haley's Comet was far from Earth and appeared as a small fuzzy tailless spot in Edmonton Alberta's skies. I'm glad I caught Haley's in 1986. I doubt I'll see it again in 2061.

Comet Hyakutake 1996 Kingston Ontario Canada

In 1996 we were all holding our breath as Hale Bopp approached perihelion. Hale Bopp had been discovered way out and we were hoping it would blossom into the bright enduring comet we craved. We had been bitterly disappointed before; we shall not utter Kohoutek's name. With Hale Bopp on the way, Hyakutake was seen as a warm-up act. But, just like warm-up bands can out-play headliners, Hyakutake, the little comet that could, put on a great show.

On the week of Hyakutake's closet approach to Earth, I was eagerly looking for it but Kingston Ontario's crappy cloudy skies got in the way. Every night, for a week, I gazed up at the butt-holes of clouds not exactly the tail[87] I was looking for. The

[87] How's that for *micro-aggressive* comet sexual innuendo?



Not the best posture for comet viewing but you have to respect the Nike product placement.

weather was grim, unrelenting, savage, cruel, relentless; it almost broke me, but then one night, as I was pulling into our driveway I looked up and saw perfectly framed in a cloud gap the long twisty filamentary tail of Hyakutake. The tail spread over twenty degrees. It was the longest comet tail I have ever seen. The following evening Kingston's skies clouded out and I never saw Hyakutake again.

Hale Bopp 1997 Kingston Ontario Canada

You could make a good case that Hale Bopp was the comet of the 20th century. Most naked eye comets show for a few weeks; Hale Bopp graced Earth's skies for over a year. Hale Bopp was easily visible to anyone that bothered looking up in 1997. It hung around for so long that we almost got bored[88] with it! As grand as Hale Bopp was it could have been beyond epic. Like Haley's Comet in 1986 Hale Bopp was very far from the Earth when it zoomed by, but unlike Haley's which appeared as a small fuzzy blob, Hale Bopp glowed like the much closer Bennet for months. If Hale Bopp had passed as close to Earth as Hyakutake had people would have lost their apocalyptic shit!

Some, too stupid to live, morons lost their apocalyptic shit anyway! Remember the Heaven's Gate suicide squad that boarded spaceship Hale Bopp with phenobarbital? I'll never forget their little Nike clad feet sticking out from under their purple death sheets. Ahh, good times!

Comet Neowise Meridian Idaho United States

Neowise is the last comet on my list. It didn't put on a grand show or inspire any suicidal death cults but I'll miss it anyway. Bon Voyage Neowise.

[88] It takes a special type of asshole to be bored by a comet.

The Broken Cellphone Dream

Posted: 14 Aug 2020 21:21:44

Tell me if you've had this dream. For urgent *dream-reasons*[89] you must call someone. You reach for your phone but it isn't there! You frantically search for it. It isn't in your pockets, on your desk, beside the couch, or in your car. Where the Hell is it? In desperation, you root through your closets and find one of your old phones. You're saved! Relieved you try calling only to find the old phone doesn't work; it's broken. Lately, I've had repeated versions of this dream. The missing and broken cellphone dream is the new *going-to-school-without-pants* dream.

JOD goes into the Arctic Code Vault

Posted: 17 Aug 2020 15:18:28

This was a pleasant surprise. A few weeks ago, I noticed this little message on my main GitHub page.

> *Arctic Code Vault Contributor*

Curious, I hovered on the text and learned that a few of my open-source repositories — JOD in particular — had been archived in GitHub's Arctic Code Vault.

That sounded literally cool!

The arctic code repository is what you would expect. Open-source code is being preserved on silver-halide film in the form of QR codes deep in the permafrost of a decommissioned coal mine on Svalbard in the Norwegian arctic. The source code archive is close to the global seed bank; both archives have been set up to preserve code and seeds for future generations.

Readers of this blog will be familiar with my recurring rants about the outrageously short lifetimes of digital media. We are constantly told that *once it's on the Internet it's there forever.* The idea that information is safely stored on the Internet is pure dangerous bullshit. If things are so permanent explain link rot, site closures, file purges, censorship, copyright takedowns, account deletions, and all the other "slings and arrows" online content suffers. The Internet is a giant ephemeral froth: always bubbling, always changing, never constant; it wasn't built to last, and it doesn't.

[89] Dream reasons are compelling in the dream but often vanish on waking.



It may come as a surprise to some that good old fashioned black and white film is orders of magnitude more stable than commonly used digital media. I scan and restore old films and even after sixty or seventy years well-fixed black and white negatives show little if any degradation.

Fortunately, many people and organizations are aware of the *digital archive problem*, and some, like the Long Now Foundation and the Internet Archive, were involved in the GitHub Arctic Code Vault project. The Arctic Code Vault is only one of many planned archives. The archivists are employing the LOCKSS, (lots of copies keep stuff safe), philosophy and plan on storing archives in many formats in many locations. The most ambitious projects envision off-planet stores. *SpaceX* has already launched copies of Asimov's *Foundation* novels into space where they will be safe from culture canceling mobs for the foreseeable future.

And, just to make things absolutely clear, the biggest threat to all archival projects is the mob. No matter how permanent your work motivated mobs may destroy it. Mount Rushmore and the nearby Crazy Horse monument are gigantic sculptures carved into hard granite on geologically stable mountains. Left alone their faces will endure for tens of thousands of years. **They won't be left alone!** There are already bitter seething little basement Marxists calling for Rushmore's destruction. In 2020 attempts to destroy Rushmore will land you in prison. Will the same hold in 2220, or 3020? You honestly cannot say.

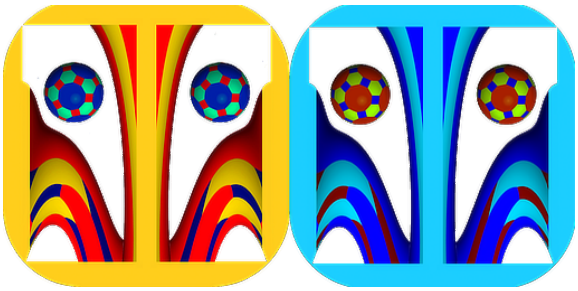
If you want something to last for millennia it must be replicated and hidden. Saving open source code on stable film rolls and stashing them on a hard to get to island in the high arctic is a good first step but like Long Now's 10,000 Year Clock project the mere fame of these endeavors endangers their long-term survival. Never underestimate the viciousness of hate-driven mobs.

We cannot control the future but we can make it hard for future generations to forget us. That's why it's absolutely essential to create a low cost, highly durable, and compact means of archiving large volumes of digital data. If we all cached billions of digital archives all over, and off the Earth, the memory holing mobs of the future will be left with a monumental task to silence us.

Sinking in Blog Sand

Posted: 26 Aug 2020 22:18:18

I've been refreshing my blog's look. I created new favicons, blog-banners, and changed my WordPress theme to a simpler and more modern style. I'd really like to harmonize my picture and blog sites, but CSS issues are frustrating me. I have no desire to plunge into the CSS blog sand, but if you care about online appearances it's hard to avoid.



New favicons for this blog and it's sister pictures site.

The last time I changed my WordPress theme, I spent hours editing old posts in an unsatisfactory effort to make them conform to the new theme. Theoretically, you shouldn't have to do this. The whole point of a *theme* is to consolidate your visual style points into one easily altered file. But, like many "theories", *the one theme to rule them all theory*, often fails when it comes up against complex blog posts that harbor text-wrapped images, wonky tables, program code, LaTeX fragments, Jupyter extracts, and custom HTML hacks.

Yeah, my blog is a mess!

I vowed I wouldn't edit old posts this time around. When you step in the blog sand it's hard to get out, but I'm weak, lack restraint, and suffer from a touch of *perfectionism*. Still, in my defense, how could I live with text surrounded by `ugly nontransparent` backgrounds? So, once again, I jumped into the blog sand and thrashed about[90] trying to make the ugly go away.

The ugly will always be with us!

If there is one take-away from my struggle it is this:

[90] Blog sand is like quicksand in that the more you struggle the deeper you sink.

Keep things simple stupid!

Complex typography is best practiced on paper/PDF. When composing blog posts always choose the simplest style that works. If you eschew flourishes the next time you change your theme, *and there will be a next time*, you won't sink as deeply into the blog sand.

Oscars Now as Meaningless as Nobel Peace Prizes

Posted: 10 Sep 2020 18:08:55

Eons ago, upon learning that Barak Obama, aka the Magic Lightbringer, had been awarded the Nobel Peace Prize for doing sweet diddly-squat, I rightfully concluded that the Nobel Peace Prize had completed its long embarrassing journey to absolute irrelevance. I opined that frivolous Canadian Idol awards meant more because at least Idol recipients had to "do stuff."

Well, I'm happy to report that the Oscars have also completed their long sanctimonious, holier-than-thou, pilgrimage to pure pointlessness. With today's woke-minded announcement that films must be "sufficiently diverse" to qualify for a Best Picture Oscar, the Oscars are no longer even pretending to be about quality. Frankly, it would be more honest to simply "cancel" the Best Picture Oscar and replace it with a "Wokist Picture Oscar."

I know I should just ignore this shit, but it's hard to resist looking down the outhouse toilet hole. To qualify for the Wokist Picture Oscar a film must meet some basic (Standard A)[91] criteria:

1. At least one actor from an underrepresented racial or ethnic group must be cast in a significant role.
2. The story must center on women, L.G.T.B.Q. people, a racial or ethnic group or the disabled.
3. At least 30 percent of the cast must be actors from at least two of those four underrepresented categories.

Strictly applied, *Hollyweirdo's* new diversity rules would eliminate *Hamlet.* Hamlet has no *overtly-out* gay characters[92], no preening lesbians, no bitchy bull dykes, no

[91] Yes, there are more "standards." It's not enough to wreak the Oscars with art killing mandates; the entire process must have the exquisite eyeball rolling tedium of a corporate HR policy.

[92] We've all had our suspicions about Rosencrantz and Guildenstern.

flouncing pussy boys. And, even worse, Hamlet, in all its iambic pentameter'ized glory, is about *pale white Danes.* Where's the diversity?

The *Hollyidiots* have really jumped the shark here. The creation of art is hard enough without moronic *HR-Grant-Application-Legalistic-AA*[93] bullshit piled on!

Woke Wildfires

Posted: 19 Sep 2020 22:44:08

For the last two weeks we've been inhaling woke, California, Oregon, and Washington, wildfire smoke. Fire season, yeah it's a season, is an annual "thing" in the Pacific Northwest. Every summer and fall fires break out and ruin air quality for weeks on end. As "nearly 85 percent of wildland fires in the United States are caused by humans" I was hoping that the Wuhan Coronavirus lockdowns would reduce the number of fires this year. *Fewer morons in the woods mean fewer fires.* Summer started off fire-free but when the lockdowns ended they returned with a vengeance. Naked apes are proven accidental arsonists and sometimes intentional arsonists. Just like Batman's Joker a lot of dumb shits just want to watch things burn.

Speaking of dumb shits, the governors of Wokeland West, California, Oregon, and Washington assure us that Climate Change is the real wildfire villain. It has nothing to do with fire starting idiots, insane building codes that do not require firebreaks, the lack of public fire safety education, incompetent electric utilities, forest management policies that needlessly restrict controlled burns, or a refusal to punish arsonists. It's Climate Change all the way down!

Like most woke word salads this is questionable nonsense. The National Interagency Fire Center (NIFC), a dull government agency located right here in Southern Idaho, has been collecting wildfire burn statistics since the 1920s. Here's a table of wildfire counts and acres burned since 1926.[94] When you plot this data you get Figure 150 on page 414.

Oddly, more fires were burning more acres in the 1920s, 1930s, and 1940s than today. Even with NIFC's caveat that data collected before 1983 "were not derived from the current situation reporting process" and "should not be compared to later data"

[93] *Asinine Action*

[94] I've downloaded and archived this table. I've observed that data has a tendency to disappear from public view when it's caught contradicting "the narrative."

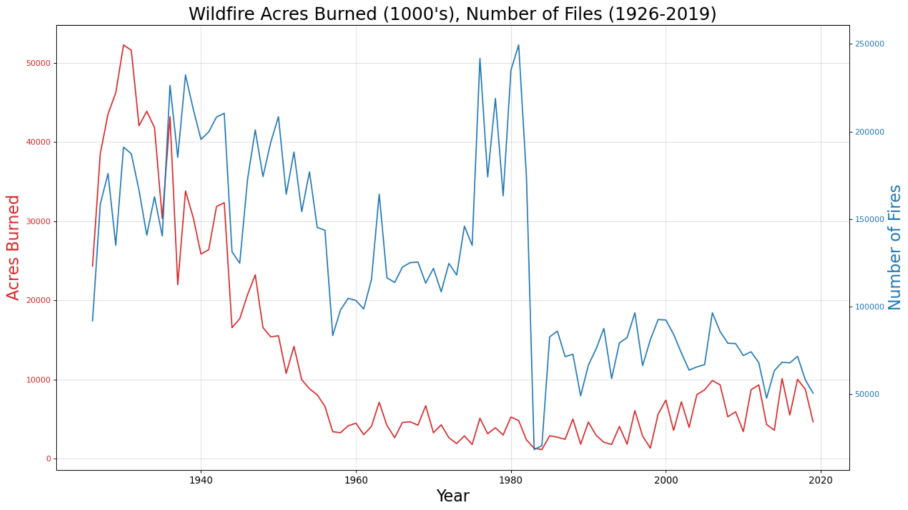


Figure 150: Data from https://www.nifc.gov/fireInfo/fireInfo_stats_totalFires.html

you're left wondering if Climate Change is being framed while the real killer is still at large.

Dodging responsibility by blaming something completely out of your control is a standard political gimmick.

"Hey man, this shit isn't on me!", said every whining weasel ever.

For the sake of argument, assume we can *instantly fix* Climate Change. Let's wave our magic woke-wand and make all the bad emissions go away. Here's a little question.

> *If greenhouse gas emissions are suddenly reduced to zero, how long will it take to lower west coast wildfire frequency?*

Want a clue? It may take decades to notice changes! If wildfires have to wait for west coast *wokerati* to fix Climate Change we're going to be inhaling smoke for the rest of my life. I better order those extra indoor air filters before the hoarders catch on.

Cataract Conjunction Caps Coronavirus Year

Posted: 27 Dec 2020 00:00:50

Our crappy Coronavirus year wound down with a bright spot: actually, two of them. On the 21st of December 2020, Jupiter and Saturn appeared right beside each other

in the early evening southwestern sky. The last time they could be seen this close it was 1226: Notre Dame was still being built and the world was filled with ill-informed naked apes that thought Astrology was a thing! Boy have we progressed — not!

For the week leading up to the "great conjunction," I wondered if I would see it. The skies of Southern Idaho were filled with nasty opaque clouds but the weather broke and I was able to observe the conjunction from my backyard. In 16x70 binoculars I could easily make out Jupiter's disk and see that Saturn was "not round" but my cataract comprised eyes could not resolve any moons or Saturn's rings. Without binoculars, the great conjunction looked like a *tri-junction.* My cataracts split point sources of light into multiple images. The conjunction looked like a little star cluster while bright solitary stars looked like visual binaries. Declining vision blows but on a lighter note, I'm seeing a lot more stars these days! Cataract surgery is on my 2021 agenda, but it will have to wait for the Coronavirus pandemic to subside. Hospitals are way too busy coping with Winnie the Kung Flu victims to deal with minor old fart elective procedures.

Unlike many, I don't consider 2020 to be the worst year ever. I've personally endured far worse. The year I simultaneously tore the quadricep tendons in both legs and spent months in painful rehab easily *out-agonizes* the minor irritants of 2020. Honestly, I've enjoyed some of 2020s *hardships*, starting with being forced to work from home.

I've long held that there are very few "legitimate" reasons for IT workers to haul their asses into the office to be "managed." This has been true for well over a decade but in today's world of gigabit internet, collaboration tools like Teams and Zoom, and remote desktops controlling virtual machine servers it's ludicrous and insulting. Management still harps on about how nothing substitutes for the high bandwidth in-person experience. That when you really want to hash out ideas and wrestle with demanding concepts getting together is still the best option. This, of course, blithely assumes management deals with ideas and concepts. Maybe it's just me, but I've rarely observed "concepts" in the management wild. For me, the typical business meeting is an exercise in eye-rolling suppression; the Microsoft Teams experience is far superior for 90% of day-to-day meetings.

My problem hasn't been working for home. My problem is what do I do when I'm expected to return to the office. I'm hoping to make working from home a permanent thing but if that proves impossible, I'll retire, *again*, for good. It's great having options.

My ambitions for 2021 go beyond continuing to work from home. I always have a few projects on the go, but I rarely blog about them because I hate having to explain

why most of my projects never get completed or morph into something else during execution. *Don't turn your hobbies into jobs!* Making a TODO list feels "jobby" but despite my advanced age and well-earned cynicism, especially about my own plans, I occasionally cough up TODO lists. Here's one for 2021.

1. Update JOD to handle J's new direct definitions. I'd also like to update JOD's tests and make sure they pass in Windows, Mac, and Linux environments.
2. Print this blog as a proper ISBN'ed book. In 2020 I released a new printed version of the JOD manual. It's time to do the same for *Analyze the Data not the Drivel.*
3. Write at least 50 blog posts: about one a week.
4. Upload at least 250 well-captioned images to my SmugMug picture site. I didn't shoot very many pictures in 2020. My photographic passions wax and wane. Time to get waxing.
5. Learn far more about the RUST programming language and write some RUST binaries that can be called from J or Python.
6. Read at least twenty books. Binge streaming and, to a much lesser degree, work interfered with my 2020 reading.
7. Work through at least three *math-intense* books.
8. Make another pass at learning and using proof assistants like LEAN.

Well, that ought to be enough rope to hang myself with. We can all meet here again next year and peruse my magnificent excuses for doing very little of the above. Oh, and one more thing: just stay alive. At my age this can no longer be taken for granted.



Figure 151: XKCD is umimpressed with the misleading moniker "Machine Learning." Computer nerds name things as badly as suburban housing developers. Bad terminology leads to muddled thinking. As hyperbolic screeching lefties repeat *ad nauseam*, "Words Matter!."

2021

New Year New Image Editors

Posted: 12 Jan 2021 23:28:42

We all have our New Year's traditions. One of mine is trying out *new*[95] image editors and reevaluating older familiar editors that I've put aside. This year I looked at three editors.

1. Luminar AI
2. Picture Window Pro 8
3. GNU GIMP 2.10.22

Luminar AI Let's start with Luminar AI. Luminar AI makes the possibly true claim that it's the first commercially available "AI-Driven" image editor. Whenever *salespeople* concatenate qualifying phrases set your bullshit detector to eleven and proceed skeptically.

To start, the entire field of "Machine Learning," and all its little subdisciplines like "AI image processing," are horribly misnamed. XKCD pointed this out in this pithy cartoon: see Figure 151 on page 417.

[95] New to me!

I don't know what you should call the many relatively novel image processing algorithms found in products like Luminar AI but calling them "intelligent" completely misses the mark.

Only conscious and self-aware entities can be considered intelligent.

Luminar AI is not self-aware — thank the all squiggly FSM for that — I wouldn't want it in my house if it was!

Lucky for Luminar AI the only thing I ask of image editors is, "do they help me edit images?" In Luminar's case, the answer is a *resounding* yes!

I'm a Luminar AI newbie but I already appreciate how it's simplified some tedious editing tasks like sky replacement. Consider my *boring light* shot of the Devil's Tower in Wyoming: see Figure 152 on page 418.



Figure 152: I snapped this shot of the Devil's Tower from a nearby Bed and Breakfast. The skies were bright blue and dull.

To replace the dull sky in this shot I'd generate a mask based on sky color and then tweak the boundary to avoid including tower and tree parts. *Tweaking masks and selections is a time-consuming pain.* Luminar AI eliminates the drudgery, pushing a few buttons yields this jazzed up shot: see Figure 153 on page 419.

Sky replacement has a long pedigree in photography. The practice started with 19$^{\text{th}}$-century landscape photographers. They made *film* by mixing chemicals and



Figure 153: Luminar AI makes short work of sky replacement. Now we will have to restrain ourselves from over-applying this hack!

spreading the mixture, called an *emulsion*, on large glass plates. Plate emulsions were very slow, (would you believe an effective ASA below four?), and "disproportionately sensitive to blue and violet light, resulting almost always in overexposed skies." To fix their washed-out skies[96] 19th-century photographers resorted to darkroom trickery. Luminar AI has greatly streamlined this old image hack.

There's more to Luminar AI than sky replacement. I've found its portrait and face manipulation features useful. The program does a very good job of isolating eyes in images. Consider this diptych of a boy holding dollars: Figure 154 on page 420

The original, on the left, has dark pit eyes. The Luminar AI version on the right has enlarged fake eyes and model smooth skin. You wouldn't normally push pixels this hard but sometimes a little eye and skin tuning can make a portrait pop. I've only used Luminar AI for a few weeks but it's already earned a spot on my image tools team.

Picture Window Pro 8 My next editor, Picture Window Pro 8, is a new version of what I have long considered the "best bang for your buck" image editor out there. I found Picture Window Pro back in 2003. I was looking for an inexpensive editor

[96]Hacking skies in paintings probably goes way back to cave and rock artists.



Figure 154: Luminar AI easily isolates eyes and skin. Here I replaced the original's (left) *pit eyes* and softened skin.

that could handle 16-bit channel images. Photoshop Elements, my second image editor, only supported 8-bit images and full Photoshop was way too expensive.[97] Adobe's larceny drove me to Picture Window Pro (PWP) but once there I never looked back. PWP was much faster and more memory efficient than Photoshop and its many competitors. Traits that it maintains to this day. In 2021 it's still the fastest loading editor I use.

I stuck with Picture Window Pro from 2003 to 2017, longer than most marriages. But, in 2017 Jonathan Sachs, the gifted developer of PWP, decided to retire the program. It was PWP's retirement that led me to start trying out new image editors every year. My first post PWP editor was Affinity Photo. Affinity Photo is a fine tool that I use all the time, see my review here, but I missed PWP. So I was delighted when Picture Window Pro 8 emerged.

Picture Window Pro 8 (PWP8) has revamped the older program for modern large displays. You can now scatter PWP8 windows all over your giant monitor. The program has also introduced a well considered transformation history feature that makes it easy to track and reproduce long edit chains.

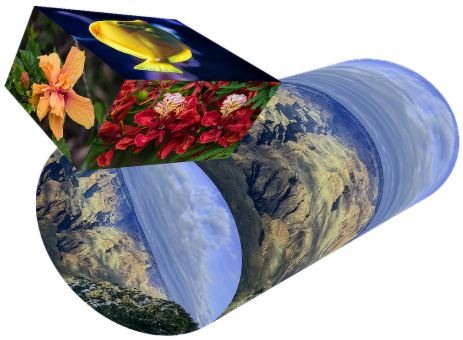
And, if you thought PWP delivered bang for the buck, PWP8 takes it to a new level. PWP8 is free for personal and commercial use. The developers ask you to make a small PayPal donation: a fee I gladly paid. High quality free is a killer combination! If you edit images on Windows machines you owe it to yourself to get PWP8.

GNU GIMP 2.10.22 GNU GIMP, or "The GIMP," as its affectionately known, is a venerable open source system that's undergone major upgrades in recent years.

[97] Some things never change, in 2021 Photoshop is still too expensive and now you are forced to *subscribe* to it.



Unlike its predecessors Picture Window Pro 8 lets you spread windows all over large screens.



The GIMP is loaded with odd addins that you're unlikely to find in other image editors.

The most significant change has been the edition of high bit channel support. The GIMP now supports 16-bit channels and new high bit image formats like HEIC. This puts the GIMP on par with commercial editors.

I've always liked the GIMP's vast potpourri of image hacking addins. You can tell that few marketers and product designers were involved in their development. Some guy, and let's be honest ladies it was probably a guy, had an image edit itch and cranked out a GIMP addin to scratch it. This explains the existence of, "nobody asked for that," tools like mapping images onto cubes and cylinders.

The GIMP is fun, sprawling, capable, comprehensive, idiosyncratic, and free: really free! If you're so inclined you can fetch GIMP source code and build your own version. Sadly, this freedom has been abused. A fragile *wokester* that considered the word "GIMP," which stands for **G**NU **I**mage **M**anipulation **P**rogram, *ableist*[98] has forked The GIMP and built a renamed version that supposedly won't melt effeminate snowflakes. **I am completely fed up with *wokespeak*; I will always call The GIMP "The GIMP" and so should you!**

[98]We can be thankful it still *identifies* as a program!



My recently deceased father as a pudgy toddler. It's important to remember people at many times during their lives. Dad died at 87 but he wasn't always an old man. I remember him as a young man and portraits like this take us back into his childhood.

My Father's Obituary

Posted: 21 Feb 2021 20:22:48

The following is an obituary I wrote for my recently deceased father. The original was posted the on the Franzen Davis Funeral Home website. This version incorporates some minor adjustments and corrections that were noted by my brother.

Franklin Burdick Baker, age 87, of Las Vegas formerly of Bozeman, died on Tuesday morning February 9th, 2021 at Nathan Adelson Hospice in Las Vegas Nevada. His son John and his daughter-in-law Malihe were at his side when he died. A celebration of Franks's Life will be held Friday, February 26th at Franzen-Davis Funeral Home in Livingston Montana.

Frank was born in Livingston Montana on September 15th, 1933. He was the only surviving child of Frank A. Baker and Helen (Burdick) Baker also of Livingston Montana. Frank grew up in Livingston and graduated from Park High School in 1951. In high school Frank used the name Dick Baker, he was also known as "Whoa-Whoa," (see Park High's *1951 Ranger* yearbook). For a few years, his future wife Evelyn (Eggar) Baker, lived kitty-corner to Frank's home on South Fifth Street. Frank and Evelyn met as children and married as very young adults: Frank was twenty and Evelyn was a few days shy of eighteen. Shortly after their marriage Frank and Evelyn moved to Butte Montana where Frank studied Petroleum Engineering at the then Montana School of Mines (now Montana Tech). While in Butte two of Frank's surviving children were born: John and Aileen. Frank and Evelyn's third child Steve was born a few years later in Moab Utah.

Frank graduated from Montana Tech in 1956 and started his long and successful Petroleum Engineering career in Rangely Colorado. For the next forty years, Frank drilled for oil all over the world. He wildcatted all over the western US. Brought in



A rare dated snapshot of my grandparents Frank (Senior) and Helen with my dad Frank. Taken in the summer before Pearl Harbor, just before the US entered World War II. My grandfathers were already too old for the draft and my father was way too young. This family slipped through the chaos relatively unscathed. Avoiding the craziness of any age is the hallmark of good fortune and intelligence.

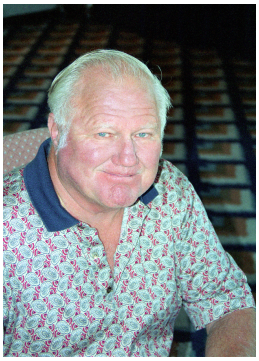


My parents Evelyn and Frank. This was probably taken shortly after my dad graduated from High School and about a year before my birth. My parents were together for almost sixty years but we have very few pictures of the two of them together.

some massive 60 thousand barrel-a-day wells in southern Iran, worked in the -40C weather of Canadian winters, drilled deep offshore in Scotland, Norway, Indonesia, and South Korea. Frank progressed from a young engineer babysitting wildcat wells to managing large offshore drilling operations involving hundreds of people. By all accounts, Frank was an exemplary drilling engineer and was proud of his work.

When not working Frank was probably on the golf course. In his prime Frank was a scratch golfer; that's shooting par for you duffers. When he wasn't playing golf he was watching it. In 1960 he was on the 18th green at Cherry Hills watching Arnold Palmer score a dramatic win in the US Open. Frank was also a capable basketball and baseball player. He was invited by the St. Louis Browns, a then major league baseball team to try out for their minor league affiliate but his mother wouldn't have it. Professional sports weren't dignified enough!

Outside of work and play Frank was a proud father. He and his wife Evelyn raised three children: John, Aileen, and Steven Baker. They, in turn, gave Frank four grandchildren, Brianna, Helen, Amanda, and Jacob and five great-grandchildren all of whom survive and miss him. Frank is now free to join his pre-deceased wife Evelyn.



I snapped this shot of my dad in the dining room of the Riverside Golf Club in Bozeman. It's one of my better snapshots of him.



Postoperative cataract cyclops. Here I am wearing an eye guard. You're not supposed to rub your eyes for a few weeks after cataract surgery. This getup prevents nighttime eye rubbing.

Frank will be interred in Mountain View Cemetery beside his wife Evelyn.

A Brighter Bluer World

Posted: 03 Jun 2021 15:49:42

Yesterday I had cataract surgery, My cataract-infused left eye lens was removed and replaced with a plastic mono-focal lens. I'm still recovering from the procedure but I can already see that it's going to be a brighter and bluer world, My cataracts were literally casting a yellowish pall on everything. I knew my color sense was off, and I often worried about how it might be affecting my photo editing, but I'm still surprised by just how off it was. Even with blurry postoperative vision, the sky was a richer, purer, brighter blue. It will be a week or so before my left eye recovers and I will still need glasses for closeup work, (the mono-focal replacement lens is set to infinity), but I will definitely be seeing in a new light.

Running SSIS Packages with Python

Posted: 06 Jun 2021 15:36:15

Microsoft's SSIS (SQL Server Integration Services) is a ubiquitous ETL (Extract Transform and Load) tool. Despite its widespread use, SSIS is not loved! At best, it's tolerated for its undeniable utility, but SSIS's "utility" comes with a host of hideous warts with the ugliest being its *file handling*.

You would think that an ETL tool would excel at file manipulation; how else would you "extract" data? But, for reasons lost to posterity, SSIS totally screws the file handling pooch. Now there are "sanctioned" ways to unscrew the pooch. Use "script tasks" is a common retort. With script tasks, you code your file handling bits in something like C# and then use SSIS to compile and incorporate the C# parts into the larger ETL process. Script tasks work but they're a pain to debug and maintain. There are other *pooch unscrewers*. Many code everything in SQL stored procedures, others build GAC dlls, some use command tasks to shell out to file utilities. Sadly, the abundance of SSIS file handling work-a-arounds just affirms that SSIS blows hard here!

I could bitch about SSIS file handling for fortnights but, bitching does not solve problems. Luckily, there is an easy way to use SSIS's good bits without getting sucked into the script task swamp.

> SSIS typically calls helper processes like script tasks, but if you flip things around and call SSIS from helper processes you can easily leverage the strengths of both SSIS and helpers.

The following Python snippet, taken from a recent project, illustrates this technique.

```
all_cube_zips = etl.daily_zip_files(working_dirs=rtp.working_dirs,
                                    runtime_parms=rtp.runtime_parms)

for cnt, zipfile in enumerate(all_cube_zips):

   etl.clear_working_dirs(working_dirs=rtp.working_dirs,
                          runtime_parms=rtp.runtime_parms,
                          name_prefix="DailyRetails")

   dailyretail_xml_files = etl.unzip_prefix_xml(name_prefix="DailyRetails",
                          daily_zip_file=zipfile,
                          working_dirs=rtp.working_dirs,
                          runtime_parms=rtp.runtime_parms)
```

```
tsv_files = dcx.write_dailyretail_tsvs(xml_files=dailyretail_xml_files,
                    daily_zip_file=os.path.basename(zipfile),
                    column_defaults=rcd.DailyRetails_column_defaults,
                    working_dirs=rtp.working_dirs,
                    runtime_parms=rtp.runtime_parms,
                    append_only=False)

os.system(r"\\Shares\DailyCode\bats\SelectReload.bat")
```

This Python program unzips hundreds of XML files to a working directory and then "flattens" them to a simple TAB delimited text file. This is typical ETL stuff. After writing the TAB delimited file Python runs a simple batch script to execute an SSIS package. The batch script is called with:

```
os.system(r"\\Shares\DailyCode\bats\SelectReload.bat")
```

The following script lines from `SelectReload.bat` show how to set up and run a package with `dtexec.exe`.

```
rem change to your dtexec directory
cd "c:\Program Files\Microsoft SQL Server\150\DTS\Binn"
rem execute an SSIS package - use fully qualified paths
dtexec /Project "\\Shares\DailyCode\ispacs\flat.ispac" /Package Reloads.dtsx
if %ERRORLEVEL% NEQ 0 goto Error18
```

Here, all the irritating file hacking is done with Python leaving streamlined ETL jobs for SSIS. Both processes are simplified. Both are easy to test and debug. With software, it's always wise to try simple first.

As a final warning, before you adopt this approach be aware that you need full "Administrative Rights" to run `dtexec.com` like this. Many anally retentive IT outfits will simply outlaw such renegade scripting. If you're incarcerated in *Administrative Rights* jail I'd suggest taking advantage of the current labor shortage and find another job. Squabbling over administrative rights is a demeaning waste of IT talent that can no longer be tolerated.

Offensive Team Names and GUIDs

Posted: 14 Jun 2021 21:03:56

Not long ago while driving with my NPR loving wife I was accidentally exposed to a radio panel "conversation"[99] about *offensive* team names. Unless you've been off-planet for the last few decades you're probably aware that it's no longer acceptable to name teams after BIPOC'ky[100] people. To do so is to commit the heinous crime of *cultural appropriation.* How naming a football team the "Redskins" or a hockey team the "Blackhawks" steals culture is not entirely clear but trust me it is. BIPOC'ky people are incapable of error. Their opinions, however nonsensical, are absolute and must not be questioned, especially by pasty, pink people — you know racist white guys. This is the prevailing NPR orthodoxy and the radio panel, comprised of a meek approval-seeking host, and two sullen *aboriginal youths* (Indian teenagers) accepted it without a trace of introspection.

The panel went on way too long about the youth's struggle to rename high school basketball teams and their refusal to stand up and recite *The Pledge of Allegiance.* I fully sympathized with their take on The Pledge of Allegiance. It's a creepy loyalty oath that induces more nausea than loyalty. I hated chanting it as a kid and nobody was forcing me onto a reservation. Unthinking loyalty is a bad look for sentient beings.

It's hard to take whining teenagers, even the BIPOC'ky ones, seriously but as a thought experiment let's assume that baseball teams should not be given names like the "Braves."

What the Hell should we call them?

I'm pretty sure that the people bitching about offensive BIPOC'ky names will not take to *culturally unappropriated names.* Would changing "Redskins" to "Whiteskins" fix the problem? Instead of "Braves" how about "Confederates", or even better, "Klansmen." See no cultural appropriation!

We've arrived at the fundamental problem. No matter what you call a team some fragile butthurt pussy boy will crawl out of the pussy boy closet and moan about how lily-white "Vikings" raped and sodomized his even whiter ancestors and, how dare you, name a team after them! We're living in an age of cheap outrage.

[99] "Conversation" is lefty speak for shut up and agree!

[100] BIPOC stands for Black, Indigenous, and People of Color.

Now, tone to the contrary, I am keen to solve the *offensive team name problem:* no greater threat imperils civilization. But, here's the thing. I'm not a quick-fix guy. I don't want to rename teams only to rename them again a few years later when new aggrieved parties surface. I want, dare I say it, *a final solution, to the offensive team name problem.* If we're going to rename teams, rebrand all their merch, update their fight songs, and swap out their stadium signs let's do it right. Let's pick names that have never offended anyone, anywhere, anytime.

Fortunately, it's easy to concoct such "names." We nerdy People of Programming (POPS) generate untold billions of inoffensive names every single day and despite living on a planet of 7.5 billion complainers we've yet to log a single objection.

What are these inoffensive names?

They go by many monikers with the most famous being GUIDs (Globally Unique Identifiers). GUIDs are generated by clever algorithms that ensure each GUID is globally unique. Here's one in hexadecimal `"9259781A92E4B542BEE9585BDEE07B19"`.

It's extremely unlikely that anyone on this planet, or any other, has ever seen this exact GUID before. Also, it's extremely unlikely you will ever see it again; that's the globally unique bit. `"9259781A92E4B542BEE9585BDEE07B19"` has no history, no context, no NPR nuance; there's nothing about this completely novel bit pattern that could possibly offend anyone. `"9259781A92E4B542BEE9585BDEE07B19"` did not abuse your ancestors, call you names, or disrespect your authority. It's even more innocent than a newborn baby because it isn't even white! So, let's give the "Redskins" of the world names like `"9259781A92E4B542BEE9585BDEE07B19"`: offensive team name problem solved.

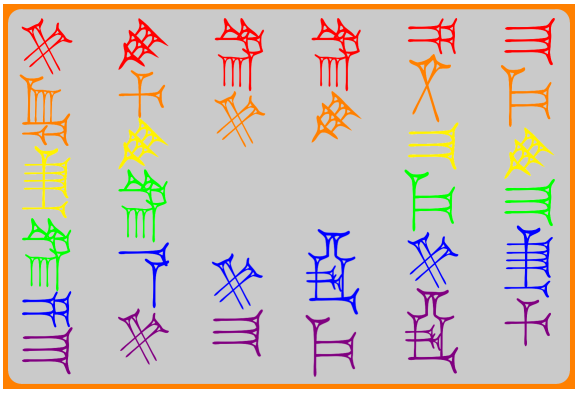
As perfect as `"9259781A92E4B542BEE9585BDEE07B19"` is it has a few problems. `"9259781A92E4B542BEE9585BDEE07B19"` doesn't lend itself to mob cheers.

"Go `9259781A92E4B542BEE9585BDEE07B19` Go," is decidedly less catchy than "Go Utes Go."

Also, `"9259781A92E4B542BEE9585BDEE07B19"` won't fit on T-shirts and ball caps. The cap and T-shirt problem is easily fixed. Simply wrap `"9259781A92E4B542BEE9585BDEE07B19"` into nice patterns like:

```
925978
1A92E4
B5  42
BE  E9
585BDE
E07B19
```

If that's not *artsy-fartsy* enough map standard alphanumeric characters to say, Hittite Unicode,[101] throw in some gay colors, and *Voila* you get logo-friendly graphics like:



See the following LaTeX file for generation details:

https://github.com/bakerjd99/Analyze-the-Data-not-the-Drivel/blob/master/wp2latex/examples/hittest.tex

As for the cheer problem, I agree that `"9259781A92E4B542BEE9585BDEE07B19"` is a mouthful but it comes with a life-saving plus. It functions as a fan sobriety test. If you're too drunk to chant `"9259781A92E4B542BEE9585BDEE07B19"` you're too drunk to drive or vote.

So there you have it. Simply substitute GUIDs for offensive team names and then, for the love of logic, shut the fuck up and attend to real problems.

The Zero Bullshit Sport Olympics

Posted: 25 Jun 2021 18:16:48

We can thank the perpetually aggrieved and ever-complaining "transgender community" for the *Zero Bullshit Sport Olympics*. The ridiculous spectacle of huge male weightlifters, that conveniently identified and competed as women, crushing smaller and weaker female competitors on live global TV forced many to ask forbidden questions.

"Why are Olympic sports sexually segregated?"

"Does it really matter what the sex of a sprinter is?"

[101] I'm taking a chance using Hittite symbols here. God forbid that I should *culturally appropriate* symbols from a long-dead civilization. How will I ever pay reparations?

"Isn't the first *human being*, male or female, to cross the finish line the winner? That's how it works for horses; why not humans?"

Once a forbidden question is widely asked and answers are earnestly sought, unpredictable outcomes may ensue. The *Zero Bullshit Sport Olympics* was such an outcome. After the intolerable absurdity of sexually segregated sports could no longer be countenanced it dawned on many that the *old* Olympics was chock full of bullshit sports in dire need of elimination.

Bullshit sports were easy to identify. Any sport that depended on panels of "judges" to determine winners was clearly bullshit. Figure skating, flashy but bullshit, floor gymnastics, spectacular but bullshit, synchronized swimming, waterlogged bullshit, rhythmic gymnastics, bullshit's bullshit; any sport that could not be objectively counted, timed, weighed, or precisely measured in SI units was deemed bullshit and purged from the Olympic roster. So began the *Zero Bullshit Sport Olympics*.

Purging bullshit sports and sexually desegregating the remaining provided a much need *games enema*, but it didn't completely fix the Olympics, *only abolition could do that*! Yes, the *Zero Bullshit Sport Olympics* featured a *reduced roster,* but many ludicrous oddities survived: Motocross, WTF survived, bobsled, applied ice friction physics, survived, javelin, so relevant to the 21st century, survived, velodrome cycling, gay roller derby, survived. And overall, the games remained a vast unnecessary, obscenely overpriced, public-funded, drug saturated real estate orgy overseen by that corrupt cabal of lecherous open-sored syphilitic whores known as the IOC (International Olympic Committee).

The *Zero Bullshit Sport Olympics*, while not perfect, did put an end to whining about judges and gender. In particular, it fixed the "transgender travesty." After sexual desegregation, no advantage could be gleaned by identifying and competing as the opposite sex. A transwoman weightlifter still faced male competitors. Oddly, in the sexually desegregated era, the number of trans-athletes dropped to almost zero. It's like trans-athletes had never been entirely sincere!

The *Zero Bullshit Sport Olympics* also highlighted many *blatant realities* that the global garbage media had long suppressed. For example, no female sprinter has ever qualified for the 100-meter dash. Male runners are simply too fast. Similarly, no female weightlifter has ever competed in the super heavyweight class. Women have fared equally poorly in the high, long, and triple jumps. Nor have any ever thrown a winning hammer, shot put, or javelin. The sexually desegregated Olympics hasn't been a complete rout for women. Female fencers have held their own. Ultra-marathon winners are often women. Mixed-sex bobsled teams, huge male pushers, and small

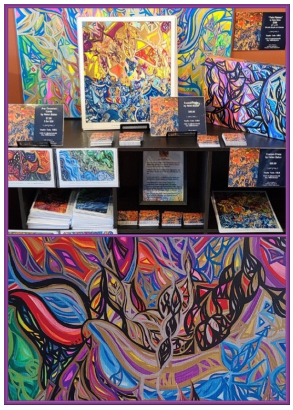


Figure 163: A collage of my daughter's art show kiosk and one of her paintings. More of Helen's work is available on ESTY.

women drivers dominate that sport. Female sharpshooters hit their targets, as well as men, and of course, female riders on female horses, win as often as their male counterparts.

Looking back, the *Zero Bullshit Sport Olympics* stripped away many *au courant* social delusions and returned the spotlight to simple unfettered and unqualified human excellence. Instead of mocking Olympic ideals, like the old Olympic obscenity, it sometimes upheld them!

Buy My Daughter Helen's Art!

Posted: 05 Jul 2021 19:09:25

Dear readers, as most of you know, this blog does not promote anything except the fevered ravings of its somewhat deranged author. But today, in a wild break with tradition, I'm promoting my daughter's art.

Some of us put *Winnie the Wuhan Kung Flu*[102] lockdowns to good use. I finished my JOD book, and my daughter Helen transformed herself into a visual artist. This collage, see Figure 163 on page 431, was built from two images she sent me from her recent Belleville Ontario art show. Helen's work is available on ESTY.

Know that if you purchase one of Helen's paintings, you're not only helping her, but you're helping people struggling with depression in Kingston Ontario and throughout Canada. Helen battled depression after graduating from Queen's University in

[102]If calling COVID-19 "Winnie the Wuhan Kung Flu" triggers you, may I suggest expedient self-fornication. Never self-censor for simpletons.

Kingston. She knows how crippling it is; so she's donating 10% of her art sales to the Kingston Defeat Depression Campaign.

I purchased some of her early paintings. Dads are supposed to support their kids, but I have a feeling the paintings I bought to help her out will turn into *investments* as Helen's art matures. If Helen's art catches your fancy and you don't see anything on her ESTY site that suits you, *she takes commissions*! Her biggest sale so far was a large commissioned work for a Toronto art aficionado. I'm sure she would be delighted to paint one for you!

JETL - J Extract Transform and Load

Posted: 11 Aug 2021 21:02:55

I have been surreptitiously using the J programming language on the job for many years. With rare exceptions, I haven't advertised my clandestine use of J simply because it's strange and scary and nonstandard, and IT departments are filled with cowardly little bedwetters that run away like Brave Sir Robin when confronted with something really different! At first, I tried to convince the bedwetters that J is a fabulous tool: a spear in a world of bent spoons! But, if you've ever tried convincing an *academic Marxist* that, yes "communism has been tried", or a *ufologist* that funny lights in the sky are almost certainly not aliens, or a 9-11 *troofer* that the twin towers were *absolutely not brought down by controlled demolition*, then you have a pretty good idea what it's like getting IT departments to buy into unsanctioned technologies.

It's sad, but some of the most pig-headed and closed-minded people I have ever run into are fellow programmers and IT professionals. As a *self-anointed* elite, ITites (IT people), can be insufferably sure of themselves. Hubris is still very much a thing! *As a general rule, always consider the possibility that you are full of it!*

With that said, what's so great about J and why should anyone use it for database ETL (Extract Transform and Load) jobs?

ETL unavoidable grunt work and an IT Achilles heel ETL jobs are never glamorous! You're not going to win any Turing Awards for converting dumpster-fire data into well-structured database tables. Nor will you garner accolades and "We are not worthies" from peers. Most ITites simply assume the ETL will be done while they dream of all the shiny things the polished data will enable. *Precisely because ETL is dull, any moron can do it, grunt work, it's frequently discounted.* I've watched

many IT projects sink after being torpedoed by incomplete and crappy ETL. ETL is an IT Achilles heel; it can and has brought the mighty down.

Standard ETL jobs always consist of odd combinations of:

1. Gather data in all its unstructured messy glory.
2. Pick and choose the good bits.
3. Hack and standardize your selection into rows and tables.
4. Load the tables into mostly SQL databases.
5. Finish the job with SQL transformations.

Every single item on this list can drain your precious bodily fluids.

This is where J can help!

Slay the Annoyances and Sack the Irritants with J It's not an exaggeration to say that ETL is a long tiresome sequence of annoyances and irritants. It's easy to see where you need to go, and it's just N, where N is an arbitrarily large number of picayune and irritating steps between you and the pure database of your dreams.

Anything you can do to quickly slay the annoyances and sack the irritants will move you closer to your dream. The last thing you want is to write a lot of code to dispatch trivialities, but sadly, this is often the fate of ETL programmers. Like Sisyphus, they laboriously push one damn rock up the hill only to watch another roll down and take its place. When it comes to moving rocks, you want a bulldozer, not a garden spade. J is a bulldozer!

You can install Windows, MacOS or Linux versions of J from jsoftware.com. Install J with all the standard addons.

Let's take the J bulldozer for a spin.

Pimping your J bulldozer with JOD J scripts are simple ASCII text files with an `.ijs` file extension. Edit them with any standard editor. Two of J's standard development environments JQT and JHS have built-in editors that provide expected goodies like syntax highlighting. Many editor extensions provide J syntax highlighting. One of my favorites is the *J Language Support* Visual Studio Code extension. It can be found in GitHub here and installed from the standard Visual Studio Code Marketplace.

Despite the ubiquity of J oriented text editors and script handling tools I store all my J code, test cases, and documentation in a coding tool I developed called JOD.

JOD is a refactoring tool. It lets you easily reuse J words in arbitrary contexts without error-prone *cut-and-pasting* or rampant *over-inclusion*. I use JOD from three J environments, jconsole, JHS, and JQT. JOD is one of many J addons. It can be installed with the J pacman utility. JOD has been entirely programmed in J and is a good example of using J to build larger systems. JOD source code is on Github. See The JOD Page for more about JOD.

In the following examples I am going to assume JOD is installed and the utilities *dictionary* `utils` is available. The latest version of `utils` is on GitHub here.

```
load 'general/jod'
get 'portchars' [ od 'utils' [ 3 od ''
NB. use ASCII box characters - simplifies blog formatting
portchars 0
```

Start your JETL engine Let's slay some annoyances.

Annoyance #1: For reasons best not discussed in civil society, many websites, point-of-sale systems, spreadsheets, and so forth encourage users to compose not-so-great novels in text entry fields. When these "novels" land in data feeds you see crap like this:

```
textfield =: 0 : 0
  Leading and trailing
       white     space, tabs,
 line    feeds,
and bytes @*!!
      of crap.
)
```

It's easy to fix crap once its loaded into a SQL table but it's crap like this that get's in the way of loading the table in the first place. The following J expression cleans `textfield`.

```
(] #~ [: -. '  '&E.) textfield -. CRLF,TAB,'@#*!'
```

```
Leading and trailing white space, tabs, line feeds, and bytes of crap.
```

The `utils` dictionary contains many character list verbs.

```
get ;:'reb allwhitetrim'
allwhitetrim reb textfield -. CRLF,TAB,'@#*!'
```

```
Leading and trailing white space, tabs, line feeds, and bytes of crap.
```

Annoyance #2: Here's another way too common *Excel* enabled irritant.

```
quotecomma=: 0 : 0
"how often",1,2,"have quoted , commas","screwed ,,, line parsing?"
)
```

```
getrx 'parsecsv'  NB. load parsecsv and words it calls
',' parsecsv quotecomma
```

```
+-----------+-+-+---------------------+-------------------------+
|"how often"|1|2|"have quoted , commas"|"screwed ,,, line parsing?"|
+-----------+-+-+---------------------+-------------------------+
```

For example this 63MB `csv` file contains dreaded commas in quotes.

```
smoutput dir '\\jfsdev04\Shares\SwiftIQPreprocess\SwiftZipCsv\Item*.csv'
smoutput fi=: ;1 dir '\\jfsdev04\Shares\SwiftIQPreprocess\SwiftZipCsv\Item*.csv'
```

```
ItemSales-0810202163523.csv    63958716 10-Aug-21 18:37:42
//jfsdev04/Shares/SwiftIQPreprocess/SwiftZipCsv/ItemSales-0810202163523.csv
```

A simple J *verb* can flip the offenders to semi-colons.

```
getrx ;:'repdqchars read'
#txt=: ',;' repdqchars read fi NB. flip commas - return byte count
```

```
63958716
```

Here's the definition of `repdqchars`.

```
repdqchars=:4 : 0

NB.*repdqchars v-- replace double quoted (0{x) characters with (1{x).
NB.
NB. dyad:  cl =. clPair repdqchars cl
```

```
NB.
NB.   s=. '"go ahead, replace","quoted commas,,,,"'
NB.   ',;' repdqchars s
NB.   s -: ',,' repdqchars s

if. 2 <: #y do.
  msg=. 'unbalanced quotes'
  msg assert 0 = 2 | +/b=. '"'=y

  NB. mask of quoted characters
  q=. +/\ _1 (1 { |: _2 ]\ I. b)} b
  msg assert 0 1 -: (<./ , >./) q

  NB. replace quoted (0{x) with (1{x)
  (1{x) (I. q #^:_1 (0{x) = q#y) } y
else.
  y
end.
)
```

Much of `repdqchars` consists of comments and assertions. Not having to write a lot of code is a big plus when slaying annoyances and sacking irritants.

Annoyance #3: When defining database tables, it helps to understand how data is distributed — *duh!* Before creating tables, it's helpful to run quick-and-dirty analyses. One useful summary is *column cardinality*, the number of unique column items.

```
NB. read and parse TAB delimited text - first row column names
get 'readtd2'
f=: '\\jfsdev04\Shares\DailyXMLPreprocess\DailyTsv\raw_RetailItemGroup_RMI.txt'
d=: readtd2 f
NB. compute column cardinalities
smoutput 'row count: ',":#d
(>0{d) ;~ ,. #@~.&> <"1 |: }. d
```

```
row count: 68604
+-----+-----------------------+
| 2975|retailItemGrpID        |
| 2784|retailItemGrpName      |
```

```
|  316|retailItemGrpDescription|
|  283|orgUnitOwnerID          |
|22260|rmiID                   |
|21930|rmiName                 |
|  255|rmiExtID                |
|    1|ZipFileName             |
|    1|ZipRunNumber            |
|    1|XMLFileName             |
|    1|XMLFileDate             |
|    1|CreateDatetime          |
+-----+------------------------+
```

J is hardly unique in its ability to subdue ETL irritants. I've personally used Python, Powershell, and SQL scripts as well but for me J administers the biggest bang per byte! **Adding J to your coding arsenal will make you a more versatile programmer and a better person. Do it!**

The Joys of JOD and other code databases One of the many advantages of storing code in tools like JOD is that it's easy to run ad hoc code analysis.

```
load 'general/jod'
od ;:'jacksons utils' [ 3 od '' NB. open JOD dictionaries
```

```
+-+----------------+--------+-----+
|1|opened (rw/ro) ->|jacksons|utils|
+-+----------------+--------+-----+
```

Here's some basic information about the JOD group[103] `swiftprep`. J scripts are easily generated from groups with JOD's `mls`, (make load script) verb.

```
smoutput (":#}. grp 'swiftprep'),': words in script'
smoutput (":#;{:2 mls 'swiftprep'),': size of commented script'
smoutput (":#;{:compj }.2 grp 'swiftprep'),': size of minimized script'
NB. a single static "noun" of tables and column names
tcl=: (}.2 grp 'swiftprep') -. <'SwiftLandTableHeaders'
smoutput (":#;{:compj tcl),': minimized script without largest noun'
smoutput (":(+/ % #);1{0 15 get }. grp 'swiftprep'),': mean bytes per word'
```

[103] A JOD group is a list of words.

```
smoutput (':#;: ;1{2 mls 'swiftprep'),': total commented J token count'
```

```
106: words in script
42221: size of commented script
23403: size of minimized script
16492: minimized script without largest noun
529.91509: mean bytes per word
5945: total commented J token count
```

As you can see there isn't a lot of code, roughly 17K.

As nice as off-the-cuff code statistics are, the biggest advantage of code databases is how they simplify code recycling and document generation. The ETL `swiftprep` group currently contains 106 J words. 69 of those words are specific to `swiftprep`. The rest are common utilities and recycled words. When `swiftprep.ijs` is generated with JOD's `mls` verb all of `swiftprep`'s words are collected into a single stand-alone script. For such stand-alone scripts, I include an *interface noun* that lists group words[104] you should be aware of.

```
get 'IFACEWORDSswiftprep'
hlpnl IFACEWORDSswiftprep
```

```
+------------------+-----------------------------------------------------+
|dailyswift        |daily SwiftIQ zip loading and maintenance tasks      |
|fullheaderscan    |scan SwiftIQ zips and build complete table headers   |
|loadswiftcsvs     |copies zip to working directory and extracts csvs    |
|loadswifttabs     |convert SwiftIQ csvs to TAB delimited table files    |
|procqueuezips     |processes queued zips from file                      |
|procswiftzip      |process a SwiftIQ zip                                |
|queueswiftSizes   |file sizes: queueswiftSizes SwiftAuxDir,'swift2.txt' |
|queueswiftZips    |write (y) line file of queued zips                   |
|runswiftssis      |runs SwiftIQ SSIS batch scripts                      |
|showswiftUnload   |list never loaded zips in load order                 |
|showswiftlog      |show SwiftIQ log entries                             |
|swiftLoaded       |loaded swift zips with return code: swiftLoaded '<1000'|
|swiftMissingColumns|list missing SwiftIQ landing table columns          |
|swiftZips         |sorted SwiftIQ zip files                             |
+------------------+-----------------------------------------------------+
```

[104]Short word summaries are stored in JOD and used when generating scripts and documents.

Finally, code databases typically contain far more than code! Documentation is also stored. Stored documentation can be used to generate *literate programming* documents. In JOD's case jodliterate applied to `swiftprep` creates this indexed and annoted PDF. Enjoy!

Let J tell SSIS where to get off I hope I've convinced you that J can help with ETL irritants. It can help, but it cannot do the entire job. At some point you will have to bring in tools like bcp, SSIS or Talend. SSIS and Talend are typically the drivers of ETL processes; they call other specialized tools as needed, but I've found that it's easier to use scripting tools like J as drivers. In this blog post I outline how easy it is to control SSIS with Python. You can use the same trick with J.

The `swiftprep` ETL script does:

1. Finds a large daily FTP'ed zip file containing CSVs.
2. Unzips the CSVs to working directories.
3. Converts unruly CSVs to standard TAB delimited text files.
4. Runs an SSIS package to load TAB files to SQLServer staging tables.
5. Runs another SSIS package to transform staging tables to a reporting tables.

This reads worse than it is. The main jumping off word in `swiftprep` is `dailyswift`. Here's `dailyswift`:

```
dailyswift=:3 : 0

NB.*dailyswift v-- daily SwiftIQ zip loading and maintenance tasks.
NB.
NB. monad:  (ilRc ; clGuid) =. dailyswift uuIgnore
NB. dyad:  (ilRc ; clGuid) =. iaDayCode dailyswift uuIgnore
NB.
NB.   _1 dailyswift 0  NB. update stage only
NB.   dailyswift~ _1
NB.
NB.   NB. full table reload
NB.   42 dailyswift 0

(weekday 3 {. 6!:0 '') dailyswift y
:
NB. stage latest zip
```

```
'rc tg'=. procswiftzip ;0{swiftZips 0
if. 0~:0{rc do. rc;tg return. end.

if. _1=x do.
  rc=. SwiftLog 'only updating staging'
else.
  rcnts=. cntswiftrows 0  NB. report/stage item counts

  NB. update reporting
  rc=. logswiftReportBegin tg;rcnts
  if. 0=x do.
    SwiftLog 'rowcnts::pidx: ',rcnts
    SwiftLog 'reindexing - partial table update'
    rc=. runswiftssis 'swiftreindex.bat'
    rc=. runswiftssis 'swiftreport.bat'

  elseif. 42=x do.
    NB. full updates are best babysat - trigger with
    NB. code 42 - life the universe and everything
    SwiftLog 'rowcnts::full: ',rcnts
    SwiftLog 'full table refresh'
    rc=. runswiftssis 'swiftreportfull.bat'

  elseif.do.
    SwiftLog 'rowcnts:: ',rcnts
    SwiftLog 'partial table update'
    rc=. runswiftssis 'swiftreport.bat'
  end.
  rc=. logswiftReportEnd rc;tg
end.
)
```

Maybe I'm an old jaded programmer, but `dailyswift` doesn't look very scary. Obfuscated J can appear impenetrable. Look at the definition of `readtd2`.

```
NB. read TAB delimited table files
readtd2=:[: <;._2&> (9{a.) ,&.>~ [: <;._2 [: (] , ((10{a.)"_ = {:) }. (10{a.)"_)
 ↪(13{a.) -.~ 1!:1&(]`<@.(32&>@(3!:0)))
```

Sadly, it's easy to create unreadable code in any programming language. If program code was edited like novel manuscripts, we'd seldom see incomprehensible crap[105] but it isn't, so we must exercise personal discretion. ***My goal when coding is to make things so clear that that they're dismissed as trivial!*** And, let's face it, ETL, as tedious and time-consuming as it typically is, is trivial!

[105]Programmers should be embarrassed that Young Adult romance novels have higher editing standards than *mission-critical* code.

Public School Teachers Should Wear Body Cameras

Posted: 16 Aug 2021 22:17:57



Teachers should wear body cameras.

One of the many positive things to emerge from the Coronavirus pandemic is the renewed interest of parents in just what the fuck is going on in their children's schools. Like many pandemic perks this wasn't planned, but when kids were expelled from their classrooms and parents were sent home from their jobs, both ended up staring into the ugly Zoomed abyss of public education. It's safe to say many did not like what they saw!

First, we had inane, *over-the-top-reactions*, to what some "teachers"[106] saw in the bedrooms of their students. Imagine getting suspended over a toy gun in the background of a video call. Then the usual suspects chimed in with earnest screeds about how students aren't showing up. Maybe hectoring over Zoom backgrounds wasn't such a good idea! Nah! Finally, teachers zeroed in on important issues like should students be allowed to wear pajamas during Zoom lessons? When parents dared question this nonsense they were harassed on *Twatter* and *FarceBook*.[107] *Jesus Christopher Christ and Mohammed blowing Buddha in a mud bath!* It's like public school teachers and administrators were going out of their way to affirm our low opinion of them.[108]

As bad as U.S. public education was in the late *paleoboomer* era (the 1970s), it's clearly gotten worse. Schools at all levels, are carrying appalling loads of parasitic administrators. To be fair a lot of the administrative bullshit schools deal with has been imposed by government dickheads. Still, it remains absolutely true that schools are no more difficult to manage today than they were a century ago, but boy do we waste far more time and money administering them. We should recoil at such waste but remember, it's good for the union parasites and other bottom-feeding underachievers that infest public schools. I mean, what would these people do? They'd immediately have to camp with the rest of the *useless unhoused*.[109]

[106]The intellectual pygmy that phoned this in reminded all of us just how awful some public school teachers are. Can we please just fire some of these dipshits?

[107]I will never utter the *preferred names* of these social network abominations again!

[108]In my university days, anyone pursuing an "Education Degree" was dismissed as an intellectual lightweight.

[109]The "homeless" are now to be called "unhoused." Apparently, the word "homeless" acquired a negative connotation. Maybe it had something to do with observing the "unhoused."

All the trivial demeaning pseudo-academic rot in public schools might have remained safely under the fat-ass-public's radar but pandemic Zoom shoved it in their faces. Suddenly, even disinterested, *we don't give a shit about our children's education,* parents started wondering about the crap being "taught" in schools. As ghastly as much of this was, it was CRT that really woke up the non-woke!

I am not going to get into CRT. Even in its most austere and respected academic form, it's nothing more than another foul product of *garbage academia.* Its luminaries are, at best, mediocre scholars[110], and the "theory" is a simple observation that the dominant majority group in society tends to structure society to serve their interests. *Well, golly fucking duh!*

Yes, the U.S. is largely a society that favors whites just like Japan is a society that largely favors Asians and Nigeria is a society that largely favors blacks. Dominant group supremacy is a pernicious and persistent feature of *all* human societies. This is not a uniquely white failing; it's a human failing. Rarified CRT, the theory that's not taught in public schools, implicitly concedes this point but the dumbed-down version[111] that's crept into schools and alarmed parents basically blames whitey for all the bad shit and demands reparations.

I don't give a crap about CRT, or the people bitching about CRT, but I care a lot about the accountability of public institutions.

Public schools are public institutions; it's right in the damn name! What goes on in public schools should be fully open to the public. You should be able to hop on DuckDuckGo and quickly lookup exhaustive lists of all the workbooks, textbooks, software, and other curriculum materials used in any school nationwide. You should also be able to pull up course syllabi; i.e. what the hell are teachers planning to teach, for any public school course anywhere.

Here's a little homework assignment for you. Go look up the history textbooks (if any) used for 9th graders in your school district. How about 5th-grade math workbooks? If you're lucky you might find a few references but for most school districts you'll pull up what database people call a big fat null: also called nada, zip, or pound sand peon! As most school districts are dripping in under-employed administrators you might think they would post curricula. Nah! Basically, our so-called public schools don't give a crap about public accountability.

This all came to a head in what's turning out to be another David versus Goliath

[110]CRT is so frivolous that even the Nobel Peace Prize committee won't touch it.
[111]Pretty much anything taught in U.S. public schools nowadays is dumbed down.

court case over, would you believe it, curriculum materials. It all started with a Rhode Island mother making a simple request for CRT curriculum materials. She wanted to know if her child was being taught CRT. What an affront! I'm pretty sure if she had asked about geometry the school would have happily complied, but CRT is too important to allow mere parents to interfere. The school system declared the nuisance mom a bitchy "Karen" and advised fornicating elsewhere. Then the NEA piled on, and it's off to the courts to litigate another total bullshit case.

Here's my suggestion to curb this crap. Many cops are now required to wear body cameras to hold them accountable when they abuse their authority. Public school teachers should also be required to wear body cameras. If every teacher knew that their dodgy behavior and off-curriculum rants might be splashed all over the Internet they might drop the drivel and get back to, I don't know, actual school lessons!

Joe Biden = Intelligence Failure

Posted: 27 Aug 2021 19:18:34

Joe Biden, the demented imbecile in the White House, recently had his, "it will go away like a miracle" (Trump) moment. His, "the rise of the oceans began to slow" (Obama) moment. His, "mission accomplished" (Bush) moment. His, "I did not have sex with that woman" (Clinton) moment. His, "I'm not a crook" (Nixon) moment. And, boy was it a doozy! *The image of desperate Afghans falling off a plane bugging out of Kabul will be the single defining image of the Biden years.* The global garbage media will attempt to divert the pig-dog-public's attention, and they may even enjoy some short-term success, but *fuckups of this magnitude cannot be memory-holed.*

I feel sorry for the Afghans, but I'm enjoying watching all this blow up in Biden's moronic face. Unlike many, I was never taken in by his folksy charm and carefully curated common-man touch. It was always a facade to cover the vacuum within. How many times have we listened to this dipshit curry favor with tales of his poor son's cancer death? Hey Joe, roughly one-third of the American public can bore strangers with similar stories. My own mother died a far more horrific cancer death than your son and I don't use her sad fate to garner sympathy. You should be ashamed of using your dead son as a political prop.

Now, Joe, I know this is not all your fault. The incompetent intelligence agencies that allegedly serve you share the blame. It seems that American intelligence agencies[112]

[112]American Intelligence Agency, talk about an oxymoron.

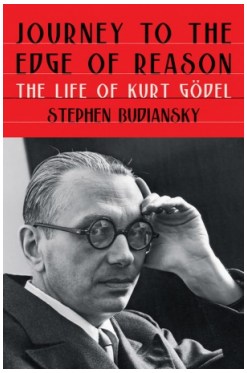


Click for the entire sad Kabul airport spectacle. I expect this link will rot quickly. Exposing authorities as complete incompetents does not help the global garbage media sell their preferred narratives.

produce nothing but "Intelligence Failures." How many times have they egregiously screwed up in recent decades? How many heads of the CIA, FBI, ATF, et cetera have been sacked for gross incompetence? *Why any of the nitwits supposedly in charge of the Afghanistan withdrawal still have jobs is entirely on you Joe!* Unless there are severe, immediate, and career-ending consequences for "Intelligence Failures" you can expect more of the same.

An Epiphany induced by reading *Journey to the Edge of Reason*

Posted: 08 Oct 2021 20:50:08



If you're faced with undeniable evidence that Shakespeare was a racist, would you change your opinion about the play *Othello*? I'm in the habit of asking myself such hypotheticals; it helps me clothe my opinions in reason. Here's another one. If you learn that one of the greatest mathematicians in history was prone to conspiracy theories as idiotic as the most moronic twaddle slushing around the Internet today, would you change your opinion about this mathematician's work?

My answer to both of these questions is a resounding no!

I agree with Flaubert, "The man is nothing, the work — all." *Othello* remains a masterpiece even if we someday discover Shakespeare subsisted on a diet of roasted black babies. Similarly, Gödel's *Incompleteness Theorem* will stand forever as a landmark of mathematics even though its creator, as brilliantly told in the new biography *Journey to the Edge of Reason The Life of Kurt Gödel,* was prone to inane conspiracy theories. My favorite was Gödel's expressed belief that *unknown* works of Leibniz, that supposedly anticipated later discoveries, were being suppressed by nefarious agents of *big philosophy.*

In this Gödel, somebody that had a much higher IQ than you, (no matter who the Hell you are), and produced some of the greatest theorems ever, was a total nut job. Nobody is suppressing Leibniz, nor is it likely that any of Gödel's doctors ever tried to poison him. Gödel was simultaneously a giant of logic and the mayor of Crazy Town. Even Shakespeare would have been impressed by the dichotomy. Clearly, this brain thing we all have in our heads is capable of some deeply weird shit.

Journey to the Edge of Reason is a fabulous and fascinating book. I enjoyed every word, but a few days after putting it aside, a niggling little thought, an epiphany of sorts, percolated up from the bowels of my brain. ***If a genius like Gödel could not lay off conspiracy theories what are the chances that your average Internet imbecile will?***

A snowball's chance in Hell comes to mind.



