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INTRODUCTORY ESSAY: 'NOW THAT WE'RE FREE, WHERE ARE WE GOING?'

Rebecca Bligh

A sift through some territories, maps and plans: Cyberspace, Pirate Utopias, and The Stack; post-work and platform capitalism; the Anthropo-, Capitalo-, Chthulhu- and Gynocenes; dystopian fiction as critique; a critique of critique; Post-Scarcity Anarchism; escape; an extra-terrestrial journey, and back to Earth again, via Gravity.

n 1996, one John Perry Barlow, speaking from Davos in famously neutral Switzerland, 'with no greater authority than that which liberty itself always speaks', declared the natural independence of Cyberspace, 'the new home of Mind'. Addressing the 'Governments of the Industrial World', he continues: 'On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather', since "we" do not consent to be governed. Cyberspace is declared immaterial: consisting of 'transactions, relationships, and thought itself', it is 'a world that is both everywhere and nowhere, but it is not where bodies live' a temporal autonomous zone.

Barlow's idea that the fact that online 'identities have no bodies', renders it impossible for "us" 'to obtain order by physical coercion' now seems impossibly naïve; and also like never mind "us", what about *them*? Remember Aaron Swartz²? And Anita Sarkeesian³, whose story strongly calls into

1 Ursula K. Le Guin once ended a speech with this question.

2 'Aaron Hillel Swartz (November 8, 1986 January 11, 2013) was an American computer programmer, entrepreneur, writer, political organizer and Internet hacktivist [who died by suicide] [...] while under federal indictment for data-theft, a prosecution that was characterized by his family as being "the product of a criminal-justice system rife with intimidation and prosecutorial overreach" (Wikipedia). Basically he hacked into JSTOR to make pay-per-view academic journals articles freely available.

3 Anita Sarkeesian (born 1983), founder of Feminist Frequency, and co-producer with Jonathan McIntosh of the video series Tropes vs. Women in Video Games, for which she received multiple rape and death threats

question just which "us" "we" are talking about here.

That, for Barlow, it should be enough that "we" 'declare our virtual selves immune to your sovereignty, even as we continue to consent to your rule over our bodies,' also speaks to the degree of separation of the virtual and material perceived back then, its subsequent elision evident in the switching out of IRL for AFK (as by the founders of Pirate Bay, for example). It was also just three years since the siege and conflagration in which 76 Branch Dravidians, well-armed spiritual secessionists, had died at Waco, Texas, making for some striking TV footage which, who knows, may also have informed the starkness of this distinction. Ah, but, 'We will spread ourselves across the Planet so that no one can arrest our thoughts' he says—conceding gross material ties to servers, and habeas corpus all the same.

As for the virtual realm, it was anticipated, cyberspace would not go rudderless; Barlow's "we" shades of 'We the People', shades of 'We are Anonymous' believed that governance would emerge from the 'ethics, enlightened self-interest, and the commonweal' of its constituents.

If there ever was such a Golden Age of cyberspace as Barlow describes here, as that nonplace which 'all may enter without privilege or prejudice accorded by race, economic power, military force, or station of birth'; where 'anyone, anywhere may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity' it has long since taken its paradigmatic role as Fallen; and not before it not just the Declaration per se, but this whole field of thinking sent out runners, spored as an idea.⁴

There are definite traces, if not amplifications, in Peter Thiel's intensely naïve 2009 statement that seasteading, as platforming in the real, could potentiate an 'escape from politics in all its forms,' naïve, since, alas, there is no escape from power relations, as any bacterium will tell you and the 'nerd nation' theory of Marc Andreessen, Silicon Valley Venture Capitalist, only here it all seems to have become more partisan:

We have this theory of nerd nation, of forty or fifty million people all over the world who believe that other nerds have more in common with them than the people in their own country. So you get to choose what tribe or band or group you're a part of.

⁴ Note also that at the time of writing, the word cyber- seems to be coming back into play now, which for a while had acquired a prohibitive gos -café -punk feel

⁵ http://www.wired.com/2015/05/silicon-valley-letting-go-techie-island-fantasies/

If Barlow's emphasis on "the commonweal" smacks of the Diggers, Levellers, and Chartists (17th and 18th century English radicals), it also recalls certain writings on Pirate Utopias, largely concerned with that era which in the Anglo-American world is called the Golden Age of piracy, and which dispersed throughout the alt-net in the 90s⁶; the meticulous pooling, recording and distribution of booty being the whole reason why, in English, to become a pirate, was "to go on the account".⁷

Spanning the mid-17th to 18th century, this era of piracy is inextricably entangled with the histories of slavery, colonialism, and capitalism, and these 80s and 90s texts do engage that; and but while these Golden Age Pirates were not, by any means, all white dudes, and even while in *The Many Headed Hydra* (2001, also feat. pirates), Rediker and Linebaugh also

posit the existence of an Atlantic proletariat, motley in dress and ethnic composition, landless but mobile, female as well as male, routinely terrorised but endlessly resourceful, who were essential to the rise of capitalism and the modern, global economy⁸

with a few celebrated exceptions—see Marcus Rediker's 1995 Liberty beneath the Jolly Roger: The Lives of Anne Bonny and Mary Read, Pirates e.g., (these were largely white dude authors getting excited about them, and) pirate freedoms, as documented, were largely fraternal, masculine freedoms.⁹

On this note, The Dread Pirate Roberts, aka Libertarian antihero Ross Ulbricht, founder of The Silk Road¹⁰, who has just been sentenced to life without parole for crimes including an unwittingly imaginary murder, says he took his handle from *The Princess Bride*¹¹; but it could just as well have been lifted from the real Pirate Captain Bartholemew Roberts, or 'Black Bart':

In an honest Service, there is thin Commons, low Wages, and hard Labour; in this, Plenty and Satiety, Pleasure and Ease, Liberty and Power; and who would not ballance Creditor on this Side, when all the Hazard that is run for it, at worst, is only a sower Look or two at choaking. No, a merry Life and a short one shall be my Motto.¹²

Trigger warning, white dudes: am about to kill your vibe.

tl;dr of a recent article called 'Why Are Libertarians Mostly Dudes?'¹³ (and which may as well have read White Dudes): kind of like how while fratriarchies may be more fun for bros than patriarchies (cf. Freud and really intense Mormons) they are often not so much fun for the rest of us; #tbt pirate freedoms.

Likewise, white/male freedom to-, has often conflicted with other people's freedom to-, and freedom from-. That Barlow, in the Declaration, sees no inherent conflict between proclaiming the sacred Enlightenment virtue of absolute freedom of speech, and ; ok, like maybe you can enter cyberspace without privilege or prejudice (if you have access), but what about what happens when you get there? (It's also interesting, in light of Barlow's Cartesian faith in absolute cyber/real separation, how doxxing now figures as threat and sanction.) Some speech is simply freer than others, because so are some speakers. An increasing recognition of this, and of such conflicts as arise online, as elsewhere, between freedoms to , and freedoms from , is giving rise to the collective emergence of a post-Enlightenment sentiment exemplified in this Tweet by @YnfnytScroll:



⁶ Pirate Utopias in Do or Die, Issue 8, 1997, written by from our own correspondent is rich with references and sources. http://www.eco-action.org/dod/no8/pirate.html.

Gleaned from Neal Stephenson, in The Confusion (2004)

⁸ Sukhdev Sandhu, reviewing the book in The Guardian, 27 January 2001.

⁹ Much was made of Bonny and Read's cross-dressing, i.e., wearing trousers, which may have well just been practical, but it is widely observable that where it is possible for women and other non male-gendered people to join fratriarchal (sub) cultures, and enjoy their protections, this is often conditional on their taking on/performing attributes of masculinity. Thanks to Claire Potter for talking this insight through.

