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THE
(DE)EXTINCTION
LETTERS
VOLUME 2

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I WANT TO LEAVE

THE

(DE)EXTINCTION LETTERS

VOLUME 2

COLLECTING THE
(DE)EXTINCTION CLUB NEWSLETTER

2015 - 2016

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A Bad Case of the Abyss Daze

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A BAD CASE OF THE
ABYSS DAZE

The Great Acceleration and rethinking the Nature of the Anthropocene

January 21, 2015

Hello, hi, welcome back to reading this, wherever you are on the planet! (Maybe one day soon I'll get a subscriber on the ISS?) Right now the Earth is spinning at 465 meters/second and travelling at 30 km/sec around the Sun. Our galaxy is on a direct course for collision with [Andromeda in 4 billion years...](#) And our global civilisation is hurtling towards its end. Whether its next form is "Utopia or Oblivion" is to yet be decided. This year. That's my intuition. That's what we're going to talk about here, now, as you are reading this... Lay down some new threads, then pick up the previous ones down the track. Why not weave a whole new concept of reality? What else were you planning on doing this year?

While all the climate sceptics are waging their disinfo war (one of the many culture wars raging online and off right now) on just whether or not Global Warming is a real thing that exists, scientists are debating the exact nature of the Anthropocene. Where it begins, what defines it, etc.

[And according to this report in Nature, all residents of the Anthropocene proper are atompunks:](#)

"In their paper, the researchers propose that the boundary should be defined by the first A-bomb test in 1945 and the stratigraphic presence of radioactive elements from that blast and the much larger nuclear ones that took place over the next decade.

These radionuclides, such as long-lived plutonium-239, appeared at much the same time as many other large-scale changes wrought by humans in the years immediately following the Second World War. Fertilizer started to be mass produced, for instance, which doubled the amount of reactive nitrogen in the environment, and the amount of carbon dioxide in the atmosphere started to surge. New plastics spread around the globe, and a rise in global commerce carried invasive animal and plant species between continents. Furthermore, people were increasingly migrating from rural areas to urban centres, feeding the growth of megacities. This time has been called the Great Acceleration."

And as we'll see, the events that occurred during the period of World War II and the cultural fallout of its aftermath set in motion the coming Collapse; typical boom-bust cycle of every civilisation that's come before it. Choices that were made then that have led directly to the extinction crisis, climate chaos and <insert doom porn> currently under way.

Trying to get my head around it all, I've been basically scrap-booking the end of the world as know it with a series of tweets titled "[Understanding the Jackpot Years](#)"* - which really needs more of the parts of Gibson's story ("Jackpot Years" is from *The Peripheral*, but you knew that) where we simultaneously invent our way out of this mess just as everything falls down. That's the optimistic scenario, btw.

There's some graphs showing what a great mess has been made of the planet since we stopped the Nazis and the Japanese from forming their own empires and, ya know, saved the world:

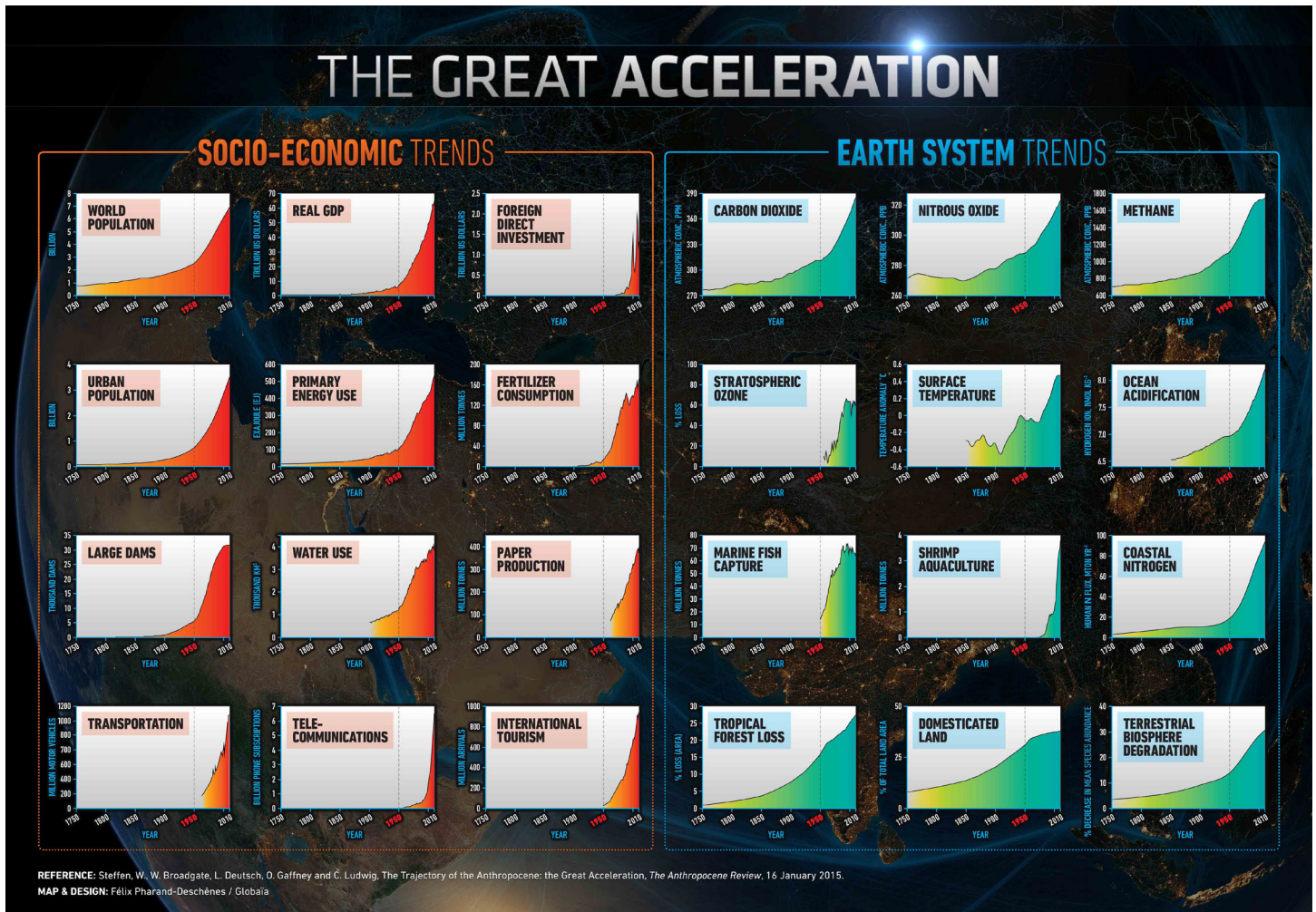
"World population and economic growth affecting energy, food, and water use that demand an increase in gas and oil production, fertilizer consumption to boost food production, and dam construction. At the same time, on the right, observe the dramatic increase on carbon dioxide, nitrous oxide, methane, stratospheric ozone, coastal nitrogen, acidification of oceans, marine fish captures, or tropical forest loss levels.

The data comes from [a new study on planetary boundaries](#)—the limits of global factors that scientists believe would be dangerous for humanity's survival. The study results suggest that we have crossed the line on "climate change, biosphere integrity, land-system change, and altered biogeochemical cycles (fertiliser use, phosphorus and nitrogen.)" And while "some improvements are visible, for example the recent apparent stabilisation of the ozone hole, many indicators are now beyond natural variability and remain on unsustainable trajectory.

Is it reasonable to establish a connection between socio-economic trends and Earth system trends? Scientists believe there is enough evidence to suggests just that. You only have to observe the vertical line dividing those graphics. The rapid acceleration starts in 1950, with [the postwar booms](#).

According to Professor Will Steffen—from the Stockholm Resilience Centre, Stockholm University and Australian National University, Canberra—they "expected to see major changes but what surprised [them] was the timing. The most dramatic shifts have occurred since 1950. We can say that around 1950 was the start of the Great Acceleration."

*since deleted. BUT BECAUSE I LIKE YOU - see: [Understanding the Jackpot Years](#).



Hi, my name is m1k3y and I'm here to talk to you about near-term human extinction. Please take a seat, a pamphlet explaining some aspects of our dark extropian philosophy will materialise from a future time stream and into your hands shortly...

Where did it all go wrong? Perhaps you've just recently watched the pilot for [The Man In The High Castle](#), and have been wondering the same thing? Thinking critically about the post war period and how it might otherwise have unfolded is important if we're ever to imagine our way out of its legacy. Like how the 'baby boom' and the rise of consumerism was an act of cultural engineering specifically designed to prevent "the mob" from ever giving power to another Hitler or Mussolini. Or how the counter-culture experiment of the 1960s became just another the "lifestyle option" at the mall. There is only the Empire; eater of worlds. Choose your flavour. Send away now for your fully customised, 3-D printed dystopic totem of the horror of the real.

I'm leaning heavily on Adam Curtis' work here, and rather than continue further myself, [you're far better served working your way through this archive](#). Then joining in me anticipation of his forthcoming series, [Bitter Lake](#). SOON!

Back to considering the nature of the Anthropocene era and the construction of history. As I've said previously, history is something that is being constantly recomputed. If we accept the nuclear bombings as kicking off the Great Acceleration - with a mighty bang, as it were - well all that was happening in complete secrecy; but it is almost completely visible to us now. It's said at the time only a few dozen people knew the truth of the Manhattan Project, with over a hundred thousand people being involved in it. The first atomic test was explained away as ammunition dump explosion. It was only with the destruction of Hiroshima and Nagasaki that the entire world simultaneously learned of its existence and was **forever changed**. It really does serve as a fitting marker point in the cultural record then.

Another marker? We've talked a lot about our future reborn friends, the Mammoths. One theory of the cause of the extinction of the Pleistocene Megafauna is known as [the Younger Dryas impact hypothesis](#). (That a comet or asteroid hit the Earth nearly thirteen thousand years ago, triggering a mini Ice Age, just as the planet had been in the process of warming up.) [Turns out some of the evidence for this, melted rocks found at various locations across the world, is in fact the result of Stone Age house fires](#). Once again, WE ARE THE ASTEROID.

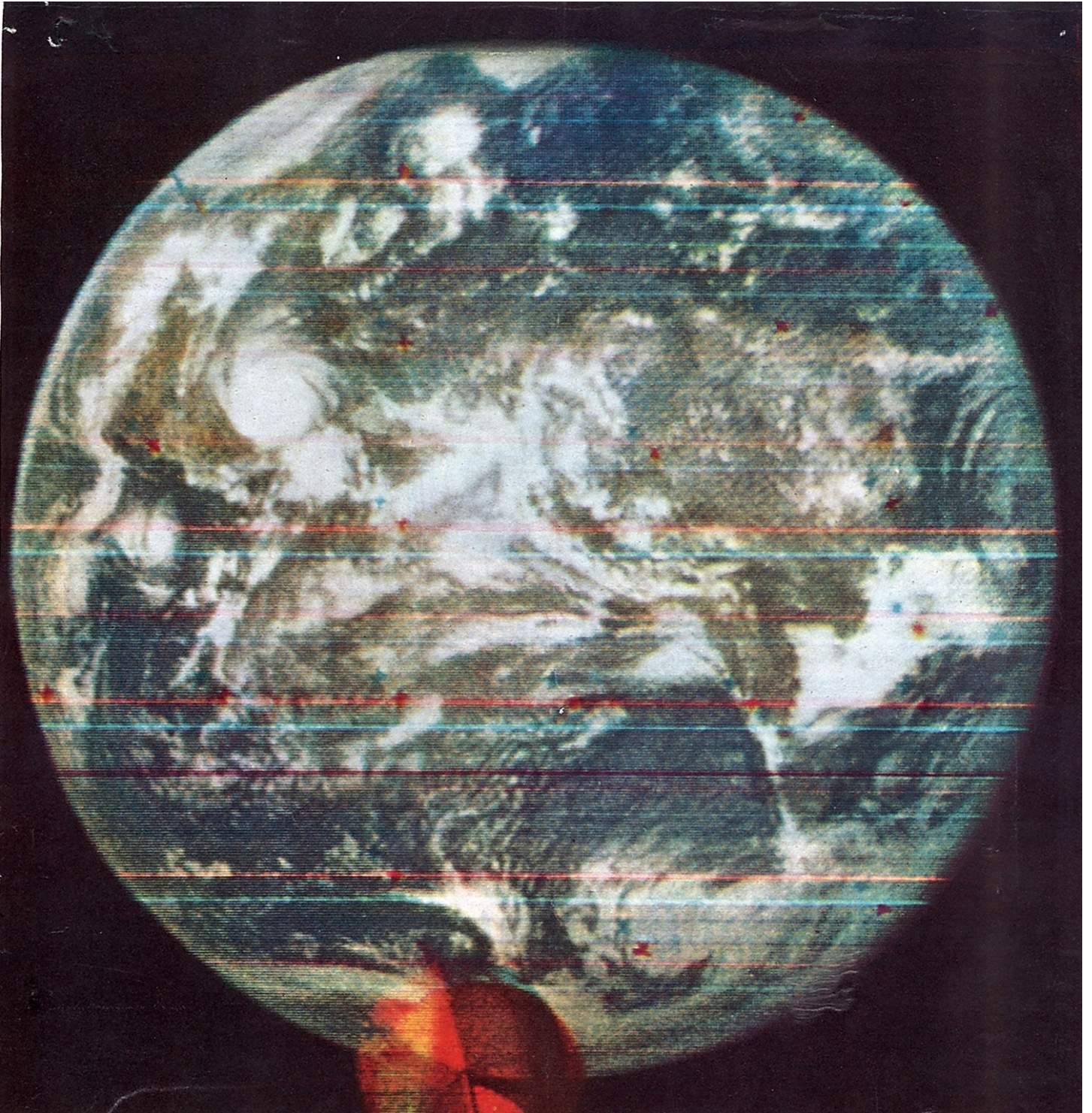
I'd argue that the Anthropocene is as old as the hominid line itself. That it began when our archetypal first proto-human ancestor mastered the use of fire. Mastery of atomic energy is the natural progression of this. Let's call 1945 if not the beginning of the Anthropocene, then perhaps the start of what we'll later call the thing we've mislabelled as the Singularity. (And what Gibson terms the long, multicausal apocalypse of the Jackpot years.) There sure are a lot of hockey sticks in those graphs, huh.

Now I know what you're thinking: I'm a thousand or other words in and I haven't talked about space yet. Don't worry, here we go...

The general idea of the Anthropocene is that the planet has been shaped by human activities. Transformed by civilisation. Infected by our activities and artefacts.

We can take that idea, and go places with it.

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That's the first colour picture of the Earth, taken in 1967 by the DODGE Satellite. Just a year earlier, Stewart Brand had been distributing buttons asking "Why haven't we seen a photograph of the whole Earth yet?" He'd later go on to use a similar image on the cover of his *Whole Earth Catalogs*, which served as a kind of paper version of Google for all the hippie communes. He used a vision of the Earth taken from space to inspire a type ecological awareness he thought might change the direction western civilisation was taking; away from "the Man", away from uncool corporate America, away from those Church heavies.

Needless to say, it didn't work. In fact, the World we live in is a direct consequence of it. And he's now championing nuclear power as the greenest alternative to the nightmare of ongoing fossil fuel use. And is, of course, a leading "thought leader" in the mainstream DeExtinction scene.

Decades earlier though, another [environmentally minded](#) thought-leader, and vegan, was utilising cutting edge technology for his own propaganda needs. [His vision was literally conquering space.](#)

His name was Adolf Hitler.

If we define the Anthropocene as the transformation made by human activities, then Hitler's Olympic opening speech from 1936 is the televisual shock wave all of the other achievements ever broadcast that followed it ride behind. Footage of the moon landing will arrive 33 years later to any alien civilisation on an exoplanet that happened to point its own radiotelescopes in our direction in time to tune in to Earth TV. The Challenger disaster, 50 years later. Whole alien generations may grow up tuned in to our stories on worlds we'll never know.

We have transformed not just the matter of our planet, but the electromagnetic spectrum of our galaxy too. Just as we see the light of dead stars in our night sky, so will all our cultural works continue their journey across the galaxy when the Earth is nothing but a burnt crisp. When the Sun has exploded, Lucy's husband will still be promising to one day 'send her to the moon', in a promise of spousal abuse with a laugh track for successive waves of extra terrestrial anthropologists to ponder over.

All this is of course the nightmare of history from which we seek to escape. Or awaken, as Joyce said. In his telling of the *Cosmos*, Neil deGrasse Tyson - who against all logic isn't a fan of *Contact*, with its [grand opening scene](#) showing our intergalactic cultural imperialism, and having aliens beam back Hitler to us, because that's how you open cross-species communication (they know, [they've been doing it for billions of years](#), remember) - names [Project Diana](#) as the moment [we announced our presence to the galaxy](#). (I clipped the whole segment and put it on Vimeo, because I like you, and I have a mind to use it for something else that's in the works.)

It's 1946, the war is over. WE WON! But the military industrial complex is still at the height of its power, and full of energetic people who are quite used now to thinking big and achieving their visions... obviously, you then start radaring the Moon and thinking along these lines [in newsreel footage](#):

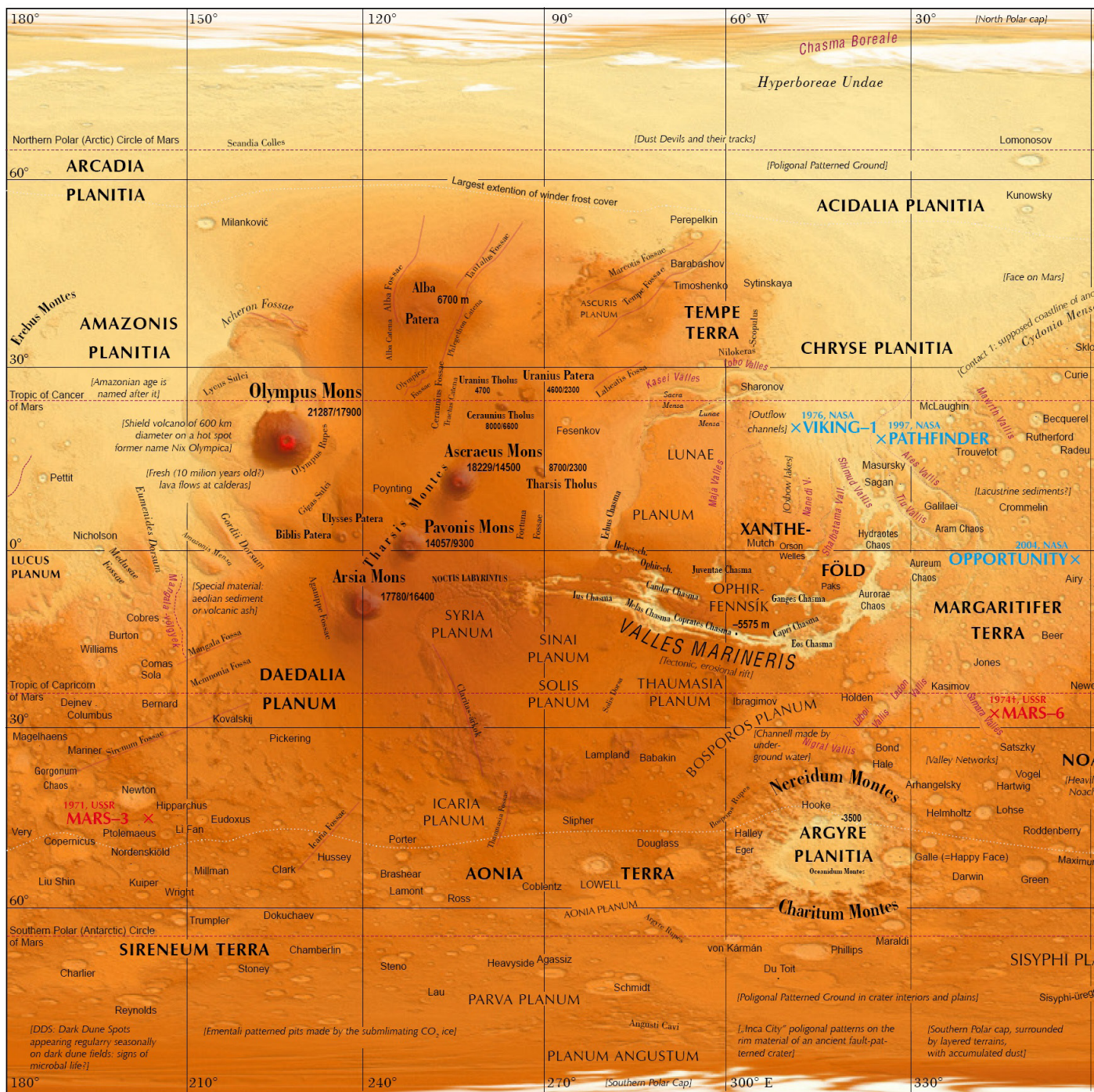
"If one allows the imagination free reign many future possibilities appear. Spaceships carrying passengers at thousands of miles per hour can be controlled and communication established with their passengers for we now know that the Earth's atmosphere can be penetrated."