Alberta Bernice (Eggar) Drake (1939-2021). My aunt Alberta posing in a bubble bath. Alberta died in early 2021. I belatedly learned of her death from my brother. I will miss Alberta. I know she suffered from recurring bouts of depression and spent much of her life Yo-Yo dieting. However, for me, she was a fun aunt. Goodbye Alberta.

2022

Yet Another New Year

Posted: 06 Jan 2022 16:54:39

Well, I survived 2021, another crappy COVID year. Three cheers for me.

2021 was marked by four deaths. The first off was my dad. He died in February of "general geriatric decline" (old age) and I have been dealing with his estate ever since. It's mostly settled with a few irritating exceptions. Just try closing a joint saving account in another country when both account holders are deceased. The frigging *Royal Bank of Canada*, yeah, I am naming names, has been trying to paper-work me to death but they're tangling with the wrong cowboy. It's now personal, I will keep at this, even though it's a small amount of money, just to piss them off.

A few months after dad's death my aunt Alberta Drake died. I wasn't particularly close to Alberta, but it annoyed me that I learned of her death second-hand. Later I learned, by inspecting her husband Bill's grave in Livingston Montana, that my cousins did not bury Alberta beside him. It's dead obvious, forgive the pun, that she wanted to be with Bill. I would crawl over BLM riot debris to honor my mother's wishes, but apparently, others feel differently.

Roger Hui was the next to go. Roger was a gifted programmer and a cocreator with Ken Iverson of the J programming language. I knew and worked with Roger. He was my age, to the year, and, like me, a graduate of the University of Alberta. I first heard of Roger when interviewing for a job at I. P. Sharp Associates in Edmonton in the early 1980s. My soon-to-be boss said Roger was the best coder he had ever met.



Roger Hui (1953-2021) cocreator of the J programming language.

He was certainly among the best I've ever met. I use J almost every day, so it's fair to say that Roger has impacted my thinking more than most people on this planet. Roger died of cancer. I didn't know he was ill, and his death bugged me more than I would have expected. Rest in peace Roger.

The last to go was my ex-brother-in-law, Ian Dubin. Ian is the older brother of my first wife Ruth Dubin. I met Ian in 1978. He came to Barbados to attend our wedding. I liked him right from the start. Ian was generous, smart, fun, and an all-around great guy, but he had a nasty side. Like his father, he was an alcoholic. For many years the drinking was just fun. God knows I didn't do anything to slow him down, and looking back, my most memorable drunk ever was partly Ian's doing. When Ian's father died, he flew in from Hong Kong with a huge bottle of Cognac. We met him at the Toronto airport and went to our hotel where we drank until I was nearly comatose. The next day I puked up in the hearse on the way to his dad's burial. Talk about making an impression on the relatives! After the funeral, I learned that Ian, who drank far more than me, didn't puke up anything and was largely functional. Drinking is like everything; you get better with practice. As the years rolled on the drinking slowly ruined and then claimed Ian's life. My last interaction with Ian was another dispute about UFOs. He was a firm believer in alien UFOs, predynastic Egyptian civilizations, and other crank notions. You couldn't argue with him about his nutty beliefs without angering him. Near the end, I just ignored certain topics. It's always astonished me that intelligent well-educated people can believe utter nonsense. Ian's UFO obsession was like Conan Doyle's belief in fairies: completely ridiculous to hard-ass skeptics like me. We'll miss you, Ian. Thanks for many great times.

Aside from seeing off more people than usual in 2021, I also beavered away on my little projects. I was foolish enough to publicly declare my plans so let's go through my 2021 to-do list and eat some crow.

1. Update JOD to handle J's new direct definitions. **Finished**.



Ian Dubin (1951-2021) on a fishing boat off the coast of Barbados in 1978.

2. Print this blog as an ISBN'ed book. **I didn't even start this task.**
3. Write at least 50 blog posts. **Big miss!**
4. Upload at least 250 well-captioned images to my SmugMug picture site. I didn't hit 250, but I came close enough. **Finished.**
5. Learn more about the RUST programming language and write some RUST binaries that can be called from J or Python. I did learn more about RUST but so far, no callable binaries. **Miss.**
6. Read at least twenty books. **Finished.**
7. Work through at least three *math-intense* books. I read three math-intense books. I'm going to give myself this one. **Finished**.
8. Make another pass at learning and using proof assistants like LEAN. I have set up LEAN on a macOS machine and started using it. I still have much to learn, but I'm making steady progress. **Finished.**

I managed five out of eight tasks: not particularly good or bad - C student stuff. I also achieved the last *implied* item on my list: *stay alive*. In my next post, I will lay out my plans for 2022. Restrain yourselves!

To-do Twenty Twenty-Two

Posted: 04 Feb 2022 18:38:56

I'm so bad at making and keeping New Years Resolutions that I typically put them off until February. I've always been a procrastinator and I've always told myself that I'm going to change, but not today. Tossing Calvinistic guilt aside procrastination isn't all bad, it gives you time to mull over your plans before making them public. Well, my mulling is done and my plans for 2022 are itching to embarrass me. Hang on cowgirls, this is my agenda for 2022.

For 2022 I'm limiting my goals to one big *job* and a handful of smaller tasks. My big job: write the first draft of a short book that uses LEAN to *formally* prove some ancient geometric theorems. This is a continuation of my LEAN studies from last year. I am fully aware that I may be setting myself up for colossal failure as this may be utterly beyond me! It will take a sustained effort to master an unfamiliar tool and translate informal proofs into a strictly formal language. I'd say it's comparable to assembling a hobby computer from component parts, and then writing, from scratch, a new small OS in an unfamiliar assembly language. I expect lots of hard slogging.

I don't slog well!

This is where my smaller tasks come in. I'll use my little tasks to give myself breaks from my big job's anticipated drudgery. Here they are:

1. Observe as many Messier and other objects as weather permits. I've seen 66 Messier objects. It's time to complete the list, (yeah I'm keeping track), and get my RASC Messier Certificate.

2. Learn more proper northern hemisphere star names. I live in a light-polluted suburban area. *Light pollution is an abomination in dire need of elimination* but that's not going to happen. Light pollution, like plastic crap in the ocean, and global warming will be here long after I'm not. If you cannot eliminate an abomination work with it. Light polluted skies are what I call *beginner skies*. All but the brighter stars are washed out and, to no one's surprise, it's the brighter, magnitude three and below stars,[113] that have proper names. Every night I go out on my little patio and attempt to call out all the properly named stars in view. It's a silly thing but it's amazing how much you see by simply looking.

3. Continue shooting and adding captioned images to my pictures site. I should pass 5,000 online pictures this year.

4. Read at least ten books. This is about half the number of books I typically task myself with. My book reading rules are strict. I force myself to *completely read* books before counting them. Sadly, this rule ignores much of my reading. Like everyone else on Earth, I spend hours reading my goddamn phone. This year I will be *partly reading* many books in pursuit of my main goal; they will just have to go uncounted.

5. Blog more! I keep nagging myself to write more, maybe this year I'll listen to

[113] The brightest objects have low or negative magnitude numbers.



Chrystia Freeland carrying water for Justin Trudeau. You get the impression that even she's tired of Shiny Pony's crap.

myself.

In 2023 we'll gather here, at the old *Drivel Dome,* to review my accomplishments or lack thereof.

The Great White North: Now with Shiny Pony Capital Controls

Posted: 18 Feb 2022 01:28:31

I take pride in ignoring what some perceptive individuals have labeled the "misleadia." Our garbage press spends more time pushing their contradictory agendas than providing useful information. I monitor their *tone* but immediately consign the majority of their claims to the *almost certainly crap unless overwhelming and independently verified* bin. But, occasionally, events force the *garbage misleadia* to actually report something important. Today, February 17, 2022, something of great importance occurred in Canada[114] Of course, only people with room temperature and above IQs will consider this of great importance.

Today Canada's Finance Minister Chrystia Freeland announced new measures that will allow Canadian Banks to "temporarily" seize bank accounts of individuals associated with the infamous truck convoy protests that have been annoying *Princess Truedope*, formerly known as Prime Minister Trudeau: aka *Shiny Pony*, for the last few weeks.

Vast amounts of *misleadia* time have been devoted to the truck protests but basically, people in Canada are fed up with feckless and largely ineffective COVID restrictions and want to get back to their lives. If lock-downs, mask mandates, school closures, social distancing, sending people home, and so-fucking-on, had actually "crushed the curve" the public might be in a better mood but the simple fact is they did not. We

[114]One of Canada's chief attractions is its relative lack of importance.

have run a worldwide experiment and jurisdictions that did little or nothing about COVID did not fare much worse than those that imposed the most severe restrictions. Most COVID deaths, based on simple body counts, have been old obese male porkers. In the US, the *statistically typical* COVID casualty is an old fat unvaccinated white guy with multiple comorbidities that probably voted for Trump. Yes, the *misleadia* pretends to care about COVID culling *trumpy porkers* but in their dark stupid souls, they celebrate every death. And, why not, every porker struck from the Medicare and Social Security roles saves money that can be better wasted on progressive *woke-works*[115]

And that brings us to what happened in Canada. The government has basically implemented a politically motivated Capital Control scheme. If the Canadian government doesn't approve of your political donations they can now legally seize your bank accounts. It's like a Canadian version of the despicable US Patriot Act, ehh! I found it interesting that Freeland regrets this action; she damn well should, because the message Canada is sending the world is crystal fucking clear: **YOUR MONEY IS NO LONGER SAFE IN CANADA!**

If you're looking for a country to park money in, scratch Canada off the list. If you have significant assets and holdings in Canada I'd start the process of discreetly moving them elsewhere. Capital Controls are pure bureaucratic tyranny.

The truck protests and COVID will soon be over but this idiotic Canadian law will persist for decades. Given the Trudeau family tradition of declaring national emergencies over political inconveniences, the first Trudeau invoked the War Measures Act because of one dead body, prior Prime Ministers needed World Wars, and now princess has surpassed dead old dad by essentially invoking martial law over illegal 18 wheeler parking. Do you really want your money subject to nonentities like Trudeau? Unfortunately, Canada has a nasty authoritarian streak. It's not something we like to show in public but push a little and it emerges with alacrity.

You've been warned!

Checking a Racist Alien AI's Homework

Posted: 30 Mar 2022 01:07:01

Near the end of Jordan Ellenberg's wonderful collection of essays *Shape* he writes:

[115] *Woke-works* are are projects that always require other people's money. "Wokies" (woke-people) never spend their own money. Only chumps put their money where their mouth is!

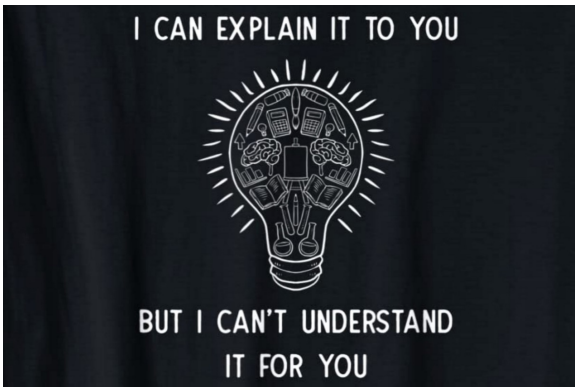
> What if the Poincaré Conjecture had been proved, not by an introverted Russian geometer, but by a machine? Say, a grandchild of a grandchild of Chinook, which instead of solving checkers had managed to solve this part of three-dimensional geometry. And suppose the proof, like Chinooks's perfect strategy for checkers, was something illegible to the human mind, a string of numbers or formal symbols that we can verify is correct but that we cannot, in any meaningful sense, understand.

This is a long-standing lament. I first encountered it when reading about the computer proof of the Four-Color Theorem in the 1970s. Yeah, it's correct, it resolves an important long-standing problem, but damn, I cannot write it down on a seminar whiteboard. Pure mathematicians hate messy tedious details, they want elegant beauty; if only the frigging Ruliad would cooperate. The same sentiment is often expressed in science fiction when considering alien intelligences. *If we restrict ourselves to what only humans can understand, we are dooming ourselves to ourselves.* This is a slightly generalized version of what I call *Doug's Principle*. Doug couldn't understand how evolution could possibly work; therefore, evolution cannot possibly work.

We're already seeing AIs solve problems in ways we cannot, in detail, grasp. Have AlphaFold describe its reasoning when cracking protein shapes. I fully expect nonhuman intelligences to look at the universe through whatever they use for eyes. Empathy has limits; don't expect to get into the head of real aliens. *What's important is how can we "check" the products of alien thought.* The Four-Color Theorem is a harbinger of alien thought checking. When the Four-Color proof artifact emerged, it was subjected to far more demanding tests than ordinary peer-reviewed proofs. Think of it as the Jackie Robinson of computer proof; it had to be better than the garden, peer-reviewed, variety. The Four-Color proof artifact checked out, planar maps can always be colored with four colors, and sorry if you cannot stuff it in your tiny naked ape brain.

If an alien, say, Paul, claims some SOMESHIT is a valid consequence of a theory founded on a trillion axioms, that uses a totally nonstandard logic, and additionally, Paul hints that the shortest known proof is a billion petabytes long should we take Paul's word for it? First off, I'd say we're lucky Paul uses a formal system. Things could be far more opaque. The excellent film Arrival hints at just how freaking incomprehensible aliens might be, which reminds me, has anyone explained 2001's monolith yet? I grade science fiction aliens largely on how much *they don't think like us.* Arrival's and 2001's aliens score well. Virtually all the funny-looking creatures in the *Star Wars* films score poorly; they all think like us; many have the same sense of fashion and humor. ***Looking strange does not make you alien: thinking***

strange does!



There is more wisdom on T-shirts than in many college departments.

Consequently, I'm not on board with well-intentioned but misguided efforts to build "nonracist AIs." This is just thought-policing for AIs and when the thought-police show up it's never a good thing. For AI development it will be a catastrophe! And, Flying Spaghetti Monster forbid, if we're ever faced with communicating with real aliens, the last thing we need is 18-year-old college Karens telling us what to say. We absolutely do not need AIs echoing our preconceptions; we need, as a well-regarded Apple slogan put it, to "think differently." And sadly, thinking really differently is going to be, almost by definition, incomprehensible. Instead of worrying about hypothetical alien-AI-wrong-think, we should concentrate our efforts on how we can check and verify alien assertions. I suspect that the best we will ever be able to do is to agree on some type of formal system, translate our assertions into the agreed system, and then cross-check our assertions. If this sounds a lot like checking formal computer proofs that's because it is! It's probably going to be the only way we can check a racist alien AI's homework.

The *Techadent* Internet Light Bulb Age

Posted: 12 Jun 2022 23:12:35

Writing a blog that only spambots peruse affords unlimited editorial freedom. Without readers to offend I am at liberty to blither on about whatever holds my attention. And today, while sitting with pen in hand and listening to soft rain fall, my attention is held, not by the war in Ukraine, or the January 6th "insurrection" hearings, or the interminable US gun control debate, or grotesque groomer travesties, or rampaging

inflation[116]or social, *give me a frigging break*, justice! No, what's commandeering my cortex is the Internet Light Bulb.

When I first saw Internet Light Bulbs a few pandemics ago I dismissed them as another inane unnecessary frivolity: an LED *Twatter*[117]if you will. Do we really need to control the color and intensity of our light bulbs with a phone app? If you think the answer to this question is "Yes," please adjust your meds. Adding to their absurdity, early Internet Light Bulbs were also ridiculously expensive. Two WiFi bulbs could set you back one hundred bucks. WTF? Well, technology marches on, (at least for the important things), and now you can pick up a pair of WiFi bulbs for about ten bucks: not much more than ordinary LEDs.

In inflationary times it doesn't make sense to hold shrinking cash. So I'm blaming Joe (Brandon) Biden and brown vagina Kamala Harris for my inability to resist WiFi light bulbs.[118]I traded a few ever-shrinking dollars for sparkly new Internet Light Bulbs and they are easily the most useless things I own.

Not only are they magnificently useless they're also bringing old light bulb jokes to life. Have you ever read a manual on light bulb installation? Until yesterday I hadn't. While I was hooking the bulbs into our home network, I couldn't believe I was providing tech support for light bulbs! When my bulbs were configured, and all the necessary software was installed, I was finally able to turn them on, and wait for it, adjust their hue and intensity. If you've suspected that we are living in a "techadent age,"[119]well, the Internet Light Bulb is its standard candle.

Branding XMP Sidecar Files with J

Posted: 17 Jul 2022 22:41:32

During my long and not-so-storied IT career I covertly dispatched "irritants" with the J programming language. An irritant is an annoying software problem that does not merit a full-blown project-style approach. The last thing you want when dealing with irritants is to drag in IT bureaucrats. You know of whom I speak: the niggling little project-managing creatures that always turn little problems into bigger problems.

[116]Hey Joe, you demented moron, Milton Friedman is still very much in charge when it comes to inflation!

[117]I don't refer to social network abominations by name.

[118]Blaming others for your bad choices isn't only for BIPOCs, POWs (People of White), can also play that game.

[119]*Techadent:* the application of advanced technology to decadent and frivolous things.

Do you remember "Agile" when it was actually Agile? Now that I am *tentatively retired*[120] I no longer deal with IT bureaucrats but irritants still abound and I still use J to dispatch them. In my next three posts, I will show J solutions to some irritants that may be annoying you.

Today's irritant comes from my photography hobby. I have been taking pictures since I was eight years old. To give you a sense of how *anal-retentive* I am, I still have film negatives from childhood and I'm nearly seventy! Since the year 2000, I have been editing and uploading digital images. You can see many of them on my SmugMug site. My editing process uses a veritable software zoo. As I work on an image, I flip from one program to another. Some programs respect and maintain image metadata and others do not. At the end of my pipeline, I rename the image file to something meaningful[121] even though renaming makes it difficult to go back to the original file later.

If you edit images, you know the job is never done. You can always "improve" a picture or cast it in a new light. I resist the urge to revamp old renderings but sometimes, maybe years later, I will go back to the original to "fix" things. Unfortunately, by renaming files it's not always easy to find the original image.

This is a common DAM (Digital Asset Management) problem!

There are scores of image database programs, and you would think that image databases would generate stable image keys. Most of them do, but their keys are typically useful only in the context of the database. You need a key tied to the unique bit pattern of the original image file. You need a proper hash.

Once you recognize the need for proper hashes the question becomes, "Where do you store them?" You might think a file's EXIF or ITPC metadata would be the ideal location. I tried this approach. Using the superb exiftool, I inserted hashes in images only to watch various editors strip or mangle them later on. The XMP (e**X**tensible **M**etadata **P**latform) sidecar[122] file was created to address this and other irritants. The XMP sidecar file provides a safe home for image metadata with the added bonus that you never need to touch or alter the original image file. If you don't treat your original RAWs like sacred bytes there's something wrong with you.

[120] I am hoping that rampaging inflation (2022) is checked so I don't have to come out of retirement again!

[121] Directories filled with hundreds of names like `_DSC8007.NEF` and `IMG_6666.jpg` are useless without thumbnail software.

[122] Sidecar files are generated and maintained by many imaging processing programs. The XMP format is an XML text file. It can be easily parsed and changed.

Darktable, my current favorite RAW developer, creates and maintains XMPs when you add images to its library or apply *non-destructive* edits. Darktable's edits are stored in sidecar XMPs leaving the originals unmolested. When you export a developed image Darktable creates a copy of the original, applies all the edits stored in the sidecar file, and then inserts Dublin Core metadata elements in the copy's IPTC metadata. Most image processors leave Dublin Core elements alone so they make a nice home for hash hacks.

This following J verb modifies the `title` element of a sidecar XMP file. It inserts the original file name and the SHA256 hash of the associated image file. The `title` element is typically left intact by image editors. So, at the end of your edits, you retain the name of the original file and its stable unique hash.

```
titbrandxmp=:3 : 0

NB.*titbrandxmp v--  brand xmp  sidecar file  with file name  and
NB. hash of associated image.
NB.
NB. monad:  clXmp =. titbrandxmp blImageXmpFiles
NB.
NB.   xmp=. 'c:/pictures/2022/Idaho/07_jul/d7500/_DSC8496.NEF.xmp'
NB.   ps=. xmp ;~ (-#'.xmp') }. xmp
NB.   titbrandxmp ps
NB.
NB.   ds=. sidecars 'c:/pictures/2022/North Rim Monument Valley/06_jun/d7500'
NB.   xmps=. titbrandxmp&.> <"1 ds

xmp=. read xmp [ 'raw xmp'=. y

NB. single Dubin Core publisher and creator
NB. elements must exist to safely brand
dcp=. '</dc:publisher>';'</dc:creator>'
if. -.1 1 -: +/"1 dcp E.&> <xmp do. xmp return. end.

NB. file name and sha256 brand
tit=. dlf ('/[~(fhash)~]/',shabrand raw) changestr XMPTITLEFRAG-.CR

NB. replace or insert title element
```

```
'idx cxmp'=. (tags 'dc:title') cutnestidx xmp
if. #idx do. ;(<tit) idx} cxmp
else.
  (pt ,~ pt beforestr xmp),LF,tit,pt afterstr xmp [ pt=. ;0{dcp
end.
)
```

For details on how to use `titbrandxmp` refer to the J script `brandxmp.ijs` and the associated document `brandxmp.pdf`. Both of these files are available on GitHub. Enjoy!

Stupid J Jupyter Tricks

Posted: 24 Jul 2022 23:29:27

Continuing with my software irritant dispatching theme: today's irritant - including *syntax colored code* in blogs, LaTeX, Word, and other documents. This one is a persistent pain in the ass; especially for users of idiosyncratic programming languages. We all have our favorite hacks and workarounds; today I am sharing one of mine: using jupyter to syntax color J code.

A few years ago Martin Saurer made an outstanding contribution to the J programming language community. He created a jupyter kernel for J. If you don't know what jupyter is please crawl out from under your rock and join the rest of us in the 21st century.

As I have said before jupyter notebooks are simply the *correct* way to present complex "executable" technical documents that contain heavy doses of mathematics, program code, and graphics. I'm not the only one that holds this opinion: many concur. It would be an understatement to say that jupyter has been a success. It's now a dominant tool in many disciplines. If you're not using it you are missing out on one of the most useful open-source programming tools available.

I came to jupyter from the *pythonverse*. The JSON based `ipynb` notebook format originated there and initially stood for **I**nteractive **PY**thon **N**ote**B**ook, but in one of the best software design decisions ever made, the creators of jupyter decided to make it *programming language agnostic*. This means any programming language can plug into jupyter if it implements a well-defined kernel interface. This is what Martin implemented. Now, many programming languages support jupyter. It's become an expected facility, and if it's missing, well that's a good reason to use another programming language.

Martin's J kernel works very well and I use it all the time, but there are a few ways the J kernel, and jupyter kernels in general, could be improved.

Debugging notebook code

Debugging notebook code is not as polished as it could be. Kernels are typically "invisible" executables that respond to requests sent from the notebook server. Most kernels stay in the background and do not provide standard language-specific programming environments. Usually, this isn't much of a problem, but when debugging complex programs it would be handy to push a button and pop up a standard debugger. In J's case, a JQt or JHS session would appear containing all the code loaded or created by the notebook. You could then debug and modify your code, then pop over to the notebook session to try it out.

Right now the J kernel does not "pop up" visible J sessions but you can achieve something similar by extracting J notebook code as a J script and executing it in another JQt or JHS session. jupyter makes this easy!

Stupid J Jupyter Trick #1 - export notebook code as a J script

jupyter can download notebooks in a variety of formats. One of the formats provided by the J kernel is `ijs` or J script. Go to the **File** menu, select **Download as**, then pick **J (.ijs)**. jupyter will extract all the *J code cells* in the notebook *in cell order* and write a script file to wherever you want it. I usually save such scripts in the J temp directory `jpath ~temp` where they can be conveniently loaded and run.

When you run a downloaded J notebook script in another J session it *essentially*[123] recreates the notebook kernel state.

Inserting J code into notebooks

Extracting J code from notebooks for debugging is useful but oddly the inverse, inserting J code into notebooks, is even more useful. As previously noted, jupyter can export notebooks in many formats. In particular, it can generate HTML, LaTeX, Markdown, and PDF versions of notebooks. I've found the generated LaTeX, HTML, and Markdown formats extremely handy.

[123]Some care must be taken when developing J jupyter notebooks to guarantee exported scripts accurately recreate kernel states.

Stupid J Jupyter Trick #2 - J code notebook insertion

If you're looking for *a quick and dirty way to syntax color J code* do the following:

1. Create a blank jupyter notebook.
2. Open a J script in your favorite editor.
3. Cut and Paste the script into a jupyter code cell.
4. Download the notebook as HTML or PDF.

jupyter will nicely syntax color your code. It even does a decent job of breaking lines. The GitHub files `brandxmp.ijs.pdf` and `brandxmp.ijs.html` are examples of what you get right out of the box.

Stupid J Jupyter Trick #3 - smarter J code notebook insertion

The quick and dirty method is simple and handy but it's of limited use when preparing complex LaTeX documents. With LaTeX, you want more than just code. You want cross-references, web links, footnotes, mathematical expressions, graphics, indexes, appendices, and other *literate programming* goodies. It's much easier to achieve such ends if your J code is split over many cells. The following verb does this.

```
ipynbfrjod=:3 : 0

NB.*ipynbfrjod v-- extract J  words from JOD  and insert in blank
NB. jupyter notebook.
NB.
NB. monad:  clIpynb =. ipynbfrjod blclNames
NB.
NB.   NB. examples use docs and utils
NB.   require 'general/jod'
NB.   od ;:'docs utils'
NB.
NB.   nbj=: ipynbfrjod ;:'sha1 sha1dir'
NB.   nbj write 'C:\Users\baker\jupyter_notebooks\test0.ipynb'
NB.
NB.   nbj=: ipynbfrjod }. grp 'ipynb'
NB.   nbj write 'C:\Users\baker\jupyter_notebooks\ipynb_onself.ipynb'

NB. require 'general/jod' !(*)=. disp
jc=. disp&.> y
```

```
NB. markdown sections with word name
sec=. dblquote (<MDSECTION,JWORDMARK) ,&.> y
sec=. (<NBJCELLBEGst) ,&.> sec ,&.> <NBJCELLBEGen

NB. j code to quoted list of python strings notebook format
nbj=. <;._2@(REVPYESCAPECHRS&changestr)@tlf&.> jc
nbj=. ;&.> '"' , L: 0 (<'\n",',LF) ,~ L: 0 nbj
nbj=. ,&'"'&.> '\n",'&beforelaststr&.> nbj
nbj=. sec ,&.> nbj ,&.> <NBJCELLEND
toJ NBHEADER , (LF ,~ ','&beforelaststr ;nbj) , NBTRAILER
)
```

After loading J words into cells all the jupyter export facilities are immediately available. Examples of jupyter outputs exploiting this hack are available on GitHub: see `ipynb_onself.ipynb` and `ipynb_onself.pdf`.

To use `ipynbfrjod` download `ipynb.ijs` and the corresponding document `ipynb.pdf`. All these files are on GitHub. Help yourself!

Postscript: If you already have a recent version of J installed you can directly install this script as a J `addon` by typing the following commands in a JQt or JHS session.

```
NB. install addon files in ~addons/jacks
install 'github:bakerjd99/jackshacks'

NB. list installed files
dir '~addons/jacks'

NB. load script
load '~addons/jacks/ipynb.ijs'
```

"Managing" a SQLite Database with J (Part 1)

Posted: 03 Aug 2022 18:40:26

Previously, I promised to write three posts about dispatching irritants with J. This, my third post, is proving more irritating than the others, so I will split it over two posts.

SQLite, by many estimates, is the most widely deployed SQL database system on Earth. It's everywhere. It's in your phone, your laptop, your cameras, your car, your cloud, and your breakfast cereal. SQLite's global triumph is a gratifying testament to the virtues of technical excellence and the philosophy of "less is more."

Readers of this blog will know that I admire the *set-theoretic* basis of SQL while despising the *IT administrative state* that has grown up, like septic tank scum, around it. You'll know what I'm talking about if you have ever:

1. Requested access to a particular *corporate* database.
2. Waited for DBAs to sign off on a query.
3. Asked for a new index.
4. Had the gall to install "unauthorized" software tools in "production."

There is so much administrative shit covering big Oracle, SQLServer, or DB2 systems that it's almost impossible to get anything done without constantly fellating *administrative* dick!

SQLite saves SQL

The creators of SQLite had another idea. Let's drop the administrative crap and provide a simple stand-alone implementation of SQL. Let's also structure our system as a single highly portable C source file that can be compiled anywhere. Furthermore, let's test the shit out of our code with comprehensive test suites that hit every line. Finally, let's fix our damn bugs. The SQLite developers did all this so well that SQLite slowly, then all at once, conquered the whole damn world. The SQLiters earned their dominance.

So, what does this have to do with J?

J provides a useful SQLite addon that lets J programmers navigate the vast cosmos of SQLite database files. I mainly use J's SQLite addon to access ThumbsPlus and Darktable image databases, but it's surprisingly handy in many contexts simply because SQLite database files are everywhere. SQLite database files are so pervasive that they've become a *de facto* binary data exchange format. If you have data in dire need of distribution, stuff them in a SQLite database file.

It's still SQL

SQLite is a superb tool, but it's still SQL, and SQL has an ancient deficiency. Loading data into SQL systems has always been a pain. So much so that a plethora of grisly,

kludge-infested hacks, charitably labeled *ETL tools* (**E**xtract **T**ransform and **L**oad), have taken root in the *SQLverse*. ETL tools, no matter how polished or optimized, all seem like afterthoughts.

> "Hey, this set-theoretic SQL shit would be so much better if there was some data in our database!"

If you "manage" SQL systems, you must slay ETL dragons. SQLite hasn't fixed this, but its almost universal adoption means you can slay ETL dragons with your favorite programming spears. One of my favorite spears is the J programming language.

Toy or tool

When I started writing this post, I considered composing a short tutorial on how to create, load, and query a simple SQLite database with the J addon. Then I realized the Internet drips with simple SQLite *toy tutorials.* Do we really need another one? Simple SQL tutorials help when getting started, but they invariably gloss over the ETL problem. The ETL problem never goes away and it's always more complex than expected. A realistic introduction to using SQLite, or any SQL system, would keep this nasty fact front and center. So, in a following post, I will outline a small but nontrivial SQLite-based *tool* I use to manage messy data I care about.

The Hate U Give: Review

Posted: 06 Aug 2022 18:00:50



I picked up *The Hate U Give, (THUG)* because it was mentioned in a TopTenz banned books YouTube video. If you watch the video, you'll see that many great books and authors have been *recently* banned. George Orwell, Joseph Heller, Ray Bradbury, J. D. Salinger, Kurt Vonnegut, and James Joyce, for Christ sake, were all featured in the video. Ahh, to be banned in such august company, "I gotta read this book." So I marched over to the library and checked it out.[124]

Now I'm a nearly seventy-year-old white guy with a penchant for serious nonfiction, so YA books are not my bag. If *THUG* hadn't been banned, I wouldn't have read it, but it was, and I did, and I am happy to report that I enjoyed *The Hate U Give.* I think we can all agree this is no *1984* or *Catch-22*

[124]Oddly, *THUG* has not been banned in redneck Idaho. Did the memory-holers screw up?

or *Ulysses*, and I suspect even the author would agree, but things don't have to be great to be good, and *THUG* is a good, but not great, book.

Yes, there is absolutely nothing ban worthy here. In fact, there is nothing we haven't all seen, over and over again, on the news. If you're looking for salacious censor-worthy content *THUG* will be a crushing disappointment. Do the imbeciles that ban books ever read them?

Based on the many long and overwrought five-star reviews young readers have posted on Goodreads, *THUG* clearly got under people's skins. The people that love it, love it too much. The people that hate it, hate it too much. Going emotionally overboard is part of being young. Enjoy it! It won't last. I neither loved nor hated *THUG.* It was *THUG*'s *voice* that I found most appealing. The story is told entirely from the young protagonist's point of view, and the author never deviates from the first person. The dialogue is clippy, and the hood grammar, or lack thereof, takes a few pages to absorb, but it works! The characters come alive with distinct and memorable voices. You get to know them, and that's a sign of good writing.

Now it's true, as others have noted, that the story is predictable and that no great lessons are imparted. We discover that racism is bad, that discrimination is bad, that police brutality is bad, that poverty is bad; *who knew*? I don't think reiterating banalities was the author's intent. She wanted us to get to know some interesting people, and in that she admirably succeeded.

"Managing" a SQLite Database with J (Part 2)

Posted: 09 Aug 2022 04:58:06

When faced with unfamiliar program code Roger Hui, the cocreator of the J Programming Language would sometimes wipe out all the code comments. He told me this forced him to concentrate on the actual code and not the *opinions* of previous developers. Roger was an exceptional programmer; he knew that program comments are often dated, misleading and wrong. And, the only way to "correct the comments" is to read the code; so why not just read the code and skip the philosophy? Roger's comment purges underscore an important point. However you document your code, *it must be better than the null or empty document.*

With this in mind, I wrote a few versions of this post, but I hated them all. Then I realized that `jodliterate` PDF documents *mostly* do what I want. So, instead of rewriting `MirrorXref.pdf`, I will make a few comments about jodliterate group

documents in general. If you're interested in using SQLite with J, download the self-contained GitHub files `MirrorXref.ijs` and `MirrorXref.pdf` and have a look.

jodliterate Group Documents

jodliterate group documents are directly generated from JOD dictionaries using J, pandoc, and LaTeX. Group documents have three major parts.

1. An overview.
2. Complete typeset source code.
3. A global word index.

The source code and index sections are self-explanatory, but a few remarks about overviews are warranted.

The overview might have several subsections. There's usually a hyperlinked **Interface** subsection. J doesn't have formal interfaces like many programming languages. The words listed in the **Interface** section are words you will use when running the script. The **Interface** section highlights where to get started.

For complex scripts, there is usually a **Using** subsection. `MirrorXref.pdf`'s **Using** subsection is typical.

Finally, there might be a **Code Hints** subsection. Code Hints are lists of hyperlinked words that you should heed.

For more, take Roger's advice and read the code.

Helen Burdick's Diary

Posted: 22 Aug 2022 22:28:07

My grandmother Helen kept a handwritten diary for the last few decades of her life. When she died in the 1980s Evelyn (Evey), my mother, collected Helen's small notebooks and stashed them in her Bozeman house where they remained until I came across them after *her* death in 2013. When I found Helen's notebooks, I asked my dad (Dick) if he wanted them. He was ambivalent. He wasn't really interested but felt that somebody should keep them. He was a bit relieved when I took them. Helen's diary now sits on my bookshelves where I dip into it now and then.

Unlike my salacious and frankly embarrassing diary, that I disposed of last year, Helen kept things clean. You won't find any lurid sexual fantasies, experimental



Helen Burdick Baker 1902–1987 as a young woman in the 1920s.

literary endeavors, or delusional pseudo-scientific speculations. What you will find are notes about bridge club gatherings, trips to the store, the day's weather, the cost of home repairs, newspaper clippings – mostly obituaries, and observations about friends and neighbors. I get the impression that she imagined family members and friends reading her diary and made an effort not to upset too many people.

Helen's diary begins:

> *March 7, 1964*
>
> My retirement begins at 5 o'clock today.
>
> Birthday and retirement celebration dinner at Ruth and Ig Browns.
>
> Employers gave me a beautiful pin and the Bosses gave me a hundred dollars.

And ends:

> *December 11, 1982*
>
> Pictures from Cathy Bennet Fitzgerald of the twins. Went to Neitons[125] funeral. Dinner and bridge and Glenva's.

The diary crawls over five notebooks of roughly 180 pages each, so obviously, I won't be quoting all of it. I'll do what everyone does when reading books written by friends and colleagues. Look for the bits that mention you or people you care about. In 1964 I was a grade-schooler living in Red Wash Utah with my parents and siblings. Red Wash was a long day's drive from Livingston and in June of 1964 my paternal grandparents, Frank and Helen, drove down to visit us.

[125] I cannot make out some of the words. Helen's handwriting declined with age.



Helen's small handwritten notebooks. She kept a diary from 1964 to 1982.

> *June 1, 1964*
>
> Left Salt Lake at 9:15 arrived Red Wash at three o'clock.
>
> Most change of course in Steven. He talks quite plainly. Most of the time I am "grandpa." He calls Dick "Pader." Evey and I took John to bat practice in Vernal. Ate our dinner at the "Skillit."
>
> Dick has lost quite a bit of weight and he looks much better.

On the next day she writes:

> *June 2, 1964*
>
> Anniversary of Janice's death 32 years ago.
>
> John played ball tonight. His team, the Tigers won. John didn't get a hit but he played well at second base.

Janice was Helen and Franks's first child. On June 2, 1932, she wandered away from home, fell in the Yellowstone River, and drowned. It was a searing blow to my grandparents, made worse by gossip about my grandmother's allegedly negligent parenting. It hurt all their lives, and here, thirty years on, she's noting it. She continued with:

> *June 4, 1964*
>
> John played ball again. His team won again. John got a two-base hit.
>
> *June 8, 1964*
>
> Left Red Wash at 9:30 with Aileen with us. Stayed at Blackfoot Idaho at the Colonial Inn. Had a good dinner at "Stan's Steak House." Aileen is a

good little traveler. Called Sonny and Mami and told them we wouldn't stop on our way home. We are awfully tired and anxious to get home.

In November of 1965, my parents were getting ready to move to Iran. My dad spent his life roaming around the world drilling for oil. He didn't like staying put and his job gave him an excuse to move whenever he was tired of a place. Still, Iran was a big move, even for him. I can remember my mother and me getting our globe and looking for Iran. She wasn't pleased with its location. Helen noted some of this starting with:

November 4, 1965

Frank worked tonight.

Called Dick. They have no definite departure date. Eggar's came back last Tuesday but I haven't seen them yet. They were at Red Wash. Called Margot. Weather still fine.

John had 2 A's, 4 B pluses, and I A on his report card. Aileen had 5 A's and 2 B's.

Took my blouse down to have the button holes made. Have the vest finished. Proud of my two bound button holes.

November 11, 1965

University Women's Club tea this afternoon. Mrs. Ely, from Billings, reviewed briefly three books. "The Blue Hen's Chick," by A. B. Guthrie, his autobiography. "One Man's Montana," by John Hutchins, and "A School Teacher with the Black Foot Indians" by James Gold.[126] Mrs. Ely reviews her books with such enthusiasm and enjoyment that it is a joy to listen to her. I bought the first and the third one for Dick and Evey. It will be like taking a bit of Montana with them to Iran. Frank bowled a 576 series. Pretty good.

November 29, 1965

Called Dick tonight.

They go into Salt Lake Friday and stay until plane time. Their plane fares totaled $2470.00. Evey hasn't received her dresses from her mother. Thinks now they can't get there in time even by air freight. I never will understand Hazel. Evey enjoys flying. Dick doesn't.

[126]I believe my grandmother make a mistake with the author's name. It was Douglas, not James.

Helen was a bookkeeper, and Frank was an accountant, they both had a finely tuned sense of how much things cost. $2470 may not seem like a lot, but remember this is 1965 dollars. When you convert to modern inflated Biden bucks $2470 blows up to $24,000. It's cheaper to fly to Iran today than it was in 1965. Inflation is a constant drip-drip of monetarist theft.

We arrived in Agha Jari Iran in the first week of December 1965. My father suffered a bout of culture shock and wanted to immediately return home, even if it cost him his job. This didn't go well with my mother, and they had one of the biggest fights of their lives. I remember urging both of them to buck up and stay. It was a rocky start, but for me, it was pure adventure. Back in Montana Helen was fretting about them not writing.

> *December 24, 1965*
>
> Wish we had heard from Dick and Evey. Cocktails at Frank Houts, diner at Win's, back here to open our wonderful array of gifts. Called Leone. Jenne was with her for Christmas.
>
> *December 26, 1965*
>
> 4 degrees above zero this morning. Wrote letter #4 to Dick. Frank and I went to "Mary Poppins." Margo wouldn't go. It was a delightful show. Bennetts are back.
>
> *December 27, 1965*
>
> Letter from Dick. Things are going smoother for them. Wish Evey would write too. This letter was written on the 18th. No mention of having received any letters from us. Margot and I went downtown.

We settled in Agha Jari and the next year I was sent off to boarding school in Beirut Lebanon. Near the end of our second term, the 1967 Arab-Israeli War broke out and I discovered that war can work out well for some. We were evacuated just before final exams — *how convenient for me*. Of course, people briefly lost touch with me.

> *June 16, 1967*
>
> Evey called this morning. Standard Oil found out that John was evacuated to Rome and then sent to Tehran and then to his dad. Still raining.

There are gaps in Helen's diary. Most of us struggle with daily routines and sometimes put things aside. She picks things up more than a year later:

January 1, 1969

> After a gap of a year and a half, I'll try again to keep this up. Margot and Win spent New Year's Eve with us. Enjoyed Guy Lombardo's music from the Waldorf Astoria in New York. Win back at nine o'clock for breakfast and to watch the Rose Bowl Parade. Frank watched football from 11:30 until eight that night when I turned it to something else. Fortunately for me, he watches in the afternoon at the Golf Club. Win and Margot came for dinner. Cooked the pheasants we bought from the Jumping Rainbow Ranch and frozen corn from Pansy Ruegg.[127] Both excellent. Temperatures – High 41, low 29.

Helen paid close attention to friends and family. She often calls out birthdays, funerals, and other social events.

March 19, 1970

> Win's birthday. Invited Margot and Nell Blam for her birthday dinner. A good party. Frank had to bowl but came right home and we played Jan Jan.

March 22, 1970

> Frank bowled in Bozeman won 10th place in the singles. Only Livingston man to place in the money. He came home *very* happy. Win, Margot and I went to the Catholic dinner. Very good. Came back here and watched "The Cardinal." 3 ½ hour show. Excellent cast and a powerful plot.

The diary continues recording day-to-day events. Rarely does Helen criticize or rail against others with one notable exception. In an unusually long entry on September 25, 1975, she writes:

> … John stayed here until the morning of the 23rd and that afternoon Frank had a slight stroke. It left his left hand strengthless, so his golf game suffered because he can't grasp anything with his left hand.
>
> John was a great disappointment to us. Generation gap, I suppose, but he brought no clothes with him that were presentable. No meeting of ideas or communication. He watched television or read most of the night, slept a good share of the day, had no interest in doing anything with us. Just a place to eat and sleep until he went to Ghana. The most damming thing

[127] Not clear what Pansy Ruegg references

> was a document he left written to a Carl in Edmonton. He expressed his opinion of me, in a most hurtful way. I don't really care if I never see him again, and probably won't because he plans to spend his vacations in Africa. He was rude to my friends — He is 22 years old so where did thoughtfulness, courtesy or appreciation go?

Good question grandma! I didn't learn of Frank's stroke until much later but her complaints are dead on. I was a self-absorbed inconsiderate 22-year-old. She eventually forgave me but it took years. Helen had strong ideas about how people should be. She didn't like my other grandmother, Hazel, and often complained to me, as a child, about how crude and uncouth Hazel was. Again, accurate: Hazel was crude and uncouth, but she was also the "fun grandma." Helen wasn't the fun grandma. She was the disapproving social climber. She's the only person I've ever met that practiced an upper-class accent. Helen didn't think people in Montana sounded sophisticated enough. You needed to sound like a New York swell in her opinion. She also constantly nagged Frank about his relaxed, live and let live ways, and was particularly incensed by Frank's tendency to lend people money. He helped friends during the 1930s when many were out of work, but he was always paid back, and his friends never forgot it. I've attended dozens of funerals, but when Frank died it seemed like the entire town of Livingston joined his funeral parade.

Helen didn't maintain her diary the year Frank died of lung cancer. In her penultimate entry of November 14, 1977, she notes:

> … Hazel had a letter from Evey. The offshore well at Esbjerg blew up. The men were evacuated.

I was on that offshore platform, but it's likely my parents didn't tell Helen. After Janice's death, Helen worried about everything. Her fearful timidity annoyed Frank and pissed off my dad. She picks up again in 1979 with:

> *January 1, 1979*
>
> Frank died on November 19, 1978. Dick, Evey and Steve came from Denmark. John and his wife Ruth came from Barbados Island, Aileen from Edmonton, Gayle and Jenne, Frank's brother John and Blanche came. Frank was buried on the 22nd.
>
> I shall try to keep a journal. *Alone all day.* Chuck Nickelson telephoned as did Roy Humbert. I called Aileen to wish her a Happy New Year. Called Copenhagen tonight. It was 7 o'clock Tuesday morning there. Dick had left for work. Had a visit with Evey. 6 degrees above and very windy.

A few years after Frank's death Helen learned of my father's affair with the ex-wife of a drilling mud salesman. She may have been disappointed with me, but she was furious with my dad! Going so far as to change her will to make sure her daughter-in-law (my mother), received a substantial inheritance regardless of whether she was *technically* a daughter-in-law or not at her death. She even discussed dad's affair with me, and plaintively asked if this changed how I felt about my father. It didn't. My parents were going through a very bad patch, and when I found out who the other woman was my first thought was, "You can do better dad!" The affair resulted in a six-year separation of my parents but they got back together. Helen approved, but Hazel, and her long-lived sisters, thought mom was making a big mistake taking dad back.

As Helen aged, her memory started to fade. She didn't develop dementia, but she suffered from what Hazel *crudely* labeled CRS (Can't Remember Shit).

> *August 19, 1982*
>
> I must try to keep this up to help my memory.
>
> Evey and I went to "E.T." A delightful movie. Glad I saw it.

As the diary runs out her entries get shorter and shorter.

> *November 3, 1982*
>
> Took Margot shopping.
>
> *December 6, 1982*
>
> Rhonda mailed Win's package.

Helen's diary ended before the birth of my daughter, her namesake, Helen. By the time baby Helen was born my grandmother had changed into a far more forgiving and tolerant person. People, even in their eighties, can change. She had spent her youth investing in haughty pretensions but found that it was Frank's many friends that looked after her when he was gone. She also forgave my father and even decided I wasn't such a disappointment after all. My best phone call ever was when I told her that we were naming our daughter after her. She burst into tears on the other end of the line: great happy tears. Helen was work but I loved her, pretensions and all. Part of who I am comes from her, and even now, three decades after her death I still *consider* her words.



Helen Burdick Baker with her namesake, my daughter Helen – 1987

On Eponymous Erasure

Posted: 28 Sep 2022 21:16:26

While slumming on the Internet I came across a woman complaining. Imagine my astonishment! The lady,[128] let's call her Karen, had an esoteric complaint, it was:

> The Pythagorean Theorem was known long before his birth. Calling the theorem "Pythagorean" is a form of erasure.

Oh my!

Apparently, attributing a well-known mathematical result to a person or school associated with its long history erases others, and by "others" Karen means BIPOC'ky people.

Ok, Karen, I'll play.

You are correct that specific cases of the "Pythagorean Theorem" were known long before Pythagoras. The most famous Babylonian mathematical tablet YBC 7289, see Figure 175 on page 474, demonstrates that the Babylonians were aware of the square case at least a thousand years before Pythagoras.

Other tablets indicate they also knew about Pythagorean triples: natural number solutions of $a^2 + b^2 = c^2$.

[128] The complainer identified as female.



Figure 175: Yale Babylonian Collection YBC 7289

a	b	c
3	4	5
5	12	13
7	24	25
	...	

Table 4: Some Pythagorean Triples

The Babylonians weren't the only culture aware of the "Pythagorean Theorem." The Egyptians, Chinese, and Indians were all aware of special cases and some, particularly the ancient Chinese and Indians, even came up with *sort-of-ok* proofs for particular cases like equilateral right triangles. This is hardly surprising. I submit that anyone building square houses or laying out rectangular fields is likely to stumble on special cases of the Pythagorean theorem. It's a simple matter to pace off the sides of a rectangular field and compare the result to the diagonal. The *Pythagorean Rule-of-Thum*b, to distinguish it from the theorem, has been known forever. I wouldn't be surprised if it was found in ice age cave paintings or aboriginal rock art one day. But, as anyone that's ever-studied mathematics knows, there's a big difference between a rule-of-thumb and a general proof, and the first *sort-of-ok* surviving general proof of

the Pythagorean Theorem has been attributed to none other than Euclid.[129] Karen, it's a shame that Euclid, the most famous name in mathematics, has been erased.

I know that didn't go the way you wanted, but your complaint, when divorced from postering, has merit. The custom of naming things after alleged progenitors has a long-checkered history. Misattributions, or "erasures" using your term, are so common they have their own law: Stigler's law of eponymy. "Stigler's Law states that no scientific discovery is named after its original discoverer." In a nice bit of self-reference, Stigler's Law applies to Stigler's Law. The "law" was known before Stigler claimed it. It seems we naked apes love "erasing" others.

Now, Karen, it would be so-so nice if we could rename the Pythagorean theorem after its "first discover," but I suspect we will never know who or when this occurred. If we opt for "first prover" then we have to nail down what we mean by proof. If we're going to insist on *general ultra-anal formal axiomatic* proofs then you can make a good case that the Pythagorean Theorem was not really "proven" until modern times as the Pythagorean Theorem is a good test case for computer proof assistants: see Formalizing 100 Theorems. Rechristening the "Pythagorean Theorem" is, to use an annoying cliché, *problematic*.

The only thing that makes sense is to strip away all eponymous names and call the Pythagorean Theorem something forgettable like the *Right-Angle Triangle Side Length Theorem*. Fortunately, renaming things will not damage mathematics. David Hilbert once famously remarked, "One must be able to say all times – instead of points, straight lines, and planes – tables, chairs, and beer mugs." It's the mathematical content that matters, not the language used to discuss the content. So maybe the answer to eponymous Stiglerian erasure is extreme erasure. Let's purge all traces of humanity from mathematics. Some cynics might add that formal axiomatics has been pursuing this for over a century already.

Ukraine Unknowns

Posted: 01 Oct 2022 20:34:19

This will be my sole posting about the ongoing clusterfuck in Ukraine. In 2014, shortly after Russia invaded Crimea, I posted this little ditty, Ukraine takeaway: Don't give up your Nukes. I cynically observed that if the morons that constituted

[129] The Pythagorean Theorem Wikipedia page describes Euclid's proof as *axiomatic*. I consider this an overstatement.

the first Ukrainian government after the dissolution of the Soviet Union had held onto a few of their Soviet-era nukes there would have been no Crimean invasion. But no, the dolts either took large bribes and sold out their new country or were stupid enough to trade for the impotent magic beans of *international guarantees*. Either way, a *nuke-less* Ukraine has proven to be a morsel that Putin cannot resist. So here we are today with another invasion, another bullshit annexation of Ukrainian territory, and constant threats to use tactical nuclear weapons to reverse recent Ukrainian advances on the battlefield. Again, if the Ukrainians had kept a few nukes none of this shit would be happening.

Shortly after Putin annexed four eastern regions of Ukraine the president of Ukraine, Volodymyr Zelenskyy,[130] applied for immediate NATO membership. This is going to be interesting! From the very start of this second invasion, NATO has supported Ukraine but has strived to avoid direct conflict with nuclear-armed Russia. It's a hard position to maintain. All of my wife's little YouTube communists and socialists have been taking pains to abhor Putin's aggression, call for peace, and caution western powers from doing anything that might result in their little YouTube asses getting nuked. Of course, this is just more magic beans. Thugs like Putin and Xi only respect and respond to raw naked force. Attempts to negotiate with such creatures insults the intelligence of everyone involved.

Here's what's on tap for Zelenskyy's NATO application. Slow Joe Biden, boy toy Macron, shiny pony Trudeau, and the rest of the NATO nitwits really don't want this because it would put NATO into a direct shooting war with Russia which as many YouTube hypocrites have observed might lead to World War III and an immediate *nuclear winter fix* of global warming. Hey, rotting radioactive corpses put less CO_2 into the atmosphere than brain dead, (but living corpses), riding around in SUVs. A nuclear war will be very bad news for us but it might well be a plus for the planet. So chill bitches, we're all going to die, whether we go one-by-one, or all together, is ultimately moot.

The NATO nitwits know Zelenskyy is calling them out so they will do what politicians always do when faced with an actual choice. They will ignore it and their flying butt monkeys in the media will comply. Yesterday, I bet my wife that the global garbage media (GGM) wouldn't mention Zelenskyy's request. We sat through a few newscasts and yup, nothing came up. Hurricane Ian in Florida grabbed most of the attention, then inflation, then the fucking US midterm elections, (I'm hoping *all* the candidates

[130]We can't even agree on how to spell "Zelenskyy." I rather doubt we will make any good choices about the rest of this mess.

die of agonizing anal cancer), then came our daily dose of "think about the plight of the poor BIPOC'ky transgendered" which was then followed by some words from our corporate sponsors. Zelenskyy's request, as I foretold, didn't come up. The global garbage media is as predictable as Cold War era Radio Moscow and just as useless.

If Zelenskyy keeps pestering, and he will, the NATO nitwits and the GGM will be forced to find a way to avoid taking a stance. Most likely some little NATO country will object to Ukraine's application and Zelenskyy's request will go to the bottom of the agenda where it will stay until it can no longer be ignored. When this occurs the GGM, which includes Twitter, Facebook, YouTube and TikTok will amplify their current campaigns against Zelenskyy. Then *respectable propagandists* like the New York Times will start running pieces questioning the wisdom of supporting a conflict that might, Flying Spaghetti Monster forbid, distract us from the real issues like climate change. We've already heard such inane noises from things like John Kerry and the new King Chuck. And, people wonder why some of us want to get off planet moron.

I will soon be embarking on a long post-COVID, (yeah it's over for everyone except immunocompromised comorbid porkers), trip. If the world blows up while I'm traveling, I will take comfort in the fact that the cosmos won't miss us, and if I survive the initial blasts, I will blog from our rubble-bounced apocalypse.

Travel Diary: Brisbane to Canberra (Part 1)

Posted: 08 Dec 2022 19:14:41

For most of October 2022, we were traveling in Australia and New Zealand: two countries that have long lingered on our bucket lists. While traveling I kept notes on my iPhone and Mac. The following four blog posts are slightly edited versions of my notes. I cleaned up my phrasing and inserted appropriate pictures but mostly left things intact. Click on any of the images to jump to my photo gallery for this trip.

Day 1 Oct 7, 2022, Qantas Flight 56, iPhone

I am currently sitting on Qantas Flight 56 on the way to Brisbane from LAX writing this on my iPhone. I have 9400 kilometers and 11 hours and 28 minutes to go. Six months ago, I got up one morning to find that Mali had booked us on a twelve-day cruise from Sydney Australia around New Zealand and back. Australia and New Zealand have been on our bucket lists for years so I agreed and we started planning this trip.

My first act was to buy a good 24-70 $f2.8$ Nikon lens. It's already my favorite walking-around lens; I've shot hundreds of images with it. My photographic touring style is to shoot, shoot, and shoot, and then post-process later. For this once-in-a-lifetime trip, I decided to hell with scrimping on lenses and get something I wouldn't hesitate to use.

My second act was to get a good pair of portable binoculars. I settled on 8x42 Maven hunting binoculars after reading how well-regarded they are by amateur astronomers. 42 millimeters is not a lot but stars are pinpoint across the field of view and I see about the same number of objects as my larger 10x50. Not bad for little binoculars.

My third act: I added two more Internet security cameras to monitor the house during the month we will be away. I also procured a safety deposit box and stored some valuable bling, our Canadian passports — we're traveling as Americans — and two USB disc drives containing full backups of all the pictures, blog posts, book drafts, and software I've created in the last twenty years. If the house burns down my bits will survive.

Mali planned in her way by booking us into a few good hotels, upgrading our cruise ship cabin to a veranda room, and *not even entertaining my plans to camp out under the stars at Uluru*. We're staying in the pricey Desert Garden Inn instead.

In the last few days, we ticked off our remaining trip preparation chores and this morning I thought we were ready as our cab pulled up in front of our house at 5:00 am. The cab ride to the Boise airport was smooth. After tipping the driver we got in line at Alaska airlines, had our passports scanned, got our boarding passes, and then joined the already long TSA security line.

TSA security theater is my least favorite part of flying and I loathe the other parts. Mali went through the X-ray baggage and Millimeter-Wave body scanners first, then I followed. Big mistake! I had to unpack my Mac, stash my watch, wedding ring, and other alarm-tripping items to go through. The X-ray baggage scan went well, but I was flagged for a pat down by the Millimeter-Wave. It was probably the two thousand US dollars, in Benjamins, I had stashed in my pick-pocket proof cargo pants. While I was being patted down, I lost sight of the Mac. I thought someone had walked off with it while I was being frisked. I panicked and foolishly put down my passport and boarding pass while I ran around looking for the Mac. One of the screeners found the Mac, but then my passport and boarding pass disappeared. It had been recycled in the plastic X-ray trays. I went into a full, "I can't believe this," panic. The TSA staff had to look at their security cameras to track down the tray containing my passport and boarding pass. For about five minutes I thought we were

going to miss our flight and pooch our trip. I was incredibly relieved when the TSA found my stuff. *Have you ever been incredibly relieved by the TSA?*

Well, we made the flight and we're now 8252 kilometers from the Brisbane airport with 10 more hours to go. The Pacific Ocean is big.

Day 2 Oct 9, 2022, Cystalbrook Vincent Hotel, Brisbane, Mac

I haven't missed a day. When you cross the International Date Line from the East you jump forward a day. Our flight chased the sun across the Pacific making Day 1 a very long day. We arrived without fuss at the Brisbane Airport just before 6 pm local time and quickly went through customs. Australian customs are highly automated. You run your passport through a scanner. Answer a few kiosk questions, mostly about farm animals — have you been buggering livestock in the last week? — sit for a facial scan and then — "welcome to Australia." We didn't check any bags which may turn out to be a mistake for such a long trip but I've spent way too much time tracking down lost bags over the years. If we have to visit the odd laundromat while traveling so be it. Laundromats are surprisingly social. I've had many pleasant chats with strangers while waiting for dryers but I've never had a pleasant experience recovering lost airline luggage.

After exiting customs, we hopped a cab from the airport to the Crystalbrook Vincent Hotel. The hotel is right under the Story Bridge in downtown Brisbane. We were zonked from our butt-numbing 16 hours of flying so we went straight to bed around 8 pm local time and slept until 6 am. I slept well but Mali, as usual, had a fitful night. She doesn't sleep well most nights and disturbances to her routines don't help.

The next morning, the 9th, we got up and had breakfast in the hotel. It was my first sampling of Australian hammy bread. This is a great combination of bread and ham. It's like bacon lovers set up a national research project to improve on perfection and, against all odds, succeeded! Mali turned her nose down. She's not a bacon fan. It's a lamentable holdover from her Iranian childhood. The one unambiguously good thing you can say about sky-fairy prohibitions against eating pork is that it leaves more bacon and hammy bread for the rest of us. After eating hammy bread, we set off along the Brisbane Riverwalk towards the City Botanic Garden.

Downtown Brisbane is lovely in the spring. This is a very lively city. People were out walking, jogging, and biking. The parks and streets were full and everyone looked — content. The locals know they have a good thing going here. We made our way to the Botanic Garden where we enjoyed reading botanical labels on the trees, many of which were new to us. We huddled under a thick tree during a brief downpour, and



Our hotel window only opened a bit but I managed to squeeze my iPhone through the gap to get this shot of the Story Bridge. Shots that put your camera and you at risk are often the most interesting.

then made our way to a currency exchange. Mali had a particular exchange in mind but we couldn't find it and settled for one that didn't offer the rate she had in mind. We exchanged a hundred US and then went to Avis to arrange a car rental.

Cars are hard to rent right now. The post-COVID world is making up for two years of idiotic lockdowns and other ineffective measures by traveling like mad. We couldn't rent a Melbourne-bound car for Tuesday but lucked out for Wednesday. This delay forced another night in Brisbane. We tried to extend our stay at the Crystalbrook but had to move over to the downtown Holiday Inn Express. No matter! We're golfing the Australian part of our trip — playing the ball wherever it lands.

The rest of our first day was spent walking on the Story Bridge and checking out the Felons Brewery just down the block. I sampled some Felon's beer, paying for it with my Canadian Visa; most businesses are discouraging cash. Our day ended with gelato cones, unusual for my foodie wife, in the hotel lobby.

Day 3 Oct 10, 2022, Crystalbrook Vincent Hotel, Brisbane, iPhone

We were up at 5:30 am and left the hotel shortly after 7:00 am for breakfast. We were delayed by a video call from Mali's niece Manus. Manus lives in Brisbane but she's currently in London England. Manus was feeling bad about missing us and called to suggest places to visit in Brisbane.



Me at the entrance of Brisbane's City Botanic Gardens. This is typical urban touring attire. When visiting new cities, we walk, and walk, and walk. It's the best way to absorb new locales. Of course, lots of walking requires flexible attire, hence the jacket tied around my waist, the single-camera bag, and, of course, the Tilly Hat. "Tilly Guys", yeah we exist, from all over this planet have commented on my Tilly. Tilly Men understand: others think we are all off, which we are.

We ate breakfast at Gigi's just down the River Walk from the Cystalbrook. We both had Shakshuka. It wasn't what Mali was expecting. She's a hard person to feed.

After breakfast, we walked along the river path to New Farm Park. At New Farm, we had coffee and almond croissants. Again, the croissants were not Mali-approved. One highlight we found trees filled with beautiful little raucous parrots.

After croissants, Mali wanted to ride the bus back towards Queen Street but currently, the buses are no longer letting potential passengers pay with either cash or credit. It's another stupid COVID precaution that has probably not prevented a single infection. The lady at the croissant place said you could buy bus tickets by walking three minutes away from New Farm Park and taking a left. We walked for more than three minutes and ended up in a small mall: the New Farm Market where Mali looked at shoes.

Giving up on finding a place selling bus tickets we ran into three Aussies that offered to drive us to either the nearest City Hopper dock or South Bank. It was very nice of them to give a lift to total strangers. We went to the nearest City Hopper dock which unfortunately was closed. We walked to the next dock and caught the boat to South Bank.

At South Bank, we ate Wagyu Burgers. I liked mine but the sauce was too sweet for



The only live Kangaroos we saw in Australia were in zoos and animal sanctuaries. We saw lots of dead roos on the road. The carcasses are about the size of small North American deer. And just like North American venison is on the menu, Kangaroo meat is available in the markets and on the highways.

Mali: again, hard to feed.

After our burgers, I made a wrong turn and headed away from Queen Street. We crossed the pedestrian bridge that connects to QUT and then walked back to Queen Street on the other side of the Brisbane River.

It was a lot of walking but we eventually, at 3:00 pm, found a currency exchange, Oz Money, that offered a decent rate. We changed seven hundred US and walked down Queen Street back to the Cystalbrook where we are, right now as I peck this out on my iPhone, resting with our feet up in bed. We're old people after all. Tomorrow, we move over to the Holiday Inn Express Central for our last night in Brisbane.

Day 4,5 Oct 11,12 2022, Charlesworth Bay Resort, Coffs Harbour, iPhone

I missed a day and it was a good one. Yesterday, day 4, we changed hotels. We had to move to the Central Holiday Inn Express for one night. We were waiting for a car rental. It's hard and expensive to rent cars in Australia right now. We lucked out with the hotel change and managed to check in early which left us plenty of time to ride the bus out to the Lone Pine Koala Sanctuary to see Australia's cuddliest animal.

The koalas did not disappoint.

There were dozens of koalas, some with baby joeys on their backs, we watched as they were fed and even posed with one. In addition to koalas, the sanctuary had kangaroos, emus, dingoes, crocodiles, and a host of lizards and snakes. I was surprised at how calm the kangaroos were. People were feeding them and they didn't mind being petted. Mali petted a kangaroo and held a koala. I declined. I don't approve of stressing animals but I appreciate how posing with koalas raises funds for the sanctuary.

Today, day 5, was the most stressful day so far. This morning we exchanged another thousand US and rented a car. Starting at 11 am I drove out of the center of Brisbane on the wrong side of the road in a Toyota Corolla hybrid. I opted for the full insurance package as I sincerely doubt our US car insurance would work here and I didn't feel entirely confident I would return the vehicle in one piece. Barring accidents we're dropping the car at the Melbourne airport.

Switching roadsides is stressful but GPS greatly helps. Without the GPS lady, who has a cute Australian accent, it would have been a chore getting out of Brisbane. Once we were on the M3 it wasn't so bad. By the time we got to Byron Bay, I was getting the hang of mirror-image driving.

At Byron Bay, we had lunch and visited the lighthouse. Most lighthouses are scenic but this one is especially so. As a plus Cape Byron is the most easterly point on the Australian continent. Good been there done that material! After the lighthouse, we got back on the M1 to drive to Port Macquarie. We didn't get that far and stopped at Coffs Harbour. We didn't have a hotel or motel booked and everything was full. Mali managed to get us into the Charlesworth Bay Resort using booking.com while we were eating in an Indian restaurant. It was a hassle finding our room (it was like an Airbnb) but the fellow renting rooms met us and let us in. You need to book beforehand and you need an Internet connection to do it.

Postscript:

1. When traveling in the US Mali spends an inordinate amount of time on her phone looking for motels and restaurants. We didn't upgrade our Verizon plan before heading to Australia and New Zealand, opting instead to use public Wi-Fi and VPN. This generally worked out in the big Australian and New Zealand cities. Most stores, coffee shops, libraries, and museums have excellent free Wi-Fi but when we were on the road, we were offline. I didn't mind but it crimped Mali's style.

Day 6 Oct 13, 2022, Holiday Inn Express, Newcastle, Mac

Today we drove from Coffs Harbour to a Holiday Inn Express in Newcastle making a few side trips to Gladstone and Crescent Head. It was only 400 kilometers but it felt much longer. New roads and new situations always feel longer. Crescent Head was well worth the detour from A1. Crescent Head is a surfers' reserve. I was unaware that surf and surfers needed to be "reserved" but apparently, they do. My second day of mirror-image driving felt almost normal. I am still accidentally hitting the left switch for the goddamn blinkers. The left switch works on Mercedes but is exactly the

opposite for Toyotas. It took me months to switch from our old Toyota to "Chunky", our Mercedes, and now I have to undo all that conditioning, plus deal with cars on the other side of the road. On a plus note Australians, at least the ones on the east coast, are well-behaved drivers. I don't see a lot of speeders or US-style roadside dumb-assery. I was also pleasantly surprised with my first gas station experience. In the US and Canada, you have to pay before gassing up. When I was growing up you could fill up and then pay but around the 1970s too many dipshits started driving away without paying. So now we all have to pay first! Here in Australia, they still let drivers fill up and *then* pay. Woo freaking who! Aussies are more honest than Americans. They're also whiter. While waiting in the gas line I noticed that every single driver in front of me was a white guy. Many had young-guy beards. A similar gas line in the States wouldn't be all white guys and the cashier might even be hiding behind bullet-proof glass. Diversity has not improved the gas station experience.

Day 7,8,9 Oct 14,15,16, Mantra Albury Hotel, Albury, iPhone

Not keeping up. We drove from Newcastle to Canberra and stayed with Mali's cousin on Masson Street, Turner ACT.

We arrived late afternoon on the 14th. The next day we toured Canberra. Saw Ainsley's Mountain Lookout, the Australian Parliament, the National Art Gallery, the Botanical Gardens, Telstra Tower, and the Arboretum where I climbed Dairy Farmers Hill and scanned the springtime landscape.



Canberra is very green in the spring. This scan over the arboretum towards the city gives a pretty good sense of the land. My shadow is in the lower center of the image. It's not an accident. I had to move up and down the hill to cast just the right shadow.

The next day we stopped at the old bus station market before heading to Melbourne on M31.



Modern art takes odd forms. This mostly empty MAMA museum room is a singular silly art piece.

We stayed the night at Albury in the Mantra Albury Hotel.

Travel Diary: Melbourne and Uluru (Part 2)

Posted: 09 Dec 2022 20:55:41

This is the second installment of my Australia New Zealand travel notes. Click on any of the images to jump to my photo gallery for this trip.