In sentencing, the judge also went all out for nautical metaphors: 'you were captain of the ship as Dread Pirate Roberts and you made your own law...' etc.

¹¹ Novel by William Goldman, 1973; film directed by Rob Reiner, 1987.

¹² Captain Johnson (pen name of one Daniel Defoe): A General History of the Pyrates, 1724 http://www.gutenberg.org/ebooks/40580

¹³ http://www.newrepublic.com/article/121974/cnn-poll-rand-paul-not-popular-republican-women

And this macro of Feminist Yog-Sothoth¹⁴:



To follow, yet more white dude thinking. Perhaps it should be prefaced by the following: a) yes, white dudes are people too b) all male supremacies are monstrous, as are all violent supremacies, and many males, too, suffer as a consequence c) much white dude-centric knowledge is useful, so long as it is understood as (historically and paradigmatically privileged, and often falsely universalised but) also other—i.e., also limited, positional and partial, because see a), above, and so not the whole mesh of stories¹⁵.

Two decades since the Cyberspace Declaration, with its Cartesian conception of a clearly separable realm of Cyber/Mind, there has been a surge of theoretical interest in the geopolitics and materiality of logistics and infrastructure. This includes those of, as inextricable from the thinking of, "cyberspace", as constituent of the 'accidental megastructure' of 'planetary-scale computing', which 'takes different forms at different scales' and which, concerned with 'how it distorts and deforms traditional Westphalian modes of political geography, jurisdiction, and sovereignty, and produces new territories in its image', Ben Bratton has modelled as The Stack, hoping that perhaps 'the

image of a totality that this conception provides would as theories of totality have before make the composition of new governmentalities and new sovereignties both more legible and more effective.'16

What's good about The Stack is that it connects things of different kinds. So far, Bratton's Stack is pretty much delimited as a thought machine to think about machines, including those of human social organization; it's (anthropocenic but) machinecentric, situating a human "us", as User, in relation to machines and their materialities (and in 'The Black Stack', in relation to hypothetical, future AI, as redundant)17. And but although Bratton refers to it as 'the image of a totality', The Stack is a 'totality-to-come, defined at this moment by what it is not, by the empty content fields of its framework'. Meaning, you can keep altering and adding to this model; and, that in doing so, you could pretty much start anywhere and build outward, or in. Maybe this is the real beauty of The Stack, how it may be taken as starting point for a kind of cognitive mapping that posits everything (there follows a verbal insufficiency), every entity, event, state, system, process, thing; at/in/at different scales, dimensions, temporalities, as an interconnected totality but which remains open, like Hotel n+1, to endless new content and connection. A means of modelling, without yet knowing, it all, then; a useful tool for thinking the future.

The Futures Editor of MOTHERBOARD¹⁸, Claire Evans, recently argued for science fiction as a 'vital form of criticism', modelling its structure as roughly that of considering the actual present as the past of such and such a speculative future, arrived at by inserting x number of discontinuities, major or minor, into the present and following these through to their more-or-less dystopian outcomes.¹⁹ Certainly, dystopian science fiction serves a cautionary function, critiquing the present by articulating the possible consequences of continuing on a certain course toward some anti-ideal. A problem with critical thinking in general, however, is that while it may have an essential role in forward planning, it doesn't fully constitute it; by itself it's pretty negative and inherently backward-looking, and it only has a role in forward planning if it is admitted to the process. Which is to say, critique is antithetical; it needs a thesis or hypothesis to grind with (or hone, or slow, or stall). Likewise, it is sort of

¹⁴ From David Hughes, daveyoufool.tumblr.com

¹⁵ We might also usefully distinguish between strictly white dude-centric knowledge, and knowledge that emerged within a white dude-centric paradigm, e.g.; Ursula K. Le Guin: 'I love science as a human undertaking, as much as I love art. Science rightly done is so beautiful'. (Ursula K Le Guin, interviewed by John Plotz, 15/06/15 2015 http://www.publicbooks.org/interviews/the-storys-wherei-go-an-interview-with-ursula-k-le-guin) It's also pathologically white dude-centric, and historically shallow/myopic to consider science, as a whole, as such.

¹⁶ Benjamin Bratton, 'The Black Stack', e-flux http://www.e-flux.com/journal/the-black-stack/

¹⁷ Benjamin Bratton, ibid.

¹⁸ motherboard.vice.com

¹⁹ Speaking at Superscript 2015, https://www.youtube.com/watch?v=xoQXliaftiM

worrying when those who are driving change appear not to have engaged in critical modelling at all, especially where trial and error stakes are high.

If we continue in a world where people are treated as manufacturing machines and economic production machines we could move into a future in which there is enormous productivity, the possibility for universal wealth in material terms and where people are unemployed and starve.

I think we need to rethink the structure of the economy. And what are people for? And how does one organize society in a time of material abundance?²⁰

So, yeah, it's also important to plan for transitions, like from here to the state of "post-work", which Buckminster Fuller, like other 20th century thinkers, envisioned as a liberating goal of future automation; but which those locked into the mindset of waged work (as the lynchpin of, and only possible way to organize society) are currently wetting their pants over, as the prospect of its at-least partial realisation—at least in the "developed" world draws nearer. And they're not the only ones; imagination-fail could really be a problem.

Marc Andreessen, egg-headed venture capitalist, one of those directly responsible for the ongoing Uberfication of labour:

Posit a world in which all material needs are provided free, by robots and material synthesizers ... Imagine six, or 10, billion people doing nothing but arts and sciences, culture and exploring and learning. What a world that would be, particularly as "technological progress is precisely what makes a strong, rigorous social safety net affordable."²¹

It's hard to reconcile the actual, experiential reality of platform capitalism, the hyper-Fordist reduction of one's *arbeitskraft* to the micro-transactions to which entrepreneurs have competitive access 'through smartphones'²², with Andreessen's Fulleresque visions of a post-work society, or what it has to do with how we get from here to there. Granted, it's a poser, and but so in the meantime, what precarity *macht frei*? But Andreessen shrugs

20 Eric Drexler - Nanotechnology - Debate & Lecture on Radical Abundance https://www.youtube.com/watch?v=NkSTsgUiHDk

21 In 'Tomorrow's Advance Man' (subtitled 'Marc Andreessen's plan to win the future') Letter from California by Tad Friend, *New Yorker* May 18, 2015 http://www.newyorker.com/magazine/2015/05/18/tomorrows-advance-man

22 Tad Friend, ibid.

off such concerns: 'Maybe there's an alternate way of living, a free-form life where you press the button and get work when you want to.'²³

Then So It Is, and pass the protein bars; because without, say, mincome (minimum basic income) in place as a bridging measure toward post-work, the poor in this model are about as free as Omelas'24 children (and with disturbing, button-pushing shades of Pavlov's). Raised amongst, 'Scandinavian, hard-core, very self-denying people' amongst whom he was raised with the expectation that 'the natural state of human beings is to be subsistence farmers', Andreessen professes horror at the 'dark and dim and dystopian view... that people are like horses ... [with] only their manual labor to offer'. Is zero-contract AAI work, or whatever, being paid in micro-increments, really so much better? Said, himself, to understand humans as 'primates cursed with emotions and the ability to do logical thinking', Andreessen demonstrates a pretty narrow cast of empathy, beyond some highly personal resonances: like, of course Amazon was a godsend to his giant brain, starving in the nowhere of Wisconsin, and so but 'Screw the independent bookstores,' says Andreessen, 'There weren't any near where I grew up'. Amazon workers are, of course, notoriously exploited. Another of Andreessen's reluctantly relinquished self-mythologies is of wearing 'a puffy Pioneer Hi-Bred coat' to watch Star Wars 'in his local movie theatre, one town over... an unheated room that doubled as a fertilizer-storage depot'. The Tatooine resonance is clear, of course, but sorry not sorry getting far more Darth than Luke.