Whole
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Extent of Human Radio Broadcasts



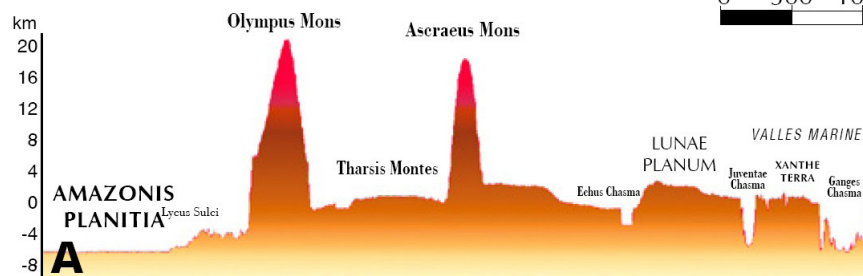
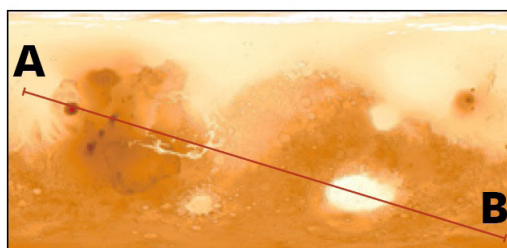
It is time to once more give our imagination free reign! The challenges ahead will demand it. To use philosophy to grant us [technomagical sight](#). To rethink the nature and reach of our technological civilisation. World War II was an all-hands-on-deck situation: *only you can act now to stop the imminent erasure of civilisation and descent into a new dark age!* How is what lies ahead anything less? For those that are paying attention, not falling prey to the distraction games... being kept off-balance by the tactics Adam Curtis will shortly teach us all about (seriously, if you didn't click through to watch the *Bitter Lake* trailer, go back now. Wait, [here it is again](#).)

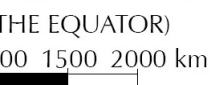
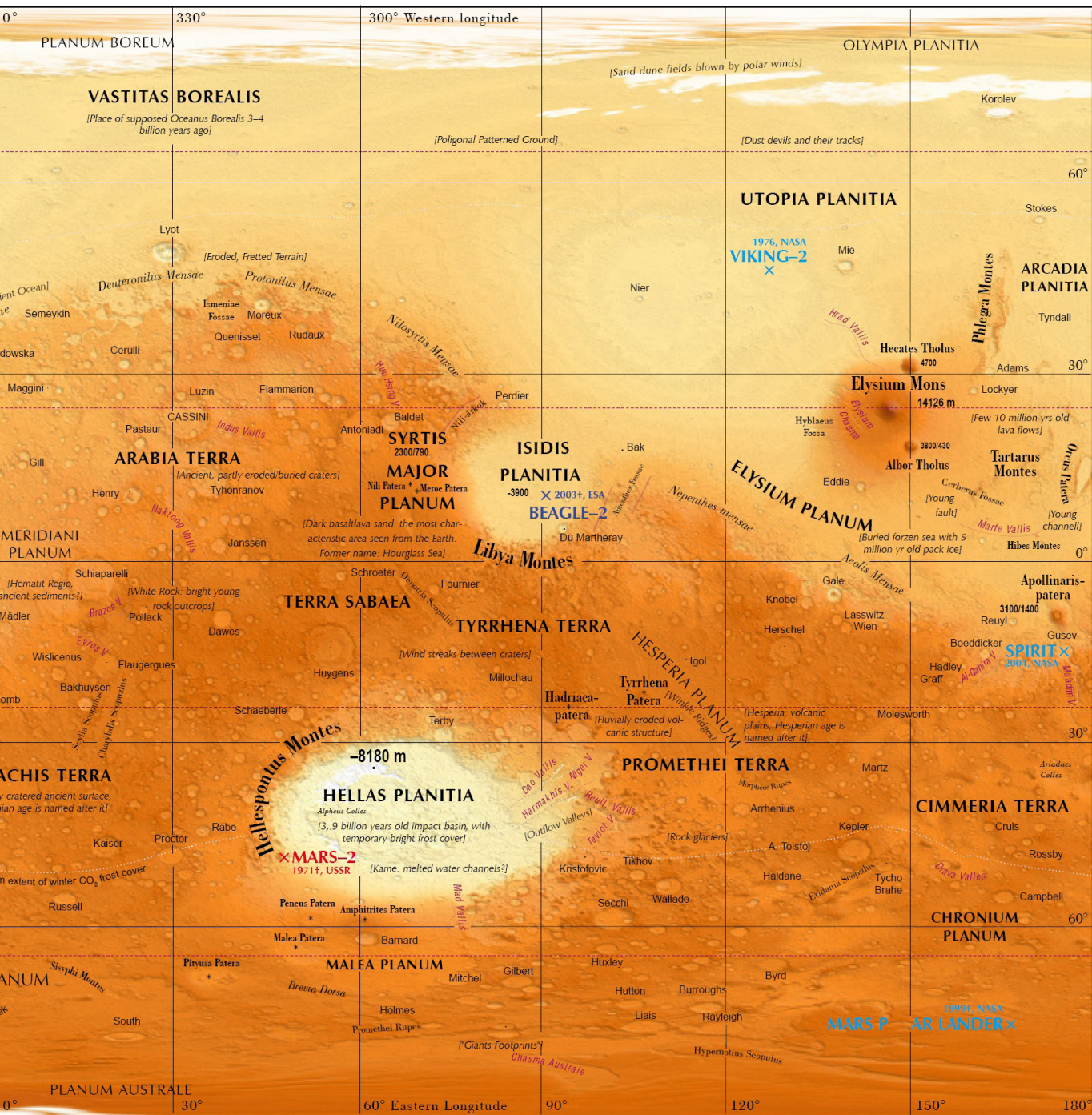


Map of Mars

Cylindrical Projection (0–90°). Source of topographic data: Mars Global Surveyor (MGS) Mars Orbiter Laser Altimeter (MOLA) 1998–99. The polar caps are represented at their smallest, summertime size. Total surface area of Mars: 145 million km². 0 m level at 3396 km radius areoid.
Made by: Eötvös University Cosmic Materials Space Res. Group., Budapest, Hungary 2001–2005. Eight edition (first in English).
<http://planetologia.elte.hu>

Cross section of Mars, through Olympus Mons and Hellas Planitia







Upcoming Events

2018

Mar: Chandrayaan 2 Launch/SL Moon

Mar: GLXP Last Launch Opp. Moon

May: InSIGHT/MarCO Launch to Mars

Jun: Chang'e 4 LRS Launch/OI Moon

Sep: OSIRIS-REx App Bennu

Oct: Bepi-Colombo Launch to Merc.

Nov: InSIGHT EDL Mars

FB: Flyby; OI: Orbit Insertion; App: Approach; Dep: Departure; Imp: Impact

EDL: Entry, Descent and Landing; SL: Soft Landing; EOM: End of Mission

Dec: Chang'e 4 Launch/SL Moon

Dawn EOM Ceres

Hayabusa 2 App/SL Ryugu

Lightsail 2 Launch

Parker Solar Probe Launch

Solar Orbiter Launch

2019

Jan: New Horizons FB 2014 MU69

Oct: OSIRIS-REx Sample Acq. Bennu

Orion EM-1 Launch

+10 EM-1 Cubesats

Moon/Heliocentr

Hayabusa 2 Sampl

Chang'e 5 Launch

Luna 25 Lander La

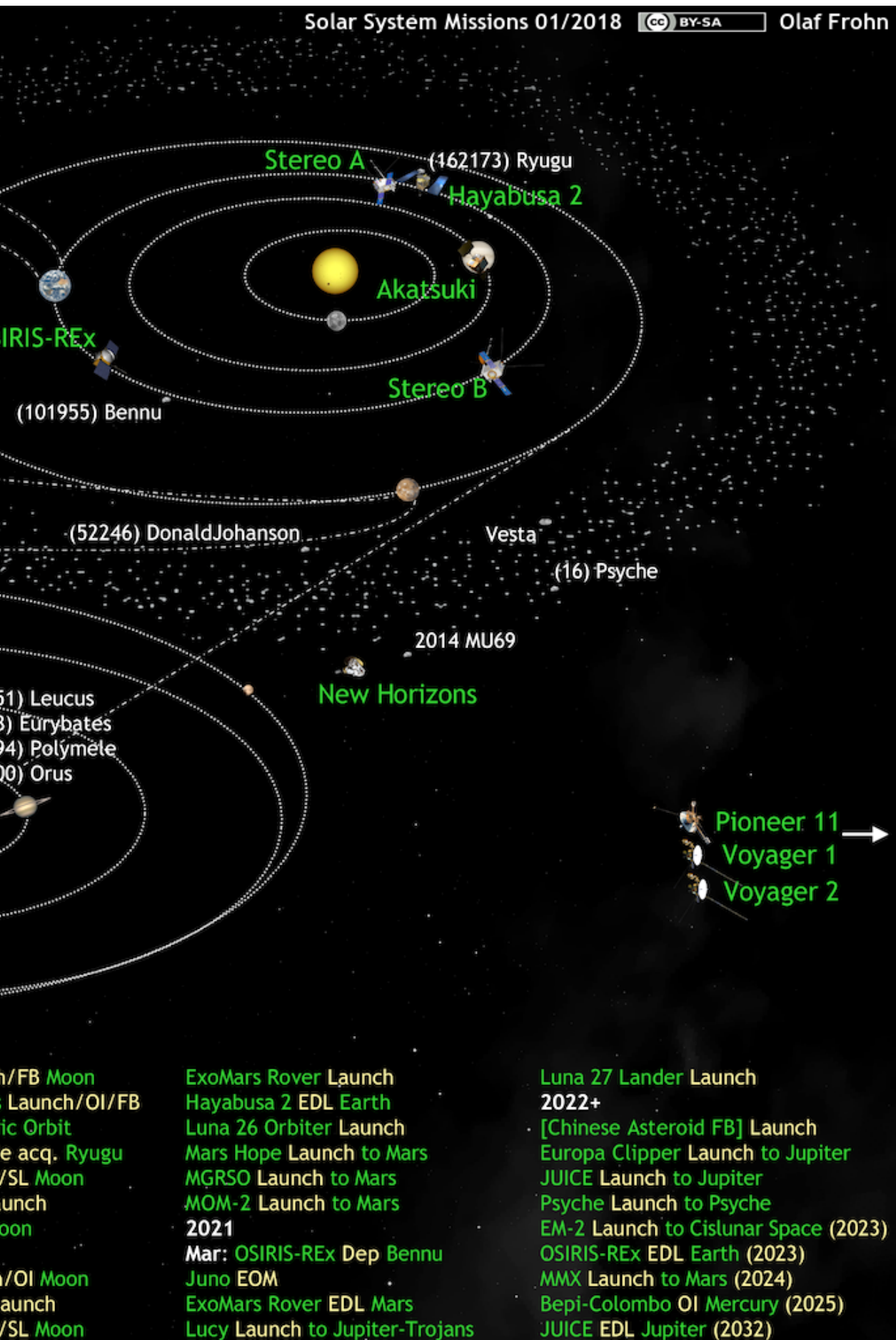
SLIM Launch/SL M

2020

Dec: KPLO Launch

2020 Mars Rover L

Chang'e 6 Launch



If you think Russia is the only country being ruled by oligarchs, [stick this link in your browser](#).

If you genuinely think there are mainstream politically progressive forces truly tackling the challenges ahead – like, you know, preventing mass death from a series of political, economic and ecological collapses, let me know. Please.

As far as I can tell our best hope right now is Sea Shepherd. Trophic cascade update: [how whales change climate](#).

The future of the “first world’s” infrastructure I see all [looks Donetsk Airport](#) to me. At what stage last year did you think by mid-January 2015 there’d be troops on the streets of Paris and Belgium. We need to fix this ourselves. We need to get bigger on our own. There’s no magic sky god coming to save us. Anything that existed that took pleasure in the atrocities committed in its name can only be defined in archonic terms. And even if there are extra/higher dimensional entities observing our progress from without, [enforcing a galactic blockade and series of sanctions](#), like we do ourselves to rogue states until they sort themselves out, we are just so much tragic reality tv to them. Let’s change the programming!

What happens when we expand the definition of the Anthropocene to include our cultural transmissions and the members of civilisation to include all our robot explorers? Suddenly we’re thinking on a vaster scale. These are no longer scientific curiosities on the fringes of our culture, but vital actors doing important work. The Rosetta probe and its companion, the Philae Lander, haven’t just been a source of drama, [they’ve already called into question our understanding of where the water we drink came from](#). Hopefully Philae awakens again soon and is able to make more discoveries.

Meanwhile, the New Horizons probe is heading to Pluto, [beyond which there many been even more dwarf planets](#). [There’s GIFs of Ceres been posted on twitter that look as good as the shaky Apollo images we got as they approached the Moon](#). This is genuinely exciting stuff. Our place in the solar system is being constantly questioned. [There are people talking about which super Earths might be nice places to go sailing or surfing on](#). This is what awaits us if we don’t all die this century. This decade, even.

None of which is to repeat the Cult of Progress’s line that ‘science will save us’. BUT we can use it in our toolkit to change our thinking and ways of seeing to lines along which we might do a better job at being, as Stewart Brand famously put it to his fellow hippies, “as gods *and might as well get good at it*.”

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In my slightly more humble version of Brands' vision we can become beings that grind our stats as galactic engineers, accept the cost of our origins, make reparations and form a team with our coming posthuman children, the machine civilisation, and any species uplifted by us and them.

Copernicus and Galileo, along with the ignored contributions of Giordano Bruno, helped progress civilisation by considering the heavens. We've come so far since then, it's a shame to waste all the effort (and, you know that planet that will soon be on palliative care all to have birthed Facebook.)

In my slightly more humble version of Brands' vision we can become beings that grind our stats as galactic engineers, accept the cost of our origins, make reparations and form a team with our coming posthuman children, the machine civilisation, and any species uplifted by us and them. This way to [the Culture universe](#)! Which is a topic for another time.

For now, I've been me and you've been you, last time you checked.

Thanks for reading!

m1k3y

Monoliths, Tesseract and DeExtinction Zones

February 02, 2015

Welcome once again members of the thing that is *totally not* an Asteroid Death Cult to another newsletter.

According to the Gregorian calendar it is, as I am writing this, February 1st. January absolutely flew by, but at least the new Wachowski's film, *Jupiter Ascending*, opens soon; there is that. Love a good Golden Age style space opera about alien nobilities harvesting planets to make a fancy face cream, or something. Channing Tatum wears eyeliner and fights lizard people. Sean Bean will assuredly die early on. It's in his eternal contract*.

Creative destruction is of course one of the key themes of (De)Extinction Club.

PRAISE BE THE ASTEROID: DEATH DEALER, LIFE GIVER. Etc

Whether this planet was seeded by an asteroid with its panspermic payload or the goddamn Anunnaki doesn't matter right now. What matters is what we do with the knowledge we have and the plans we make going forwards.

In this issue I'm going to pick up some threads laid down previously and attempt to tie them together neatly to define some new concepts. Yes, this one too will be theory heavy.

Bear with me as I try to sketch out a plan for surviving the end of the world.

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I try to sketch
out a plan for
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end of the world.

*LOL. Well played, Wachowski sisters...

Let's go back to *Zone Engineering* for just a moment. In fact, let's just pull a quote out from a previous newsletter:

“What if, after going to this trouble to dissuade intruders, we reward the ones clever enough to make it through. What is this Zone too is a Test? What if the site turns into a teaching device, a method of cultural uplift, a way for us to share our knowledge with our distant ancestors, to teach them of the wonders of the universe, that they might come join us across the stars in the off-world colonies. The great bulk of humanity having long ago left in generation ships to seed the galaxies beyond, be agents of a living universe, and... you know the drill.

One of the alternative ideas in the WIPP report is to dot the area with monoliths marked with instructions on the area. There's another place I've seen monoliths used as a teaching device, they took a bunch of apes and showed them how to kill each other. And also use tools. That's about as a Dark Extropian as it gets. Of course, I'm talking about 2001.”

Now the thing about the Monoliths in *2001* is that they were originally going to be self-replicating, Von Neumann machines. As it says in [the Great Wiki](#):

“The film was to begin with a series of scientists explaining how probes like these would be the most efficient method of exploring outer space. Kubrick cut the opening segment from his film at the last minute, however, and these monoliths became almost mystical entities in both the film and Clarke's novel.”

(The interviews with the scientists can be read in this book btw: *Are We Alone?: The Stanley Kubrick Extraterrestrial Intelligence Interviews*. I imagine it would've made for an even more far out trip for the 60s acid heads.)

Somehow, in my brain, where all this leaks from, that fact has gotten conflated with the idea of [Berserkers](#) – a variation of the self-replicating probe that doesn't explore the cosmos, or act as a teaching device to young species, a piece of Uplift technology... instead, it's a trap.* It tests any civilisation it encounters, and if it's above a certain level of advancement, it wipes them out. It's yet another theory to explain the Fermi Paradox; the intergalactic garden is being constantly pruned, probably the act of a race that has long since died off itself. (See the Dark Extropian training simulation, the *Mass Effect* game franchise for a great exploration of this.)**

And we have now as duelling concepts for would-be Galactic Engineers to consider: Uplift and Extinction. Creation and Destruction.

It's yet another theory to explain the Fermi Paradox; the intergalactic garden is being constantly pruned, probably the act of a race that has long since died off itself.

* *Would you like to know even more? See the Babylon 5 ep, [A Day in the Strife](#).*

** *oh hai proto Dark Forest vibes. The Expanse did not disappoint either.*

The things that can be both. The Monolith and the Zone. The Asteroid and the Super Volcano.

And say a Monolith-like device dropping amongst our hominid ancestors did play a role in accelerating our evolution? You could make the argument that it's ultimately functioned as a slow burning extinction bomb. The species it may have created has now crossed into a role as a organic planet killer machine: "[Of nine worldwide processes that underpin life on Earth, four have exceeded "safe" levels](#)". [We Are The Killer Robots](#).

Before we dive deeper into theory land, let's check in with our rivals for the villain in the story of 'who killed the dinosaurs?' - with this piece in *The New York Times* - [The Death of the Dinosaurs](#):

"Geologists set out across the planet, scouring the fossil record for evidence of asteroid impacts at each of the other crises in Earth's history. They came up empty.

Plausible candidates, like the 62-mile-wide Manicouagan crater in Quebec, now a circular system of lakes, seemed to fit the bill. The asteroid that created it was large enough, computer models showed, to have wiped out up to a third of life on Earth. But when the crater was dated, there was no evidence of such a catastrophe.

Other enormous impacts, like the one that created the Chesapeake Bay 35 million years ago, left no discernible echoes in the fossil record, either.

While evidence for asteroids at the other mass-extinction boundaries was hard to come by, researchers did find a coincidence in time with continent-flooding cascades of lava on a scale unimaginable today...

Still, few are ready to demote the role of the dinosaurs' asteroid, which created a crater larger than any found in the half-billion-year history of animal life. Some experts still contend that it was the lone killer. But many now lean toward a one-two punch of a planet weakened by volcanoes and then crippled by the asteroid. Or vice versa. Or perhaps the coincidence in time between the asteroid, the volcanoes and the extinction, is not a coincidence at all."

And how does that story begin? "It was an end time of global warming, acid rain and acidifying oceans that might sound familiar today as a vast body of scientific research warns us of our own developing ecological crisis."

WE ARE THE ASTEROID. WE ARE THE SUPER VOLCANO.

As a culture, we seem to be constantly looking back, trying to better understand previous mass extinctions, while doing nothing about the one we're participating in.

We need to look forwards. We need to become something bigger and better. As I recently ended my piece for Daily Grail, [Uplifting Civilisation into the 22nd Century...and Beyond!](#):

be the higher dimensional Tesseract, bootstrapping humanity to a next level, space faring culture that you want to see in the world.

Which is where DeExtinction Zones come in...

A PROBABLY LONG INTRODUCTION TO
DEEXTINCTION ZONES. CANCEL YOUR DINNER
PLANS AND MAKE SOME WEAK AMERICAN
COFFEE, LET'S DO THIS THING!

It is now February 2nd, last night's writing was interrupted by a glitchy phone and a minor email conflagration. But that was a good place to pause anyway. Today has been all about drone culture and advances in asteroid mining technology. But we'll come back to that...

Before pushing on to elaborate the concept of DeExtinction Zones, let's stop to consider just what is meant by DeExtinction itself: *it's about both the resurrection of past species and preventing the extinction of current ones.*

Creation and Destruction. Technically, re-creation and, um, un-destruction? You get my point. You're still reading after all. Aren't you, <form letter:insert subscriber name>. (This is a very personal non-death cult, after all.)

We are the asteroid. We are the agents of planetary rebirth and mass-extinction.

Now let me be clear on one thing: **this is not about sustainability.**

Sustainability is bullshit. Sustainability is stasis is death. We can't just draw an arbitrary line under the continuing decline of planetary systems and say, "ok, this is good enough, let's just hold it here".

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Unless you just metaphorically wandered into this room by accident or glitch of the matrix, it should be clear right now that our civilisation is nose-diving and taking all life on the planet with it. Oh sure, the extremophiles will be ok.* No extinction event (so far) ever killed off all life. But no great effort is being made to effect a course correction, in spite of the ever mounting... no, mountain of evidence.

In spite of ever stronger language being used by scientists. Pick an actual news story on the subject and you'll find them talking variously about living on a 1-5C warmer planet, and just how horrific that is:

“a lot of the changes we’re witnessing, we don’t actually have any reference in time to say we know how it happened” ~ [The AGU Interviews: Eric Rignot, Part 3](#)

“it may be too late to reverse climate change” ~ [If Earth falls, will interstellar space travel be our salvation?](#)

[Brazil is collapsing](#) – one of those BRIC nations that every futurist knows is supposed to takeover the world. (How’s Russia doing right now? Talking about economic instability...) Hydroelectric power generation is awesome, until climate change totally jacks your water supply. Just watch the multi-casual feedback loops play out.

No, this is not the time to level off a plane crash, you want to pull up as hard and fast as you can. And the thing is, we know exactly how to do it. There’s just no mainstream political will to do so. It’s all JOBS and the ECONOMY, stoopid. As unemployment rises around the West and the economy looks ever more like its been rigged from the inside the whole time.