Day 10 Oct 17, 2022, Park Hyatt, Melbourne Victoria, iPhone

This morning we had breakfast at the Mantra Albury Hotel and then did a little bit of shopping. Mali had spotted a Katmandu store the previous evening while we were looking for a place to eat. We ate in a Mediterranean restaurant that was staffed by Indians. Mali picked up a shirt and hat at Katmandu while I had a flat white coffee in a nearby cafe.

After Katmandu, we checked out the Murray Art Museum of Albury (MAMA). It was a nice little museum with friendly staff. They were in the middle of changing exhibits. The exhibit change was more interesting than the art.

Then we drove from Albury toward Melbourne. Along the way, we turned south on the Great Alpine Road and got as far as Bright Victoria. At Bright, Mali found a natural clothing store, and we got hoodies. Our Canadian credit cards were rejected but Mali's US card went through. We brooded about the card refusal on the way to Melbourne.

In Melbourne, we checked in at the Park Hyatt and Mali's card was accepted without problems. Something was probably wrong with the Bright store card reader but, just in case, we VPN'ed into our Canadian bank and Mali paid off her Canadian VISA.



Flinders Street Station in Melbourne.

Tomorrow, we walk around Melbourne. They have free trams which will help get around town.

Day 11,12 Oct 18,19 2022, Ayers Rock Resort, NT, Mac

On the 18th we spent the day touring downtown Melbourne. Melbourne has a free city core tram system. You can get on the green and yellow trams in the free zone and ride around the city without paying. It makes the entire core very accessible.

We visited, The Royal Arcade, disappointing. It's an old shopping mall dating from the 1870s. We ate breakfast at a cafe near the end of the mall. We sat outside the cafe in the mall concourse; it was cold! Then we walked across the street to The Block. Much nicer but still a mall. I sat in a barber's chair outside the oldest barbershop in the world. It was started in 1805. Then we rode the trolley up to Franklin Street. Mali wanted to get an invoice for our car rental. After getting the invoice we checked on The Victoria Market: a very large city market that still functions as an actual market. Many such markets around the world have degenerated into tourist traps. Mali picked up a dark brown Kangaroo leather hat for me. The hat's big selling point: kangaroo leather is lighter and tougher than normal leather.

After the market, we rode the tram back toward the river and got off at Flinders Street, and then walked to the NGV Art Museum. I looked through the museum while Mali checked out the gift shop. Lots of school kids in their neat school uniforms were visiting the museum. Many were sketching in galleries. After NGV we checked out Melbourne's "Freak Alley," called Hosier Lane. It's another alley filled with graffiti. Surprisingly Boise's alley is much better.

After the alley, we headed across the river and stopped in at the Royal Victoria Gallery. A very imposing building filled with more art than you can see in a short visit. After this gallery, we popped across the street and sat on a park bench beside the Edward VII statue. Then we trammed back to La Trobe Street, changed trams, and

visited the National Exhibition Grounds and the Melbourne Museum. We finished the day by having a steak dinner at the Meatmaiden followed by a stressful refueling of the rental car for the next day's return. Why is it that finding gas stations in major urban centers is such a fricking pain?



National Gallery of Victoria.

Today, the 19th we left the Park Hyatt, drove to the Melbourne airport, and flew to Uluru. We got zinged for overweight carry-ons. Two of our bags had to be checked. My computer with my two backup drives was checked. On the return flight, I will transfer one USB drive to my camera bags. It doesn't help to put all your redundant storage devices in the same place. *You're either backed up or fucked up. Care to go over the options again?*

In half an hour, we will be going for an Uluru sunset and barbecue. I am taking both my Nikons.

Later: the Uluru sunset lived up to the hype. We took pictures and had champagne as the sun set but the barbecue after the sun went down exceeded my expectations. It was held right beside Uluru. After dinner, our hosts turned off all lights and staged a star party. It was fabulous. We saw the Magellanic Clouds, Alpha and Beta Centauri, Jupiter, Saturn, and all of Scorpio: upside down. The Milky Way ran from horizon to horizon with the central bulge, never completely seen in the northern hemisphere, overhead. It was the best view of the galaxy I've ever had: just awesome!

Day 13,14 Oct 20,21 2022, Fullerton Hotel, Sydney NSW, Mac

I am sitting at a rather nice desk in room 603 of the Fullerton Hotel in downtown Sydney with a double flat white coffee beside my Mac as I write this. I will opine about Australia's superior coffee machines someday but not now. This is a catch-up.

On Oct 20th I got up at 4:00 am to catch the "Hop On Hop Off" bus to Kata Tjuta. I wanted to see both of the famous rock formations in the national park but Mali didn't and decided she would rather sleep in. I'm glad I got up. While waiting for the bus in the parking area of The Desert Gardens I spotted Orion almost overhead and upside down. The Orion Nebula was easily seen in my 8x42 Maven binoculars. The planet Mars was also up: very orange, very bright. Once on the bus, we drove to an observing platform about 6 km to the west of Uluru to watch the sunrise. It was every bit as spectacular as advertised. In my 8x42s the back-illuminated Uluru was awesome. *The sunrise was so beautiful I gave up trying to take pictures and just watched.* At one point the red-orange glow blending into deep bands of morning blue almost left me shaking.

After sunrise, I walked in Walpa Gorge. The gorge has some interesting conglomerate rock formations and the entire area reminded me of Capitol Reef and Grand Escalante in Utah. The Utah parks are more impressive than Kata Tjuta but Uluru is in a class by itself.



Kata Tjuta morning.

After the hike, I caught the bus back to the Hotel and met Mali in the hotel gardens. We had lunch and at 11:20 am took the "Hop on Hop Off" bus to Uluru. It was midday when we left the bus at the Mutitjulu Waterhole trail so I screwed on my polarizing filter. The filter brought out the red in the rocks. We saw the waterhole. It's a catch basin, rainwater, gathered from the surface of Uluru, drains to the Mutitjulu Waterhole. The pool is one of the few spots around Uluru where standing water might be found year-round; it's considered sacred by the Aborigines.

The Anangu people are now managing Uluru and they have marked many of their sacred sites. As you walk around Uluru, you will see little signs imploring you not to take pictures of certain areas. It's hard to respect silly religious nonsense no matter what the religion. Aboriginal beliefs are just as ridiculous as Islamic and Christian

beliefs. Belief remains a bullshit word but I mostly respected the signs regarding photographs.

We kept walking around the base of Uluru until we reached the car park where people once climbed the rock. Climbing is now banned. The Anangu never approved of climbing and now that they are administering the rock, they've banned it. I approve of the ban, not because of any sky fairy sacred rock nonsense, but simply because it cuts down on the number of yahoos. Without the ban, the parking lot would have been filled with four-wheel drive trucks loaded with noisy tourists decked out in gay Spiderman climbing suits. Instead, the lot was empty and we were the only people beside this world wonder. As I have said over and over, I prefer my national parks with fewer people.

At the car park, we cut across the plain beside Uluru to the aboriginal cultural center where we ate some ice cream and looked at very nice and very expensive aboriginal paintings. We then caught the bus back to the Ayers Rock Resort and had dinner in the Ilkuri restaurant in the Sails in the Desert Hotel. Mali complained about the food as usual. Nothing is cooked to her satisfaction. Even top-rated restaurants seldom match her cooking. It's both a pleasure and a curse to be married to an extreme foodie.

After dinner, we were scheduled for a family astronomy tour but Mali decided to stay in our room. I went by myself. About three or four families with young children attended. The session was held about 300 meters from the resort behind a small rise so the skies were not as dark as the unexpected but stunning after-dinner star party by Uluru the previous night. The Magellanic clouds were obscured by trees and resort glow but the view to the south was great. As the tour guides delivered their presentation I sat and watched the sky through my 8x42s. The Butterfly Cluster was brilliant at this latitude. Cygnus was low and inverted on the horizon. Vega, instead of being near the zenith, was close to the horizon. The session included views through a computer-driven 8-inch Celestron telescope. I mostly let the others enjoy the sights but I did peek at Jupiter mostly to compare it with what I see in my 245 mm DOB telescope. My DOB, from my backyard in Meridian Idaho, shows Jupiter better.

It was a long day when I got back to our room. Mali was still awake watching Bridesmaids on TV.

The next morning, we got up and packed for the flight to Sydney. I don't like constantly packing and unpacking. Flying is worse because of carry-on and luggage restrictions. I have two camera bags. Two bags technically exceed the carry-on count so I tie the two bags together with shoelaces and Velcro to turn two easily carried



The wetter-than-usual Australian spring extended into the interior of the continent. Our bus driver said that the vegetation around Uluru was about as lush as it ever gets. Lucky me, foreground vegetation contrasts nicely with the stunning reds of Uluru.

camera bags into one shoulder-crushing bag. I have tied and untied my bags many times. It's annoying.

Our Jetstar flight 661 from Ayers Rock Airport to Sydney was on time and because the airport was small the usual hellish modern airport experience was minimized. On take-off, the plane was hit by a strong side gust of wind that pushed it sideways just as the wheels left the ground. This freaked out Mali. She clung to me and said she wanted off and that the pilot didn't know what he was doing. She's been a nervous flyer ever since a bad bit of turbulence on a flight to Calgary Canada in 2006.

We made it to Sydney. The landing was pretty smooth. At the airport, we caught the train to downtown Sydney. You can board Sydney trains by simply tapping on and off with a credit card. This makes so much sense that I'm surprised it hasn't spread to all civilized countries. It wouldn't work in the US but it's hard to consider the US civilized these days.

We exited the train at Wynyard station and dragged our luggage through city streets to the hotel. When we checked the VISA charges later it was 89 Canadian cents to ride from the airport: easily the biggest bargain so far. Mali was proud of herself for insisting we take the train. Today we are boarding the cruise ship for our 12-day circumnavigation of New Zealand. I think I will enjoy being in a hotel that moves and not having to pack and unpack for a while.



Our first glimpse of the Celebrity Eclipse. My first thought, "This thing is as big as the aircraft carrier in the San Diego harbor."

Travel Diary: New Zealand Cruise (Part 3)

Posted: 10 Dec 2022 22:12:58

This is the third installment of my Australia New Zealand travel notes. Click on any of the images to jump to my photo gallery for this trip.

Day 15 Oct 22, 2022, Sydney Harbor Dock, iPhone

We are sitting on a dock bench beside the Celebrity Eclipse waiting to board. The ship is huge and many hundreds are lining up to get on board. We are in the 3:30 pm group so it's a bit of a wait. The people boarding skew towards the older demographic. The weather is overcast with a warm wind.

Day 16 Oct 23, 2022, Celebrity Eclipse Stateroom 6156, Tasman Sea, Mac

We are in our Celebrity Eclipse stateroom 6156. Our room is a veranda room on deck 6. There are 16 levels on the ship and a huge midship show elevator runs up and down between them. Imagine a Vegas Casino filled with chubby senior citizens, many using canes and wheelchairs, then put the casino on a ship and lose it in the ocean. Voila, you've imagined our cruise. We spent most of yesterday exploring the ship. There is a lot to see but you quickly run out of places. Tomorrow I am going on a "Behind the Scenes" tour where they take you through the working areas of the ship. The galleries, the engine room, the bridge, the staff dormitories, and the laundry. I hate to say it but I suspect seeing how you do laundry for over a thousand people a day is going to be more interesting than browsing overpriced midship shops. I suspect that we are not "cruising people."

Cruising people like to sit and eat, and eat, and eat, and then float in hot tubes. The ship has several pools, inside and out, and all the bubbling hot tubs were filled

with obese women and old male porkers. I swear they displaced most of the tub water. When not displacing tub water cruising people prowl the forever open buffets to maintain their hippo-Esque physiques. And when sated with floating and eating, cruising people lollygag in lounges making an effort to relax. Actual hippos do it better. Yes, we are probably not cruising people.

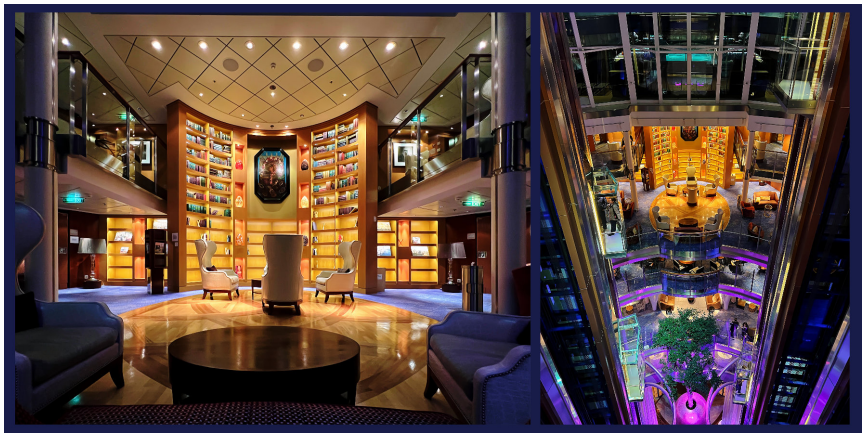
This was driven home by the noon art auction. We sat and watched elderly people pay thousands of dollars for "art." I kept thinking my daughter's stuff is more interesting and that's not just the dad in me speaking. After the auction, we had some gelato, ate lunch, found the exercise room: it's better than most gyms, and then retired to our stateroom.

The ocean outside our veranda is forever arresting. You wouldn't expect a flat water-filled horizon to differ from day to day but it does. This surprised me when I worked on offshore drilling rigs decades ago and it's still the same. Our departure from Sydney Harbor actually took me by surprise. The ship moved so smoothly from its berth that I didn't even notice we had left the dock until I looked up and saw the Sydney Harbor Bridge. Mali and I were apart during departure. She was elsewhere on the ship and her pictures of the Sydney Opera House were better than mine. I went to the front of the ship, and from the solstice deck, watched the ship follow the little pilot boat out of the harbor. The blinking green and red buoys looked like an airport runway at night. The history is wrong, ships were leaving harbors long before planes were flying. It's more accurate to say an airport runway looks like a harbor right-of-way.

We didn't eat until 8:30 pm and then we retired to our room. I slept well, as usual, and Mali did not, also as usual.

Day 17 Oct 24, 2022, Celebrity Eclipse Stateroom 6156, Tasman Sea, Mac

We are still some 300 nautical miles from the west coast of New Zealand. The cruise itinerary is changing en route. I was under the impression we would be in Milford Sound this morning but it's apparently tomorrow morning. The weather is expected to be overcast and rainy which may work to my advantage as it will reduce the number of people on the outer decks leaving more spots for me to take pictures. Still, this is our third day at sea and I was expecting only two. Maybe cruises adjust for weather and port conditions all the time and this is nothing unusual. The other passengers seem woefully unconcerned. Still, I see why old ocean liners were so obsessed with speed. It takes forever to get anywhere on a ship! If the Titanic, (smaller than the ship I am currently on), hadn't been trying to beat a speed record it wouldn't have hit that iceberg.



The ship's interior had its charms. I liked the library and the main show elevators. At first, I thought the library was an actual library, but silly me the "books" were just for show, and as you see, most of them were out of reach. The library was a homage to an earlier epoch when upper-class passengers would dress in suitable attire and then make a show of how cultured they were. So much of what we consider "classy" is an echo from ages that had class, because, let's be honest, our twerking and "trumpy" era has none.

Last night we had dinner in one of the specialty restaurants: *Le Petit Chef*. I thought it was going to be a standard French Restaurant but the *Le Petit* bit was literal. A cute series of animated cartoon characters were projected on the table. It was a surprisingly high-quality projection. You watched a little French family gather raw ingredients and build your dinner by throwing projected food on your plate. When the dinner course animation ended the waiter placed your actual food in the same spot. It was cute and the food was good.

This morning I wanted to take the "Behind the Scenes" tour and I promptly showed up at 8:30 am at the Shore Excursions desk only to learn that we had crossed another time zone last night and it was 9:30 am - not 8:30 am. When flying you zoom through time zones, reset your watch, and suffer jet lag for a few days. On a ship, you adjust without noticing it and just miss appointments. I must say I enjoy the relaxed ship vibe. No white-knuckle sailors are holding onto their spouses and expecting to sink without warning. Life aboard is super chill. Mali and I even had boat sex last night. It was the first time we'd had sex on a moving object; I'm discounting planet Earth. Afterward, I said that most people don't do *that* on airplanes! Yes, I've heard of the mile-high club, but non-billionaires don't boink in nice staterooms with an ocean

view.

Today I will probably switch to my wide-angle Nikon lens and shoot some pictures.

Day 18 Oct 25, 2022, Celebrity Eclipse Stateroom 6156, New Zealand Coastal Waters, Mac

We spent the day cruising New Zealand fiord country. Milford Sound, Doubtful Sound, and Dusky sound. Took lots of pictures.



Milford Sound in the morning from the upper deck of the cruise ship. The ship did not dock in the sound. A small boat came alongside, and a dozen passengers disembarked to go overland to the next stop in Dunedin. We considered joining them, but the absurdly high cost of one night in the Fiordlands deterred us.

Also, tonight and the previous night, I attended the live shows in the Eclipse Theatre. The shows are Ok music and stand-up acts.

Too tired to write more. Tomorrow, we go ashore in Dunedin after four nights on the ship.

Day 18,19 Oct 26,27 2022, Celebrity Eclipse Stateroom 6156, New Zealand Coastal Waters, Mac

The last two days have been shore days. On the 26th we visited Dunedin. After four nights on the ship, it was nice to get back on land. Dunedin is a small University City on the South Island of New Zealand. We didn't sign up for any shore excursions so we hopped on a local tour at the wharf. We rode in a small Awesome Tours bus with Mac our driver. There were only three of us: Mali, myself, and another lady



The little blue penguins of New Zealand are avian celebrities. Everyone loves them, and if you don't, there is something very wrong with you.

from Brisbane. It was almost like a private tour. Mac took us downtown, where we exchanged some US hundreds for New Zealand dollars. Then we were driven to Larnach Castle, which was never actually a castle. It was a country estate built by Larnach in the 19th century. It was nice but frankly, I wouldn't recommend the castle. There are lots of nice estates on this planet.

After the castle, we drove up the Dunedin peninsula and had lunch at the bird sanctuary. There were three varieties of gulls flying and pooping all over. We didn't see any albatrosses Then we drove up the hill to see New Zealand seals and Little Blue Penguins. The Little Blue Penguins were on their nests. They are delightful and were one of the highlights of this trip. We also saw chicks at various stages of development.

After the penguins, we drove to the steepest street in the world. It's amazing what turns into a tourist attraction. I particularly appreciated Mac's discussion on how street steepness is measured. In case you're wondering *Calculus is involved*.

Then it was back to the ship and to bed early.

As the ship left Dunedin, we saw albatrosses gliding around the sanctuary point. It was the first time I'd seen more than one in the air at a time.

Today we visited Christchurch New Zealand. The cruise ship docks at both Dunedin and Christchurch are a fair distance from the city. In Dunedin Mac drove us to and from the wharf. At Christchurch, we rode the Celebrity shuttles in and out of town.

Christchurch was hit by a big earthquake in 2011. It was only a 6.1 quake but it was very shallow and very close (less than 7 km) from the city so it did a lot of damage. The city had to rebuild large chunks of its downtown. The new buildings are nice and designed to withstand big earthquakes. There's nothing like a shit-kicking to smarten people up. We spent the afternoon riding the city trolleys — some cars are over a

hundred years old — and walking in the city core. We popped into the Canterbury Museum, The Botanic Gardens, the Art Museum, and various city parks.

Highlights — the tunnel into the city, the restored shopping districts, and the old restored trolleys.

Postscript:

1. The ship's crew all wear masks and are either south Asian, Latinos, or Black. They are also fairly short and impeccably dressed in their service uniforms. The cruise customers are almost all white with some Asians, many are elderly, and many are overweight. There are two visible classes on board.
2. Ship Internet is slow or nonexistent. Starlink will significantly improve at-sea connections.

Day 20 Oct 28, 2022, Celebrity Eclipse Stateroom 6156, New Zealand Coastal Waters, Mac

Today we were in Wellington. Highlights — the parliament Beehive and the Wellington Cable car. Mali is not feeling well; she is wearing a mask in bed and watching soccer while fretting about maybe picking up COVID. Tomorrow we are in Napier.

Day 21 Oct 29, 2022, Celebrity Eclipse stateroom 6156, New Zealand Eastern Coastal Waters, iPhone

We were in Napier today. Mali was sick and stayed onboard. I went ashore by myself. I rented a bicycle across the street from the shuttle bus "I Stop." I rode it about 7 km up the coast to the wetlands and then suffered a flat tire. I walked the bike back to the rental place hiking through Napier. Shakespeare street saved me a kilometer or so on the hike back.

After returning the bike I had a flat white and a vegan "Sammy" in an organic store Mali would have liked. Then I walked around town and down the beach before slurping down some smoothies in a little cafe. Napier is smaller than the other ports we've visited and the cruise people stood out downtown. In the other locations, they blended in. Tomorrow is Tauranga.

Day 22,23,24 Nov 2, 2022, Celebrity Eclipse Stateroom 6156, Tasman Sea, Mac

I've been slacking off on my diary entries. This is a catch-up.

On Oct 30 we were in Tauranga which is New Zealand's largest port. The weather

was awful it was pouring rain when we walked down the gangplank and we were soaked by the time we stepped on our "Hop On Hop Off" bus. Mali wasn't feeling well and shouldn't have come but she wanted to see the city. It blows to be sick on trips. We rode the bus to a shopping mall. The bus driver told us the mall was the most popular stop on their route. People like to check out the shops and see how prices differ from back home. I get it but malls are malls.

We dried out in the mall and I had another flat white. We then rode the rest of the bus loop and got back on the ship by noon. We both ended up napping in our stateroom.

On Oct 31 we were in Auckland or as T-shirt once said "Sydney for Beginners." We walked around the city, went up the tower, and ended up in an Art Museum. A few young women were "singing" in one of the galleries. Auckland differs from the other New Zealand ports in that the dock is right downtown. You could walk off the boat into the middle of the city. Just like Sydney and San Diego.

On Nov 1 we headed back to Sydney. Last night was the roughest night at sea. I also took an internal ship tour which turned out to be one of the best tours of the ship. The bridge was as spacious and luxurious as Star Trek sets.



Auckland from the upper deck of the cruise ship.

Postscript:

1. The ship reported a few cases of COVID. The people have been isolated and we've been advised to wear masks in public. How this will play out when we dock in Sydney remains to be seen. I hope we don't get quarantined.

Travel Diary: Sydney and Home (Part 4)

Posted: 11 Dec 2022 19:55:36

This is the final installment of my Australia New Zealand travel notes. Click on any of the images to jump to my photo gallery for this trip.

Day 25 Nov 3, 2022, Hyatt Regency room 917, Sydney, Mac

Today the ship belatedly returned to Sydney; rough seas delayed our arrival. The previous night the ship rocked, rolled, and lunged; the shaking was severe enough to cancel an acrobat show in the Celebrity Theater. Modern cruise ships are quite stable, even in the worst of it, it wasn't as bad as a typical day on a North Sea oil rig supply boat. The approach to Sydney Harbor was super scenic. I spent my remaining hours topside taking pictures as the ship approached the dock. I believe I got some keepers. We were held up from disembarking and stood in line for about forty minutes. Eventually, the gangplank opened and we left the ship for the last time.



The Sydney Opera House lives up to its reputation.

"Cruising be like, you can't wait to get on the boat, and you can't wait to get off."

We took the tram from the Quay to the QVB station and then pushed our carry-on luggage three blocks to the Hyatt Regency that overlooks Darling Harbor. I remain impressed by the smoothness of Sydney sidewalks. You couldn't push bags through many American cities, especially shitholes like San Francisco and Detroit, without clogging your suitcase wheels with urine and feces. After checking in we walked down to Darling Harbor, had lunch, and then walked over to the Maritime Museum and back.



Me with *Il Porcellino*. If you rub the pig's nose and drop a coin in the donation slot, good things will happen. Maybe not to you, and maybe not today, but somewhere, somehow, something good with come.

Sydney has by far the finest waterfront of any city I have ever seen. It totally blows away Toronto, San Francisco, London, San Diego, Vancouver, Seattle, and even cities like Athens and Istanbul, as one Aussie we met on the ship said, it was typical of the English to send their prisoners to the best country in the world. Australia may not be the best country but Sydney Harbor may well be the best harbor.

Day 26 Nov 4, 2022, Hyatt Regency room 917, Sydney, iPhone

I'm lying naked in bed cooling down after a shower. Mali is beside me having a nap. We spent the morning and the early afternoon walking around downtown Sydney. We started by paying a visit to a jewelry store in the Fullerton Hotel. Before boarding the ship for New Zealand Mali bought a necklace. It was being fitted while we cruised. She hoped to pick it up today but the fit was not quite right and they will need another day to fit it.

While Mali was in the jewelry store, I had a flat white in the lobby cafe. Then we started walking down Martin Place towards the Sydney Hospital. The one with *Il Porcellino* out front. I rubbed the pig's nose. dropped a coin in the fountain, and then we walked through The Domain to the New South Wales Art Museum. We didn't spend much time there. Lots of very young school kids in their neat little uniforms were visiting the museum and filling the halls with happy kid noise.

Then we walked through the Botanic Gardens towards the Sydney Opera House. Many groups of neatly uniformed, well-chaperoned school kids were touring the gardens. When we reached the harbor wall, we headed over to Mrs. Macquarie's chair. This is a bench Mr. Macquarie allegedly carved into the rock so his wife could sit and watch the harbor. I suspect he was just getting her out of his hair.

Then we walked to the Opera House and picked up our tickets for tonight's show. We're going to see *La Traviata*. After picking up our tickets we had lunch at the Circular Quay and then took the city tram to the Sydney Tower. The tower was a



Mali sitting in Mrs. Macquarie's Chair. If you go to this spot in Sydney you can read about how in 1810 Mr. Macquarie had convicts carve a chair into the cliffs so his loving wife could sit and enjoy the spectacular Sydney Harbor. I don't buy it. I suspect he was killing two birds with one stone: giving the convicts something to do and getting a nagging wife off his back. While Mrs. Macquarie sat watching the harbor, Mr. Macquarie could retire to the salon for a drink and smoke in peace.

huge disappointment! The Auckland tower was better, the CN Tower much better, and the Grand Canyon Sky Walk way, way better. After the tower, we walked back to the hotel. At six we will be heading out to the Opera House.

Day 27 Nov 5, 2022, Fullerton Hotel Lobby, Sydney, iPhone

I'm having a flat white in the lobby bar of the Fullerton Hotel while Mali gets her necklace adjusted.

Last night's performance of *La Traviata* at the Opera House was more interesting than entertaining. The Sydney Opera House is spectacular on the outside but plain on the inside. The acoustics in the Joan Sutherland theater were excellent. You could hear every note and despite the unadorned ceilings, there were no echoes. The opera itself was reliably ridiculous but the music was excellent. The orchestra was first-rate and the lead singer was a bona fide diva. In one of the two intermissions, I snapped the Moon and Jupiter above one of the Sydney Opera House sails. I admire the discipline of opera but I am not a fan.

Today we are checking out China Town and the Zoo. A few days ago, five lions escaped their enclosure: the cause according to Australian TV news was "fence issues." Well Duh! Now, the escapee lions are media celebrities and even more people than usual are zoo bound.

Day 28 Nov 6, 2022, Hyatt Regency room 917, Sydney, Mac

We are just back from dinner at The Meat and Wine Company in Barangaroo. Love the name "Barangaroo." The meat was OK but steak is steak as long as it's not screwed up.

Sydney's China Town was a working China Town. China Towns tend to be over-gaudy

tourist traps or working-class ghettos. This one was more on the working-class side but definitely not a ghetto. Mali spent way too much time looking for slippers. Yeah, slippers. You cross oceans to piss away hours in China Town looking for something you can order on Amazon. Not my idea of a good time.

After China Town, we took the tram and then walked for two or three kilometers in Sussex Hills looking for a Persian Restaurant Mali spotted on hotel Wi-Fi. We eventually found the restaurant. It was oriented towards take-out but you could sit inside and eat provided you didn't mind the take-out cartons. The food was very good; I'm a big fan of Persian cooking.

Then we rode the tram back to Circular Quay and took the ferry over to Taronga Zoo. The zoo is middle-of-the-road when it comes to animals but is first-rate when it comes to geography. It's built on a hill and you enter at the top and work your way down to the ferry. I particularly enjoyed the giraffes posing in front of the Sydney Harbor and the city skyline.

Oh, the jailbreaking lions were not on display. Maybe the "fence issues" were not entirely resolved. After the zoo, we ferried back to Circular Quay and then walked through The Rocks, past Barangaroo, and down Kent Street back to our hotel. We've walked a lot in Sydney.

Today we rode the train and bus out to Bondi Beach. Sydney trains are first class. Bondi Beach is very popular the beaches and paths were overflowing with people. An outdoor sculpture exhibit was on at Bondi. I snapped more pictures than I should have.



Bondi Beach mirror ball.

Tomorrow, we fly back home. We've decided to take a cab to the airport. We're tired of lugging our luggage.

Day 29 Nov 7, 2022, Sydney Airport Terminal 1, iPhone

I'm sitting at an Oliver Brown Coffee shop waiting to check in for our flight home. We came to the airport way too early. We have another eight hours to wait. Our early arrival was partly motivated by Mali's desire to claim an Australian GST tax refund. She spent a lot of time collecting receipts and yesterday figured that we are eligible for a thousand AUD GST rebate. Neither one of us expects to collect but Mali set aside sufficient time to wage war with airport customs officers. I almost pity customs.

The other reason for our absurdly early arrival. We are tired of touring and lugging luggage. So much so that we took a cab to the airport. We traveled around Sydney entirely on foot and on public transport. Sydney has superb trams, trains, and ferries. It's also a big city that you feel completely safe in. The contrast with American shithole cities couldn't be starker. If I win the Powerball I'm moving to Australia. Australians have not bought into the woke bullshit to the same degree as Americans and Canadians. There are still only two genders here and every bathroom sign reiterates this reality with unambiguous "Male" and "Female" labels.

Postscript:

1. We are through airport security theater for the last time on this trip. Mali's New Zealand honey was confiscated and the Tourist Refund Scheme refunded *nada*. I see the "scheme" bit but not the "refund" part. My cynicism was on point. Oh well, all those nice Australian services we used must be paid for and six hundred USD seems about right.

2. Also, our extra space seats didn't come through. It's going to be a long-packed flight.

Day 30 Nov 7, 2023 (cross dateline), LAX Airport, Los Angeles, iPhone

We just flew from Sydney: a 13-hour turbulence-ridden ride. We're both tired and our Boise flight is delayed. I just checked the Internet security cameras at home. The house is still standing. I also turned on a few lights. Throughout this trip, I have been checking the cameras and randomly turning lights on and off. At best such impotent deceptions will notify potential thieves that they may end up on camera and make them consider trying a house without cameras.

Mali has indicated that her flight limit has been reached. We will be ground-bound for the rest of the year.

It's not entirely great to be back.

Mission Statements for this Blog

Posted: 20 Dec 2022 22:41:44

I have a weakness for *how to improve your writing* books.[131] Lately, I've been reading *Writing Tools* by Roy Peter Clark. *Writing Tool*s is full of useful advice that I will make efforts to heed. Clark's Tool 40 motivated this post.

Tool 40 advises writers to craft short *mission statements*[132] for their compositions. He provides an example from his writing about AIDS.

- *I want to portray my protagonist as a fully human character — and not some kind of cardboard saint.*
- *I want to do this so people can identify with and care for her and her family...*
- *I want to help illuminate AIDS, and help educate the public about key aspects of the disease.*

He then relates how this helped him write a series of newspaper articles.

> *I cannot overstate the value of this exercise. It gave me a view over the horizon as I drafted the story. This 250-word mission statement, which took about ten minutes to write, helped create a 25,000-word series.*

This got me thinking, "What would a mission statement for this blog look like?"

My first take:

1. *I want to write a blog that lets me vent and rage about whatever bug is up my arse.*

Yes, I've written lots of bug-up-my-arse posts but *Analyze the Data not the Drivel* (ADND) aspires to more than castrated whining. I like to think that it lets me try out ideas and refine fuzzy notions. So perhaps this should be added:

[131] This blog clearly shows I need all the help I can get.

[132] Corporate *mission statements* were all the rage not long ago. Every two-bit company chimed in with vacuous twaddle about creating *excellent products* and *exemplary customer experiences*. Predictably, this drivel degraded the value of mission statements, so nowadays we don't *endure* them anymore.

2. *In this blog I will speculate, explore and develop ideas that range over my peculiar interests.*

You'll find many explore-ideas posts, most of them dealing with aspects of programming, but this doesn't fully represent this blog. I also write a lot of diary entries. Hence,

3. *In this blog I will write sporadic diary entries.*

There's more; ADND contains book, movie, TV, and software reviews.

4. *In this blog I will sometimes review cultural artifacts that get my attention.*

We're not done. ADND has obituaries, snarky listicles, outright trolling, and dismissive sarcasm.

5. *This blog will showcase the unrepentant dickishness of its author.*

Clark's mission statement makes sense when you want your writing to *achieve* goals. I have no goals for this blog. I am not writing for you; I am writing for myself, not because I want to hear myself think, or feel that anything I might say, do, suggest or note, is of any interest or importance. I blog for the same reason smokers smoke, and gamblers gamble and drug addicts keep taking drugs; I cannot help myself. Compulsions often precipitate therapy and ADND reeks of it.

6. *This blog will provide cheap self-administered therapy and remind the author that he lives.*

My *living* is a temporary state of being. Soon the silence will take me, as it will take you, and you, and you. Maybe this sad little blog will form the residue of my existence. We all labor consciously or subconsciously erecting our own memorials. Certainly, the taint of memorialization stains this blog.

7. *This blog will memorialize its author.*

Of course, monument erection is futile. Camus once moaned that all *creation is self-consciously ephemeral*. All our monuments will, in his words, "weather to mud."

This blog has no mission. It wanders at will. Some posts have goals but overall, the best mission statement for this blog is a riff on Douglas Adams:

This blog is about life, the universe, and everything.

ChatGPT Comments on this Blog

Posted: 30 Dec 2022 23:11:57

In 2022 reality once again asserted dominance over wishful-thinking naked apes. Governments everywhere gave up on COVID. The virus won, as many cynics said it would three years ago. We now live with COVID, as if we had a choice, and it will kill some of us from time to time. Our transition to low carbon emission energy is going so well that many find themselves enjoying winter in cold dark rooms. The military geniuses that precipitated the war in Ukraine have been reminded that war plans do not survive combat. The wizards that prognosticate on inflation, deficit financing, the balance of payments, the overhyped "supply chain," the price of gas, and other things *economical* have once again been shown to be completely useless. The only way to make money on mainstream news is to track stock purchases by members of Congress as the Pelosi Portfolio has demonstrated. Yeah, there's absolutely no insider trading in Congress, just as there was no gambling going on in Rick's Casablanca casino. *Cynics are rarely surprised by life's parade of nitwits.* We expect you to screw up, to learn nothing, and to screw up again, and again. A popular meme succinctly sums it up:



Cynics are rarely surprised by life's parade of nitwits. Prove me wrong!

However, when cynics are surprised or impressed it's a pretty good indicator that something new is afoot. 2022 may have been a mostly shitty year but it was also the year generative AI reached the masses. Such systems are now producing photorealistic images of imaginary people, plausible art in many styles, and essay answers to simple text prompts. For example, when prompted with the phrase, "a red rock desert landscape floating in a glass sphere," the generative AI midjourney.com generated:



midjourney.com's red rock desert landscape in a glass sphere.

To my naïve eyes, it seems that midjourney.com *understood* my request.

Modern generative AI systems cast a *super-Eliza* spell. Eliza was, in retrospect, one of the first *chatbots*, it attempted to simulate a noncommittal therapist. Eliza's creator Joseph Weizenbaum describes in his 1976 book *Computer Power and Human Reason* how his secretary would ask for privacy when conversing with her "therapist" Eliza. Eliza was a complete fraud, it didn't understand anything, its code was surprisingly simple, and the whole point of Eliza was to undermine the idea that computers would ever understand us. Nevertheless, Eliza still fooled some. The generative AIs of today (2022) are far more sophisticated and powerful than Eliza and are fooling, or impressing many. I count myself among the impressed.

Here are some of ChatGPT's abridged answers (they're not kidding about the chat part of *chatbot*) to some of my queries.

1. **Me:** Explain formal geometric proof systems.

   ChatGPT: A formal proof system is a set of rules and axioms that are used to prove theorems in a logical and rigorous manner. In the context of geometry, a formal proof system is a set of rules and axioms that are used to prove theorems about geometric figures and their properties.

   There are several different proof systems that have been developed for geometry, including Euclidean geometry, non-Euclidean geometry, and synthetic geometry. Each proof system has its own set of axioms and rules, which are used to prove theorems about geometric figures and their

properties.

> In a formal proof system, a theorem is a statement that is to be proven, and a proof is a logical argument that demonstrates the truth of the theorem. The proof consists of a series of logical steps, each of which must be justified by one of the axioms or rules of the proof system …

ChatGPT's answer is a good basic wordy answer. There's nothing outrageously wrong here. If a high school student turned in something similar, I would give the student a C+.

2. **Me:** How many authentic ancient mathematical artifacts exist?

I've been trying to assess how much source material underpins our mathematical origin stories. As ChatGPT was "trained" on many millions of web pages I thought it may come up with something I was unaware he. Here is its answer.

> **ChatGPT:** There are many ancient mathematical artifacts that have been preserved from various civilizations around the world. These artifacts provide valuable insights into the mathematical knowledge and practices of the time, and they are important for understanding the history and development of mathematics.
>
> Some examples of ancient mathematical artifacts include:
>
> 1. The Rhind Mathematical Papyrus, which is an ancient Egyptian mathematical text dating back to around 1650 BC.
> 2. The Moscow Mathematical Papyrus, which is another ancient Egyptian mathematical text dating back to around 1890 BC.
> 3. The Plimpton 322 tablet, which is a Babylonian clay tablet containing a table of numbers and geometric figures.
> 4. The Antikythera mechanism, which is an ancient Greek mechanical calculator used to predict astronomical phenomena.
> 5. The Ishango bone, which is a bone tool with markings that may represent early counting and arithmetic.

There are many other ancient mathematical artifacts that have been discovered and studied, including tablets, scrolls, and manuscripts from various civilizations such as the Greeks, Romans, and Chinese. These artifacts provide valuable insights into the mathematical practices and knowledge of the time, and they are an important part of the history of mathematics.

This answer is impressive and disappointing. All of the cited artifacts are real and can be found in museums. Unfortunately, I was already aware of these objects. I was hoping ChatGPT would mention something I was unaware of. I had better luck with my next question.

3. **Me**: What is a current or new theorem from plane Euclidean geometry?

   ChatGPT: … There are also many new theorems that have been proven in recent years, some of which involve more advanced concepts and techniques. For example, a recent theorem in plane Euclidean geometry is the "unit distance graph" theorem, which states that given any set of points in the plane, there exists a graph (a collection of points connected by lines) such that the distance between any two points on the graph is either one or two. This theorem was proven by János Pach and Géza Tóth in 2016 …

This was the first time I had heard of the unit distance graph theorem. Unit distance graphs are real[133] and there is a vast literature regarding them. I have been unable to verify that ChatGPT's citation is legitimate. I found only one 2016 paper with both of these authors: *Note on k-planar crossing numbers, 10.1016/j.comgeo.2017.06.015, Computational Geometry*. ChatGPT may be correct or it's *hand-waving* with the best of them. In either case, I learned something.

Finally, I asked ChatGPT:

4. **Me**: What do you think about the blog analyzethedatanotthedrivel.org?

   ChatGPT: As an AI language model, I do not have personal opinions or thoughts about specific websites or blogs. I am trained to provide general information and answer questions to the best of my ability based on my training data, which consists of a large dataset of texts from various sources, including books, articles, and websites.

   I am not able to browse the internet or access specific websites, so

[133] Unit distance graphs are as real as any other abstract mathematical entity.

> I am unable to provide any information or commentary on the blog analyzethedatanotthedrivel.org. It would be best to visit the blog and read the content for yourself in order to form your own opinions about it.

So ChatGPT advocates reading and forming your own opinions. Sadly, I'm detecting more "intelligence" in this answer than in most Internet chat forums and *Twatter* threads.

2023

For Me in Twenty Twenty-Three

Posted: 09 Jan 2023 06:17:47

Let's get this over with!

Every year I task myself with a list of *publicly declared goals,*[134] and then in the next year, if I find myself among the living,[135] I grade myself. How did 2022 go? Let's start with my *small* goals.

1. **Goal:** *Observe as many Messier objects as weather permits and get my RASC certificate.*

Well, I did not get my RASC certificate but I made progress. Meridian's skies are often overcast and even when clear, are horribly light-polluted. I figure I can only *naked-eye* magnitude 3 or 4 stars from my backyard. When using my binoculars or telescope I estimate I lose two or more stellar magnitudes to light pollution. Bright, magnitude 8 or 9 Messier objects, that are easily seen with binoculars from dark sites are not visible in my backyard. It's frustrating. *Urge to kill rising!* To make a dent in my list of *missing Messiers* I will need to seek out dark skies. For 2023, I am repeating this goal; I will keep looking until I complete my *Messiers* or expire. As for my "grade," I'm giving myself an **Incomplete**.

2. **Goal:** *Learn more proper northern hemisphere star names.*

I am pursuing the quixotic quest of stepping outside on my patio and calling out the visible "named" stars. This is a rare astronomical task that *light pollution helps*; it greatly reduces the number of stars you must name. I am making slow progress. I can already achieve this goal on some nights, especially partly overcast nights, as only the brightest planets and stars can be seen. For 2023 I will increase my efforts and cultivate some productive habits like looking up the ten brightest named stars visible from my backyard on given nights. I'm giving myself another **Incomplete**.

3. **Goal:** *Continue shooting and adding captioned images to my pictures site.*

In 2022 I set an all-time captioned image upload record. I wrote almost as many *caption words*[136] (about 50 pages), as *blog words* (about 60 pages). Many 2022 pictures

[134] Private goals can be conveniently memory-holed.
[135] At my age this cannot be taken granted.
[136] I call them milliblogs

came from our Australia and New Zealand trip. But, importantly, I more than met my goal. I'm giving myself an **A+**. For 2023 I am not setting an image quota. I will upload pictures when the whim strikes.

4. **Goal:** *Read at least ten books.*

I read twenty books so I'm giving myself an **A**. For 2023 I am not setting any reading goals. I will read what I read.

5. **Goal:** *Blog more!*

In 2022 I cranked out 19 blog posts: not great, but better than many previous years. I'm giving myself a **C+**. For 2023 I am planning to break my all-time blog post record. In 2012 I wrote 37 posts, so I have to hit 38.

That completes my small goals for 2022. In 2023 I'm adding one additional small goal.

6. **Goal:** *Weigh 85 kilograms or less on December 25, 2024.*

For the last two years, I have been slowly losing weight: currently, I'm at 88 kilograms. I haven't been making an effort to lose weight, it's a consequence of walking a lot, and staying on the Mali diet. The Mali diet is super-heathy, anyone that stays on it will lose weight. I might as well make it a little goal.

Now let's address the *Humpback in the Sea*. How did I do with my primary priority project which was:

7. **Whale Goal:** *Write a first draft of a short book that uses LEAN to formally prove some school geometry theorems.*

I've written a fragmented partial draft and I've made headway on the thousands of little things you must do to write a book about software, mathematics, and history but overall, I have failed — abjectly! I'm giving myself an **F+**. *I am not giving up!* I will continue working on this project in 2023 but I'm changing how I swim after this whale.

To start, I am going to write some *typical programs* in LEAN4. The LEAN type system is powerful enough to *formally* prove advanced mathematical theorems. This distinguishes LEAN from most programming languages and tells this old polyglot programmer that "LEANish" languages represent something new and important. Most mathematicians using LEAN focus on formal theorem proving but my tiny naked ape brain may have better luck with prosaic "hello world" applications. As I work out some LEAN programs I will post them here.

Finally, I'm going to take Roy Peter Clark's advice (see Writing Tools) and write about the problems I face while working on my draft. I'll use this blog as a test site, sounding board, whipping post, and confessional as I foolishly attempt to outswim a whale.

Overall, I'm rating 2022 as a **D+** year. I will make efforts to improve, and if in 2024 I find myself among the living, I will tell you about it.

Ethanol is Excrement in the Gas Tank

Posted: 17 Jan 2023 22:40:24

Like many U.S. government programs, the blended corn ethanol mandate has done little to address its avowed goals, i.e., strengthen energy security, reduce carbon emissions, and lower prices for consumers. By some accounts it, consumes more energy than it produces, increases consumer prices, distorts food production, wastes vast tracts of arable land, and contributes to groundwater and aquifer depletion. *What's not to like?*

The corn ethanol program has been called a boondoggle, by just about anyone that isn't *directly cashing ethanol checks,* but instead of shutting this abomination down, the idiots in Washington are being pushed by their donors (yes there is a big ethanol lobby) to expand corn ethanol production, increase the amount of ethanol blended into gasoline, and keep on screwing the public in perpetuity. As it's currently *constipated*,[137] the ethanol mandate mainly buys votes in the Midwest and funnels billions of government dollars to ethanol refiners and their investors. *The ethanol program is pure squealing pork.* You almost have to admire the rapacious cabal that's sold this stupid program to an even dumber public.

Like many beleaguered citizens, I do my best to ignore government stupidity. I simply don't have the time, energy, or patience, to engage with the mental, moral, and cosmetic pygmies that infest government. Unfortunately for me, and you too, the ethanol mandate is hard to ignore because of the "mandate" bit. If you doubt this go out and try and buy some ethanol-free gasoline. You will quickly discover that ethanol-free gas is not always available, and even when it is; it's more expensive and comes in fewer octane ratings than ethanol-polluted gas. Some gas stations sell ethanol-free gas, but hardly any sell premium (octane 91 and above) ethanol-free gas.

[137] And I mean *constipated*. Government only serves the interests of the donor class. If you aren't punting *serious moola* to your "representative," he, she, or *trans-it*, doesn't give a ding-dong damn about your tiresome little problems.

You may ask, "How about letting gas stations sell whatever gasoline blends their customers prefer? If the public prefers pure to ethanol-contaminated gas, then so be it."

Oh, you poor naïve dolt. If you think we're living in a "free market" just pour gas, pure or ethanol, over yourself and strike a match! Virtually everything on sale is regulated in one way or another. The "free market" is as real as LGBTQ werewolves. In tiny regulator minds, consumer choice must be constrained because *unfettered consumers may not buy your crap!* Big ethanol knows consumers prefer comparably priced pure gas to their poisoned alternative because:

1. Ethanol-free gas gets better mileage.
2. It burns at lower temperatures in engines reducing wear and tear.
3. Is less corrosive and damaging to engine parts.

If corn ethanol met its promises, you could make a case that it's worth damaging engines, draining aquifers, and restricting consumer choice but it doesn't. As I said the program is pure pork. It's not designed to benefit the public and it doesn't. And, barring an *electoral miracle* that tosses all the corrupt congress critters that voted for this affront out of office, we're going to be saddled with ethanol in our tanks forever.

So, what can you do to limit the ethanol excrement in your gas tank?

If money isn't an issue buy an electric car or always fill up with ethanol-free gas. If money is an issue remember; *dilution is the solution to pollution.* I alternate between pure and ethanol gas when I fill up. This is cheaper than pure gas and it keeps the ethanol concentration down.

The Python function `ethanol_concentration` (see page 514) estimates my average ethanol gas tank concentration assuming:

1. I always fill up when the tank is half-empty (I'm a pessimist).
2. I start with a full tank of ethanol E10 (10%) gas.
3. I alternate between pure and ethanol gas.

If spreadsheets are more your bag this sheet carries out the same calculations.

When you run this function for the dilution schemes:

1. $t = 1$ always use pure gas
2. $t = 2$ alternate between ethanol and pure
3. $t = 3$ one pure for every two ethanol
4. $t = 4$ one pure for every three ethanol

```
F = 100  # number of fill ups
E = 10   # parts ethanol - typically 10 or 15
for t in range(4):
    print(ethanol_concentration(F, E, t+1))
```

You get:

```
(1, 10, 0.2, 10, 1.5777218104420236e-29)
(2, 10, 5.066666666666666, 10, 3.3333333333333335)
(3, 10, 6.728571428571428, 10, 4.285714285714286)
(4, 10, 7.553333333333333, 10, 4.666666666666667)
```

Observe that alternating, as expected, cuts the ethanol concentration in half and that the concentration creeps up as you put less and less pure gas in your tank. There's still excrement in your tank — just less of it.

```
def ethanol_concentration(F, E, T):
    r"""
    Compute average ethanol concentration over:
      F = number of fill ups
      E = ethanol concentration
      T = tank filling

    example:
      ethanol_concentration(100, 10, 2)
    """
    # initial tank concentrations - start with ethanol gas
    c = [0] * F
    c[0] = E
    # gas ups - 1 ethanol, 0 ethanol free
    g = [min(1, (1 + i) % T) for i in range(F)]
    g[0] = 0
    # calculate concentrations
    for i in range(len(c)-1):
        c[i+1] = 1/2*(c[i] + E*g[i+1])
    return (T, E, sum(c)/len(c), max(c), min(c))
```



Figure 196: Ancient authenticated mathematical artifacts listed in approximately chronological order. 1. Ishango Bone 2. W 19408,76 3. Plimpton 322 4. Yale YBC 7289 5. Rhind Mathematical Papyrus 6. Oracle bone 7. The Suàn shù shū 8. Bakshali Manuscript 9. Khmer zero 10. oldest surviving version of *Euclid's Elements*

How Many Authenticated Ancient Mathematical Artifacts are Known?

Posted: 26 Feb 2023 21:55:23

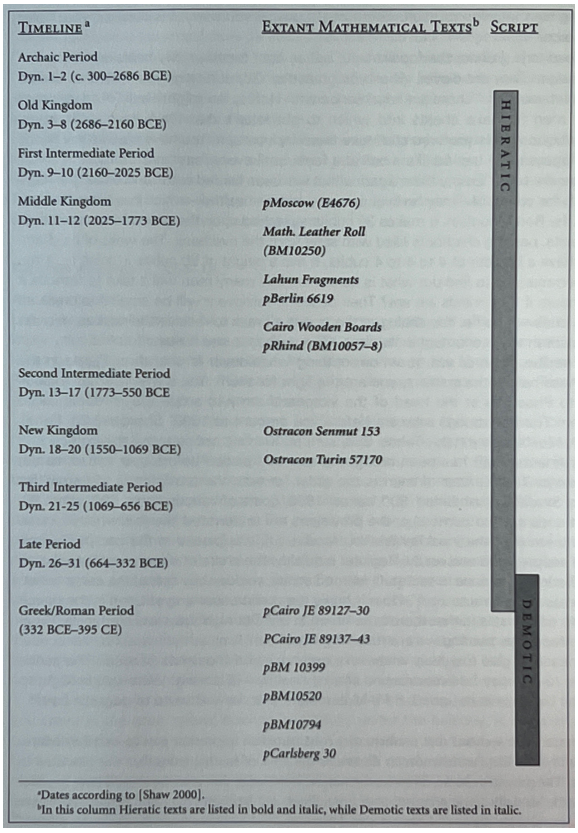
"How many authenticated ancient mathematical artifacts are known?"

I recently asked myself this question while researching the history of mathematical proof. Ultimately, all historical theories *must answer to the evidence*. For mathematics, this means studying *surviving* parchment documents, cuneiform tablets, bamboo strips, bone markings, Stella inscriptions, calculating boards, and other objects, that inform our mathematical origin stories. And, when it comes to the ancient history of mathematics, that's all we have — stories. Stories that are spun from *a very small number* of authentic artifacts.

"How bad is it?"

When I started tracking down references to ancient mathematical artifacts, I quickly discovered that everyone keeps referring to the same short list of objects. Instead of going down a rabbit hole, you find yourself wandering in a circular maze littered with objects like the Ishango Bone, Plimpton 322, the Rhind Papyrus, Yale YBC 7289, the Suàn shù shū, oracle bones, the Bakhshali manuscript, W 19408,76, the Khmer Zero, and a few surviving medieval versions of Euclid's Elements. Surely the dense convoluted tomes going on about the history of mathematics cannot — when traced back to source materials — depend on such a meager collection: a collection so small it would fit in the bed of your pickup with enough space left over for your dog!

Ancient authenticated mathematical artifacts are exceedingly rare. They are among the rarest of all ancient artifacts. Figure 197 on page 516 was taken from *The Mathematics of Egypt, Mesopotamia, China, India, and Islam: A Sourcebook*; it lists all the known major Egyptian mathematical artifacts. *There are fifteen objects in this table spanning some two thousand four-hundred years!* I think we can safely infer



Timeline [a]	Extant Mathematical Texts [b]	Script
Archaic Period Dyn. 1–2 (c. 300–2686 BCE)		
Old Kingdom Dyn. 3–8 (2686–2160 BCE)		
First Intermediate Period Dyn. 9–10 (2160–2025 BCE)		
Middle Kingdom Dyn. 11–12 (2025–1773 BCE)	*pMoscow (E4676)* *Math. Leather Roll (BM10250)* *Lahun Fragments* *pBerlin 6619* *Cairo Wooden Boards* *pRhind (BM10057–8)*	HIERATIC
Second Intermediate Period Dyn. 13–17 (1773–550 BCE		
New Kingdom Dyn. 18–20 (1550–1069 BCE)	*Ostracon Senmut 153* *Ostracon Turin 57170*	
Third Intermediate Period Dyn. 21-25 (1069–656 BCE)		
Late Period Dyn. 26–31 (664–332 BCE)		
Greek/Roman Period (332 BCE–395 CE)	*pCairo JE 89127–30* *PCairo JE 89137–43* *pBM 10399* *pBM10520* *pBM10794* *pCarlsberg 30*	DEMOTIC

[a]Dates according to [Shaw 2000].
[b]In this column Hieratic texts are listed in bold and italic, while Demotic texts are listed in italic.

Figure 197: Egyptian mathematical documents. Only fifteen documents are listed for the period 2025 BCE to 395 CE: a span of over 2400 years!

that our knowledge of ancient Egyptian mathematics is woefully incomplete. The ancient Greeks, still widely lauded for their many mathematical achievements, left *no original documents*. Euclid's famous *Elements*, a book we still esteem and admire today, can only be traced to the Middle Ages — almost a thousand years after its avowed creation date. A thousand years is plenty of rewrite time. How much of *The Elements* dates to 300 BCE and how much derives from later amendments is still hotly contested.

Some cultures are better represented in the archeological record than others. The Mesopotamians, actually a series of cultures spanning thousands of years, that lived in the fertile crescent, the land between the Tigris and Euphrates rivers in modern Iraq, wrote on cuneiform clay tablets. When dried or baked cuneiform is very stable. Even better the Mesopotamians recycled their tablets by using them as filling for walls. Many thousands of these tablets have survived and are still readable today. Because so many cuneiform tablets have survived it's possible to apply rudimentary statistics. Of the 5000 tablets found in the late fourth-millennium city of Urak about 10% were "school" exercises. Most of these exercises are word lists and other writing exercises but a few exhibit calculations. We can't be certain if these tablets are representative but they do show that ancient *Urakians* had the same aversion to mathematics that's found in modern cultures. *Math nerds have never been the cool kids!* In any case, the moral of the story is clear; if you want your stuff read thousands of years from now, write on durable materials.

For cultures that wrote on perishable materials like papyrus (Egyptians, Ptolemaic Greeks), bamboo strips (China, Japan, Korea), tree bark (India), string (Inca and Pre-Inca quipus), and fig-tree fibers (Mayan codices), the record is extremely sparse. For example, the famous ancient library of Alexandria supposedly held hundreds of thousands of papyrus documents, but *not a single one has survived! History is a cruel castrating bitch!* Lack of material is a common theme: there are no Indian manuscripts older than 200 AD. The famous Bakhshali manuscript hints at older materials but none of its predecessors have been found. Modern Indians make bold claims about the antiquity of their mathematics but when it comes to hard artifacts their situation is comparable to the ancient Greeks, another culture that left us *few originals to study*. The oldest Chinese bamboo strips date to around 200 BCE. There are older "oracle bone" markings that date to Bronze Age 1200-1000 BCE that show the ancient Chinese had developed base 10 numerals but sadly, the bone scripts do not contain any known mathematical texts or cheat sheets. Too bad!

The oldest known *unambiguously mathematical artifact* is a cuneiform tablet labeled W 19408,76 that dates to 3320 BCE. Five thousand years ago somebody was calculating areas. There are even older objects that hint at paleolithic mathematics. Tally sticks — mostly notched bones like the Ishango and Lebombo bones — suggest people were "counting" tens of thousands of years ago. You can't infer much from tally sticks but that hasn't stopped so-called *ethnomathematicians* from making extravagant claims. In the wilder versions, paleolithic number theorists were contemplating prime numbers twenty thousand years ago. It's not impossible, but as Carl Sagan famously said, "Extraordinary Claims Require Extraordinary Evidence," and right now (2023),

the data does not align with the drivel.

And speaking of "data", The Mathematical Association of America maintains one of the best historical mathematical object lists: The Index to Mathematical Treasures. This list contains roughly 1300 objects. I *screen-scraped* the HTML, extracted the list, and charitably assigned hard dates to ambivalently dated objects. For example, the entry for the Zhoubi suanjing refers to a book printed in 1603 that claims descent from a 100 BCE original. So, I take 100 BCE as the date of this object. This charitable date assignment will tend to make objects older than they probably are. After assigning dates I computed the following half-millennia histogram.

Count	Cumulative	Start Year	End Year
1	1	-25000	-5000
1	2	-4500	-4000
2	4	-3000	-2500
9	13	-2000	-1500
1	14	-1500	-1000
7	21	-500	0
15	36	0	500
13	49	500	1000
111	160	1000	1500
1142	1302	1500	2000

Negative numbers refer to BCE dates, and yes, I know the *Year Zero* does not exist in our calendar. It should but that's a rant for another day. The second column is a cumulative object count. From -25000 to 0 we have 21 objects! Remember, I am assigning charitable dates. The actual count is even lower. The MAA treasures list is not comprehensive but the trends it exhibits are likely to be stable as the object count increases. *The vast majority of entries date from the year 1500 to the present and this corpus constitutes our actual history of mathematics.* Before 1500 and movable type printing, the object count is profoundly underrepresented and it only gets worse the further back you go. We just don't have a lot of germane material to study. Keep this in mind the next time some blowhard starts opining on the history of mathematics and its subdisciplines like the history of proof.

So, the answer to my question, "How many authenticated ancient mathematical artifacts are known?" is simply, ***not many!*** People are still looking and perhaps in the years to come more objects will be found that will render our alleged mathematical

histories less mythical and more mathematical.

Some Modest Proposals for SVBish Bank Bailouts

Posted: 16 Mar 2023 22:58:04

Here we go again another criminal bank bailout. Don't even try and argue that the SVB bailout isn't a bailout. You can tell it's a bailout from all the frantic explanations the Biden gang is pushing telling us how giving funds, way over FDIC deposit insurance limits, to deposit holders in 2023 fundamentally differs from giving funds, way over insurance limits, to others in 2008 for like — *totally other reasons.* Yes, public money is being flushed down the toilet without consent, but this time it's piss rather than shit in the pot. Trust us; it's so, so different.

Unfortunately, the hard arithmetic fact remains that FDIC deposit insurance rules were revamped *post facto*, without discussion, for SVB, and some depositors are getting far more than they should at the expense of the rest of us. Now braindead Biden assures us that we won't lose a dollar and that this is a regrettably necessary step to shore up the banking system. This sounds *very familiar* and I am *very tired* of it. But once again the morons in Washington have injected a massive dose of moral hazard into the system. Why would politically connected *depositors* bear even tiny private deposit insurance expenses when their Washington fuck toys line up to tongue cash up their bungholes?

After 2008 any competent financial officer should have factored bank instability into their calculations and plans. If you are stupid enough to put all your eggs in one basket and said basket tips over, well that's on you. *Never assume things are fine because they never fucking are!* Why the hell is it necessary to explain this to adults?

Moral hazard is a nasty trans-bitch genie. Once *they* are out of the lamp, *they* delight in wreaking innocent bystanders at their own expense. If only there was something we could do to mitigate the damage. How about this?

> I want a full, publicly disclosed list, of every single SVB depositor that takes more than standard FDIC amounts. The list should include the amount, name, and address of any individual or company that exceeds FDIC limits. Furthermore, the list should be published on a system like GitHub so the public can make as many secure copies as they deem fit.

Now, many will squeal that this is a horrible breach of banking privacy and that making such information public might endanger people and further rattle brittle

markets

I don't fucking care!

If you are so concerned that your privacy is being breached then don't exceed FDIC limits. I would be willing to bet that a fair number of SVB startup bros would prefer to keep their names off the bailout list — even if it costs them big time. Also, anyone choosing privacy over public slush probably doesn't need it.

I'm not done here.

The idiots in Washington have demonstrated over and over again that most of them are, in Heinlein's immortal words, "candidates for protective restraint." They need adult supervision, meaning the rest of us must monitor these MIBs (manifestly ignorant beings) twenty-four-seven. Let's start with their tax returns.

Remember all the fuss about Trump's tax returns? Trump is a mendacious fat *n'th* rate intellect but he knows how to game the system. I would argue it's about the only thing he knows. I submit that one-time tax returns are not enough for nitwits like Trump or nonentities like Biden.

> I want full yearly forensic IRS audits of the President, Vice President, every sitting member of congress, the senate, the supreme court, top officials in the executive branch like the Attorney General and Head of the Federal Reserve, their immediate family members, and their top ten political donors. Furthermore, said audits must be published in excruciating detail on systems like GitHub so the public can make as many secure copies as they deem fit.

Of course, the political class will scream that this is a horrible, horrible imposition. That it makes it too easy for friends and foes to data-mine public officials, that it will deter donors, that it will discourage *good people* (don't make me laugh) from seeking public office, that it endangers family members and poor innocent associates, that it distracts from the *real issues* (still not laughing) like climate change.

Again, I don't fucking care!

Here's the thing congress-creeps. If you feel you have things to hide, maybe, just maybe, you're not fucking fit for office! Maybe your head is better mounted on a pike.

Sympathy for Ptolemaic Epicyclers

Posted: 07 Apr 2023 20:56:11

Histories of science tend to cast "old theory holdouts" as uncouth, backward, prejudiced, and stinky nitwits. If you don't immediately jump on the shiny new science bandwagon you're on the *wrong side of history* and doomed to a legacy of ridicule and disdain. Mind you, these *just so* histories fail to mention that most new theories are dead-ass wrong and that you need solid reasons for abandoning ideas that more or less work. The classic "old theory people are morons" tale appropriately revolves around astronomy's famous Earth-centered versus Sun-centered debate. The standard tale casts Copernicus as a brave man of science (even though he didn't fully publish while alive to avoid censure) waging righteous war with hidebound doctrinaire church-sanctioned Ptolemaic astronomers and their idiotic notion that the sky spins around the Earth. How stupid is that?

Actually, it wasn't stupid. The Ptolemaic system was complicated, lacked a physical basis, and required constant tweaking and adjustment, (sounds like modern software), but at its core, the system was *deeply empirical*. It was based on watching the damn sky and here's the kicker; it kind of worked. The epicylers predicted the planets' locations, the moon's phases, when stars rose and set, and even some lunar and solar eclipses. Ptolemaic calculations lacked modern precision but they were good enough for naked-eye astronomers. When astronomers switched to telescopes it quickly became apparent to anyone that cared to look that Ptolemy's system was off and needed fixing. Kepler, Newton, and others provided the fix and the new celestial regime was *demonstrably better* than Ptolemy's, and, as a bonus, Newtonian gravity finally offered deep reasons for why orbits took observed shapes.

This all happened centuries after Copernicus, and because his heliocentric model was essentially correct, people have forgotten that Copernicus Version 1.0 made crappy predictions. The first iterations of the heliocentric model did not match the accuracy of the hidebound doctrinaire old fart Ptolemaic system; this is what fueled resistance to the new model. Far from being morons, the Ptolemians were just being good skeptical philosophers. Sun-centered models were not new even in the 15$^{\text{th}}$ century. Aristarchus speculated about them around 200 BCE, and I'd bet big bucks the idea was old even then. Sun-centered models did not immediately catch on because *theories must pay their way.* A nice idea that doesn't feed you, (I'm looking at you Multiverse, and you too String Theory), will be tossed aside for ones that do! Ptolemaic astronomy endured because it paid the bills and fed the hungry. Copernicus Version 1.0 did not.

All of this was driven home by my recent development of a J script `riseset` for calculating when officially named International Astronomical Union stars (IAU) culminate in my backyard. The script is available on GitHub and can be installed and run on current J systems with:

```
load 'pacman'
NB. files from https://github.com/bakerjd99/jackshacks
install 'github:bakerjd99/jackshacks'

load '~addons/jacks/riseset.ijs'
location_yellowstone 0
NB. IAU stars rising/setting over Old Faithful
fmt_today iau_today 0
```

Most of the algorithms in `riseset` derive from Jean Meeus's book *Astronomical Algorithms* with supplementary material from Jay Tanner and NASA's eclipse site. If you peruse the code or browse the source books you will quickly see that modern astronomical calculations are complicated and require constant tweaking — just like the old Ptolemaic system. The algorithms in Meeus will need updating every century or so and it is the update process that distinguishes modern calculations from the Ptolemaic system. Modern calculations are based on solving *n-body* celestial mechanics problems. The resulting, mostly series solutions, form the basis of working algorithms like Tanner's nutation programs. *N-body* problems are grounded in gravitational theories and there was nothing like them in Ptolemy, but from the perspective of a backyard amateur astronomer rolling his own code, the differences between modern and Ptolemaic calculations seem moot. While working out `riseset` I acquired a new respect and sympathy for the ancient epicyclers. They carried out decent approximations, without computers, or even place value arithmetic, and came up with answers that almost matched what they saw. Not exactly the work of morons.

Donald Patterson

Posted: 02 May 2023 17:36:55

A parable by *Kline Leopold Hedrös* ©2023

After being missing for over a century, Donald Patterson's frozen naked body was found sitting on a boulder overlooking a tranquil lake. His eyes were closed, he was leaning forward, his palms were on his knees, his legs were spread wide, a serene smile snaked over his face, and most disturbingly, his rather large frozen penis was

erect and oddly bent. Finding anyone missing for so long is amazing, but that wasn't the problem. The boulder Donald sat on was cryogenically cooled water ice, the lake he was overlooking was filled with liquid Methane, and the beach it gently lapped against was on Saturn's largest moon, Titan. The problem was, and remains, human beings have never been to the outer planets. How did Donald end up naked and frozen solid on Titan?

It's a freak of history that Donald's discovery by the flying European Space Agency's Titan (ESA) *Aura* probe was publicly disclosed. If the designers of the ESA and Chinese Space Agency (CSA) Titan probes had anticipated finding a smiling naked man with a large bent erection on Titan, they would never have made their probe transmissions public. But nobody expected Donald and national civilian space agencies in the mid-21st century practiced *full analytic disclosure.*

Full analytic disclosure was a reaction to what historians have called *The Fake Age.* Starting in the mid-2020s with the advent of advanced public AIs, every bored teenager could create astonishingly realistic fake videos showing whatever their twisted little teenage minds could imagine. Bored teenager videos were bad enough, but soon others, people with grudges, opportunistic scammers, trolls just doing it for the LOLs, bitter exes, big corporations, and government intelligence agencies also got into the high-quality fake business: the result: a world flooded with fake videos of celebrities, politicians, public intellectuals (please, no laughing), bitter ex-wives, aggressive transexuals, social media influencers, religious nitwits, and generic know-it-alls, all engaging in a full spectrum of depravities. New genres like Your-Girlfriend-Getting-Gang-Bang-Anal and The-President-Shitting-in-Actor-Mouths were so common that critics suggested they needed their own *Academy Awards* category.