If the past is another country, which one? Of which futurities is it the origin? The Disney film *Tomorrowland* (2015) instantiates its World's Fair retrofuturism in that most emblematic object, the [dudewhere'smy] jetpack. The reach for this brand of futurism is troubling to Wired writer Adam Rogers, since:

born out of pre-World War II science fiction and post-war optimism ... [it] was at its heart an ugly sort of futurism ... a little too aligned with fascism for anyone to accept unquestioningly rejection of the past, idolatry of speed, technology, and war...²⁵

²³ Andreessen, ibid.

²⁴ Ursula K. Le Guin, short story 'The Ones Who Walk Away From Omelas'

²⁵ Adam Rogers, 'Tomorrowland's Problem Isn't Tomorrow, it's Yesterday.' Wired Magazine, 02/04/2015 http://www.wired.com/2015/04/tomorrowland-extended-preview/

With that, even the film's title, *Tomorrowland*, begins to seem to resonate with Leni Riefen-style. Rogers goes on to describe a schism in science fiction between those writers who, roughly speaking, he regards as optimists and pessimists: those who might be called naïve techno-optimists, and those who, while they 'have nothing against building utopias', also 'notice that the people who are selling utopias are burning all the carbon-containing fuel on the planet at the same time'. ²⁶ "Pessimists" who, in other words, might be called present realists. Rogers ends by exhorting the reader that, 'To get the future you want, you're going to have to fight the one you already have.' Fight ok, but how, and what, and for what, though?

For decades, the thinking of the future has been tainted for critical thinkers by the fallout of earlier futurisms and failed utopias, their names and half-lives still so potent, triggering, that for decades these wrecks have proved impassable, requiring penance, almost, certainly careful reflection. And if you can't think the future, how can you fight or plan for it? Meanwhile:

Silicon Valley V.C.s are all techno-optimists. They have the arrogant belief that you can take a geography and remove all obstructions and have nothing but a free flow of capital and ideas, and that it's good, it's very good, to creatively destroy everything that has gone before.²⁷

Cue Fixing The Future, a left-accelerationist platform:

It is now clear to us that rejecting the perspective of the future prohibits creating an alternative to capitalism. It abandons the future to capitalists willing to risk the present to extend or alter its logic. Not risking anything is still the risk of doing nothing. Equally, accepting the absolute contingency of the future requires abandoning planning.²⁸

Ursula K. Le Guin, pretty much a living saint of the genre, is a great practitioner of, and advocate for science fiction as a platform for advancing alternative futures (here using the term platform in the contemporary, generic sense of "that which you build to allow for something new to happen.")²⁹

The narrative of each book in Le Guin's Hainish Cycle is oriented in temporal and consequential relation to the invention and introduction of a instantaneous deep-space communication device called the ansible, being set either before, after, or at the moment of its introduction. Beyond this, The Left Hand of Darkness (1969) e.g., explores a world in which sex, (and so) gender, politics and pretty much everything is very differently realised; there is, for example, no war. Another in the Hainish Cycle, The Dispossessed (1974), set on the near-barren moon Anarres, is described by sci-fi novelist and critic Theodore Sturgeon as 'a beautifully written, beautifully composed book,' which 'performs one of sf's prime functions, which is to create another kind of social system to see how it would work. Or if it would work'. 30 Many of the political ideas informing this thought experiment were drawn from Murray Bookchin's 1971 book Post-Scarcity Anarchism.

For Le Guin, beyond arriving at post-capitalism, the aim must be to establish an ecological society; or rather, these are one and the same for her, since *for* her, as for Bookchin (who she calls 'a true son of the Enlightenment, in his respect for clear thought and moral responsibility and in his honest, uncompromising search for a realistic hope'):

Capitalism's grow-or-die imperative stands radically at odds with ecology's imperative of interdependence and limit. The two imperatives can no longer coexist with each other; nor can any society founded on the myth that they can be reconciled hope to survive. Either we will establish an ecological society or society will go under for everyone, irrespective of his or her status.³¹

In the 2009 sci-fi short *Pumzi*³² (Swahili for "Breath") the planet is already desertified. People live in hi-tech, subterranean interiors, generating power kinetically and recycling body water. Life is thought extinguished above ground, until the Virtual Natural History Museum Curator is sent a seed, marked "Mother", which she waters with the sweat of her body. The seed grows. She goes outside; she plants the seed. The film is more hopeful than many contemporary dystopian fictions.

²⁶ Adam Rogers, ibid.

²⁷ Andy Weissman, a partner at New York's Union Square Ventures, 'Tomorrow's Advance Man', ibid.

²⁸ Mohammad Salemy et al, http://fixingthefuture.info

²⁹ Formulation sifted mainly from Ruth Saxelby's interviews of contributors to Holly Herndon's *Platform*, including Herndon herself and UK Strategist Benedict Singleton. http://www.thefader.com/2015/05/21/radical-ideas-that-inspired-holly-herndon-platform

^{30 &#}x27;Galaxy Bookshelf', *Galaxy Science Fiction*, June 1974, pp.97-98. Sturgeon is a pen name, and the inspiration for Kurt Vonnegut's fictional author Kilgore Trout.

³¹ Murray Bookchin, The Next Revolution: Popular Assemblies and the Promise of Direct Democracy (2015) http://www.versobooks.com/blogs/1845-murray-bookchin-was-a-true-son-of-the-enlightenment-ursula-k-le-guin-reflects-on

³² Directed by Wanuri Kahiu https://www.youtube.com/watch?v=IIR7l_B86Fc

Two other science fiction writers who offer compelling alternative futures alongside their prophetic, dystopian visions are Marge Piercy, her Woman on The Edge of Time (1976) (in which, amongst other things, bio women give up the exclusive privilege of pregnancy and birthing, in order to realise equality), and Margaret Atwood, her MaddAddam Trilogy (2003, 2009, 2013). These are humble, imperfectly-realised imperfect because realised utopias, works in process. As futures go, these are all both intrinsically tech-realised, and pretty labour-intensive; Atwood's, in the MaddAddam Trilogy, is particularly agrarian, her "Hymns of the God's Gardeners" a bewilderingly sincere attempt to seed an oral teaching tradition of reverent ecological survivalism.³³

The Dispossessed is also informed by the Sapir-Whorf hypothesis, according to which available language determines (or at least influences) what it is possible to think at all. Perhaps this applies to the availability of models, also (the list is not exhaustive): spatio-metaphorical, numerical, material, kinetic, narrative.