“Australia could be on track for a temperature rise of more than 5C by the end of the century, outstripping the rate of warming experienced by the rest of the world, unless drastic action is taken to slash greenhouse gas emissions, according to the most comprehensive analysis ever produced of the country’s future climate.” ~ [Climate change will hit Australia harder than rest of world, study shows](#)

“Unless drastic action is taken.” So... what is to be done? That question itself contains a warning. (Because it’s the name of a book Lenin wrote, innit.) To drop some street poststructuralism on you, like my hero Leggy Starlitz, we’re having this conversation from within the ‘collapse of the Grand Narrative’. Like, say, the idea of Progress. “Technology will save us.” Etc. Technology is not a force divorced from us that will magically right our wrongs. We are in continual coevolution with our tools, and they exist within a cultural, socioeconomic context which each have a transformational effect on each other. Basically, feedback loops. Right? Obviously, when I put that way...

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** or so we thought. You know things are looking bleak when they start saying things like ‘[Climate Change Could Threaten Tardigrades](#)’.*



Planetary

It's about choices, then. And action. And not being co-opted by other people's choices and actions.

The danger of co-option is strong in a moment in history like this. When an empire is in decline, strong voices emerge with simple answers. John Michael Greer talks about this in *The Blood Of The Earth* as ‘mass revitalization movements’:

“Revitalization movements, again, happen when a society is hit by repeated troubles that cut straight to the core of its identity and values. In such times, when existing institutions fail and the collective foundations of meaning crack, there’s a large demand for some new vision of destiny that will make sense of the troubles and offer a way past them to some brighter future. The economics of popular belief being what they are, that demand very quickly finds an ample supply.”

His book is centred around the problem of Peak Oil, but to me it’s at its best explaining the mechanics of society in terms of magical reasoning. Talking about the West as a series of Modern Magician States, and how they maintain power through “political thaumaturgy”. I made you, yes YOU!, because I like you, remember, [a mini-reader, collating several segments of the book that explains this concept and it’s antidote, Contemplation](#). (Open that in a new tab and come back to it later.)

If you’re not convinced of the need, open this next to it: [A beginner’s guide to the Redpill Right](#).

And then, legally acquire yourself a copy of *Bitter Lake*, the new Adam Curtis documentary film. Which is excellent. And absolutely about narrative collapse. Because it breaks with the traditional narrative format in many ways, but in the process still weaves a compelling, meta-narrative argument.

The internet (the premier technology of our age) was supposed to fix everything. Remember the promise of the Global Village? Instead, we got Gamer Gate, the anti-vaxx movement, god damn meninists, and Twitter as yet another resource for the 24hr news cycle to feed on. Social media is the recruitment ground for ISIS. Who mightn’t even be a real thing, as Adam Curtis tells us. What even is reality?

Maybe it’s time to “turn on, tune in and drop out” again. The hippie communes of the 01960s were one of the great modern migrations of the 20th Century. (Excepting things like India and Pakinstan breaking apart, you know, obviously...) A grand experiment in abandoning the status quo by the children of the Empire at its height, leaving, seeking to find a new path into the future. Just because it was a utopian dream that turned into a nightmare for many and lead equally to Apple, Inc. and Charlie Manson, doesn’t mean we can’t appreciate its strengths and update the concept. Mix it with the Pirate Utopias of legend and Hakim Bey’s *T.A.Z.*, sprinkle in the vision Iain M. Banks had of The Culture, and season with the fictional transcript of some time travelling posthumans in *Pax Romana*. Why not?



Bitter Lake

“Essentially, the contention is that our currently dominant power systems cannot long survive in space; beyond a certain technological level a degree of anarchy is arguably inevitable and anyway preferable.

To survive in space, ships/habitats must be self-sufficient, or very nearly so; the hold of the state (or the corporation) over them therefore becomes tenuous if the desires of the inhabitants conflict significantly with the requirements of the controlling body. On a planet, enclaves can be surrounded, besieged, attacked; the superior forces of a state or corporation - hereafter referred to as hegemonies - will tend to prevail.

In space, a break-away movement will be far more difficult to control, especially if significant parts of it are based on ships or mobile habitats. The hostile nature of the vacuum and the technological complexity of life support mechanisms will make such systems vulnerable to outright attack, but that, of course, would risk the total destruction of the ship/habitat, so denying its future economic contribution to whatever entity was attempting to control it.”

~ [A FEW NOTES ON THE CULTURE](#) by Iain M Banks

The Republic

CR: So you can do this -- achieve what seems impossible?

NC: We do not believe that achieving it is the problem -- maintaining it will be.

EM: We will have to manufacture a fluid social and ethnic structure to eliminate the standard problems of most older societies like rigid social classes and subnationalism -- plus, others will arise.

NC: Yes, man will evolve quickly, so as soon as possible we need a support structure in place for clearly identifying the most talented and ambitious citizens. We must keep them personally satisfied and out of the government and our higher military ranks until our democracy is established.

CA: Then the problem will take care of itself.

CR: And that's it, then. The course of human history -- plotted.

Pax Romana

A DeExtinction Zone is the seed of a space ship, speeding away from Earth, away from consensus reality, into its own reality tunnel with a new, unique set of challenges, problems and opportunities. And it has no intention of necessarily coming back.



Trees

The concept of the DeExtinction Zone is a strategy for building through the Collapse. It is about not waiting to be saved by external forces, but rescuing ourselves by our own actions. *It is about prototyping the institutions of the future from the dying bones of those in the present.* It is about stepping forwards, but not being afraid to retreat if it becomes evident the wrong direction has been taken. There are so many things it is clear should be done in this moment that will have a positive effect, where any continued inaction amounts to criminal negligence. It is about picking that thing and then trying to fix it.

It is about not waiting to be saved by external forces, but rescuing ourselves by our own actions. It is about prototyping the institutions of the future from the dying bones of those in the present.

There will be many forms of these zones, that will take many shapes – some will be fixed in space, some will be post-geographic, some will be focused on an abstract problem, some will be focused on a species or ecology. All will be concerned with the repair of the planet. *Together they combine into an engine to pull our global civilisation out of its nose dive and steer it towards the myth of a Next Nature Utopia we'll create and update along the way.*

In the process we build a new culture. A culture that may stand aside from the mainstream. That may live at the edges. That may have embassies – or cultural airlocks – to maintain communication with the rest of humanity.* For so long as we remain recognisably human, anyway...

For DeExtinction Zones beget #PosthumanFlightClub. *When our work is complete enough, the seeds germinate into actual spaceships and every tribe gets a moon or asteroid to take their work to the next level.*

I mean, why not? If we're inventing a future mythology, that's a pretty good one.

Before we dive into some specifics of what DeExtinction Zones can look like and might be, which will be a good place to end what's looking like a record length newsletter, I think, a bit more fictional inspiration towards their overall, networked architecture.

Bruce Sterling wrote this book called *The Caryatids* in 2009, that I really liked. As Gibson has done most recently in *The Peripheral*, it addresses the consequences of climate change, or global warming, as it was more popularly known then. And instead of attempting to summarise it any further I'll just flat out copy'n'paste from [Cory Doctorow's review on BoingBoing](#):

"In *The Caryatids*, global warming has melted practically every government in the world (except China) -- leaving behind a slurry of refugees, rising seas, and inconceivable misery. But there are two stable monoliths sticking out of the chaos, a pair of "civil society groups" that embody the two major schools of smart green thought today: the Dispensation are Al Gore green capitalists based out of California who understand that glamor and profits, properly aimed, achieve more than any amount of stern determination and chaste conservation; their rivals are the Aquis, mostly European anarcho-techno-geeks who have abandoned money in favor of technologically mediated communal life where giant, powerful, barely controlled machines are deployed to save the refugees and heal the Earth."

*oh hai Inviz Mons. More about them in a future volume.



The Aquis are our model here; and I might just tack some readings from that book into a future podcast or two, explaining their deal a bit better. (Or you could read the book in the meantime.) Sterling has a habit of dropping insanely cool ideas that would be the basis for a whole movie or book in just a few pages or paragraphs, while telling a different story. Grab a copy of *Distraction* some time and read the opening. Then note the date. That's an exercise left for the reader.

Now that book (we're talking about *The Caryatids* again, pay attention, there may be a surprise quiz at any moment. It may be self-aware. Be alert!) - for those that weren't online in a previous age of the internet newsletter, the black'n'white days of the net, when there were no 2.0's or social networks, but there was GeoCities and it was a thing alright - is a thematic continuation of his work as Pope Emperor of the Viridian Movement. (Ready those mouse clicking muscles) [here's the archive site](#). Which led to [Worldchanging](#) and the Bright Green Design movement, and that's enough of a history lesson for now. POINT BEING...

The Plutocrats are big fans.

And just as we anarcho/arty/witchy/burner/hacker/ (insert cool self-descriptor) modern mythologising people are the Aquis, they are most assuredly setting up as the Dispensation and you can listen to Mr Deviant Globalization, [Nils Gilman, explain what their plans are](#):

"The vision of the future here is of a global archipelago of what Evan McKenzie has called "privatopias", essentially gated enclaves linked by air and internet to other such spaces, protected by high ramparts from the roiling dystopian ocean of the hoi polloi."

Bright Green Elysium, basically. While the rest of the world is left to resemble the zombie apocalypse. Which is the exact scenario depicted in *The Peripheral*. No surprise that two of the fathers of cyberpunk continue to share a bleak assessment of the future, at least as I read them.

So let's begin to move inside the Zones now. I know future sports fans, you've been waiting for me to mention *Transmetropolitan*, haven't you? You're like, but where's the reference to Farsight Reservations? They're totally the sort of future zone we're talking about, full of barely functioning machines feverishly overclocking the present. Racing away from #thenow at near lightspeed. Riding Moore's Law to the bitter end and leaping into the void.

Bright Green Elysium, basically. While the rest of the world is left to resemble the zombie apocalypse.

(No idea what I'm talking about? [CLICK ME.](#)) In three pages of a long running comic book, Warren Ellis sketched out quite the useful bit of futurist building material. If you did click through to (re)acquaint yourself with that vision you'll note there's a quote from a blog post below my tumblr post, wherein [Tim Maly is critiquing](#) the [mad science plans of one Larry Page](#) (future BORG OVERLORD and current Google Billionaire):

"We're at maybe 1% of what is possible. Despite the faster change, we're still moving slow relative to the opportunities we have. I think a lot of that is because of the negativity... Every story I read is Google vs someone else. That's boring. We should be focusing on building the things that don't exist."

But maybe we could set apart a piece of the world .. I like going to Burning Man, for example. An environment where people can try new things. I think as technologists we should have some safe places where we can try out new things and figure out the effect on society. What's the effect on people, without having to deploy it to the whole world."

So Burner Plutocrats just wanna have fun in the libertarian sun. I mean, it's so much throwaway clickbait really. Peter Thiel, despite much talk, hasn't created any Randian Utopias for all his "but Mom, I just want to make a seasteading slave state, I mean... pirate utopia" pleadings and Facebook billions and every other damn pie he's got his face in.

How does Tim end his critique though, pointing out that all plutocrats ever build is model cities in Special Economic Zones that are spectacular failures?

"Where are the SEZs that are collectivist utopias? Where are the SEZs that abolish paid work altogether? Why isn't there a matriarchal SEZ?"

And that, Tim (hi Tim – Tim is a friend. We totally fave each other's tweets and um.. I'm sorry, where was I?) ***AND THAT, TIM, IS WHAT I AM GOD DAMN TALKING ABOUT!!!***

That is the vision for DeExtinction Zones. Why can't we walk out of our, as David Graeber loves to call them, [bullshit jobs](#)? Why are we pleading with a failing economy to give us work, when we could be embracing the start of the Fourth Industrial Age and automate the manufacture of planetary rescue? What if we took all our skills and combined them to negotiate our own Special Experimental Zones?

Why are we pleading with a failing economy to give us work, when we could be embracing the start of the Fourth Industrial Age and automate the manufacture of planetary rescue? What if we took all our skills and combined them to negotiate our own Special Experimental Zones?

Watch the European states topple, the Americas hollow out, and wonder why there aren't hacker collectives leasing ghost towns for a 100 years to see what running the whole place on Bitcoin, 3D printers and Soylent is like. In places with already amenable drug laws (Portugal fits, I think), setting up in old churches with massive quantities of MDMA and ketamine and offering it to any PTSD stricken soldier, refugee or climate victim that knocks on the door. Google X - even the accursed DARPA - need places to test their new tech at scale.

And then we get into the legit mad science of DeExtinction itself. WHEN THE MAMMOTHS RETURN! Or the slightly less ambitious task of safe guarding the cetaceans, and helping them repair the ocean. Why sit in a cubicle all day when you could ride in a canoe being a human shield for a killer whale, and stream their [whale song](#) to your post-geographic tribe's subscription radio service, funding the whole operation. Why potter about in your garden after work or the weekend when you could megagarden a whole ecology to a level of health and vitality only known to it when the megafauna were its chief ecological engineers. Then retire when they do in fact return. TO YOUR TRIBAL MOON BASE [WHERE YOUR NEIGHBOURS ARE MANATEES](#). Why the hell not?! *Seriously*.

Now my buddy Tim had one other point I want to address before wrapping up:

Make no mistake, some of the experiments will go bad. If they don't, then the experiments weren't really all that experimental.

People will die. Dedication to the idea of communities that are free to go down rabbit holes and dead ends to see if there's something valuable there means a dedication to allowing some of those groups to wipe themselves out. What do you do when your futureonauts end their period of experimentation maimed and traumatized because of a rampaging biotech project? How do you quarantine a group of people pushing the limits of the nuclear lifestyle?

Worse yet, what if things go well? What do you do when one of your experimentation communities cures AIDS (or seems to have) ahead of schedule. Do you let that tech back out into the world? What's the procedure for evaluation and release?

Why sit in a cubicle all day when you could ride in a canoe being a human shield for a killer whale, and stream their whale song to your post-geographic tribe's subscription radio service, funding the whole operation. Why potter about in your garden after work or the weekend when you could megagarden a whole ecology to a level of health and vitality only known to it when the megafauna were its chief ecological engineers.



NonHumanSpace Agency

And that is what I meant earlier by embassies and cultural airlocks. There'll be a role within these future post human tribes to communicate back to what we'll affectionately internally call the baselines. To gradually drop the tech and solutions for living found in these experimental communities in the so called real world. Which should be plenty to buy ourselves off-world passage. Especially if, continuing the grand tradition established by the scientists at Star City as the Soviet Union collapsed, the rocket scientists and space engineers are fully prepared to continue their work as the world falls around about them.

I could go on at length, but I'm already stretching the attention span with this. And plus, I will totally continue to go on at length about this in future downloads.

There's time for just one more anecdote. What, you may ask, is former Pope Emperor and Science Fiction Author / Design Critic / whatever hat he's picked up since I last checked, Bruce Sterling up to now? Well, when he's not live-tweeting some conference or digesting the news feed he's living in a prototype home base with his wife at [Casa Jasmina](#) "a two-year pilot project in the business space of domestic electronic networking," or, "the Internet of Things in the Home." The Special Experimental Zone is here. It's just a matter of taking the concept of the hacker space, the hacker house a step further. I'm not actually inventing this concept - remember, I am not your glorious cult leader - I'm just wrapping up a bunch of existing things into a nice neat bundle so we have a lexicon to talk about the the future with. I mean, I'm not saying this isn't a bit far out. But that's the freaking point yo.

Let me end for now with a point of clarification. In the last newsletter I said, of Stewart Brand's line that "we are as gods and might as well get good at it.":

"In my slightly more humble version of Brands' vision we can become beings that grind our stats as galactic engineers, accept the cost of our origins, make reparations and form a team with our coming posthuman children, the machine civilisation and any species uplifted by us and them."

The keyword there is **grind**, in the meaning given to it by gaming. That we start now as basic characters, and gain experience and abilities and aim to eventually become as Galactic Engineers. Science is progressing such that we should we live - and not, say be destroyed by an asteroid before we have a sufficient defence system in place - we may well live a very long time. [The war on death is going quite well](#). And if the future isn't completely unevenly distributed, it won't just be the citizens of the Bright Green Networked Breakaway Republic of Elysium that are long lived. *We just might be the first generation of a posthuman race*. Again, srsly, why not?! VISION, PEOPLE, **VISION!!!**

So ask yourselves this: **how do you want to remember your human years?** Having done something meaningful, or just sleep walking into near oblivion while others kept the world afloat? Pre-adapt to the future you want to live in, I say. It's really hard to imagine a worse fate for the world than the course we're already on. Full zombie apocalypse or [posthumans in spaaace with our machine friends and uplifted animal buddies](#)?

Okay, that's plenty for now.

Until next time, citizens of the future!
m1k3y

ReWilding with Predators, and the Power of our Asteroid-Living Future

February 07, 2015

I'll be brief for once (or at least make yet another attempt at brevity, he added parenthetically, only serving to increase the word count), as this is more of an actual news letter meta update with bonus extinction culture content containing animatronic Arctic apex predators and some rewilding plans featuring more fleshy apex predators with less mythological and cultural baggage associated with them. Also, as the subject says: the power of our asteroid living future.

[REDACTED]

So, what else is new? Well there's this UK psychological thriller [Fortitude](#) video series which is full of extinction culture themes. It's got a mammoth thawing in the background, and a town dealing with living peacefully with its local apex predators, Polar Bears. They did an excellent extinction aesthetic promotion of the show btw – having [an animatronic polar bear wander around the London Underground](#). Hilarity ensued, I'm sure.

It features the star of the second best Scandinavian psychological thriller, [Sofie Gråbøl](#) of *The Killing* (*Forbrydelsen*) fame, and because it is a UK show trying to get a global audience, it has a token American actor in it too. That guy. What's his name?



Fortitude



Svalbard Global Seed Vault

Anyway, back to the extinction theme, the fictional town of Fortitude is set in the very real Svalbard archipelago. Which is home to the epic Svalbard Global Seed Vault, whose entire existence is as a resource to help us survive an extinction-level event.

“While the popular press has emphasized its possible utility in the event of a major regional or global catastrophe, it will be more frequently accessed when genebanks lose samples due to mismanagement, accident, equipment failures, funding cuts, and natural disasters.”

But you and I know it’s all about setting up DeExtinction Zones and that place is definitely one of them. I fully expect the Global Seed Vault to appear within the fictional reality of this psychological thriller. It may go full *Genius Loci*, even – that would be ace. In fact, I’ll be really disappointed if it doesn’t at least get referenced.

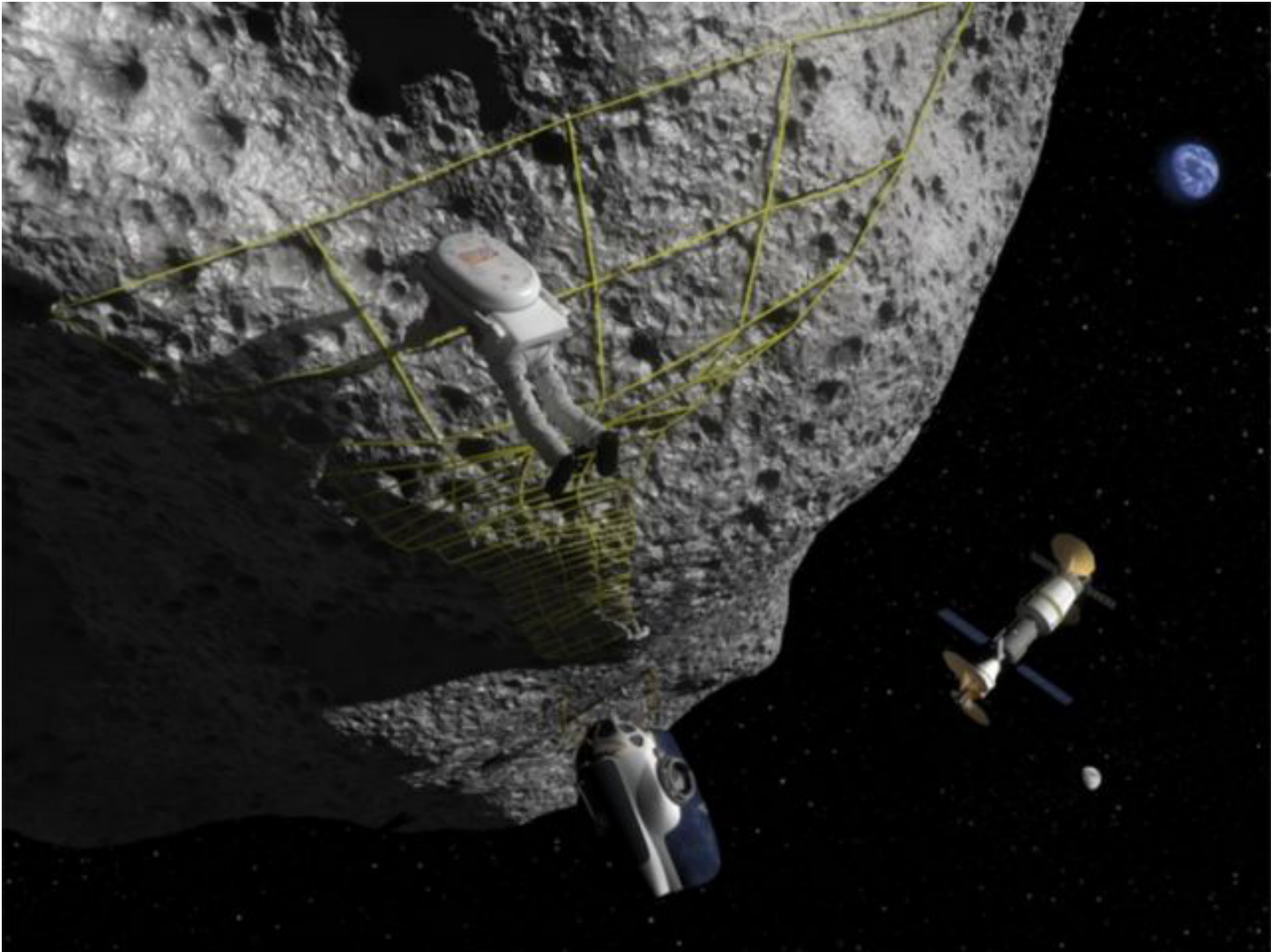
Seriously, someone better at least have an *Event Horizon* DVD on their shelf in an Easter Egg. I mean, c’mon! Are we all tapped into the same zeitgeist or what?