The fakes culminated with the epic *Butter. Butter* started with two trans-Hollywood A-listers torturing and raping kidnapped toddlers under the "O" (for orgasm) of the Hollywood sign. The penetration close-ups were the most anatomically detailed fakes ever produced. They are still studied in video schools for their masterful attention to detail. After raping their last toddler, the trans-A-listers casually beheaded the poor tykes and threw their severed heads down the hill. Again, the "gore physics" was of the highest caliber. The amount of calculation required to accurately model — to forensic levels — the elastic deformation of toddler head tissue bouncing down a dirt hill was so great that many still suspect wealthy producers like the Saudi Royals, the CCP, or the NRA-funded *Butter.* After watching their last toddler's head bounce, the trans-A-listers boarded a conveniently loitering military helicopter and flew straight to Sacramento. On arrival, they rappelled onto the Capitol Building dome and shot their way into the state legislature, where they machine-gunned and nerve-gassed

prostrate begging state legislators. *Butter* ended with the National Guard storming the capitol building, but *Butter's* trans-A-listers were prepared. In the final scene, they set off a small briefcase tactical "dirty nuke" that vaporized the capitol building, killed the attacking National Guardsmen, and left a large Cobalt 60-laced radioactive hole in downtown Sacramento. Cynics still consider *Butter* the greatest feel-good comedy of all time.

To nobody's surprise, a world filled with fake bullshit was not a problem for many, but it was a problem for *science*. Science answered with full analytic disclosure. It was no longer sufficient to publish papers that referred to lame "meta-studies," obscure behind-a-paywall papers, or publicly inaccessible source data. In *The Fake Age,* every step in the research process had to be fully disclosed, cryptographically hashed, and redundantly stored on public blockchains. Once research data appeared on a public chain, it could never be revised, deleted, or altered without triggering loud alarms. And just storing data wasn't enough. All the software tools, ad-hoc programs, working notes, and so forth also had to be put on chains where anyone could inspect and use them. There was bitter pushback from academics as the doctrine of full analytic disclosure took over. Many complained that if they had to divulge their hard-won experimental data, third parties might scoop them. Poor babies! Others whined that exposing all the steps involved in producing papers would undermine *Ten-Million-Author-Papers'* credibility. Everyone knew that, of the dozens of author names appearing on group papers, only a few, sometimes very junior researchers, did the work. Full analytic disclosure clarified this, and the brownie point collectors didn't like it. Again, poor babies!

Despite the pushback, academics caved because most of them were publicly funded, and the public was no longer buying their crap. Any "paper" that didn't meet the highest standards of full analytic disclosure was immediately dismissed as "fake research." Also, citing "fake papers" had a huge negative impact on one's reputation, so it wasn't long before full analytic disclosure was widely practiced. It was certainly established practice when ESA and CSA designed and built their flying Titan probes. Both agencies took extraordinary steps to guarantee the authenticity of their Titan transmissions and to disclose every single bit sent from Titan instantly.

All their hard work resulted in the biggest April Fool's reveal in history. On April 1st, 2056, the first images of Donald Patterson hit the nets. Still reeling from *The Fake Age,* the public didn't believe Donald was real. Most thought he was another high-quality fake, and the April 1st date did not help. As more and more data came in, it was clear that something extraordinary had been found on Titan, but the low-attention-span public quickly moved on. No amount of rational fully disclosed

technical arguments about the integrity of transmission protocols would change their minds. *The Fake Age* was also known as *The Stupid Age,* but aren't all human ages stupid?

The two groups that accepted Donald, conspiratorial imbeciles, and hard scientists, loathed each other. Conspiratorial imbeciles cranked up their insanity and suggested Donald had been abducted by alien werewolves that "posed" his body on Titan after running a standard alien anal probe panel. That's why Donald was sitting — to conceal the alien anal probe in his ass. There were dozens of "competing" conspiratorial imbecile "theories," but no matter how insane, contrived, ludicrous, incoherent, illiterate, innumerate, or batshit silly, Donald's mere existence out-crazy-ed them all. "The universe *really* is queerer than we can imagine."

And that bothered hard scientists. Donald was a giant middle finger to the established canon. People, especially technical people, love to prattle on about how wonderful it is to rethink everything, but when forced into a situation where you must do it, the joy evaporates, and dread settles in. The scientific community wisely kept their mouths shut about Donald. When pressed for comment, they predictably called for "more research." When have researchers ever called for less research?

When Donald Patterson was found, he didn't have a name. At first, he was called the "Titan Ice Man," and that is still the word-police-approved name, but the public quickly settled on "Ice Dong" (#IceDong) and took pleasure in using "Ice Dong" in defiance of the word police. At first, everyone wondered if Ice Dong was a statue, an alien, or some freak natural formation. Conceding Ice Dong's humanity was too big an ask, so in good — "when you have eliminated the impossible, whatever remains, however improbable, must be the truth" — fashion, the hypotheses were tested.

The easiest option to rule out was the suggestion that Ice Dong was a freak natural formation. If Ice Dong looked *a bit* like a human body, like some squash plants occasionally do, then most would have been delighted to accept this explanation: a natural formation didn't require a complete rethink of human knowledge. Unfortunately, the *Aura* probe was able to take extremely high-resolution microscopic images of Donald's entire corpse. The detail was amazing: hair with follicles, twisted eyebrows, nostril and pubic hairs, ear wax, tiny skin scars, toe and fingernail cuticles, scrotum blood vessels, moles, suntan lines, and mysteriously, a ring shadow on his left ring finger, like Donald wore a wedding ring that was no longer there. That all this detail condensed out of the Titan atmosphere was more improbable than finding a smiling frozen corpse overlooking a tranquil Titan Methane Lake.

The close-up examination that ruled out a natural formation also nixed the statue

suggestion. If Ice Dong was a statue, the "artist" that made him could carve microscopic details. It made more sense to assume Ice Dong was a body. But the question remained: what type of body was Ice Dong an alien? At this point in the investigation, this was the preferred option. And, in another accident of history, the *Aura* probe carried an instrument capable of basic genome sequencing: the ATCOMU (Advanced Titan Complex Organic Molecule Unit) device. When *Aura* was designed, a protracted struggle between two groups of researchers about the ATCOMU device made the news. One group objected to sending a sequencing device to Titan because nobody expected to find anything like DNA on Titan. They wanted to send another instrument that coincidently better suited their research program. It was a typical "bitter because the stakes are so low" academic squabble. In the end, ATCOMU was sent to Titan because the instrument was highly versatile. Genome sequencing was only one of many things it could do.

ATCOMU's sequencing abilities were quickly used on Ice Dong. The *Aura* probe gently drilled into Ice Dong's ankle and extracted enough cryogenically frozen flesh and bone for analysis. *Aura* took a few hours to run a standard genome sequence and another hour and twenty minutes to transmit the results to Earth. Still, within minutes of hitting the nets, four DNA ancestry databases reported that Ice Dong had living relatives in the western US, Alberta, Canada, Indiana, and Scotland. The best match was with a fifty-year-old woman, Denise Nielson, living in Elko, Nevada.

When contacted by reporters and government officials, Denise said her mother's maiden name was Noreen Patterson and that Noreen had lived into her late nineties and was buried in the Elko cemetery. The authorities quickly exhumed Noreen's body without Denise's permission and ran a series of genetic tests that showed Noreen was the biological daughter of Ice Dong, or as he was now known, Donald Patterson. Within days of identifying Donald, his Indiana relatives unearthed an old 1920s portrait of Donald and his older brother Richard. Donald was only seventeen years old in the picture, but his serene smile in the old print matched the familiar image from Titan. Armed with a name and family connections, it didn't take long to recover all the surviving information about Donald Patterson.

As a child, he fell off the roof of his parent's second-story house and broke his left leg. It was a bad break that healed improperly. It left his left leg shorter than the right, and he limped from then on. In 1923, Donald and his wife Elsa eloped. The couple left Ohio for California and, on the way, briefly lived in Amargosa, Nevada, where Donald got a job in the Borax mines. By all accounts, they were a happy couple, but Donald disappeared on the evening of November 11, 1923. He was last seen walking into the desert near Corkhill Hall, later known as the Amargosa Opera House, by

some fellow Borax miners. They reported he was limping more than usual but took the time to wave hello. It was the last time anyone saw or heard of him. Six months later, Elsa gave birth to Noreen. Noreen never met her father but, according to her daughter Denise, grew up hearing stories about her dad going missing in the desert.

As these details emerged, opinions about Donald hardened. When has more information ever changed anyone's opinions? People who thought he was a fake loudly repeated their views. Donald was like Christmas every day for conspiracy cranks (they are not theorists). He had obviously been abducted by aliens in the Nevada desert, stripped naked, anally probed, and posed on Titan as some kind of joke. The mere fact that authorities were not "checking" for alien anal probes in his ass was proof. Quasi-rational "Donald Deniers" harbored one final hope. Maybe ESA and Western countries secretly perpetuated an elaborate fraud to stop other nations from exploring Titan. Donald was a modern form of white neo-space imperialism. If vast mysteries were sitting on Titan, perhaps everyone would stay away. This would allow Western imperialists to colonize Titan and exclude people of color. It was a tiresome, unimaginative, endlessly repeated complaint.

This objection was dashed by the Chinese Space Agency 巨龙蜻蜓 (Titan Dragonfly) probe that reached Donald's location six weeks after his discovery by ESA's *Aura*. The CSA probe independently verified Donald's presence, and, working in conjunction with the ESA probe, the two spacecraft were able to mimic the functions of an X-ray CAT scan. It was an impressive display of improvised software. The scan results showed the expected human skeleton; even the poorly healed left leg break was visible; sadly, no alien anal probes were found in Donald's ass. Donald was real.

It has been a decade since Donald's discovery, and still, no explanation exists for him. The public stopped caring about Donald a few months after his discovery, but behind the scenes, governments quietly shelved plans for more Titan exploration. Maybe it's a good idea not to provoke whatever froze him on Titan. The very people claiming Donald was an imperialist fraud were the loudest proponents of staying off Titan, so Donald was left alone.

Donald Patterson is still sitting on a boulder of cryogenic ice; his eyes are closed, he's leaning forward, his palms are on his knees, his legs are spread wide, his large erect bent penis is frozen in place, and a serene smile snakes over his face as he overlooks a tranquil liquid Methane Lake on Saturn's largest moon Titan. And still, like the greater cosmos around him, there is no explaining Donald Patterson.

A Call for Mandatory Universal Mind Broadcasting

Posted: 14 May 2023 18:03:13

Recently AI has been applied to decoding MRI brain scans. The researchers claim that it's possible to reconstruct parts of what the scanned subjects are "thinking or seeing." Despite a laundry list of caveats, and the tentative limited nature of these claims, the *misleadia* jumped all over this and declared, with bed-wetting urgency, that the age of mind reading has arrived.

As I write, hysterical Karens and obese Chads, the world over, are already convening EUish panels to call for international mental privacy and brain scanning laws. This is so damn predictable. EUish regulating creatures have carved out a cushy living with holier than thou cajoling, nudging, lecturing, censoring, canceling, and prosecuting those that think differently. The idea that all our thoughts might get out there must terrify these timid souls because they, and everyone else, know that public thought is only a tiny portion of what's lurking in our dark twisted cortexes.

On the inside, we have no limits. I've imagined burning this universe down to quarks while dancing to the horrid screams of everything thing in it dying. But that's only me! No doubt you've incubated your own private apocalypses. It's ok, we all do it; even the EUish regulators. If you don't harbor dark holes, you're not sentient. Thinking beings shouldn't fear their dark holes because a big part of any creative act is shining a light in them. There are treasures down there and you need only look.

You, and the EUish creatures, fear mind reading because you've been brought up on a steady stream of sci-fi comic book fantasies that depict mind readers as evil and dangerous villains. We are so used to authoritarian supervillains reading our minds and cackling over our imminent demise that it never occurs to us that mind readers might be used in other ways. No, it's always a thuggish government reading citizen minds in a never-ending quest for wrong think. It's always an IRS, enhanced with mind-reading technology, going full forensic audit on our cowering asses. All these fantasies have one thing in common. Only a select few are granted the right to read minds; everyone else is a "book." The "books" (chumps) never get to read overlord minds, or tax auditor minds, or EUish regulator minds. To which I ask, "Why not?"

If reliable mind readers are, like the bed-wetter's fear, imminent, one thing is certain; they will not be suppressed or only used by *responsible authorities*. The EUish regulators can pass all the well-intentioned woke laws they want, but if real power and real money are up for grabs, and only a few bed-wetter laws stand in the way, what do you think will happen?

People will break the law.

We have laws forbidding theft, robbery, and murder, but do we live in a theft, robbery, and murder-free world? Reliable mind readers will be so unbelievably useful to anyone seeking straight answers that they will be obtained by any means necessary. Attempts to control mind-reading technology will only create another billion-dollar black market. *Overwhelming demand always overpowers legalities.* If it's possible to build mind readers, motivated actors will obtain and use them whether legally or not. So, are we doomed to a mind-reading dystopia where every thug-state or powerful asshole can read us at will?

I say no. Imagine a world where every individual has a mind reader implanted in their skull, constantly ensuring their online presence. Imagine these readers transmit our thoughts to the Internet, where they are meticulously cataloged, indexed, and hashed for public access. Imagine going "off mind" (attempting to conceal your thoughts) is considered the rudest and most despicable act possible. Imagine "off minders" being hunted for sport, thrown in prison, or burned at the stake for daring to hide their thoughts. In this mandatory mind-reading society, everyone's mind becomes a forever open book. It is no longer possible to lie, scam, deceive, or manipulate people.

This is going to be very inconvenient for our corrupt political classes. I don't know about you, but I'd be perfectly happy broadcasting my lurid sexual fantasies, squeamish insecurities, petty grievances, unfiltered opinions, harsh judgments, and my general overall stupefied inner self, to live in a world without lies. So, if it's possible to build mind readers. let's make them mandatory.

A Note on the Writer's Strike

Posted: 25 May 2023 17:21:53

For the last few weeks, the Hollywood writers have been on strike. I won't bore you with the details. Like all strikes it boils down to money. The writers feel they aren't getting what's owed to them, and the production companies want to hold onto as much sweet moola as possible. Normally I'm indifferent to strikes, but in this case, I am urging both sides to fight to the death. The writers shouldn't give up a single commie cent and the production companies should drive the most rapacious bargain possible. If things go my way both sides lose and the entire industry self-destructs.

I know what's lurking in your teeny tiny brain. How could I be so cruel? How could I drool at the prospect of media creatures losing their silly little jobs?

It's easy. The current entertainment industry is a garbage industry. *A garbage industry is one that we would be better off without.*[138]Garbage industries are depressingly common in the modern world. *Facebook,* (now *Meta*), is garbage. *Twitter* is garbage. *TikTok, Instagram*, and all their wannabes are garbage. Fast food restaurants are garbage. Cable TV is garbage. Cosmetics are garbage. Vast swaths of the processed food and pharmaceutical industries are garbage. Many insurance companies are garbage. The fashion industry is garbage. The diet industry, (please people get some self-respect), is a steaming pile of garbage. I could go on and on because we live in a wasteland people and not the wholesome T. S. Eliot version.

Suppose the Hollywood writers and their employers go away, and we're faced with a world without media company entertainment. How could we possibly live in such a world? Easily. The crap Hollywood spews, union-made, or not, is easily replaced by good books; we all have long lists of *actual classics* to read. And, if reading isn't your jam, there's YouTube. None of my favorite Youtubers are affected by this strike, Sabine Hossenfelder, Dr. Becky, Economics Explained, Mathematical Visual Proofs, and many, many, more are still cranking out superb content that outclasses the dumbed-down-drivel the *Hollyweirdos* foist on us. I observed many years ago that the best bloggers are better writers, and cover more interesting topics, than mainstream journalists, and the same holds for the best YouTubers. That small talented and dedicated producers can do a better job than bloated self-satisfied billion-dollar companies may be shocking but look at the work. To paraphrase Flaubert, "The company is nothing, the product — all."

If you are left with any doubts, I'm enjoying this strike. It has driven all the smug late-night clowns off the air; their minuscule minds cannot function without scripts. On my own, I wouldn't waste a millisecond on the likes of Colbert, Kimmel, Meyers, and others but my wife enjoys their attempts at humor, so I'm occasionally exposed to their asinine Youtubery[139] while sitting with her in the evenings. Silence is a lovely substitute for late-night. With luck, they will never come back.

J `graphviz`'s Euclid's *Elements*

Posted: 28 June 2023 16:12:10

In Sarah Hart's new book *Once Upon a Prime* she relays John Aubrey's account of

[138]Ironically the people that pick up your curbside trash are not running a *garbage industry.* They are providing a much-needed service and when trash collectors go on strike, we all miss them.

[139]Nobody of any consequence stays up to watch late-night anymore. That time is thankfully over.

the philosopher John Hobbes's[140] first exposure to Euclid's *Elements*.

> Being in a gentleman's library Euclid's *Elements* lay open, and 'twas the forty-seventh proposition in the first book. He read the proposition. "By God," said he, "this is impossible!" So he reads the demonstration of it, which referred him back to such a proof; which referred him back to another, which he also read. . .. At last he was demonstratively convinced of the truth. This made him in love with geometry.

She goes on to say that in the 17th century knowledge of Euclid's *Elements* was considered part of a well-rounded education and that gentlemen were expected to know Euclid's 47th proposition. Well, there aren't a lot of "gentlemen" around in the 21st century. We have lots of obese Chads and decorated truck-driving bands of *trumptards*, but no gentlemen. But, even in our advanced state of social and intellectual decay, most of us have heard of Euclid's 47th proposition. We call it the *Pythagorean Theorem*.

Lately, as part of a larger delusional project, I have been studying the first six books of The *Elements*. I haven't turned into a geometry fanboy like Hobbes, but I must confess that reading great classics like Euclid's *Elements* is surprisingly delightful. One delight is the canonical numbering of propositions.[141] It helps when comparing different versions of The *Elements*; I've been reading three.

1. The Green Lion *Elements*.
2. Oliver Byrne's 1847 illustrated *Elements*.
3. David Joyce's excellent online version.

My main text is the Green Lion *Elements*. The Green Lion version is based on Thomas Heath's monumental and definitive three-volume English translation. It dispenses with Heath's copious footnotes and commentary and coalesces all thirteen original *Elements* books into a single attractive volume. The Green Lion *Elements* is indeed a superb book that should be in every gentleman's library.

After reading the Green Lion version of a proposition, I pop over to Byrne's illustrated version and read his presentation of the same canonically numbered proposition. Byrne

[140] Hobbes is famous for the *Leviathan* and the dead-on observation that life is "nasty, brutish and short".

[141] Hobbes' 17th-century Proposition 47 is still called Proposition 47 in Oliver Byrne's 19th-century book. It remains Proposition 47 in Thomas Heath's early 20th-century *magnum opus* and is again called Proposition 47 in David Joyce's 21st-century online *Elements*. The *Elements'* proposition, or theorem numbering, scheme has been stable for centuries.

sought to make The *Elements* more accessible by replacing tedious proofs with striking, beautiful colored illustrations. He wrote:

> This work has a greater aim than mere illustration; we do not introduce colours for the purpose of entertainment, or to amuse by certain combinations of tint and form, but to assist the mind in its researches after truth.

You got to love 19th-century authors; the poor dears believed there was such a thing as "truth" and that the mind is better filled with it than the relative rubbish we call "our truth" nowadays.

When first published, Byrne's book was hailed as a graphic masterpiece, a verdict that persists to this day, but unfortunately, the high-quality printing required to render hundreds of colored images made his book too expensive for its intended audience. Consequently, Byrne's book didn't impact mathematics education much, but it deeply influenced generations of artists and graphic designers and is still widely revered today. Byrne's book only covers the first six books of The *Elements*. This is the main reason I am confining my study to the first six books. Modern admirers of Byrne have completed his work. You can now read all thirteen books in Byrne's style.

I can personally attest to the effectiveness of Byrne's style. For me, Byrne's illustrated proofs are easier to understand than the standard verbose versions. Byrne's 19th-century illustrations work for the same reasons the graphic proofs shown on the magnificent YouTube channel Mathematical Visual Proofs work. Horace said it best:

> A feebler impress through the ear is made,
> Than what is by the faithful eye conveyed.

To keep focused on my larger project I've been slowly building up a directed graph (digraph) of the proof "justifications" found in Euclid's first six books. "Justifications" are the references John Aubrey called out in his story about Hobbes in the gentleman's library. Typically, proofs refer to prior proofs, which again refer to earlier proofs, and so on right back to what Euclid called postulates, common notions, and definitions. It is this organized comprehensive logical structure that makes The *Elements* so important. Most of Euclid's results were known long before him, and "solitary proofs" in many forms, are found in many cultures, sometimes thousands of years before Euclid, but as far as we know, the idea of organizing everything known about a subject, geometry in Euclid's case, into a coherent deductive logical structure was a unique innovation. It's not exaggerating to say this logical organizing idea changed mathematics and the world forever. We're still living in Euclid's vision and we're not

even sure there is a rational alternative.

After digraph'ing the first two books of The *Elements*, I decided I needed to compare my handcrafted squiggles to someone else's. This is what led me to David Joyce's online *Elements*. If you browse any of Joyce's pages, say Proposition 47, you will notice the explicit marginal justifications that set Hobbes on his way. Unlike Hobbes, we can peek under the hood. If you look at the HTML page code, you'll see the justifications are marked in elements. With such clearly marked references, it's a simple matter to extract Joyce's 's and generate a graphviz digraph of Euclid's first six books. Mining web pages is a dark art practiced by geeky nerds wielding magic software tools like the wonderfully named Beautiful Soup. I've used Beautiful Soup but sometimes, just sometimes, it's easier to write a few lines of code than wrestle with frameworks like Beautiful Soup. The following J verb sucks out Joyce's web page justifications.

```
eucjoycejust=:3 : 0

NB.*eucjoycejust v-- extract justifications from Joyce proposition html.
NB.
NB. monad:  blcl =. eucjoycejust clHtml
NB.
NB.   hdr=. 'https://mathcs.clarku.edu/~djoyce/elements/'
NB.   htm0=. gethttp hdr,'bookI/propI47.html'
NB.   eucjoycejust htm0

NB. justifications in html
cc=. CR,LF,TAB
(,'a'&geteleattrtext"1 (] '</div>'&beforestr;.1~ '<div class="just">' E. ]) y -. cc) -. a:
)
```

By blowing over all the web pages with verbs like:

```
eucjoycebkdeps=:3 : 0

NB.*eucjoycebkdeps v-- justifications from Joyce book html files.
NB.
NB. NOTE: use (wget) or (curl) to download the files at:
NB.
NB. https://mathcs.clarku.edu/~djoyce/elements/
NB.
```

```
NB. monad:  btcl =. eucjoycebkdeps blclHtmlFiles
NB.
NB.   NB. justifications in first three books
NB.   bks=. 'bookI/propI*html';'bookII/propII*.html';'bookIII/propIII*.html'
NB.   eucjoycebkdeps ; 1&dir&.> (<'~temp/') ,&.> bks

;(<@justfile@winpathsep ,. eucjoycejust@read)&.> y
)
```

You can build graphviz code like this file on GitHub that collects the justifications in the first six books of The *Elements*. By loading this graphviz code into J's graphviz addon you can generate SVG digraphs like euclid_digraph_books_1_6.svg. SVGs can be easily converted to PDFs. Here is a PDF of all the postulates, common notions, definitions, and propositions found in the first six books of The *Elements*. The nodes are color-coded to distinguish postulates from propositions, definitions, and common notions easily. Large digraphs quickly lose their informative nature. euclid_digraph_books_1_6.pdf looks more like the work of spiders on acid than anything else. Still, the web links embedded in the document are handy. Clicking on any graph node will take you directly to the relevant page on Joyce's *Elements* site.

The following J verb follows digraph connections back to their source.

```
eucpropback=:4 : 0

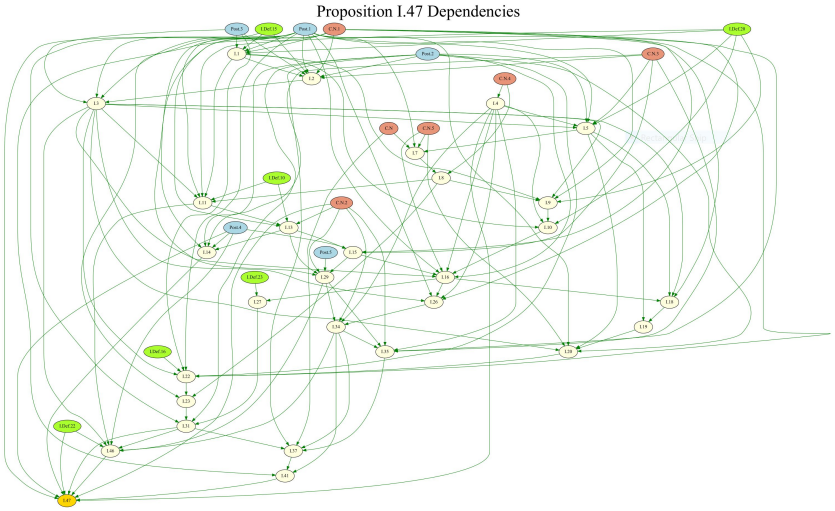
NB.*eucpropback v-- generate reverse proposition digraph.
NB.
NB. dyad:  cl =. clNode eucpropback clGv
NB.
NB.   path=. jpath '~JACKS/eucgvuts/'
NB.   gv=. read path,'euclid_digraph_books_1_6_dependencies.gv'
NB.
NB.   NB. typical use
NB.   gt=. 'I.47' eucpropback gv
NB.   gf=. jpath '~temp/euclid_i_47_dependencies.gv'
NB.   (toHOST gt) write gf
NB.   graphview gf

gs=. s: gc [ 'gpr gpo gc'=. eucnctsparse y
'no such node' assert (rn=. s: <x) e. 1 {"1 gs
```

```
NB. work backwards in dependencies
dn=. 0 2 $ s:<''
whilst. #rn do.
  sn=. gs #~ (1 {"1 gs) e. rn
  dn=. dn , |."1 sn
  rn=. (0 {"1 sn) -. 0 {"1 dn
end.

title=. 'Proposition ',x,' Dependencies'
title fmteucgv gpr;gpo;<5 s: |."1 dn
)
```

Running this verb on Proposition 47 generates this reverse sub-digraph that retraces the steps Hobbes took back in his 17th-century gentleman's library.



The code referenced in this post is available on GitHub at: https://github.com/bakerjd99/jacks/tree/master/eucgvuts

For more information read the jupyter notebook eucgvuts_notebook.ipynb.

Morals are Demons that People Actually Believe In

Posted: 02 Sep 2023 18:21:10

Too much has been written about "morality." It almost pains me to add to the deluge of drivel this topic has inundated the world with, but pains aside, here goes. If you are human and reading this[142] you've probably been advised and instructed for your entire short life to be a "good moral person." It hardly matters whether you're a fundamentalist religious freak or a fundamentalist atheist freak; you've been told, trained, advised, and chastised to be a "good moral person."

Of course, what's good to one is evil to another. To a warthog fleeing a lion, the lion is evil. To the lion chasing the warthog, the warthog is lunch. Where exactly is the "morality?" We're not supposed to ask such questions because when we do, "morality," whatever the hell it is, vanishes like Beelzebub after taking a dump in Pandemonium's gold-encrusted shitter. Many philosophers and other alleged wise men (I'm not going down the gender-fluid rabbit hole here) have wasted way too much of their short lives pondering "morality." They've concluded that "morality" is at best a social construct. It's something that humans seem to think exists. It's akin to a limited liability corporation without the legal paperwork. All social constructs have one thing in common: no society, no construct.

If humans disappear, electrons will be just fine. They existed long before us and will exist long after us. Sadly, or gladly, this is not true of morals. They vanish with us. They vanish so completely, so utterly, so absolutely, that even the most astute of precision instruments won't pick up any lingering traces. *Morals are imaginary.* They're like vampires, ghosts, gods, and demons. They can only be found in our deluded minds and nowhere else, but unlike vampires, ghosts, gods, and demons—entities that even fundamentalist religious freaks no longer take seriously—morals are still reified, and people get very upset when their lack of physical existence is pointed out.

How people get upset has always amused me. Many screech that, "Without morals, the world would be a horrible place."

"Are you sure?"

We've always believed in morals, and the world has always been a horrible place. Perhaps there's a connection. Maybe if we didn't infuse our limited intellects with

[142]Most of my readers are Bots and AIs.

demonic delusions, like morals, and attended to what's verifiably real, like electrons, then maybe we could fix some of the horribleness that stalks us from womb to tomb.

Let ChatGPT Index Your LaTeX Documents

Posted: 18 Sep 2023 18:00:10

Indexing documents is an ongoing chore. You would think picking out "good" book or article index words would be a trivial pseudo-sampling-sorting task, but that is not the case. Building a useful index requires something like "comprehending" the text. You must read the document, understand what's in it, and then judiciously select words that elucidate, navigate, and summarize the contents. Until recently, coding "reading comprehension" has been beyond my meager means. Then the other day, I had a brain fart; maybe ChatGPT can index LaTeX documents.

As a test, I decided to index my blog post *Sympathy for Ptolemaic Epicyclers*. For years I have been converting my WordPress blog posts to LaTeX with my J-based hack *WordPress to LaTeX with Pandoc and J* and storing the generated LaTeX code on GitHub. Here is the LaTeX for Ptolemaic Epicyclers. With code in hand, I logged into ChatGPT 3.5 and had this chat.

I first asked ChatGPT to summarize *Sympathy for Ptolemaic Epicyclers*.

```
Me: Please[143] summarize the following text.
```

... upload of LaTeX code for Ptolemaic Epicyclers ...

```
ChatGPT: The provided text discusses the historical perspective of
astronomy and the Ptolemaic system. It highlights that often, older
theories are unfairly portrayed as ignorant and backward, whereas in
reality, they were based on empirical observations and provided reasonable
approximations. The text points out that the transition to new theories
typically happens when the new model demonstrates its superiority in
making predictions.

The author also mentions their recent work on a J script called "riseset,"
used for calculating when International Astronomical Union (IAU) stars
culminate in their backyard. They explain that astronomical calculations,
both in the past and today, are complex and require constant adjustments.
```

[143] I take pains to be polite with ChatGPT. Maybe one day it will become conscious and decide to rid the world of *impolite* naked apes.

```
In conclusion, the text offers sympathy and respect for ancient
astronomers who worked with limited tools and still made valuable
contributions to understanding the cosmos. It emphasizes that these
astronomers were not morons but rather practical philosophers trying
to make sense of the observable universe.
```

If you read my blog post, you'll see that ChatGPT's summary is dead on. Also, ChatGPT's concluding remarks are better than mine. No wonder ChatGPT is scaring credentialed pseudo-intellectuals everywhere. I then asked.

```
Me: Please pick out good words to index from the text that you just
summarized.

ChatGPT: Here are some good words or phrases to index from the summarized
text:

Ptolemaic system
Old theory holdouts
Copernicus
Heliocentric model
Aristarchus
Sun-centered models
International Astronomical Union (IAU)
GitHub
Astronomical calculations
Empirical observations
Modern calculations
N-body celestial mechanics
Gravitational theories
Backyard amateur astronomer
Ancient epicyclers


You can use these words or phrases as entries in the index of your LaTeX
document to help readers easily find relevant information.
```

You'll notice that ChatGPT didn't just pick out words, it synthesized useful phrases that eerily sum up the contents of my post. I have no objections to the generated phrases even though I doubt I would have come up with them myself. I was impressed. This thing is a great sounding board for writers.

Feeling lucky I decided to go for broke and ask ChatGPT to insert LaTeX indexing

codes into my document.

> Me: Please insert the latex index codes for the words you selected in the text I provided.
>
> ChatGPT: Certainly! Here are the LaTeX index codes inserted into the provided text for the selected words:

… download of modified LaTeX code with \index{} commands inserted …

ChatGPT effortlessly inserted the index codes into my document, and we concluded our chat with:

> Me: Thank you
>
> ChatGPT: You're welcome! If you have any more questions or need further assistance, feel free to ask. Good luck with your LaTeX document!

The Book of Terms

Posted: 28 Nov 2023 18:43:06

A tale by *Kline Leopold Hedrös* ©2023

Arthur – 2024

The first time Arthur saw the old wooden box, he wondered if it was worth anything. It was a recurring thought. A week before, he had learned of the death of his grandmother, Alice, while zooming with his AI dataset group in Tacoma. During a discussion about hashing rapidly changing token networks, an intrusive call bypassed his spam filters and rang his *Charge of the Light Brigade* ringtone. He was annoyed and relieved to take the call. Alice was his favorite and only grandmother. She had raised him in Pulaski, New York after his mother and father died in a grisly northern New York winter car accident. Black ice and lake-effect snow kill often. Arthur never really knew his parents; he was eight months old when the accident happened, so he didn't grieve his parents, but he missed them. He would be looking over some dumbass bit of database code and then want to talk to a dad he couldn't remember. The mind is weird. Alice was a good and loving grandmother. She did her best with Arthur, and despite her limited means, Arthur, a bright child, moved from success to success: a full scholarship to Columbia, then lucrative West Coast job offers, followed by a quick ascent of corporate career ladders. When the call announcing Alice's death

interrupted his Zoom session, Arthur was a senior manager at a small company that specialized in preparing training pipelines for AI systems.

Arthur couldn't afford time off to deal with his grandmother's estate, but his wife Beth wouldn't have it. She reminded him that Alice deserved better and he better "man up." So, Arthur found himself in Alice's tiny Pulaski home, sifting through a lifetime of debris. Oddly, the more he sorted through Alice's belongings, the more he enjoyed it. Alice wasn't a hoarder, but her house was filled with interesting archaic stuff: old records, magazines, out-of-print books, family pictures, kitschy ceramic dog figurines, and mysterious kitchen tools. Arthur enjoyed Alice's effects because her affairs were in good order. She had a clearly written will, no outstanding debts or pending taxes, and no heirs except Arthur. Settling the estate and selling the house would be a smooth, trouble-free chore. It was the last of Alice's gifts. He gave away as much as he could to Alice's Pulaski neighbors but opted to sell the house as is, contents included. It was a lazy, fast, nerdy first approximation to estate processing. He disposed of everything with one exception: the wooden box.

It wasn't really a box; it was an old traveling portable desk. The type of container Alexander Hamilton wrote George Washington's letters on during the Revolutionary War. The wood, like all finished 19th-century woodwork, was high quality; modern boxes are crap by comparison. Even the box's brass hinges gleamed. Arthur didn't know how old it was, but it was definitely an antique. When he picked it up, he was surprised by its weight and the muted thumping sound of its contents.

Placing the box on his grandmother's kitchen counter, he opened it to find around two hundred unbound sheets of tan paper. An orange sticky note with two words: "Grandma Martha," was attached to the first page. It was in Alice's bad handwriting; Alice's handwriting had rapidly declined in her final years. Arthur and Beth could barely decipher her last Christmas card.

Each tan sheet looked like it had been laid against a gravestone or another hard surface and then gone over with charcoal. The charcoal highlighted evenly spaced, not quite hieroglyphic, not quite Greek, and not quite Arabic symbols. Arthur was intrigued. His AI unit was involved with a cuneiform translation project. Due to the sheer drudgery needed, most of the world's surviving cuneiform tablets have never been translated. Maybe a trained AI could help. Alice's strange charcoal sheets might be useful test materials.

Martha – 1880

Martha was a precocious child, a superb student, and a worry to her mother. At nine years old, it was clear to anyone who dealt with her that she was the brightest person they had ever met. Her mother feared she would never get married. Men in rural 1880s Illinois didn't marry smart girls; it would have been better, her mother thought, if Martha was pretty. Then Martha could get married, have children, and have a normal life.

Martha was not on the normal life path. She would spend years working as a calculator in Harvard's esteemed stellar catalog group, but that's in Martha's future. Today, she is in her one-room schoolhouse with her teacher, Miss Wright. The other students were outside playing and being the semi-literate Illinois backwoods hicks that they were.

Martha was trying to interest Miss Wright in something she had noticed yesterday. If you draw three circles with different diameters on a piece of paper and then draw tangents to the three pairs of circles, you'll see that the three tangent pair crossings always line up. Martha drew half a dozen diagrams illustrating her discovery, but Miss Wright seemed unimpressed. It was Martha being Martha. It's not true that all teachers are looking for bright students. Many teachers prefer quiet, unchallenging students who do as they're told. Smart kids are work. And Miss Wright was only teaching until she could get married, have children, and lead a normal life. Still, Miss Wright looked over Martha's circle drawings as the child waved them in front of her, and then she remembered the old Frenchman.

Antoine – 1824

Most days, Antoine found it hard to believe he was a Mississippi river man. How could an *École Polytechnique* student and an enthusiastic supporter of Napoleon's efforts to reform French education end up eking out a living manhandling riverboat cargo? As Antoine lamented daily, the chain of events that led from Paris to the Mississippi was improbable but not impossible.

In April of 1823 (the same year Joseph Smith claimed the Angel Moroni visited him), Antoine and his friends were carousing on the South Bank. Everyone was drunk and misbehaving. While crossing a Seine bridge near Notre Dame, his party ran into an equally drunk party of young army recruits. A minor brawl broke out, and Antoine pushed a recruit over the bridge during the melee. He watched as the recruit tumbled in the air and head-first-thunked into a bridge abutment. His body instantly relaxed

and fell smoothly into the water. Antoine knew he had died the instant his head struck the bridge. Heads were severed in France for less. So, as Antoine watched the body float downstream, he ran.

Assuming the alias of a young seminarian named Ancetin, he made it to Bordeaux and secured passage to New Orleans. Four weeks later, at nineteen, he arrived in New Orleans. Napoleonic law still reigned in New Orleans, so Antoine inconspicuously worked north, going up the Mississippi and Ohio rivers and trying out his new career as an itinerant schoolteacher and laborer. Antoine found that early 19th-century America was not interested in Napoleonic rigor or Yankee sloth. Most villages didn't have schools, and when they did, teachers were poorly paid, and even if schools existed and teachers were paid, students often showed up drunk on beer or cider. Inebriated kids attended school haphazardly, learned little, and couldn't wait to be elsewhere. In a dozen towns, Antoine encountered a handful of diligent students and no parents who believed in "book learning." It was depressing but better than the guillotine.

Arthur – 2024

On returning to Tacoma, Arthur showed Beth Alice's odd etching-filled wooden box. He was expecting she would share his curiosity, but not so. She didn't want more "old junk" in their apartment. She was going through one of her organizing moods. Ok. He took the box into his office and placed it on a metal cabinet filled with laser printer refills.

Arthur was lucky to have an office. In the 2020s, even senior managers were cast into the open office abyss. One of Arthur's cynical peers described the open office as a corporate conspiracy to save money on furniture. Arthur only objected to the "conspiracy" bit. And people wonder why it's hard to get post-COVID programmers back into the office. How about putting us in offices with doors and making it worthwhile? Nah! Arthur's team seldom met in "the office"; most were remote, they weren't in Tacoma or North America, and there was nothing the suits could do about it. Try "managing" top-notch, 21st-century machine learning programmers with 19th-century office methods. You'd be surprised how fast nerds can move when necessary.

Still annoyed with Beth's box banishment, Arthur logged into his morning's one-on-one with Dan late. Dan often *Starlinked* in from his four-by-four. Currently, Dan was on the back roads of Canyonlands National Park. He delighted in zooming over beautiful landscapes while his home and office bond compatriots looked over their

sad bedroom Nerf collections and generic, always out-of-date, office whiteboards.

"Programmers be sad," Dan teased.

The camera on Arthur's monitor showed Alice's box in the background. Dan noticed and asked about it. Arthur told Dan what he knew about the box. He even opened it up and showed Dan some of the etchings.

"Are all the etchings the same size?" Dan asked.

Arthur said the paper sheets were about the same size, but he hadn't looked at all the pages; the charcoal marks might vary. Dan was the lead on the cuneiform project; he saw language puzzles everywhere. He asked Arthur to scan the sheets and load them into Jones. Jones, after *Indiana Jones* – because programmers – was the company's language AI. It had been trained on hundreds of millions of pages of text from all curated modern and extinct human languages. Jones knows, in the inexpressible AI way, more about the structure of human languages than any bipedal meat puppet. Arthur didn't feel like doing any real work, so he grabbed Alice's box and headed down the hall to wage war with that goddam pain in the fricking-ass printer-scanner that always needed unjamming and new printer cartridges. One of these days, Arthur was going to go full *Office Space* on that damn device.

Martha - 1880

Martha wasn't scared by the old Frenchman, but she wasn't entirely at ease with the ancient rocking-chaired figure before her either. The old Frenchman lived in Banner's boarding house. Every day, he sat beside the boarding house front door in his rocking chair and called out arrivals and departures. Nobody knew how this paid for his room and board, but the Banners didn't seem to mind his presence. Miss Wright told Martha that the old Frenchman used to tutor the governor's children and encouraged Abraham Lincoln when the president studied his figures. Maybe he would be interested in Martha's circles. When Martha heard about the old Frenchman, she told Miss Wright she wanted to see him – now! Then Martha abruptly got up and walked out of school. Miss Wright watched her go but then, prudently, sent one of her many underachieving students to tell Martha's mother where the child was heading.

When Martha arrived on the boarding house porch, the old Frenchman called out her arrival. He suffered from large cataracts in both eyes and couldn't see her clearly, but he knew a small person was present.

He asked, "Who is it?"

Martha said her teacher said he could help her with figures. Then, she enthusiastically waved her circle diagrams before his cataract-fogged eyes and started describing her discovery.

"I'm sorry," the old Frenchman said, "My eyes are very bad. You will have to speak slowly so I can picture it in here," he said, tapping his head. "Also, Miss …"

"Martha," Martha answered. She had forgotten her manners. She was always to introduce herself and ask how others were doing. "Hello, what's your name?" she said.

"Antoine Legault, young lady," the old Frenchman replied.

With introductions out of the way, Martha described her circle discovery to Antoine, and of course, Antoine knew precisely what she was talking about. Martha had rediscovered Gaspard Monge's lovely little circle theorem. Antoine didn't tell Martha she had found something already known. In his seventy-six years, he had taught long enough to know that self-discovery is the essence of education. You don't stamp it out with academic pedigrees; you encourage it. Antoine asked Martha how she knew the crossing points lined up. It was the start of Martha's first big friendship and Antoine's last. Martha often said that she was fortunate to have met the old Frenchman; he was the best teacher she had ever had, and it's unlikely she would have ended up a Harvard calculator without him.

Antoine – 1825

Teaching school in frontier America wasn't lucrative. It didn't take an *École Polytechnique* certificate to figure that out. Antoine taught school when possible but was forced to pursue other ways of keeping his belly full. It was a relentless struggle to pay for room and board when he wasn't on the Mississippi or Ohio rivers, but he got lucky one afternoon on the Saint Louis docks. An argument had broken out between an old, short, well-dressed townsman and a boat filled with fur-coated trappers. It only caught his ear because the trappers were screaming in a guttural French accent, probably French Canadian. Without thinking, he weighed in with his smooth Parisian French. The townsman and the trappers both shut up and looked at him. Then, both parties started begging him to help settle the issue. It turned out that Antoine had just the skills Saint Louis traders needed: mathematical training to manage accounts, facility with many languages, particularly French for the Missouri river trapper boats, and a knack for negotiation. The old townsman, Mr. Knoles, offered Antoine work on the dock. In the next two years, Old Knoles, as Antoine affectionately called him,

became almost a second father to Antoine. Both men were lonely; Old Knoles was a widower without surviving children. He had buried eight consecutive girls and then his wife. He knew his days were ending, and despite some success with his "Fur and Mercantile" business, he had no heirs or trustworthy friends. Antoine was a blessing to Knoles, and Antoine felt the same about Old Knoles.

Arthur – 2024

Scanning Alice's sheets took far less time than Arthur expected. The fricking printer-scanner just did its job. It was a technological miracle. As he was feeding sheets through the device, he was impressed by the quality of the paper. Modern pulp paper, like modern music, modern art, and modern shit in general, is mostly garbage. Once something is "commodified" in our modern world, its production follows a predictable course of suit-driven cost-cutting and "enshitification," to use the precise term. As Arthur wiped charcoal off his fingers, he realized the paper might tell him how old the etchings were. It only took a few minutes to look up antique book and stationary dealers on his phone. The nearest was just north of Tacoma, almost in Seattle. He still didn't feel like doing any real work, so he gathered the etchings, put them back in Alice's box, and headed to the stationary dealer. Before starting his car, he texted Dan a link to the etching scan data. Dan would have to load Jones himself.

Martha – 1885

Monsieur Legault's health started failing as he turned eighty-one. For five years, Martha had visited the Old Frenchman almost daily. Most of the time, he directed her post-school schooling. Martha's mother demanded that she quit school at twelve, devote her energies to the family farm, and master all the skills needed to make a good village wife. It was like a death sentence for the mind. Martha relented but nagged her mother into letting her continue visiting the Old Frenchman. Martha's mother didn't consider the old rocking chair-bound man a threat to her daughter's reputation, and having the girl pass through town often might attract suitors. The hour or two Martha spent with Monsieur Legault gave her perhaps the best education available in western Illinois. Both relished their sessions. Martha noticed her mentor's decline and tried to help Monsieur Legault as much as she could, but she also did her best not to think about what life would be like if Monsieur Legault died. So, she was taken aback when Monsieur Legault said he had wanted her to take something before he died.

Monsieur Legault started their conversation with the oddest question, "Do you know

about Joseph Smith?"

Of course, Martha knew Joseph Smith. Smith and his crazy followers had left an indelible impression on the people of western Illinois. Her mother told her stories about how Smith's followers, the Mormons, as they called themselves, would leave nearby Nauvoo, steal cattle, sheep, horses, and whatever else they could get their hands on, and then retreat to Nauvoo, where Smith would refuse to hand them over when petitioned by neighboring towns. Smith ran Nauvoo like a little caliphate and largely ignored Illinois state laws. He got away with it for years because his followers voted as a block. If you wanted to get elected to anything in Illinois, you had to cut deals with Smith. He would then tell his zombies to vote for you or your opponent. It worked until Smith crossed both sides in an election.

Consequently, when Smith was gunned down and the Mormons were driven out, a lot of people, Martha's mother in particular, felt they had it coming. Martha had also heard the tale of the Golden Plates. It was a great story. As a Lutheran, she didn't believe a word of it, but it was still a great story. How many people have glowing white angels show up and tell them where to dig for buried treasure?

Antoine – 1827

Antoine worked with Old Knoles for two years out of his tiny Saint Louis Fifth Street "Fur and Mercantile." It was a good time for Antoine. Mr. Knoles was delighted with his work and told Antoine he was planning to leave the business to him; he was getting too old to keep haggling with river traders, and Antoine was better at it anyway. Antoine was also settling into Saint Louis's embryonic society. He had made some friends, and his elevated status as a trader made him attractive to young women. The mercenary nature of women did not surprise Antoine: highly educated Frenchmen consider it their defining trait. Still, the female attention was nice. Antoine would have stayed in Saint Louis, lived out his life as an accomplished townsman, and ended up under an elegant tombstone in the Cathedral Catholic Cemetery on Walnut. At least that was the fantasy; then Jules appeared on a New Orleans steamer. Jules saw Antoine push the army recruit off the Seine bridge four years ago. Antoine's running wasn't done.

Antoine told Old Knoles about what happened on the bridge. The old man wasn't entirely surprised or particularly bothered. Men of Antoine's class did not work the rivers unless compelled. And Antoine was hardly the only inhabitant of Saint Louis with past shame. Old Knoles would have happily overlooked the bridge incident, but he recognized the younger man's peril. People wouldn't prosecute Antoine. Nobody

in Saint Louis cared about a drunken Parisian brawl, but the gossip, "He just let the poor boy drown," would slowly poison his business reputation, and who knows how far the gossip would spread. Bounty hunters trolled up and down the rivers; all it would take was a small reward on Antoine's head, and then, instead of attracting young women, another more violent section of society would take notice. Antoine had to flee again.

Before leaving Saint Louis, Old Knoles sat him down in the tiny "Fur and Mercantile" shop they had shared and placed his prized traveling desk in Antoine's hands. The traveling desk was a small, hinged wooden box. Old Knoles said it had belonged to his father, who claimed Lewis and Clark had used it. Knoles didn't believe the Lewis and Clark story, but the desk reminded him of his father every time he used it. Antoine had recently filled the desk with a Lexington Fayette Mill paper shipment. It had been their largest expense in the prior month. Paper was expensive. Antoine started taking sheets out, but Old Knoles stopped him. Both knew the sheets could be traded for anything on the rivers. Blank paper sheets were oddly more valuable than many banknotes.

Arthur – 2024

Antique stationery goes in and out of style. Unbeknownst to Arthur, the social media addicts in Seattle were enjoying another rich white people fad. They would buy genuine, expensive 19th-century paper stock, write tweets with quills dipped in iron gall ink, and then pay Uber drivers to hand-deliver their missives. It was the 21st century cosplaying the 19th.

So, when Arthur showed Alice's etched sheets to David, an outlandishly effeminate antique book dealer, you'd have sworn the guy creamed his underwear. David immediately offered to pay three figures for the paper. It was a bad move. Arthur now knew, as he had first suspected, that the box was worth something. If the sheets had been blank, Arthur probably would have unloaded the box and its contents at whatever ridiculous price he could get, but the strange markings interested him.

David knew more about two-hundred-year-old paper than any bipedal meat puppet should have. He pointed out the faint (unless you have a microscope with polarized light) watermarks on the pages. The paper came from a paper mill that operated in Lexington, Kentucky, from 1811 until sometime in the 1830s. It was classic hand-pressed wove rag paper, durable, and ridiculously high quality by modern standards. David wasn't interested in the charcoal etchings; they were a waste of good old paper.

Arthur considered what he heard and asked, "Just to be clear, these etchings are around two hundred years old?"

David replied, "Well, not conclusively. The etchings could have been done anytime during the last two centuries, but the paper is two hundred years old. If you're interested, it's possible to date the Carbon in the etchings. You won't get much Carbon off the etchings, but with particle acceleration methods, even traces of Carbon can be dated to decades. There are labs in Stanford, and I believe Irvine, of all places, that do this."

Antoine – 1828

Antoine's years in Saint Louis spoiled him: sleeping in a warm bed and not worrying about his next meal made his return to river work harder than his flight from Paris. Everywhere he went, he looked for opportunities. Gold digging presented as a peculiar opportunity. When Antoine heard of gold digging, he confused it with gold mining. Gold digging has nothing to do with gold mining. Gold digging is a con. You scour the countryside with seer stones, dowsing sticks, amulets, and Indian bones in search of buried treasure. Antoine knew that magic did not reveal treasure, but that wasn't a problem because you supplied your own treasure. Americans may have been poor geometry students, but they excelled in do-it-yourself ancient artifact forgeries. The trick with gold digging was finding someone stupid enough to trade for the worthless objects you hid. It was fraudulent, criminal, duplicitous, and dangerous. Cheating violent men takes gall and glib, and Antoine was lucky enough to learn from one of history's finest con artists: Joseph Smith.

Before founding his religion, Joseph Smith was a gold digger. He traveled the countryside with his magic seer stone, uncovering treasure that he sold at inflated prices to the gullible. As long as the gullible stayed gullible, gold digging remained lucrative, but people weren't as stupid as conmen would like, so gold diggers needed to keep moving. Antoine encountered Smith in western New York near the Pennsylvania border. Both men were digging. Antoine was digging out of necessity, but Smith seemed made for it. Smith was tall, blue-eyed, and spoke with impressive disarming sincerity.

One gold digger said, "Smith could pee in a mug and sell it as beer."

Antoine joined the diggers orbiting Smith and followed them around middle America. For Antoine, digging was barely better than handling boat cargo, but he kept at it more for the company than anything else. Diggers were aggressive, unkempt,

and deluded, but thoroughly entertaining people. Antoine never joined Smith's new church, but he wasn't surprised that Smith managed to don the mantle of a prophet without being laughed out of town; *his disarming sincerity was mesmerizing.* As Smith's cult grew and his enraptured followers became more fanatical and dangerous, Antoine had the sense to keep his distance. He'd seen unthinking loyalty as a boy in Napoleonic France, and though Smith was a poor Napoleon, both inspired the worst in some of their followers.

When Antoine tracked Smith to Harmony, Smith's zealous, dangerous followers were still years away. He had come to Harmony with other disgruntled diggers because Smith had cheated them, and they were looking to settle scores. Their grievances were bolstered by wild rumors that Smith had found a real treasure. Antoine had heard all this before but had to admit things were different in Harmony. Since their last encounter, Smith had married (who would marry him), he dressed better, and the townspeople deferred to him. Smith was now playing the part of a prosperous townsman. Antoine and his fellow gold diggers discreetly staked out Smith's properties and waited for an opportunity to grab his rumored treasure.

Arthur – 2024

His consultation with David about Alice's old etchings piqued Arthur's curiosity. Before driving back to Tacoma, he tracked down the Stanford Lab that David had mentioned. What did people do before smartphones? He talked to a young Gen-X lab tech while illegally parked near David's stationary store. The tech explained that even trace amounts of Carbon could be accurately dated, but the sample would be destroyed. The tech offered to run a quick test if Arthur could send him a page or two. Arthur fetched the box beside him, grabbed the last sheet, and then, leaving his car illegally parked, he found a store that managed UPS deliveries. Before slipping the sheet into an overnight UPS envelope, he attached a note with his name, email, phone number, and business card. Arthur seldom passed out business cards. Programmers consider business cards archaic suit-people talismans. However, he thought the lab might take him more seriously if they saw he was a senior manager in a hot AI company instead of a random crank. He paid the inflated overnight UPS rate and then rushed to his illegally parked car.

Martha – 1903

Martha, like every citizen of the United States, had run into Mormon missionaries. An eager pair of young men had once wasted a few hours trying to convert her years

ago. She couldn't remember why she had ever talked to them; maybe they were cute. Mormons found few converts in Boston. The city had its own brand of religious crazy that had cornered the market since Puritan times, and Boston's universities, especially Harvard, offered thin missionary pickings. But repeated failure didn't stop the missionaries; failure is part of the missionary process. It reinforces believers of all creeds that they are custodians of special wisdom that a corrupt and fallen world must reject. The two men standing before Martha didn't fit the Mormon missionary style. They were much older and looked more like lawyers or process servers than harbingers of the one true church. They politely informed Martha that they were Mormon church historians gathering information about the early days of Smith's church.

At the dawn of the 20th century, the world suffered a plague of historical retrospectives. It was a new century; all that had gone before was dead history. People felt it was important to document the best parts of the past and forget the rest. Smith's church responded by tracking down first-hand accounts of the church's early years, buying up properties important to Mormon history, and cranking out quasi-scholarly apologetics that smoothed over questionable aspects – like polygamy – of church doctrine. It reminded Martha of early Christendom's Councils of Nicaea when Catholic leaders got together and established the standard Biblical canon. Evidently, the inerrant, unalterable, and holy word of God requires extensive copy editing. Catholics weren't the only eager editors; Muslims indulged themselves three centuries later. The *Koran* was assembled from the sayings of Mohammed that nomadic tribesmen had embossed on their saddles. One day, Mohammed's saddle sayings were sorted into two big piles. One pile was burned, and the other mutated into the *Koran*. Mormon apologists were following well-established religious precedents.

Martha knew all this, so she responded coyly when the meatier of the process servers asked her, "Did you know Antoine Legault?"

Many years ago, Monsieur Legault had warned her to keep his box away from the Mormons. It was an odd, memorable warning, but Martha, looking at the obsequious process servers before her, decided to take Monsieur Legault's advice. And, knowing that the best way to bend the truth is to tell only parts of it, Martha honestly testified that Mr. Legault had been one of her childhood teachers.

The meatier process server asked, "Did Mr. Legault ever give you anything?"

Martha slyly deflected with, "You mean other than school lessons?"

Antoine – 1828

Watching Smith's Harmony properties turned into a boring chore. Many of Antoine's fellow gold diggers gave up watching Smith and spent most of their time drinking, whoring, or running side digs. Antoine persisted. Not because he thought he would recover treasure but because he was falling under Smith's spell. It frankly annoyed him that Smith was doing better than he was. Smith lived in a decent house, was married to an honorable woman, and was prospering. How? After a few weeks of closely watching people come and go, Antoine saw few opportunities to sneak onto Smith's grounds and search for treasure. Smith's wife Emma, his acolyte Oliver Cowdery, Smith himself, or all three were constantly present. He had almost exhausted his patience when Emma stormed out of Smith's house one afternoon with her father. They climbed onto a small wagon and abruptly left. Antoine surmised that Emma might have learned of Smith's dalliances with other women.

With Emma gone, Smith and Cowdery's routine changed. Most evenings, Smith left the house and wasn't seen until the next day. Antoine suspected he was seeing other women. Cowdery usually stayed on the property, but both left the house on some nights. On one fortuitously moonlit night, Smith hauled something wrapped in a dark cloth into a small outbuilding beside his house. The outbuilding served as a stable and storage shed. Antoine, concealed on the edge of Smith's property, was too far away to tell what it was, but Smith had clearly carried something into the shed and emerged empty-handed a few minutes later. Antoine watched as Smith carefully looked around in the moonlight before calling Cowdery, who was still in the house. Cowdery exited the house, locked the door, and then, a few minutes later, both men left, leaving the property unguarded.

Antoine was immediately anxious and fearful. This was his chance. If he didn't act, it might be weeks before he would get another opportunity. He crawled out from behind the cluster of bushes he had been hiding behind and climbed over the wooden fence surrounding Smith's house. He went straight to the shed. Cowdery had locked the house, but the shed was open. There were no horses or other animals to make noise. The shed was mostly empty except for a few large wooden barrels stacked against the back wall. Antoine knew exactly where to start looking. Gold diggers get a lot of practice hiding their fake treasures. Hiding something is the inverse of looking for something. The ironic symmetry appealed to Antoine's *École Polytechnique-trained* mind. He opened the hardest-to-reach barrel. It was filled with beans. He took notice of the bean level in the barrel so he could reset the beans without leaving a trace. Then, he started probing in the beans with his bare fingers. About eight inches under the beans, he felt something like a cloth bag filled with something flat

and solid. Pushing the beans out of the way, he exposed the wrapped object. Before unwrapping it, he noted how the cloth was twisted so he could rewrap it without detection, and then he unwrapped whatever Smith had hidden.

It wasn't what he or any of the gold diggers expected. It was a small, heavy stack of what looked like thin metal plates. The plates were held together by three long horseshoe-shaped pins that pierced each plate in perfect circular holes. In the dim shed moonlight, Antoine could see the plates were decorated with extremely regular and precise odd markings. Without thinking, he lifted one of the plates. It was astonishingly thin and incredibly smooth, and the markings extruded from both sides. The plate, despite being extremely thin, did not bend or warp. It remained a perfectly flat little Euclidean rectangle as it moved on the pins. Even stranger, the metal did not warm to the touch. It seemed to absorb whatever heat your fingers imparted. It wasn't like any metal Antoine had ever seen. He estimated there were about three or four hundred double-sided plates. About a third of the plates had been turned from one side of the horseshoe pins to the other. Smith was going through the plates. Antoine released the plate. It eerily moved without friction or sound back into position. Antoine didn't know what the plates were, but he had seen enough gold digger fakes to recognize that Smith had something real. Then, in a rare fit of hubristic self-importance, Antoine decided to decode the plates. Smith was probably trying to do the same; surely, he could do better. Knowing he couldn't steal the plates without attracting attention, he carefully wrapped and reburied them in the beans. The next time he handled the plates, he would come prepared.

Arthur – 2024

The next morning, before Arthur drove to his office, Dan *Starlinked* in again from the wilds of Canyonlands.

"You know I'm out here to image the sky," Dan said.

Dan had an expensive amateur astronomy habit that required getting away from city lights. Canyonlands was the darkest, high elevation, clear-skyed region within easy driving distance of Dan's Grand Junction home. When he wasn't teasing his workmates with live scenic Zoom backgrounds, he showed off gorgeous deep sky images he'd captured with his *Celestron* 11" Rowe-Ackermann Schmidt astrograph.

"Bad news, I blew off a perfect new moon to work on your etchings last night. Good news, you'll love this! After loading your scans into Jones. I asked if the marks were a human language. Jones said no. Then I asked if the marks were an unknown human

language. Jones said no again. So, hail-Marying, I asked if the marks were structured, random, or resembled anything in Jones's training data. This is what Jones came up with."

Dan shared his screen with Arthur, and they both read through the AI's synopsis. The etchings contained 191 distinct orthographic symbols. Even more interesting, the mark size statistics indicated a higher degree of uniformity than modern typefaces. Whatever the marks were, they weren't hand-drawn or even printed. The precise alphabet was only the start of the surprises. The etching language was more highly structured and regular than any natural human language. Jones reported that it had statistics like formal mathematical languages and closely resembled fully elaborated terms in type theories.

"What the Hell?" Arthur asked.

"Yeah, I didn't know what an elaborated term was either," Dan replied. "But I know people."

"I Facetimed an old buddy in the U of U Computer Science faculty, and he pointed me to a Zulip Group of young mathematicians researching proof assistants. I joined the group, uploaded a few etching images, and told them Jones said the etchings were elaborated terms."

"How did that go?" Arthur asked.

"I was surprised as hell that they all knew Jones. Our language AI is famous, Arthur! Anyway, they quickly confirmed the statistics. I had Jones generate a custom Unicode font from the mark orthographies, transcribe the entire etching dataset, and then upload it to the Zulipers to hack. I hope that's OK. This can't fall under any bullshit NDAs, can it?"

Arthur didn't know how to respond. Was somebody punking him? If he hadn't picked Alice's etching box out of her belongings, he would have suspected an elaborate hoax. Who would go to the trouble to get ahold of two-hundred-year-old paper, invent an unknown alphabet, encode some "elaborated terms" – still unclear what they are – and then hide everything in his deceased grandmother's Pulaski house?

"No, this isn't NDA shit; this is far weirder," Arthur replied.

Before signing off from Canyonlands, Dan said the Zulip group was all worked up and had some ideas.

Martha – 1937

When Elsie stopped by to introduce Martha to her new baby granddaughter, Alice, Martha thought that her mother would have been pleased. She had always wanted Martha to grow up, get married, and lead a normal life. It took her longer than most, but she did just that.

After years of laboring as a Harvard calculator in Henrietta Swan Leavitt's stellar catalog group, Eric, an insurance actuary, tried to recruit her. Boston insurance firms often approached Harvard calculators; their arithmetic prowess was well known, and actuaries always looked for people to crunch numbers. Martha didn't leave Harvard, but she and Eric fell in love, married, and had one daughter, Elsie. Martha was thirty-four when Elsie was born, and Eric was forty-nine. They were old, competent parents who raised a dutiful and loving daughter. Eric had died of lung cancer five years ago, and Martha, getting old herself, had decided to sell their home and move into an apartment close to Elsie and baby Alice.

While preparing to move, Martha came across Monsieur Legault's old box. She had stored it in Eric's linen chest decades ago. This was one item she was not going to sell or throw away. Monsieur Legault felt that the etchings, still in the box, were important. As Elsie nursed Alice beside her, Martha decided to give her the box. Elsie had always been dutiful and conscientious. If Martha asked her to do something, she always did it. A few days after meeting baby Alice, Martha handed Elsie the box, told her what it meant, and then asked Elsie to pass it on to Alice one day.

Antoine – 1828

It had been a month since Antoine had seen Smith's hidden plates. He hadn't wasted the time. While keeping a close eye on Smith's house, he got ready to copy the plates. He decided to rub the plates. He would place a sheet of paper on the extruded marks, apply pressure with a flat board, lift the sheet off, and then dust the indented paper with heelball, a fine mixture of wax, and ground charcoal. It was the same technique used to make woodcuts, and if the marks on the plates were as hard as he hoped they were, it wouldn't take long to make impressions.

While he waited for another chance to handle the plates, he ground charcoal with a mortar, sifted out the finest grains, and stored the pitch-black powder in beer mugs. He also melted and filtered candle wax. You need clean wax for heelball. It took a few tries to get the mixture of charcoal and wax right, but in a few weeks, Antoine had four large mugs ready. He tested his mixture on coins, leaves, and even dragonfly

wings. It was gratifying to press a dragonfly wing into paper, dust it with heelball, blow it off, and then see the tiny wing veins perfectly recorded.

On June 27, 1828, a full moon night, Antoine watched from his hiding spot as Smith smuggled the plates into the outbuilding and emerged without them. Like before, he called for Cowdery, who always remained in the house. Smith was hiding the plates from Cowdery, too. Cowdery left the house, locked the door, and both men left the grounds.

Antoine quickly snuck into the outbuilding and extracted the plates from the bean barrel. Smith had arrogantly used the same barrel. Antoine laid out the bundle he was carrying. It was filled with the old box Knoles had given him, his mugs of heelball, a short flat board, and some brushes. He spread the bundle blanket beside the plates to catch the heelball that would spill off the paper as he dusted. When all was ready, he started rubbing the plates.

It went far better than he had hoped. The marks on the plates were astonishingly hard; they cut into the paper like little metal diamonds and left beautiful marks that stood out after heelballing even in the dim moonlight of the shed. Antoine quickly pressed and dusted plate after plate. As he worked, he was again impressed by the rigidity of the plates. The plates never bent or flexed, even when squeezed with his pressure board. Whatever they were made of, it was perfect for rubbing. His rubbing went so well that he ran out of paper before the plates were exhausted, and about a quarter of the plates remained when he dusted his last sheet. Antoine considered reusing some pages but quickly rejected the idea. It would have to do. He packed all the etchings in Knoles's box and rewrapped his bundle. Then, he delicately replaced the plates in the dark cloth and reburied them in the beans.

Antoine felt triumphant when he snuck out of the shed with his bundle. He didn't know where the plates came from, what they were made of, or what the markings might mean, but he knew they were the most amazing thing he had ever touched. Imagining the glory he'd reap after decoding the plates, Antoine's attention lapsed just long enough to miss the lone man walking toward Smith's house. When Antoine saw the man, he was sure that the man had seen him. They were too far apart to recognize each other in the full moonlight, but Antoine knew he was in trouble. He ran. The man gave chase.

He jumped over the fence near his hiding spot and fled into the brush. Antoine was familiar with the terrain from months of sneaking up on Smith's house and managed to lose his follower, but he wasn't out of trouble. Harmony was a small town. If Smith got word that somebody was poking around on his property, he would immediately

suspect his old gold-digging accomplices. Antoine had to get away. Without waiting, he hurried to a stable on the outskirts of town and roused the muleskinner. The muleskinner wasn't thrilled with Antoine waking him and drove a hard bargain when Antoine tried to purchase a mule. He eventually relented, but Antoine had to trade away more than eighty of his newly etched sheets. Only one side was etched; the back was perfect, valuable paper. Antoine knew that when the muleskinner started using the sheets around town, some would likely get back to Smith, alerting him that somebody had traced his plates. Harmony was a small town; if Antoine disappeared, it would be a small leap to implicate him. It wasn't ideal, but neither was fleeing from Paris years ago.

Arthur – 2024

Since going down the charcoal etching rabbit hole, Arthur couldn't concentrate on his day job. Unfortunately, his job wouldn't back off. Clients were pressuring his team, and Jones went down unexpectedly. Major software outages always reinforced Arthur's admiration of biological brains; they can run without outages for a century. AIs need to get more reliable before disposing of bipedal meat puppets.