The current model of thinking that proposes the Anthropocene as the name of a new geological epoch marked by the impact of human activity is supposed to end conceptual separation between nature and artifice while squarely implicating Man in the current climate emergency on Earth, the mass extinctions. Man the falsely universalised, paradigmatically hyperrational white male subject of humanism, that is since, critics of the term suggest, the agent of thes e changes is not so much humanity as a species (the G77 nations, classed as 'developing', many of them particularly vulnerable to rising seas, have recently accused the G20 nations of perpetrating 'climate genocide' by agreeing between themselves that a 2°C rise in global temperature would be acceptable), though China, e.g., may soon be vying with Man for a larger share of the responsibility (and who knows, maybe even wresting away some of His privilege). It's already there in the Latin, or would be, if the term Anthropocene were to be read as a mea culpa, a constant reminder of the consequence of actions taken according to a hyper-pre-Copernican cosmology with not even the Earth, but Man Himself at the centre. However, critics suggest the term already lends itself to further, necrotic hubris: the aestheticisation of The End; a boner to get off-planet, mine some asteroids; what some have called "the bad accelerationism". The Anthropocene is in itself, as a term, they say, all too

Humanist. The term, and the thinking of it, is also criticised for focusing more on consequences than their structural causes. Donna Haraway, author of 'A Cyborg Manifesto'³⁴, is amongst those who prefer Capitalocene (more casuist but somehow not so reifying) or very speculative-realist Cthulhucene, since Lovecraft's Cthulhu other, awesome, fathomless, sublime has come to symbolise immensities of which we can barely conceive; multi-, or even a- dimensional hyperobjects, like to the singularity (black hole or AI variety)³⁵. That there are implacable forces, whose indifferent "wrath" we might incur; that there are things we don't know, so far; that our puny human knowing tech prosthetics notwithstanding is finite, positional and partial. That there are other possible minds than ours, Cthulhubeing the only of the above -cenes that really stresses the sentient presence of other species.³⁶

Indeed, while it's good and necessary to think in species, and interspecies terms, such thinking also always needs to acknowledge that even *intra*species, we constitute such manifold, constellating, intersecting differences of embodied knowing, techne, and experience. All our epistemes are belong to us, and we ignore and destroy our sapio-diversity at our peril. Recalling Sapir-Whorf, many languages also face extinction³⁷. In recognition of the violent existential threat that monoculturalism poses to all species, some have proposed naming this new epoch the Homogocene. Still others, as a declaration of ecofeminist intent—the Earth, they say, having had enough Anthropo- for aeons—are all for calling the epoch the Gynocene³⁸.

And speaking of a boner to get off-planet; in 'The Women That Men Don't See' (1973), James Tiptree Jr.'s most celebrated story, a charter plane ferrying three North American passengers crash-lands on a sandbar off the coast of Yucatán.

there's nothing but miles of crystalline water on all sides. It's only a foot or so deep, and the bottom is the olive color of silt. The distant shore around us is all flat mangrove swamp, totally uninhabitable.

³³ Their equally disconcerting Christian flavour surely calculated to not alienate, and instead trigger a sense of the sacred amongst most North Americans.

^{34 - 1985, 1991}

³⁵ Ålso, as a hyperstitional entity, Cthulhu invoked admits of the necessary human fiction of naming and so conceiving of things, in such a way that usefully deters the illusion of a matrix ratio between conceptualised and concept.

³⁶ A lot of people seem to have their imagination caught by cephalopods right now, as relateably clever as dogs but so much more other.

³⁷ https://www.ethnologue.com/endangered-languages

^{38 &#}x27;Anthropocene, Capitalocene, Gynocene: The Many Names of Resistance' http://blog.fotomuseum.ch/2015/06/v-anthropocene-capitalocene-gynocene-the-many-names-of-resistance/

Unmanned by circumstance, as our hero awaits rescue it becomes gradually and increasingly clear that the women in question (who say they had been on their way to Tikul, Guatemala, a ruined Mayan city with a temple complex which maps an astronomical matrix), have an other agenda entirely. The daughter, her own paternity carefully determined by her mother (who turns out to work in record-keeping for the Genetics Society of America), now herself determines to conceive from coitus with *not* the white American who narrates the story, but rather Captain Estéban, their Mayan pilot, with his 'stone bones' and aristocratic forehead.

A mad image blooms in my mind: generations of solitary Parsons women selecting sires, making impregnation trips. Well, I hear the world is moving their way.

'Hurrah for women's lib', he says, but Ms Parsons, more fatalistic, says "the lib" is doomed.

"Women have no rights, Don, except what men allow us. Men are more aggressive and powerful, and they run the world. When the next real crisis upsets them, our so-called rights will vanish like—like that smoke. We'll be back where we always were: property. And whatever has gone wrong will be blamed on our freedom, like the fall of Rome was. You'll see. ... All the endless wars ..." Her voice is a whisper. "All the huge authoritarian organizations for doing unreal things. Men live to struggle against each other; we're just part of the battlefield. It'll never change unless you change the whole world. I dream sometimes of of going away "

"[...] Men hate wars too, Ruth," I say as gently as I can. "I know." She shrugs and climbs to her feet. "But that's your problem, isn't it?" ³⁹

If only... Tired of living 'by ones and twos in the chinks of your world-machine', the women prefer to take their extra-terrestrial chances, but not before the displaced hero and matriarch decide to make a trip to find fresh water. Wading through mangrove, on the shoreline, the most liminal terrain; 'dragging through the crust'40, in a last bodily, elemental, and yet oddly inhospitable embrace by Earth, before she, lifting each of them quite changed by their encounter. The scene is mirrored in the final, baptismal landfall scene in *Gravity* (2013), in which, it seems,

39 James Tiptree, Jr. (1973). First appeared in The Magazine of Fantasy and Science Fiction reproduced here from *Her Smoke Rose Up Forever*40 Holly Childs, interview this issue.

It has been noted that both *Gravity* (2013) and *Interstellar* (2014) yield a new Hollywood archetype: the helping, facilitating male, in relation to a female lead. *Interstellar* also works the same bait and switch as Tiptree's story, foregrounding the alpha male until the big reveal⁴¹. That there could really be a voluntary, ongoing (and somehow trustworthy) renunciation of privilege and domination by Man, as by men in general, whoever is the Man at any given space-time: an auto-acephalous movement, like really knowing when to not-talk; but these are meagre commons, not enough to keep the Parsons here.

Meanwhile, we are entering the sixth mass extinction⁴², and it has recently been predicted that we ourselves have a hundred years or less before we are extinct as a species ⁴³. America, which once styled itself the world's policeman, is convulsed with racist violence as a legacy of slavery. One in 122 people on the planet is a refugee, displaced or seeking asylum⁴⁴.

We are witnessing a paradigm change, an unchecked slide into an era in which the scale of global forced displacement as well as the response required is now clearly dwarfing anything seen before... on the one hand, there is more and more impunity for those starting conflicts and on the other there is seeming utter inability of the international community to work together to stop wars and build and preserve peace.⁴⁵

'The world is a mess'⁴⁶, or, collectively, we are; the world, as in the Earth, is beautiful, and the only home we've got, so far, so 'Now that we're free, where are we going?'⁴⁷

⁴¹ Spielberg's TV series Extant with Halle Berry, explores AI and first contact through the experiential prism of maternity (shades of Ripley), and is worth watching just for this, while being otherwise occasionally compelling but generally pretty bad.

⁴² http://advances.sciencemag.org/content/i/5/ei4oo253

⁴³ David Auerbach, 'A child born today will see humanity's end, unless...' Reuters, June 18 2015 http://blogs.reuters.com/great-debate/2015/06/18/a-child-born-today-may-live-to-see-humanitys-end-unless/

⁴⁴ Report by Ian Tomlinson, Bostonnewstime.com, 18/06/2015 http://bit.ly/1JahFO4

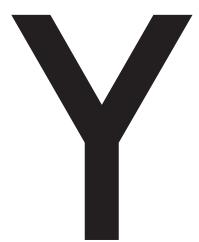
⁴⁵ Antonio Guterres, the UN High Commissioner for Refugees, quoted ibid.

⁴⁶ Antonio Guterres, ibid.

⁴⁷ Ursula K. Le Guin, ibid.