Lynx

Especially given how much is being made of the town's Science Centre in the pilot double ep. Something is up there. Something is so up you expect later eps to reveal the town has its own Nightvale-style community radio station.

They definitely have a town wide alarm system for incoming polar bears. The issue of co-existing with (other) apex predators is 100% on topic for us here, with our grand ReWilding Plans and Galactic Engineer ambitions... which include the return of the Eurasian Lynx to much of Europe. And the Quoll across Australia, and bringing the species formerly known as the Tasmanian Devil back to the aussie mainland. And much more future newsletter content. Because we understand the role they can play for us as ecological engineers and the effects of trophic cascade. Now, Scotland – where we have at least one agent on the ground – [is the current battleground for the return of the Lynx](#). And you can watch a recent debate about this issue and others involving the Rewilding of the UK, [right here](#).



Asteroid captured by net for mining. [NASA]

The idea is that the lynx which has “already been reintroduced to continental Europe in the Alps and Jura mountains” is a bit more palatable to the public: *[because it] doesn’t have the “negative public connotations associated with the wolf”*.

First we take the Scottish Highlands, then we release the Mammoths. [Which walk this way.](#)

In book news, I’m finally reading [Apocalyptic Witchcraft](#). I’m pretty sure I’ve mentioned the essay [Rewilding Witchcraft](#) here before (if not, I just did); well this is the longer version, by the same author. Another title from Scarlet Imprint, who published [The Blood of the Earth](#). A fact obvious to anyone who hovers their mouse pointer over URLs. I’m continuing to digest *The Blood of the Earth* - the book, not crude oil - but the biggest consequence of it for me so far has been the advice to use Contemplation to ward against the effects of Political Thaumaturgy, which we talked about last time.

What this means in practice is imagining the world you want to see, or... contemplating.. past visions of the world you liked; pick your favourite retro future vision. Which amounts to yet another book(s) being added to the old, ever evolving reading list; [*The Expanse series*](#) (tv show coming soon to SyFy, tell your friends it's the new BSG!), with its asteroid and moon living future solar civilisation. That sounds nice, and I'm trying to read at least a little each night of that off-world life I'd like to live to experience. Found, even. MY INEVITABLE SITH LORD FUTCHA AWAITS MUAHAHAHAH!!!! Ahem.

But that part of the Great Extropian Adventure looks more viable than ever. [Data released just today](#) has the count at 1332 NHATS-compliant asteroids:

“These are asteroids in near-Earth orbits that are more dynamically accessible (requiring less time and energy to visit) than round-trip spacecraft missions to Mars... The sizes of these asteroids range from as small as a few meters to as large as a few kilometers. While all these asteroids are more dynamically accessible than a round-trip mission to Mars, many of them (hundreds) require less energy to visit (round-trip) than does the lunar surface, and dozens of them require less energy to visit than does a low orbit around the Moon.”

A roadmap to the nearby planets, and eventually on to the neighbouring stars emerges.

A subject to be explored in detail in future issues.

Tune in next time for another exciting set of words about us all dying horribly by the one thing we never see coming.

PRAISE BE THE ASTEROID!

mlk3y

An interstitial, mythological tale of Man the Hunt(er|ed), Zombies, Nazis and Time Travel TV.

February 18, 2015



Iron Sky 2 (trailer)

ALL YOUR GENRE ARE BELONG TO US

Ever the unreliable narrator, I return with a completely different newsletter to what was promised at the conclusion of the previous one. Which is why this is entitled an “interstitial tale”. As you, the attentive reader, know I recently relocated houses and began a second round of unpacking ALL THE BOOKS, and a cull of SOME OF THE THINGS, leading to much of my free time being sucked into the abyss that is eBay. Which I declare to be worse than Twitter, with less reward. But, part of my personal plan for the year is to increasingly dematerialise, and begin to take this show on the road. Beware the ides of March.

Suffice to say, I have had much time to think, but far less to read. Instead, I'm going to properly begin by talking about running. Running – OK, jogging - is my new favourite thing. Especially when my little dog, Shiva, is trotting along behind me; then sprinting past, fetching a stick, which I then throw and so on. There's something atemporal, ancient even, about it. Clocking up the kilometres, as the sun rises or sets. The stick could be a spear. We could be patrolling the borders of our encampment for predators, or out on the hunt for prey. The partnership between humans and canines goes back at least nine thousand years – but I'd wager stretches back further, to the end of the Ice Age, when the modern human formed relationships with many other species, allowing them all to prosper. And also to wipe out a bunch more. This is *(De)Extinction Club* and once more the overall theme is Creation/ Destruction.

Of course, I'm not out on the plains or the bad lands, the tundra or the savannah, taking watch over my neo tribal group. I'm out in the suburbs of Melbourne, running laps of the local lake or the running track next to it. And Melbourne is not - last time I went outside anyway (this morning, thank you!) - as of yet descending into a post apocalyptic locale as documented in *The Road Warrior*. BUT...



Mad Max 2 (aka The Road Warrior)

...as boring as jogging sounds, as watching a group of people of various levels of fitness grind up their health stats, think about it from the perspective of the Mammoth, and all the other fallen megafauna.



We're now back to the being the prime suspect in the case of who killed the Mammoth:

“The researchers analysed bones, teeth and mammoth ivory from the Gravettian era (30,500 – 22,000 years ago) to show that climate conditions as well as food and water supplies for these giant herbivores remained stable. Yet the study, led by biogeologist Dr. Dorothee G. Drucker and published in [Quaternary International](#), shows that their numbers declined... It seems Ice Age hunter-gatherers caused significant changes to the ecosystem they lived in more than 20,000 years ago.”

The evidence seems to be conclusive that wherever our species turned up, the immediate and ongoing result has been the extinction of a set of local fauna, and preservation of others. Something that's been repeated with every successive wave of human migration and settlement. [As this poorly titled, Terra Nullus myth repeating article points out about the European settlement of Australia:](#)

“Since 1788, the year colonization of Australia began, the country has lost about 30 mammals out of 273 endemic species, or about one in 10 native animals, according to the report. Another 21 percent remained threatened and 15 percent were near threatened, researchers found. “We knew it was bad, but I think our tallies were much worse than previously thought,” John Woinarski of Australia’s Charles Darwin University and the study’s lead researcher told the Associated Press. “The fact that we’re losing such a large proportion of our species is a problem of international importance.”

Most of Australia’s extinct species were smaller, meal-sized prey animals, which was part of the reason their disappearance went undocumented until more recently. “The extent of the problem has been largely unappreciated... because much of the loss involves small, nocturnal, shy species with [little] public profile,” Woinarski said, according to the BBC. Feral cats were brought to Australia to hunt rats aboard settlers’ ships. Red foxes were imported for hunting.

Humans were not completely off the hook, however, and were partly to blame for Australia’s declining mammal populations. Researchers identified other, manmade threats to Australia’s endemic species, including overuse of water resources, pollution and river modification. Human-induced climate change would exacerbate the problem, and the “impacts are probably already being realized,” researchers wrote.”

Right? The Sixth Mass Extinction is under way, and this time **we are the asteroid.**

As I will keep repeating and repeating and repeating for dramatic, hypnotic effect.

The ecology of Australia hasn’t just been shaped by the European human infestation of the past 200+yrs, but since humans first arrived over fifty thousand years ago (who should be most properly termed the first settlers then, right?) Whose arrival was followed by a series of megafaunal extinctions, but also some fascinating examples of large predators persisting for thousands of years – for those capable of basic math, the indigenous population of Australia arrived tens of thousands of years before the Ice Age, so that second punch of climate change didn’t land for a long time – hence you have the terrifying Megalania and the marsupial lion on rock art, at least one of which preyed upon humans.



But before we go any further there, let's talk about some lakeside hauntology. Back to jogging for a second. Think about all those humans dragging themselves around a running track, or paying some fitness instructor or whatever, as being watched over by the [Force Ghosts](#) of archetypal extinct megafauna; say the last of each of their kind – the endling – standing in procession, each of whom were chased down by a human hunter, wounds showing, broken spear perhaps still in place, put there by man the pursuit predator. Here, read this [captured internet exchange](#) on the subject:

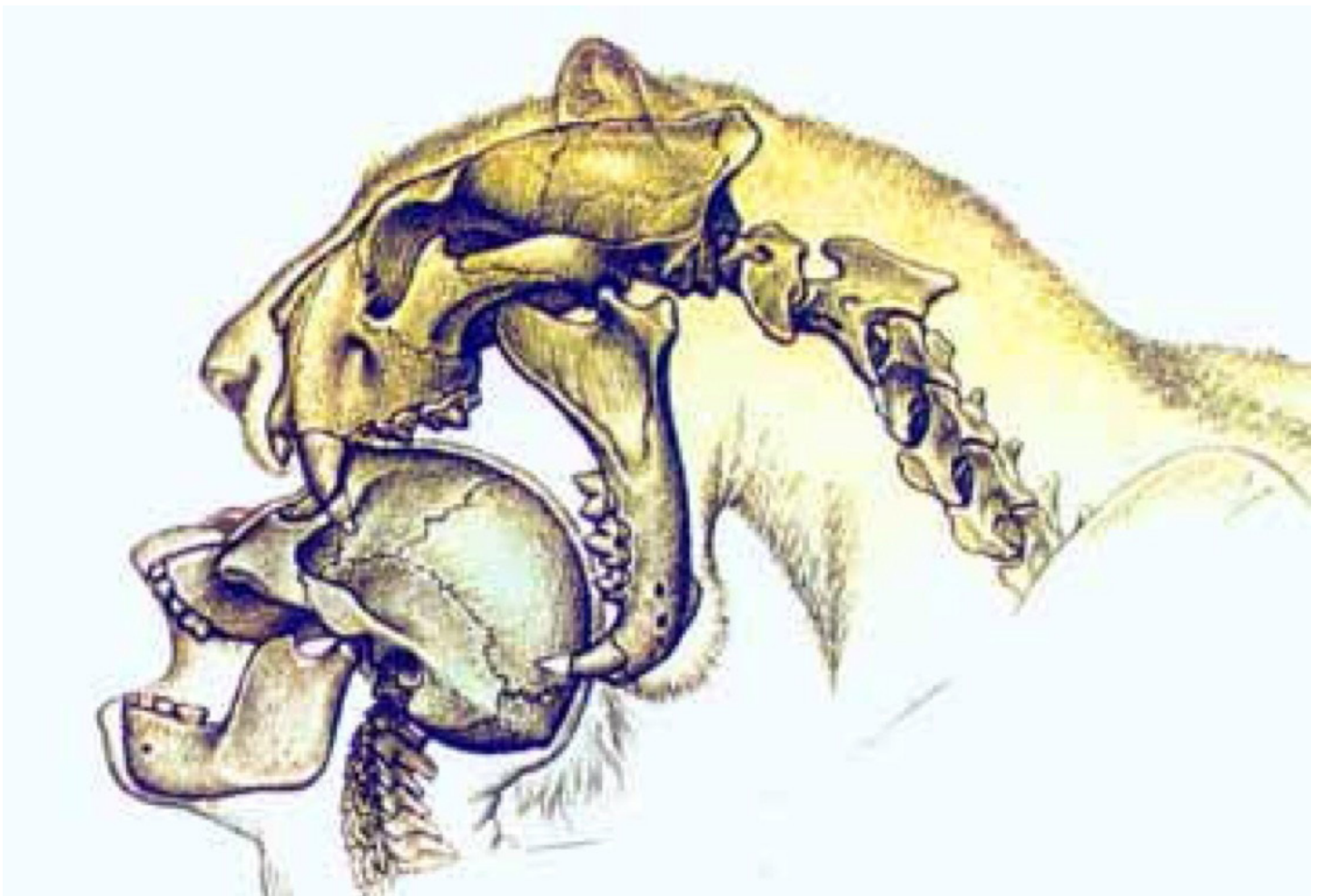
“it's one thing to face down a cheetah, which will slam into you at 60mph and break your neck
it's another thing to run very quickly to get away from a thing, only to have it just kind of
show up”

From their perspective: ***WE ARE THE MONSTER and WE ARE TERRIFYING.***

Which is the kind of thing that builds the ego of a civilisation and the mythology that maintains it. Man the Hunter: Legend of the Patriarchy.

“if there is one central human mythological theme, from Gilgamesh to Beowulf, it is that of the man-eating creature that ravages the countryside until someone — hero or god — successfully confronts it.”

But there is a compelling argument that this myth – and not just that, but all the mass extinctions for which we are responsible – is a direct consequence of us, our species, humans, being prey. That our way of thinking and our culture, our very civilisation are a direct result of not just us, but our ancient ancestors being nothing but cat food; the psychology of which drives us into overkill. That only by forming communities and partnerships with other species have we survived and gone on to thrive to such an extent that we became not only became the apex predator, but the metaphorical asteroid of extinction.



If the bones of Australopithecinae and baboons were found together, did they share a common language of alert calls? Did they form a loose community and try to warn each other of their shared enemies?

Two excellent readings on this subject are the paper [Man The Hunted: Just Another Item on the Menu](#) and Barbara Ehrenreich's piece for the LA Review of Books "[Man is Not Cat Food](#)" (from which I've already quoted).

"Palaeontological evidence supports the conclusion that both hominids and other primates, such as baboons, were frequent meals for ancient predators. Both Australopithecines (one of the groups of early hominids) and baboons are found together in the prey-remain assemblages of true saber-toothed cats, false saber-toothed cats, hunting hyenas, spotted hyenas, and leopards. Fossil evidence from South Africa supports theories of extensive predation by leopards on both early hominids and baboons between 1 and 2 million years ago."

Now I've explored this particular subject before on the *(De)Extinction Club* blog, [Anthropocene Origin Tales: How Predators on the Pleistocene Savannah Made Us](#). The part that stands out most to me now is this quote, taken from [The evolutionary legacy of having been prey](#):

"Many primate species have alarm calls that are specific for different predators. The first primate nouns were almost certainly those embedded in calls that meant, "Oh shit, big cat!" "Oh shit, giant eagle!" or "For the love of god, did you see the size of that snake?" In this way, predators may have had a positive impact on who we are now, having given us the precursors of language, or at the very least, cussing..."

And I find myself wondering: *if the bones of Australopithecinae and baboons were found together, did they share a common language of alert calls? Did they form a loose community and try to warn each other of their shared enemies?*

The idea of "Man the Hunter" puts us above all animals. As Barbara Ehrenreich writes: "In the great monotheistic religions, human superiority is as much taken for granted as the superiority of God over humans". But thinking of ourselves as the hunted *and* the hunter re-situates us in the tree of life, as just another ecological actor. A much needed cognitive shift. And as the authors of *Man the Hunted* write:

"All predators are critical and necessary parts of healthy ecosystems. If we are going to save any of the wild places on earth, predators are the keystone species that must be protected."

Which brings us to zombies. And after that Nazis and time travel television. Obviously. It's a very logical sequence...

But first a few more words about community and some straight up guess work. Why, I wonder aloud, have we thrived when all other primates are endangered? We are not the only hunted|hunter species. We now know that chimps and baboons hunt; that in fact different populations of chimpanzees have their own hunting cultures – some hunt more like wolves, others like lions. But we are the only species – so far as I know – to have entered into a coevolutionary relationship with another animals for mutual benefit. Dogs see into the infrared, so make excellent watch... dogs. Which is why I suspect we partnered up much earlier than a mere nine thousand years, but way back into the Pleistocene. Oh sure, our ancestors might have shared guard duty with the baboons way back when, sleeping in neighbouring caves, but just as we're the last hominid species standing, so is our ongoing bond with the canines the one lasting relationship. And my Shiva will instantly go from sleeping happily beside me to alert and growling when anyone passes by the house at night.

“most evolutionary biologists today agree that we would not be social animals, huddling together in our villages and cities, if the Pleistocene environment had not swarmed with dangerous animals.”

Which brings us to the zombie apocalypse...

“Ten thousand years after our collective ascent to the status of global alpha-predator, we are still obsessed with nonhuman predators and the entire business of predation. We pay money to see movies in which our conspecifics are ambushed, torn limb from limb, and often consumed right in front of us.”

This past week, collapsing exhausted after the taxing task of sorting and listing books and such on eBay – something for which evolution has not prepared me – I've retired each night to watch *The Walking Dead*, in lazy research for a piece partly on zombies I'll be writing soon. And people are right about this season, it's far less shit than previous ones and I might actually finish it for once. The dialog is at times really good:

“I don't have any friends. I mean I know people, they're just assholes I stay alive with.”

So says the bad human from the evil Terminus group, in the season opener, who wants to eat a baby. The other, other white meat.

The zombie apocalypse mythos plays up the “Man the Hunter” trope pretty majorly. It's the kind of thinking that feeds into prepper culture (what we call survivalists now); Rambo versus the hordes of undead. And if *The Walking Dead* is one thing, it's super patriarchal. They all look to Rick bloody Grimes, who I have no time for. What the end of the world doesn't need is a group of survivors being lead by a know-it-all white guy in his 30-40s.

One white guy I do have *some* time for is James Lovelock. He's been trying to correct the course of the human asteroid for some time now:

"His latest book, *The Revenge of Gaia*, predicts that by 2020 extreme weather will be the norm, causing global devastation; that by 2040 much of Europe will be Saharan; and parts of London will be underwater... Global warming has passed the tipping point, and catastrophe is unstoppable.

"It's just too late for it," he says. "Perhaps if we'd gone along routes like that in 1967, it might have helped. But we don't have time. All these standard green things, like sustainable development, I think these are just words that mean nothing. I get an awful lot of people coming to me saying you can't say that, because it gives us nothing to do. I say on the contrary, it gives us an immense amount to do. Just not the kinds of things you want to do."

Preppers are [obsessed with TEOTWAWKI](#) (The End Of The World As We Know It). Our task is to address the questions now that the post-apocalyptic survivors ask themselves: how do we (re)build civilisation in the future? *How do we build through a collapse?* What are the things we want to keep and what do we never want to repeat? If we admit we're already in the middle of a slow apocalypse, the Jackpot Years that Gibson wrote about in *The Peripheral*, there is already an urgency to this.

Our task is to address the questions now that the post-apocalyptic survivors ask themselves: how do we (re)build civilisation in the future? How do we build through a collapse?

Riffing in part off Lovelock's thinking, and looking at the latest science, this Aeon piece [Scorched Earth, 2200AD](#) looks at a future where the remnants of humanity survive in 'lifeboats' built in the few places on Earth "where the climate remains marginally tolerable." What it sketches out is exactly the Jackpot Years/climate chaos slow apoc:

"An increase of seven degrees Fahrenheit would see mass migrations from some of the most humid places on Earth – the Amazon, parts of India, northern Australia. Rising sea levels of four feet or more and ferocious storms would flood coastal cities from Tokyo to Mumbai, and submerge low-lying areas such as Bangladesh and Florida, displacing millions. Earth's most populated areas, that belt of land extending from central China and most of Europe, Africa, Australia, the US and Latin America, would be parched by this century's end, drying up surface water and killing crops that hundreds of millions depend upon for survival. Nearly half the world's population, almost 4 billion people, could be enduring severe water scarcity and starvation, numerous studies suggest.

Scorching heat waves and cataclysmic fires will spark food riots, famine and mass migrations of millions. An explosion in insects will trigger widespread outbreaks of typhus, cholera, yellow fever, dengue, malaria and a host of long-dormant or even novel pathogens, unleashing epidemics reminiscent of the Black Death which killed as many as 200 million people in the 14th century. Once-teeming metropolises would become watery ghost towns: Picture Manhattan, Tokyo, São Paulo underwater, sparsely populated colonies of hardy survivors who eke out vampire-like subterranean existences, emerging only at night when the temperatures dip into the low triple digits."

The survivors are "like vampires", and the world, pretty damn close to a zombie apocalypse type scenario. Recall [the Jerusalem wall scene](#) from *World War Z* and think about those millions of climate refugees clamouring for safe haven. There's a million displaced people in the Ukraine right now. A hundred thousand people tried to crossover from Africa into Europe last year. And then there's Syria...

Feedback loops are in effect. We need to act now to prevent the mass deaths. We may have crossed over planetary limits, but eventually the world will eventually rebound once we're gone.

This is the nature of the #darkgreenapocalypse. The zombie apocalypse may have replaced nuclear winter as the big threat on the horizon, but reality didn't get the memo. The situation in the Ukraine looks worse every day – ceasefire talks have failed once again - leading to this kind of speculation and grim calculus:



David Grinspoon

9 mins · Washington, DC · 🌐 ▼

Reading the news and commentaries about Ukraine this morning, one must admit there is a non-zero chance that this conflict will lead to a nuclear confrontation. Quite small, but non-negligible. (I've been thinking and reading about low-probability, high consequence existential risks this week.) If this happened it would most likely end our civilization. It would quite possibly be the largest human tragedy ever. Strangely, though, it might be "good" for the biosphere in that it could mute anthropogenic global warming and halt the mass extinction that we have initiated. After a few years of "nuclear winter" and the collapse of the global agricultural system, mass starvation would ensue and modern human civilization would likely dissolve into chaos. Climate would soon return to "normal" and the burning of fossil fuels would decline precipitously so carbon dioxide levels would slowly begin to decline toward preindustrial levels. This process would take tens of thousands of years, during which new attempts at "civilization" would surely start up but they may well be based on other energy sources, as much of the easily accessible fossil fuel is already consumed. So the biosphere would get a reprieve. Those saying, as is popular these days, that they detest humanity and our influence on Earth and wish we would just vanish, should consider such a possibility and ask themselves if this is really what they want. Be careful what you wish for.