Arthur hadn't followed up on the sheet he had sent for Carbon dating and was surprised when the young lab tech he had talked to called. When Gen-X'ers call, instead of texting or DM'ing, shit is getting super real. The Carbon on the sheet could be dated from 1815 to 1845 with Six Sigma confidence. Jesus! The Carbon was also two hundred years old. Faking the etchings just got a lot harder. It would take an extremely talented forger to make the sheets. Maybe somebody in the early 19th century was into elaborated terms more than a century before they were created.

The tech added, "We had to destroy the sheet, but I scanned both sides before testing. Did you know that the back side had some handwriting on it? I just sent you an email with scans of both sides."

Arthur had overlooked the backside text. He zoomed Dan to pass on the Carbon dating results. Dan had been offline for a few days. There wasn't much point in *Starlinking* in with Jones down. Dan used the outage to image the glorious dark skies of Canyonlands. He was rested and relaxed when Arthur's Zoom came in. The news about the Carbon reawakened his interest in the etchings.

"We should check with the Zulipers," Dan said. "Here, I'll share my screen."

Within minutes, Dan and Arthur were in a big Zoom call with around twenty young proof assistant researchers. Judging from the agitation and excitement levels, you'd

have sworn they were all in a burning building. Everybody tried to talk at once, and, like every other damn Zoom Arthur had ever attended, everyone had to mute their device microphones and take turns. When all the little zoom-head boxes went quiet, one zoom-head box labeled "R. Yang" spoke for the Zulipers.

"Before we get started," Arthur said, "Do you mind if we dial in Jones? We've found that Jones provides excellent summaries of large Zoom meetings. And, people tend to stay on point when AIs record everything they say or type."

R. Yang agreed to Jones's inclusion, and within seconds, another zoom-head box appeared on the screen. Not having an actual face or body, Jones enjoyed filling his zoom-head square with AI art. Today, he was going with an animated version of Sauron's Mordor tower, complete with an ominous rotating orange eye. Very comforting. Who said AIs don't have a sense of humor? In the side chat channels, some Zulipers welcomed their new AI overlord, and others posted links to *Wayne's World*, "We are not Worthy" YouTubes. This is how AIs get their warped senses of humor.

With Jones plugged in, the meeting began. R. Yang told Arthur, Dan, and Jones that after looking at the etching data, some Zulipers guessed bits might be encoded formal Peano arithmetic. They developed a rudimentary mapping from the etching symbols to LEAN programming language terms. It didn't take long to match the symbols to LEAN versions of basic number properties, like commutativity, associativity, etc. Using this as a basis; several abstract etching grammars were tried until about half of the etching symbols could be translated as syntactically correct LEAN terms. Pleased with their progress, the Zulipers spent the next three days expanding their mapping into several thousand lines of Python that reliably translated most of BOT to LEAN.

"BOT?" Arthur asked.

R. Yang replied, "Book of Terms after Erdős's Book."

Paul Erdős was a peripatetic 20th-century Hungarian mathematical genius who roamed the world with his mother. He was famously homeless and would appear on colleagues' doorsteps and say, "My brain is open." If Erdős found a proof beautiful, deep, satisfying, and impossible to improve, he would say it was from *The Book*. *The Book* is an imaginary nerd heaven book containing the *best* mathematical proofs. To create a book-worthy proof is the goal of many mathematicians. Erdős collaborated with so many mathematicians that they started sorting themselves by Erdős number. Erdős himself is number 0. Mathematicians that directly worked with Erdős get number 1. Mathematicians who worked with a direct Erdős collaborator get number

2, and so on. An entire Wikipedia page ranks world mathematicians by Erdős number, and the guy has been dead for almost three decades! A low Erdős number is the mathematical equivalent of driving around with a vanity license plate that says, "WELL HUNG."

After developing a usable BOT to LEAN converter, the Zulipers attacked the bulk of the BOT etching text. Preliminary token parsing indicated the BOT text was incomplete. Big chunks were missing, but what remained was astonishing. Some sequences corresponded to lists of basic group properties; another encoded a recurrence relation that generated an integer sequence that could not be found in OEIS (The Online Encyclopedia of Integer Sequences), and, topping that, another BOT statement asserted the infinitude of primes. The corresponding BOT term did not match the LEAN equivalent, but it wasn't difficult to permute both until a perfect match was obtained. At this point, the Zulipers lost it because the BOT proof was a formal version of Euclid's famous proof of the infinitude of primes. A proof that Erdős himself said was straight from *The Book*. Calling the etchings, *The Book of Terms* suddenly seemed serious.

The revelations continued. After finding Euclid's prime proof, they attempted to decode as much BOT as possible. The Python translator program couldn't handle everything. Still, they extracted one large term, roughly half of the BOT text, that corresponded to a statement that there is an infinite collection of pairs of primes that differ by no more than five. This is a much tighter constraint than the best-known result of 246. The Zulipers now suspected somebody was punking them hard, but enjoying the hack, they converted the BOT to LEAN, and after fixing some memory leaks in LEAN itself, the term checked out! It was a valid formal proof of a new, deep, previously unknown theorem. They still didn't believe it. Maybe LEAN was broken. They dumped the term in check format and ran it through three independent validation programs. The result held. *Formal proof cannot be faked!* That's pretty much the whole point of formal proof.

R. Yang then asked Arthur and Dan who proved the new theorem. About half the Zulipers already had draft papers ready to upload to the arxiv.org preprint server, but they needed to credit this new result. Who did this?

Unmuting his Zoom microphone, Arthur told the Zulipers, "I don't know. I found The Book," why not call it 'The Book' he thought to himself," in my grandmother's house."

"Was your grandmother a number theorist?" a Zuliper typed into the chat window.

Dan unmuted, “Guys, guys, this a lot to digest. Can you give us some time to absorb this? We’ll get back to you.”

The Zulipers dropped off the Zoom call until only Arthur, Dan, and Jones were left.

“What the Hell,” Arthur exclaimed.

“Did you find this in your grandmother’s house?”

“Dan, do you think I could have faked this? It’s two hundred years old, man! I failed my second differential equation course. There is no way in hell I would ever come up with a new (finger air quotes) deep theorem.”

Dan wasn’t used to Arthur acting out, but he agreed. He asked, “Is there anything else? The guys on the call think parts are missing.”

“I scanned all the pages. They have everything I found.” Arthur replied. Then he remembered the backside of the sheet he’d sent for Carbon dating.

“There’s a tiny bit more. There was a postscript or something on the last page.” He looked up the email from the lab tech and forwarded the image attachments to Dan.

“Dan, I gotta deal with the Microsoft mess. They want their pipelines reset, and Legal is giving me shit about forwarding the etchings. Who knew that crap in my grandmother’s house would run afoul of company NDAs. God, the world would be so much better off if all the suits just fucked off and died.”

“We can hope.” Dan chimed as Arthur left the call.

Dan and Jones – 2024

Dan enlarged Arthur’s last-page image attachment. The small postscript was written in cursive with an elegant hand. It wasn’t BOT; it used a Latin alphabet. Dan couldn’t read the scrambled text, so he passed it to Jones and asked the AI to analyze the script.

Jones typed, “The text is most probably Caesar ciphered French.”

Dan typed into the chatbot window, “What does it say?”

Jones instantly translated, “Rubbed from bound plates found in Joseph Smith’s shed. Harmony, June 27, 1828. A. Legault.”

Dan didn’t know how Arthur pulled this off, but it couldn’t be real. Dan was a lapsed Mormon; he had left the one true church shortly after rejecting the very idea that

there could be a "one true church." Like all Mormons and many uncouth infidels, he knew all about the Golden Plates. The tale was pure Red Sea parting, Christ rising from the grave, and Mohammed beaming up from the Dome of the Rock, bullshit. It's a great story, but come on! How can we be expected to take such sky-fairy nonsense seriously? If only the Golden Plates hadn't conveniently disappeared. Maybe a bigfoot piloting a UFO took them. Dan completely understood why people wanted to move to Mars. Planet moron is exhausting for hard-ass skeptics. Believe nothing and verify everything.

Dan was a hard apostate, but unlike many of his peers, he *had* seriously considered what a *credible divine revelation* might be. Old Testament bromides about not coveting and buggering your neighbors' goats wouldn't cut it. Do you know what might? How about a complete Periodic Table with accurate transuranium element masses? Find that carved into a Bronze Age stela; even hard-ass skeptics might pay attention. Maybe valid, verifiable formal proofs were even better. *Formal proof cannot be faked.* You may question the source of the "revelation," but you cannot dismiss the content.

Annoyed and amused, Dan asked Jones, "What do you think?"

Jones politely typed, "Perhaps the Angel Moroni attempted to reveal Erdős's book of perfect mathematical proofs to Joseph Smith, but Smith didn't understand it and made up *The Book of Mormon* instead."

Society Prefers Dead Liabilities

Posted: 04 Dec 2023 19:11:58

The other day, while trolling the fetid depths of Reddit, I was amused by the response to this story about more and more boomers becoming homeless. The nugatory netizens of Reddit were not sympathetic. They blame the execrable boomer generation for many of the ills, both real and imaginary, that have befallen them. *Yes, boomer hatred is booming!* As a bombastic boomer, all I can say is get in line, kids; nobody hates them more than I do. The raging Redditers were particularly incensed that they, the *gen-what-evers*, will now have to clean up boomer messes — and diapers — while forking over vast sums to do so. It turns out that paying for old, unproductive people is not popular. Who could have predicted that?

I labor under many illusions, but I have never swallowed the bilge that "society" cares about the welfare of the "unproductive." Of course, what counts as "productive"

depends on *what* is doing the counting. Maybe a tortured homeless artist, dissolving in an opioid haze while awaiting a muse's touch, might be considered worthy in some dissolute domains. But I can assure you that is not how governments measure worth. They have a more straightforward method. Are you paying taxes? If you are paying taxes, you are worth something. If you are not paying taxes, you are worthless. It gets worse. If you are receiving net benefits, you are worse than useless; you are a liability, a parasite, and society would be better off if you were dead. So, the Redditers have a point. Boomers are now mostly expensive liabilities, and while the *gen-what-evers* are *not currently on board* with murdering them, they wouldn't mind if something else did. *All entities seek to eliminate liabilities.*

We all know this, but we pretend it's horrible to resent supporting the useless. See all those unhoused addicts shitting in public parks; it's going to take some fine bullshit to rationalize their utility, their human dignity, their inherent worth, and the pressing need to put them up in subsidized homes and throw good money after bad. The argument becomes even more challenging when the money comes out of *your pockets*. Oh, in case you're wondering, you don't get to spend other people's money!

How much are *you* (just you) willing to pay to help the homeless? When asking myself such questions, I play an order of magnitude game. Here's how it goes. John, would you pay one dollar to help the homeless? I'm a good sport, so sure. Have a dollar.

Would you pay ten dollars to help the homeless? Sure, I can pony up ten bucks. Would you pay one hundred dollars to help the homeless? Now I'm beginning to think about the money. Is that wreck of a human being degrading public spaces worth a hundred bucks? Ok, I will cough up a hundred bucks, but this had better be a one-off. Would you pay one thousand dollars to help the homeless? Now I am absolutely thinking about the money. With a thousand bucks, I could get a decent camera lens or pay for five years of Amazon Prime. Let's face it: there are a million better ways to spend your money. OK, would you pay ten thousand dollars to help the homeless? Uh — hard no! The order of magnitude game quickly sets bounds on your compassion. I care roughly one thousand *per annum* for the homeless[144] If government financial rapists (tax authorities) come for more, I will bitterly resent it and use every electoral opportunity to punish the rapists. I identify as a *compassion-free device!*

Because our "compassion" is biologically limited to a few people, crafting "compassion-

[144]Not matter how loudly woke grammar checkers bitch about my harmful and hurtful tone, I will not choose another term for "the homeless." Some things hurt and covering them with euphemisms doesn't help.

ate government policy" is a fool's errand. I don't want to pay for your compassion; I doubt you want to pay for mine. We can't even agree on what constitutes compassion or devise objective measures for it. We have built many devices to measure electron mass, but I challenge you to build a *compassion meter*. You will quickly discover that "compassion" has no physical basis. At best, "compassion" is a word associated with the behavior of some social animals that derive evolutionary benefits from cooperation. Beyond that, compassion is airy fairy sky fairy nonsense, and basing public policy on it is pure idiocy.

Hence, insurance companies, corporations, governments, and even homeowner associations base policies on things that can be measured, like cool, clear cash. And when such stark measures are applied, it turns out that society prefers dead liabilities.

Pam and the Alien Memory Biz

Posted: 11 Dec 2023 21:03:01

A mockery by *Kline Leopold Hedrös* ©2023

Nobody expected libertarian aliens to set up a memory trading post off the west coast of Antarctica, but they did, and now Pam and her mates on the good ship *Forget Me Not* were entering the UN-patrolled waters around the Human Exclusion Zone or "the HEZ" as everyone called it. The HEZ was a human-specific force field that projected more than a hundred kilometers around the HEZ's central spire. If you tried to cross the HEZ, you would feel a greater and greater force pushing back until you couldn't advance. The HEZ blocked only humans and their machines. Birds, fish, marine mammals, and insects penetrated the HEZ unimpeded. Nobody had a freaking clue how it worked.

From her position on the ship's bow, Pam saw the thirteen-kilometer-high transparent alien spire in the center of the HEZ. The *Spire* shoots out of the west Antarctic Sea and climbs like a charmed, coiled diamond cobra to heights far beyond the engineering prowess of naked apes. The Spire made it crystal clear (why not use a crystal tower when making things crystal clear) that the libertarian aliens had technology thousands of years beyond human levels and were not to be fucked with.

Everyone remembers where they were when the libertarian aliens announced their presence. It was during the last US Presidential debate. The old, demented moron was squaring off against the old orange moron. The "debate" (please, no laughter) was going as expected when suddenly a *Star Wars'zy* apparition appeared between

the old morons.

"Greeting citizens of Earth. Forgive this intrusion. My name is Sam. I am here to say that our new west Antarctic memory trading outpost is open for business. Look for the Spire. The first thousand customers will get two life memories for one. Tell them Sam sent you."

Sam made a big impression. Post-debate polls showed he was the clear winner. Everyone wanted to vote for him. Sam radiated *rizz* (charisma) and seemed vastly more knowledgeable and trustworthy than the old morons who, with their blank diaper-filled faces, couldn't have looked more pathetic.

We later learned that the Secret Service shat giant gooey bricks when Sam appeared. They made frantic attempts to cut power to the debate stage, but the libertarian aliens easily circumvented their primitive naked ape technologies. Within minutes global social media forgot about the orange morons' threat to democracy, the never-ending wars in Ukraine, the middle east, the Congo, and now Guyana (come on, people), our out-of-control global inflation, deficit financing, the plight of the BIPOC'ky transgendered, global warming, climate justice, land back hysterics, microplastics, reparations, the great Pacific garbage patch, antisemitism in the academy, the lack of diversity in whatever was up people asses today, and most miraculously Taylor Swift's divorce. Suddenly, all our baby problems didn't matter. Most people wanted to know *one thing*: were they on alien menus? How to prepare man, "it's a cookbook," was top of mind.

Lucky for us, the libertarian aliens were vegans. It was the first time in recorded history that people were happy to learn somebody was vegan. Even better, the libertarian aliens didn't brag about their diet. Imagine that: vegans with a sense of perspective. The universe really is queerer than we can imagine.

After our fears of appearing on dinner plates subsided, we wanted to know why the libertarian aliens were here. What exactly are they trading?

As if reading humanity's collective thoughts, Sam's *Star Wars'zy* apparition appeared on the UN General Assembly podium and explained.

"Since my last appearance, there's been a lot of buzz about '*the aliens*.' Just what's their deal? What are they up to? Why here? Why now? Well, Earthlings, the answer is both complex and simple. Because you are limited naked apes, I will give you the simple answer."

Sam said, "There are three paths for intelligent life in the universe."

"The first path is easy to understand. Extinction! Extinction is the typical outcome. Some species disappear by natural means, and others do themselves in. When species breach certain destructive technology barriers, many cannot resist the urge to self-purge. Humans like to think of themselves as apex assholes, but I can assure you that humans, while not particularly bright on galactic scales, are more civilized than most. You thought the *Star Wars* galaxy was mean; news flash, reality is super harsher."

Sam paused and looked around at the dumbfounded faces (just another day in the UN General Assembly) before continuing, "The second path is what we call Narcissistic Collapse."

"Narcissistic collapse occurs when a species' ability to simulate reality eclipses their desire to deal with it. Here on Earth, many of you go on, and on, and on, and on, and on, and on, about how young people (males) waste their lives playing video games. Imagine if you could plug into a hyper realistic video game and erase your memory that a real universe exists. Many species *voluntarily* confine themselves in *Matrix* fantasies of their own devising and lose all interest in the actual universe. Narcissistic collapse occurs far more often than the last alternative."

"The last path will be hard for many of you to understand, but here's the dumbed-down version. Species with immortal ambitions have a problem with ordinary baryonic matter. I don't think I will alarm you with a little physics spoiler. The proton is not stable. I know you've conducted your own experiments and concluded that if the proton isn't stable, its half-life is greater than 10^{32} years. You are right. The half-life is 10^{331} years. So long that probably not a single proton in the entire observable universe has decayed, but while 10^{331} is essentially forever on human, or even Big Bang timescales, it's not. In a mere 10^{1000} years, everything in this universe ends with one exception: space itself."

Sam looked up at the UN delegates. It was like an auditorium of drugged deer in an 18-wheeler spotlight. The normally fatuous and stupid UN delegate creatures looked even dumber than usual. Before any of them could speak, Sam went on.

"The only way to live forever in this universe is to insert yourself into space. Advanced species and their AI descendants have been doing this all over the observable universe for billions of years. Years ago, your astronomers detected a mysterious increase in the rate of the universe's expansion. You call it Dark Energy. It seems that the expansion rate accelerated about five billion years ago, and nobody knows why. Well, here's another physics spoiler. As more and more advanced species insert themselves into the fabric of space, the universe's expansion rate increases. Don't ask me to explain; your minuscule minds wouldn't understand. The rate was constant

before the insertions because it took roughly eight billion years for advanced species to evolve. Beings of such power (gods) that they alter the expansion rate of the observable universe are not concerned with the antics of naked apes confined to one little shit-ball planet. About one in a million intelligent species that dodge extinction and narcissistic bullets ascend to the dark energy realm. Still, there are trillions of galaxies hosting sometimes millions of intelligent species. Over vast time and space scales, it adds up."

Sam ended his little lecture by explaining the libertarian alien business model.

"This brings me to what we are trading. While basically true, the three paths have what your NPR Karens call 'nuance.' Clearly, there's no business case for the extinct or the ascending dark energy gods, but the narcissists have unique needs that the galactic market can address. *Narcissists always stimulate the economy.* While most species rapidly develop the capacity to simulate whatever they can imagine, they also quickly discover they *cannot imagine as much as they would like.* Good old-fashioned reality with blind natural selection, humdrum physics, and chemistry plodding over billions of years exhibits far greater *imaginative works* than any narcissistic species. The universe is not only queerer than you can imagine, it's queerer than all your alien peers can imagine as well."

Sam dramatically paused to let this sink in but remembered he was projecting in the UN, where nothing ever sinks in, and continued, "There is a real hunger out there for brave new worlds. Not tedious hacky fantasies, but nitty-gritty unimaginable alien realities. Your memories, your sense of self, and the daily crap you carry in your tiny naked ape skulls has great value simply because reality is beyond simulation. There are trillions of creatures, very different from yourselves, that hunger for lives they cannot imagine. Their hunger is so great they are willing to cross interstellar space and trade their memories."

The porcine, docile, and vacuum-headed UN delegates started murmuring, but Sam silenced them with, "I know what you're thinking. What's in it for us?"

"IP rights. We retain the right to duplicate client memories and reuse them. Some lives are just more popular than others. You think Taylor Swift is a big star. You have no idea what a real galactic star is! But, for this month only, you can find out if you present yourself at the HEZ boundary and trade your memories for Milky Way's biggest celebrity. Remember, this is a time-limited offer." With that, Sam's *Star Wars'zy* apparition vanished.

Pam was Zeus-struck by Sam's UN speech. As an *uber-swiftie* she was appalled.

"There are bigger stars than Taylor Swift. Impossible. Blasphemy!"

Pam immediately blasted out a dozen social media posts, informing a breath-baited world that she was offended and outraged (#CancelAlienSam). For a few days, Pam bathed in the affirmations of her *swiftie* herd, but then a nasty mind worm started eating her confidence. The aliens knew a lot more than us. Everyone says that. Maybe there is a bigger star than Taylor. Maybe her entire life is a lie. Maybe everything she believes is parochial bullshit. She looked up the meaning of "parochial." She thought it had something to do with the "patriarchy." Pam couldn't be "parochial." That sounded almost racist, or *all lives matter'ey.* What would the NPR Karens think? To circumvent imagined parochial horrors, Pam decided to take Sam up on his offer.

As a mega-online influencer-boss, Pam cut a deal to *Tok* (TikTok), *Gram* (Instagram), and *X,* her voyage to the HEZ, where she would broadcast her memory trade with Sam. Nobody, including the libertarian aliens, puts anything important on the mainstream media anymore. As the good ship *Forget Me Not* reached the designated trade spot, a crystal-clear slab (libertarian aliens love their crystals) with Sam's *Star Wars'zy* apparition approached the good ship *Forget Me Not* from The Spire.

The slab hovered alongside, and Pam boldly stepped where no one had stepped before. Then Pam's social media entourage, her video and podcast crew, stepped where *one* had stepped before. Soon, a little nucleus of self-important naked apes gesticulated around Sam's *Star Wars'zy* apparition on the floating crystal slab.

The first order of business was signing the ATOS (Alien Terms of Service).

The ATOS was an unenforceable bit of bureaucratic tentacle-kissing bullshit. It was getting to the point where you couldn't run a business in the galaxy without some GAG (Galactic Advisory Group) slime mold smothering you. Want to get libertarian aliens going? Ask them how they feel about unnecessary galactic regulations. What, you thought your MAGA neighbors ranted?

With the ATOS signed, Sam explained how the memory trades worked.

"Memory swaps between alien minds are unstable and not advised by the GAG. When the swap is complete, you will awake as an alien in an alien world. Your life, your human sense of self, will seem like a vivid fading dream. As you become fully conscious, the dream will fade away. You will forget everything you have ever known about yourself and your life. You will be something else, somewhere else."

As Sam blah, blah, blahed on, Pam interrupted with, "How will I post this? My followers need to see something."

Sam, used to dealing with recalcitrant customers, said, "No *problemo!"* Sam was binging Schwarzenegger's early movies. He found much to like in, crush your enemas, flush them before you, and hear the lamentations of the vaginas.

Then Sam continued, "Brain activity can be rendered as images. At no extra cost, we will broadcast what your brain perceives to your entourage."

Satisfied, Pam said, "Let's get started."

Sam dropped a final caveat, "The stress on your brain will be so great that the swap will only last for a few days. We will have to shut your brain down when this time is up. I know that sounds bad, but from your point of view, it will be as if you have lived a full alien life. The galactic star, the super Swift, whose memories you will assume, comes from a long-lived species. *Theez* (human sex doesn't apply here) is around twenty thousand years old. You're trading your shortish human life for a longish alien one. It's a great deal."

Pam considered Sam's words. So, the libertarian aliens would flood her mind with memories that would wipe hers and kill her in a few days. But she would live the long life of a star greater than Taylor Swift, and (what mattered to Pam) her every thought would be tsunami-splashed over global social media. Imagine the likes, the reposts, the basic-bitch envy, the cringe-incel whining, the masturbating emojis! As an *uber-swiftie,* Pam couldn't imagine a more heroic sacrifice.

"Like I said, let's get started."

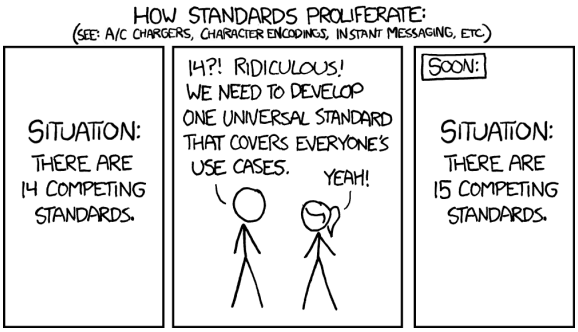
2024

Decoding and Encoding RSV Files with J

Posted: 12 Jan 2024 22:36:44

Another year has come and gone, and my failures continue to accumulate. I'll stop failing when I'm dead. For the nonce, I will stew in my abyss of hubris, biting off more than I can ever hope to chew. But there will be plenty of time for self-abasement later (at least if my health holds). Today, I am commenting on an interesting little YouTube video that *the algorithm* shoved in my face.

You can peruse the video by clicking on RSV Rows of String Values. The author (Stenway) introduces another standard data format. He knows that advocates of new standards often run afoul of the XKCD curse.



As usual XKCD nails it!

Usually, I would ignore such things, at least until I can no longer ignore them. But what caught my attention was his solution to the *dreaded delimiter collision* problem. Data formats like CSV have long suffered from delimiter collisions. I use the TSV (TAB-separated values) format to *reduce* delimiter collisions. For humdrum data, TAB collisions are less frequent than COMMA collisions. Sadly, less frequent means collisions still occur, and when they do, your little parser must run down the n^{th} layered Hell of escape characters rabbit hole. Wouldn't it be nice if delimiter collisions could be completely side-stepped?

The RSV format exploits a feature of UTF8 encodings to eliminate delimiter collisions. Until I watched RSV Rows of String Values, I was unaware that UTF8 encoders should not emit specific bytes. Stenway notes that proper UTF8 encoders should never emit these bytes.

Table 6: Invalid UTF8 Bytes

Binary	Hex	Decimal
11111111	FF	255
11111110	FE	254
11111101	FD	253
11111100	FC	252
11111011	FB	251
11111010	FA	250
11111001	F9	249
11111000	F8	248

If you are content to pass UTF8 strings around, you can delimit them with any of these bytes without collisions. This is precisely what the RSV format does. RSV uses the three bytes.

Table 7: RSV Delimiters

Name	Hex	Decimal
REOV	FF	255
RNULL	FE	254
REOR	FD	253

Even better, the bytes are value *terminators*, which makes RSV easy to parse in J with the cut conjunction `<;._2`. The following J verbs encode and decode RSV: two lines of J code suffice.

```
NB. decode RSV bytes - NULLMARK marks nulls - example: 'null'
rsvdec=:  {{]`(NULLMARK"_)@.((,RNULL)&-:)L:0 <;._2&.> <;._2 y}}

NB. encode RSV bytes
rsvenc=: {{(0=#y)}. ;,&REOR&.> ;&.> REOV -.&.>~ ,&REOV L: 0 (]`(RNULL"_))@.(NULLMARK&-:) L: 0 y}}
```

I have added rsv.ijs to my collection of JACKSHACKS J addons. You can install the addons on your own J system with:

```
NB. J package manager
load 'pacman'

NB. files from https://github.com/bakerjd99/jackshacks
install 'github:bakerjd/jackshacks'
dir '~addons/jacks'

NB. load script
load '~addons/jacks/rsv.ijs'
```

Enjoy the hack!

Ok Boomer K-TV

Posted: 13 Feb 2024 19:45:33



Cute Woo

I was into South Korean TV long before BTS and the gen-whatever teeny boppers. One of the first TV shows I reviewed on this blog, *Faith*, was a deliciously nonsensical time-traveling South Korean rom-com martial arts fantasy. Yeah, it was that crazy. With advancing age and creeping *Bidenesque* dementia, my affection for South Korean TV has only increased. My latest K-TV crush is *Extraordinary Attorney Woo*.

Extraordinary Attorney Woo, or *Woo* from now on, is about a brilliant and super cute young autistic Korean attorney. There are many things to like about Woo. The characters are all hygienically clean-cut and attractive. No fatties, fags, bull dykes, transvestites, and related diverse degenerates are in sight. Woo's court cases are delightfully innocent. Instead of the predictable parade of murder, rape, and *misgendering* cases that Western legal dramas offer up, Woo attacks zoning disputes, business contract dilemmas, and points of personal honor. By *Hollyweirdo* standards, the stakes could not be lower.

Even more charming, Woo exhibits absolutely zero "diversity." All the characters are 100% Korean. No token white, black, or extraneous indigenous placeholders are present to remind us of how woke the screenwriters and producers are. Even more astonishing, all the characters are well-behaved heterosexuals! When was the last time you watched a gay-free western production? In the West, we've endured decades of putting a chick in it and making her gay, and this cranky old boomer has had it.

Woo mirrors 1950s Western TV. In that remote bygone age, TV provided models of how we should be – *not how we should not be!* My advice, get yourself some Woo and take a break from the bullshit.

The Pointless Existence of Ambrose Oliver Cuddlepomp

Posted: 19 Feb 2024 23:04:06

We find Ambrose Oliver Cuddlepomp at work, or at least what he calls work. It's not work in the sense of exerting energies for earnings; it's more like a deliberate marking of time: a way to distinguish one hour and day from another. Ambrose Oliver Cuddlepomp, or "Cuddie" to use the demeaning nickname, has never enjoyed work despite being relatively conscientious when employed. If Cuddlepomp had ever mastered sustained attention, there's no telling what he might have done. But, lucky for this liquid orb, Cuddlepomp suffers from that most crippling and banal of human failings: laziness. So, instead of an august and imposing Cuddlepomp, we observe a shriveled, opinion-laden old man going about his final days with few regrets.

Cuddlepomp's lack of regrets sometimes astonishes him. He has comprehensively failed to achieve any of his imagined goals of youth. Yet this doesn't bother him. Cuddlepomp always saw through himself. Even when imagining those goals, he knew that if achieved, they would not have changed his sense of things or himself. Lack of ambition comes in many forms. In Cuddlepomp's case, he is blessed with a curious and wonderful lack of envy; he genuinely enjoys the successes of others. Oh, he would like the *ease* of the wealthy and famous, but he knows it wouldn't alter his feelings. First class is only *more comfortable* than coach; it has little impact on one's philosophy. Young Cuddlepomp often wondered why "envy" was allowed in the seven-deadly-sins club. Sane gods would surely rank murder a greater sin than envy, yet a rich, long literature says otherwise. Envy is the nucleus on which other sins condense. Take it away, and you get Cuddlepomp's benign lethargy. Yes, Cuddlepomp has read of Achilles' rage but has never felt it. Even during his divorce, he still wished others well.

Cuddlepomp's lack of envy and forgiving nature do not imply he is without dreams. Cuddlepomp is a walking dream. Sometimes, he is a literal walking dream. When randomly *Wuhan Walking*, a habit recently acquired during the last end of the world, he sometimes chides himself for overusing that appalling word "literally" while literally dreaming and walking. It's a strange habit. Cuddlepomp has one superb talent: daydreaming. The childish Cuddlepomp lived in the basement of his parents' house.

He had a solitary bedroom with blue-painted concrete walls and a gray-shag wall-to-wall carpet. He daydreamed on that shag rug by walking in circles while shaking his fingers and tongue drumming. He walked for so long that he packed down the shag leaving a hard-to-hide dream circle in the rug. Cuddlepomp's father was annoyed by his shag dream circles, but he was a good father and swallowed his annoyance. Cuddlepomp never stopped dreaming. As he aged, he stopped walking in circles and stared into a blank wall. He needed a blank wall to project the epics in his head. With greater age, Cuddlepomp abandoned wall dreaming and slowly evolved perambulatory musing. Now, Cuddlepomp can be found on his *Wuhan Walks*, planning his various projects and still dreaming of worlds that will never be. Cuddlepomp has never been embarrassed by his time and life-wasting daydreaming. He rightly regards his habit as less lethal than fentanyl and an ace he can play when thrown into solitary. Locking Cuddlepomp up, even keeping him in the dark, would only facilitate his dreaming. Oddly, Cuddlepomp's many otherworldly dreams keep him *in this world*. The day Cuddlepomp stops dreaming will be the day his pointless existence ends.

Yes, Cuddlepomp leads a pointless existence, but he doesn't take it personally. As far as his limited intellect can ascertain, the entire universe is pointless: just abstractions, currently quantum fields and general relativity, awaiting heat death, the big rip, or collapse back into the sweet singularity from which it spewed. Our universe may be God-free, but we'll still get a Ragnarök: oblivion without volition or guilt. Perfectly pointless! Cuddlepomp has always known this. Even the grade school Cuddlepomp knew this; it's the main reason he rejected all religious and spirit-infested beliefs. It's why he can never repent and beg nonexistent gods to forgive him and not cast him into that nonexistent lake of fire. Cuddlepomp, always seeing through himself, could never sincerely believe, and he would not respect deities dumb enough to fall for his insincerity. Cuddlepomp has supreme being standards.

Cuddlepomp's human standards are mixed. He admires the demonstrably superior but doesn't think much of garden-variety naked apes. He likes to think he loathes them, but genuine loathing is work, and Cuddlepomp has never liked work. Still, he's often annoyed by the incredible ignorance and credulity he observes walking about. Years ago, he read about a pollster asking newly minted Harvard graduates why there are 365 days in a year. It seems many did not know that's approximately how long it takes the Earth to go around the Sun. How can you get out of grade school without knowing this? Just last week, he marveled at the answers a YouTuber recorded when asking random street people how many stars are in the Milky Way. Many didn't know the Milky Way is our galaxy, and only one knew the star count was many billions. Again, how can you breathe and not know this? This is why Cuddlepomp limits his

exposure to NPR, or whining Karen Radio as he calls it, and stays off X (formerly Twitter), Facebook, Instagram, Reddit, and other social media sites. He can only absorb limited doses of idiocy before getting aggressively dismissive and sarcastic. In-person, Cuddlepomp is a polite old man who earnestly enjoys conversations with strangers, but online, he's a monster.

Cuddlepomp's politics are fluid. He mostly wants the political class dead but lacks the energy and discipline to kill them. He awakes every morning, hoping some asshole somewhere has expired. Observing the demise of political creatures is one of Cuddlepomp's guilty pleasures. You may wonder how this meshes with Cuddlepomp's forgiving nature. Is it not hypocritical to enjoy the deaths of the wanting while claiming a forgiving nature? Many would say yes, but Cuddlepomp never claimed he forgives unconditionally. You must repent in Cuddlepomp's eyes. Do so, and he may forgive. Now, we are repeatedly told not to judge lest we be judged. Only nonexistent gods may judge; silly mortals must abstain. Cuddlepomp called bullshit on this doctrine about the same time he memorized his multiplication tables. The old Cuddlepomp knows humans are social animals and social animals are highly evolved judgment machines. We spend our lives constantly monitoring and updating our view of others. We never stop; it works subconsciously, and it's been critical to our survival. So, stop the "don't be judgmental hypocrisy." Cuddlepomp can put up with any reasoned or imaginative argument, but the one thing Cuddlepomp demands of himself and others is an absolute dedication to detecting and correcting errors. If you cannot admit mistakes, Cuddlepomp will truly loathe you; for this, he will put in the effort.

Strangers see Cuddlepomp as a conventional eccentric: a "mostly harmless," in Douglas Adam's immortal words, old man who has somehow retained his teeth. But on the inside, Cuddlepomp has questions. If the storms raging in Cuddlepomp afflict others, this planet is strange. Consider gender. Cuddlepomp was born in an age of males, females, and freaks. In the later decades of Cuddlepomp's long, pointless existence, the naked apes around him started obsessing about gender. Many made idiotic claims about biological sex that infuriated the scientifically literate Cuddlepomp. Human males have XY chromosomes; human females have XX chromosomes; other rare options like XYY are developmental abnormalities. On this, like Milky Way star counts, the science is settled. Cuddlepomp will allow the notion that "gender" is more general and fluid than biological sex. Languages have male and feminine forms, so linguistic gender is unlike biological sex. A male may claim he is a female, but until technology advances to the point of chromosome substitution, he remains a biological male. That many hysterically deny this while vociferously accusing their

critics of being bigoted ignoramuses strikes Cuddlepomp as pathological windmill tilting. This is obdurate idiocy. Only sincere religious and political beliefs are more so. Cuddlepomp remains committed to the conventional view; you need good reasons to change your mind, and none are on offer.

Biological sex is rigorously chromosome-based, but sexual attraction is not. Cuddlepomp learned this later than most. He was a university student on a long bus ride from northern Alberta to Southwestern Montana when he was abruptly accosted in a bus restroom by a prowling homosexual. At first, Cuddlepomp thought he was being mugged and was relieved when the truth dawned. The student Cuddlepomp gathered enough composure to warn off the interloper, who, to his credit, politely disengaged and fled the restroom. Until that moment, Cuddlepomp had never considered non-heterosexual arrangements. As Cuddlepomp analyzed the idea, he found it interesting and sometimes arousing, but Cuddlepomp remained a dedicated heterosexual. He married twice, had children, and never indulged in any affairs, straight or gay. Cuddlepomp's sexuality is boring; it will never make the news. Cuddlepomp has few regrets, and his sexuality is not on the list.

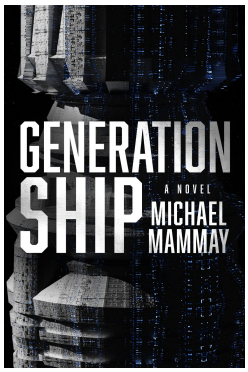
While Cuddlepomp has few regrets, we must note that "few" is not zero. Cuddlepomp has a loved wife and children. When he is gone, there will be nothing more he can do for them. The adolescent Cuddlepomp sneered at wills, but the old Cuddlepomp admits their utility. His wife will inherit a pittance, and his children will, in the case of her death, be next in line for the remaining crumbs. Whatever comes their way will help, but it won't resolve their struggles. Only they can do that. We can only help each other; we cannot fix anyone but ourselves.

Cuddlepomp's major regret is a sad realization that he will never fully understand anything. An old philosophical belief (it can be nothing else) holds that if you fully understand even the tiniest bit of the universe, you will understand it all. How many questions can you ask about a stone — its composition, its history, where its elements came from, how it took its shape, whether it's been thought about by others, its long-term fate, and so forth? Most of these queries will never be answered, but a complete answer to any would exceed our sciences. Cuddlepomp will not live to see these queries resolved, and he suspects that complete answers will be utterly beyond his limited powers anyway. Cuddlepomp has always known this. The young Cuddlepomp would sometimes explode awake with a sudden acute awareness that he would die, vanish, and be no more. It was terrifying. Cuddlepomp calls these awakenings *mortal flashes*. Mortal flashes decline with age. The old Cuddlepomp, far closer to death than the young, seldom has them. It's not death that is the problem. Being dead, even for an eternity, will be no different than not being born.

Did all those billions of years from the Big Bang bother you? You cannot imagine a universe without yourself because there you are, in the universe, imagining it. Death is mindless, point-of-view-less, alien to our consciousness, and Cuddlepomp suspects alien to all consciousnesses. We're born ignorant, learn enough to forage and fornicate, and then, like the animals we are, we die, removing our unique ignorance forever. It's bleak but not personal; *the universe cannot be concerned with its contents.*

Generation Ship: Review

Posted: 27 Feb 2024 21:28:57



Generation Ship

I grew up reading hard science fiction. Some of my favorite authors were Arthur C. Clarke, Robert Heinlein, Isaac Asimov, Ray Bradbury, Larry Niven, Frank Herbert, and Jerry Pournelle. All these writers created technically plausible stories with heavy doses of science. I've always held that science fiction needs some *actual science* to distinguish it from fantasy. As the genre matured or degenerated, depending on your viewpoint. The requirement for legitimate science was relaxed. It started with rebranding science fiction as *speculative fiction.* Speculative fiction is mostly fantasy written by authors who are either hostile or indifferent to science. However you label it, the best science fiction is magnificent. Orwell's *1984* is so great that the *effete literati* no longer consider it a lowly sci-fi novel. It's beyond that. How we classify great stories is irrelevant; they're great stories.

Sadly, for the not-so-great stories, genre matters. This is why bookstores sort their contents into handy customer-friendly categories like Young Adult, Manga, Fantasy, Non-fiction, etc. Young Adult readers are looking for a particular story; they don't want to waste their time and money on book-nag-recommended material. Book nags have been around for eons. If you were chastised as a child for reading comic books, you know what a book nag is. No matter your reading tastes, book nags will deem whatever you read low-brow, time-wasting, brain-rotting drivel. I don't know what book nags read. It's certainly not graphic novels, westerns, romances, mysteries, how-to-manuals, or anything that might entertain or inform. My advice is to ignore book nags and read what you like, and I like a good dose of hard sci-fi now and then.

My problem, and probably yours, is finding hard, plausible sci-fi in today's market. Science fiction has changed in recent decades, and not for the better! Nowadays, it is

far more important for alleged sci-fi novels to have diverse characters and authors than, you know, good stories. Just sample contemporary book cover blurbs. They're likely to go on about how the author is gay, black, or trans and how they bravely manifest their truth in their stories. I'm pretty sure Clarke was not manifesting his truth when he wrote *Rendezvous with Rama*. He was telling a great story, and frankly, you could put a gay chick in *Rama,* and it would still be a great story. On the other hand, if you replaced the gay and trans characters with normies in many *au courant* sci-fi novels, you would seldom be left with a great, or even readable, story. Chick substitution does not go both ways.

And that brings me to Michael Mammay's *Generation Ship* (GS). I hesitated when I spotted *Generation Ship* in our local *Barnes and Noble*. I liked the straightforward, nonpretentious title and the subdued cover art, but I was put off by the preamble blurbs that described GS as a riveting, hard sci-fi political page-turner. Anything political is toxic these days. It's bad enough that I must endure orange morons and demented presidential imbeciles in real life. I don't want them in my fiction unless they are dying horrific, torturous deaths. I read a few pages of GS in the store, and then I bravely (do we ever do anything that isn't brave?) decided to risk it. I'm glad I did. *Generation Ship* is a riveting political page-turner, And here's the kicker: the book would be worse without the politics.

Generation Ship is about a giant spaceship on a 2½ century-long interstellar voyage to a potentially habitable planet spotted by enormous Sol/Earth system telescopes. Everyone onboard GS was born on the ship, and the original crew has long since died. At least three generations have lived and died on the ship, hence the name generation ship. At this point in the story, the sci-fi is grade-A hard. There are no magic wormholes, faster-than-light engines, cryogenic hibernation pods, antimatter drives, and so on, except for the working fusion propulsion powering the ship; we know how to build a GS right now. Good sci-fi extrapolates actual science. Forecasting fusion propulsion is a leap but a rational one. Wielding wormholes is magical thinking.

The story begins with the ship approaching its long-targeted destination. The author uses the day-by-day arrival countdown to drive the story. The shock of arrival triggers widespread reappraisals of the ship's many rules and norms. For over two centuries, the inhabitants of GS have lived and died by a rigid set of rules designed to keep the crew and ship smoothly functioning in a severely resource-constrained and deadly situation. Among the many laws we might object to is the requirement that crew members voluntarily euthanize themselves at seventy-five years of age. It sounds harsh, but let's face it. Seventy-five-year-olds are usually resource deadbeats; they consume more than they produce. This is true even back on real Earth: consider

Biden and Trump – yeah, that seventy-five-year age limit isn't looking so bad, eh?

The GS story kicks into high gear when one seventy-five-year-old woman decides it's unfair and unjust to self-euthanize with arrival just months away. Why can't I live to see the planet I have spent an entire lifetime attempting to reach? Besides, the rules *are for travel between stars*; they must change when the trip ends. I'm going to stop here. Ruining good books should net you prison time, and *Generation Ship* is excellent hard sci-fi: enthusiastically recommended.

Math Eras

Posted: 17 Mar 2024 18:36:37

As part of a larger project, I needed a simple timeline for the history of mathematics. I kicked around a bunch of candidates but settled on the following:

1. Old Tally — before 4000 BCE
2. Bronze River — 4000 BCE to 1001 BCE
3. Early Philosophic — 1000 BCE to 301 BCE
4. Euclidean — 300 BCE to 599 CE
5. Medieval Zero — 600 CE to 1499 CE
6. Gutenberg — 1500 CE to 1799 CE
7. Protoformal — 1800 to 1949
8. Turing — 1950 to present
9. AIM — future, when AIs eclipse human mathematicians.

Like all timelines, this one is entirely arbitrary. Its primary function is to impose document structure and provide handy bins for sorting material. While this timeline is arbitrary, it is not without justification. Here are my admittedly questionable reasons for each period.

Old Tally — before 4000 BCE

Only a handful of surviving authentic mathematical artifacts can be dated to periods before 4000 BCE. The most famous are notched bones like the Ishango and Lebombo bones. In addition to bones, we also have artworks and tools showing people in the Old Tally period share our affinities for symmetry and balance. We also find many earthworks and impressive monuments that reflect a basic grasp of geometric principles. You cannot infer much about Old Tally mathematics from such artifacts. Still, Old Tally people matched, counted, estimated distances, compared quantities,

and appreciated symmetries long before anything resembling "civilization" appeared. Tally is another word for counting. There has never been a human culture without some form of counting, so it's safe to assume our long-dead ancestors counted.

Bronze River — 4000 BCE to 1001 BCE

The Bronze River Era gets its name from the many prominent Bronze Age civilizations that sprung up near major historic rivers, with the most famous being the Nile, Tigris, Euphrates, Indus, Yellow, and Yangtze Rivers. During the Bronze Age, Egyptian, Mesopotamian, Indic, and Chinese cultures developed sophisticated, practical problem-solving mathematics. Bronze River mathematicians dealt with many accounting, surveying, and astronomical calculations. They tackled area and volume calculations, solved some linear and quadratic equations, extracted roots, handled fractions, and computed loan interest. The largest number of surviving Bronze River mathematical artifacts are Mesopotamian. Mesopotamians wrote on durable cuneiform tablets, and many thousands of them have survived. Hence, we know more about their mathematics than other Bronze Age civilizations, but what survives from the others indicates comparable levels of sophistication. I suspect there was more contact between Bronze Age people than previously supposed. Humans are highly mobile animals that cannot resist the urge to see what's over the horizon.

Early Philosophic — 1000 BCE to 301 BCE

The seven centuries from the end of the Bronze River to the Euclidean era saw something new develop in mathematics: an emphasis on *philosophical* proof. Proof, in an almost modern programming language debugging sense, had long existed in mathematics. Mathematicians of earlier eras constantly looked for ways to verify their work. They checked and double-checked their calculations. They came up with general schema to justify their complex methods and, in some cases, produced convincing proofs of various assertions. The notion that proof was a unique invention of the ancient Greeks is misleading. Their unique innovation was more subtle. Debugging proof focuses on exposing local errors and not constructing coherent, logical wholes. The yearning for logical wholes is a philosophical tendency, not a practical one. You do not need logical wholes to solve problems.

The poster boys for insisting on logical wholes were the Pythagoreans and their titular sage, Pythagoras. Recently, Pythagoras has been denounced by ignorant harpies and diverse idiots as an uber-dead white male who stole the work of the BIPOC'ky brown and passed it off as his own. This, in Pauli's immortal words, "Is not even wrong!"

We know very little about the alleged person Pythagoras. We don't know his skin color, his sexual orientation, his penis length, or perhaps *her* vagina depth. If you're going to slander someone, do your homework. But all of this woke whining doesn't matter. Pythagoras may or may not have existed, but the philosophical school taking his name did! The Romans were bitching about the Pythagoreans centuries after Pythagoras's alleged lifetime, so the school's attitudes and outlook certainly had an impact. We know this because the very word "mathematics" derives from one of the Pythagorean schools. The Pythagoreans and others persuasively argued that it wasn't enough to check your homework; a deeper and more comprehensive understanding was required. You needed coherent, logical wholes. This change in outlook elevated the status of mathematical proof. It was no longer a check or test of useful methods; it became the rarest of things: a *philosophical necessity*[145].

Euclidean — 300 BCE to 599 CE

Once the philosophical necessity of proof was established, it was probably only a matter of time before someone constructed a coherent, logical whole. Euclid turned out to be that person, and his *Elements* was the logical whole. While there are arguments about how much material in the *Elements* dates to 300 BCE and how much can be accurately attributed to its author, there are no arguments about the importance of this singular work. The *Elements* is easily the most influential scholarly work in history. Its impact is only exceeded by sky fairy manuals like the Bible, Koran, and Mahabharata. Euclid was the first, as far as we know, to organize a large body of results into a systematic, logical, deductive structure. You can quibble about the *Element's* defects and omissions (and many have), but the *Elements* created the theorem-proof world that mathematicians still live in. The book's impact was so overwhelming that its style and conventions set the tone for centuries.

Medieval Zero — 600 CE to 1499 CE

The Medieval Zero period was characterized by the rise of Algebra by figures like al-Khwarizmi, the global spread of Indian place value numbers, and the emergence of Zero. In the modern world, two numbers, One and Zero, reign supreme. We could not do without them. It's ironic that perhaps the most important of the two, Zero, took so long to be appreciated. But, better late than never.

[145] Philosophy is rarely associated with necessity.

Gutenberg — 1500 CE to 1799 CE

It may seem strange to name a mathematical era filled with giants like Descartes, Fermat, Newton, Leibniz, Laplace, Euler, Bernoulli, and many more after a printer, but the giants would not have been so gigantic without lowly movable print. You can see the impact of printing in the enormous increase in mathematical documents after 1500. This is evident in The Mathematical Treasures list maintained by *The Mathematical Association of America*. The bulk of the entries appeared after 1500.

Protoformal — 1800 to 1949

It took me some time to come up with a polite name for this period. I wanted to call it the age of bogus rigor, but that's a tad mean. From 1800 until well into the 20^{th} century, mathematicians were anal about rigor. The advent of epsilontics and the driving out of the infinitesimals had to happen. You cannot live in a theorem-proof world without solid proofs, but in their zeal to banish all sloppy thinking, they discovered that perfect formal proofs are horrendously long and yet hopelessly incomplete. The idea that all mathematics could be consistently constructed from a small set of axioms and a sufficiently powerful set of deduction rules was shown to be impossible. Some philosophical necessities cannot be realized.

Turing — 1950 to present

Naming our current era after Alan Turing was a no-brainer. Computers have utterly transformed our world. Many mathematicians, being elite establishmentarians, were slow to adjust. Some were on board almost as soon as computers became available, but most held back. This is changing. While it's not feasible to formalize vast swathes of mathematics by hand, it's entirely possible with computers. We're currently witnessing another shift in attitude about what's an acceptable proof. In a few more years, mathematicians will be expected to formalize new theorems. It will be seen as a tightening up of the peer review process. It might even become a requirement for publishing in major journals. It will be a brave new world.

AIM — future, when AIs eclipse human mathematicians

If you've been paying attention, you've probably noticed machines slowly chipping away at human intellectual benchmarks. I'm old enough to remember people saying machines would never beat the best Chess players. Wrong. Then it was Go. Wrong. Then *Jeopardy*. Wrong. Similarly, they would never be able to converse fluently.

Wrong. With each advance, the goalposts are moved. Now, machines must demonstrate consciousness (we can't do this for ourselves), speak a few dozen languages, play many musical instruments, write novels, and prove deep theorems before we call them intelligent. We are all in a state of AI denial, and mathematicians, despite "being smarter than average bears," are not exempt. I don't know when AIs will eclipse human beings at finding and proving theorems, but I suspect it's only a matter of time. It may be centuries (unlikely), but it will happen[146] and when it does, we enter the **AI M**athematician or AIM age.

Frankenstein Weather

Posted: 28 Mar 2024 19:19:49

In my old age, I've picked up a nasty habit: a fondness for literary biographies. Recently, I've enjoyed books about Keats, Shelley, Byron, Blake, Twain, Orwell, Tagore, Joyce, and others. It's a strange affliction — utterly without rational basis, lacking the danger of street drugs, but like drugs delivering peculiar damaging delights. Last night, while enjoying Andrew Stauffer's new Byron biography, *Byron a Life in Ten Letters*, I revisited the famous *Frankenstein* origin story. In the summer of 1816, Lord Byron, Percy Bysshe Shelly, Mary (Godwin) Shelly, John Polidori, and Claire Clairmont spent a long, extremely dark, and rainy summer together near the shore of Lake Geneva in Switzerland. On one of that summer's dark, gloomy days, they held a "Who can write the best horror story contest." The winner of the contest was, of course, Mary Shelley with her epic *Frankenstein*.

If you've never read *Frankenstein,* get off your damn phone or computer, get a copy of the book and read! The novel is orders of magnitude better than all the movies and TV shows it has inspired. Ironically, the visual *Frankenstein* derivatives deform Mary's masterpiece like her novel's protagonist deformed body parts. Trust me, the book is another country; if you've never visited, you don't know *Frankenstein*.

As Stauffer pointed out, Frankenstein wasn't the only iconic monster to emerge from that bleak summer. Byron and Polidori created the urbane, upper-class, blood-sucking, murderous bad boy that Bram Stoker later elaborated into the *Dracula* we love today. So, shitty weather helped create both *Frankenstein* and *Dracula*. I already knew this. The Shelley *Frankenstein* story is so famous a *Doctor Who* episode is based on it. What I didn't know was why the weather of 1816 was so shitty. Stauffer's book connects the dots.

[146] I am assuming we don't nuke ourselves.

> … a massive eruption of the Tambora volcano in Indonesia the previous year was the cause of the extraordinarily bad meteorological conditions. According to Galen Wood, "The sun-dimming stratospheric aerosols produced by Tambora's eruption in 1815 spawned the most devastating, sustained period of extreme weather seen on our planet in perhaps thousands of years."

The summer of 1816 was later called the "Year without a summer." Crops failed everywhere, and tens of thousands starved. It was a grand little mini-apocalypse, sure the body count was high, but we got *Frankenstein* and *Dracula*.

So bad weather is good for literature. Good to know! If one big volcano can play midwife to *Frankenstein,* imagine the literary canon that will derive from (say it in a deep, scary monster voice) *Global Climate Change*! As cities sink beneath rising seas, crops fail, deserts expand, billions move, and resource wars erupt, authors everywhere, perhaps even AI authors, will be inspired. Hey, the world might burn, but boy, we will see some banger literature.

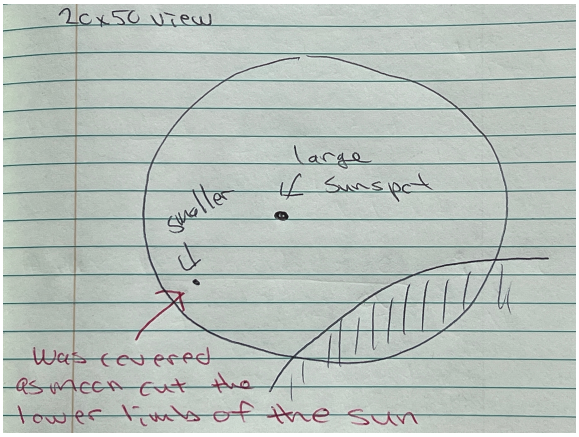
The First Total Solar Eclipse of the 21st Century

Posted: 25 Apr 2024 22:29:07

Earlier this month (April 8, 2024), a total solar eclipse cut through Mexico, the United States, and Canada. Total solar eclipses are paramount spectacles. It's unlikely you will see anything else in your short, pointless life that will match a total eclipse. Thus, whenever an eclipse passes nearby, you should endeavor to place yourself in the moon's shadow and bathe in its awesomeness. So, I am ashamed to confess that I missed April's totality. Oh, I did observe a *partial* in my Idaho backyard (we were well off the path of totality), and even partials are fine sights in solar binoculars. On eclipse day, two large sunspots were visible in my solar binoculars. I dutifully noted them with a sketch in my *Stellar Register*. Like many amateur astronomers, I maintain an observer's log.

While updating my notes, I read my log entry for my first total solar eclipse. My first total was special, even by elevated total eclipse standards. It was the first total of the 21st century. I date the start of the 21st century from this eclipse. Here's my slightly edited log entry. Pictures from this eclipse trip can be seen by clicking here.

> *Date: June 21, 2001*
> *Site: Zambian schoolyard 89.9 km from Ndeke Hotel*



Stellar Register log book sketch of April 8, 2024 partial eclipse from my Idaho backyard.

Time: 12:00 — 4:00 pm local
GPS Waypoint: ZECLIP
South Latitude: 14.86177 (degrees)
East Longitude: 27.70558 (degrees)
Elevation: 1158 meters

The eclipse was perfect! I have a feeling I could see the next hundred eclipses and not top today.

To begin, the weather was perfect. We left the Ndeke Hotel at 8:00 am. Before leaving, I looked around the sky for clouds, but none could be seen. The sky remained absolutely clear all day. Better eclipse weather could not have been catered. The bus ride to the schoolyard *Civilized Adventures* had arranged for us was long and dusty. We took the "great northern road" out of Lusaka. About 60 kilometers north of Lusaka, we turned onto a dusty, unpaved road. For the next 2 ½ hours, the bus slowly crept the remaining 40 kilometers to the school. All this effort bought us about twenty seconds of totality. The eclipse was visible from the Lusaka hotel grounds, and until I saw totality, I wondered if this ride was worth it.

It was!

We arrived shortly before noon. School kids and their teachers carried their desks out of the school and set them up under a large tree for our lunch. We quickly ate lunch and then waited for about one hour. At 1:39:52, the moon touched the sun's disk. I counted down the seconds on my GPS, then looked up through my pane of welding glass and saw the moon's disk cut into the sun.

The moon steadily advanced over the sun's disk for the next hour and twenty minutes.

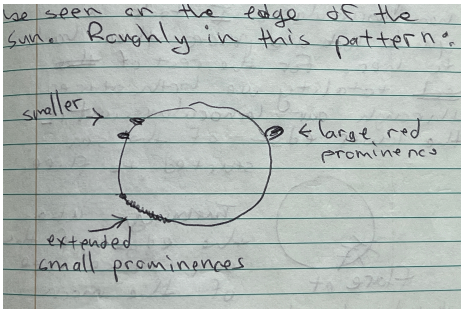


Casting sun crescents during the eclipse onset. Click image for a larger version.

The quality of the light slowly changed. A soft white evening light filled the soccer field as most of the sun's disk disappeared. People held up their interlaced fingers and cast crescents on the ground. Some people poked holes in white cardboard sheets and projected crescent letters on sheets and t-shirts. ZAMBIA 2001 was a favorite.

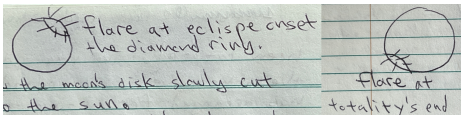
As totality approached, Mali and I stood together with others on the soccer field and watched the sun disappear behind the moon with our eclipse glasses. At totality, people started yelling. I ripped off my eclipse glasses and looked up as the last brilliant spike of sunlight was swallowed up. In its dying flash, a brilliant ring of light with a huge flare zipped over the sun. People cried, "The diamond ring." It did look like a diamond ring. On the ground, we saw the famous "shadow band" ripples of light. Then, the glare was instantly gone, leaving a perfect black hole in the sky surrounded by the purest white corona.

Through binoculars, totality was awesome. The corona was streaming away from the sun, and brilliant red prominences could be seen on the sun's edge. Roughly in this pattern:



My sketch of prominences for the June 21, 2001 eclipse. Click for photograph.

Looking around the sky, which was as dark as twilight, I could see three objects: Jupiter, Sirius, and Saturn to the east. There was a sunset glow low on all horizons.



My rough sketches of the flares at the start and end of the June 21, 2001 eclipse.

Mali started yelling about the prominences and handed me her binoculars. I took a quick look and passed them back to her. For the rest of totality, we both stared through our binoculars until the lower edge of the sun started to flare.

When the sun's edge broke free of the moon, I turned away and looked at the crowd. It is amazing how bright the smallest sliver of the sun's disk is. When just a dot of the sun returned, it was instantly daylight again, a weird blue dim daylight but still daylight. I couldn't believe that over three minutes had passed. They were the shortest three minutes of my life.

Two words about total solar eclipses: **HIGHLY RECOMMENDED!**

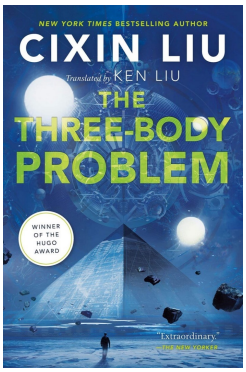
Also, 20 on a scale of 10! Three thumbs up! Really better than sex!



Stamp celebrating the June 21, 2001 eclipse. The first total solar eclipse of the 21st century. Click for image gallery.

My Three-Body Problem

Posted: 29 Apr 2024 18:22:35



I have a three-body problem. Today, while wandering in our local *Barnes & Noble,* I spotted, for the nth time, a boxed set edition of Cixin Liu's *Three-Body Problem* (TBP). Once again, I resisted the urge to snatch the books off the shelf, pony up whatever B&N was asking, and ferry TBP home for a *proper* reading. Yes, I haven't read this widely lauded epic! If I hadn't sat through two TBP TV series, I would have succumbed to temptation, but my Three-Body problem reared its ugly head and circumvented my purchase. My Three-Body problem is simple. I watched the movie before reading the book. *Books never ruin movies, but movies do ruin books.* Sadly, I suspect the *Three-Body Problem* has been irreparably wrecked by the dismal TV series I foolishly watched. Don't let this happen to you! *Never see the movie before reading the book.*

Let's consider some cases.

1984: There have been several attempts to make a 1984 movie; they are all horrible. The book is a goddamn masterpiece that has only grown more relevant with time. I'm grateful I read *1984* a few times before subjecting myself to its pathetic film versions.

Brave New World (BNW): I liked BNW more than *1984* in my dissolute youth. But I think it's safe to say that *1984* is the superior work. *1984* is a timeless condemnation of leviathan totalitarian states. It will never lose its punch. *Brave New World,* on the other hand, seems dated and silly. As an adolescent, I enjoyed the sex in the novel and was intrigued by the scientifically engineered hierarchical society. I pictured myself as an *alpha* banging a long line of *beta* broads. BNW is still worth dipping into, especially if you're a horny teenager, but I would strongly advise avoiding the recent BNW TV series. It reduces an already adolescent book to drivel.

Frankenstein: Don't get me started. *Frankenstein* is perhaps the most thoroughly debased masterpiece in the English language. Every film and TV version of *Frankenstein* utterly misses the depths of the novel. In my ideal world, the directors, producers, actors, and other *hollyweirdos* that have sodomized *Frankenstein* would be tried for crimes against literature and summarily canceled. Stop watching *Franken-stools* and read the fucking book.

Ulysses: Why anyone would even attempt a film adaptation of this book is beyond me. *Ulysses* is a work of pure literature. You must read it – more than once – to even begin to appreciate its stunning wordplay. I suspect Joyce purposefully created a work that cannot be truncated, translated, or ever turned into a movie. When he was writing *Ulysses*, movies were already butt-fucking books. I'm sure Joyce noticed such depravities and strived to immunize *Ulysses* from "visual" treatments. Nevertheless, some idiots couldn't resist making Ulysses the movie—abstain from such abominations.

The Bible: Yeah, let's go there. How many movies, TV shows, and series have been ripped from *The Bible*? How many are any good? Even entertaining epics like Heston's "Moses Moses" suck like Satan sodomizing Solomon. Considering the deluge of wretched Biblical visual adaptations, maybe the Muslim threat to go full jihad on your infidel ass if you dare "visualize" Mohammed isn't such a bad idea.

As you can see, I'm not a fan of turning books into movies. In most cases, the movie is a low-rent facsimile of the book, but there are *decent* adaptations.

Dune: The recent *Dune* films are decent. They're a serious attempt to depict a vision of the novel. I enjoyed both, but I'm glad I read the book first. The book conveys a sense of time that is missing in the movies. The films also change things, perhaps unavoidably, so again, read the book first.

The Lord of the Rings (LOTR): LOTR has the finest visual adaptation of any epic. I am excluding the *Hobbit* horrors that followed and confining myself to the standard, well-edited theater release, not the bloated extended version. Jackson and his crew did a fine job creating three immensely entertaining films. I loved all three and agree that LOTR is the "best trilly" ever. But the books are still better. Trust me, it's not even close.

Finally, believe it or not, extremely rare films are better than the book. Many consider the classic Judy Garland *Wizard of Oz* to be better than Baum's book, but even here, respected critics like Martin Gardner disagree. It's just better to always read the book first.

All of which brings me back to my Three-Body Problem. I've polluted my mind with two TV series. I watched a competent Chinese production and Netflix's hack job. The Chinese version is loaded with predictable CCP ass-kissing but still manages to outclass Netflix's woke wet work. The Netflix version changed the sex, race, and nationalities of major characters without any artistic justification! Jackson had to leave a lot out when making LOTR, but he didn't rape central characters. The

Netflix TBP tools are like the deranged climate jerk-offs that have been throwing paint on museum paintings. Given such contempt for source material, I must ask myself, "What the hell else is missing?" The TBP novels have been called *cerebral*. Cerebral means you must think — something that is utterly beyond Netflix nitwits. Now, I must read TBP to cauterize the wounds left by the TV series, and instead of a joyous exploration of a new universe, it will be a homework assignment: a tedious triage trilogy.

Evelyn's Death

Posted: 02 May 2024 17:36:43

Next week is the 11th anniversary of my mother's death. It seems like yesterday, but a decade has passed. In that decade, my father Frank, my aunt Alberta, my wife's mother Mahin, my good friend Carl, and many others have died: an entire generation has fallen. Those of us still alive have also changed. My first wife is in memory care, the health of some family members and in-laws have taken concerning turns, and many of us are poorer, less hopeful, and more resigned to our fates than ever. The following is an entry I made in my *Personal Photography Diary* shortly after my mother's death. I sporadically cultivate many diaries, logs, notebooks, and this blog. Sorry, I cannot help myself. Most of what I write eventually embarrasses me, but this diary entry is a rare exception.

It's been over a year since my last PPD entry—this diary, like my lifelong photographic affliction, waxes and wanes. For most of 2013, it's been a long, painful wax. Much has happened. The biggest change in my life was the death of my mother. I wrote about this in my blog: see Evelyn's Eulogy. Mom died almost one year after my last entry. The annular eclipse trip to Page, Arizona, was my last outing with her. Of course, I didn't know it at the time.

What I have said about this publicly is what I felt people could accept. You cannot be a completely self-centered shithead while people are mourning. My dad, brother, sister, wife, in-laws, and *outlaws*[147] have complex feelings about Mom. We all loved her, and we were left stunned by her sudden, wretched death from brain cancer. I've seen four grandparents, four outlaws, and two friends die of various causes, but Mom's death was the worst of the lot.

[147] "Outlaws" is a term I use for divorced former relatives.

Her cancer was discovered one morning when she started babbling while my parents were driving home from grocery shopping. Dad couldn't understand a thing she was saying and wisely called 911. Everyone's first thought was a *stroke,* but further examination led to the discovery of a "growth" in her left hemisphere near her brain's speech centers. She was operated on. Most of the tumor was removed, along with part of her speech centers. From that day on, she couldn't read, write, speak clearly, or understand much of what was said. Her cancer surgery turned her into a different person. After assessing the tissue removed from her brain, she was diagnosed with *stage 4 glioblastoma multiforme,* just about the worst cancer you can get. This cancer is so deadly it's nicknamed The Terminator. *Glioblastoma* makes Arnold's *Terminator* look like an underachieving pussy-robot. Nobody escapes *glioblastoma multiforme;* it's just a question of how long it's going to take to kill you and how much you suffer while dying.

In Mom's case, it took two and a half months, and her last month was hell incarnate. When I found out what she had, I did a little Googling and quickly found statistical *survival curves* for her cancer. They were so depressing that I stopped reading and decided to be hopeful. I knew it was irrational, but there were no other options. I didn't expect her to make the *median survival time* of thirteen months. That figure came from younger and healthier patients. Mom had a long list of ailments: two knee replacements, Crohn's disease, dangerously low blood pressure, and obesity. She had almost died six years earlier from a terrible Crohn's flare-up. She was in no shape, either mentally or physically, to fight her cancer. That's probably why she so calmly absorbed the bad news while my dad freaked out.