THE MUNDANE EDDA AND THE TALE OF FORTY-SIX-THOUSAND, SIX-HUNDRED-AND-FIFTY-SIX

Francis Patrick Brady



ou are a science-fiction writer, sat in front of your desk. A blank Word document is open on the screen in front of you. The luminescent screen of your new Windows 95 PC is the only light illuminating the room. You often feel that not much will change in your lifetime, despite your tall tales. When you imagine the far future you still see the same brands, companies and conglomerates as the ones we have today. Surviving like the grand unbroken lineage of some Teutonic family tree that passes unscathed through æons of change. You start

to write a story about Bill Gates, as though his story were akin to the Norse Sagas—great boastful tales of death and marriage, strength and revenge.

You lay out a basic sleeping mat on the cold stone floor of what was once the Grand Hotel, now reduced to ruins by the constant bombardment of the enemy drones. It has been thirty years since the war started; you move from building to building trying to survive, and continue to write software in support of the cause. As you huddle next to the fire you get out your electronic writing tablet and begin to write a series of firmware updates to the Helios satellite. You imagine a greater scale of what you are doing although it is difficult, you see a picture of the future in your mind.

You find yourself just off the coast of Denmark amongst a group of seafaring monks, who are recording stories and tales throughout the Danelaw in the year of our Lord 878. The sea has been rough and barely enough food has survived the journey due to the temperature, which is warm for this time of year. You are glad you can see land once again, and set to recording the day's ventures in the ship's journal.

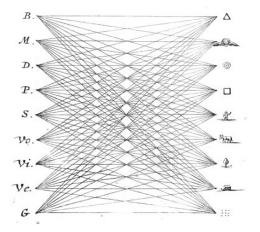


You start to write the first sentence of a story that tells the tale of yourself in twenty years time.

You sit in a black plastic chair inside the 2nd floor rented office space of Shanghai Tower. The monolithic tower has been left half empty after the events of the last few years. You are focusing on multiple online projects with a small team of seven. A Bitcoin trader—sat opposite you—is eyeing his Bitcoin trades on his Google Glass whilst staring at the people in the office building opposite yours, who are frantically moving from office-divider to office-divider zapping documents into each others in-trays.

You are soon to release an app called PLACE, an acronym standing for Perceptive Language And Conical Energies'. The sheer absurdity of the name has put it as strong contender and it will likely be called that despite your reservations hyperbole sells and niche markets are common territory for media start-ups. Last week alone saw the release, and subsequent sale to Google, of several new-age therapy apps that are co-mixing ancient systems of divination with the ever increasingly complex systems of daily life, the stock market and socializing. Runic geomancy

automatons are all the rage in the office spaces this month, you and your friends have been using Celtic runes as emoticons in a social media app called Volsung.



You decide to open one of the apps you downloaded last week. On your tablet screen the soft *plink* of the opening title has the words "YOU ARE A SENTIENT OCEAN" in white writing on a pastel-pink background. It feels like you are in the opening sequence of some trashy 70's sci-fi novella. A large button in the center of the next screen invites you to begin by "imagining you are another person on the planet, from another time perhaps, or another country." A looped recording of wind chimes plays in the background. By clicking through the menu system it informs you that you can "learn to do this everyday by rolling for a different set of stories from the interior of another's brain.' It is a hexagrammatic system, based somewhere between a dice game and iChing. Each day a different set of thirty-six thoughts are uploaded and each day you roll one of the possible fortysix-thousand, six-hundred-and-fifty-six different combinations. The first three random rolls form a sentence called the mundane trigram and the last three rolls form a paragraph called the native trigram. You grab a plastic six-sided die that you had 3D printed out that morning, and roll for a combination...

Please have a six-sided die to hand.

THE MUNDANE TRIGRAM

- [1] You grab hold of your ...
- [2] You find yourself thinking about your...
- [3] You scratch your ...
- [4] You move your ...
- [5] You stroke your ...
- [6] You rest your ...
- [1] ... thigh ...
- [2] ... ear ...
- [3] ... index finger ...
- [4] ... foot ...
- [5] ... knee ...
- [6] ... elbow ...
- [1] ... whilst staring off into the middle distance.
- [2] ... randomly and periodically.
- [3] ... with a new found curiosity
- [4] ... in a perfectly normal manner.
- [5] ... which draws the attention of the person next to you.
- [6] ... ignoring what your mother told you that morning.

THE NATIVE TRIGRAM

- [1] You bring up the window containing the email from your divorce lawyer. You have hired the cheapest Legal Automaton on the net but still hope you won't lose the house in the settlement.
- [2] You're alone on a seashore. Waves pound the rocks, splashing salt spray onto your face.
- [3] You wake up in the dimly lit cargo hold of an M-Class star cruiser. You can tell from the faint humming and vibration of the surfaces that the ship is travelling at a great speed.
- [4] You are in a tiled bathroom in the basement of a trendy westernised bar on the edge of Singapore. You look in the mirror at the dishevelled clothes and try to neaten yourself up before going back out into the crowded dancefloor.
- [5] Your aeroplane lands safely on the water runway of Hanoi international. You can see the tips of skyscrapers unassumingly jutting out from beneath the waves, like hairs pricked up on the back of a giant sea creature.
- [6] You stare out through the marble pillars of the Basilica, watching the people mill around the courtyard in the unforgiving midday sun. The purple robes swing silently from crudely erected wooden poles
- [1] You hear a faint siren-like voice, drifting through the air across a great distance. You can't make out the words being sung but it sounds like a song of despair and struggle.
- [2] You are suddenly surrounded by a deepening darkness, as though you have been thrown into the bottom of deep pool or bucket of tar, your movement and senses slowed to a crawling pace.
- [3] You can smell a strong burning akin to dry grass or mildew, its pungent odour causing you to choke and leaving a bitter taste in your mouth.

- [4] You see something in the distance approaching that at first seems like a burningly bright light, but as it comes ever closer you begin to make out all sorts of fine details upon this magnificent behemoth.
- [5] You find a bottle containing a dark and viscous liquid with strange runic symbols painted on its outer surface and you decide to take a sip. It is sickly sweet and leaves a strong medicinal residue upon your tongue.
- [6] You notice someone coming over to you holding up a hand signal with their thumb held between two fingers, they then precede to softly stroke the top of your right hand, causing the hairs to stand on end.
- [1] You can't remember ever feeling this still and content, it comes with a worrying mix of self consciousness and second guessing, being comfortable is awakening a destructive side of you.
- [2] You are bored of waiting. The original buzz of anticipation that first gripped you has been drowned by a wall of indifference.
- [3] You have a warm feeling of being connected to all those around you and hope that your act of generosity is something more than the sum of its parts.
- [4] You find yourself thinking in your second language, or at least your thoughts have the tone of it, and it relaxes you; for a moment you feel that perhaps people will be able to understand you perfectly.
- [5] You begin to tremble with fear as you realise that you have made a series of terrible mistakes leading up to this point.
- [6] You never realised before how fucking stupid these little details are. You swear that after today something has to change.

•

In your air-conditioned office there is a simulation of a cooler, more temperate environment that allows you the habits of an entirely different climate. Your food has not gone bad.

DOGS

Holly White

1-

You wrote to me on gchat: it was acknowledged that one would entail the fall of the other and the choice was made what is the status now one has been wiped out by the choice and the other one finished? can you revert to pre-choice moment and choose the other? i don't think it is possible

A week later you texted me: Want to have breakfast with me? Me: Not today, I'm sorry You: I think dogs are going to be a huge problem after the apocalypse, can't stop thinking about it.

2-

The beach was deserted and getting dark and it was going to rain soon. There was a pack of sleeping dogs nearby. A local man had put out three shishas and three tables and the two of us sat down and shared a shisha. We had chosen apple flavour. We faced the sea but I kept an eye on the pack of dogs.