“There have been seven disasters since humans came on the earth, very similar to the one that's just about to happen. I think these events keep separating the wheat from the chaff. And eventually we'll have a human on the planet that really does understand it and can live with it properly. That's the source of my optimism.” ~ James Lovelock

“I'm not convinced that humanity is capable of becoming the Culture because I think people in the Culture are just too nice — altering their genetic inheritance to make themselves relatively sane and rational and not the genocidal, murdering bastards that we seem to be half the time.” ~ [Iain M. Banks to Wired magazine](#) (1996)

The zombie genre has been traditionally largely laden with class issues. The zombie consumer. The zombie as the unwashed, uneducated, illiterate other. The invading immigrant. Each take on it has its own subtleties – the cause can range from mysterious to medical – the zombie virus as the new plague, or an old disease returned. But if you zoom back enough, what you see is all of humanity disgorged from the Earth, as if Gaia herself would no longer tolerate the dead members of the species that had so wounded her and turned them upon the living, expelling them from the natural order, condemning them to eternal anti-life.

The Zombie Apocalypse then is the asteroid made rotting flesh. And the survivors are those able to destroy that asteroid and save the Earth from total destruction. Every single human that ever lived punished for their complicity in the Sixth Mass Extinction; reborn into a mockery of their previous existence, to either consume the rest of their species, or be its final test.* Which is the kind of grand selection filter event that lies ahead. So perhaps in considering our fictional responses to a zombie apoc scenario we should apply the same kind of thinking we examined in consideration of DeExtinction Zones, as our building blocks of a way through the coming collapse. To call back to [a previous newsletter](#), looking at the foundations of DeExtinction Zones – *where are the collectivist or matriarchal zombie surviving communities?*

The
Zombie
Apocalypse
then is the
asteroid
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flesh.

Before we leave zombie land for good, let me tell you why I was watching *The Walking Dead* to begin with. It's to contrast it against the far less popular, but imho superior, series *Z Nation*. (And yes, there is very much a glut of zombie entertainment right now, but I'm sticking with these two.) Much has been made by some of the diversity of *The Walking Dead's* cast. But – SPOILER ALERT – by the season's end of *Z Nation*, not only has the show killed off two different male leaders of the band of survivors, it's being led by a female person of colour. Which is the kind of thing that gets me obsessed about the power of genre as a place for representation.

Also, the show does far more interesting things with the idea of a cure and its consequences, hinting that the virus itself is the way through for humanity to its next stage of evolution. And one last thing, *The Walking Dead* treats the undead as a background, unnatural force of nature – which is very anthropocene – where the real monsters are other people; whereas *Z Nation* maintains an authentic relationship with *the returned*, they are named where possible and ritually “given mercy”, just as a traditional hunter would thank its prey for its sacrifice.

Enough now about zombies. It's NAZI TIME! It's time travel tv time too. (We could go full *time travelling nazi zombies from spaaace*, but that would be ridiculous. Surviving the end of the world is srs bsns!)

See how I worked back to the hunter theme again? So clever. Such words. Very written.

* *a perversion of the Russian Cosmist dream of Heaven on Earth through the resurrection of the dead, as literal Hell.*

“Most of the rewilding that has taken place on Earth so far has happened as a result of humanitarian disasters.” ~ George Monbiot, *Accidental rewilding*.

Let's talk about Nazis and time travel and elaborate on the Dark Green Apocalypse a bit more. While we're restating things though, let's repeat that History is a Lie, and the present is being constantly recomputed. Everything we thought we knew is constantly up for grabs. Those flocks of passenger pigeons that so mythically darkened the skies of early European colonized America? Probably just a population burst following the near extinction of the Native American population. Things were far more managed before they were short changed in the Columbian Exchange – aka nearly completely wiped out by European diseases. The probable 80% population reduction we're looking at as a result of climate chaos and its consequences? All that happened before in the Americas. Those Amazonian tribes we think are so natural? They're the post-apocalyptic survivors. Their past is our future*.



newuniversal

*the eternal Art of Not Being Governed. More about that too in a future volume.

Here's George Monbiot talking about it some more in an excerpt from his book *Feral*:

“Gruesome events — some accidental, others deliberately genocidal — wiped out the great majority of the hemisphere's people and the rich and remarkable societies that they'd created. In many parts of the Americas, the only humans who remained were — like the survivors in a post-holocaust novel — hunter-gatherers. Some belonged to tribes that had long practised that art, others were forced to re-acquire lost skills as a result of civilisational collapse. Imported disease made cities lethal: only dispersed populations had a chance of avoiding epidemics. Dispersal into small bands of hunter-gatherers made economic complexity impossible. The forests blotted out memories of what had gone before. Humanity's loss was nature's gain.

The impacts of the American genocides might have been felt throughout the northern hemisphere. Dennis Bird and Richard Neville, earth scientists at Stanford University, have speculated that the recovering forests drew so much carbon dioxide out of the atmosphere — about 10 parts per million — that they could have helped to trigger the cooling between the 16th and 19th centuries known as the Little Ice Age. The short summers and long cold winters, the ice fairs on the Thames and the deep cold depicted by Pieter Breugel might have been caused partly as a result of the extermination of the Native Americans.”

Now North America and Europe have very different histories and takes on conservation. “Theodore Roosevelt was the nation's 26th President and is considered by many to have been our country's “Conservationist President.” But those vast herds of bison Roosevelt mourned in his notion of the Wild were also most likely another artefact of the Native American near-extinction. Yet he established the parks system to preserve it for the people. Just, ya know, for his value of people.

Whereas, for thousands and thousands of years both American continents had been managed and maintained for the benefit of its entire local population. Now without getting into a total digression about the problems of establishing a baseline for conservation and what “natural” is, let's just say that on both pre-colonial Australia and America, the humans there were managing a balance between the environment and themselves that was far less destructive, and far more authentic, connected and spiritual too. We'll come back to this and how the only way is forwards, and the role of AIs and the machine civilisation in ecology in the near future. I have many thoughts on many things, donchaknow.

Back in the European homelands, things have been very different. Land has only ever been conserved over time as hunting grounds for the elite. The nobles. The common people who ventured in there, they're called poachers. The place George Monbiot is writing about is a recently rewilded piece of Slovenia:

“Some 150 years ago, just 30 per cent of the Kočevje region was covered by trees; now, 95 per cent of it is forested. Much of the forest was preserved by the princes of Auersperg as hunting estates. So obsessed by hunting were they, as princes often seem to be, that they and the other great lords of the Habsburg monarchy in Slovenia and Croatia drew up an official declaration of friendship with the bear, signed and stamped with their great seals, in which they agreed to sustain its numbers so that they could continue to pursue it. The role the bears played in this negotiation is unrecorded.”

Observe how I subtly weave in the thread of human covenants with other species!

Are you still waiting for the Nazis to show up? We're getting there. As we travel across Europe, to the border of Belarus and Poland, entering the primeval [Białowieża Forest](#) “one of the last and largest remaining parts of the immense primeval forest that once stretched across the [European Plain](#)”.

Preserved thanks to, you guessed it, aristocratic hunting. And Nazis! It was Herman Goring's personal playground. As Emma Marris writes in the excellent book [Rambunctious Garden](#):

“He ordered the game protected and the local people expelled from forest villages and murdered in large numbers”.

Later Stalin was, allegedly, drunkenly convinced to allow the old-growth core of the forest to remain on the Polish side when Soviet border was erected. See what lovely environmentalists these genocidal maniacs were?! We've touched on this before here, but now we're setting our fictive future engines into overdrive.

We fast-forward now to a possible ecofascist, hairshirt green world to come, full of necessary evils to save the planet. What's their new favourite video series? Maybe it's *The Man In The High Castle*? [As this review of Amazon's recent pilot points out](#), the manner in which this sort book can be adapted to the screen speaks as much to the nature of the current world as the fictive one its portraying:

"If the Nazis had won the war, the TV series warns us, the world would have been much, much worse.

This message, as it happens, is a complete inversion of Philip K. Dick's 1962 novel of the same name, on which the series is based...

In the TV pilot, Juliana finds a banned newsreel called *The Grasshopper Lies Heavy*, which portrays a world in which the Allies won the war. The idea that this might be true fills her with an almost religious, tearful enthusiasm. In Dick's version, *The Grasshopper Lies Heavy* is a book. Juliana discovers that that book is true—but her reaction is not exactly fervor. Instead, it's a mixture of hope, bafflement, and a kind of displaced, distant fear. "Truth, she thought. As terrible as death." That truth, or at least one possible truth suggested by Dick, is that there is no radical disjunction between his alternate history and our own. The TV show encourages us to congratulate ourselves on our horror at the Nazis, and our distance from them. But Dick's novel suggests, disturbingly, that the defeat of the Nazis did not, in fact, truly transform the world. Their evil was not banished; it's still here with us, a dystopia we can choose, and that many of us do choose, every day."

What choices would an ecofascist, hairshirt green future make in adapting such a work for their reality? For one thing they might emphasise that a world in which the Nazis had won, there would've been no western Baby Boomers – a population explosion now understood to be a factor in [Great Acceleration](#) ([which we've looked at previously](#)), to recap:

"Is it reasonable to establish a connection between socio-economic trends and Earth system trends? Scientists believe there is enough evidence to suggests just that. You only have to observe the vertical line dividing those graphics. The rapid acceleration starts in 1950, [with the postwar booms](#)."

From a dark future already in the midst mass deaths, looking back at the moment when things could've been corrected wouldn't just be an escape, it would serve as justification for the horrible acts they're committing. "It could've all been so different", they'll say as they build the walls ever higher around their bright green lifeboat cities against the waves of incoming climate refugees. Burning people and spreading their ashes to seed new forests. Maybe children will be taught about the ecological benefits of the plague? About just how much damage to the planet was saved by the Spanish Influenza outbreak.*

* *Computer, show me the most eerie passage to reading during COVID lockdown.*

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When we re-situate ourselves into the ecology we can make extrapolations from findings made in observation of other predator-prey relationships. We can compare ourselves and the planet to wolves and livestock. If we think of a World War as akin to culling wolves, then this finding that [“the more wolves that are killed \(up to a threshold of 25% of the population\), the more the remainder preyed on local sheep and cows”](#) explains the Great Acceleration perfectly.

“It is interesting to note that this paradoxical finding is not just found in relation to wolves – lethal control of cougars (or mountain lions) also means the remainder kill more cows and sheep as younger, inexperienced cougars are more likely to attack livestock.

Coyotes also show increased litter sizes and more frequent breeding in populations that were lethally controlled. Culling programmes could have even exacerbated livestock attacks by taking out younger, less predatory coyotes. Further, state-funded coyote removal campaigns have failed to reduce predation on sheep. Lynx, too, do not significantly reduce livestock attacks until lethal control dramatically reduces total population numbers.”

Our history as prey turned predator has been complete, but this article too points out that we’re acting on our cultural baggage, that to be better ecological engineers, or managers of ecological engineers, as we appreciate the role that these predators play, we need to get over our shit and build a new civilisational mythology:

“We must therefore start to [think outside the box](#). Much of this conflict between humans and wild predators is not really about protecting livestock, but instead concerns a deeper historic and cultural aversion to wolves, lions and other scary carnivores. This won’t be fixed through simple technical solutions – and we now know it certainly won’t be fixed with a gun.”

Which is why all the talk about DeExtinction Zones, and building a way through the Collapse now, trying to find a true middle path that steers away from a nightmarish ecofascist future. Which goes double for the NeoReactionaries, still trying to get buy-in on the future. They have aristocratic yearnings equal to or perhaps surpassing those 20th Century German Socialists.

The Nazis had a DeExtinction program too. Something that got some recent press after a [misadventure by a British farmer](#):

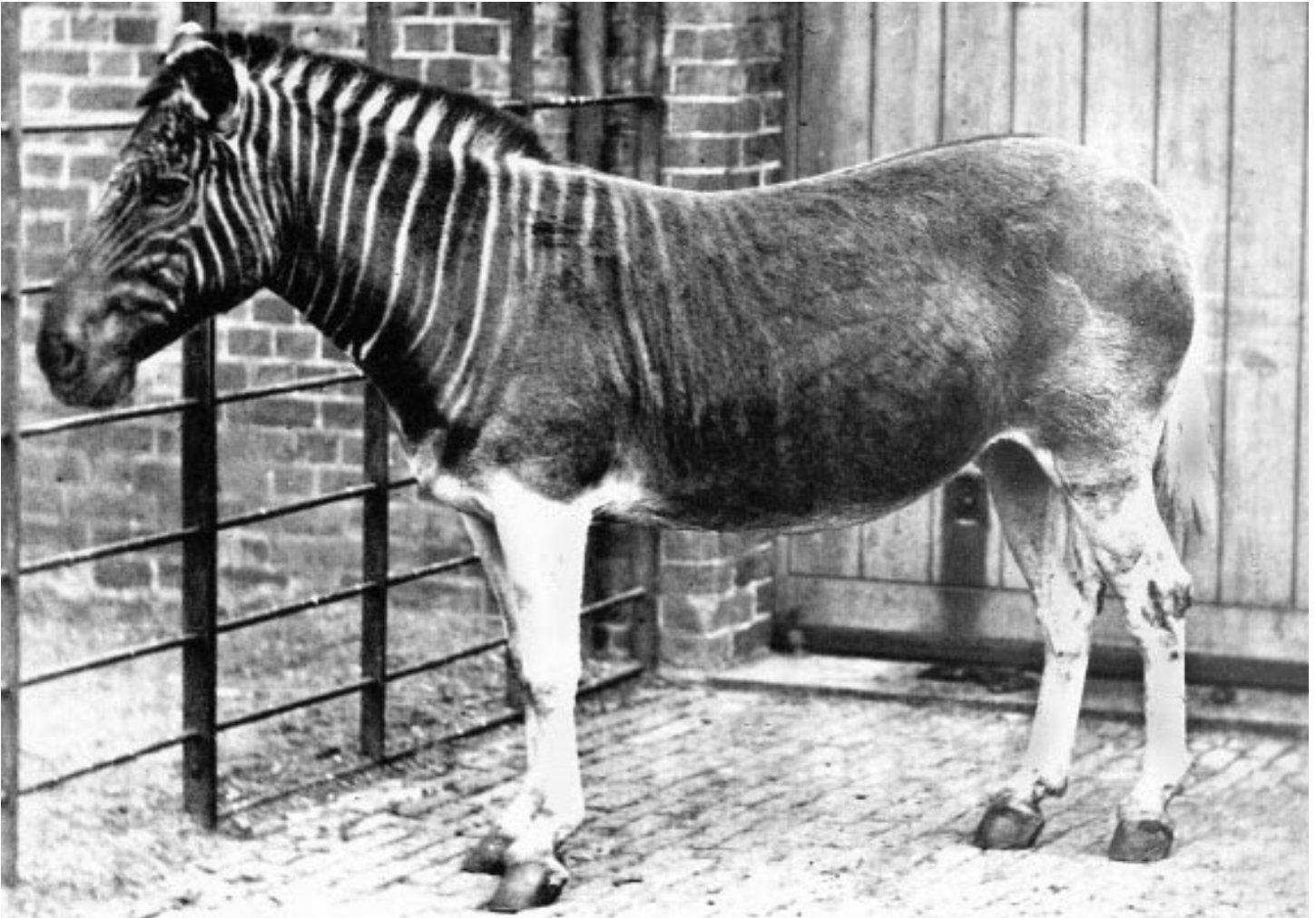
“This particular breed dates back to the 1920s, when German zoologists and brothers Heinz and Lutz Heck, recruited by the Nazis, began a program to resurrect extinct wild species by cross-breeding various domestic descendants — an effort typically referred to as “back breeding.” Among their success stories was the half-ton Heck cattle, a reasonable facsimile of the hearty and Herculean auroch cattle that dated back some 2 million years prior and has roamed en masse all over Germany centuries prior.

The back-breeding program reflected the dual Nazi obsession with eugenics and nostalgia; the wild ancestry of the auroch reflected a time of “biological unity” before civilization [softened and “uglified” man and beast alike](#). And in fact, the program’s research patron, one Hermann Goring, sought to preserve biological unity not only by resurrecting extinct species, but by restoring them to their original habitats; thus his plan was to return the aurochs to the primeval Białowieża forest.”

See where we’re going here? There’s also a [Heck horse](#) which is still running around that primeval former Nazi playground:

“The Heck horse is a horse breed that is claimed to resemble the tarpan (*Equus ferus ferus*), an extinct wild equine. The breed was created by the German zoologist brothers Heinz Heck and Lutz Heck in an attempt to breed back the tarpan. Although unsuccessful at creating a genetic copy of the extinct species, they developed a breed with grullo coloration and primitive markings. They were introduced to the Białowieża Forest during World War II, where a small herd still survives. Heck horses were subsequently exported to the United States, where a breed association was created in the 1960s.”

Something else that was exported to the United States was Sherlock Holmes, in the tv series *Elementary*. [Its latest episode](#) was – OH MY ZEITGEIST!!! – [SPOILER WARNING] #hacktheplanetreferencealert on the subject of DeExtinction, with Zero Cool himself delivering a perfect monologue explanation of our entire subject of inquiry and interests here in this Club wot we metaphorically sit in, for the briefest of moments, outside time, within our imaginations, flitting through linear time, parallel realities and ideaspaces...



One fact that Holmes neglected to mention in his otherwise authoritative run down on the science and nature of DeExtinction and the details of the resurrected species itself, in this (detective) case, being the Quagga is its Nazi heritage:

“[The Quagga Project](#) is an attempt by a group in South Africa to use selective breeding to achieve a breeding lineage of plains zebra which resemble the extinct quagga (*Equus quagga quagga*).

In 1955, Lutz Heck suggested in his book *Grosswild im Etoshaland* that careful selective breeding with the plains zebra could produce an animal resembling the extinct quagga: a zebra with reduced striping and a brownish basic colour.”

To belabour the point, South Africa has its own troubling history of eugenics and racial purity too. DeExtinction has its own cultural baggage we really need to ditch overboard.

And here in the really real world, ReWilding Europe – hopefully minus the racial purity agenda (but there’s a pitch for you, reading journalists) – are engaged in resurrecting the Auroch. Heck... ahem... yes they are. [They’ve even got a 160 page book available on the subject.](#)

Returning to our multiversal pitch for a future reboot of *The Man In The High Castle*, tuned for our imagined ecofascist audience, we’d have at least one Nazi officer hunting resurrected species in some idyllic forest or other. Pick a protectorate. Being such nature lovers it’s hard to imagine an alternative to the world we know, that would only be worse for our theoretical target audience, suffering from [empty forest syndrome](#).

Which brings us, as we close out this record length newsletter and perhaps future packaged pamphlet, to **organic geoengineering**. To the delight of many a contemporary tree hugging hippie and otherwise eco minded (but hopefully not ecofascist, dark apocalypse plotting) folk, the simple fact that science has deduced is that [the most effective world saving technology is TREES](#). This follows on from earlier research showing [that tropical rainforests absorb the most carbon](#).

So the Axis Powers-like ruled future/alt-history world of aristocratic hunting parties chasing resurrected species stocked tropical forests becomes a mechanism for preventing the metaphorical zombie apocalypse as the asteroid made flesh future we will all too soon be apart of... exhale... unless we do something about it.

Nurture the seeds of the future scenario with most minimal causalities, and maximal opportunities. **The Grand Extropian Adventure!** Where any lifeboats are living spaceships and exercises in ecological engineering:

Scientists and architects are designing an ecology from scratch. “Rather than treat the interior of the starship like it was the pot for a plant, and just hack out a piece of earth and stick it inside a tin can, the proposal is to design from the bottom up an ecology that sustains itself within a particular space,” says [Rachel Armstrong, lead researcher on Project Persephone](#), the part of the Icarus work that considers how to create an environment...

“We don’t build ecologies, we garden them—we take existing systems and we stitch them together in practices like agriculture and gardening. If we can’t build a sustainable ecology on Earth, we’re going to find it impossible to make one in space. So our design involves reconceptualizing our relationship to ecology.”

And where better to start than our previous relationship with ecology, Zoos? Like museums, these are products of Empire, at least in one respect. But, they are also science research centres, which apart from showcasing the might and reach of the Empire to help maintain a docile workforce, has some people within it doing important work to understand the nature of the land and sea, and its residents that have born the cost of the Empire’s success.



Project Persephone

[As io9 documented in a recent QnA](#), Zoos are already functioning as Living Arks and acting as DeExtinction Nodes:

“We have hundreds of breeding programs called Species Survival Plans that exist to maximize genetic management and demographic stability in zoo and aquarium populations. We track the pedigrees of our animals back to the wild and make breeding recommendations based on the best genetic matches (and, of course, behavioral compatibility). **Zoos populations have already been used to help repopulate animals in the wild and there are several species on the planet that exist because of zoos.** That’s important, so I have to repeat it — there are species that were once extinct in the wild, but they now exist there because zoos saved them. I have to brag about the National Zoo a bit here, because we have played a large part in saving several species from extinction, including black footed ferrets, Arabian oryx, Przewalski’s horse.”

So as the Collapse proceeds, at least we’ve identified one more area to save, or better yet start working with right now to help to thrive and restore the planet.

Which, after all this talk of the patriarchy, zombies, Nazis, time travelling television and the ecofascist future we have to know to avoid is a good place to end things.