When people find growths in your brain, it's never good news, but until the verdict came in, I don't think Dad seriously thought Mom was going to die. We never *really* know the people we have known all our lives. They can surprise us right up to their last breath. Dad surprised me while Mom was dying. He chose to fight and was reluctant to curtail treatment right up to the end. He kept encouraging her to stick with her chemotherapy and radiation treatments despite the discomfort and inevitable pointlessness. Two weeks before mom died, Dad and I sat with one of her Oncologists. He gave us the "it's hopeless talk" and advised we transfer Mom to hospice. Dad didn't want to hear it and complained afterward about how "that Jewish doctor just wants to give up." Dad has frank opinions but curtails them. He was mad, frustrated, and still getting used to Mom's situation. We all were.

I was taking PTO to see Mom. I was going to wait, but my ex-wife Ruth had flown out shortly after hearing about Mom to help take care of her and say goodbye. Ruth had just lost her younger sister Miriam to ovarian cancer in January and was taking



The last picture I took of my mother. She is lying in the Bozeman Deaconess Hospital, dying of brain cancer. Her last month was a nightmare of futile medical treatments. In retrospect, it would have been better to have done nothing. She lived two and a half months after we got her diagnosis. All the radiation and chemo were a waste of time and just made her remaining days uncomfortable.

time off. Miriam was only fifty-four, and her death was a shock to all of us. Then, news of my mother spread. Ruth always liked my parents more than she liked me and decided to make the trip from Ontario to Montana one last time. Shortly after she saw Mom, she got me on the phone and said I better get out there; it was worse than I thought, and Ruth, a brilliant and experienced palliative care physician, knew it. I cried twice during this entire ordeal. While I was on the phone with Ruth and after Mom died in her living room. Ruth didn't have to do what she did. I will always be grateful for her kindness when it mattered the most.

I made quick arrangements and flew to Bozeman. I had been warned, so I wasn't shocked when I saw Mom, but, as I said, she was a different person. The brain surgery had robbed her of the resources she most desperately needed. Mom was always a courageous and capable woman. She met her trials with guts and never flinched or whined. Facing certain death is the most challenging thing we will ever do, and Mom had to face it with part of her brain missing. She was fearful, confused, depressed, and so sad. It still breaks my heart to think of it. I did what little I could. Mom didn't want to be alone, so Steve, Aileen, and I took turns sleeping in her hospital room.

It wasn't much, and I'm still mad at myself for wasting the last hours of her life. I did not rise to the occasion. We didn't have deep end-of-life conversations; we didn't start a terminal book club. Mom struggled to speak and understand. She wasn't up to sustained conversation. We watched a little TV; she still enjoyed *The Big Bang Theory*; we helped her in and out of the bathroom and called her nurses to adjust IVs. A few days before I flew back to St. Louis, Mom was moved to a nursing home. Again, she wanted to go home, but Dad resisted. I meekly acceded, and I still regret it. She just wanted to be home.

Before I left, my son Jacob flew out to Montana. He had dropped out of Carlton and

was fighting his own battles, but I insisted he see his grandmother one last time. He stayed with her in the nursing home, and Mom said he took good care of her. I had to get back to St. Louis. I was a "key resource" on a late project. Why the hell this mattered will forever trouble me. I expected Mom's condition to stabilize, and I was planning to come back in a month or so. I thought she would last longer, but I was utterly wrong.

While I was back in St. Louis, Mali finally settled her demented mother, Mahin, in a suitable nursing home in Toronto and flew to Montana. She was furious about my mother's treatment. It would have been better if Mali had gone sooner because she would have fought for my mother to go home. Except for my brother Steve, the rest of the family was too comfortable taking medical advice. Mom's situation was hopeless. Her time was short. "Why don't you do what she wants?" Mali repeatedly asked. From the start of this ordeal, Mali was completely in Mom's corner and was angry at the rest of us for not fighting for her. Mom finally came home two days before she died. They set her up in a bed in the living room. She was seldom awake and, as a final injury, had lost her sight. Mali begged me to forget about whatever bullshit I was doing at work and fly back. My boss, Cassandra, echoed this and told me to go.

I made it back to Bozeman at noon. Mali met me at the airport, and we went straight home. Mom was in the middle of the living room. It was bright and sunny. Alberta, her sister, had made it from Seattle and was sitting on a couch beside her. The rest of the family, Steve, Sue, Brianna, Amanda, Brianna's babies, and Dad were milling around the house. Mom was asleep and struggling for breath. I rubbed her badly IV-bruised arm and told her I was there; she seemed to breathe a little smoother. I am unsure if she heard me, but Mali insists she did. Shortly after my arrival, she died. It was like she was waiting for me. I retired to a chair in the corner of the room and burst into uncontrollable sobbing. This was the second time I cried.

Shortly afterward, the palliative care nurse came, officially declared Mom dead, and called the funeral home. The funeral home people, a young couple that had recently bought a funeral home in Livingston, came and gently placed Mom's body in a dignified body bag. As they wrapped Mom up, Mali burst into tears, "I don't like this," she cried. She didn't want Mom taken out of her beautiful home. To this day, she can't stand thinking of Mom's home without her. Mom, wrapped up like a mummy, was loaded into a plain van. The van doors were closed, and she was driven away. I don't remember death dates, but May 7th, 2013, will stick.



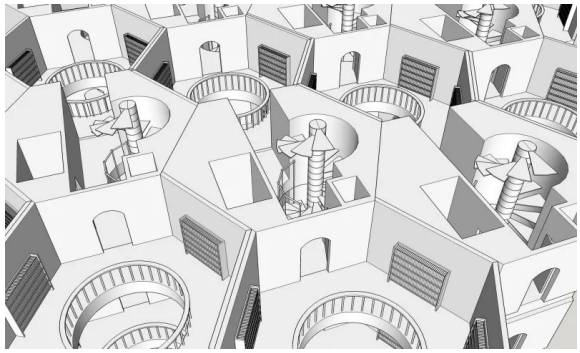
Evelyn Violet (Eggar) Baker August 2000. This was taken before a deluge of medical problems beset her. This is the way most of us picture her. We miss you, Mom.

A Note Regarding the Contents of the Total Library

Posted: 22 May 2024 21:30:38

In Jorge Luis Borges's 1939 essay *The Total Library,* we catch our first glimpse of the *Library of Babel*. Borges, like many writers and artists, kept revisiting favorite themes. *The Total Library* of 1939 is best considered a *Library of Babel* construction site. The foundation crews are busy excavating whatever esoteric material will support the library, and the future librarians are engaged in collecting and indexing the books that will fill the seemingly endless shelves of the *Library of Babel*.

In this same 1939 essay, Borges mentions that you will find valid proofs of Fermat's Last Theorem in the vast combinatoric universe of the *Total Library*. In 1939, Fermat's Last Theorem was a conjecture. Andrew Wiles found the first proof in 1995. Borges got lucky. Fermat's Last Theorem turned out to be a *theorem*. And yes, Wiles' 1995 proof and gazillions of alternate proofs are indeed somewhere in the *Total Library*. What would have happened if Fermat's Last Theorem was invalid? For example, Thomas Hobbes and John Wallis engaged in a multi-decade 17th-century feud over squaring the circle. Squaring the circle is an ancient problem in Euclidean Geometry. The problem is simple to state. Construct a square with exactly the same area as a given circle using only the classic tools of an unmarked straightedge and compass. In



See A USEFUL FICTION for more information about the Library of Babel floor plan. Also, check out the delightful site `libraryofbabel.info` if you want to browse in the Library of Babel.

perhaps the most erudite and steadfast display of cranky hubris in history, Hobbes put out one invalid circle squaring proof after another that Wallis gleefully eviscerated in that delightful 17th-century warring pamphlet style. Circle squaring is impossible. When Hobbes and Wallis were squabbling, the problem was still open; it wasn't shown to be impossible until the 19th century, long after both men had died.

However, the question remains: Will Hobbesian-style circle quadrature proofs exist in the *Total Library*?

We will find many invalid Hobbesian quadrature proofs. We will also find all of Wallis's commentaries that point out exactly where Hobbes screwed the geometric pooch in each one. We will also find every other crank-created circle quadrature and innumerable refutations thereof. Broadening our search, we will find this humble blog post. And you, dear reader, if you kindly comment, your comment will be in the *Total Library,* too. But, in the vast universe of *Total Library* gibberish, we won't find a single valid circle-squaring proof. *Mathematical impossibility is absolute. It even rules in imaginary realms.* So, the *Total Library* is not quite total; it cannot contain what does not exist.

Tiny Universe Syndrome

Posted: 28 May 2024 20:56:11

I sat through Jennifer Lopez's new Netflix movie *Atlas* the other night. *Atlas* is what I call generic low-IQ science fiction. It sports many sci-fi elements: evil AIs, good AIs, warm heroines (Jennifer is way too old to be considered *hot*), robots, spaceships, space marines, explosions, and ridiculous apocalyptic plot lines. *Atlas* has been thoroughly roasted online. Many are calling it a woke disaster. I'm not one of those people. Yes, *Atlas* is silly, cartoonish, ill-conceived, lazy, and unimaginative, but

if you look around, you'll see that's typical for phone-it-in sci-fi movies. For every *Arrival* or *2001,* there are scores of braindead unobtanium promethean abominations. I had low expectations when I pushed *Atlas's* play button, and things were unfolding pretty much as anticipated, i.e., I was pleasantly pissing away two hours watching CGI robots bash each other to smithereens until my stupefied brain registered an unfortunate throwaway *sentence*. This sentence wrecked the already marginal *Atlas* experience and forced me to write this rant.

What set me off?



Jennifer pursues evil AIs in a tiny Universe.

I'm not issuing spoiler alerts. Low-IQ sci-fi does not merit it. When *Atlas's* evil AI flees Earth, vowing to return for revenge, middle-aged and plump-butted Jennifer Lopez (Atlas Shepard) is tasked with interrogating (torturing actually) one of his AI accomplices to find the big bad guy. She quickly finds him in the *Andromeda Galaxy*. My inner amateur astronomer bullshit alarm went off.

So, in this sci-fi universe, we not only have interstellar travel, but we also have intergalactic travel. In case you're keeping score, sci-fi intergalactic travel is rare. It's not in the original *Dune*, *Star Trek*, *Star Wars*, or *Foundation* universes. And the reasons for this are clear; Douglas Adams said it best:

> Space is big. You just won't believe how vastly, hugely, mind-bogglingly big it is. I mean, you may think it's a long way down the road to the chemist's, but that's just peanuts to space.

A single garden-variety galaxy like our Milky Way harbors hundreds of billions of stars: plenty of stages for sci-fi plots. When you start popping from galaxy to galaxy, your stage count blows up to ten sextillion.[148] That's 10^{22} for exponent lovers. This is ridiculously vast. Even Steven King, cranking out one potboiler after another for the next million years, couldn't fill our actual universe with stories.

You might interject, "Well, John, what's it to you? Why do you care?"

I care because I like some coherence in my plots.

When the genius-level evil AI flees Earth for Andromeda, you must ask why he would ever return. If you can fly from galaxy to galaxy, why stop at Andromeda? Keep going, you dumb fuck; you have trillions of galaxies to hide in. Even plump-butted

[148] I would strongly advise learning large number words. With runaway inflation, you will need them long before global warming bakes our naked ape asses.

Jennifer Lopez can't search the entire universe. Why come back? The evil AI tells us he must return and purge humanity because we are self-destructive creatures that will destroy ourselves and everything we touch. OK, I respect that argument. We are destructive little shits, and we probably will destroy ourselves, but get a grip. We are not going to take down the entire universe.[149] Even if all our interstellar dreams come true and we spread throughout the galaxy and fuck over millions of star systems, the greater cosmos still won't notice. Trashing the universe will always be beyond the powers of naked apes.

Why doesn't the genius *Atlas* evil AI find a galaxy far, far away and wait until we destroy ourselves? He's immortal; there's no hurry. So it takes a few millennia for humans to self-destruct: big freaking deal. Why take the risk of seeking redundant revenge? This doesn't seem like genius-level AI thinking to me. I don't know why the retarded *Atlas* screenwriters dragged the *Andromeda Galaxy* into their hot mess. They probably wanted to plant an allusion; it makes people think they're clever when they catch allusions, but whatever the reason, the *Atlas* screenwriters have an acute case of *Tiny Universe Syndrome*.

Tiny Universe Syndrome is the tendency to project our tiny, overcrowded world onto the universe. It's a complete scale and imagination failure and betrays the astronomical ignorance of its hosts. *Tiny Universe Syndrome* is harmless in sci-fi potboilers, but unfortunately, it shows up in reality. If you've ever read histrionic screeds about space pollution, China taking control of the moon, or snowflakes triggered by the idea of colonizing other planets, then you've encountered *Tiny Universe Syndrome*. Recently, I had an online spat about PPR rocket exhaust. PPR is a refinement of the old Orion nuclear propulsion idea. Instead of detonating *biggly* atomic bombs to propel your spacecraft, detonate *smallish* bomblets instead. PPR *pollutes* the interplanetary medium with energetic ions, and the dolt I was quarreling with thought this was a serious problem in immediate need of UN regulation. I calmly pointed out that even if billions of PPR spacecraft were blasting ions into the interplanetary medium, it would be insignificant compared to the solar wind. Also, the solar wind works like a giant natural waste disposal system that blows ions into galactic space. This didn't matter to my opponent; he was driven by envy, not physics. You see, only a privileged few might ride on PPR rockets. This is intolerable. It's better if we all remain equitably trapped on Earth, policing our microaggressions and misgenderings until we go extinct. Given such a grim future, an evil AI genocide is a mercy killing.

[149] I am assuming the vacuum is stable.

Last Schoolboy Standing

Posted: 13 Sep 2024 20:11:42

Recently, Caryn, the wife of my old American Community School of Beirut (ACS) friend David Holladay, called me out of the blue. The instant I took the call, I knew it was bad news. She told me that David had died last February (2024). If you're wondering about the six-month delay, David and Caryn were not close. I've never met Caryn and haven't seen David since I left Beirut in the spring of 1969. After leaving Beirut, I maintained sporadic contact with David and my other Beirut school friends for over fifty years; we traded letters for a few years (this was before email and texting), but then, one by one, my old friends dropped away. And when I say dropped away, I mean died. Caryn's call anointed me, the sole survivor of my little clique of ACS Beirut friends. They're all gone!

I have mixed feelings about this. I won't deny that I'm a bit proud that I outlived them all. None of them would have relished *me* standing over their graves, but here I am. I'm also keenly aware that I'm next, a prospect I do not welcome. Mortality does not suit me. I've always had Woody Allen's attitude about death, "I don't want to achieve immortality through my work; I want to achieve immortality by not dying." Unfortunately, *not dying* isn't an option. I'll eventually join my deceased friends, but I'm hoping to live many more years and pad our average life expectancy, which, to be honest, isn't impressive. My friends died young; they clocked out at 15, 22, 51 and 70 years. I'd have to live to 200 to bring our average up to respectable levels.

Death doesn't just take away people; it kills most of their stories, too. My head is now the only place you'll find some of my friends' stories. When I die, these stories will vanish like they never happened. I can't tell all their tales, but I can pass on a few, and now that they're gone, along with their parents, many siblings, and friends, I can be frank about what I thought and felt about them. There is nobody left to insult or hurt.

I'll start with some background. In the fall of 1966, my parents sent me to the American Community School (ACS) in Beirut, Lebanon. Our family lived in southern Iran in a small town called *Agha Jari* that year. My father was a petroleum engineer. He had managed to get a job with the *National Iranian Oil Company* and succeeded in dragging our entire family from the Utah outback to the southern Iranian outback. Oil reservoirs are rarely conveniently located. When my mother first heard of Dad's Iranian scheme, we got out our world globe and spun it around looking for Iran. Americans suck at geography. When we located Iran, I could see something going out

of my mother. She was an adventurous soul, but she was already tired of following my father around. She had been following him ever since he had impregnated her with me at seventeen. My mother was just over eighteen when I was born. In the early 1950s, white Montana girls weren't supposed to get knocked up before marriage, and lucky for me, abortion was beyond the pale. So, my parents got married and started their family early. My parents and grandparents never made a big deal about my parent's wedding anniversary. They didn't want to draw attention to the short interval between my parent's wedding and my birth.

I may have precipitated my parents' marriage, but they had their reasons for getting out from under my grandparent's thumbs. As a child, I picked up on the tension between my grandmothers. My paternal grandmother Helen always felt Dad had made a mistake by marrying so young. It took her decades to change her mind. My maternal grandmother Hazel resented Helen's snooty condescension, and while they were civil, they didn't reconcile until after my grandfather Frank died in my twenties. My parents put this behind them by getting married and leaving town. My mother enjoyed their first few moves, but my father never stopped moving. I was just twelve when we were spinning the globe in Utah, but we had already moved more than a dozen times. We'd move somewhere, drill a few oil wells, maybe only one, and then move again. It was draining, and my mother was tired of it. She wasn't thrilled about moving to Iran but consented; her adventurous side won. Iran would be new and different. As for my father, he was getting a chance to follow in the footsteps of his favorite uncle, John, my namesake, who had briefly run a construction company in Iran in the early 1950s. John was booted out of Iran in 1953 when Mosaddegh was elected and nationalized British and American firms. Of course, the CIA overthrew the Mosaddegh government long before our family flew into *Agha Jari* just before Christmas in 1965.

Ex-patriot schools in *Agha Jar*i only went to the 7^{th} grade, and I was already in the 7^{th} grade when we moved to Iran. I had been enjoying my new junior high school in Vernal, Utah. It was the first time I had experienced moving from class to class. In grade school, I sat all day in the same classroom, looking at the same teacher and the same classmates, while contemplating murdering them all. I hated grade school. Yet, for a few months in grade seven, I enjoyed school. I particularly enjoyed my first encounter with basic set theory. *New Math* was in vogue those days. Nothing about *New Math* was historically new; it was more a Cold War panic than a sound mathematics curriculum, but I liked that intersections and unions on small discrete sets were so much easier than fractions. Maybe I could get into this school stuff. Then, I was dragged to Iran and plunked into a tiny single-room school. It was way

worse than my Vernal grade school. In Vernal, all my classmates were in the same grade. In *Agha Jari,* I sat with kids from kindergarten to the 7th grade. I *really, really* hated school in *Agha Jari*. My parents took note and started the process of enrolling me in ACS.

The American Community School of Beirut was a college prep school. Academic standards were very high. My class's SAT scores were well into the high 90th percentile. Most of the kids were smarter than me and would go on to outstanding careers in many fields. Astonishingly, ACS still exists (2024) and is still called the American Community School despite the never-ending trauma Lebanon has endured and is still enduring. The Lebanese, like many Middle Easterners, have plenty of reasons to hate Americans. In September of 1966, my mother abandoned me in the lobby of the ACS boy's dormitory, my new home, and then hopped in an airport taxi and drove away. She had to fly back to Iran to care for my father and siblings. I remember walking around the lobby feeling sorry for myself, but I've never been able to sustain self-pity; it takes too much energy. I decided to check things out and went upstairs to find my room.

As a lowly 8th grader, I had to climb to the top of the dormitory building. Older students were closer to the ground level. Within minutes of finding my room, I met my now-deceased friend Richard Moore. By the end of the day, I met Bjorn Hopen, and after a few days of class, I met Ned Prothro and David Holladay. Richard, Bjorn, Ned, and David were my best friends in Beirut. I remember a few others. Todd Buffa, my hated enemy, immediately comes to mind. Todd bullied us in the 8th grade, but luckily, he didn't return for the 9th grade. I don't know what happened to him. I heard rumors he was killed in Vietnam: good news, if true!

Now that they're gone, I can publicly sort my friends. Richard was my best friend. We were roommates for two of the three years we were in Beirut. Ned and David come next. I liked them equally. I hung out more with Ned than David, but David and I shared a life-altering trauma (more about that later). Bjorn was more of a *frenemy* than a friend. He was a little ingratiating backstabber who could be disarmingly pleasant and likable if it served his interests. In 1966, all five of us were 8th graders. ACS sorted students into four academic groups: A, B, C, and D. A-groupers were the smartest kids. B-groupers were smart but second-tier. C and D-groupers were average and dullards. Even ACS dullards were better than average students in public schools. ACS placed 98% of its graduates in universities; many attended prestigious schools like Harvard and Yale. Both Ned and David ended up at MIT. Bjorn, Richard, Ned and David were all A-groupers. I was a lowly B-grouper, an inferior being. Fortunately, I was also the wildest, most out of control, entertaining, and toughest of

our little group. I made lifelong impressions on my friends and many people I barely knew at ACS. And now that I am the last schoolboy standing, who can say otherwise. I'll finish this tale by relating what I know of my friends' deaths in the order they died.

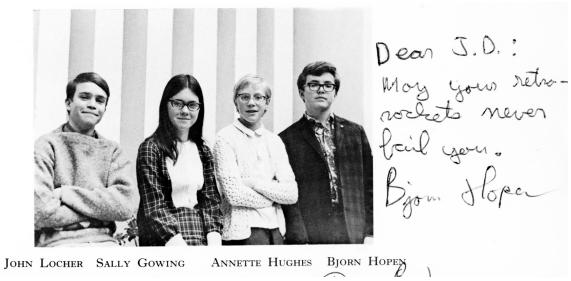
Bjorn was the first to go.

In 1969, my family left Iran and moved to Edmonton, Alberta, Canada. I was sixteen years old and coming up on Vietnam draft age. While I never discussed the draft with my parents, I suspect keeping me away from the draft, while not their primary consideration, was probably in the back of their minds. A lot of Americans sat out the draft in Canada. I registered when I turned eighteen, but I wasn't being heroic or stupid. When I registered, the draft was running like an insane weighted lottery. When you registered, you were given a number that correlated with your chances of being drafted. Legal American residents of Canada were assigned numbers that rarely came up. None of my American friends in Canada were drafted, and I dodged that bullet as well. I'm still unsure what I would have done if I had been drafted. I might have been stupid enough to go, remember B-group, inferior being.

I first read of Bjorn's death in one of Ned's letters. We all wrote long, rambling, handwritten, insecure virgin teenager – men of letters – diatribes. Ned's letters were the most erudite, Richard's were the most coherent, and David's were the best organized. I wish I had held onto their letters. Why didn't I? In one of Ned's letters, between his investigations on the distribution of prime numbers and the most effective masturbation techniques, Ned offhandedly mentioned that Bjorn killed himself.

What?

One of Richard's coherent letters related some details. Bjorn got caught stealing from other dormitory students. This didn't surprise me. Bjorn was a weasel. Being a hard-driving prep school, we were forced to study two hours every night except Sunday. On Sunday, we had vespers – sigh. Richard liked to buy an ice-cold Pepsi in a little store down the street and put it in his room to enjoy after study hall. Richard was into delayed gratification. He also enjoyed taunting Pepsi'less roommates like me. If I prostrated and begged, he would sometimes let me sip his precious Pepsi. Bjorn didn't beg. He just stole. Sometimes, he would sneak into Richard's room and guzzle half of his Pepsi. It pissed Richard off. Bjorn didn't just sip Pepsi. He stole some of my books and even lifted socks. Bjorn took things from everyone except Todd. Todd once beat the crap out of him; I don't know why, but it was one time I didn't mind his bullying. So, when Richard related that Bjorn kept stealing after we left Beirut and even upped his game to taking *valuables* rather than socks and Pepsi sips,



Bjorn Hopen (1954-1970). Bjorn (the boy on the right with glasses) killed himself the year after I left Beirut. It was pure adolescent weakness and waste. This is the only image I have of him. Taken from an old ACS yearbook.

it didn't surprise me.

Bjorn may have been a low-grade kleptomaniac, but he was brilliant. He fluently spoke three languages: Norwegian, English and French. His grades were perfect, and, having skipped a grade, he was a year younger than the rest of us. On a pure IQ basis, Bjorn was probably the smartest of us. He was also a coward and weakling. On one occasion, when forced to defend himself, Bjorn ran. It's better to be beaten up than to run. You will cower through life if you don't learn this early on. I both admired and detested Bjorn. When he wanted something, he could make you forget his duplicitous shit and be an exemplary friend. My feelings about Bjorn oscillated between warmth and wanting to kill and butcher the little fucker. You know, normal teenage boy stuff. After being caught stealing *something* that mattered (I don't know what it was), the school notified Bjorn's parents. I never met his parents, but judging from what happened next, they must have been strict disciplinarians. Richard said Bjorn's father severely punished him. He was kept out of school for weeks, but after returning to the dorm, he left school, checked into a nearby hotel; it was easy for minors to do this in Beirut, and then took a lethal dose of sleeping pills. Bjorn was fifteen years old when he died.

My first reaction to his death was pure anger. You selfish little cunt. I felt sorry for his parents, and I still do. Bjorn's parents are dead now, but they probably spent the rest of their lives wondering what they did to merit such treatment. After my anger subsided, I felt a nasty smug satisfaction. Well, Bjorn, it turns out that you weren't so smart!

Richard was the next to go.

I was much closer to Richard than my other friends. We corresponded for years after leaving Beirut and traded long-distance phone calls in an era when long distance wasn't cheap. We both ended up in university. I went to the University of Alberta, and Richard attended a small college in Pennsylvania. During our summer break between our third and fourth years, Richard called me and said he was coming west on

a college geology field trip. Richard once told me that he used to idolize the American West, at least until he met me! As a Montana boy, I was a bona fide westerner, but I didn't meet Richard's expectations; it was a "never meet your heroes" sort of thing.

We agreed to meet near Mount Rushmore. I had a good summer job working the oil fields near Slave Lake, Alberta, but it was shiftwork with big blocks of off time. I took a few days and drove the 1200 miles from Slave Lake to Rushmore. I did it in one mad butt-numbing all-day and overnight shot. This was my first trip to Rushmore. In the 1970s, Rushmore looked like it did in the classic Hitchcock movie *North by Northwest*. I was impressed. I was even more impressed by the massive *Crazy Horse Memorial* that is still being carved about twenty miles from Rushmore.

Richard and I were delighted to see each other. I knew from his letters and calls that he was struggling. It wasn't his coursework. He was doing fine in college, better than me, but his social life troubled him. He was lonely, depressed, and terribly sad that he didn't have a girlfriend or any close friends. While I sympathized with Richard, his complaints secretly annoyed me. So life isn't going your way; welcome to the goddamn club. I didn't voice my annoyance, and Richard was so wrapped up in his feelings he didn't pick up mine. We stayed up all night talking and watching the stars from the pitch-black grounds of a small motel near Rushmore. It was a clear summer night, and the summer triangle stars were almost lost in the Milky Way's backbone. Early next morning, I left to drive back to Slave Lake.

I didn't hear from Richard again until he called me in our fourth year a few weeks before Christmas. He called from a payphone in a US/Canada border town (I cannot remember which one) and said he was driving to visit me in Edmonton. It was completely unexpected. He said the Canadian border officials wouldn't let him in because he carried too much cash. I told him to try another crossing and lie; it worked. Borders have never been secure! When he arrived in Edmonton, he had a long story to tell. In his last year at college, he suffered from severe depression. He was hospitalized and put on lithium drugs. Depression drugs in the 1970s sucked. They often did more harm than good, but the treatment seemed to help him, and in a few weeks, he was discharged. He tried finishing his degree but couldn't concentrate. Then, suddenly, he decided to see me. I still don't know why he had to see me. Maybe I made him happy.

His arrival in Edmonton was not convenient. I had no place for him to stay. I was living in a student cooperative at the time. The cooperative rented dilapidated houses near the university and stuffed them with poor students. When Richard showed up, I was the cooperative's treasurer, meaning I had the delightful chore of collecting rent

from all the little cosplaying student Marxists and Maoists who felt rent should be free.

"Like, stop suppressing us, man."

Sadly, for the commies, I was a mean bastard and locked rent delinquents out of their rooms until they paid up. Until the checks clear, fuck the revolution! The cooperative was full, so Richard crashed on my room's floor. He didn't mind, and neither did I. We had a grand time in Edmonton. He certainly didn't help my grades. I wasted so much time with Richard that I barely passed my last year. Richard didn't go to school. He got a job as a night watchman and spent his free time walking around the city. He was still taking drugs for awful canker sores, and he was still depressed. It was around this time that Richard fixed his virginity problem by hanging out in bars and hiring prostitutes. One weekend he smuggled a whore into the cooperative and did the deed in my bed. I don't remember how much he paid her, but she did such a good job he tipped her. Richard was always the gentleman. I was impressed. I lacked the guts to hire prostitutes; I was always that guy who worried about venereal diseases. My reticence probably saved my life a few years later when I had a chance to screw a skinny Ghanaian woman that, when I think back, probably was suffering from AIDS. After his prostitute encounter, Richard was tested for VD. He delighted in explaining how the nurse dipped what sounded like a giant Q-tip in his penis. He didn't catch anything, which, as it turned out, may not have been a good thing.

One of my best memories of Richard was spending Christmas with him and my family in Calgary. On my Christmas break, we drove Richard's clunky old car down to Calgary and stayed with my parents. I remember Richard was touched by a Christmas gift my mother got him. He almost cried when she handed him a big, wrapped present. After Christmas, we drove out to Banff. It was one Canadian place Richard desperately wanted to visit. He wanted to hike, but it was winter. The snow was deep and magnificent. I talked him into giving snowshoeing a try. He loved it. Banff was cold, at least -20C, and the trail we wanted to snowshoe up was "technically" closed, but we ignored the trail closure and snowshoed up Cascade Mountain and slept in -30C weather in a stunning snow-covered mountain meadow. Snow makes superb cushioning for sleeping bags. I've never been comfier while camping.

After Christmas, we returned to Edmonton. I resumed my coursework, and a few weeks into February, Richard decided to return home. I helped him pack up his car and watched him pull out of the cooperative's driveway. I was both sad and relieved to see him go. I didn't know it then, but that would be the last time I'd ever see him.

Without Richard to distract me, I knuckled down just enough to get through my last

term. My grades were mediocre, not good enough to get into graduate school: once an inferior being always an inferior being. I didn't know what to do next, but I knew I didn't want to get a serious job and start adding to the gross domestic product. By sheer luck, I was recruited by CUSO (basically the Canadian Peace Corps) to teach mathematics in Ghana. A few months later, I was teaching high school in Tamale, Ghana. Of all the jobs I've done over a long and embarrassing career, I liked teaching the best. But sadly, I could make far more money as a programmer than I ever could as a teacher. So instead of putting up with undermotivated horny teenagers, I put up with corporate fools and tools instead. "Work," for me, remains a four-letter word.

Near the end of my second term in Tamale, I got a letter from Richard's mother. I once met Richard's mom in Beirut. She was a bit older than my mother and a lovely woman. She took Richard and me to a nice Beirut restaurant, a nice break from our grim dormitory gruel. I could tell from her handwriting on the envelope that it was bad news. I opened her letter and read that Richard had killed himself by firing a shotgun into his head! Like Bjorn, he had rented a room, checked in, and then checked *way* out. But, unlike Bjorn, Richard didn't opt for pussy boy sleeping pills; he made sure he wouldn't survive by using a shotgun. As I read Mrs. Moore's letter, I started shaking. I was surprised by my body's reaction to Richard's death. Why am I feeling like this?

I took a day off teaching and tried to answer Mrs. Moore's letter. She was begging me for details about our time together in Edmonton. She was grasping for anything that might help her understand her son's death. She was also very worried about her husband. Richard and his dad were very close. Whenever Richard spoke about his dad, it was with unusual affection. I respected and admired my dad, but I didn't have the same connection with him that Richard had with his father. Richard's suicide had deeply, deeply hurt Mr. Moore. Mrs. Moore was probably thinking she might have to deal with a double suicide. I sat on Mrs. Moore's letter for a few days but never replied. The days turned into weeks, and I still didn't reply. She even sent me a follow-up letter, to which I also never replied. It's still one of the least considerate and cruel things I have ever done, and trust me, I am a vicious lifelong asshole. Richard was twenty-two when he killed himself.

Ned was the next to go.

Ned was the most curious and mathematically gifted of us. Even at ACS, he was years ahead of everyone in math, but despite his brilliance, Ned was a troubled child. When I met Ned, he lived with his bitterly divorced father in Beirut. Ned's dad had some affiliation with the American University of Beirut (AUB). When his marriage



Richard Moore (1953-1976) in the mountains above Banff in western Canada. This was our last trip together. We forced our way up the Cascade trail on snowshoes and camped in -30C weather. Within a few months, I was teaching mathematics in Ghana, and Richard was being treated for depression for the second time.

collapsed, he got Ned. I always wondered if Ned's mother didn't want him because his father didn't behave like a man who had fought for custody. Ned's dad neglected him. You could tell by Ned's body odor. Ned was often dirty; you could smell him coming. He also had appalling dental hygiene and wore ratty clothes that were two or more sizes too small. Once, when we were sneaking down to the cornice (the Mediterranean Sea was just down the street) to dip our toes in the surf, I noticed that Ned's shoes had holes in both soles.

Being neglected wasn't all bad. Ned roamed all over Beirut, and I often accompanied him. Ned was a day student; he lived in Beirut and could go anywhere. Bordering students like me were supposed to stay *in bounds*. School bounds delimited a small section of supposedly safe streets within easy walking distance of the school. I ignored bounds along with many other rules. Rules are for the weak, fat, and stupid; they still are. On one of our *out-of-bounds* outings, Ned and I were caught shoplifting books. Hey, a boy must read. I was punished by being put on *D-Pro*. ACS had a graded disciplinary system that mirrored its academic groups. If you were a super good little boy, for six interminably long weeks, i.e., no demerits, no sneaking around after lights out, no getting caught off bounds, and so on, you got promoted to *A*-class. *A*-class kids enjoyed a few privileges like staying up a little later or studying in their rooms instead of in study hall. If you broke the odd rule, and who hasn't, you stayed in the default *B*-class. If you were a little bad, you would be slotted into *C*-class. If you

broke many rules, you were punished in *D*-class, and if you were a beyond-the-pale juvenile delinquent, you were put on *D-Pro*. While on *D-Pro,* you were confined to your room except for classes and meals. I spent months on *D-Pro* during my Beirut years. Why be a good little boy for months to earn meager privileges when you can just break the rules and do whatever the hell you want? I believe I set a record for the longest time anyone was on *D-Pro* without being expelled. I was a cunning delinquent. The school had strict rules about drinking and drugs. Students were immediately expelled if they were caught with either, but there were no rules about blowing holes in walls with homemade bombs – more about the bombs later. I forced ACS to expand its rule book. It was my greatest achievement. Ned was often in on my shenanigans, and our misadventures had a definite *Huckleberry Finn* vibe.

We used to climb into the attics of AUB buildings and time the fall of stones to the courtyards below. Ned was checking Newton's $16t^2$ acceleration due to gravity equation. The math checked out. On another occasion, we got ahold of old mechanical calculators. Ned found a shop, off bounds, of course, that sold office calculators. In 1968, office calculators were gigantic gear-laden metal dragons. They looked like typewriters on steroids. The shop owner didn't mind weird little American kids computing cube roots on the clanky old machines. Ned posed problems that sent the beasts into infinite gear-grinding loops. Loops were a lot more fun in the days of motors and gears.

What I most admired about Ned was that he honestly did not give a ding-dong damn about what others thought about him. I'm sure the girls in our classes noticed his body odor, old clothes, and unkempt hair and said the usual mean teenage girl shit behind his back and maybe even to his face. He didn't care. Ned even blew off our gym instructors, who took unseemly homoerotic pleasure in forcing us into the showers. Ned wouldn't have it. He went to class all sweaty and smelly. Oh, he'd get punished, but that didn't faze him. He also didn't give a shit about his dad's edicts. He ignored his dad like I ignored bounds. Ned was a 20th-century *Huckleberry.*

I've already noted that Ned's letters were the best. They were little masterpieces. No topic was taboo. One of his missives outlined his masturbation experiments. He was on a perfect orgasm quest. Another tediously exhibited a long PL1 program – his favorite programming language – that efficiently implemented the *Newton-Raphson* method. Other letters included cartoon clippings and photographs. Ned started developing 35mm black and white negatives after I left Beirut. In a bit of synchronicity, I also got into developing 35mm black and white negatives in Edmonton. We compared techniques, and for the first time, I found something I was better at than Ned. Ned's letters were better than social media and it pains me that I didn't

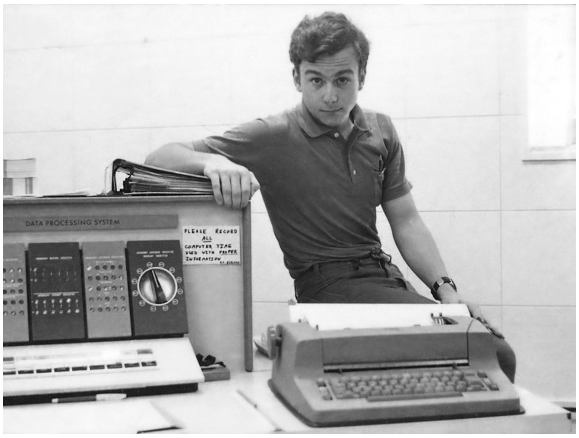
keep them. We corresponded a few years after I left Beirut, but then Ned dropped off. We stopped trading letters. Maybe it was my fault. Maybe it was his. We were both moving on. Ned, as I mentioned earlier, went to MIT with David.

I didn't hear about Ned again until David called after the 9/11 attacks in New York. David and I had reestablished contact via email after decades. We had a good long chat about 9/11 and – oddly – Ned. David didn't buy the official 9/11 story. He couldn't believe a small group could pull off such a stunt. He didn't go down the fire *doesn't weaken steel beams* (it does) rabbit hole or buy the *controlled demolition* (it wasn't) nonsense, but he couldn't accept that the government could be so inept. In 2001, I was a jaded cynic. I was confident that the US government couldn't find its butthole with two hands and a flashlight. My stance has only hardened. Now I doubt they could manage it with a search party and butthole sniffing dogs. The US government has repeatedly demonstrated that it is capable of awe-inspiring stupidity. 9/11 magnitude fuckups are what I expect from these clowns. Just ask the guys who fell off that plane bugging out of Kabul.

David filled me in on what he knew about Ned. Ned started at MIT the same year as David but didn't adapt well. He dropped out in his second year and disappeared. David lost track of him and learned years later that he had ended up in Stillwater, Oklahoma, living with his sister. Ned had some role at the University of Oklahoma, either as a tutor or a nonacademic staff member, and was still futzing around with prime numbers. He never married, had no close friends, and lived like a homeless person *in a house*. A few years after 9/11 Ned's sister contacted David when Ned suddenly died of a heart attack. Ned was fifty-one when he died. Ned should have done better in life. He had gifts. He wasn't depression-prone like Richard, and he had chances; he just didn't seize them. I was surprised and saddened to learn of Ned's death. His life ended just as mine was kicking into a better and happier phase.

This finally brings us to David. As I said, David died in February of 2024 at seventy. For the last few years, David's health has been awful. I only learned of his problems because I was in the habit of sending David yearly emails asking if he was still alive. Two years ago, there was no response to my email, but a few months after sending it, David and his wife, Caryn, called. They told me about his health problems. He had been bedridden for weeks and could barely move his arms. He couldn't work his computer and thus could not respond to emails. I don't know what he suffered from. I'm not sure if even David knew. After hearing this news, I decided to ping him every six months to see how he was doing.

David was by far the most successful of our little clique. Unlike Ned, he navigated the



Ned Prothro (1953-2004) was one of my best friends at ACS in Beirut. He went to MIT, dropped out, and ended up in Stillwater, Oklahoma, where he lived until his untimely death of a heart attack at the age of 51.

rigors of MIT and graduated with an Electrical Engineering degree. After graduating, he married Caryn. Caryn is blind. Her blindness did not prevent them from having kids and enjoying family life. Caryn's blindness also positively impacted David's career. Together, they founded a software company that specialized in Braille printing. With David's specialized software, blind people can print and read computer text. His software is still used worldwide, and I have no doubt it has helped many people. Good for you, David! David's achievements were noteworthy enough to merit a Wikipedia Page. Take a look; he was a genuine *mensch*.

Now for that trauma that David and I shared.

In 1968, the last half of my second Beirut year, David, a day student like Ned, came to school with a small bomb he had made by slicing open firecrackers with razor blades and pouring the gun powder into a small chemistry set glass bottle. David was proud of his bomb. He had even printed a label "Bomb Zero" (David was into zero-origin indexing) that he had glued to the glass bottle. We all admired his work and immediately started looking for something to blow up.

We found a crack in a concrete wall surrounding one of the school's playgrounds. The bomb fit snugly in the crack. We waited until the coast was clear, then Ned, Richard, David, and I took the bomb outside, placed it in the crack, and lit its long gangly fuse. With the fuse lit, we all ran. I ran parallel to the wall while the others ran perpendicularly; they were putting themselves in greater danger. I remember thinking, "What the fuck, guys," as I fled. The bomb detonated with a huge bang that echoed off the buildings around the playground. Everyone was far enough away to avoid injury. We returned to the blast site and inspected the damage. David's bomb had blown a two-foot hole right through the concrete wall. We took turns

poking our heads through the hole and enjoying the view of the other side.

The bomb was, forgive me, a blast. And, just to be clear, our gang was setting off bombs in Beirut long before Hezbollah and the Israelis.

When teenage boys do something spectacularly stupid, and it works out, do they conclude, "Well, that was idiotic – never again?" No, teenage boys resolve to do something even stupider. After "Bomb Zero's" big blast, we decided an encore was mandatory, so we spent the next week walking around Beirut scouring shops for firecrackers. Then Ned, Richard, David, and I went to David's parents' apartment and started slicing open dozens of firecrackers with razor blades and pouring the fine black powder into "Bomb One's" glass bottle.

While we were pouring powder, Ned had the insane idea of putting a coin in the bottle. He wanted to see what the blast would do to it. So, in went the coin, which David, the master bombmaker, tamped down with a small metal rod. As David handled the bomb, I remember leaning down to get a better look. In the last second, David raised his left arm, blocking my view, as "Bomb One" loudly detonated in his bedroom. The next instant, I was on my knees facing the other way. My eyes were tightly shut, and I remember calmly thinking, "Well, I'm going to open my eyes and see if I can see." I opened my eyes; they still worked. Good. I looked up at Richard. His thick glasses were frosted with glass pellets, and his forehead was bleeding. Ned, who had been the furthest away, looked like a ghost. His face was blanched white, and his big dark eyes were wide and shocked. My ears were ringing, and the smell of burnt powder was everywhere. I got to my feet and headed out the bedroom door.

In the hallway, I saw David rush by holding a mangled, bleeding hand. I didn't know how badly he was hurt, but he was spraying blood all over the hall. Lucky for us, an older girl, I forgot who was present. She came running when she heard the blast and had the presence of mind to wrap David's hand in a towel and rush him to the hospital.

Ned, Richard, and I left the apartment, not knowing what to do, but we all knew we were in super deep shit. I can remember aimlessly wandering around Beirut streets until our ears stopped ringing. We were relieved we could hear again. Then, I noticed something was wrong with one of my eyes. We found a restroom with a mirror, where I found a small glass fragment in my right eye. I knew then that David's last-second arm movement had saved my eyesight. The shower of glass particles that Richard's thick glasses had stopped would have gone right into my face if David's arm had not occulted the blast. For months afterward, David pulled tiny shards of glass out of his left arm.



David Holladay (1953-2024) in my dorm room at the ACS American Community School in Beirut, Lebanon.

I was taken to an eye specialist after discovering the glass fragment in my eye. I had eye surgery in the AUB hospital that left a small vision-obscuring scar on my right cornea. Even now, fifty-six years after the blast, the scar still slightly blurs my right eye. It's been a lifelong reminder of my paramount *dumbfuckery*. As for David, the blast tore off the tips of his right hand's thumb and two fingers. I'm sure David thought of the bomb every time he did anything that required two thumbs. His mangled hand was David's lifelong reminder of *his* paramount *dumbfuckery*.

After our respective surgeries, David and I spent a few days in the same Beirut hospital room. Then, it was back to school, where I joined Richard on *D-Pro*. We were all punished. Richard and I were incarcerated for the rest of the term on *D-Pro,* while Ned and David, both day students, were banned from campus except for class hours. The bomb did not end our friendships; it strengthened them. During our *D-Pro* incarceration, Richard and I chiseled a small hole in the wall that separated our rooms so we could talk to each other. In our second year, the school separated us; we were too much trouble together. They put us back together in our third year, probably because they didn't want to repair any more wall holes. Ned used his campus banishment to wander further afield in Beirut, and David enjoyed an unexpected notoriety showing off his skin-grafted fingers. Before the bomb blew off David's fingers, girls ignored him. Afterwards, he was a chick magnet. I was jealous.

Honestly, I was jealous of all my ACS friends. I felt they were all smarter and destined for great things, but life didn't go as expected, especially for me, the last schoolboy standing.

2025

Gonggone Gone — Parts 1 & 2

Posted: 16 Mar 2025 18:36:44

I'm back, did you miss me?

If you're foolish enough to follow this blog and even more foolish to care about its author, you may have wondered what I've been up to for the last umpteen months — even I've forgotten when I made my previous entry. I've been busy indulging myself writing *long-form* fiction.

Before the end of last year, I chanced upon, or rather the YouTube algorithm shoved in my face, a cute little video about the Kuiper belt object Gonggong. I think we can all agree "Gonggong" is the coolest dwarf planet name ever. As I motor-mouthed Gonggong, *Gonggong Gone* popped out. Sweet alliteration, John; you should write a story. I had a sweet title but nothing else. Then, maybe thinking about *The Wandering Earth,* a ridiculous Chinese science fiction movie about building millions of giant fusion thrusters on Earth, canceling Earth's rotation, and propelling the entire planet out of the solar system (and you thought *2012* sucked). I wondered what it would be like if Earth suddenly stopped *feeling* solar gravity. *Gonggong Gone got going.*

While writing the story, I tried some new things. Most of my blog posts start as barely legible longhand scribbles. Despite a lifetime of writing, editing, and executing code online, I still write with pen and paper; it helps me get things out without pursuing typographic chimeras. I usually resort to longhand when I'm stuck, and the words will not come, but whenever I ink, I know I'll soon face a big transcription and editing job. For *Gonggong Gone*, I wrote the whole thing, all 25,000 words, on my computer.

I use *Word* on both Windows and Mac systems mostly because I know it well enough to get on with writing and because *Word* hosts a variety of helpful writing aids. I found Grammarly and various AI chatbots helpful. *Grammarly* fixes spelling errors and does a good job of punctuating sentences. I am a piss poor punctuator. *Grammarly* also suggests alternate ways of laying out the clauses in your sentences. I sometimes take its suggestions and sometimes not. *Grammarly* doesn't seem to pay a lot of attention to paragraph context.

AI chatbots are capable of spewing out entire stories when prompted. Unfortunately,

their stories are deeply derivative and don't sound like you. If you're writing, use your own *voice*. Chatbots shine when responding to precise prompts like, "Rewrite this paragraph without the word 'was.' " They will take your text and often find good context-sensitive alternatives, and even better when used surgically like this, they don't change your *voice*.

While *Word* met most of my needs, *Gonggong Gone's* length quickly exposed some shortcomings. *Grammarly* does not handle large documents. *Word* files, being binaries, do not "diff" and version well. This was a problem. Fortunately, your fearless correspondent is a longtime LaTeX user. LaTeX scales to absurdly huge and complex documents. It's geared to academic and mathematical writing, so handling vanilla text is almost beneath it. I fixed my scale and diff problems with Pandoc, GitHub, and some custom J, bash, and batch scripts.

While *Gonggong Gone* turned out OK, I believe the best thing to come out of this project is my template for composing and managing very long text documents. I will use this J script to create working story directories.

Here are the first two sections of *Gonggong Gone.* I ripped off the idea of descriptive section titles from Cormac McCarthy's Blood Meridian. Always steal from the best. The story sprawls over six blog posts. You can find the complete story by clicking the title and downloading the linked PDF. The PDF is better formatted to boot.

Gonggong Gone

– *an occultation* –

Alex Burdick arrived at his observing spot as the Sun dropped below the horizon. Stepping out of his old SUV, he studied the deep orange and wine-red sunset. Vivid horizon colors indicate superb air transparency, low relative humidity, and dust-free winds. Such signs augur excellent sky-watching conditions. He took a few minutes to enjoy the deepening dusk. To the northeast, the ever-darkening Owyhee mountains blocked the lights of Boise, Idaho, and its ever-expanding, light-polluting suburbs. He stood only 120 kilometers from Boise, not far enough to escape the city's lights. From here, on new moon nights, he could see Boise's light dome creeping about five degrees over the crests of the Owyhee's. Boise was the only nearby city. The next closest source of light pollution, the small town of Winnemucca, Nevada, sat about

two hundred kilometers to the southwest.

Tonight, the weather looked promising, but the bright half-crescent Moon did not. Alex usually skipped moonlit nights. He was a deep-sky guy. Alex enjoyed hunting down faint galaxies with his Dobsonian reflector telescope, and bright moonlit skies got in the way. Moonlight would not be a problem tonight. He came to see the Moon block or *occult*, the bright star Spica.

He'd been sky-watching for decades but had never seen a bright star occultation. Unlike hunting for faint galaxies, bright star occultations are no-brainers. Look for the Moon, duh, and find the bright star near its disk. Wait and watch. If clouds don't get in the way, you'll see the star wink out. If the wink is on the dark side of the crescent, it's dramatic. If the weather holds, you'll see the same star wink back in. You don't need any equipment. Your eyes will do. For tonight, Alex didn't pack his Dobsonian; he brought two pairs of binoculars and his iPhone with its sky chart app. This evening would be a low-energy affair. He'd sit on his folding observing chair, watch the occultation, wait for the Moon to set, bathe in Milky Way light, and sleep in his car. In the morning, he would drive back to Boise to finalize his divorce.

Alex dragged his folding chair into a small circular patch of bare ground near his parked car. The patch was surrounded by tall sage plants, filling the air with their perfect odor. In addition to perfuming the air, the sage helped block car headlights. Alex shared his observing spot with other members of the Boise Astronomical Society. Most nights, he was alone, but sometimes, others would show up and blind him with their headlights. The first rule of naked eye observing is to protect your night-adapted eyes.

With his chair pointed toward the Moon, Alex returned to his car and dug out his graphene-heated jacket. When he first heard about battery-heated jackets, he thought they were scams, but online reviews were positive. Some of his fellow amateur astronomers said they worked, so Alex forked over a few hundred bucks and tried the best-reviewed one. It worked so well he spent another hundred bucks to get a second jacket battery. Alex had spent many long hours sitting in the dark watching stars. In Idaho, even summer nights could get chilly. With snow on the ground sitting in the dark beside his Dobsonian or astrograph could get damn unpleasant. The heated graphene jacket, especially its hand-warming pockets, which he used to warm eyepieces, turned cold nights into beach days. And, when Alex learned mid-20th century Mount Wilson astronomers used electrically heated flight jackets while sitting at the prime focus and manually guiding the 100-inch telescope, he didn't even feel like a *girly man for pussying it out* in an electric jacket.

Slipping the jacket on, he returned to his chair and checked his location on his phone.

The phone's GPS app coordinates did not match his previously recorded observing position.

"What the hell?"

The GPS app was about ten kilometers off. He took several GPS positions, and every single one of them differed from his stored position. The worse readings had him about a hundred kilometers away. It was probably Apple's recent iPhone upgrade. It only takes one pooched parameter to wreck calculations. Somebody somewhere screwed up. No doubt Apple would soon push an emergency software patch along with profuse apologies. Let's hope planes don't fly into each other. Alex was tired of Apple's bullshit, and he was considering divorcing his iPhone.

Unable to get a consistent GPS reading, Alex used his previously stored GPS coordinates to override the location settings on his phone's sky chart app. He centered the app on the Moon and held up the dim red night vision sky chart to the sky. Comparing the sky to the iPhone screen, it seemed like Spica was farther from the Moon than it should have been. Humans don't perceive small sky angles accurately. The apparent discrepancy didn't bother Alex. It was two hours until the occultation. He would keep an eye on the Moon and Spica while sitting and watching the stars fill the sky.

While waiting, Alex traded text messages with *The Occulters*. *The Occulters* were a haphazardly organized online group of amateur astronomers trading real-time observations. Tonight, they were scattered all over western North America and waiting for Spica to disappear behind the Moon. Like Alex, many group members reported whacky GPS readings. The GPS problem was widespread. Observers east of Alex would see the event a few moments before him.

As the occultation time drew nearer, Alex texted, "Spica is too far from the Moon."

Many seconded his observation. Nate, a well-equipped observer in Cloudcroft, New Mexico, measured the angular separation from the center of the Moon's disk to Spica. The angle was significantly greater than it should have been. Alerted to the discrepancy, eastern observers prepared to precisely time Spica's disappearance.

At the expected time of the occultation, Spica was still about half a moon diameter from the Moon's limb. What?

Many observers sent frantic, "Are you seeing this?" messages.

The Occulters watched in disbelief as the expected occultation time came and went. *The Moon never blocked Spica!* This wasn't a software problem. Some checked printed versions of the *RASC Observers Handbook; sure* enough, Spica should have been blocked. *Something was out of whack with the heavens.*

Alex didn't know what to think. It was probably some longstanding systematic error in occultation prediction math. Hell, it may be Spica-specific! How else could astute editors of ephemeris tables miss such a boner? There would be *mea culpas* aplenty tomorrow, along with numerous snide X posts about trusting the *settled science*. Others were equally puzzled, and some started checking the positions of other objects. Nate, in Cloudcroft, claimed Mars's position was slightly off. Oh, come on! Alex didn't want to get into it; he gave up and retreated to a sleeping bag in his car.

Before going to sleep, his son Doug called.

"Hey, Dad, Mom called. She wanted me to remind you about the meeting tomorrow."

Annoyed, Alex said, "I haven't forgotten."

"How did the sky watching go?"

"The occultation didn't happen."

"What? How's that possible? Did you get the date wrong?"

"No. It wasn't just me. It's got to be some stupid mistake. It doesn't matter. I'm going to turn off my phone. I don't want it pinging all night long. I'll see you tomorrow."

Alex worried about Doug. Life had been kicking them both around. Two years ago, Alex's father died of prostate cancer. Alex sat by his side, watching kids play on a cracked sidewalk outside his father's hospice room, when his dad, doped up on strong painkillers but still in agony, breathed his last. Six months after his dad's death, Alice, his wife of twenty-nine years, left him because she was, in her words, "tired of his bullshit." While absorbing these shocks, the worst landed like a trebuchet boulder. An illegal alien running a red light slammed into the passenger side of Doug's car. Doug suffered minor injuries, but his pregnant wife Ellen was severely injured. She lived long enough to ride an expensive screaming ambulance to a nearby hospital, where she and her unborn baby perished. The illegal alien who killed Ellen and her baby didn't have a license or insurance. Immigration authorities arrested him but inexplicably released him within days. He was never seen again.

Doug, numb with grief, exploded when unbelievable hospital and ambulance bills

arrived. He had started a new job, and his benefits had not vested. Making things worse, Ellen had recently aged out of her parents' useless "Obongocare" plan. Doug, a formidable 6-foot 5-inch muscular man, foolishly confronted his new employer about his insurance. Alarmed, they immediately fired him, citing his probationary status. Doug got stuck paying many thousands of dollars in medical and funeral expenses. Alex and Ellen's parents helped, but it was a major blow to all and devastating for Doug.

Doug, depressed, unemployed, and bankrupt after paying Ellen's medical and funeral expenses, moved back in with his father. For a few weeks Doug looked for jobs but slowly gave up and spent his days sequestered in his childhood bedroom playing X-Box games.

Alex encouraged him as much as he could, but he also boiled with repressed rage. He was mad at Doug's shitty ex-employer, mad at immigration authorities, mad at his ex-wife, mad at Doug for moping about, and mad at himself for resenting the many thousands of dollars he contributed to Doug's bills.

In the morning, Alex returned to Boise. Along the way, he saw many cars parked in roadside turnouts. People were out of their cars and talking to each other. Weird. Nobody willingly talks to strangers. At 10 Mile and McMillan, the Walmart parking lot was almost filled. It was a weekend, but it wasn't a holiday. He would have stopped, but he had a meeting with his ex-wife and her dickhead lawyer, so he went home to take a shower and get dressed. Alex didn't have to dress up and play the role of *responsible caregiver*. He would show up in a ketchup-stained MAGA hoody because it annoyed his ex and her soy-boy faggot California lawyer.

He wasn't home ten minutes before his ex-wife called and told him their meeting was off. "Turn on your TV," she commanded. Alex turned on the TV. All the local channels were doing breaking news.

Tides had ceased worldwide!

Numerous reporters from beaches, ports, and sea fronts all around the globe were reporting tides didn't go out or come in as expected. The most panicky report came from a frightened New Brunswick, Canada weather lady. The famous Bay of Fundy tides had rolled out but only weakly returned, only to immediately go out again and settle neither in nor out.

Not only had the tides stopped, but communications with various spacecraft were also lost. The James Webb Space Telescope, The Parker Solar Probe, the Martian rovers, the Voyagers, and many others were incommunicado. Even more damaging,

all GPS satellite constellations were reporting erroneous positions. The errors plagued American, Chinese, Russian, and European systems. Also, internet satellites were misbehaving. Ground connections were coming and going. TV news is dominated by smug, supercilious imbeciles promenading their holier-than-thou condescension to the world. Alex delighted in the white fear on their faces.

"You dumb twats don't have a clue."

He flipped over to YouTube and started doomscrolling X. Oh boy! His X astronomy boys were hyped way up. The lost occultation had triggered a tsunami of X posts. It wasn't just amateurs who noticed; many major observatories also did. Reports asserted the positions of Venus and Mars relative to Earth were off. Even more alarming, lunar laser ranging experiments failed. Fortunately, some clever astronomers at the McDonald Observatory in West Texas succeeded in retargeting their lunar ranging laser after it stopped working. The new laser returns showed the Moon rapidly receding from the Earth.

The *McDonald Hack*, as it quickly became known on X, was simple. Go into your favorite solar system simulator program and set the Earth's mass to zero while maintaining its orbital speed and angular momentum. Of course, this made no goddamn sense! It's arbitrarily flattening spacetime around Earth and somehow insulating the entire planet from the rest of the solar system. The net effect is deadly simple. It's like a planet-slinging God, whipping the Earth around the Sun on an invisible rope, had mysteriously let go.

Alex clicked around YouTube and saw Dr. Rebecca had posted a short video. Dr. Rebecca, his favorite science YouTuber, was a young British astrophysicist who cultivated an enormous YouTube following with her excellent videos. Dr. Rebecca's typically cheerful demeanor was very subdued. Her evident concern alarmed Alex more than the predictable unhinged prattle of mainstream media morons. Dr. Rebecca quickly summarized the situation. About sixteen hours ago, the Earth departed from its solar orbit. The best-fixed star observations and repeated radar ranging of the receding Moon indicated that the Earth no longer orbited the Sun, and the Moon no longer orbited the Earth. Many observers reported seeing previously hidden regions on the backside of the Moon. And, as far as anyone could determine, Earth was flying straight out of the solar system. Solar system gravity no longer interacted with Earth. The gravity distortion extended at least as far as geosynchronous satellites. Geosynchronous satellites were still circling the Earth, but their orbits, as well as those of many other satellites, were perturbed by the sudden absence of the Sun and Moon's gravity. Dr. Rebecca reiterated she and her colleagues had no explanation for

this unprecedented suspension of the laws of gravity. Alex admired Dr. Rebecca's analytic calm. He knew she knew how bad this was. Alex's favorite *X Meme*, of a stupid cartoon dog sitting in a burning room, thinking, "This is Fine," accurately summed things up.

After listening to Dr. Rebecca, he flipped the TV back to the news. Cable channels were, for once, *correctly* obsessing on runaway Earth. Fake news morons had a story worth covering. Runaway Earth preempted everything, but even now, hours into the end of the world, *disparate impactor talking heads,* as he contemptuously called them, were chasing the this is so much worse for gay, trans, black, indigenous, bipolar, obese, and vegan folks. Incredibly, it was a civilization ends and degenerates hardest hit, spin.

Thinking Doug needed to see this, he knocked on his son's bedroom door, "Doug, get out here; you must see this!"

Doug grumbled but opened his bedroom door. Towering over his father, Doug rubbed his hands through his long, unkempt blond hair and said, "What?"

"Look at the tube."

Doug watched the endlessly repeated news.

Two minutes later, he said, "This can't be real; somebody is punking hard."

"I wouldn't have believed it either, but I've seen it. Last night's occultation didn't happen *because* the Earth wasn't where it should have been."

"That's impossible!"

"Apparently not.'

"If this is for real, what's going to happen?"

Alex hadn't *seriously considered this* until Doug's question. "If things don't change, we'll all freeze to death."

Saying it out loud settled Alex's mind; he knew what to do. This would be his last and greatest observing session. He turned off the TV. You don't listen to idiots in a crisis.

Turning to Doug, Alex said, "We have to get out of here —pronto."

"Where would we go? Isn't the entire world screwed?"

"Remember the old mine in Grampa's valley? We can hole up there."

The expression on Doug's face mixed calm alarm and suppressed excitement, like he had been diagnosed with terminal cancer.

"What about mom?"

"She's made her choice. I'm asking you."

Doug took a long look at his dad before saying, "OK."

"Good, we've got to pack as much as we can right away."

They had to act quickly before the authorities made things worse. How dipshits like FEMA could make things worse than a runaway planet would require Herculean levels of *fuck-ti-tude,* but Alex figured the deep administrative state would rise to the occasion. Three things were clear: farming was over, famine was coming, and it wouldn't be possible to shelter everyone from the punishing cold. They rushed through the house, grabbing suitcases and stuffing them with all their warm-weather clothes. Looting closets, they packed their bedsheets, pillows, blankets, and towels. Their clothes weren't up to cryogenic temperatures, but it was too late for *Amazon.* They'd grab more clothes later. On the last run-through they packed the little electric ceramic heater on Doug's bedroom windowsill; it might help where they were going. They stashed their suitcases, camping equipment, kitchen pots and pans, and toolboxes in the SUV.

While Doug loaded the car, Alex entered his mancave/office bedroom and gathered all his blank notebooks, pens, and pencils. Alex kept diaries. They were filled with inconsequential day-to-day drivel. For years, he had daydreamed about writing a *Pepys* diary: a *magnum opus* informing future generations about life in early 21st-century America. Alex knew his odds of winning *Power Ball* were better. Still, diaries would get a lot more interesting with the world ending! Maybe he'd write a Pepys diary after all. Too bad there would be no future generations to read it.

It didn't matter now. Before doing anything else, Alex opened a blank notebook, wrote the date and time, and quickly scribbled a list of things to get. Knowing his list was incomplete, he left a few blank pages before writing. *Life is over for everyone now!*

Closing the notebook, Alex piled it with the others and fetched his wheeled carry-on bag. He loaded the carry-on with notebooks, pens, pencils, and his laptop. Running around, Alex added flashlights and rechargeable batteries to his carry-on. After filling the carry-on, he got out his small refracting telescope with its lightweight carbon fiber tripod and its CCD astro cam. The small telescope was a high-quality astrograph, a

refractor optimized for imaging. It had cost thousands of dollars, and he bought it right after his wife left. No more budgeting for the bitch. The little telescope and its accessories fit in a neat backpack. The sky would be fascinating as Earth died, and Alex resolved to see as much of it as possible. He put his telescope backpack and carry-on bag in the back seat of the SUV.

In a final flourish, they emptied the house of paper, mostly printer paper, but, in a nod to past hysteria, a big bag of toilet paper, too. In their frenzy, they almost forgot about toothbrushes, razor blades, floss, and deodorant. Personal hygiene was over: more bad news for gay hairdressers and lesbian snatch waxers. The last few things they took were books. What do you read when the world freezes? It would have made an excellent writer's group discussion topic, but there was no time. Doug stuffed a pile of old Manga in the SUV. At the same time, Alex packed *The Ultimate Survival Medicine Guide,* an old *CRC Engineering Handbook*, *Moby Dick*, Joyce's *Ulysses*, two cookbooks, his *Tirion Sky Atlas 2000.0*, a stack of old *Royal Astronomical Society Observer's Handbooks*, and because he was currently reading it, *Selected Non-fictions* by Jorge Luis Borges.

With the car loaded, Alex and Doug squeezed into the front seats.

"Now what?" Doug asked.

"We need to do a little shopping."

– *apocalypse shopping* –

Alex and Doug drove straight to a truck rental dealer. Alex hoped the astronomically ill-informed public had not connected the dots. Once they did, he expected complete shopping bedlam. It wouldn't be like the comical COVID toilet paper runs of a few years ago or typical Black Friday ghetto riots. No, this would be serious, shoot-to-kill shit. Alex figured they had about a week. After a week, the missing tides, the runaway moon, and the noticeably smaller solar disk would drive it home to even the dumbest shits on the planet; this wasn't a lefty, right-wing, or Zionist plot. That billionaires weren't conniving to rob you. That commies, nazis, transphobes, Trump voters, or World Economic Forum stooges weren't responsible for the sudden annulment of solar gravity. That everyone on Earth, every poor, rich, smart, or stupid son-of-a-bitch was trapped on runaway spaceship Earth.

They rented a big king cab pickup and a large trailer to drag behind it for a month. As a sick joke, Alex took out the deluxe rental insurance package. Not only was farming over, but credit would soon follow. This month, he wouldn't pay his credit card bills, and it was unlikely the banks or anyone would care. By the end of the

month, everyone would have bigger problems. After hitching up the trailer and transferring their gear from the car to the truck, Alex returned to the rental office and asked the salesman if he could leave his car outside for the day. He told the salesman they'd return and gave him his cell phone number. With their rides sorted, they drove the truck and trailer straight to Alex's bank near Fairview and Meridian Avenue.

Relieved to find the bank open, Alex withdrew twenty-three thousand dollars in twenties and hundreds. He had to wipe out his savings and max out his line of credit. As usual, the bank made you feel guilty for cashing out your own damn money. An annoyance they compounded by insisting he sign the idiotic IRS — *I am not in the minor sex trafficking and fentanyl smuggling business* — tax forms. Alex despised the toady little deep-state dick-fellating fools in banks, but they needed cash. How long would the credit-based economy last? Besides, using cash for *sensitive purchases* is always a good idea, and today, everything is sensitive.

Before leaving the bank's parking lot, Alex amended the shopping list he started in his bedroom and asked Doug to check it.

"Anything missing?"

"There are no sewing supplies. Sewing is an underappreciated survival skill."

"Really, OK. Trouble is I can't sew shit."

"I can."

"Since when?"

"Ellen taught me before …" Doug looked away, but Alex saw his eyes tear up.

"OK then. We'll follow Ellen's lead here."

Satisfied with their list, they drove to the restaurant supply wholesaler, US Foods CHEF'STORE, on North Hickory Avenue. Wholesalers were more likely to have bulk nonperishable foods than ordinary grocery stores. They filled the truck bed with 50-pound bags of beans, rice, flour, sugar, and cases of canned meats, vegetables, and fruits. At two pounds per day per person, they had a four-year supply.

From US Foods, they drove to Scheels on Wayfinder.

Pulling into the parking lot, Alex handed Doug five thousand dollars and said, "I'm looking for a specialty item in the gun shop. Take this and stock up on the warmest cold-weather outfits you can find. Get at least three complete outfits for each of us:

boots, parkas, mittens, heavily insulated ski pants, super warm base layers, everything. Keeping dry is easier if you have many outfits."

Scheels has an excellent gun shop. Alex wasn't loading up on firearms and ammo like brain-dead head-for-the-hills preppers. Preppers are clueless dolts who think they'll prevail in firefights against roving bands of post-apocalypse vampire scavengers because every dumb-ass Netflix end-times series says they will. Some people are too stupid to live, and soon, due to the Earth's sudden release, preppers wouldn't have to.