Then we walked down the beach and came to a makeshift restaurant on the sand. It was dark now so we couldn't see the dogs anymore but we knew they were there so I held a stick in my hand. We sat down at the restaurant and there were candles and I ate chocolate cake. The chocolate cake was made of something weird, it wasn't real cake.

3-

We all lived in tents arranged around a blacksmithing fire. There was a geodesic dome made of plastic tubes further up the hill and a woman who only ate raw food and some stone ovens used for baking bread. There was a dog owned by the man who lived down the valley from us. I never saw him but everyone said the man was English and had a knife.

One night our group was walking up the path to our camp and the dog ran at us and barked and it bit someone and wouldn't let go. The person couldn't get the dog off their hand and they shouted at the rest of us to run ahead, so we did.

Every night after that night we carried sticks and shouted into the pitch black as we walked home, just in case.

A week later we went to a full moon party at the meeting house at the bottom of the valley. I left a bowl of pasta in my tent. I got back in the morning and my tent had been torn apart and the pasta was missing. Everyone asked if I was okay sleeping there alone and I said I was.

4-

The alleyways were narrow and the town was empty of people and it was dawn. There was a display of socks in the window of a shop that was shut. We ran through the streets and came around a corner and suddenly there was a pack of dogs standing still and staring at us. They started barking all at once. We turned around as fast as we could, bumping into each other and screaming but also laughing. We ran in the opposite direction until we were out of the town and running through the desert.

HINTERLAND SHIFT

(Part three of nine)

Llew Watkins



an we consider that Emily is a world that is perpetually selfcolonizing?

There is music playing, kind of like the schmaltzy soundtrack from a great American movie of the past. In the adverts the Captain is always huge.

She wonders why this time he has a face that is melting and lumps all over his body and arms and a tiny bag on wheels and a greying t-shirt pockmarked with holes that says *Beer Festival*. He doesn't

even look like the Captain.

How can you colonize the dreamscape when its nature is immateriality?

As Emily, and vicariously, Kai thru Emily, cut a trajectory through the stax, they have some autonomy, control and agenda. The dreamscape is flux; events are broken into forgetting. Especially among the stax, the strongest constant is always forgetting. And yet Emily, through force of will, has learnt to mark certain points across the grid for returning.

Here, for example, if you focus closely on Emily's eyes, as she is with the Captain, in the moment that she reveals them: as the shades reveal them, see the pupils dilate slightly; a look of almost imperceptible arrogance.

In texts, each distinct word represents a vortex. Each word, if appearing close to another: they are connected by an edge. The routes between these points are called songlines. To project into the same songline is to see *not one thing* the same; and yet the nature of the change is the continuity that allows for valuation and trade. For Emily, it has become a livelihood.

This more abstract process of the colonization of information, of the stax, is going on all the time, automatically. Emily, consciously and also unconsciously, is a progenitor of information collated in a perpetual state of transference.

She has so many questions. She is burning with questions; and yet he looks so pathetic that her mind is filled with doubts. They are both caught in the turgid silence between them, studying. She has been waiting for a long time to re-traverse this part of the grid. She has thought about it too much - the possible outcomes - and the hope is clouding her judgement.

What is the nature of the border between her mind and the worlds that she inhabits? If there is a borderline, is it permeable, or illusory, even?

Still, she says nothing.

Is it true, as the elves once told her, that *she* could be a world? If she *is* a world, can there be other worlds, other Emilys? Is she alone?

The Captain scratches at the rough stubble on his chin and yanks gingerly at the *Beer Festival* t-shirt. He looks bored, and bored with her especially. She can feel him leaving her. A little shudder of apprehension cuts into her heart.

How can a world be conscious? How can it not be!

Once again, he scratches at his chin. She thinks she can catch a slight smile in his eyes. Just as she thinks that she can hold her poise no longer, he opens his mouth and says this:

'You know when you picture something in your mind, and then you look for it but it's not in the place you've pictured — I don't know if that ever happens to you? A kind of astral projection.'

And then he just turns around and waddles awkwardly away from her. The hem of his trousers is low, and she can see the dawning of the moon over his belt line.

Emily feels as if the whole of her reality has been crushed. Why did he choose to show himself to her in this form? Regardless of the people returning home from work around her, she sits down on the pavement and puts her sunglasses back on over her eyes.

There is one kind of a holographic memory that comes to her again and again, and now it comes, stronger and realer than it has ever come before. The smell is that of a strong, neutered burning. The environment is clean. Emily knows that she is in the Academy because on the wall has been painted a small logo. The logo is an irregular green five-sided shape next to an

irregular black six-sided shape. There is no text; however, next to the logo, a short list has been written in biro. It reads:

> People colonise because? To get away. To discover.

Emily knows this for the memory of the first time that she met Kai.

'I don't need to cover everything', she is thinking. 'That would be a mistake. Better to choose one small area and begin from there.'

As these thoughts occur to her, she can already feel him behind her. Lumps of grit are in her teeth and gums. Her teeth are grit. She reaches for the soft fleshy skin above her right elbow and then remembers it is not there. She says:

'Generic friend. I'm gonna shoot you.'

The reply comes, 'Test! You're just kidding.'

Spinning around, she says with all of her heart: 'No. I'm shooting to kill.'

TIME BREACH

Heli Clarke



hey're living in a time-slowed capsule environment while the planet is terraformed around them.

Even at this rate, it's going to take years. The view out of the windows is the main form of entertainment.

Sometimes there's a rain storm that lasts a million years—the volcanic rocks are so hot that the rain hits them and turns immediately to water vapour again, coalescing back into heavy hot clouds—for the moment, the atmosphere is liquid.

They dissociate, and it really feels like being underwater. Being outside time is

like a kind of silence, a deafness to something. They feel like it's all just a coda to an interstice of passion. When time stopped because they were only occupied with love. And they lifted the voile and outside civilizations rose and fell like time-lapse, and no one understood them as they flew silently in space.

Now they are really in a bubble, genuinely flying and genuinely silent.

Probably everyone is experiencing psychological trauma the horror before they left; the strangeness of being here.

If you can slow time, why make them spend years waiting for the terraforming to be finished? It had been thought that it would be good for the children, to see their new planet being formed. Something about knowing where you came from. Something about understanding the eons that go into making that delicate ecosystem and how narrow is the band of life. Something about not making the same horrible mistakes again. The other reason, which they didn't really talk about, was because they wanted to hide in a tiny sealed space, where nothing could get in or out.

-Imagine what we would look like to someone out there. If anyone was out there. Living but never moving. Our storms last a million years, too. That argument about the coffee, for example. The moment when I shouted at you and threw down the pot. Someone could live and die out there and that's the only expression they'd ever see on my face.

•

6 years in, there is a breach—time starts to get in through the hole. It takes a while to notice, but it's true, time has been getting in through the hole.

- Or has it been getting out? Have we got too much time now or not enough?
- —Shut up, this isn't a thought experiment. What are we going to do?!

They consult the archive all the information for what to do when the terraforming is finished. All the information for dealing with a plentiful utopian virgin planet; for negotiating those difficulties. Nothing about what happens if time gets in, time gets out.

There can be no breach without a time breach, can there? Maybe you just can't control time maybe it always evens up, like pressure in the ears.

They can't help getting philosophical; there's not enough science.

The idea of going out there is pretty disgusting. The idea of there being anything out there but clean, new cells. You can think that you are damaging an ecosystem, but eventually it will show you you are nothing. Some part of it will grow which means you cannot, and this had attacked them from the inside. Ouarantine.

They start to think about all those other Families, on other planets, serving the same time. Had any of them had a time breach? All at once they realise they're not expected to make it not them in particular. A billion pods on a billion planets humanity's children are become a vast litter, a swarm; only one pod has to make it through the winter. They see humanity for the vast selfish organ it has always been, catering only to itself as the revenant mutant strip of a germ that is able to copy itself into the void.