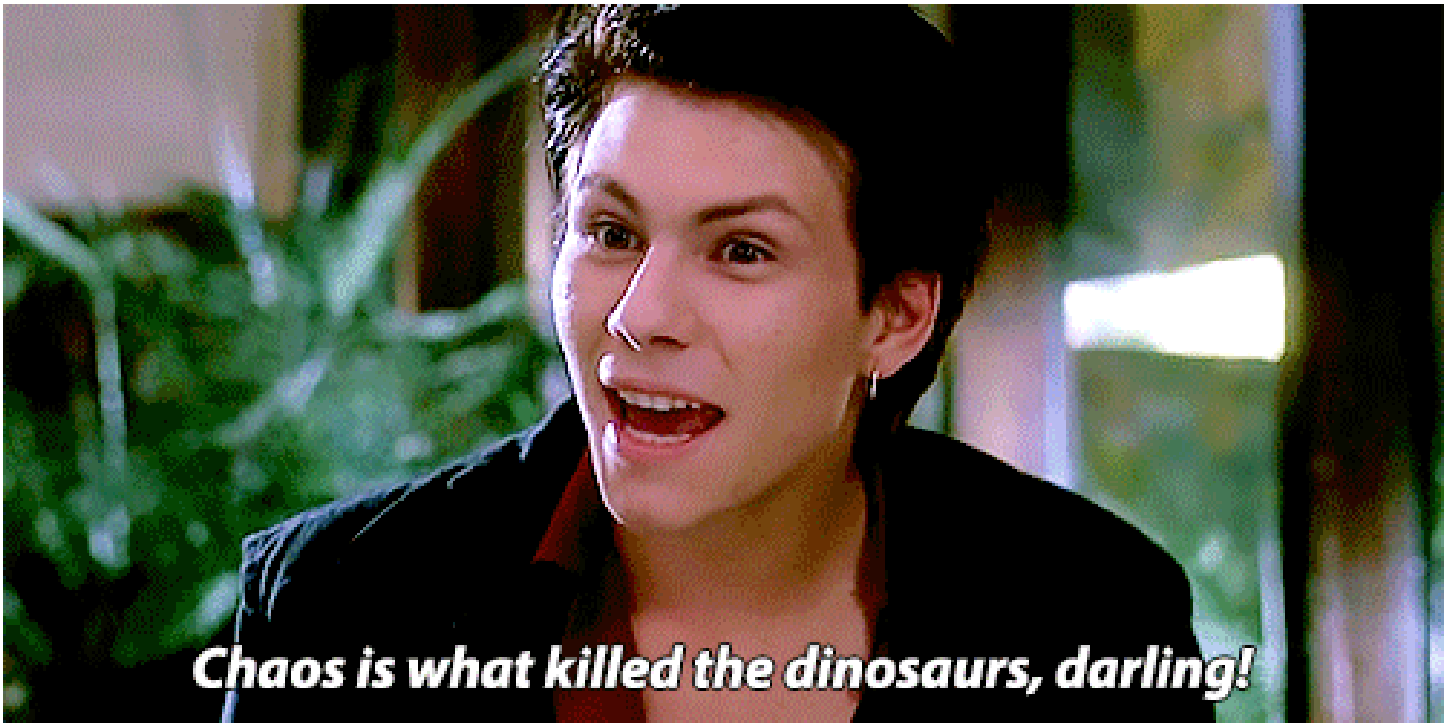
Thanks once again for reading!

m1k3y

INCOMING SOLAR STORM ALERT: SPECIAL EDITION.

An elaborate introduction to the Mythology of AI [Part1]

March 1, 2015

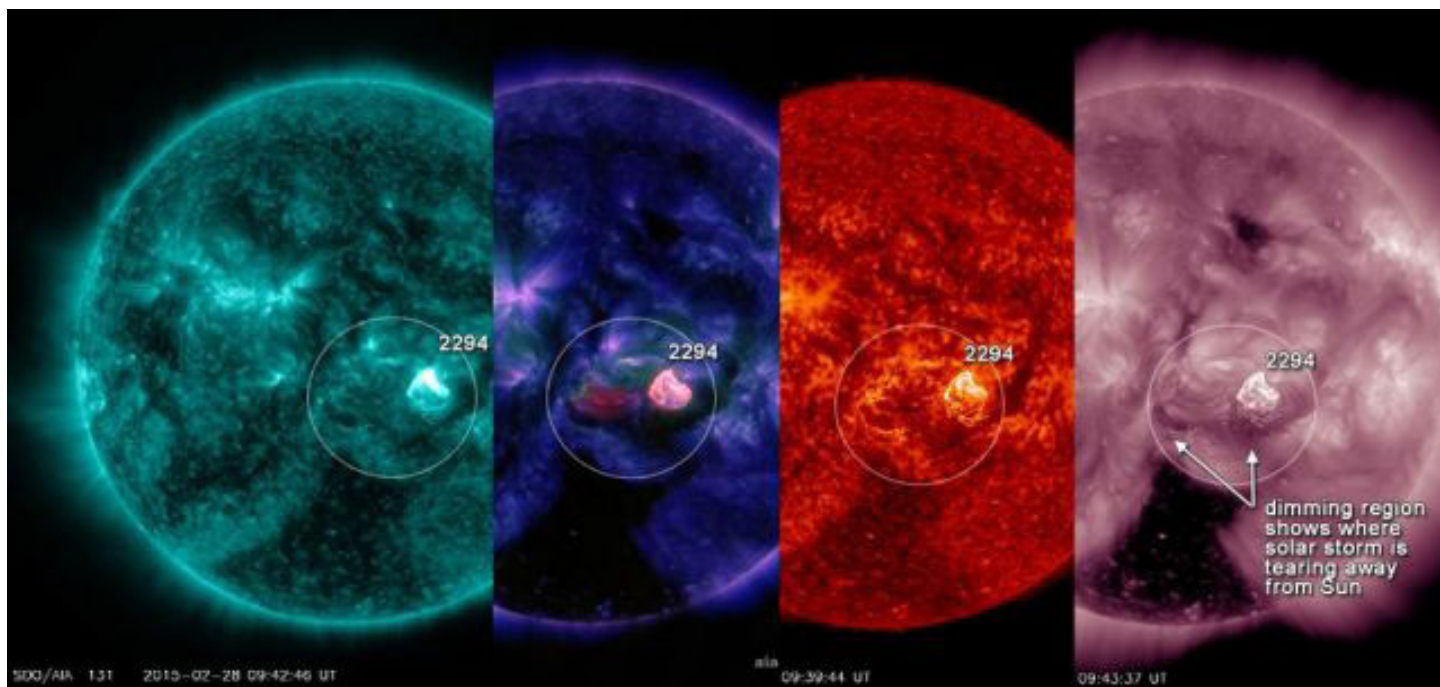


Heathers

“You inherit 5 million dollars the same day aliens land on the earth and say they’re going to blow it up in 2 days. What do you do?”

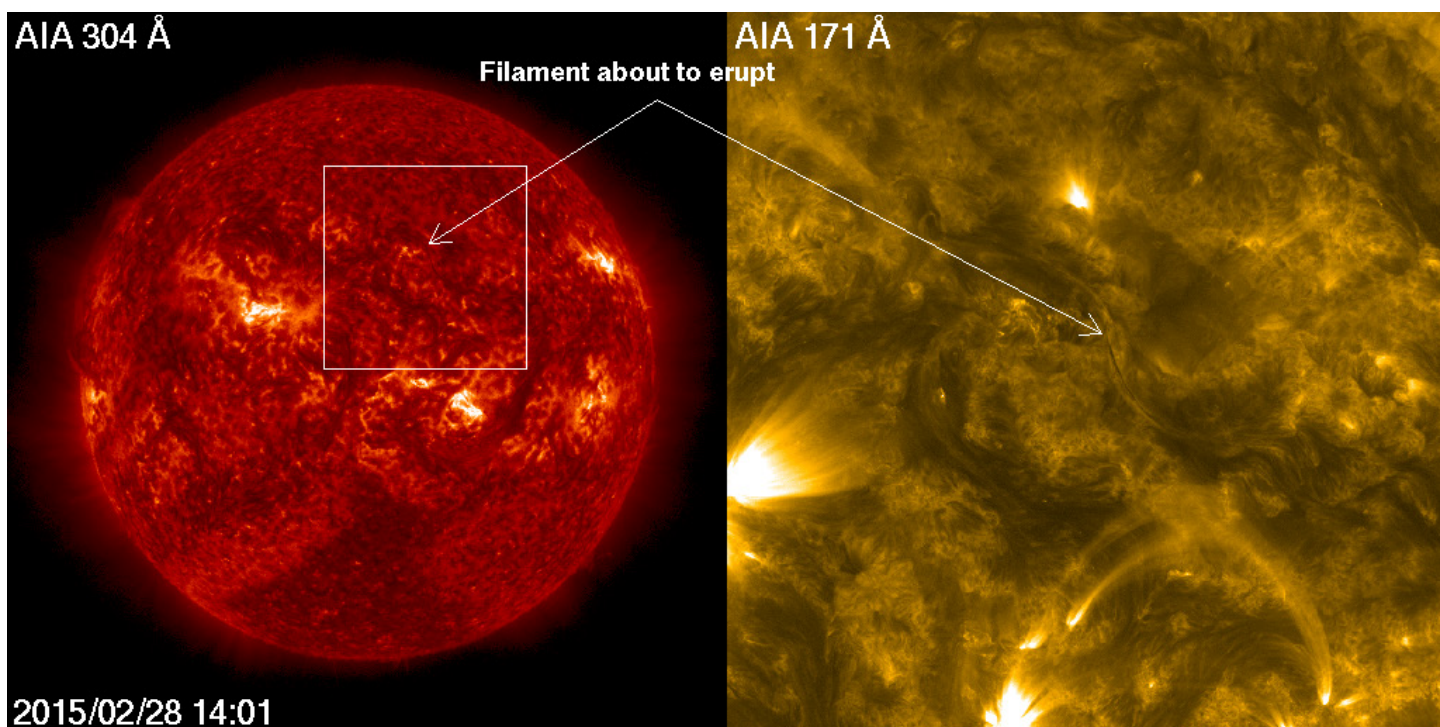
Seriously, how young was Christian Slater in *Heathers*? For the non-GenX crowd, that’s pretty boy face of Slater from *Archer*.

My god, how old am I now? It’s okay, we’re all going die.



“New Earth-directed #solarstorm launches now! Possible impact March 4. Expecting more from fast-growing region 2294.” ~ [Dr. Tamitha Skov](#)

Probably not. But right this second solar particles are charging towards the Earth’s atmosphere, about to collide with its protective magnetic shield (which Mars doesn’t have btw, Elon...). It’s due to arrive March 4 (Hopefully you opened this email before all of our technological civilisation began a rapid descent into a Dark Age 2.0) Will it hold? It hasn’t always.



There's a theory that a massive Solar Proton Event is what actually, probably, definitely, scientifically, hypothetically KILLED MOST EVERYTHING ON EARTH a mere thirteen thousand years ago.

Or a lot of things. We're talking Extinction Level event. Of course *we* are:

"Solar proton events, blasts of energetic solar cosmic ray particles that are shot out with the eruption of a solar flare, can arrive with little advance notice, traversing the 93 million mile distance from the Sun to the Earth in a matter of hours. They are usually followed some days later by a slower moving solar wind plasma shock called a coronal mass ejection.

They have been observed to occur from time to time in past decades, but none in modern times have been strong enough to pose a serious ground-level radiation hazard...

Extrapolating upward from that event, LaViolette estimates that the 12,837 years BP extinction level SPE would have delivered over a two day period a radiation dose of from 3 to more than 6 Sieverts, lethal dose (LD-100) for most mammals being in the range of 3 - 8 Sieverts.

Hence it could have been a principal cause of the final termination of the Pleistocene megafauna and even of several genera of smaller mammals and birds.

The upper range of his estimate is a very conservative projection based on the assumption that the SPE would have been strong enough to overpower the Earth's protective magnetic field sheath allowing the full intensity of the solar cosmic ray barrage to directly contact the Earth's atmosphere...

...the impact of the solar proton event and its direct contact with the Earth's atmosphere would have generated high concentrations of condensation nuclei in the stratosphere which would have had a cooling effect on climate...

He notes that aridity associated with this period of unusual climatic warmth must have contributed to the occurrence of wildfires since high ammonium ion concentrations coincide with each of these warm intervals, ammonium ion being a recognized wildfire indicator.

He notes that hazards associated with these fires as well as the associated destruction of food supplies and habitats would have also contributed to the megafaunal termination...

This could account for the sporadic reports of an extraterrestrial debris-rich layer said to overlie the remains of extinct megafauna in early YD sediments and could also explain the discovery of a nanodiamond-rich layer found in Greenland ice correlating with the time of this event."

(I cut that down as best I could...)

The Younger Dryas period is one of those mysteries, like the nature of extinction events, that different scientists keep returning to, offering up new and exciting theories.

Notice how this completely contradicts the last newsletter's emphasis on the role played by humanity as a force of extinction? What's the real answer?!?!

Short of a time machine and/or the ability to see the entire timestream and planet from a 5th Dimensional perspective, we'll never know. Our descendants might though, whatever form(s) they take.

But, it's fair to say that reducing it down to one definitive thing though... that's looking in the wrong direction.

This is **(De)Extinction Club** and we immerse ourselves in the contradictory possibilities and think impossible thoughts for breakfast. Every single fact is just an aspect of an unknowably complete truth. The cosmic horror of the real is called that for a reason. Don't make me quote Lovecraft again. Mind the words of Somni 451 instead.



What's interesting is though this theory of an Earth set on fire - not by our old friends the Short Ray Gamma Bursts streaming in from some distant, galactic extinction causing supernova, but a more local, fierce force of unstoppable protons - though this may have a whiff of the fringe to it, and what it's addressing at the end there is the even more controversial [Younger Dryas Impact theory](#) - it correlates with some more recent, non-anthropogenic extinction science. [This paper argues that people didn't kill the Australian Megafauna, it was climate change and the drying up of the interior megalakes](#) (which I'm off to visit soon, incidentally):

“Our findings suggest a climate-driven hydrological transformation in the critical window of human arrival and megafaunal extinction, and the results call for a re-evaluation of a human-mediated cause for such extinctions in arid Australia.”

Which completely ties in with solar storm theory. The Earth on fire, then drying out. Wiping out all the big animals and some of the small. Did our ancestors really hide out in caves (again?) and underground cities. There's legends there a plenty. And we keep finding them, these hidden places. Though they mostly seem to date back a mere five thousand years. But maybe they're extensions on earlier subterranean hideouts? What I can tell you from first hand experience is that **Kaymakli is a fun place to visit.**

Science, right? LOVE IT! Take one part cosmology, one part archaeology, stir in some mythology and what do you get?

Well...?

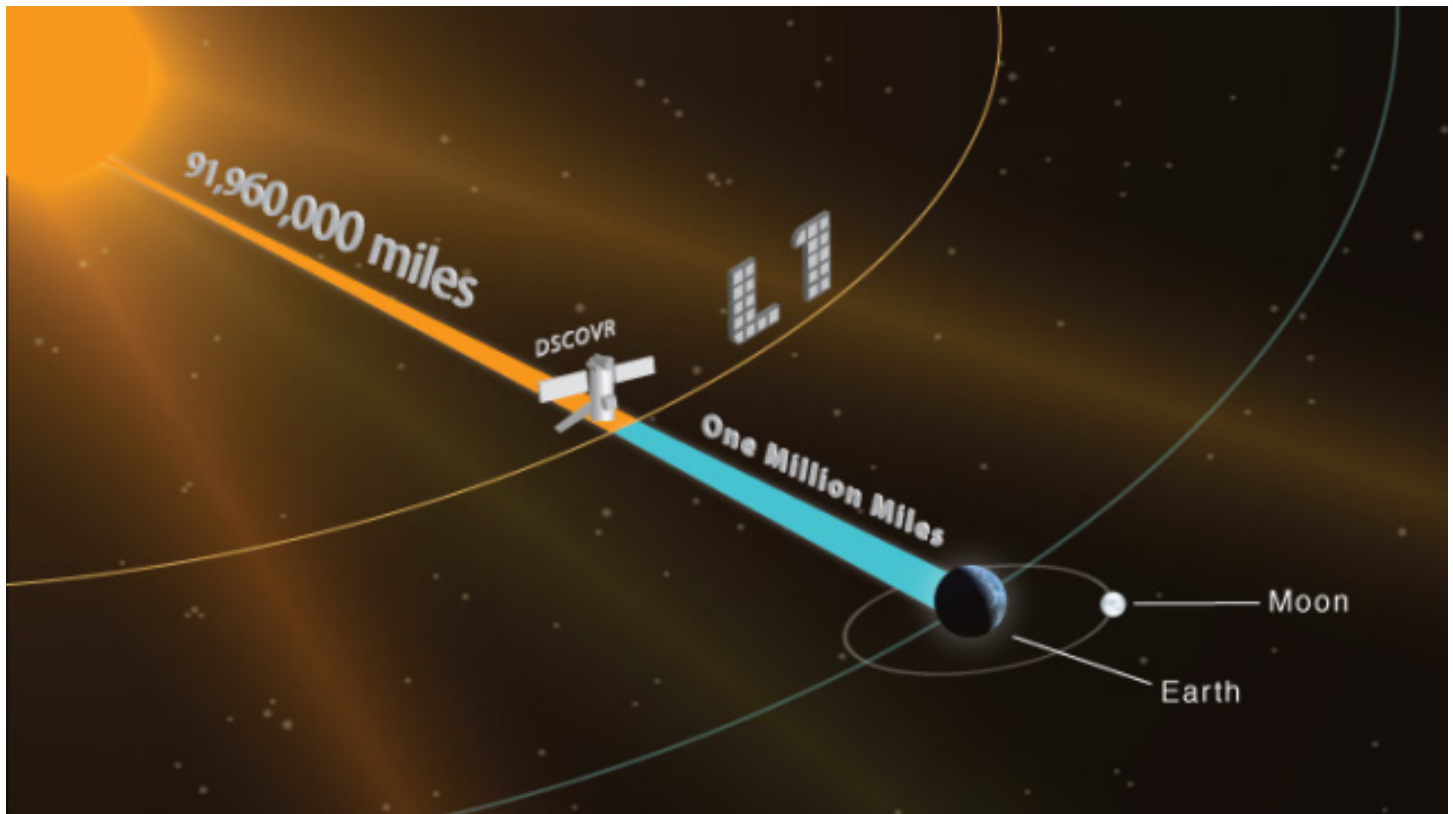
Totally not an Asteroid Death Cult.

...

Anyway... So how long did it take you to comprehensively read this? Not skim it. No...

Read. Every. Word. (Don't worry, there's no actual test. OR IS THERE? Hmmmm...?)

While those dangerous solar particles are travelling at sub-light speed towards Earth, ever closer now since you started this, where they may do little more than put on a nice light show in some places unused to it as they smash into our planet's natural protective shield, a new piece of space infrastructure - The Deep Space Climate Observatory, or DSCOVR - is on its way, hurtling away from Earth, to take up its position watching over the planet from afar, alerting us to incoming solar storms.



DSCOVR

[As of a week ago, it was halfway to its new home, ONE MILLION MILES AWAY](#), at L1, where it will sit, snugly held in place by the balance between the gravities of Earth and the Sun:

“DSCOVR will typically be able to provide 15 to 60 minute warning time before the surge of particles and magnetic field hits Earth, which is similar to what ACE currently provides. Though the geomagnetic storm warning data cannot currently predict exactly where geomagnetic storms will have an impact on Earth, a model planned to be made operational in 2016 will use DSCOVR data to improve predictions of storm impact location.”

Here's a... [video from NOAA about Living with Space Weather](#). (Like, I guess video production isn't rocket science huh. But you get the idea.)

We already have [SDO](#) up there, which provided those lovely Sun pix (OF DOOOOOOOOOOOOOM) above, and on the data it collects alone another piece in our technological civilisation's belated attempt to develop the kind of robust systems we need in place on and off of Earth in order to keep the grid up and to let people skive off at work on Facebook, acting as delivery vectors for the latest memes on tumblr etc etc - fulfilling our birthright, basically - [is being added](#):

"Solar flares are difficult to predict. But two Stanford University researchers are combining an artificial intelligence program with NASA's largest-ever collection of solar observations in an approach that may prove to be the fastest, most reliable means yet of tipping off forecasters to solar storms...

Bobra and Couvidat studied solar flares using machine learning, a type of artificial intelligence that uses computer algorithms to analyze data and make predictions. Though other solar researchers have taken a similar approach, Bobra and Couvidat had an advantage: a NASA spacecraft in orbit called the Solar Dynamics Observatory...

To "teach" their machine-learning algorithm about solar flares, Bobra and Couvidat fed it data on more than 1,000 regions of the sun's surface, including whether those regions eventually flared.

"The 'learning' took a couple of minutes," Couvidat said. "It's basically instantaneous."

To see if their algorithm really had "learned" anything about solar flares, they showed it other active regions on the sun and asked it to predict whether those regions would flare.

Bobra and Couvidat's algorithm was fast and accurate at predicting the most severe solar flares. When their algorithm predicted a region would stay quiet, it was right 87 percent of the time. Before that, the most recent artificial intelligence approach had delivered correct predictions only 67 percent of the time."

Which is where I start talking about the *Rise of the Machine Civilisation*, our continual coevolution with our tools, and being "watched over by machines of loving grace". Again.

Except I'm going to hold off on that.

Coevolution like this is the future. It's how we bootstrap ourselves to the next stage of civilisation, up the Cultural Kardashev Scale; precisely by facing these kinds of extinction threats head on. This is the great selection filter. And perhaps the test every sentient species faces.