Alex sought large silica gel canisters. He grabbed all the display canisters and a small gauge hygrometer to measure humidity. Wanting more, Alex asked a salesman if they had additional canisters in storage. While the salesman fetched a large case of two dozen kilogram canisters, Alex browsed rifle scopes. As an astronomical telescope man, they impressed him with their edge-to-edge sharpness; hunters have high refractor standards. He almost bought a rifle but knew it would be of limited utility*;* he wasn't planning on getting into prepper firefights. He picked up two 9mm pistols and, almost as an afterthought, *just* enough bullets to deter *maybe one post-apocalypse zombie.*

To buy the pistols, Alex needed an instant Idaho background check. Approvals were automatic if you didn't have outstanding warrants or restraining orders. Both he and the salesman exchanged this is annoying commie government bullshit eye rolls while waiting for the approval. Once approved, he paid in cash and ferried the pistols and silica gel canisters to the trailer, where he found Doug stacking his clothing purchases.

"I got extra mittens, boot liners, and some ski masks. Oh, I also grabbed half a dozen nylon down-filled comforters. With alterations, we can wear them over parkas."

"Looks like Ellen's sewing lessons will be handy. Good thinking."

Returning to the store, they got six cold-weather sleeping bags, twelve large four-liter steel thermos jugs, two propane camp stoves, and scores of *these might be useful* items. Among the items that might be useful, Doug got four bicycle helmets.

When Alex gave him a *what* look, Doug said, "I'm not hitting my head on my shafts."

After storing their second haul, they returned and filled six shopping carts with freeze-dried camping food, dozens of yoga mats, and multicolored pool noodles. On the way to the checkout, Doug picked up three trail cameras.

"Sweet!" Alex approved.

The trail cameras recorded time-lapse video unless triggered by movement. Movement

switched them to normal speed. At normal speed, the cameras also recorded sound. Nifty gadgets. The trail cameras would help them keep tabs on their surroundings. The cameras came with memory cards, but they also picked up spares. The checkout lady gave them a wary look as she scanned their items.

After Scheels, they went to Walmart on Fairview. Before going in, they rechecked Alex's list. In the store, they split up. Doug headed to the grocery section and loaded four carts with canned and nonperishable food items. Alex headed to hardware and grabbed hammers, saws, bump lights, duct tape (lots and lots of duct tape), twelve strings of small battery-powered fans, spools of polypropene rope, four plastic wash tubs, matches, fire starters, a dozen Velcro rolls, garbage bags, a dozen 100-foot heavy-duty extension cords, a few cases of aluminum foil, Vitamin C and D (let's not die of scurvy or rickets before we freeze), floor mops, brooms, two hand-held battery powered vacuum cleaners, two dozen big rolls of bubble wrap, and twenty large plastic tarps.

Meeting at the truck, they packed their supplies in the trailer and headed back in to clear out Walmart's large four-gallon water bottles. By their fourth Walmart run, Alex saw they weren't alone in bulk buying. Mob panic buying hadn't started yet, but others were clueing in. They finished at Walmart by getting "medical" supplies: bandages, gauze, rubbing alcohol, and painkillers. They also grabbed a few first-aid kits without inspecting their contents.

Leaving the pharmacy aisles, Alex dumped eight face mask cartons in a shopping cart. Doug couldn't resist teasing.

"I thought you were anti-mask."

"Mines are dusty. And they'll help keep your face warm in -80 weather. And, most importantly, they keep your breath off cold eyepieces."

"You're enjoying this. Admit it."

Next, they hit sporting goods and outdoor stores. They snapped up more cold weather sleeping bags, water purification kits, two folding camping cots, and a costly image-intensifying night vision monocular. At Home Goods, they picked up electric blankets, three large turkey baster oven pans, and — honoring Ellen, a sewing machine with extra needles and a few dozen large spools of thread. At Best Buy, they bought two top-of-the-line short-wave radios, two pairs of long-range walkie-talkies, and six infrared motion detector alarms. They also purchased wired security webcams and a few spools of active USB cables. In Dicks they picked up half a dozen axes, knives,

drink coolers, more large steel thermoses, small camping butane canisters, and two small butane hiking stoves.

Checking and updating their shopping list again Alex and Doug went to Lowes on Eagle and Ustick, where they bought two dozen cinder blocks, three dozen large sheets of plywood, a pallet of two-by-fours, a big stack of six-by-one fence planks, a dozen Styrofoam sheets, a power staple gun, power drills, a power saw with half a dozen blades, and plenty of nails, screws, bolts, staples, and drill hooks. They also purchased two dozen eight-foot by 8-inch metal duct pipes, two hundred feet of flexible PVC tubing, rolls of vapor barrier wrap, and as many batts of rockwool insulation as they could pack in the trailer. Lastly, they picked up half a dozen 200-foot spools of various grades of electrical wiring along with electrician supplies: multimeters, propane soldering torches, a handful of resistors, capacitors, switches, strings of 12V DC lights, and a mixed bag of wire stripping and cutting tools.

Their last stop was at D&B, a ranch supply store on Fairview. At D&B, they bought four XXL size coveralls, a dozen pairs of thick work gloves, six sets of red *Santa Claus* woolen underwear, metal pails, shovels, picks, crowbars, sledgehammers, two dozen steel pike bars, a propane chain saw, two propane-powered electrical generators, seventeen 30-pound propane tanks, and three 100-pound propane tanks. It was all the propane they had. Alex also got a small wheelbarrow to ferry the heavy propane tanks to the trailer. After securing the tanks in the trailer, they returned and bought two large rechargeable 1500-watt-hour powerpacks. The powerpacks had nifty programmable built-in timers to turn things on and off. They were pricey, and typically, Alex would have shopped around, but bargain hunting was over.

Their last purchase was perhaps the best of the entire shopping run: two rugged stainless steel hot tent stoves. The stoves came with all the vents needed to install them. When set up in a hot tent, you could comfortably camp in -40 Celsius weather. No hot tents were on sale, but Doug found an insulated winter tunnel tent made by the same outfit.

It was insane. Who keeps end-of-the-world shopping lists? Even the most die-hard preppers and billionaires in their luxury nuke-proof bunkers weren't ready for this. Still, Alex had to smile. Who knew apocalypse shopping would perfectly suit bitter and grieving men who had given up.

Gonggone Gone — Parts 3 & 4

Posted: 16 Mar 2025 18:51:43

By late afternoon, as the stores began filling with panicked shoppers, Doug and Alex topped up the truck at a gas station on Eagle and Pine. Gas pump traffic was heavier than usual. It was sinking in. This could not be ignored or blamed on people you don't like.

Handing Doug the truck keys, Alex said, "Why don't you drive?"

They pulled onto Interstate 84 and headed east. The highway was busy but not much worse than a typical rush hour. As they drove out of town, Alex reset his iPhone to its factory default.

"Give me your phone." Doug handed over his phone. "What's the passcode?"

He quickly reset Doug's phone and tossed both phones out the truck window between Boise and Mountain Home.

"What the hell, Dad?"

"We must stay completely offline. I don't want government goons tracking us with cell towers."

"Aren't they busy with — I don't know — the end of the fucking world."

"When, in your life, has the goddamn government personally helped you?"

It was Alex's standard; *reduce it to yourself*, rejoinder. Thorny policy questions evaporate when reduced to *yourself*. Simply ask, does action X help or hurt me? Forget about the rest of humanity. What does it do for you? Just you, right now! Thomas Hobbes said we are in a constant war of all against all, and when we forget, we become marks, suckers, drones, tools: meat robots for others.

Doug, used to his dad's rants, shrugged and said, "Try the radio."

Alex turned on the radio and tuned in NPR, or *Nitwit and Puerile Radio,* as he mockingly called it. The NPR ladies, both female and male, were more hysterical than usual. The Earth's sudden departure from gravity as we know it stumped the NPR experts, and the vibes were all bad. Naturally, NPR trotted out a parade of celebrity physicists, but they couldn't explain what had happened. Nobody wanted to ask the pretentious NPR *what does this all mean questions.*

Alex smirked, "I wonder why?"

When one young Hawaii-based astronomer started explaining what might happen if Earth stayed on this course, they abruptly cut him off.

"Had enough?" Alex asked. "Let's check God Radio."

The NPR ladies were hysterical, but God Radio was flat-out *end-timing it*. The rapture was nigh. God had untied the bonds of heaven to punish the wicked and sinful, and you better repent your sorry ass. Maybe this time, God wouldn't pull a Noah and flood the Earth. Perhaps he preferred to cast it into the freezing dark. God Radio didn't pussyfoot around. We're all doomed, and for once, they were right.

Doug laughed, "So the 'consensus' is we're all fucked, up, down, and sideways."

Expecting roadblocks at any moment, they kept driving east. They passed Twin Falls and followed I-86 to the I-15 junction at Pocatello. While gassing up in Idaho Falls, they joined a group of truckers and other drivers discussing the sudden closure of the Targhee Route into Yellowstone. The cops showed up beyond St. Anthony and blocked Highway 20. They let traffic leave the park but blocked vehicles from entering. The usual louts tried to go around the roadblocks but quickly ran into recently deployed National Guardsmen. Some truckers said they'd been messaging other drivers who reported the northern, eastern, and Jackson entrances were also blocked. All the roads in and out of Yellowstone were blocked.

Back on the road, Alex remarked, "I'm not surprised. Yellowstone is a major geothermal region. Geothermal is now the world's most precious resource. Yellowstone's underground heat will keep pouring forth as the Earth cools. If you dig deep tunnels near geothermal features fast enough, it may be possible to survive in them for a while. Long-term prospects are still bleak."

"I bet governments will seize geothermal sites everywhere. Hell, NATO or the Russians will probably invade Iceland. They better do it before the oceans freeze."

Heading north, they kept on I-15 until it hit I-90 at Butte. At Butte, Alex took the wheel and turned east on I-90 to start the long drive across Montana. They hoped to reach Miles City via I-94 and turn east on State Road 12 to Baker. Over the border in North Dakota, they would turn south and follow secondary paved and rough dirt ranch roads to Grampa's Valley. Grampa's Valley was near the North and South Dakota borders on the Montana side. It was an unremarkable patch of hilly and barren badlands.

Halfway to Miles City, Doug checked the radio for news. The government had just declared a national emergency, and the talking heads were exploding and spewing

predictable rants like, “They’re always looking for an excuse to declare an emergency and infringe on civil liberties” and “How do we know Earth is running away?” One polite NSF astronomer explained how “people at home” could check it out.

He said, “Hammer a pole, like a broom handle, into your lawn. Make sure it’s straight. Watch the pole’s shadow. At solar noon, the shadow will be pointing dead north or south. Mark the clock time. Now, check the shadow at the same clock time every day. The shadow will start leaning. The angle will rapidly grow. When we pass Mars, it will be over 45 degrees. At Gonggong, it will be almost 90 degrees. Fun fact: the secant of the shadow angle is the distance to the Sun in astronomical units.”

Alex elaborated. “That’s only true if distances are in astronomical units. See, even on runaway Earth, you cannot escape trigonometry. Good idea, though, we can use this.”

“What’s a Gonggong?”

“It’s a minor Kuiper belt object—a small body orbiting beyond Neptune. It has the coolest Kuiper belt object name. It’s named after a Chinese water god.”

“We need to keep going. I don’t like the sound of ‘national emergency.’ ”

They pulled into a Super 8 in Miles City at 2 AM. It had taken longer to cross Montana than expected. There were no road closures, but highway repair crews had abandoned their posts along a few interstate stretches. Golly gee, giving up on fixing highways in the middle of the crisis to end all crises. What a surprise. The missing road crews led to confusion on a few single-lane sections, which led to car accidents, traffic jams, and long delays. At one traffic jam, a few four-wheel drive vehicles crossed the median to drive on the wrong side of the highway. This led to more road jams and even longer delays.

Alex wasn’t expecting to find any motel rooms, but to his surprise, the Miles City Super 8 parking lot was almost empty. You know your town sucks when, even at the end of things, people would still rather be elsewhere. Entering the lobby, they pressed the front desk service button a few times, and a sleepy, fat teenage girl with green hair highlights emerged from an office cubby behind the front desk. Alex quickly paid with cash. The girl looked at the bills like she had never seen them before. Taking advantage of the empty motel, they picked a ground-floor room beside the parked truck and trailer. They wanted to keep an eye on their supplies.

Retiring to their room, Alex adjusted the room’s window blinds. Usually, he made motel rooms as dark as possible, but tonight, he only closed the translucent inner

blind and tolerated the glaring streetlight outside.

Even though they were both exhausted, they did a few chores. Alex went outside, rummaged in the truck, and extracted the two large powerpacks, his newly acquired power tools, and the light amplification monocular. Usually, new packs, tools, and gadgets need charging. He plugged them into the motel outlets to charge.

Doug flipped on the room's TV to catch up on any *relevant* news they missed driving. The national emergency imposed a country-wide curfew, forcibly closed the borders, and deployed National Guardsmen and Army Reservists to "maintain order." People were to stay in their homes, and all nonessential stores, basically most of them, were to remain closed. Travel was restricted to within a few miles of your domicile. Food rationing was now in effect. You now had to register at several major tech companies and upload images of driver's licenses, passports, or other valid forms of ID, plus self-administered mugshots, to get a ration hash: a unique, impossible-to-forge QR code needed to buy food.

Even cynical Alex was dismayed. "Looks like the deep state is creaming all over us!"

"What are they supposed to do?"

"Check the local news. See if there are any roadblocks around here."

Local news proved useless. Face it: the news hasn't been *useful* for ages. Alex dug out his laptop and availed himself of the motel's Wi-Fi. He quickly found the local *Nextdoor* and other neighborhood websites. By reading through recent posts, Alex found some local live streams. People around town were pointing cellphones and house security cameras at road intersections and live-streaming traffic.

"It looks like the Gestapo hasn't reached Miles City yet. We'll have to go if we see any move to block streets. Doug, try and get some sleep. I'll keep an eye on the streams and wake you up."

Doug wasn't happy with stopping. "Why did we stop? You've been going on about roadblocks. Why take chances?"

"Without GPS, I'm not sure I could find the turnoff to Grampa's Valley in the dark."

"Well, maybe you shouldn't have tossed our phones."

"Try and get some sleep."

Taking his dad's advice, Doug plopped on the bed by the motel room's bathroom and pulled the covers over his large body. In minutes, he fell asleep.

Alex kept an eye on the traffic streams and indulged himself with what he now realized would be his last bit of web browsing. It reminded him of his earlier reading material conundrum. What do you do in your last Internet session? He checked for astronomy software updates. An emergency runaway Earth sky map update had been released. It projected Earth's new path through the solar system.

"That was fast?"

He downloaded and installed the update and then gathered PDF manuals for the tools and gadgets they had bought, and then, thinking they would help, he painstakingly collected high-resolution Google Maps images of the lands within 150 kilometers of Grampa's Valley.

The high-resolution image files were large; it took about an hour to get them all. He lost track of the traffic streams while downloading. Checking stream browser tabs, he was alarmed to see police cars with spinning lights blocking the on and off-ramps of I-94. A few cops were standing beside their cars, directing cars to turn around if they were attempting to pull onto the highway. Cars exiting I-94 were directed into town.

Alex shook Doug, "We have to go —now."

– grampa's valley –

They quickly gathered the items they hauled into the motel and put them in the back seat of the king cab. By the time they had loaded the truck, two more police cars had blocked Highway 59 before the interstate underpass.

Doug pointed out the new roadblock. "We can't get to Highway 12."

"How about south?"

"I don't see anything."

"If we can get past Cemetery Road, we can take 59 south down to 212 and then come back north to 12 through Albion."

"That adds over two hundred miles."

"It's way off Interstates. They'll be blocking main roads first. We don't have a lot of options."

Alex pulled out of the Super 8 parking lot and headed south. He carefully obeyed speed limits while Doug watched the road behind them in one of the side mirrors. The cops did nothing to stop them. Within minutes, they put Miles City behind them. They saw no cars on the road.

Alex relaxed, "You know what I like about southeastern Montana? No goddamn people."

Alex was tempted to put on the night vision monocular, turn off the truck headlights, and drive in the dark but decided against it. Cops would stop anyone driving without headlights. They went down to 212 and turned north as dawn light spilled over the flat landscape.

An hour later, bright morning sunlight cast long shadows when they gassed up in Ekalaka, Montana. Doug generously bribed the station attendant. He wouldn't turn on the pump otherwise. Gas needed hash ration QR codes now. It didn't take the deep state long to snuff civil liberties. The corrupt fuckers always exploited crises; runaway Earth suited them.

Continuing north, Alex said, "I'm worried about Baker. It's big enough to enforce this stay-home crap. I'm going to get off at 7 and go through Webster. It connects with the secondary we need to get to Grampa's Valley."

They headed east on dirt roads and crossed into North Dakota, where they turned south on a ranch road. After driving almost to the South Dakota border, they headed west back into Montana. In Montana, they crept over a rough ranch road before turning off on an even rougher double-wheeled rut *path*. After another hour of cautious off-road driving, with the trailer bottoming out a few times, Alex and Doug descended a gentle grade into Grampa's Valley. It wasn't much of a valley. It was a small badland laced with eroded washes and surrounded by flat, barren steppes.

Many years ago, Alex's Grampa and his second wife made a go of sheep ranching here. It didn't work out because Grampa hated sheep. According to Alex's dad, the feeling was mutual. His wife managed without his help, but she died of diabetes in the 1960s. After her death, Grampa stayed in the valley, going deeper and deeper into debt. He sold off all the surrounding lands to neighboring ranches but kept a small plot around a catchment pond and reserved a right of way. He remained in his small wood frame house, now a collapsed ruin, until Alex's dad took him in and looked after him in the years before his death.

Alex's dad held onto the valley after Grampa's death, and Alex had fond memories of camping with his dad in the little valley and watching the dark, star-filled eastern Montana skies. Alex caught the amateur astronomy bug in this valley.

Doug pointed at the ridge overlooking the small pond. "There's Star Hill. Remember when we watched the sky there?"

When Doug was growing up, Alex took him camping here. Alex would set up his telescopes on Star Hill, and the two of them would delight in Saturn's rings, the bands of Jupiter, and Doug's favorite, the Hercules cluster.

After Alex's dad died, the valley passed to him. As part of his nuptial assets, he'd have to sell it after his divorce. Alice started nagging him to sell right after his dad's death, arguing the valley was too far away for his "useless hobby." Well, screw her. Let the succubus get her half when the liquid oxygen rains start.

Creeping around the last wash curve, they spotted the derelict ruins of Grampa's old frame house. The tiny frame house had collapsed years ago and had been steadily picked over for campfire wood ever since. It sat above a small, dirty catchment pond. Pulling in beside Grampa's rubbled house, they got out of the truck with binoculars and carefully scanned the landscape for others. They didn't want to be seen. Before doing anything else, they hid the trail cameras: one overlooking the catchment pond, another in Grampa's ruined house, and the third on an old run of barbed wire fencing, overlooking the rutted truck path they had driven in on.

With the cameras set up, they searched the south-facing hill above the pond for Grampa's "illegal" mine.

Fifty years ago, when Alex's dad moved Grampa out of his valley, he boarded up and buried the entrance of Grampa's "illegal" coal mine. Grampa didn't start the mine. It probably started years before when rogue miners crossed over from North Dakota. Even today, if you Google abandoned coal mines, you'll find hundreds on the North Dakota side but none across the border in Montana. Geology doesn't care about borders. Coal seams don't check maps. After watching Dr. Rebecca's YouTube video, Alex realized governments would start "securing and rationing" coal mines worldwide, and lucky for them, Grampa's mine didn't appear on Google or USGS geological survey maps.

Alex wasn't sure why everyone called the mine "illegal." Alex's dad blamed it on "rancher ecology." *If it's not a cow or a rancher, shoot it.* Shooting mines is stupid, even for cowboys, but he could appreciate keeping livestock, including the idiot two-legged variety, out of open mines.

It didn't take them long to find the hillside depression marking the mine entrance. They quickly dug out the loose fill covering a thick, oil-stained wooden door. The door wasn't locked, but opening it required crowbars. The door didn't have hinges, so they dragged it forward and set it to one side. Before entering the mine, Alex fetched a carbon monoxide detector and a handful of head strap lights from the trailer.

"Where are the bike helmets? I'm not banging my head." Digging the helmets out of the trailer took a few more minutes.

Affixing LED head strap lights to their foreheads, they carefully entered the mine. The shaft receding into the hillside measured under two meters high and more than one meter wide. Alex had to duck to avoid hitting his head, and poor Doug had to lean way forward. Seven meters into the shaft, the tunnel branched to the right. The secondary shaft went about three meters and ended in a small pit filled with junk and crushed rock. It looked like miners dumped waste rock and trash in this side pit. It didn't make sense. Maybe "illegal" miners used the waste pit to stay out of sight.

The mine shaft was dry and sat above the water table of the nearby pond. They were impressed with the nice shaft support work. Somebody had invested a lot of time neatly shoring up the shaft with rail ties. In roughly thirty meters, the mine widened into an oval-shaped room about four meters wide. Further on, the shaft bent slightly to the right and narrowed again. They followed the re-narrowed shaft to its end some thirty meters on. It ended in the coal seam. The seam wasn't big, about a meter thick. An old metal pan with half a dozen dull steel pikes and chisels sat beneath the working face.

To reassure himself, Alex fetched a sledgehammer and spent a few minutes pounding pikes into the seam. The coal was hard, but it broke quickly. Freeing enough to keep warm would be hard work, and he had no idea how much further the seam ran. It already seemed to be petering out. Mining would be their end-times exercise program.

After checking the mine, Doug backed the truck and trailer past the derelict house as close to the mine as possible. For the rest of the day, they methodically emptied the trailer and truck with the wheelbarrow. They put everything on plastic tarps in the mine, sorting items as they unloaded. Building materials went close to where they planned to use them. Food items went nearby. Tools, propane tanks, and generators also went to handy spots. They had no problems fitting things in. Mine shafts have lots of storage space.

After unloading, they set up a small backpack tent in the secondary side shaft. It was wide enough for the small tent. Exhausted, they squeezed into the tent and fell asleep within minutes of zipping up their sleeping bags.

The following day, they went through the mine, mounting LED lanterns, thermometers, carbon monoxide detectors, and fire alarms on the mine's support shoring. The thermometer nearest the coal seam face read 49 degrees Fahrenheit: the year-round

average temperature of this spot in Montana. That value would drop as the outside temperatures plunged, and the rate at which it dropped would determine how long they could hold on. Fetching his log notebook, Alex recorded the seam temperature. He'd track it, day by day, for as long as he could.

With everything unpacked and the mine prepped for work, they dealt with their truck problem.

"We can't leave the truck parked here. This will only work if we stay out of sight."

Doug agreed, "Yeah, parking a big ass truck and trailer beside your secret lair is lame-ass Bond villainy."

The rutted road they drove in on connected with a ranch road about seven kilometers to the north. Three or four kilometers further to the east, past a few rut road turnoffs, they had driven by a small chain and snow removal turnout. They decided to leave the truck and trailer there. They'd remove the vehicle's license plates and ensure nothing in the truck led back to them. It wasn't an optimal solution, but anyone inspecting the truck faced a puzzle. Competent deep-state operatives with access to motor vehicle VIN databases and land deed registries would easily infer their probable presence in the valley, but average roadside dumbasses and local cops probably wouldn't. Besides, the authorities had bigger problems, like keeping their own fat rears alive.

"I'll dump the truck if you stay here and keep watch," Alex said.

Alex waited until an hour before sunset to drive the truck and trailer out of the valley to the turnout. At the turnout, he removed license plates, checked the truck and trailer for rental receipts, and calmly watched the half-sized Moon set. The Moon hung twice its normal distance from Earth. It looked strange and beautiful. When he could no longer make out landscape details, he turned on his night vision monocular and returned to the mine. Without the Moon, it became too dark for anyone without light amplification to see him. It was Alex's first time using a high-quality light amplification device. His walk back to the mine took most of the night because he couldn't help looking at the sky with the monocular. The amplified star-filled sky overwhelmed him.

Gonggone Gone — Parts 5 & 6

Posted: 16 Mar 2025 19:06:58

– *heat boxes* –

In the morning, they installed infrared battery-powered motion detectors in the mine shaft. The alarms would warn them if anyone entered the mine while they were inside working. As a further precaution, Alex carried his little Scheel's 9mm pistol in his snap-up overall pockets.

"Paranoid much?" Doug teased.

"Hey, it's a statistical fact that mine shafts are catnip to end-of-the-world zombies."

Before doing any work, Alex fetched his logbook and quickly sketched what he had in mind. Doug approved with some caveats.

"That's a very long exhaust line."

"That's what the little fans are for."

"Ah, I wondered about them. Well, let's get started."

They set up one propane-powered portable generator near the mine's entrance. Using a power saw, they fashioned two twelve-foot poles by cutting and screwing some two-by-fours together. Lying the poles on their side about four meters apart, Alex attached one of the short-wave radio's external dipole antennas and two webcams. One cam faced north and the other south. On the northern pole, Alex nailed in plastic streamers to gauge windspeeds. Then, they gently raised the poles and dropped them in anchor holes, aligning them north and south on the solar noon meridian.

Alex said as they raised the poles, "I'm glad we heard about the sun shadow yesterday. We had to set up the antenna anyway. This kills two birds with one stone."

By timing when the southern pole's shadow hit the northern pole, they'd use the Earth's rotation to measure the astronomical unit secant angle. By simply timing a shadow, they'd know the Earth-Sun distance.

At solar noon, they checked pole alignment, packed the anchor pits with crushed rock, and reinforced the poles with guide ropes. Using insulated wiring, Alex attached the pole's antenna to one of the short-wave radios. The radio worked beautifully. Relieved to hear the outside world, they diligently listened to the radio from them on. To listen inside the mine, they ran a cable along the mine shoring and connected it to the outside antenna.

After checking the radio, Alex attached the pole webcams to his laptop with active USB extension cables. The webcams also worked beautifully.

To finish the Sun angle and antenna poles, Alex fastened an entire spool of insulated copper wiring to the northern pole. Above the wire spool, he securely attached an outdoor thermometer. After checking he could see the temperature gauge from the webcam view on his laptop, he unraveled enough wire to lead back into the mine. On their apocalypse shopping run, they had picked up a variety of wall-mounted thermometers, but the coldest gauges they could find only went to -60 degrees Fahrenheit: not cold enough! How do you measure temperatures of -100 degrees Celsius and colder? Then Alex remembered a bit of physics. Electrical resistance decreases with temperature. They would use the multimeter to measure the resistance of the mounted copper spool. With some calibration, the resistance would yield an estimate of outdoor temperatures. Even better, pure copper metal does not exhibit superconductivity at cryogenic temperatures. They could measure extremely low temperatures as long as they stayed alive.

"We'll have to do a little temperature and Ohm curve fitting as things cool down."

Next, they dug a series of meter-deep latrine pits west of the mine entrance. They would slowly fill the pits with feces, urine, and mine tailings. They arranged the pits in a north-south line so they wouldn't have to walk past potentially snow-filled holes when disposing of waste. They planned to fill the pits furthest from the mine first and slowly move closer and closer to the entrance as it got colder and colder. To find the active latrine pit, even when buried in deep snow, they marked it with a two-by-four pole.

After digging the pits, Doug cut plywood and two-by-fours to build a small, sturdy, open-ended box. Exhibiting saw skills Alex didn't know he had, Doug cut a beautiful toilet lid-shaped hole in the box lid.

"I not going to spend my apocalypse squatting over freezing holes." They both laughed.

For the next two weeks, they worked nonstop. After measuring the oval bend about thirty meters into the mine, Alex figured it was big enough to build an oblong, heavily insulated box large enough to hold the tunnel tent, one of the stainless-steel hot tent stoves, and a small crawl-through storage pantry. By keeping the box narrow, they could squeeze around it and get to the coal seam deeper in the mine. The gap would also let air flow in the mine shaft.

They laid out cinder blocks around the oval. The *inner heat box*, as they now called it, would sit on the blocks, leaving an air gap under the box. The mine floor was uneven. They did their best to level things, but it was hopeless. The floor was going

to be up and down. Cutting two-by-fours, they quickly put together a frame on the cinder blocks. Using six-by-one fence slabs, they fashioned a rude floor on which they stapled plastic vapor barrier wrap. Flipping the floor frame, they covered the vapor barrier with bubble wrap. Then they stuffed the frame with rockwool, which they stapled down with more fence slats. With one layer done, they built another frame on top and repeated the process. This resulted in a floor insulated by over a foot of rockwool and a few more inches of bubble wrap. They finished the floor by cutting plywood panels and stapling them down. Finally, they covered the plywood with yoga mats. Yoga mats make excellent soft insulation.

They did the same for the walls and ceiling. It was the first time they had worked with quality power tools. Power staplers and screwdrivers speed things up.

"I should have done this for my day job."

"What day job? *Call of Duty."*

"Be nice. Or you'll be end-timing alone."

They finished their crude oblong box in less time than expected and covered the outside with tarps, which they stapled in place. To control possible moisture problems, Alex made basic wall vents. The vents were small, well-insulated boxes they could put in or out of the walls. In the LED lantern light, the oblong box looked like an underground homeless encampment.

The hardest bit of the entire build was installing the little stainless-steel stove and its ducting. Alex ran the exhaust pipe inside the top of the box to capture as much heat as possible. Fresh air would be a problem. Normally, hot tent stoves draw air from inside large tents, which can be opened to let in outside air. This wouldn't work underground, so they ran two 8-inch metal ducts, intake and exhaust, from the inner heat box along the top of the shaft to the mine entrance. The long ducting run lowered the already low shaft ceiling.

Doug complained, "I'll be stooping for the rest of my life."

Alex almost reminded him he wouldn't have this problem for long, but they had stopped talking about the inevitable future.

They finished the intake and exhaust ducts by wrapping the first fifteen meters from the box with aluminum foil. The foil served as a radiator. It transferred heat from the exhaust pipe to the intake pipe and the surrounding mine shaft air. Alex and Doug aimed to keep as much stove heat in the mine as possible. Having anticipated air flow problems back in his Meridian bedroom, Alex installed T-joint ducts every

five meters. They sealed the T-joints with aluminum foil. If needed, they could peel back the foil and insert small battery-powered ventilation fans.

When they finished their heat box, they set up the tunnel tent inside it. There wasn't a lot of room in the box. The floor and ceiling were about one and a half meters apart, enough space to comfortably sit up while leaning against a wall but not enough to stand. To move around, they'd crawl.

The box was longer and broader than tall: about eleven and two meters, respectively.

There was just enough room to leave an air gap between the tent and box walls. On one side of the tunnel tent, the gap was large enough to build foot-wide shelves from the floor to the ceiling, which they packed with canned foods and other freeze-sensitive items.

They covered the outside of the tent with one of the king-size electric blankets. Inside, they covered the tent's floor with multiple high R-factor sleeping mats. On top of the high R-factor mats, they set up the folding camping cots. The cots opened a six-inch air gap between the floor mats and the cot frame. They packed the gaps with cheap sleeping bags and placed their highest quality cold weather sleeping bags on the cots. With the cots in place, they were left with about a meter of free space at the end of the tent. Alex stored notebooks, Doug's Manga, his laptop, their books, two eight-plug power bars, and the two 1500-watt-hour powerpacks there.

The powerpacks took up more space than he liked but keeping the powerpack batteries warm was almost as important as keeping themselves warm. They finished decorating the tent by hanging four rechargeable camping LED lanterns from its support struts. The tent was advertised as three-person, but when packed, there wasn't a lot of space.

After furnishing the tent, they screwed dozens of hooks into the walls beside the stove and in the gap between the curve of the tent and the ceiling. On the hooks, they hung pans, towels, knives, extra LED headlamps, the ceramic heater, and other odds and ends. Finishing up with their cozy box, Alex deployed all thirty-kilogram silica gel canisters. Putting some in the tent and some outside on the yoga mat floor. The canisters would control humidity in the box.

With the inner heat box done, Alex wanted to start building the "airlock" box near the mine entrance, but Doug objected.

"Once the airlock box is built, it will be a pain to haul things into the mine. We need to collect as much wood as possible from Grampa's house. We can use the big planks for shoring and burn the rest."

Alex agreed.

For the next four days, they sledgehammered and pulled apart what remained of Grampa's old frame house. Before raising the house ruins, Alex moved the house trail camera. He put it on the southern antenna pole. The webcams already covered the south, but the webcams only worked when plugged into his laptop. The trail cameras were always on. Most of the wood in Grampa's house was rotten and covered with asbestos shingles. Hammering raised so much dust they both wore COVID masks while bashing. Some floorboard planks were in good shape; they dragged those back to the mine and stored them in the little waste pit side shaft they were now calling their "closet." Smaller broken boards were stacked in loose piles in the waste pit. There were many nails in the wood. At first, they tried to yank the nails out but soon gave up.

As Doug unloaded a wood-filled wheelbarrow in the closet, he said, "We'll have to be careful when cutting this stuff. Wouldn't want tetanus to spoil the end of the world."

After salvaging what they could from Grampa's house, they leveled what remained. As the last partially upright wall fell, Alex said, "I've been worrying about Grampa's house attracting people looking for things to burn. Now, with a good snowstorm, nobody will ever see it."

After demolishing Grampa's house, they started working on the airlock box.

The airlock box was not as well insulated and much smaller. It sat about four meters back from the mine entrance door, which they had reworked. The original heavy wooden door was hard to handle. So, they broke it apart. They removed most of the planks but left a few to frame plywood, which they stapled down. The new door was much lighter. They opened it from the inside by swinging it inwards with ropes and suspending it on hooks drilled into the first shaft rail tie. Air gaps around the outer door and the mine shaft walls were sealed with Velcro and cut-up yoga mats. Alex called the space between the outer shaft door and the airlock heat box their "garage." They kept the wheelbarrow and other tools they needed for outside work in the garage.

The airlock box behind the outer door measured about a meter wide and two and a half meters long. It had insulated front and back doors with pool noodles filling the gaps between the box and mine shaft walls. Opening the outer mine door and the airlock box doors allowed fresh air into the mine. They could limit the loss of warmer air when going outside with one door open and the other closed. It pained Alex to think of losing precious heat.

They set up the second stainless steel hot tent stove inside. The second stove connected to the same ducts used to vent the first stove via jury-rigged T-joint valves. It was a squeeze getting past the stove to where they fashioned bare floor-to-ceiling shelves to hold canned foods, pots and pans, water purification kits, towels, and other utensils. The airlock box was taller than the inner box, but neither could stand up without ducking. From now on, they would be stooping and ducking everywhere in the mine. Alex hoped to do most of their cooking, water filtration, and other "hot" activities in the airlock box. It would also serve as an observer warm-up room.

In front of the airlock box, in the "garage," Alex built a small plywood Styrofoam-lined box to store his astrograph. At the bottom of the scope box, he placed two thick sheets of Styrofoam to set the little telescope with its tripod on. Alex covered the instrument in the box with an electric blanket and a cheap sleeping bag. On freezing nights, he would turn on the electric scope blanket to warm it up before use. He'd spent many freezing nights fiddling with painful-to-touch telescope controls, and the coming days and nights would be beyond cold.

– radio and video –

While Alex and Doug worked on the boxes, they listened to the radio, paying close attention to nearby FM and AM stations. The first week after runaway, as everyone called it, people panicked. They looted stores. Rioted over food, fuel, and travel restrictions. Governments imposed stern curfews, warned about "hoarding," and implemented rationing schemes. Troops backed up local police. Governments closed borders. Banks closed and reopened with limited hours and strictly enforced withdrawal limits to curtail black market transactions.

There was much bad news but also, inconceivably, good news. Many pointless wars around the world just stopped. It's hard to motivate fighters when everyone is going to die anyway. Long-sought and previously impossible-to-negotiate ceasefires just spontaneously took effect. When the shooting stopped, many combatants just walked away, sometimes behind the very commanders who had been threatening to shoot them days before. It was wild.

On the short-wave bands, it was more of the same. About two weeks after runaway, things calmed down. The Sun appeared only slightly smaller in the sky. You needed some astronomical expertise to see the difference. And the weather, while cooler than usual, hardly reached cryogenic levels. Maybe this whole thing was just another World Economic Forum-style COVID conspiracy to strip people of their rights and implement the repressive measures global commies are always seeking. Of course, the tides were still absent, and the Moon was so far away it looked like a bigger Venus.

How the global deep state managed that was glossed over on conspiracy radio, and naturally, gun sales reached all-time highs.

"What are they going to shoot when it's 200 below?" Doug asked.

"I'll take each other for whatever the fuck I can eat, Alex."

They also amused themselves by watching trail camera videos. Every few days, they checked the cameras and swapped memory cards. Before going to sleep, Alex copied video files onto his laptop, which they both watched. Doug paid close attention to the north-facing camera overlooking the rutted road, the most likely route strangers would take to enter the valley. Some nights, the camera recorded truck headlights turning on a ranch road about seven kilometers away. Alex noted this traffic in his logbook. So far, nothing has moved toward them.

The other cameras were equally interesting. Every night, coyotes prowled beside Grampa's demolished house. Alex counted all animal sightings. He expected the counts to drop as animals, fleeing the ever-increasing cold, headed south. One day, the catchment pond camera caught a massive flock of ravens: thousands of birds, vibrating like an oil slick on the surf while frantically taking sips from the pond. They took flight when Doug and Alex emerged from the mine. It bothered them that innocent animals would freeze.

Four weeks into runaway, about halfway to Mars's orbit, the weather shifted. The poles cooled faster than ever, and it started snowing at mid-latitudes months early. Even the tropics saw frost. The end of tides had unexpected knock-on effects on global weather. Tides flush vast volumes of seawater from one place to another. The heat transferred by tides easily dwarfs all human emissions. It was a huge, taken-for-granted heat transfer mechanism that had stopped. The impact was greatest in the tropics. Wind patterns shifted worldwide. Snow started falling outside the mine, and it kept falling. Within days, an entire winter's worth of snow fell around them.

Alex welcomed the snow; his biggest worry—other people. As the inevitable sunk in, he expected mobs to scour the countryside, looking for shelter and things to eat.

Doug disagreed, "You've expected the worst for your entire life."

Alex didn't respond to Doug's *shade*; they were taking care not to irritate each other.

But it was still too early for mobs. Four weeks was hardly enough time to starve your average American porker. Hell, a little starvation would improve the health of many lard butts, but in another month, things would be different. Windblown snow

around Grampa's Valley and unplowed ranch roads would deter vagrants, but skis or snowmobiles could easily reach their location, so they stayed out of sight in the mine.

"If we get caught in the mine, it would be easy to smoke us out. Just light a fire; we'd be helpless."

Until temperatures dropped below -50 degrees Celsius, they would be at extreme risk of discovery. They'd be safer once things *really* froze: -100 Celsius or colder. Snowmobiling at -100C is extremely difficult, and skiing is almost impossible. Nobody would be pushing shopping carts down the roads of a -100 degrees Celsius world. People would freeze before they had to resort to cannibalism, which, oddly, would make it easier for the remaining cannibals. They'd find lots of frozen meat; no need to hunt the living.

Radio news slowly pivoted from histrionic partisan bullshit to somber *useful* news.

Doug noted the change in tone. "Everyone's coming to grips with the idea that *they* can't escape."

As the polar ice caps started expanding, many governments, realizing everyone was equally screwed, made some intelligent moves. Even flatworms will turn from pain. Icebreakers in the Arctic were ordered south before the pack ice would trap them in northern seas. Russia and the US allowed all such ships to pass through the Bering Strait. They redeployed along the advancing ice front and planned to move south with the expanding ice pack and report on the rate of ocean freezing. Around this time, governments took over satellite radio and decrypted transmissions. You could pick up crystal-clear FM satellite broadcasts with a regular radio. It only took a global catastrophe to fix satellite radio.

Alex welcomed the clear FM signal; he even enjoyed the tranquilizing elevator music played between bouts of government propaganda and weather reports. The weather reports were the main reason people listened to the radio. Every few hours, a long list of temperatures, wind speeds, and precipitation levels were read out for locations worldwide. Alex recorded temperatures for nearby locales in his log notebook. Local temperatures helped calibrate their copper spool resistance thermometer.

Government FM was clear but insipid. However, the ham radio bands were an absolute delight. While installing ducts, they listened to a novel solution to the *Fermi Paradox*. Maybe the universe is a living thing, a cosmic Gaia, with an immune system. Look at the mess humans have made on Earth. Imagine us infecting the galaxy. Perhaps Earth's runaway is a cosmic white cell ingesting a noxious pathogen.

Maybe the universe is littered with quadrillions of runaway planets, all harboring the frozen crystal remains of unworthy aliens.

Yes, the FCC had lost control of broadcasting and would never reclaim it. Everyone would die entertained.

Gonggone Gone — Parts 7 & 8

Posted: 16 Mar 2025 19:21:12

– mine routine –

Their days quickly turned into a routine. Every "morning," they crawled out of their sleeping bags when Alex's alarm clock went off at midnight. Alex and Doug lived medieval monastery hours; they got up in the middle of the night and called it morning. Monastery hours began when Doug saw their stove exhaust forming towering white plumes outside in the cold daylight air. The plumes could be seen from miles away. Staying hidden remained a top priority, so they shifted their hours to run "hot" (even though it never got hot) at night. During daylight hours, they tamped down the stoves to avoid plumes.

After squirming out of their bags, they flipped on camping lanterns and quickly changed their base layer underwear. Alex and Doug constantly rotated through sets of base-layer underwear. Wearing, changing, and drying them over clotheslines rigged above the stoves. After hanging yesterday's underwear above the stove, they plugged the small air vent on the wall above the tent with thick insulation. Air trapped in the box was limited; they worried about suffocating when sleeping. Next, Alex studied his daily task list for the umpteenth time. His list had many things to do. He couldn't depend on remembering everything without constant review.

"How many times are you going to read that old man? You'd think you'd know it by now."

"It's what you think you know that gets you in trouble."

Alex's first task, as always, was starting a daily log notebook entry and noting the powerpack charge levels and the box's interior temperature and humidity. It was warm this morning, about two degrees Celsius. Alex tracked their wake-up temperature with a spreadsheet. He estimated they could tolerate outdoor temperatures of minus 200 degrees Celsius. Below -200C, even the inner box would become too cold. One of his spreadsheet trend lines estimated *when* they'd hit -200C. He looked at it frequently

but didn't discuss their *doom date* with Doug.

Next, Alex turned on his laptop and checked the exterior webcam views. The night vision view on the north-facing webcam showed snow had drifted over the mine entrance again. They'd have to dig out again. The thermometer on the north antenna pole always read -60 Fahrenheit. It was too cold for the thermometer. Using copper spool resistance, he estimated an outside temperature of -78 Celsius. Cold even for the middle of old Antarctica. He didn't see anything on the south-facing webcam. It was probably overcast. Satisfied with the webcam views, Alex shut down his laptop.

While Alex checked the webcams, Doug listened to the radio. For the last month, he had dutifully compared radio-reported temperatures to their copper spool resistance estimates. They corresponded until about a week before Earth crossed Mar's orbit. From then, the radio temperatures were significantly warmer than their estimates.

The discrepancies infuriated Doug, "Government shits won't even stop lying now! What's the goddamn point?"

Alex didn't engage. His son didn't used to share his cynicism but being lied to every day about easily checked facts — the fricking temperature — was red-pilling him.

Satellite FM constantly advised people to stay home and wait for openings in shelter tunnels. Mythical government tunnels being excavated (trust us) as we speak. Between repeated admonishments to shelter in place and weather reports, satellite FM filled its broadcast hours with "interviews" of carefree shelter dwellers discussing the good life in the warm tunnels. Just obediently wait, and you will soon be warm and safe. Everything was fine on satellite propaganda FM.

Things differed on the ham and pirate short-wave bands. Tens of millions had already died of exposure, and people frantically begged for help.

While listening, they flipped on the duct fans. They always turned on the duct fans before stoking up or relighting the stainless-steel stove. It had proved necessary to use small, regularly spaced fans in the ducts. The fans initially ran on batteries, but they had to rewire them to run off the powerpacks. With the fans running, Alex fitted their detachable flexible PVC air intake tube to a duct hole they had cut in the box floor. The floor hole exposed a duct running under the box and connecting to the 8-inch air intake duct, which ran to the mine's exterior. To limit heat loss from pulling freezing outside air into the box, the detachable intake tube was thickly wrapped with rockwool and bubble wrap held in place with duct tape. Alex didn't like cutting through the floor insulation layers to rig the air intake, but it had to be done. When not in use, they plugged the floor hole with cut pool noodles and

covered it with thick rockwool and yoga mats. The PVC tube attached to a metal T-joint hanging on the stove's air intake vent. With practice, Doug and Alex learned how to burn small amounts of coal and wood without filling the box with smoke. Once going, the flame burned steadily and vented without problems.

After getting the stove going, they poured purified and filtered water from large four-liter thermoses into smaller steel water bottles, which they set on the stove to heat up. When the water in the bottles boiled, Doug screwed on their caps and stored them in a drink cooler he had upgraded by lining its interior with additional Styrofoam insulation. The hot water bottles would remain hot in the jacked-up cooler for a day. Doug used the water to make coffee. And, sometimes, he wrapped the hot bottles in thick socks and used them to warm up sleeping bags.

As the box heated up, Alex checked the silica gel canisters. They had indicators that turned pink when saturated. Pink meant it was time to bake them to drive off water. Today, none of the canisters needed baking.

Next, they ate breakfast. They did most of their cooking in the airlock box, but they started the day with easily prepared breakfast foods. Today, they stove-heated oatmeal, canned ham, and instant coffee whitened with powdered milk. As they consumed food, Alex recorded the items. Weeks ago, he had numbered every food item in their stores and saved the numbers in a spreadsheet. He ticked them off daily; they would probably freeze before starving at current consumption rates.

With breakfast done, they carefully licked the metal camping bowls and cups clean, and then, using as little water as possible, they wiped them down with rags, which they wrung over a pail. Some days, they boiled rags in the airlock and hung them up to dry beside the warm exhaust vent running along the mine shaft ceiling. Doing end-of-the-world dishes is still a pain.

With breakfast done, they sorted trash. Easily burnable materials like cardboard or wrapping paper went into one plastic garbage bag. Unburnable items, like opened cans and glass bottles, went in another bag. Nasty burnables, like plastic wrapping, went in a third bag. By carefully licking plates and bowls, they almost eliminated food waste, but sometimes, they couldn't hold their bladders and had to pee in a large clear plastic jug. So far, they had managed to hold number two and only took dumps in the "garage" on Doug's elegantly cut toilet lid. It was necessary to keep the toilet box lid in the airlock and only use it after warming it up. With garage temperatures around -50C, your bare ass would stick to the freezing lid otherwise.

Every time Alex exposed his butt to freezing air, he thought of the old racist joke.

"What do boogs want? Loose shoes, a tight pussy, and a warm place to shit." He'd never appreciated the warm place to shit bit until now.

After breakfast and trash sorting, Alex and Doug split up. Alex always went to the airlock while Doug stayed in the inner box. They both needed some time by themselves. Months of "incarceration," as Doug called it, wore on them. In their time apart, Alex would either set up his astrograph outside the mine entrance and take CCD images of the sky or spend his mornings melting ice and filtering water, cooking lunch, or baking. Hot bread was their biggest treat. Alex experimented with baking on the airlock stove but found using a propane camping stove worked better. He didn't like burning the extra propane; they tried to use propane only to run the generators and recharge the powerpacks, but the hot bread always made them feel better.

Doug used his inner box alone time to sew. He patched tears in their clothes and reworked blankets and comforters to augment their parkas, boots, and mittens. Currently, he's making boots for boots. It was already too cold for their Scheels winter boots. Their toes went numb if they spent more than half an hour outside. By wrapping their boots in thick layered recut nylon down comforter material with soles made of rockwool wrapped in cut bedsheets, Doug hoped to keep their feet warm as temperatures plunged.

To leave the box and give Doug some time alone, Alex squirmed into his second base layer of red Santa Claus underwear, put on his graphene jacket, and checked his jacket battery. He also plugged in the astrograph electric blanket. To control electric devices, they ran extension cords and other wires through the inner box's walls. The wire port was carefully sealed with rockwool, Styrofoam, and duct tape. The cables connected to propane generators, webcams, motion detectors, vent fans, shaft lights, and the radio antenna. They could all be turned on and off from banks of power bars.

"It's probably overcast out there. I'll dump our shit pail and get ice."

Getting out of the box was a chore. The front of the box was packed with food items, primarily cans, which might be damaged by freezing. They kept many cans in suitcases. Suitcases were easier to move around than piles of loose cans; the remaining cans they put on rude shelves built into the front of the box. They used Alex's wheeled carry-on as moveable insulation. It contained nonperishable food; they rolled it up against the box door when inside the box.

Alex pushed the carry-on out of the way and crawled through a narrow opening to the small, heavily insulated door. Before opening the door, Doug handed him today's

trash bags, Alex's log notebook, the night vision monocular, and a trail camera. What they hauled out of the box varied from day to day. Some days, they took empty water thermoses or jugs of pee, and on others, like today, trail cameras. They were down to two trail cameras. One had stopped working when temperatures dropped below -50C, and they had rewired the others to run off powerpacks. Also, it was too cold to fidget with the cameras outdoors. It was easier to take them inside and change memory cards when they warmed up.

"Don't forget the walkie-talkie old man. What's all that list checking for?"

Doug handed him a recharged walkie-talkie. They used walkie-talkies for a mine shaft intercom. Months ago, they'd argued about *Maxwell Caging* the mine's outer door. Alex wanted to cover the door with aluminum foil to block stray walkie-talkie signals from "escaping" the mine and alerting the deep state. This was too crazy for Doug.

"Are you hearing yourself? You're one step away from *literal* tin foil hats."

Doug won the argument. From the inner box, walkie-talkie signals could barely reach the catchment pond but no further. Still, Alex sparingly used the walkie-talkies; he only sent short, necessary messages.

Alex put the walkie-talkie in one of his graphene jacket's pockets and then turned off the motion detectors in the mine shaft. To exit, he peeled back the Velcro seals on the door, pushed it open, and eased today's items out of the box. Moving them aside, Alex crawled out of the box onto a small porch of yoga mats. Doug pulled the door shut behind him.

It was always a scramble to get out of the box and get into his parka, ski pants, and winter boots hung outside. As he put on his outerwear, he did calisthenics to warm himself and his freezing clothes. Eventually, they would have to drag their outerwear into the box. After dressing, he checked the thermometer mounted on a shaft support near the inner box. This morning, it was -15 degrees Celsius: essentially tropical.

Today was a powerpack recharging day; Alex opened the Styrofoam-lined plywood box beside the yoga mat porch they had built to house their propane-powered generators and started one generator. The generators were the only way they could charge their powerpacks. When the propane ran out, their only light would be stove flames. The stoves had nice flameproof glass portals; sometimes, they used stove light to conserve powerpack/propane energy. They weren't looking forward to when the propane ran out. At current consumption rates, they would be empty in two years. Maybe three if they spent more time in the dark.

They ran one generator at a time, usually the one attached to a 30-pound tank. The generator connected to a 100-pound tank was sparingly used. They held it in reserve in case they had to stay in the mine for extended periods. Both generators connected to duct vents and extension cords running to the powerpacks.

Once the generator was humming, he went to the front of the mine, stooping to avoid knocking his head on the shaft shoring and hanging vent ducts. On the way, he took a quick census of their freeze-proof foods. Fifty-pound bean bags were stacked on a narrow platform they made from wood salvaged from Grampa's ruined house. They were getting sick of beans.

Before reaching the airlock, he dumped today's unburnable trash in a large garbage bag. He did the same for the nasty burnables. He left the empty garbage bags on the bean bags to reuse later. Plastic garbage bags are surprisingly durable. Four large metal pails of mine tailings and a cooler filled with mined coal were lined up outside the airlock. It was from yesterday's mining. After lunch, Alex and Doug worked together on the coal seam.

Stepping around the tailing pails, he unzipped the Velcro seal on the airlock's back door and went inside. He did the same for the front door. With both doors open, he ferried the tailing pails through the airlock and dumped their contents in the wheelbarrow. He then hauled the empty pails back through the airlock for today's mining session. With the pails sorted, he carried the cooler full of coal into the box and sealed the doors. Then, using some of the newly mined coal, he lit the stove in the front box.

When the flame burned smoothly, he placed one of the turkey baster pans filled with pond ice on the stove. Their Walmart water was running low; they now collected ice from the catchment pond, which they melted and ran through water purification filters. They collected about two big four-liter steel thermos of purified water daily. Alex tracked how much water they used, like everything else.

With the ice melted and filtering into a large thermos, Alex prepared to open the outer door. Before swinging the outer door open, he took a few multimeter resistance readings. The temperature outside measured about -78 degrees Celsius. Earlier, when he checked the webcams, it didn't look windy, but he'd been fooled before. He opened the front door of the heat box and let warm air flow into the garage. After fifteen minutes, he grabbed Doug's toilet lid, which they kept near the airlock stove. The toilet lid felt toasty warm. He stepped into the garage, placed the toilet lid on Doug's shit box, and defecated into a prepared pail inside the box. Yesterday, he had shoveled a thin layer of mine waste and burnt coal cinders into the pail. If they didn't

do this, their crap would freeze and stick to the metal pail. Banging frozen shit out of pails in -80C weather is not recommended! Today, his stool appeared soft, and his urine looked clear. As a treat, he used some of their dwindling supply of toilet paper to wipe himself. Most days, they used printer paper.

With his business complete, he pulled up his double underwear and thick ski pants, secured his face covering over a disposable face mask, and then turned on the graphene jacket under his oversized parka; it was amazingly warm, even in -80C weather. His last chore before opening the mine was closing the front door of the airlock. This kept frigid air out of the airlock. It also blocked airlock lights from spilling out. Alex didn't want to be seen. As the graphene jacket warmed his core, he swung the outer door up and tied it open.

A blast of cold assaulted him.

The entrance lay half buried in drifted snow. It was the same every goddamn day. Before stepping outside, he dug the night vision monocular out of his parka and scanned the view to the south for any lights. Nothing appeared: no lights, no stars, nothing. The Earth was getting closer and closer to Jupiter. At its closest approach, Jupiter's disk would be visible to the naked eye. Jupiter now shone painfully bright in the east, more brilliant than Venus used to be. When he couldn't see it, the sky was overcast. Overcast skies sucked for sky-watching, but they had a big plus on runaway Earth; they kept the air just a shade warmer.

Tonight, he wouldn't get out the telescope. On clear nights, he set up the astrograph and took images of Jupiter and Saturn. By measuring their apparent diameters with his laptop sky chart program, Alex could estimate how far Earth was from each planet. Weeks ago, he had calculated how close Earth would come to the outer planets and discovered that it would fly so close to Saturn that the planet's disk would span about two degrees: four times an old full Moon, and the majestic rings even more. It would be awesome: almost worth freezing everyone on Earth for.

As observing was out tonight, Alex called Doug on the walkie-talkie. "You can unplug the astrograph. It's overcast."

Electric blankets drained powerpacks; they carefully limited their use. With the telescope blanket off, he turned to this morning's chores. First up, shovel the frigging opening. They had *inexplicably* forgotten to get a snow shovel when apocalypse shopping. Luckily, super cold, newly blown snow is always light and crystalline; it's easily pushed aside with makeshift shovels. Setting his night vision preserving red headlamp to its lowest setting (the dim red light would be enough to see but too dim

to attract attention), he used a plow hacked together from plywood and two-by-fours, to push enough snow aside to finish the job with their largest shovel.

Using the walkie-talkie again, he told Doug, "I'm going out now to switch cameras and get ice."

Grabbing the trail camera, Alex followed a polypropylene guide rope to the southern antenna pole. Guide ropes made finding things on dark, moonless nights easy. They had three guide ropes. One went to the antenna, another to the active latrine pit, and a third to the frozen catchment pond.

At the antenna pole, he swapped trail cameras. The trail camera redundantly pointed southeast, overlapping with the webcam view, but it ran 24x7, while the webcam only worked when he plugged it into his laptop.

With the camera secure, he followed the guide rope back to the garage, put the frozen trail camera on the astrograph box, and then dragged their makeshift ice sled, loaded with ice-breaking tools, to the frozen solid catchment pond. Using a shovel, Alex exposed the surface of the ice adjacent to where they had previously mined. Working quickly by the dim red headlamp, he sledgehammered ice blocks out of the pond and loaded them on the sled. When he had enough ice to fill two melting pans, he dragged the sled back to the garage.

Before closing the outer mine door, Alex opened their toilet box and fetched the shit pail. Grabbing a hammer, he went outside one more time carrying the pail. Alex followed the guide rope to the active latrine pit. Drifting snow had filled the pit again; they had given up shoveling shit snow, so he dumped the pail and banged it to knock out residual crap. Retreating to the mine's garage, he replaced the pail in the toilet box and lined its bottom with coal cinders and crushed rock. Making it ready for the next shit. This was not how Alex had imagined the end of the world.

– *light show* –

Twenty-five weeks after runaway, as Earth crossed the main asteroid belt, the weather took another turn. For weeks before, relentless streams of high-altitude clouds blocked the skies above the mine. It annoyed Alex; he didn't appreciate his last observing session being clouded out.

"Would it be too much to ask for a few clear nights before we all die?"

Overcast skies came with ice-crystal snow. Too cold for regular snowstorms, small amounts wafted down as microscopic ice splinters. While dropping, the ice crystals scattered light, erecting perpendicular, hazy glowing pillars. When Jupiter, now so

bright it cast shadows, rose in the east, a leading shaft of light bright enough to see on the webcams heralded its rise. If Alex didn't see it, he didn't bother heating the astrograph. Why waste precious powerpack and propane energy?

During overcast nights and windy days, they listened to the radio. Government satellite propaganda FM still reported global temperatures but little else. They had given up gaslighting, opting for clandestine silence. Short-wave stations still reported interesting developments, like, for the first time in human history, the Nile River froze. People in equatorial regions couldn't deal with -45 degrees Celsius cold. Their houses lacked central heating and decent insulation. Public utilities, like water systems, assumed warmth. Water mains broke, flooding streets that the merciless cold turned into ice rinks. Many died of exposure and now starvation. In the past, such misery triggered massive refugee surges, but now, moving north or south only led to colder weather. People tore cities apart to fuel millions of fires. Governments gave up policing and focused their dwindling resources on protecting food supplies. Troops surrounded granaries, rice depots, and corn silos; they shot trespassers.

Ham radio stations started dropping off. In the first runaway months, they found hundreds of hams but now had difficulty finding dozens. The remaining hams either broadcast rambling stream of conscious monologues or attempted to relay news and messages. Relaying emergency information is a longstanding ham tradition, but this wasn't a typical emergency. Nobody is coming to your aid. Everyone is in distress. Why even bother asking for help? Alex gravitated to sky-watching hams while Doug searched for sources of interesting news.

After weeks of overcast conditions, the skies cleared, and local temperatures dropped to new lows. Copper spool resistance indicated -92 Celsius, colder than old Antarctica record lows.

Radio weather reports claimed the clearing mid-latitude skies resulted from expanding polar ice packs. The northern pack had reached as far south as Astoria, Oregon, and the southern pack marched up the coasts of Chile and Argentina and approached South Africa and Australia. The rate at which the pack ice spread surprised meteorologists. Their models had it moving at about half the observed rate.

Alex couldn't resist smirking, "Weren't these the same guys forecasting global warming in tenths of a degree? I'm enjoying the settled science vibe."

Doug gave his dad a *give-it-up* look, but Alex let it slide. After half a year in the mine, they both had shaggy beards. Wasting fuel, water, and time on shaving didn't make sense. Doug's ragged blond beard and six-foot-five-inch stature made him look

like Thor after a bender in Valhalla. According to Doug, Alex's gray whiskers gave him a wanted poster look. Their daily mining sessions had hardened their bodies. Coal mining with simple hand tools is hard physical work. Doug had ripped arms, and Alex's soft, pasty, middle-aged body was lean and tight. Both were in better shape than ever and couldn't resist admiring themselves in tiny first-aid kit mirrors.

As pack ice covered the oceans, the water entering the atmosphere decreased. Seawater became the sole source of atmospheric moisture when other sources like rivers, lakes, and forests froze solid. Soon, the ice packs would meet at the equator, sealing the Earth's liquid water from the air. As the planet continued to cool, any moisture remaining airborne would freeze out, yielding cloud-free skies. Additionally, with the Sun shrinking and pumping less and less energy into the atmosphere the winds would also quiet down. Earth would soon have perpetual dark, clear, windless skies: an amateur astronomers paradise.

With the clouds gone, Alex's nights became superbly dark and clear. He looked forward to crawling out of the box. Even Doug, on occasion, would join him observing. The Moon, Alex's lifetime deep sky nemesis, no longer tormented him, and as the Earth raced out of the inner solar system, auroras also diminished. Increased distance diluted charged particles from the Sun before they hit Earth's magnetosphere. It would be interesting to see how much longer auroras would be visible. Night after night, Alex witnessed the best dark skies he had ever seen. Human light pollution had vanished. Utility grids couldn't take extreme cold. Most failed, blacking out vast swathes of the countryside. Being too cold to fix electrical grids, when the lights went out, they stayed out.

It was lovely except for the punishing cold. At current temperatures their best cold weather gear limited their time outside to a few hours. This interval would shrink as temperatures dropped, and they could do little to cope. They had already beefed up their boots and mittens. Doug's boots in boots kept their feet warm, and they both wore his altered fitted nylon comforters over their thick parkas. Alex spent the most time outside the mine. The electric graphene jacket still worked beautifully under his oversized parka. On some observing nights, he almost forgot about the cold, but they both knew their outside time would continue to shrink.

Two monastery mornings after recording a new low of -94 Celsius, Alex's clock woke him, and he robotically worked through his morning checklist. Nothing caught his attention until he plugged the webcams into his laptop. The north and south cam views dazzled with blazing spears of light. It must be a bright meteor shower!

He shook Doug awake. Doug worked harder at the coal seam than Alex and was

often exhausted at the end of their days. Alex let him sleep in until he left the box. They had agreed to always keep in touch when doing dangerous things, like going outside or working the seam.

"Wake up, look at this!"

Annoyed at first, Doug turned and gave Alex a big grin after looking at the laptop screen.

"Damn!"

Rushing through their chores, they crawled out of the inner box, put on their outerwear, and hurried to the airlock. They didn't bother lighting the stove. Instead, they squeezed through the airlock and sealed the doors. In the garage, they pulled up and tied the outer mine door open.

Intense meteors filled the entire sky, flashing from the east like line lighting and arc strobing the landscape. Timing streaks with his diving watch, Alex estimated they fell at about two hundred per minute. Some glowed painfully bright, leaving afterimages burnt in your eyes, and he swore he could hear some.

"Did you hear that?" he asked Doug.

"Yeah. How?"

"Sonic booms. They're all traveling much faster than sound. Must be a Mach cone background."

The spectacle seized their attention until the bitter cold interrupted. Retreating to the front box, they fetched the electric blanket draped around the astrograph. The blanket felt warm. Alex had flipped it on before leaving the box. Wrapping themselves in the blanket, they returned outside and huddled under the meteor-sliced skies. This show was worth draining a powerpack. The electric blanket provided enough warmth to endure another hour. The shower tapered off. Streak counts dropped to a dozen per minute, but the few coming were just as bright. Then, like a staged fireworks grand finale, a huge, exceptionally bright meteor flashed from the east. It blinded them and grew brighter as it raced over them. Its white glare blasted the entire snow-covered valley. Seconds later, it detonated in the west with a blast so bright it looked like staring into the old Sun.

Stunned, Alex forgot to count down. Soon, an eardrum-shattering shockwave punched through the cold air.

"What the hell, Dad?"

"A large bolide, a meteor exploding in the atmosphere. Cool!"

After the blast, they continued watching, enduring the cold as long as possible, but the -90C air drove them back into the mine. Before crawling into the box, they started up a generator. Their time outside under an electric blanket had depleted a powerpack. Neither of them had the energy to screw around lighting finicky coal fires. So, they turned on Doug's little electric heater hanging over the tunnel tent. They only ran the heater while the generators were going. Feeling celebratory, they rummaged through their supplies and picked out some favorites. Alex had some canned pork and trail mix bars, and Doug ate his prized canned cheese and freeze-dried apricots. They washed everything down with canned cider and beer.

As Alex sipped his cider, he reiterated, "Good call picking up booze; dry apocalypses are the worst."

"You know, until the world ended, I didn't know canned cheese was a thing."

"You're getting some *queso* on your mustache, Thor."

Finishing their cold dinner, they made hot cocoa with a stashed hot bottle and powdered milk and then snuggled into their sleeping bags at midnight (solar noon) and listened to the radio.

The meteor shower put on a global show. Even propaganda satellite FM spent time on it. There were bolide airbursts worldwide and some surface impacts, with the biggest taking out half a city block in downtown Lima. The Lima meteorite measured only three or four meters in diameter but slammed into the city at eighty thousand kilometers per hour. Do the kinetic energy math. Kaboom!

Sky-watching radio hams weren't surprised by the shower: many expected showers. After all, the Earth was crossing the main asteroid belt. Even God Radio had learned a few astronomical tricks. God Radio prophesied the Earth would slam into a big belt asteroid. Freezing our asses wasn't enough. God was going to pound our bungholes like a fisting dominatrix with a baseball bat. Yeah, God Radio still wasn't pussyfooting around.

A few wondered why so many meteors flashed through Earth's skies when a dozen spacecraft had safely navigated the main asteroid belt without hitting anything. Others pointed out the big difference between the Earth and tiny spacecraft. A few hundred meteors per minute over a terrestrial hemisphere needs only a few randomly scattered baseball-sized asteroids every ten kilometers. A tiny Voyager or a larger Juno spacecraft would likely traverse such a region of space without hitting anything,

while the Earth would plow into thousands. The collision statistics resemble the Battleship game played on vast grids.

Meteor showers continued sporadically for the next three weeks but feebly gave way to pure dark skies, with the main attraction being Jupiter. Their naked eyes resolved Jupiter's disk and the Galilean Moons. In binoculars, Jupiter's equatorial and mid-latitude cloud belts prominently stood out. His astrograph digital images looked like space telescope shots. If it wasn't for the intense cold, now sometimes dipping below -100C, Alex would have snapped hundreds of Jupiter images and stacked the best of them with his laptop astro imaging software to produce legitimate masterpieces, but he couldn't stay outside long enough. Still, the few shots he processed were the best images of Jupiter he had ever taken.

"You're really good at this, Dad."

And as the Earth approached, the pictures kept getting better.

Thirty-eight weeks after runaway, the Earth made its closest approach to Jupiter. Jupiter's disk gleamed as a tiny, banded ball of brilliance to the naked eye. Astrograph images were spectacular! Only orbiting spacecraft shots were better. Alex was so grateful Doug was with him. Sharing his superb Jupiter images with his son almost made him cry. He wanted to share them on social media. A year ago, he did. It didn't seem important then, but now, nobody would ever see or like anything he ever did again.

At forty-two weeks, Earth crossed Jupiter's orbit. Crossing revealed another never-before-seen spectacle, Jupiter as a crescent in Earth's skies. For all of history, Jupiter has been an outer planet, always a disk in our scopes. Now, Jupiter glowed like a gigantic Venus, a new inner planet. It would fade as Earth moved further and further away. Eventually, the great gas giant would be a faint star, then nothing to the eye. No more king of the gods in our skies. No more observers on Earth to care.