What if the readings are wrong and it's immediate death just

to go out there? What if something gets them and the whole infection-horror plays itself out again? Could they maybe just stay here and hope it gets better? In or out? Is it better to be the people who go and try and fail; or the people who stay and fear but live longer?

The glass bubble. How perfectly desperate.

•

They will all go outside. They have to go outside. Sooner or later; and the longer they wait the sooner the later becomes. Besides, no one wants to be one of the few again, being begged to help and being unable to help.

They agree to monitor conditions for a week, taking two-hour watches to observe every detail possible, to work out what's out there. To try and know as much as they can from inside.

Maps are drawn and estimations made. Nothing can be tested. They die, don't they? They have to die. How could they not? They know when they go through the time-lock, in its bathos of cleanliness and security, the only real option is that they die out there; the other is that they come back to their broken bubble to die here instead, slowly.

The atmosphere is breathable, has been for ages—that's not the problem. Mostly the problem is that none of them know much about the machine they're living in or what it's supposed to do.

They've studied the archive; the collective conversation of humanity that they thought would accrete forever, but is now preserved. Sealed glass. Each Family might be adding to it, but it can no longer be shared. They think about all the iterations of this once living document; each in a bubble on a ball in a vacuum.

They've tried to read about it; the plans for terraforming, the process. What is supposed to happen. They also find what is not supposed to be happened upon. The latency; The expectation of grand failure.

Like a survival troupe like never before; like the pioneers in the west; or Ice Age nomads; or the first out of Africa—except more like refugees, with death at their heels. If they succeed they will have been pioneers. My family came from the shtetlekh with nothing, you know. Stories that only happen because the person telling them survived.

From the moment they step out it is into their destiny. From inside, the whole thing lasts around a minute.

Never were they so aware how kind the Earth had been; take a million habitable systems and just see if your mother's own recipe is not better.

From inside it would have looked like a patch of silent scrawling. Over on the left, not far from the pod, while everything continued to change at close to its previous rate, this frenetic patch quivered and struggled.

It looked like toil, but it often looked like joy. They got years; some of them got natural death.

It was never going to last long, however you looked at it. They built things and depicted things. They ate things, and sometimes they were poison. It took a few years to decide something had made them infertile. This world had taken one look at them and said, ok, but just this once.

So they got no birth, though they got at least the opportunity to try. They got fires in the evenings, and stories, and times when all they knew was that they were alive and that was ok. Towards the end of a minute, someone who had been the youngest became the oldest and the last, and then ceased to be anything at all.

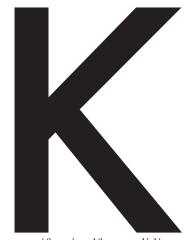
After that there was silence, and the planet was truly beautiful, and it didn't mind at all that no one ever said so.

A VOYAGE TO ARCTURUS (REDUX)

Jim Colquhoun

I have no clear memory of the time I spent amongst the stars. All I have is a series of indelibly imprinted 'sense impressions' which I shall endeavour to set before you in as clear a fashion as I know how, and with apologies in advance for the inevitable confusions, semantic pratfalls and descriptive aporia that shall inevitably be attendant on such an 'ill-starred' undertaking.

THE SENSUAL OBJECTS



lamm and Valabene helped me to exit the snug confines of the mosslined crystalline vasculum, The Proteus, which had transported us to this faraway eldritch place. Each of us, encased as we were in our clear polyethylene 'Iggy' suits, crackled loudly as we began to make our way across the surface of Arcturus. Our Panpsyche Meters were already chattering constantly, indicating the presence of a variety of inexhaustible objects. The tension arising between 'things' and their qualities began to

manifest itself as a gliding slash of light hovering above a pale moor, illuminating scraggles of androgenic hair and a plethora of pustules along a perpendicular slough of acid mantle, and there amidst the staphylococcus mites, the varieties of pruritic detritus, the acneiform eruptions, the blanchable erythma, the cysts, the fistula, the sarcoids and the lymph some blind thing wormed fitfully beneath these sunless epidermic uplands. Each of us had our accompanying 'eidolon', which in conjunction with the aforementioned P Meters would hopefully serve to deflect

the deleterious effects of ingrained anthropocentrism, enabling us to grok in fullness the hylozoic nature of non-being. We stumbled through the rubbish-strewn landscape, which was now lit only by the red neon glow of our P Meters. We held them in front of our bodies to deflect as much as to illuminate the combined onslaught of

THE OOO

...and the vicarious, asymmetrical and buffered inner lives of the various objects before us. Klamm absentmindedly bent to pick up a shard of integument, which act brought about his swift 'death'. Luckily his proxy—the eidolon—took the hit instead—and since there is no difference that makes a difference—immediately flashed back into existence, although with several parts sliding into a nearby intra-otic wilderness of forms. As we traversed this agential realm our sense of ourselves as 'other' began to dissolve, leading to a diminution of the hierarchical ontological virus we had come to see as 'us'. The P-Meters flashed and chattered warningly, but it was already far too late. I turned just in time to watch in horror as Valbene's existence sloughed away in a welter of phased and viscous hyperobjectivity. His eidolon had just enough time to form a surprised 'O' before it too was hoovered out of the present finitude.

THE TRUNCATED CONES

A long thin 'sun' began yet again to 'slide' redly above us, illuminating the exhausted spectres of myself and Klamm as we continued to plough grimly across the undulating moorland. I could see that we were about to encounter a Brötzmann Nipple for the first time. It loomed on the horizon, a pinky grey mass surrounded by an accompanying androgenic plantation that began to writhe and dance as we cautiously approached. It seemed to be formed of a series of truncated cones surmounted by variegated slabs of indeterminate origin that somehow resembled a table or tables. A thin crust of tessellated sandstone biers arraigned themselves around this structure, with scalloped facings seemingly sliding upward, and here and there bulbous tulip-like 'cannon' reaching towards the heavens. From these, a froth of yellowish gel gouted feebly into the air only to slither impotently upon a pale battlement. The Brötzmann Nipple continued to evade the rational workings of our psyches as we edged around its effulgent anomalousness and its amazing

grabbing strength (not only removes the need to pin under the workpiece to prevent slumping, but its revolutionary initial 'Direct Bond' eliminates the need for double stick methods, but can be used inside and outside and adheres to just about every building substrate). By this time neither of us would be able to look upon architectural forms with equanimity ever again and with a shudder we moved beyond its terrible *thereness*.

A BLACK FLAG UNFURLING

Eternal ennui rushes in from every horizon, and Arcturus, it seems, is a dungeon: damp and small; where hope flies like a bat before dashing its brains out on a nearby rock. An extruded polystyrene ridge loomed before us, its degenerate edges expelling a billow of stark white toxicity. As a thermoplastic polymer, polystyrene is in a solid (glassy) state at room temperature but flows if heated above about 100°C, its glass transition temperature. It becomes rigid again when cooled and when the rain, stretching out its endless train, imitates the bars of a vast prison and a silent horde of loathsome spiders comes to spin their webs in the depths of our brains, our Iggy suits protected us from inhaling the long chain hydrocarbons to long-term deleterious effect.

Klamm's hands were coming seriously adrift now; they wandered autonomously around his face and body as if gently probing for an opening to insert themselves within. Sure enough, they began to thrust themselves forcefully into his abdomen, and only the suit was protecting him from being pierced through and then disemboweled by himself. Finding no entry they swarmed towards his faceplate and began to smash incessantly against the polycarbonate and without drums or music, long hearses pass by slowly in my soul and Klamm's terrified eyes pleaded with me to take action so I took his prehensile multi-fingered extremities in mine and, with a stubborn, whimpering cry planted a black flag in the depths of his narrow shaven skull.