For now, let's just say I'm glad they're training some software to handle this complex and important task for us. With us. When it comes to the end of the world, every second matters. Solar storms are serious business, and all this is LONG OVERDUE:

“Scientists first made this connection in 1859, when particles from a particularly mighty solar flare struck Earth and knocked out telegraph systems across Europe and North America. A similar flare in 2012 missed Earth, but about a half dozen solar flares in the 20th century disrupted electricity and communications, including a 1989 blackout across Quebec that lasted more than 11 hours.”

And boy howdy do I wish there was another satellite being strategically placed on overwatch for incoming asteroids...

But hey, this is something! It's a start. At least we've got our best people on it, assembling the best human-machine team we can manage for this threat. Gathering data. Increasing our understanding of the solar system. Of the cosmos. How to survive in it.

Coevolution like this is the future. It's how we bootstrap ourselves to the next stage of civilisation, up the Cultural Kardashev Scale; precisely by facing these kinds of extinction threats head on. This is the great selection filter. And perhaps the test every sentient species faces.

Oh what dead worlds we'll see! Right, Elon? Don't fear the machines, bro. It's our way through, together.

And, well, this whole newsletter serves as an introduction to examine that issue in far greater detail: the AI, its mythology and future role in a posthuman civilisation.

Coming up very shortly... in PART 2 of this extended newsletter, we chart a course somewhere between SkyNet and the Minds of *The Culture*. I want to send this out now, just in case the world ends. And also, because I've been wrestling with what we're calling PART 2 all week. More on that, then.

Before we go though, a piece of pop culture doom porn. The [TV adaptation](#) of *12 Monkeys* is proving to be quite the slow burner, serving as an introduction to time travel for baseline humans, and, of course, looking at the grim calculus of the prevention of an extinction event. Kill one man to save yourself? Kill 20 to save the fate of the human race for the post-apocalypse only you can see? Cole and Sarah Connor would be fun people to hang out with, huh. Battle scars, dude...

This, btw, is my Doctor:



Doctor Who – The Day of the Doctor

But I digress again...



12 Monkeys (TV)

[***SPOILER WARNING***] In the very latest episode of *12 Monkeys* we have a dramatic version of Edward Snowden, who elements within the CIA are trying to covertly kill, and in the process, going to unleash a bio-plague upon the planet. Maybe. In a particularly (delightfully!) nihilistic piece of dialogue between the show's hero, Cole, and the villain to some/freedom-fighter to others, with an incoming drone strike, people dropping dead all around them in their Chechen stronghold, the kind of backdrop that causes one to focus on what matters, totally not-Snowden says:

“What in this world is worth saving, if they were to risk extinction to swat a fly?”

THESE, AS THEY SAY, ARE THE QUESTIONS.

Now, please submit your answer to the [Heathers' lunch time quiz](#) before the inevitable solar storm fries all but the most hardened pieces of tech. Or, like, *whatever...*

Okay citizens of future, back very soonish with PART2.

Who else would I be?

m1k3y

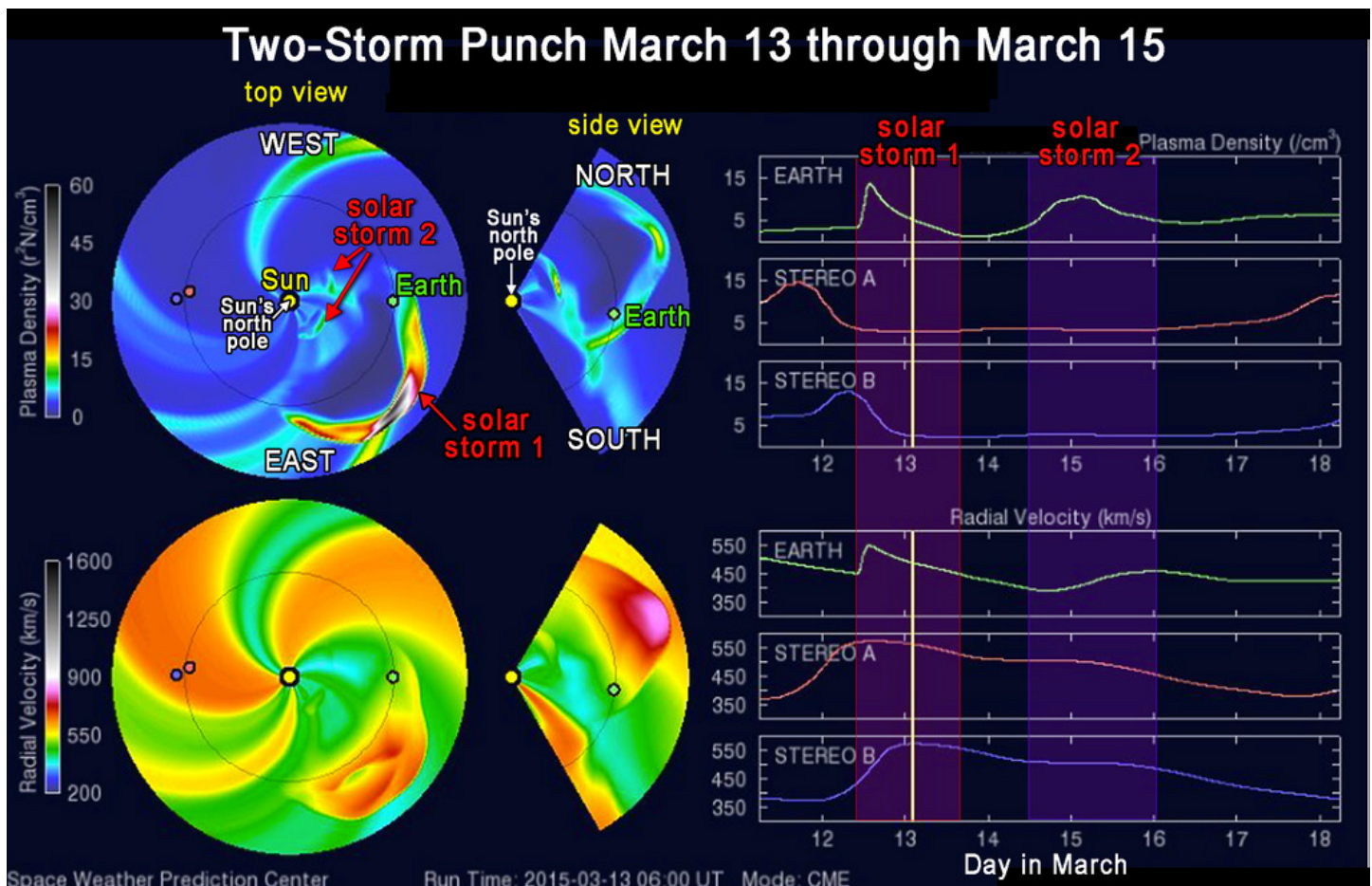
Zone Trippin' and the Coming X-Flares

Introduction to the Mythology of AI [Part 2]

March 14, 2015

Hello! So we're all still here and have a functional, nascent Type 1 civilisation telephone, as Michio Kaku and myself like to call this internet based communications system we're all so tuned into now, all the time.

That's us slowly moving towards the first step on the Kardashev Scale. We can get there! We just have to keep on living, and hope the Collapse stays there, just over the horizon. Looming. FLARING



So that's what a space forecast looks like, courtesy of [Dr. Tamitha Skov](#).

The sun has been continuing to generate some very serious heavy weather; we're talking X-Class solar flares, the strongest category. The Carrington Event Type. But don't worry, I'm sure everything will be just fine.

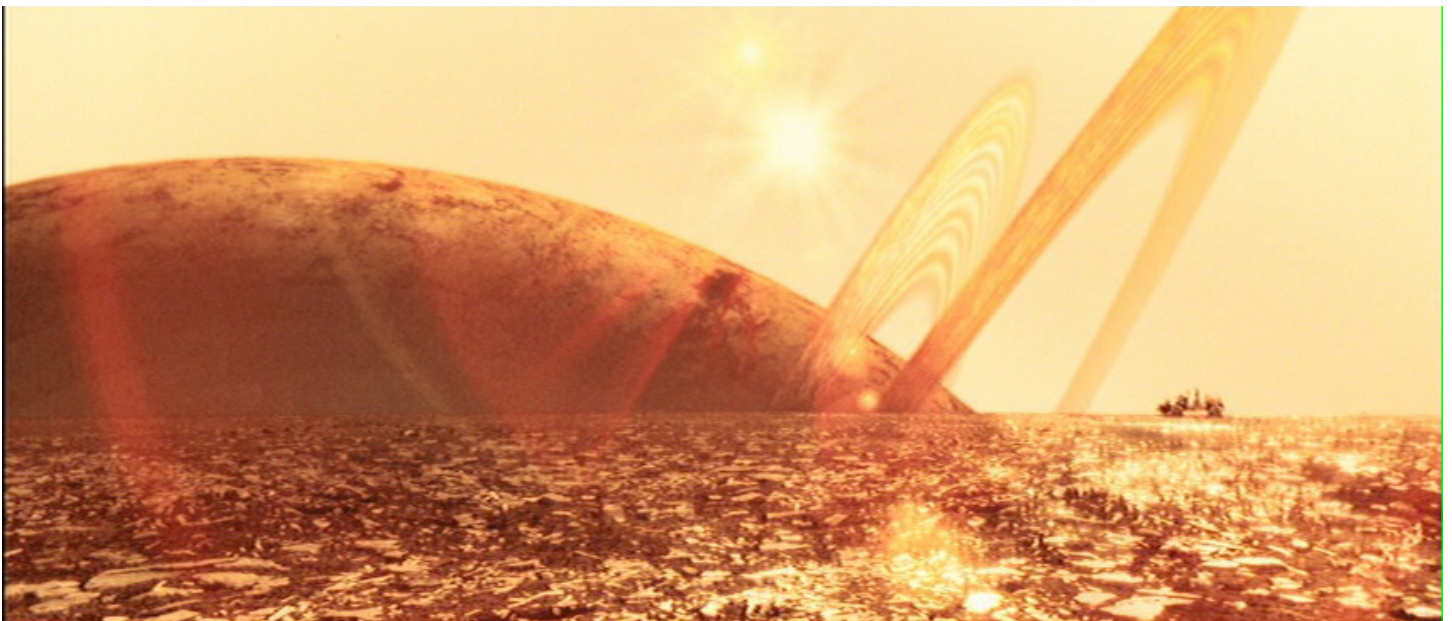
Still, maybe now is the time to take that vacation you've been planning. To a nice secluded location. You don't have to go full prepper. But with recent heavy weather events on large chunks of the planet, it's a good time to at least swap out the batteries on your torches, and maybe grab a few extra canned goods on your next supermarket run.

Me? I'm off to explore a nuclear wasteland.

I haven't written... I know, I said another update would be "soonish", but it turns out there's more paper work than you'd expect to launch a hauntological expedition into the heart of the 20th Century nuclear program of the remains of the British Empire.

Tomorrow morning I fly out to Darwin. In a week I'll arrive at Coober Pedy (where, as you know, the cult classic *Pitch Black* was filmed). From there my buddy and me will head into the Woomera Prohibited Area for a few days. And if you're nice, we'll send you back some nuclear glass.

I definitely will not be attempting to summon demons there. No. My not-mentor said that's a bad idea. But we will basically be zone trippin'. There may be a slideshow upon my return. Or the world might end before I get back. Who knows? EXCITING!



Pitch Black

I was discussing the last newsletter with my not-mentor, the part about the Solar Proton Event being the cause of the megafaunal extinction a mere thirteen thousand years ago, and he said something like “bah, sounds just like *Worlds in Collision*.” Which, [it turns out](#) “is a book written by [Immanuel Velikovsky](#) and first published April 3, 1950. The book postulated that around the 15th century [BCE](#), [Venus](#) was ejected from [Jupiter](#) as a [comet](#) or comet-like object, and passed near [Earth](#) (an actual collision is not mentioned).”

Now, that’s crazy talk right? Planets flying about, changing orbit, pffffffffffffff. EXCEPT...

Since the time of Galileo, we have assumed that the planets in our Solar System follow stable, fixed orbits. We assumed that the planets were formed where we find them now - from the left-over dust and gas when the Sun burst into life. We assumed that our Solar System has, for four-and-a-half billion years, been a peaceful haven, stable for sufficient time to enable life to evolve on Earth.

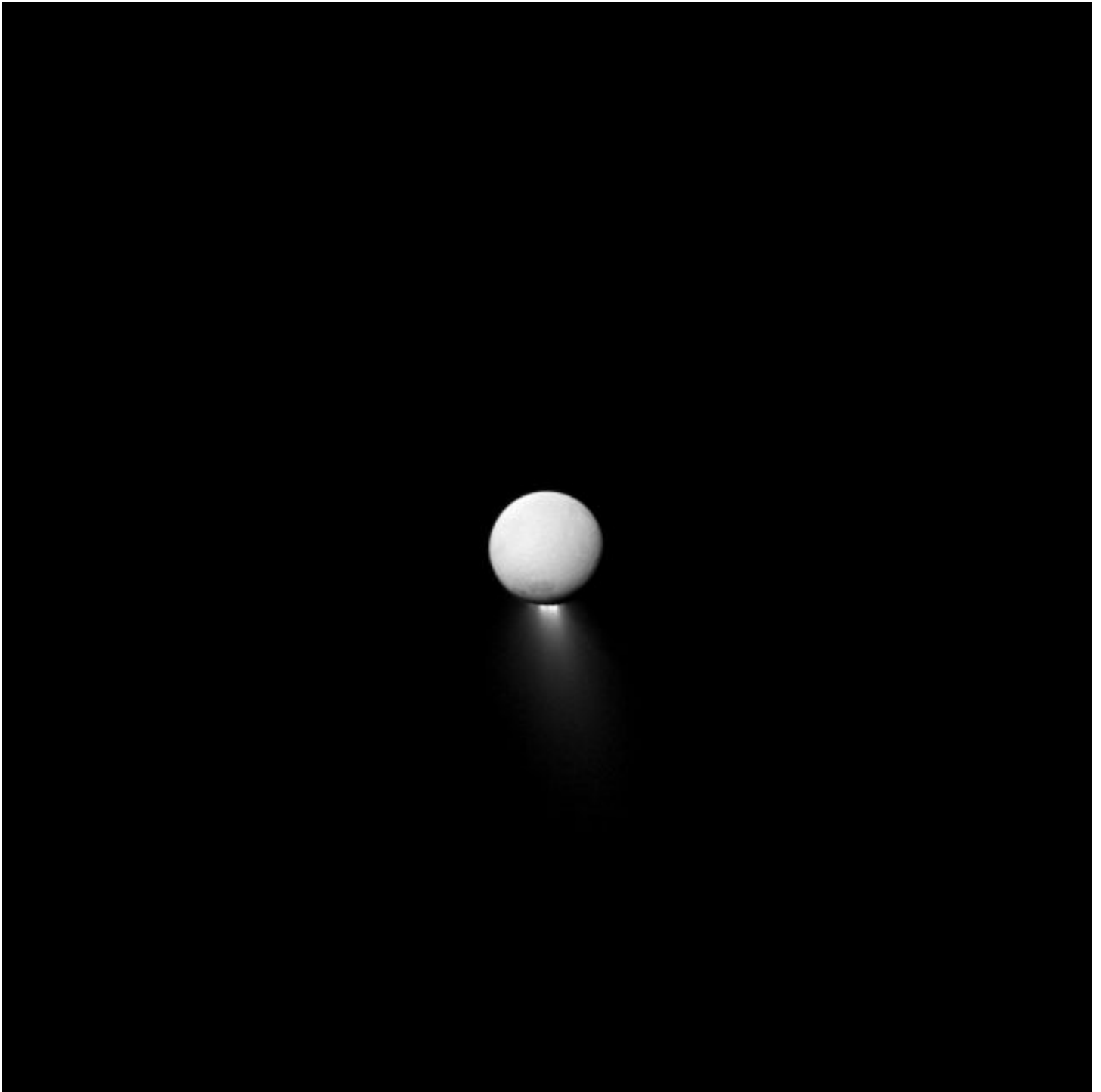
And yet there are some nagging mysteries about our own system of planets that have never been explained. Mars, for example, is much smaller than we would expect; the asteroid belt is divided into two neat bands - an inner band of rocky material, and an outer band of icy lumps...

Since the discovery of migrating exoplanets, planetary scientists have proposed new models for the formation of our Solar System.

They suggest that, far from being a peaceful and stable system with fixed orbits, our Solar System underwent periods of chaos, with Jupiter, the big bully of the Solar System, calling the shots.

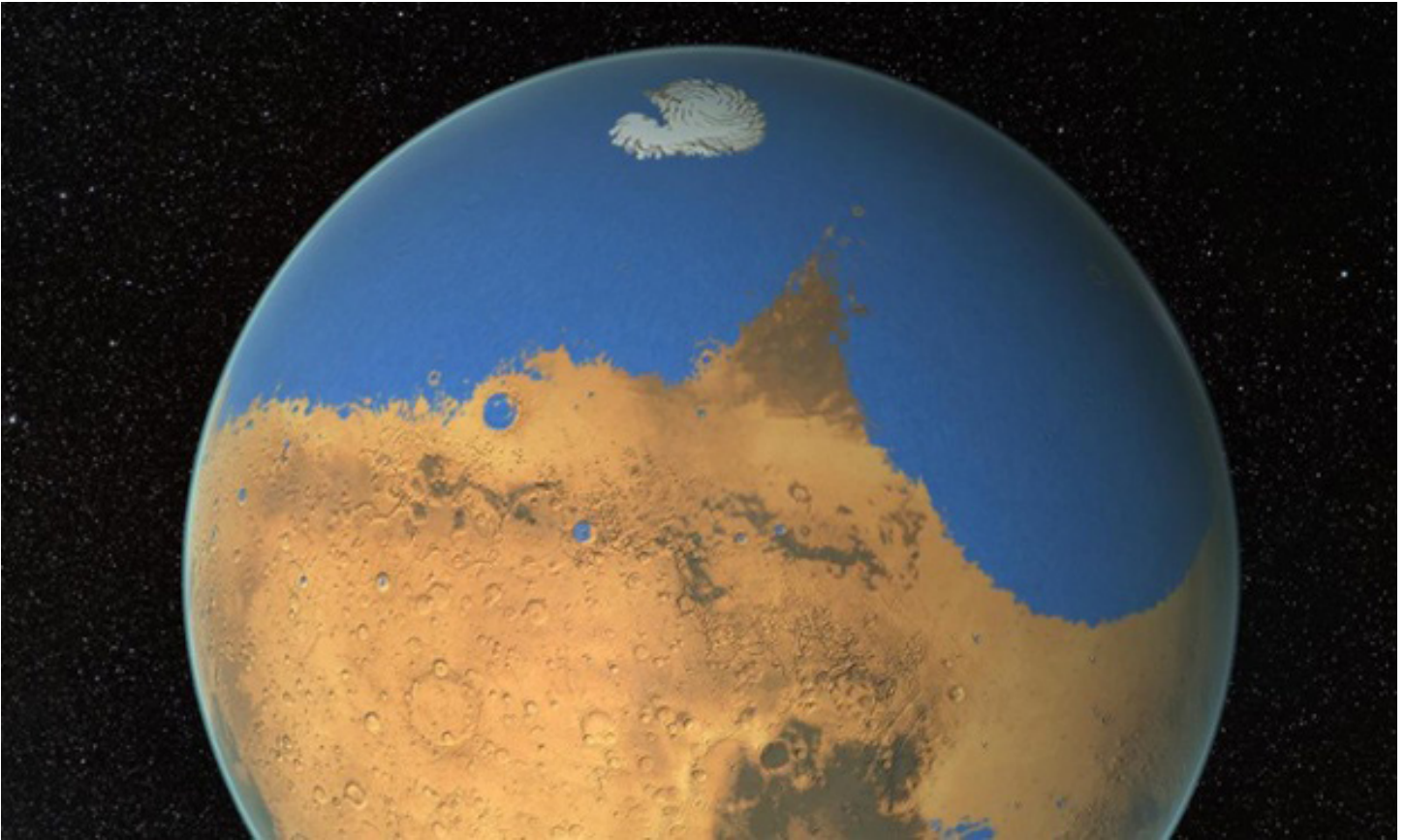
Humans right? We rock up somewhere and assume it’s been like that the whole time. From the European colonizers of the Americas not recognising their new territories as a post apocalyptic, rewilded landscape, because the holocaust they’d caused and benefited from had largely happened unseen by them... to our very planet, sitting in the so-called habitable zone, thanks to Jupiter (probably) running amok through the solar system billions of years ago, dancing with Saturn, possibly even sling shooting a tenth planet (Planet X, no less... by way of the eighth dimension? WHO KNOWS?! Buckaroo Banzai knows!!!)... We are learning so much about our home and its history by studying the stars with ever increasing understanding.

I highly recommend watching [BBC Horizon’s Secrets of the Solar System](#) over dinner or lunch or on the treadmill or bike or just sit down with a friend or whatever. IT’S SOME AMAZING SCIENCE.



Enceladus

So what else have we learned about the local neighbourhood lately? Well we, the updated consensus reality of human civilisation, now think that two different moons might have not just oceans on them, but maybe even ecologies too. My personal favourite – its plumes adorn my laptop's desktop - that's right, I'm talking about [Enceladus, moon of Saturn and how it seems to have hydrothermal vents...](#) just like at the bottom of our own oceans. Meanwhile, amongst the natural satellites of Jupiter, [Ganymede has ocean we're only just beginning to learn about.](#)



Mars, the wet planet.

And of course, Mars... the world previously declared long dead. Then, maybe it had a bit of water here and there. Now... now our best people are saying about [a fifth of it was under sea for billions of years](#) longer than previously thought. [Putting it right in the Habitable Zone!](#)

“John Bridges, a planetary scientist at Leicester University, who works on Nasa’s Curiosity rover mission, said Mars was surely at least habitable in the distant past. “Ten years ago, the story of water on Mars was an occasional flood of rocky debris every 100m years that then switched off again. We now know it’s more continuous. There were long-standing bodies of water: lakes, deltas and perhaps even seas,” he said.