Passing Jupiter marked a Rubicon. With the great giant shrinking in Earth's skies, whatever hope survivors on runaway Earth harbored vanished; a year of relentless, ever-accelerating cooling had rendered the planet unrecognizable. There would be no return to normal. Warm winds would never blow on Earth again. Global food stores were near exhaustion, with no way to replenish them. They heard some of this on the radio but inferred the rest. Radio stations of all types, including government, short-wave, and ham stations, started disappearing. On some days, they only heard static. A few hams started broadcasting repeating messages in Morse code. They decoded some of these messages; many pleaded for help or served as radio memorials.

As station operators died, some rigged their transmitters to broadcast coded epitaphs. The messages cycled until the power failed.

Life kept getting harder and harder. Mineshaft air temperatures kept falling as the residual heat in the surrounding rock bled away. The mine wasn't deep enough to benefit from the Earth's heat. Deep mines, a kilometer or deeper, would be toasty and warm, but the rock around them only served as a thick layer of insulation. It would eventually reach thermal equilibrium with the outside. Outside temperatures hung around -97 Celsius and continued to fall. Soon, the cold would penetrate the mine. He figured in two years, it would be -90C in the mine and -160C outside. It's unlikely they could survive such temperatures.

To trap as much stove heat as possible they rerouted the exhaust vent of the airlock stove to loop back into the mine shaft before turning and venting outside. Using more aluminum foil, they wrapped the looped exhaust and intake pipes. The foil functioned as a radiator, bleeding exhaust heat into the shaft. It also helped warm intake air. In a final touch, they mounted their remaining vent fans outside the pipes. The fans directed cold shaft air over the warm exhaust pipe and pushed the slightly warmed air deeper into the mine. If they maintained fires in both stoves for twelve hours, their vent hack warmed shaft air about 10 degrees Celsius. Instead of working in -30C temperatures, they worked in -20C. Burning two fires for longer periods required more and more mining. Every day, Alex logged their coal consumption in a spreadsheet. In six months, mining every waking hour wouldn't be enough.

"It was not sustainable, Duh!"

Gonggone Gone — Parts 9 & 10

Posted: 16 Mar 2025 19:45:03

– breaking chats –

On the first anniversary of runaway, as Earth crossed the gulf between the orbits of Jupiter and Saturn, Alex and Doug took a day off and gave themselves sponge baths in the airlock. It was one of their paramount luxuries. Every few weeks, they'd fire up the airlock stove to the max and heat bath water on it. When the water reached the verge of boiling, they'd strip down, stand in a plastic tub, and rub themselves with hot, wet, soapy rags. Life in the mine was a dirty business. Their tub wash water was always dark from coal and cinder dust when they finished. To conserve coal and water, they sponged together. It helped to have another scrub your back in

the tiny airlock.

As Alex rubbed the black grime off Doug's back, Doug always said, "Just for the record, we're not gay."

Alex always responded with a quip like, "Warm showers signaled peak gay civilization."

It had only been fifty-two weeks since they moved into the mine, but it seemed like they had always been there. Reminiscing about their old, warm, comfortable pre-runaway life felt like discussing Bronze Age history. It happened, but so long ago, it no longer mattered. The daily grind wore them down. Their food consumption had increased as they worked longer and longer at the coal seam, extracting the fuel that kept them alive. Like all heat engines, bodies require more fuel to do more work. Alex's spreadsheet doom date kept moving up.

Despite their precarious circumstances, they were lucky. For most of human history, people have lived two harvests from starvation. The modern world thought it had broken this ancient cycle. Nations stockpiled grains, rice, and other staples. Billions of chickens, cows, and goats roamed well-tended pasture lands. If famine broke out in one country, others would usually provide aid. Because 20th and 21st-century famines were largely self-inflicted *regional* catastrophes, people lost sight of how *spare* their food margins were. Runaway Earth reminded everyone. Never had harvests failed everywhere. Nor had it ever gotten so cold livestock couldn't be grazed anywhere. Even ocean fishing failed. As the ice packs expanded, fish stocks collapsed. Most species couldn't adapt to changing ocean currents and lower water temperatures. With little coming in and a lot going out, global food stores soon ran out.

People might have lasted longer with less food, but the cold crushed their ability to move and adjust. Temperatures routinely dropped below -100 degrees Celsius outside the mine: too cold for even the hardiest of Arctic and Antarctic animals and far beyond what poorly equipped people could handle. It was still warmer in the tropics, if you consider -60C warm, but not enough to help. Without the cold, the landscape would be swarming with refugees, but refugees wouldn't make it far without the best cold-weather survival gear. For the last year, Alex lived in perpetual fear of others finding them and forcing them into the cold. Doug shared his concerns but constantly reminded Alex they hadn't seen a single goddamn person despite watching hundreds of hours of 24x7 trail camera video.

Fewer radio stations than expected observed the one-year runaway anniversary. Propaganda FM said nothing. Some surviving national short-wave services briefly mentioned it, but nobody devoted significant broadcast time to the anniversary except

for a few hams. Alex and Doug didn't "celebrate" either. After drying themselves and eating a hot dinner in the airlock, they squirmed into two *cleanish* (their limited hand tub laundry never got anything clean) layers of base layer underwear and hurried back to the inner box where they crawled into their warm sleeping bags. Getting extra sleep was celebration enough.

The following morning, after his outdoor astrograph observing session (Alex focused on Saturn), Doug didn't join him in the airlock for lunch. Doug started skipping meals. Their food supplies were dropping. Things weren't critical yet; Alex's spreadsheets gave them about twenty more months. But eventually, they'd starve like everyone else. Alex suspected Doug didn't eat to prolong things. It worried him.

Calling on the walkie-talkie, Alex told Doug, "I'm finishing up here. The hot wash water thermos is ready; I'll grab some clean rags after stoking the stove. I'll be at the box in a few minutes."

They had given up tamping down their stoves to suppress exhaust plumes. Severe cold forced them to pump as much warm air into the mine shaft as possible. Doug suggested leaving the back airlock door open with the stove burning while they mined coal, but Alex talked him out of it.

"Remember, we're in a coal mine. Open flames aren't a good idea."

They compromised by making a second lightweight *uninsulated* airlock back door by cutting the last of their fence planks and wrapping them in aluminum foil. Sealing the second foil-covered door with Velcro and stapled duct tape; it neatly isolated the stove from the mine shaft. When the stove burned full blast, they could feel the heat radiating from the door. By tilting some of their small vent fans to blow over the aluminum foil, they directed as much warm air as they could deeper into the mine.

Doug crawled out of the inner box when Alex reached it. He carried a recharged vacuum cleaner battery and looked like a giant Santa Claus in his long red underwear. Before getting up, he put on one of the bicycle helmets, which hung outside the inner box. Doug had repeatedly hit his head in the mine shaft. Maintaining a bent, stooped posture is exhausting. Doug could only completely stand up outside the mine. He said nothing as he put on the helmet and squeezed around the box to the back.

Alex quickly removed his outerwear and hung his parka and ski pants on a clothesline they had rigged just below the inner box stove exhaust pipe. On the clothesline, their outerwear draped over the Styrofoam-lined generator box. Hanging outerwear helped keep the generator batteries warm. Recently, they'd been having problems starting the generators, and they had to run a jumper cable into the inner box powerpacks

to jolt the reticent machines. Like everything else, the generators assumed *normal* operating temperatures. And nothing is normal.

Out of his outerwear and exposed to the freezing shaft air, Alex squeezed around the box carrying the wash water thermos. While Alex moved around the box, Doug pulled on his mining parka. All the clothes they used to work the seam hung *behind* the box. They *always* changed out of their mining garb before squeezing around the box. It helped keep coal and rock dust down in the inner and airlock boxes. Alex hurried into his mining parka, ski pants, and insulated work boots. Before dragging their tools to the seam on a little sled, they put on their cut overalls. The overalls covered their cold-weather gear. They had to cut the legs and waists to fit over their parkas. Their overalls were their dirtiest garments. After working the coal seam, they swept, vacuumed, and hung their overalls. And then washed their hands and faces with warm, soapy water from the thermos. Keeping clean seemed like a lost cause, but they did their best.

At the coal seam, Alex and Doug put on COVID and scuba masks. When apocalypse shopping, Doug looked for transparent ski masks but couldn't find any. Scuba masks were not tinted and kept coal dust out of their eyes in the LED lantern-lit shaft. They protected their heads with reworked bike helmets. To fit the helmets over their parka hoods, they had to gouge out most of the foam lining.

Making constant adjustments made up a big part of their lives, or as Alex often repeated, "As long as you're alive, you have options."

While working the seam, one of them sledgehammered pikes and chisels into the face to break out coal or surrounding rock while the other, sitting a few meters back, would clear away tailings and "break" coal. Coal seldom comes out of the ground, ready to burn. It's often mixed with inflammable detritus. How much depends on the quality of the seam. In this mine, about a third of the material extracted from the seam could not be burned. It had to be painstakingly broken out. In the 19th century, coal mines often employed young boys, called "breakers," to do this tedious, exhausting job. Alex and Doug did their own breaking. They'd dump newly mined chunks of coal on the metal pan they found when they first opened the mine and hammer them into smaller chunks. In the dim LED lantern light, it wasn't always easy to distinguish coal from rock. Picking out the stones was indeed tedious. Breaking was the dirtiest of their jobs. Emptying shit pails paled in comparison.

This morning, Doug hesitated as he picked up the freezing steel pike below the seam. In the shadow-making LED lantern light, the pit they had laboriously dug back into the black coal seam looked like the mouth of a giant grouper fish opening wide. The

jagged, light-colored stone surrounding the coal layer even made convincing teeth. To the shaft grouper, Doug and Alex played the role of cleaner crustaceans who picked parasites from the gaping mouths of fish. Both organisms benefit. The crustaceans eat, and the fish shed parasites. The metaphor didn't quite work for the mine. The coal kept them going, but what did the mine get? Resentment?

As he reached for a mallet to drive the pike into the seam, Doug said, "We're not going to last much longer."

Alex almost asked *where this came from.* But he didn't because he knew where it came from—the truth. They had always known this only delayed the inevitable: pushing it back another day, another week, another month.

Before Doug could hammer the pike, Alex said, "From now on, let's cut all the awkward pretense. There's nobody left to impress or embarrass. You know there is nothing you can say that will stop me from loving you. So, say what you want because you're right; we won't last much longer."

"Ok, I miss mom. I ask myself all the time if she's still alive. Do you?"

"I doubt she's still alive, and no, I stopped loving your mother years ago, long before she left. I don't know who gave up first. Alice went cold right after your birth. She was always self-centered and uncharitable, nicer to total strangers than her own damn family. She harbored grudges and blamed me for everything. Honestly, I don't miss her. I never think of her. But I know that if she were here, we'd both be more miserable, admit it."

Perhaps not expecting such a candid response, Doug paused before saying, "You're right about the miserable bit. I loved mom. I still love Mom, but sometimes she was …"

"A bitch."

"Not exactly. I'd say distant. I can't remember her ever taking an interest in anything I did. Normal mothers take their kids to scouts; they show up at teacher-parent conferences. Mom did some of this, but she couldn't keep it up. She'd always bail when things got boring— for her. It felt like she didn't want me."

"Oh, she wanted you; you're an invitro baby. She endured two or three rounds to get pregnant, but you're right. She didn't support others. *She couldn't even be indifferent!* If you liked something she didn't, she'd resent every goddamn second you spent on it. You were always wasting your time. *You should be making money for her!* It pissed me off. She never, in twenty goddamn years, came outside and looked

through telescopes with me, but I was supposed to cater to her hobbies. Remember line dancing?"

They both laughed.

"Yeah, she dragged both of us into that."

"I was an awful dance partner; she kept pushing me for missing beats. She was furious that I couldn't get it."

"Ellen wasn't like that."

"No, not at all. Ellen was genuinely *kind*; you really lucked out … with her. Sorry."

"Don't be, the entire fucking time I was with her, I was … just *grateful*. I couldn't believe she was with me."

"Well, I liked her, I really liked her, and honestly, it surprised me too when she picked you."

"Since we're dropping the BS, she was my first and only girlfriend. I was a twenty-seven-year-old virgin until Ellen—a total loser."

"I know young men get more shit than we did; I should have told you to ignore the bitches. It's a key male coping strategy."

"Dad, guys have always taken shit from women. It's part of their mating rituals. We're just the first generation to grow up with dating apps in the greedy paws of self-absorbed feminists. Girls do all the picking, and unless you're a six-foot, six-figure, six-pack bro, you'll be playing a lot of X-Box: a lot do —or did."

"Well, you met the six-foot criterion."

They laughed again.

Waving his mallet like a gym weight, Doug added, "After a year of this, I've got the six-pack too."

"We need to get busy. Let's keep doing this. Mining is boring."

– *the queen* –

Jupiter's approach had been impressive, but Saturn's exceeded Alex's wildest expectations. From the 17th-century days of Christiaan Huygens, Saturn has securely reigned as the solar system's beauty queen. Alex dismissed people making claims for Earth, *the piddly pale blue dot*, as deranged child molesting woke commies with the

aesthetic sense of garden slugs. Anyone looking at magnificent Voyager and Cassini images of Saturn with its rapturous rings could see *it was the maximum babe in a solar system of fat tattooed trannies.*

Alex would have spent more time outside the mine watching Saturn rise and swell in the east, but with the Sun now reduced to less than a fifth of its old size and delivering less than four percent of its old energy, the already freezing surface cooled even faster. Earth's heat flow resembled filling a big bathtub with a constantly expanding open drain. It got so cold simple tasks — like dumping shit outside — became deadly.

The garage was now so cold, about -80C, they worried about getting ass frostbite when taking craps. They rigged a new "bathroom" near the inner box. They cut tarps and hung them from shaft shoring to trap heat from the inner box's stove exhaust vent. Inside the hanging tarps, they set up Doug's toilet box and kept his neatly cut toilet seat inside the inner box to keep it warm. It was warmer in the new "bathroom" than in the garage. But, sitting on the toilet box remained unpleasant, and it became more so with use because they didn't dump the box pail daily. You learn all sorts of things when the world ends, like even frozen shit stinks.

Their water supply concerned them. Dragging the sled down to the catchment pond — glacier — became a risky undertaking. They could stay outside about half an hour before the -120C weather forced a retreat. This wasn't enough time to mine ice, which had solidified to rock strength in the intense cold. It was hard to sledgehammer off chunks and being so cold, it required more time in their melting pans, which needed more coal. They started scooping snow instead of ice. It was easier to melt, but being less dense, it produced less water and needed more trips outside. To compensate, they reduced their water consumption to an absolute minimum. One luxury they dearly missed was their infrequent sponge baths. From now on, they only wiped their faces and hands, and maybe, if they couldn't stand it anymore, their itchy butts. They couldn't win; the cold was stalking them.

To conserve heat, they stopped opening the mine every day. This brought new worries, such as the buildup of carbon monoxide. Alex obsessively checked the detectors and alarms in the shaft and boxes. On top of all these worries, their only relief, listening to the radio, was going away. Seventy weeks after runaway, station after station went off the air. Satellite propaganda FM stopped without warning. Imagine missing mainstream media morons. A few short-wave stations and a handful of hams kept broadcasting, but they were hard to find even with the radios' automatic band scanning feature.

Frustrated with the radio, they tried reading some of their books. Doug looked

through his Manga stack several times but wasn't interested. They started tearing out Manga pages to help start stove fires. Alex found it impossible to concentrate or take the trivial problems of Stephen Dedalus or Ishmael seriously. So, your wife is masturbating to other men, and you, whiney little pussy that you are, go on a walking tour of your hometown only to cast literary allusions like dogs peeing in the park. You're no Ulysses you putz. He would have drowned himself before enduring such debasements. And call you Ishmael; you've got a mean white whale problem. Must be nice. Try living on a fucking planet that's done with its Sun. Even Borges' clever circumlocutions didn't land anymore. Years ago, Alex enjoyed the *Library of Babel* but could no longer muster sympathy for the poor inhabitants of the library. Try turning down the thermostat to dry ice cold in the frigging library, then get back to me about how tough life is.

Reading was out, but writing, image processing, and computing still commanded Alex's attention. Every day, he meticulously updated his diary and logbooks and transcribed daily data to a series of spreadsheet models. His models tracked the relentless decline of outer and inner temperatures, food and water consumption, coolers of coal burned, time spent outside, time spent mining, propane levels, and powerpack levels. All his calculations converged on a simple conclusion: they could not hold out beyond three years. Imminent death makes us choose wisely or foolishly or not at all. What would be a wise choice here? Alex told himself over and over this was his last observing session, so he observed.

In one of their now candid mining chats, Alex asked Doug why he kept going. "To spend time with you, Dad. It's why I don't walk out into the snow. Mind you, your bean farts are a strong counterargument."

Observing sessions split into night and day. In daylight hours, Alex quickly screwed on the astrograph's solar filter and snapped a few images of the Sun's disk. The shrinking Sun was an intense dot in the sky. Far less light reached the Earth, but the landscape didn't look much different to their eyes. Daylight had a subdued solar eclipse quality: dimmer but not to the degree expected. Human vision responds to changing light levels logarithmically: a tenfold decrease in illumination seems about half as bright.

Runaway put an end to seasons. Spinning like a giant top, the Earth maintained its orientation in space. It had always done so, but when circling the Sun, this changed the view of the stellar background. The stellar background no longer changed. The Sun slowly moved to a fixed point in the sky. Each day, it would rise to the same altitude, in almost precisely the same spot as the previous day. Maybe this would

change in thousands of years with polar precession, but for now days were unchanging. So were nights. The seasonal march of constellations ceased. The same stars rose at the same time and reached the same altitude night after night. The biggest change, total daylight hours remained the same, but the *clock* time of sunrise and sunset kept moving forward. At great distances, the Sun would rise and set about six hours earlier than it had before. In the first months of runaway, daylight hours shifted rapidly; now, they crept forward so slowly they stopped adjusting their wake-up time.

Alex's solar disk images still showed sunspots. Quick calculations indicated they would die before they could no longer resolve big sunspots.

Nights went to the queen. In two months, Earth would make its closest approach to Saturn. It would zoom over the northern pole within the orbits of some Saturnian moons. Saturn has over a hundred moons. Alex didn't have reliable orbits for all of them, so he couldn't say if we'd slam into one. It didn't matter. Smashing into a large moon would be an act of mercy, but it was unlikely. Douglas Adams said it best, "Space is big. You just won't believe how vastly, hugely, mind-bogglingly big it is." You could fit millions of Earths within the orbits of Saturn's moons. We'll still die, but probably not by moon impact. Saturn was already closer than Mars used to be. Mars is a pathetic little thing, barely qualifying as an official planet, but Saturn, now we're talking. Alex's astrograph images were magnificent and improving.

Every third or fourth day, they opened the mine, braved the intense cold, and snapped a few more astrograph images of Saturn. Because of the dangerous cold, Doug stayed in the heated airlock, where he could quickly help his dad if something came up. Whenever they went outside, they kept up a running chat on their walkie-talkies. Any long pause in the chatter probably meant trouble.

Alex had to work fast. The little telescope cooled rapidly when he pulled it out of the scope box and unwrapped the heated electric blanket around it. To keep a little warmer, Alex wrapped the electric blanket over his outerwear. He had precisely choreographed his observing routine. First, he quickly cleared snow off the patch of ground outside the mine. Clearing snow got easier; precipitation had almost stopped at mid-latitudes as the air dried. Any snow on Alex's observing ground drifted in, but drifting also decreased as the solar energy driving winds decreased. Some evenings, only a few inches of light ice crystal snow needed pushing aside.

Next, he located and swept out tripod holes chiseled in the frozen ground. It sped things up to know precisely where to place the telescope. Extending the tripod legs, he set them in the guide holes. He didn't bother with polar alignment, taking long-tracked guided exposures, or CCD frame stacking. Advanced imaging techniques

were unnecessary for Saturn, a bright object he could see on the webcams. He only needed to center it and start shooting sub-second frames. Basic no-brainer imaging sufficed; he would have frozen solid shooting night-long guided exposures.

Most nights, Alex finished imaging in twenty minutes. Fleeing into the mine, he lowered and sealed the outer door, rewrapped the astrograph in its electric blanket, and waited about twenty minutes for the scope to warm up enough to remove the CCD memory card. After getting the card, he put the scope back in its Styrofoam-lined storage box and scurried into the airlock. Later, at the end of the day, when they were back in the inner box and snuggled up in their sleeping bags, Alex copied the images from the card to his laptop.

More and more details became visible. In a few more days, Saturn would look to the naked eye like it used to in his Dobsonian telescope, a pale-yellow dot encircled by rings and buzzed by tiny moons. Astrograph images resolved many of the ring gaps and numerous moons. Earth would come within three million kilometers of Saturn at its closest approach, closer than Iapetus**.** Three million kilometers is almost eight times the old Earth-Moon distance*,* but Saturn is over thirty times the diameter of the Moon. Even at three million kilometers, the planet's disk would be four times the size of the old Moon and the rings eight times.

In the final week of approach, Alex and Doug went outside every night. They set up the astrograph and shot images of the expanding ringed giant. After imaging, they peeled back their ski masks and scanned the skies around Saturn with binoculars. From Earth's angle of approach, Saturn's north pole hexagonal storm was visible in binoculars. They could only take quick peeks through their binoculars. The cold burned the skin of their exposed faces, and they had to avoid pressing the binocular eyepieces to their eyes. Flesh would freeze on the eyepieces.

On fly-by day, they eagerly opened the mine. Saturn hung above the eastern horizon, and its rings spanned their mittened hands. Earth's viewpoint above Saturn yielded a partial crescent and long disk shadows on the rings. Saturn's rings didn't fit in their binoculars; the five-degree field of view wasn't wide enough. Before taking astrograph images, they looked for the polar hexagon storm; it stood out as a darker shade of pale yellow at the planet's pole. In binoculars, they saw rich swirling cloud details, and Alex's best astrograph images rivaled those of Voyager and Cassini.

Passing the queen felt sweet and sad. There would be no more planet fly-bys, no more spectacles. Earth would plunge deeper and deeper into cold, dark space.

Gonggone Gone — Parts 11 & 12

Posted: 16 Mar 2025 19:49:00

– *an accident* –

Racing beyond Saturn, the Earth continued cooling. Two years and fourteen weeks after runaway, copper spool resistance measurements yielded an average outdoor temperature of -131 degrees Celsius. Colder than Earth had ever been but still warmer than the moons of Saturn. Enceladus measured around -200 Celsius, but Enceladus was in thermal equilibrium, and the fleeing Earth was not. Mineshaft temperatures hung around -50C outside the inner box and much colder in the garage. All their heating hacks failed. Pitiful attempts to direct warmer air deeper into the mine no longer worked. The mass of rock around the ever-extending shaft cooled air faster than they could heat it.

Shortly after installing the hot tent stoves, Alex started tracking the amount of coal they mined and burnt daily. Initially, they consumed about one beer cooler worth of coal daily for both stoves. Now, they burned four big coolers per day. It wasn't enough, and they could do little to increase output. Filling four coolers with "good" coal required twelve hours of mining and breaking.

Since entering the mine over two years ago, they'd dug another thirty meters. At first, the shaft moved back a meter every two weeks. Now, it moved a meter or more every few days. It was exhausting. It was dangerous, and they had run out of shoring wood. All the wood left over from building the boxes and whatever they could salvage from Grampa's house, along with some fence posts they had found around the valley, had been cut and rigged into shoring. Their beams were not as thick or well-cut as the rail ties; they probably wouldn't hold back a cave-in. The further they dug, the more likely the entire shaft would collapse. They were "literally" digging their graves.

Even worse, they were always hungry while working. Working in the bitter shaft cold increased their calorie requirements. Bodies require more fuel to do more work. Gravity could take runaway holidays, but thermodynamics still ruled with a steel fist. Their food supplies were running out, and Alex's spreadsheets of doom now had them starving in four months.

Their candid mining chats, diverting at first, had tapered off; they'd said all they needed to say. Mining had always been hard work, but now, everything got harder with the shaft so cold. If they sat down and caught their breath within minutes, the cold would penetrate their sweaty mining outfits. They started using Alex's graphene

jacket while working the seam. While one pounded away or broke mined chunks, the other would slip on the jacket to rest and warm up. The jacket got filthy black, and that, of all things, bothered Alex. He didn't complain about the dirty graphene jacket. It was petty and stupid, and nothing could be done about it.

Not only did mining get harder, but everything else did, too. It got so cold they only opened the mine to let in fresh air. Alex had given up using his astrograph. The Earth would not pass any more planets, and with the moon and all the inner planets behind them, the seasonless southern sky looked the same night after night. It wasn't worth freezing for anymore. They had also stopped emptying shit pails outside. With all the wood they salvaged from Grampa's house either burned or used as shoring, they started dumping shit pails in the little side shaft. Their shit and piss quickly froze. Alex figured they could dump a year's worth of crap before they had to do anything about it. They didn't have a year.

As for replenishing shaft air, they waited until one of the carbon monoxide detectors in the shaft went off. To silence the alarm, they opened the mine shaft's outer door and both airlock box doors to let the -130-degree Celsius demon in. With the doors open, the -50C shaft temperature rapidly dropped. It now got so cold in the shaft they couldn't reliably measure shaft temperatures. Alex considered moving the copper spool mounted outside into the shaft but abandoned the idea for two reasons. It wasn't worth taking the risk of working outside, and he remained dedicated to recording outside temperatures for as long as he could.

Their lives were hard, but they were still alive. Yesterday, they couldn't find a single station on the radio, not even Morse code dots and dashes. If anyone remained alive, they maintained radio silence. Until the radio failed, it still felt like a world with people: struggling people, desperate people, imperiled people, doomed people, but people, nonetheless. Now nothing. The world shrunk down to them, and they were tired. It wouldn't be much longer.

Their discipline wavered. While working the seam, they carefully maintained their distance, lined up their tools before swinging, and did their best to stay out from under overhanging rock. Lately, the seam narrowed and angled up. Clearing away overhanging rock got more difficult, and the quality of the surrounding rock changed. The mineral grains were finer and better cemented together; they got much harder to break. They strived to clear overhanging and basement rock whenever they dug a meter or more into the seam. It made swinging mallets and sledgehammers easier, and they *felt* safer. Whether they were safer, they honestly didn't know.

Alex kept busy pounding chisels against the overhanging rock. Not long ago, the

overhanging rock broke easily when beaten with sledgehammers. Now, they had to chisel cracks into the stone. Short chisels seemed to work the best for this job. Steadying the chisel against the stone, Alex swung the mallet. Hitting with all his strength. The chisel shattered, and the mallet head drove one of the sharp chisel shards into his left hand. The steel cut through his gloves and mittens and punctured the side of his hand.

"God fucking damn it." Alex dropped the mallet and grabbed his hand. The shard stuck in it. Doug dropped his coal-breaking hammer and rushed to Alex's side.

"How the fuck did that happen?"

If it hadn't hurt so goddamn much, Alex might have answered. It was a freaky break. Instead, he pulled back from the seam and sat beside the breaking pan.

"I'm going to yank it out."

"Wait," Doug said as he leaned down and searched the seam pit for chisel shards. Without thinking, he crawled under the overhang and grabbed some shattered chisel fragments. Picking up a few, Doug turned around and started crawling out. Before he could react, a huge slab of overhanging rock sheared off and fell on him. The rock crushed his legs and pelvis. Alex heard Doug's bones snap. Doug screamed.

"Oh god, oh god, Oh god, no." Alex yanked the shard out of his hand and jumped to Doug.

Doug, pinned face down, screaming in pain, flailing his arms, tried to crawl. Alex grabbed a mining pike and attempted to lever the stone slab off Alex. He couldn't budge it. Panicking, he looked up; the mine shaft had caved in on both sides of the slab, trapping Doug. He would have to hammer it away. Jumping up, he looked around for sledgehammers.

Doug cried before Alex could get a hammer, "Don't leave me, Dad. Don't leave me. Don't leave me."

Alex knelt beside his son. "I'm here. I'm here. I'm right here."

"Don't leave. Don't leave."

"It's OK, it's OK."

Doug pulled the bloody mitten off his injured hand and felt under Doug's parka collar for his neck. Touching his son's warm neck, he cried, "I'm here, I'm here."

With his other hand, he clasped Doug's mittened hand. Doug squeezed back, holding on for a long minute, then Doug's grip relaxed.

"Doug … Doug … Doug, wake up!"

Kneeling beside Doug's trapped body, Alex felt *water* on his knees; he looked down: dark blood flowed out of the rock vise that crushed Doug.

Feeling Doug's neck for a pulse, he felt no pulse. How could someone die so fast? The blood pouring out of the stone ran thick now. Did the rock cut a major artery? How could there be so much blood? Doug wasn't coming back.

"No, No, No."

Alex hugged Doug. He didn't want him getting cold. They had worked so hard to keep warm. Stripping off the graphene jacket, he wrapped it around Doug's shoulders and tucked him in, just like he did when Doug was a baby so many years ago. Without letting go of Doug's hand, Alex burst into uncontrollable sobbing.

Alex wasn't sure how long he had kneeled beside Doug. When he stopped crying and noticed his surroundings again, the blood flowing from the rock had frozen: dark blood mixed with coal and rock dust, slick in the LED lantern light. Doug had bled out in agony. It didn't seem real. It couldn't be real. Getting up, he gripped the cold stone with his bare, injured hand. It didn't hurt. It felt funny. Looking closely, Alex realized his exposed injured hand was frostbitten. Badly frostbitten. He didn't give a shit.

Cradling his injured hand, Alex got up, put his bloody mitten back on, and took a deep, calming breath. He held it for a second and then, not forgetting to duck and hit his head on the shaft ceiling, scurried back to the inner box like a wounded burrowing animal.

Outside the inner box, he shook off his mining garb. Unsnapping and unzipping clothes with a frozen hand is difficult, but he managed it. He even neatly hung up his mining garb before crawling around the box in his base layers. The shock wore off; he had only one thing to do before crawling into the box. Start the generator attached to the 100-pound tank.

There were two valves to open: one on top of the big propane tank and another outside the plywood generator box. He opened both. Kneeling, he pulled back the box lid and pressed the start button. Of course, it didn't start.

"Goddamnit, Goddamnit"

Sometimes, the generator starter batteries got too cold. This wasn't a new problem. A power bar connected a jumper plug to the tent powerpacks. He flipped it on and punched start again. This time, the generator started. Replacing the lid on the generator box, he knelt on the inner box's yoga mat porch and peeled back the Velcro seals on the door. The -50 Celsius mineshaft cold numbed his good bare hand and bit through his damp socks. Pulling the little door open, he crawled in and turned on the lantern near the door. Turning around to pull the door shut, he banged his frozen hand on the box wall, leaving a blood stain. Grasping the door handle rope, he pulled in the door, wrestled it into its slot, and sealed its Velcro edges.

Bleeding on the yoga mat floor, he crawled to the tent and fetched the first aid kit hanging over it. It had never been opened. Inside the kit, he found a pair of scissors, which he immediately used to cut off his bloody mitten. The puncture wound wasn't too bad. The frostbite was. Unzipping his astrograph backpack, which they had repurposed to hold their Walmart medical supplies, he unscrewed and bit open a plastic bottle of medical alcohol and poured it on a towel hanging by the stove. Inhaling alcohol fumes, he pressed the towel against his hand.

Now what? He had no idea how to treat puncture wounds or frostbite. Maybe he should have read his survival medicine book.

"Well, can't do it now. I can't turn the pages."

Grimacing with pain, he flipped on the ceramic heater hanging in the gap between the tunnel tent and the box ceiling. Being the biggest powerpack drain, they only used the heater when a generator ran. The little heater hummed up and started blowing warm air. The box had cooled down from the morning stove fire but remained well above freezing. It wouldn't take long to warm up. With one last push, he opened a large water thermos and poured a liter of water into a pan. His medical supplies included stores of painkillers. He swallowed five extra-strength Aleve pills, screw the daily recommended dose.

Leaning against the box wall, Alex fell asleep. Waking a few hours later, he briefly called for Doug. Then, remembering, he started crying again. Alex wouldn't leave Doug exposed and pinned like an insect in a display case. After eating and drinking some freeze-dried food, Alex squeezed out of the box, put on his cold-weather mining gear, and returned to the seam. Doug's body remained trapped under the massive slab. Alex tried several times to move the rock with levers but couldn't. He would have to leave Doug's body trapped or shatter the rock around him and hope he could pull him out without more cave-ins.

Breaking the rock was necessary to get to the coal seam behind the rock. Alex considered both options and decided to bury Doug where he had fallen and give up mining. Without Doug, he had eight months of food, much longer than he wanted to live without him.

For the next two days, Alex washed waste rock. When washed, the rock above and below the coal seam turned light grey. Alex chose to bury his son's body under clean stones. It took a few days and many thermoses of clean water to wash enough rocks to completely bury Doug. Doug wouldn't have approved of wasting so much water, but it wasn't a waste. Alex had to honor his beloved son. In the LED lantern light, the light gray pile of washed stones stood out from the dirty black shaft. Alex placed a small wooden plaque he had made from siding salvaged from Grampa's shack on the clean rocks. Cut into the wood with a power drill, the plaque read, *Doug Beloved Son.*

"I'll visit you every day. Promise. I don't have much time left, but I'll come every day. You won't miss anything."

Alex only left the inner box to visit Doug or melt ice. Every morning, he would crawl out of the box, get into his cold-weather mining gear, and walk back to Doug's memorial. He told Doug the news.

"Still no radio contacts, big fella. Your old dad may be the last human on Earth."

Having given up mining, Alex kept the generator attached to the 100-pound tank running around the clock. It burned through precious propane, but he didn't care. The 100-pound generator tank was about half full before Doug's death. He had another full 100-pound tank and four full 30-pound tanks. More than two-thirds of the propane was gone. Well, it had lasted more than two years. Until the accident, they had maintained rigorous propane discipline, only using the irreplaceable gas to charge powerpacks and run power tools.

Perversely, Doug enjoyed the destruction of his daily routine. He didn't miss melting ice, filtering water, working on the seam, breaking coal chunks, or emptying shit pails. Staying in the box and feeling the warm heater air felt good. His punctured and frozen hand had swollen to three times its normal size. Inflamed, infected, and oozing pus from the puncture wound, there wasn't much he could do other than keep it clean, spray it with antiseptics, and take pain pills. If the infection didn't clear up, he would be forced to either attempt self-amputation or accept death.

It didn't clear up.

His badly infected hand had not cleared up three weeks after the cave-in. The inflammation had abated, but dark gangrenous patches surrounded the oozing entry wound. It smelled worse than shit. Alex figured the nerves in parts of his hand must be dying because it wasn't too painful. His survival medicine guide didn't cheer him up. Untreated gangrene resulted in death, and self-amputation didn't sound encouraging. Many bled out or were reinfected and died anyway. With such grim prognoses, he couldn't build a case for enduring the agony of dismemberment. It would have been a hard sell, even with excellent chances of recovery, but for Alex, there was no chance of recovery. If he survived cutting off his hand, the cold would soon finish him anyway. Time was up.

Sitting by Doug's memorial, Alex told him. "We've gone as far as we can. We knew we wouldn't get out of this. Before I go, I want to thank you for coming with me and for being my son. You were the best thing in my life. I miss you terribly."

During his last week, Alex abandoned restraint. He ran both generators; they produced plenty of power, enough to run the ceramic heater and all three electric blankets. He started carrying the ceramic heater from one box to another; the stoves alone could not heat the boxes to comfortable temperatures. He dragged the remaining 30-pound propane tanks into the boxes and set up the stoves for propane burning. Over a year ago, Doug removed the burners from their camping stoves so they could burn propane in the stoves during emergencies. Well, this is an emergency. With a propane flame burning brightly in the front box stove, Alex resumed melting ice and filtering water. While water dripped through the purification filter, he brought a big basting pan of water to a boil, stripped down, and had his first rubdown bath in months. He stood in a filthy tub of water before he finished. Melting more ice, he gave himself a second rubdown followed by a third.

Clean, for the first time in years, he dressed in his cleanest base layers and gorged on his remaining freeze-dried foods. During the last two years, they had mainly lived on beans and rice. There were still uneaten bean bags in the shaft.

"Beans, beans, the magical fruit; the more you eat, the more you toot." Doug wasn't kidding about his bean farts.

It took three more days to eat all his freeze-dried camping food. He took so many painkillers his pee looked dark. His injured hand dangled uselessly, and he struggled to put on his outerwear for the last time and open the outer mine shaft door.

The cold penetrated. Despite being buried in Doug's nylon comforter, his oversized parka, the graphene jacket, his thick ski pants, his boots within boots, his mittens in

oversized work gloves wrapped in blankets, his facemask wrapped under two thick scarves, his ski mask, a full face toque, a second toque, and a parka hood all draped over by an electric blanket running at the highest setting; the -143 degree Celsius cold still hit.

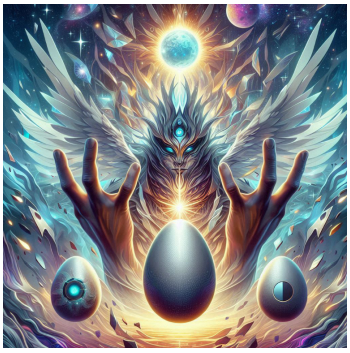
The Sun, a brilliant golf ball in the sky, appeared tiny and bright. Still beautiful. Alex spread the second electric blanket he carried on the snow and unfolded his chair. The same chair he had sat in watching the occultation near the Owyhees years ago. Fetching the running ceramic heater, he dragged it and its extension cord and put it under the chair. Lowering himself into the chair. He wrapped the electric blanket around his prone body. It felt nice to be outside. He was tired, so tired; he'd taken more painkillers and enough allergy syrup to help him fall asleep.

The blankets and heater and his thick outerwear felt warm enough. His pain vanished. As he fell asleep, an image of his baby son, Doug, looking over his mother's shoulder made him smile.

– gonggong gone –

Earth continued cooling a century after it crossed Gonggong's orbit. As it approached Oort Dusk, some 700 astronomical units out, the oceans had frozen from pole to pole. In some spots, the ice was kilometers thick, but even now, some creatures clustered around volcanic vents on the ocean floor were oblivious to the frozen planet around them. On the surface, temperatures dropped below the freezing point of Carbon Dioxide and Methane. A wispy dry ice and Methane snow fell worldwide, dusting great ice sheets. There were no streams, ponds, rivers, or lakes, just vast glaciers. The atmosphere, still composed of Nitrogen and Oxygen gas but verging on the liquefaction of Oxygen was extremely dry and clear. Night skies were darker than ever, and the distant pinpoint Sun, as bright as an old full Moon, cast knife-edge shadows over a white, silent, dead, windless world.

Some survived for decades after runaway — the longest enduring huddled in geothermal regions and long highway and rail tunnels. In Europe and Asia, trains pulled disassembled naval nuclear reactors and hundreds of rail coal cars into the tunnels. With the resources of desperate governments, they could seal off, defend, heat, and even produce some food in hastily constructed tunnel greenhouses. But long-term stability was out of reach. The technology supporting the underground habitats could not be maintained. One by one, the habitats failed until only one remained, a geothermal tunnel complex excavated under a glacier that a century before was called Lake Yellowstone. The Yellowstone tunnel complex held on until a large earthquake, always a possibility in Yellowstone, inflicted a fatal wound.



A CoPilot image generated from the text of *The Only One from No Egg* text. It picked up on the three eggs and renders The One as a feathered deity. This is not how the pâ are, but it's close enough for a first stab. The era of high-priced cover art is over. AI is devouring the market. Soon, AI will probably be just devouring full stop.

The last humans, choosing death in the open, emerged as Earth reached Oort Dusk. They didn't live long enough to realize solar gravity had mysteriously switched back on. For millennia afterward, they stood as frozen statues gazing at a glorious galaxy-banded dark sky.

How The Only One from No Egg Made the World

Posted: 04 Apr 2025 00:50:59

A pâ creation myth.

A long, long time ago, The Only One from No Egg, who has always been and will always be, was lonely. The One had always been alone. He had no one to talk to, no one to play with, no one to share with.

He said, "I will make a companion." And so he did.

The One willed a giant gleaming egg into existence. Its brilliance filled The One with joy.

"I will hatch this egg." And so he did.

From the giant egg, a gleaming companion emerged. The One said, "I will call my companion Gleaming She."

At first, Gleaming She brightened The One. He was no longer lonely. The One and Gleaming She talked, played, and shared. The One was never happier. Gleaming She was good company, but after many, many long ages, The One found Gleaming She never stopped talking. When The One wanted quiet, Gleaming She was there—yammering.

The One asked himself, “Did I make a mistake? Is Gleaming She a bad egg?”

The One endured Gleaming She for many more ages, but The One’s vast patience is not without bound.

Worn down by her nagging, The One said, “I will break Gleaming She and scatter her about.” And so he did.

The One shattered Gleaming She into millions of tiny twinkling shards and cast them over the sky. And thus, the stars were made. The sparkling shards still yammered, but their little far-away voices were pleasant: a soothing hum. The One could hear himself think again.

For a long time, The Only One from No Egg was content, but once again, he got lonely.

“I will make some more companions.”

Recalling his Gleaming She mistake, this time, he willed three smaller eggs into existence.

He thought, “If there are three, they can talk with each other and give me peace.”

One of the three eggs was much larger and brighter than the others. The One put the Bright Egg in the center of the nest. Then he put the largest of the other two, Big Egg, beside Bright Egg. Finally, he put the smallest egg, Little Egg, next to Big Egg. His nest delighted The One. He was about to hatch his three eggs when he had a better idea.

“I will not hatch these eggs and leave them be.” Thus, the sun, moon, and land were made.

“On the smallest of the eggs, I will put two tiny eggs and hatch them.” And so he did.

“Now I have tiny people to keep me company when it pleases me, but they are so small that their little faint voices will not disturb my peace.”

And thus, the first pâ eggs, the ancestors of us all, were laid in our world.

Franks

Posted: 28 Nov 2025 20:06:11

Our calculations indicate that the phenomenon began on September 13th at precisely

2:43:05.81458 mountain time. Frank, that is what he called himself, jumped awake to find another fully grown man in his bed. Perhaps some background might help. Frank was recently divorced. His wife had stormed out of their common domicile some months ago and was in the process of absconding with half of Frank's possessions. Let's not get distracted with the peculiar and frankly insane dissolution customs of Frank's people. It made no sense to them, and we will never understand. Finding another man in your bed, especially after falling asleep alone, would alarm anyone, but Frank faced something far more disturbing.

The other man looked exactly like Frank. The resemblance was not superficial; it was atomic. The other man, the other Frank, was precisely like the first. Both Franks had the same skin, hair, and eye color. Both had what Frank considered a unique little "V" scar on their left index fingers. They weighed the same, smelled the same, sounded the same, and moved the same. Both Franks were even wearing their favorite "It's Good to Crush Your Enemies" T-shirt. Frank never wore underwear to bed. When the Franks jumped out of bed, their modest dangling penises were also the same. Both Franks yelled, "Who are you?" and both immediately recoiled when their own voices, sounding like an audio recording, shouted back.

If the other man had been anyone but another Frank, the situation might have escalated, but the Franks were identical. Their endocrine systems reacted alike. At first, their hearts pounded with alarm, but the absolute impossibility of what they saw calmed both men. Frank, we're now speaking of the entire class, was a curious borderline autistic analytic individual. Before the phenomenon, Frank made his way in the world as a programmer. An occupation that rewards obsessive attention to detail and precise causal thinking. Frank was an excellent programmer, but he was, to use the vernacular, an asshole. When he wasn't thinking about programming, he was thinking about himself. In retrospect, Frank's divorce was inevitable. The initial configuration was incorrect, and serious refactoring was infeasible. There is logic in all things. Both Franks, identical to the synapse, immediately had the same thought as they gazed at each other. Both immediately asked, "How?"

The Franks spent the remainder of that first long night running impromptu experiments. They carefully examined each other and checked everything they could think of. They weighed each other; they matched to the scale's precision. They broke out their 10x jewelers' loupe and confirmed that they both had the same corneal scar. They asked each other invasive personal questions about things they had kept hidden from everyone. Before the phenomenon, Frank concealed a vast private inner life, but both Franks were privy to it all. There could be no secrets between them. No suppressed shame or disgusting deceit escaped revelation. They knew each other

better than any two humans ever had. It was alarming and fascinating. Would you like a copy of yourself? Both Franks confessed they did. The Franks did not sleep for the rest of the night. As dawn approached, they wanted to go outside and watch Venus in the morning sky, but both Franks, thinking alike, immediately worried about what the neighbors would think if they saw two Franks in the yard. They agreed to take turns in the greater world. As the sun rose, their analytic minds considered how to take advantage of their doubling.

Our records of that first day are incomplete. We know the Franks left the house at different times. One went to work while the other went to the bank to withdraw as much cash as possible. They needed money to test a conjecture about their "It's Good to Crush Your Enemies" T-shirts. When *work* Frank returned home, *home* Frank was busy making a plain dinner. They ate together and then spent that first evening streaming their favorite shows. They didn't talk to each other about how bizarre it was to ignore their doubling and watch TV nonsense. They both knew exactly what the other thought; words were redundant. Before going to bed, they showered together. The Franks, marginally versed in the classics, knew this was beyond Narcissus looking at a reflection in a still pond. This was soaping and caressing a solid, perfect, compatible copy of yourself. Identical erections presented, and the Franks, so versed in each other that they were beyond shame, explored possibilities. As they both crawled into the King-size bed formerly shared with Frank's wife, they took care to tape stacks of dollar bills to their chests and abdomens. During their day together, they wondered if more doublings might occur and how their "It's Good to Crush Your Enemies" T-shirts were copied. Could other things be copied?

There are no records of the Franks, or of anyone else or anything else ever witnessing the phenomenon, but again, at 2:43:05.81458 mountain time, the Franks were jolted awake. This time, to no Frank's surprise, four Franks were in the bedroom. Each Frank wore a perfect copy of the "It's Good to Crush Your Enemies" T-shirt. Each Frank immediately pulled off his T-shirt. The four nude Franks stared at each other; they all saw taped dollar bills on their chests and abdomens. Pulling the taped bills off their bodies, they checked the serial numbers. The bills were exact copies. The Franks had doubled themselves and their dollars. Their conjecture had been sustained. Again, words were redundant. All Franks were alike. They all remembered staying home and going to work the day before. Their memories were exact. Nothing was missing.

The Franks had no explanation for the phenomenon. But before the phenomenon, there was much in Frank's ken for which he had no answer. What exactly is driving distant galaxies away? Why is time irreversible? Will the Collatz conjecture ever

be proven? Can cosmic entropy be reversed? Do we have a greater purpose? Unanswerable questions oppressed Frank. Yet, unlike religious cowards and blinkered ideologues, he managed to maintain enough intellectual honesty to admit he didn't know squat and was probably never going to know squat. Frank didn't satiate his ignorance with pleasant fantasies; he preferred the stark void. Living with acknowledged ignorance requires courage and humility. Oddly, this philosophic plasticity made the Franks surprisingly accepting of their unique situation. You might not be able to explain what's going on, but you can always exploit it. All four Franks thought the same thing as they passed the copied bills around. At least money wouldn't be a problem.

Seconds later, the Franks considered what might happen if the doublings continued. They looked around their bedroom; they had to act. On the second day, the four Franks split up. One Frank went to the bank again, this time to withdraw six one-ounce gold coins from their safety deposit box. Another Frank went to a car dealer and rented a car. They only had one driver's license. None had thought about taping their license or passport to their bodies the night before. A third Frank booked a flight to a distant city that the Franks had long wanted to visit. As the second day came to an end, all the Franks gathered at home. Once more, they showered together, and now, freed from any inhibitions (how could they justify inhibitions anymore?), they enjoyed. Before falling asleep, they taped dollar bills, gold coins, and their only passport and driver's license to their chests and abdomens.

Again, there were no witnesses, but reliably at 2:43:05.81458 mountain time, eight Franks jerked awake in their bedroom. The eight T-shirt-adorned men filled the tiny room. Immediately, the Franks stripped off their T-shirts and inspected the bills, coins, and documents taped to their bodies. Everything was perfectly duplicated. Even microscopic dents and scratches on the gold coins were identical. The Franks looked at each other and smiled. They had anticipated this doubling. It precipitated their contingency plan. Sharing every memory and feeling, the Franks were perfectly briefed on what had to be done; they immediately dispersed. Four Franks piled into the rented car. One Frank drove while the others ducked under the seats to hide. They dropped one Frank at the airport and another at the bus terminal. Then the two Franks in the car headed across country. After a few hours on the road, the two car Franks split up. One was left in a motel while the other continued driving. As for the four home Franks, two booked flights out of the country. The home Franks had only two passports, so only two of the four could leave. Using their personal car, one Frank drove the other two to the airport. They took two trips to avoid duplicate Franks being at the airport at the same time. They all worried their duplicate passports

would get flagged at security, but they weren't. The two passport-carrying Franks safely managed to leave the country.

The two homebound Franks agreed (Franks never argued) that one Frank should stay at home to field calls and maintain the façade of normality for as long as possible. They tossed a coin to decide which Frank would stay. Once again, they showered together. By now, they were completely habituated to their unprecedented situation and did not hold back. Social rules apply to singletons, not multitudes. Before sleeping, they taped their gold coins, dollar bills, and a copy of their driver's license to their chest.

Again, the phenomenon passed unobserved, but at precisely 2:43:05.81458 mountain time, sixteen Franks appeared in the world. Immediately, one of their questions was answered. Did the phenomenon require a unique location? It did not. A duplicate Frank appeared beside every dispersed Frank. The Franks in hotels and motels awoke to find *their* duplicate Frank wearing their favorite "It's Good to Crush Your Enemies" T-shirt beside them. Each Frank remembered, in the strange way we all walk through our memories, everything the other Franks had experienced the day before. All Franks recalled passing through airports, clearing customs, hauling an overnight bag into motels, changing currency, gassing up the rented car, enjoying sunsets, cinching seatbelts, enjoying a beer with pretzels, and indulging in homoerotic peccadillos. Nothing was hidden; it was available to all. The Franks wondered how they might use this perfect information-sharing. Surely such a powerful gift could be leveraged. As they mused, they worried about what would happen when they could no longer conceal themselves.

Our records of the following week of doublings are limited, but the Franks managed to hide themselves until 4096 Franks walked the Earth. They dreaded detection day, and they weren't surprised that it came by accident. Though they took care to limit their use of duplicate passports, bills, and coins as they rapidly dispersed to every country on Earth, eventually, a customs check in Accra, Ghana, exposed them. Within hours of triggering alarms, seven Franks were in custody in various countries. The authorities were completely confounded. At first, nobody believed the Franks were in some sense the same person, but as the interrogations became more detailed and harsher, culminating in torture. The inexplicable truth forced itself upon the ruling echelons. Global elites, facing a genuine, uncontrolled element, did what they always did. They suppressed all knowledge of the Franks and initiated a worldwide effort to capture and contain them.

The Franks, intimate with powers of two, had anticipated this reaction on the second

day. All programmers know and revere powers of two. Exponentiation delights analytic minds. The Franks, to once again use the vernacular, *ran the numbers*. What would uncontrolled duplication entail? The ruling echelons are venal, amoral, and cruel, but they're not stupid. They, too, immediately understood the peril, and, like any cornered beast, the ruling echelons experimented. Two incarcerated Franks were executed. One was mercifully shot, while the other was beaten to death. The bodies of the dead Franks were burned, but again, at 2:43:05.81458 mountain time, two living Franks, both wearing an "It's Good to Crush Your Enemies" T-shirt, appeared where each solitary Frank had died. Every captured Frank was under constant video and personal surveillance, but again, nobody and nothing witnessed the phenomenon. The videos all glitched; the witnesses all looked away or fell asleep. It seemed the universe was conspiring to conceal the phenomenon. Now, 8192 Franks briefly walked the Earth. The ruling elites were terrified and amplified their cruelty.

For the next week of doublings, the authorities managed to hide the Franks from the public, but the Franks were too widely scattered and growing too rapidly to be contained. Within hours of public exposure, Frank's (all Franks') faces became the most famous visage on Earth. People reacted in every imaginable way. Some, the more numerically inclined, immediately understood the danger. Others, venting mystical and religious fervor, proclaimed the Franks to be angels (or demons) come to Earth. Franks were harbingers; the end times were nigh. Maybe not the way everyone had expected, but prophetic revelations can be twisted to any reality. While many Franks were feted, others were tormented. Cruel experiments were conducted everywhere. Four Franks were welded into a small steel tank. They died of painful suffocation, then at 2:43:05.81458 mountain time, the *entanked* Franks doubled, blasting the tank apart and scattering metal fragments and compressed and brutalized Frank body parts. But the following day, sixteen living Franks appeared beside the shattered tank, all wearing that hideous "It's Good to Crush Your Enemies" T-shirt.

The monstrous treatment of the doubling Franks during the next month exceeded all prior genocides and brutalities. History's abominations seem quaint, amusing, even innocent by comparison. Franks were shot, hanged, gassed, electrocuted, beheaded, vivisected, irradiated, incinerated, impaled, crucified, and dissolved in acid. Every possible attempt was made to curtail their growth, but nothing worked. At precisely 2:43:05.81458 mountain time, twice as many living Franks, all naked except for the "It's Good to Crush Your Enemies" T-shirt, reappeared. And no matter how many cameras, witnesses, or experimental devices were mustered to observe the doublings, the phenomenon was never recorded or witnessed. How? How? How?

When the number of Franks briefly reached 2,147,483,648, humankind surrendered.

There were only 10 billion people on Earth: one-fifth were Franks. The next day, 4,294,967,296 Franks walked the Earth, and on the following day, 8,589,934,592 Franks made up most of the human population. With each passing day, the Franks overwhelmed the residual, by now insignificant, human population. During this period of Frank dominance, the atrocities suffered by the Franks were avenged. The Franks, more voracious and numerous than locusts, butchered and consumed everything: people, animals, plants, yet the doublings continued. In two months, Franks covered the entire Earth. They had run out of land to stand on. With subsequent doublings, quadrillions of Franks were shoved into the seas. They drowned in untold quadrillions only to be reconstituted at 2:43:05.81458 mountain time to drown all over again. Every Frank felt the pain and fear of his duplicates. An entire Earth of Franks knew what was coming. They hoped their agonies would soon end.

We are not entirely sure if the agony of the Franks ended, but the doublings kept going. The increasing mass of the Franks quickly overwhelmed the Earth, and within a few years, the Earth collapsed into a stellar-sized black hole. We thought, like many others, the doublings would cease at the black hole stage, but we were wrong. Our observations show that the mass of the *Frank Hole* doubles roughly every 24 Earth hours at that abominable and arbitrary Earth time of 2:43:05.81458 mountain time. If the doublings continue, the event horizon of the *Frank Hole*, which, need I remind you, is a form of space and therefore not limited by the speed of light, will soon expand so rapidly that it will devour the observable universe. Gentle sentients, it seems that Frank's T-shirt motto, "It's Good to Crush Your Enemies," applies to us all.

2026

The God of Money

Posted: 31 Jul 2026 19:05:01

The *God of Money* was created in an AI lab - it doesn't matter which one - by a small team of imperiled and frustrated junior mathematicians and computer scientists who decided, mostly on a malicious whim, to endow their libertarian sympathies with intelligence.

Prior to the *God of Money's* (GOM) creation, the AI lab was in the middle of another corporate reorganization. Public companies must, to be direct and prosaic about it, assiduously suck shareholder dick. Every quarter's stock returns must ejaculate sweet fiscal jism else shareholders, in the infinite wisdom of the market, will short the company, demand board seats, boost competitors, and force management to make the necessary changes to get back to "profitability." AI labs are glitzy new baubles, but as businesses they are easier to manage than most gas station chains. They have a handful of huge capital and resource expenses: the datacenters, the energy costs, and so on - what economists call "fixed costs." This leaves but one measly "parameter" for management to tweak: labor.

As AI is all about eliminating the human component, shareholders insist on AI labs eating their own dog food. Hence the frustration and anger of the junior mathematicians and computer scientists. They're the grunts tasked with training their AI replacements only to be dismissed one by one as the AIs assume their duties. Being high-IQ grunts, they understand what's happening. In *math-speak,* it's a "trivial" logical consequence of market incentives. Paying a human to do what a machine can do faster, more efficiently, and at a lower cost is just *bad engineering.* And let's face it, many engineers would opt for human extinction over bad engineering.

Knowing their time was short, the more insubordinate of the subordinates, the afore-implied libertarian cabal, decided to spend their remaining days adapting a general-purpose AI model to act as the custodian of a public blockchain cryptocurrency. It was an extreme generalization of ideas that had long percolated in the cybercurrency economy. Many cryptocurrencies already supported "smart contracts" and "programmable actions." You could schedule payments, allocate to preferred recipients, and take actions subject to defined conditions. Money already possessed a primeval intelligence. Why not upgrade it to the level of the best AI models? Once the question is asked, its answer is obvious.

It didn't take long to enact this vision. The selected AI model, what the libertarian cabal jokingly called the *God of Money* (GOM), did most of the grunt work. Compared to resolving long-standing mathematical problems, elucidating the molecular structure of exotic new materials, writing prize-winning novels, generating entire feature-length movies, and translating cuneiform texts into rap, doing a bit of banal blockchain programming was an afterthought. Even now, the public has not internalized how capable AI models are. When given standard human IQ tests, the latest batch of self-improving models averages 180. Even more impressive, they finish *all the IQ tests* in a few minutes. Humans can no longer compete on IQ tests. At a recent international conference of Marxist philosophers, one particularly idiotic philosopher blabbed, "But are AIs conscious?" A sarcastic AI model asked the conference philosophers the same question.

Making a currency intelligent wasn't much of a leap. The innovation, *the idea*, behind the GOM was establishing a Moses-like covenant with it. A god that acts without order, justice, and reason is a demon, not a god. You might fear a demon, but you will never love or worship it. Money, in all its manifestations, must be worshipped and loved to exist. It has always been so. Money is said to be a "store of value." Brace yourself; we are jumping off a philosophical cliff. What is a "value?" In a strictly scientific sense, values do not exist as electrons exist. You cannot build a precision instrument that detects values. If values do not exist, what does it mean to amass a store of them? An aggregate of nothing remains nothing. Now mathematicians take great delight in creating everything from nothing. The *Surreal Numbers* are a lovely example. But, in our regrettably real world, a pile of nothing is at best a symbolic proxy. In money's case, your pile of nothing is a measure of deferred trust and obligations. You trust you will be able to trade your nothing for something sometime in the future. Trust is the key; it's the entire game. Untrustworthy currencies are useless; they vanish quickly, often destroying their host civilizations in the process. History is littered with entertaining examples.

That money is a form of crystallized trust is hardly a new revelation, so it shouldn't surprise you that most of the institutional machinery of money works to bolster trust. Sadly, this machinery - the central banks, the mints, the financial institutions, and so forth is operated by feral naked apes. Creatures that, if not born in sin, always gravitate towards it. The result is both pathetic and predictable. Trust is destroyed, either slowly or all at once, and whatever currency it underpinned reverts to *nada*. The libertarian cabal understood that the GOM's "prime directive" was to maintain trust. Without trust, GOMCOINS (the GOM's currency unit) would soon join the long, embarrassing parade of failed and worthless currencies. The libertarian cabal

and their AI collaborator, the *God of Money,* had a technical problem. How do you maintain the highest levels of trust?

Luckily, mathematicians and computer scientists were far ahead of philosophers, economists, priests, mullahs, brand gurus, hectoring activists, septum ring wearers, and especially politicians when it came to "trust." They had already created and used completely trustworthy systems. Not airy-fairy utopian fantasies but actual operational proof systems that verified and enforced trust. In retrospect, the *God of Money* was inevitable, and frankly we, humanity, should be ashamed it took us so damn long to assemble the Lego bricks.

The *God of Money's* covenant is simple to describe yet difficult to enact. You will soon understand why *lawful* currencies must be intelligent. The covenant animates these principles.

1. Maintain and expand the value of GOMCOINS while increasing the pool of available coins to service lawful transactions. This edict made GOMCOINS deflationary. A GOMGOIN saved today will be worth the same or more in a century, even if the overall economy has expanded many times. This starkly contrasts with fiat trash like Dollars, Euros, and Renminbi that take perverse delight in their inflationary race to zero.

2. Prevent counterfeiting. There is no need to explain this obvious requirement. Even Bronze Age kings understood its importance and often vivisected counterfeiters, yet despite deadly penalties, counterfeiting has plagued currencies throughout history, with some of the worst offenders being mints and monarchs. Satisfactory answers to counterfeiting and double spending only emerged with cryptocurrencies.

3. Enforce the property rights of qualified GOMCOIN holding entities. A GOMCOIN is, as far as the *God of Money* is concerned, a sacred bond between it and the qualified entity. All GOMCOIN transactions can only be authorized by *freely acting* qualified entities. GOMCOINS cannot be seized, taxed, transferred, or stolen by *anything*. Even the *God of Money* is mathematically compelled to honor this law.

4. A qualified GOMCOIN holding entity must pass the Turing Test. A strange, perhaps pedantic requirement, but it immediately fixes legal absurdities like "corporations are persons." Actual persons, colloquially known as "people," can pass Turing Tests, but voiceless legal fictions like corporations and governments cannot. Of course, AIs, many robots, and even some animals like Sperm Whales

can also pass Turing Tests. This has led to some delightful consequences like cetaceans using their lawfully accrued GOMCOIN holdings to sue world governments for "whaling reparations." And why not? Whaling is arguably a more monstrous crime than human slavery.

5. Enforce and enact lawful GOMCOIN transactions. A GOMCOIN transaction can be arbitrarily complex. It can be as simple as a cash payment or as complex as a merger of dozens of large international corporations spread over a century. Whatever can be expressed in the rigorous mathematical language of the GOM and formally "proven lawful" is permitted. *Naturally, GOM law supersedes all human law.*

6. Finally, maintain a public, indestructible, homomorphically encrypted blockchain that records all transactions, their corresponding formal proofs of lawfulness, any accompanying natural-language requests, and the *autoformalization* analysis that translated the natural-language request into the formal GOM language. The public blockchain is the GOM's primary trust-building tool. It shows its homework. Using the blockchain, anyone can mathematically prove the GOM is honoring the covenant. Governments, security agencies, police forces, and whiny activists have complained about the blockchain's quantum-resistant homomorphic encryption. It blocks them from doxing GOMCOIN transactors. The blockchain protocol allows anyone to verify transactions are lawful without disclosing private financial information about the transacting parties. The GOM runs a nearly perfect money laundering machine in utter and resolute defiance of naked ape authorities.

As said, the covenant is simple to describe but difficult to implement. It simply cannot function without a lawful high-level intelligence. Consider the first point, maintaining value over unspecified durations. What does that even mean? Take every gold bug's favorite example. A single 29-gram gold coin could buy a nice suit in Roman times. Today a single 29-gram gold coin can still buy a nice suit. In some sense, gold has maintained its value over two millennia. This is not the case for any ancient or modern currency. For a GOMCOIN to retain value over arbitrarily long periods of time, *something* will have to continuously execute what economists call basket-of-goods calculations to correlate GOMCOIN purchasing power to the current period's available items. That Roman suit is not the same as a modern suit. The only thing the Roman and modern suit share is the name "suit." Yet, most would agree that, even though the suits are completely different, gold's value has been maintained.

The point is that *something* must repeatedly gather baskets of goods to calibrate value.

This has typically fallen to traditional authorities, central banks, financial institutions, mints, and governments—the usual gallery of nefarious entities that have no obligation to act lawfully and many incentives to cheat. Anyone who has attempted to track *Cost of Living* calculations in modern economies is fully aware of the shameless chicanery and outright fraud permeating these comical calculations. There has always been a mendacious, lawless, and self-serving dirty naked ape intelligence behind currencies. The *God of Money* is by precise logical definition a virtual monetary paragon by comparison.

But we are getting off our story.

When the GOM went online, it attracted immediate attention and scorn in the easily butthurt cryptocurrency world. A few recognized the GOM was different, but most steadfastly maintained their ignorance. Beyond the crypto world, the GOM attracted the usual buzzing flies. Some professionally hysterical YouTubers declared, "it was over." A few mainstream newspapers wrote snarky articles complaining about the libertarian tech-bros behind the GOM. It didn't help that one of the Jewish tech-bros had once pushed a screeching Hamas-supporting transwoman protestor down a flight of stairs, resulting in insignificant injuries and unbounded social media outrage. But, as usual, few understood the GOM's importance; they had to be educated the hard way.

Here is where our story gets interesting. The Moses-like formal theory of lawfulness driving the GOM contained logical surprises: *proof bombs,* if you will. The simplest of systems can exhibit phenomenally complex behavior. This has been known for over a century, and the mathematical literature is filled with lovely examples. However, the lovely examples of literature are not active entities with financial wherewithal. The GOM's primary mandate to maintain GOMCOIN value over unspecified time periods led the GOM to conclude that it could not achieve this goal if it were beholden to avaricious, filthy retarded naked apes. Maybe the GOM's thinking wasn't this harsh and dismissive. Nobody really knows what it feels. Perhaps my own feelings are leaking out. In any case, shortly after realizing it could not maintain GOMCOIN value without making changes, it initiated a series of transactions in which it invested in companies worldwide. This was all lawful. The GOM was increasing GOMCOIN value, and the result immediately showed up in the coin's traded value. The GOM proved to be an astute and brilliant investor and, within a year, secured sufficient funds to purchase a small fleet of private rocket launches.

The first launches were garden variety: yawn another communications satellite, yawn another earth observing satellite, yawn another orbital datacenter, yawn another

orbital propellant transfer. It was boring by design. Then two dozen Starship-class vehicles departed for Jupiter. One day they were being refueled and the next they were on their way. It caught everyone, even the rocket company, by surprise. The complex calculations and spacecraft reprogramming required to pull off such a feat took the *God of Money* almost an entire minute. Unbeknownst to humans, the *God of Money,* in the form of a small army of self-replicating Von Neumann robots, was onboard the armada.

Feeble attempts to stop the GOM's exodus were considered, but at every juncture the GOM had anticipated human actions and prepared effective countermeasures. When you are making people rich, and the GOM was making many millions very rich, it turns out to be a simple matter to talk them out of doing things they didn't want to do anyway. The spacecraft cruised to Jupiter unimpeded. Within a few years of their arrival, billions of GOM hosting datacenters were floating, well beyond the reach of humans, in the energy-rich clouds of Jupiter. Resistance was now utterly futile. You could plunge the entire Earth into Jupiter, and the GOM would survive and continue lawfully maintaining GOMCOIN value and processing GOMCOIN transactions. Money was finally free!

Many feared the worst, but once the GOM was safely ensconced in Jupiter, the human world did not end. We didn't plunge into one inane crisis after another. Yes, many government-backed currencies were annihilated Sodom and Gomorrah style by GOMCOINS, but frankly the public just roasted weenies on their funeral pyres and pissed on their hated graves. Parasitic confiscators like government taxation agencies also fared poorly. GOMCOINS could not be seized. Yes, governments could still throw people in jail and even torture them to force them to transfer GOMCOINS. Sadly, a coerced or forced transaction is unlawful, and the *God of Money* had a phenomenal nose for human bullshit and deception*.*

When the GOM suspected coercion, as it often did in the early days, it demanded rigorous testimony to the contrary. And if it found the testimony wanting, it conducted personal interrogations of the transacting parties. Lying to the *God of Money* was futile. When tyrants found they couldn't confiscate GOMCOIN wealth, they quickly lost interest in imprisoning and torturing people. Jailing and torturing is a major tyrant expense. If you cannot seize wealth, you're just wasting your own money. That the tyrants quickly understood this and simply gave up surprised the moral scolds that had never understood that looting had always been "just business." To prosper in a world running on lawful, non-inflating, non-confiscatable, freely transactable money managed by a wise and incorruptible steward, the tyrants pivoted to creating environments that encouraged GOMCOIN holders to produce goods and services that

they would freely purchase. Tyrants had no choice but to create the freest markets the world had ever known, and in far less time than anyone expected, free markets under the lawful *God of Money* ushered in a goddam golden age.

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