“It seems to me that we have excellent evidence that Mars was once habitable, though whether it was ever inhabited is not clear. But there’s a chance. A life-bearing meteorite might have been ejected from Earth and could have landed in the water on Mars,” he added.”

PRAISE BE THE ASTEROID!!!

CAN I GET AN AMEN?!

If you’re just tuning in, this is **(De)Extinction Club**, and our subject is once again Galactic Ecology!

Now apparently science can only bend and twist so many old ideas at once. But here, in the fertile crescent of ideospace, we can go further. Why mightn't a life-bearing meteorite have been ejected from Mars and landed on Earth? And on Ganymede. And Enceladus? But not Titan. I mean, it could have, but it's unlikely to have seeded that particular world; [Titan looks likely to belong to a whole separate, methane-based Tree of Life.](#)

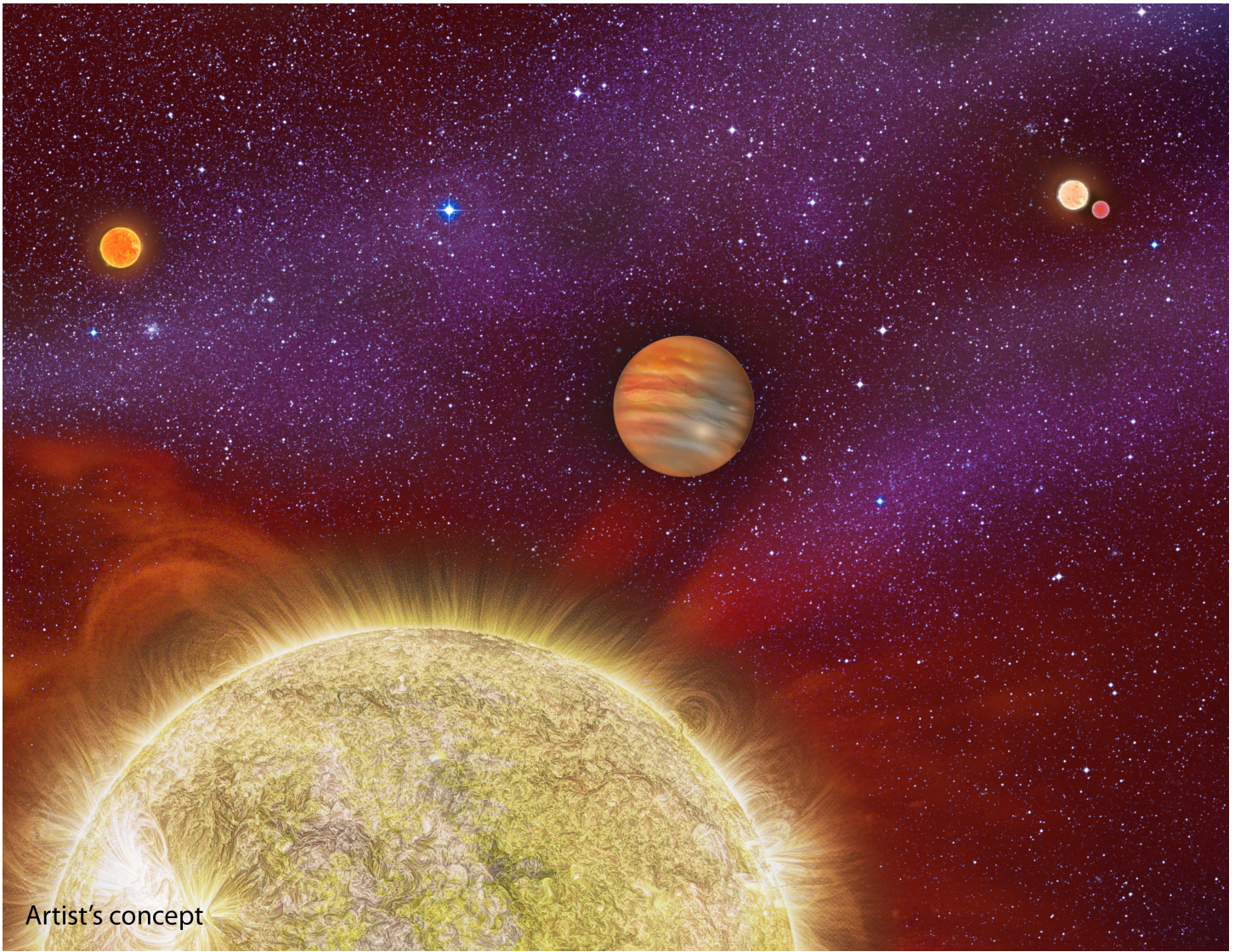
The more we study the universe, the more examples we have to draw upon and test our theories against, the more we understand our own place within it at all kinds of scales.

We know our own solar system hasn't been static from the findings of worlds like this one, [with three or four suns](#) and the discovery of "hot Jupiters":

"The newfound four-star planetary system, called 30 Ari, is located 136 light-years away in the constellation Aries. The system's gaseous planet is enormous, with 10 times the mass of Jupiter, and it orbits its primary star every 335 days. The primary star has a relatively close partner star, which the planet does not orbit. This pair, in turn, is locked in a long-distance orbit with another pair of stars about 1,670 astronomical units away (an astronomical unit is the distance between Earth and the sun). Astronomers think it's highly unlikely that this planet, or any moons that might circle it, could sustain life...

"Star systems come in myriad forms. There can be single stars, binary stars, triple stars, even quintuple star systems," said Lewis Roberts of JPL, lead author of the new findings appearing in the journal *Astronomical Journal*. "It's amazing the way nature puts these things together."

Roberts and his colleagues want to understand the effects that multiple parent stars can have on their developing youthful planets. Evidence suggests that stellar companions can influence the fate of planets by changing the planets' orbits and even triggering some to grow more massive. For example, the "hot Jupiters" -- planets around the mass of Jupiter that whip closely around their stars in just days -- might be gently nudged closer to their primary parent star by the gravitational hand of a stellar companion."



Artist's concept

Even by our existing definition of habitable, [new exoplanets are being discovered and added to this list](#). But the nature of the Goldilocks Zone, as it's known, is more complex than simply the relative position and size of planet and its sun. You have to factor external things... our old extinction level cosmic events, those Short Ray Gamma Bursts from Supernovas are now joined by [killer X-Rays from freaking SUPERMASSIVE BLACKHOLES at the centre of the gorram galaxy!](#)

“If you were standing on Earth six million years ago, the sky would have shone with the light of two suns. That is, it would have if you had x-ray vision.”



Pitch Black

Now you see why Riddick always has his protective eyewear at the ready! Because he's a survivor.

And he's a product of his environment. As we all are. What's made the Earth habitable is - like Riddick the galactic Übermensch - the things that didn't kill it, only made it stronger. Those X-Rays... maybe there were more like VitaRays (right Cap?) Crank up the exposure long enough and it's just what a juvenile ecosystem needs... in just the right dosage though, you have to imagine:

“Their calculations show that this particular eruption showered Earth with an intensity of x-rays comparable to an epic [X-class solar flare](#). For the thousands of years that the eruption took place, Earth's atmosphere swallowed a massive dose of this radiation...

It's unclear which type of cosmic explosion—a black hole flare or a supernova—might affect the Earth more. The short, powerful burst of radiation from a supernova may hit our atmosphere harder, leading to more ozone damage and more damage to life on Earth. But the same dose of x-rays spread out over a much longer time period could give the biosphere a chance to adjust, so to speak. A thinning of Earth's ozone layer for thousands of years might be a powerful enough environmental change to act as a selective pressure, and shape the evolution of life itself.”

What's made the Earth habitable is, like Riddick the galactic Übermensch, the things that didn't kill it, only made it stronger.

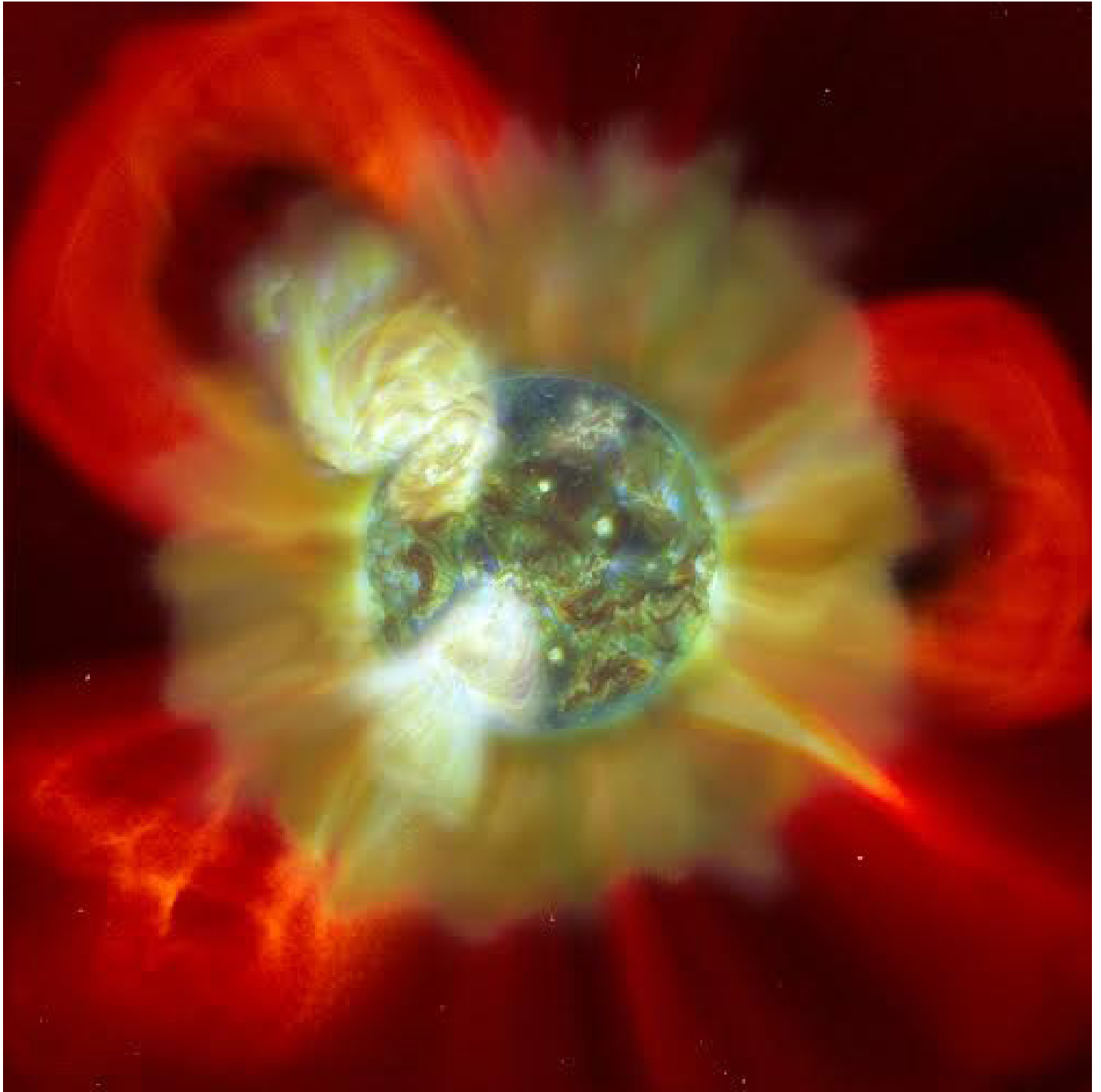


Chelyabinsk meteor

Six million years ago might have just been the icing on the earth's delicious cake of life. What would be death-dealing, infrastructure-wrecking superflares today - which we're learning are far more common elsewhere btw, just like 'oh hey yeah asteroids only hit the Earth every few hundred years or so', until that Russian sky gave us a rude awakening a couple of years ago...

“Observations of 279 Sun-like stars detected signs of brightening comparative in size to the Carrington event, but also superflares on the order of 10,000 times stronger than any flares known to have been unleashed by the Sun.”

- but I digress again.





ANYWAY, THAT'S NOT THE PARAGRAPH WE WANT TO FOCUS ON RN, NO...
[SUPERFLARES ARE WHAT YOUNG PLANETS CRAVE:](#)

However, continuing research by Airapetian suggests superflares and CMEs from the Sun might have been integral to life's rise. Such energetic radiation could have broken apart nitrogen molecules with very tightly bound atoms in the early Earth's atmosphere into free, individual nitrogen atoms. From the perspective of chemistry, nitrogen atoms bond well with other atoms.

Thus set free by superflares, the nitrogen atoms could have then combined with hydrogen and carbon, creating "organic molecules that can set favorable conditions for creating the building blocks of life," said Airapetian. Furthermore, the nitrogen atoms could have combined with hydrogen forming ammonia in the atmosphere, a greenhouse gas that might have played an important role in warming the early Earth.

It's been a long-standing mystery how inert, molecular nitrogen in early Earth's atmosphere ever broke down into atomic nitrogen. Life performs this task all the time, but it begs the chicken-or-the-egg scenario of how life ever formed without available nitrogen, and how nitrogen was ever available without life. Superflares might provide the answer.

"On one hand, our studies suggest that the harsh conditions introduced by intensive radiation from flare and CME activity had a detrimental effect on life," he said. **"On the other hand, high levels of steady, intense radiation could have opened a 'window of opportunity' for the origin of life on Earth by setting a stage for prebiotic chemistry it requires."**



One more strange fact of the circumstances leading to our birth before I call it a night...

WE ARE MADE OF ASTEROID CHUNKS, and [here's the link to the super science project that proves it \(probably\)](#):

“To understand what happened to iron while the young Earth was getting walloped with rocks, the researchers used Sandia National Laboratory’s Z-Machine, the world’s most powerful manmade radiation source. This machine generates massive electrical currents and magnetic fields to produce temperatures and pressures found nowhere else on Earth, making it the ideal tool for studying the violent process of planetary accretion.

The researchers simulated impacts occurring in the late-stages of Earth’s formation by smashing together iron and aluminum samples at extremely high shock pressures. They discovered that iron will vaporize at significantly lower impact speeds than previously thought. Some four billion years ago, then, high-impact collisions across the world caused iron-rich rocks to go up in smoke.

“This causes a shift in how we think about processes like the formation of Earth’s iron core,” Kraus said. “Rather than the iron in the colliding objects sinking down directly to the Earth’s growing core, the iron is vaporized and spread over the surface within a vapor plume. *After cooling, the vapor would have condensed into an iron rain that mixed into the Earth’s still-molten mantle....*

Iron, in addition to comprising a large chunk of the Earth, is an absolute requirement for life as we know it: It's found in our proteins, our blood and our DNA. Sure, a molten metal storm today would spell doom for most organisms, but there's something strangely beautiful about the idea of this critical element showering the world just prior to life's emergence."

I always enjoy how Maddie Stone closes out her articles. Anyway... IRON RAIN DOOM IS IN OUR BLOOD. Get it? I am very tired. I must go talk with the dolphins very soon. So, let me wrap this up...

My drawn out point being this:

if it's taken the interplay of all these factors, acting across billions of years, from planets dancing through the solar system, the sun at its centre and the star at the centre of the galaxy both emitting their own versions of death dealing / life giving cosmic radiation, meteorites both perhaps carrying life between planets and becoming the raw materials for it... all of this for us to be here today, and soon give birth to another species, or several even, ourselves... just what will their birth truly look like? what factors will interplay, in the cosmology of our society? the poles of capitalism and the state, for instance, each exerting their pull, their influence. the military and the religions of humankind, what might they rain upon a young virtual ecosystem, or infect it with? what strange birth will the AI have? what will give cause for other species to rise up and join us in sentience?

If we can begin to but consider these questions, we might have a better chance of navigating the days ahead and world to come. To exert our own selective pressure on the future and its inhabitants. Foster a habitable zone in time and space and possibility for our posthuman children, who in turn, properly raised and nurtured will almost certainly turn around and resurrect us one day.

It's (De)Extinction all the way up!

Now I am completely exhausted, but I'm glad we found this time to talk. You, me and all the other unread emails sitting in your queue who never ever get together and swap notes with the algorithms that interrogate them while you're not watching.

Be well citizens!

I'll speak to you again when I return from the desert with sand hopefully only in my hair and nuclear radiation only firing my imagination.

Take care everyone!

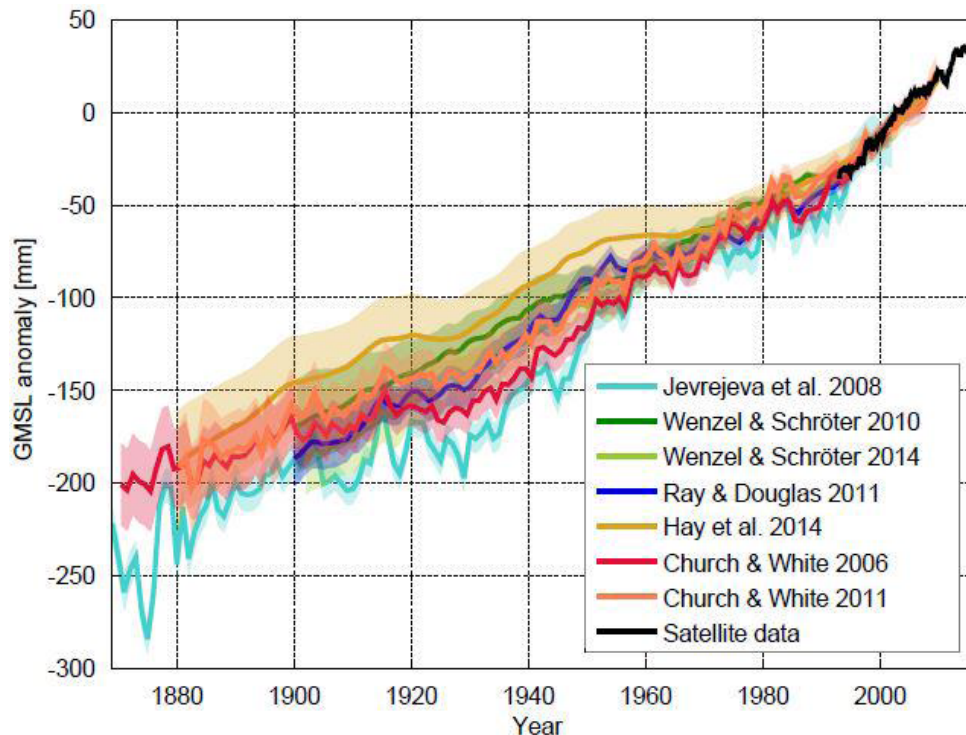
m1k3y

BONUS CONTENT

Understanding the Jackpot Years

A series of links that were once a Twitter thread, salvaged - best I could - from my local archive.

1. [Whatever Happens to Musicians, Happens to Everybody by Bruce Sterling.](#)
2. [BITTER LAKE \(trailer\) by Adam Curtis](#) - "a constant state of destabilized perception."
3. The global economy's breaching the biosphere's limits - The End of Endless Growth [[Part 1](#) & [2](#)].
4. [William Gibson sketches out the idea of a multicausal, decades long apocalypse.](#)
5. [The Indiana Jones of collapsed cultures: Our Western civilization itself is a bubble.](#)
6. [Climate Migration](#) vs [Walled Cities](#).
7. The threat of near-term human extinction due to climate change. Capitalism as the true geological force.
8. Activating the reverse thrusters... "A new sea level curve" (via [@NASAEarth](#))



9. [Welcome to Earth, 2200 AD: pop 500 million, temp 180°F](#)

IMAGE CREDITS

12 Monkeys (TV). Developed by Terry Matalas & Travis Fickett. SyFy, 2015-2018.

Bitter Lake. Written and Directed by Adam Curtis, BBC, 2015.

Cloud Atlas. Directed by Tom Tykwer, Lana & Lilly Wachowski. Cloud Atlas Productions, 2012.

Day of the Doctor, The. Written by Steven Moffat. Directed by Nick Hurran. BBC, 2013.

Fortitude. Created by Simon Donald. Sky Atlantic, 2015.

Iron Sky: The Coming Race. Directed by Timo Vuorensola. Iron Sky Universe, 2019.

Mad Max 2 (The Road Warrior). Directed by George Miller. Kennedy Miller Entertainment, 1981.

newuniversal. Written by Warren Ellis. Illustrated by Salvador Larroca. Marvel Comics, 2007-2008.

Pax Romana. Written & Illustrated by Jonathan Hickman. Image Comics, 2007-2008.

Pitch Black. Directed by David Twohy. Universal Pictures, 2000.

Planetary. Written by Warren Ellis. Illustrated by John Cassaday. Wildstorm (DC Comics), 1998-2009.

Trees. Written by Warren Ellis. Illustrated by Jason Howard. Image Comics, 2014-2019.

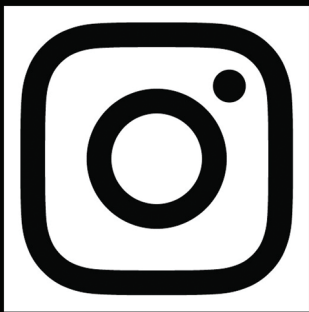
ABOUT THE AUTHOR

m1k3y - who is *TOTALLY* not the leader of an Asteroid Death Cult - is keenly interested in DeExtinction, and other things that fall under the Dark Extropian label, principally examining them through the lens of pop culture.

You can find him on the socials at [@m1k3y](#) (Twitter) and [@pryvt_rsrch](#) (Instagram).



For first access to more like this, check out his Patreon, [Dark Extropian Musings](#), at patreon.com/m1k3y.



pryvt



rsrch