"I NEED TO CREATE NEW WORLDS"

An interview with Holly Childs

Holly Childs is the author of *No Limit* and *Danklands* (2014). In a 2015 review of *Danklands*, the poet AJ Carruthers says that 'This is the writing of now, and the questions raised will determine the future of Australian writing.' On the back jacket, the artist and writer Hannah Black says that '*Danklands* is not like any novel anyone read or wrote before'.

From the introduction by Astrid Lorange:

The title re-imagines Melbourne's Docklands, a riverside development and capital plug in the city's once industrial flank. Docklands, a site that tracks the buzzy illogic of credit and debt, building and demolition, luxury and banality, in this book becomes a holographic swamp, a site from which to consider the spreading paradox of the contemporary city. A swamp is neither water nor land, just as a hologram is neither image nor object. For Childs, the swamp and the hologram - imagined here as analogues of the city - offer something like like a paradigmatic ambience: at once virtual and actual, only ever semi-inhabitable, simultaneously definite and obtuse. Reading Danklands is a passage through these collapsible odd-spaces; chat window, make-up tutorial, camrip, file transfer, art gallery, perspex slice, inbox, open drain, ice rink, hard drive, morgue, long distance relationship.

LITF: Why Danklands? What is dankness?

HC: Dankness is rotting wharves, dumped appliances, fences under the overpass and too windy. Ok, there are things I can't say right now. I don't know if this interview will function. Dankness is also the brain fog which feels like brain rot that I can't control and affects me $\sim 25\%$ of the time.

Generosity in the assumption... wait I have to come back to this when I can figure out how to phrase... become one of us...

1 http://cordite.org.au/reviews/carruthers-childs/

please stay etc... I'll come back to this, in my mind now i'm also claiming it as a ULG... another land... maybe draw a fictionmap in the front of the next edition, erm what the fuck was I trying to say?

I'd come out of negotiations with Hologram (publisher) regarding the title No Limit. We had gone through literally hundreds of potential titles before we got to one we both did not hate. When I thought of Danklands, or more likely I probably said "I'm writing a novel set in Docklands" and Max [Trevor Thomas-Edmond] might have replied something like "Danklands", it felt cute and kind of cheeky to use ill-thought-out, spontaneous, silly, immediate title, just as it felt cute/right to use a metal font on the cover (designed in collaboration with Zhoe Granger) and to zoom in on the naff dog from Marian Tubbs' artwork as the focal point of the cover design.

LITF: There's an apartment in the book that's not really an apartment.

Stan hears 'blah blah' but he nods his head and performs voice noises and face shapes he imagines are congruent with Bam's tone, facial expressions and posture. Bam continues, 'Our apartment is actually a ghost in a shell within this apartment block. That's why we don't have a letterbox, and that's why they use our place as their base when cleaning all the windows from the outside, since the building's too high to do it all at once from the ground or the roof. We don't exist on any council plans. Tents, ropes, tarpaulin. Hard hats, steel capped boots. Rigging. In MySpace genres I'd call it cobweb/net-art/prayer room. In emoji: crystal ball, toilet, water feature, baby elephant. Janitor's closet. The Shining.'

Can you tell us about it?

HC: I used to live in a house next to the train line. Had to walk through another property's garden to get to it, our place was not visible from the street and it was attached to an old man smoking cafe by a screen door in one of the bedrooms. The place needed a lot of repairs, possums used to piss through the ceilings onto our beds, but the council, real estate, owner all refused to deal with it, and in the end we were evicted when it was found that the house we lived in didn't exist on any maps or council plans.

Precarious housing is a theme in my work as it is a theme in my life. Housing stress. My constant goal is finding and maintaining

space to be safe and comfortable with and in. I left my expensive and comfortable home of 3 years last winter after a sad-bad break up which I'm still coming to terms with. It was an apartment on the 7th floor of an old building in Melbourne CBD. For months after, in subletted bedrooms in Melbourne, Sydney, Berlin, London and Auckland I literally felt like I was 7 stories below the ground and this sensation of dragging through the crust is only now starting to lift and next week moving into an apartment on 3rd floor, slowly rising.

LITF: What are the Docklands like on the ground now? Have they changed much since the book was published?

HC: I'm on the tram now, meeting Aurelia [Guo] at Docklands Library, which I didn't write into *Danklands*, but it's apparently the most "eco" public building in Australia... it feels like a boat, all the touchscreens look like enormous iPads, it's got a aural playground outside that looks like it was designed in Germany, or by Björk. *Danklands* was published in December 2014, it is now May 2015. There are been no significant property developments, though I now know a guy who lives in one of the boats down there, slowly mapping it out, and I talked to my sister about Docklands raves in the 1990s, she was there, she said there was a lot of driving around listening out for the bassss.

LITF: Danklands was published with Arcadia Missa, as the culmination of your residency with them; what was it like being in Peckham while working on a book set in Melbourne?

HC: It was pretty dank. Lemme think on that. I'm wondering why this interview feels like therapy, Rebecca [Bligh], what is this?

Ok I started writing Danklands in Melbourne late 2013, and without telling anyone I was writing a book set in Docklands, 2 weeks later I got offered a workspace in Docklands for \$12 a week (£6 approx). I got majorly fucked-up approx May 2014 and I kept trying to write, but could only do it in slow-mo. I was meant to give Rózsa at Arcadia Missa the Danklands manuscript in August, but I got it to her on the last day of September, after working on it non-stop for a month in Berlin... but by the time I'd got to Europe most of the geography/infrastructure of Dock/Danklands was in place, I was mainly writing sleep-scenes, character interactions, emotions. Anything else I needed from Docklands

at that point I got from photos, videos and notes I'd taken before I left, or Google Maps.

LITF: Which feels more future, Melbourne or London?

HC: My experience was that London felt very retro, or like future drudgery. A future of now if literally nothing good would happen again but we all have to keep going. Neoliberal-hell future definitely. That queen rly keeps the feudal feels and deep class structures on lock. Like so dry biscuits. If I'm not being very clear, London could be the future of the past... like 1980 if nothing progressed and it was now 2015, which it is.

Edamame now added to all salads at Sainsbury's Express, as if more soy is even categorised as "healthfood" anywhere else in the world.

Fortnum & Mason gave me life.

LITF: At your Lunchbytes talk at the ICA in London, you said you're interested in things that are more than just one thing.² As well as being a book, what else is Danklands?

HC: *Danklands* is being 7 stories below ground.³ Being not ok, sleep as escape. Soon, when I'm next ok, it will become something else, maybe a new gloss of the same book with all different words. I want to do more work in and on Docklands, writing is basically my only method of time travel.

LITF: Another manifestation of your London residency was Quake II, showing the work of Marian Tubbs, who also designed the book jacket for Danklands, and Andre Piguet, who Harry Burke notes 'shares certain characteristics' with one of the book's characters. There's a moment in his i-D profile of you where Harry says:

the book collapses into the exhibition, and vice versa. But this also crashes into 'real life', across 11 time zones on the other side of the world – albeit in a city with the same insane observation wheel spinning round and round. I'm wondering why and how this could be, whilst Childs shouts out "oh cool this is getting likes now I

² It's already a polyvalent term: considering contemporary usage of the word 'thing', it's maybe interesting that early senses also included 'meeting' and 'matter, concern' as well as 'inanimate object'.

³ British 'storey'; more polyvalent in Australian English which is generally speaking a hybrid of US and UK Englishes.

thought it was broken" about a photo she'd uploaded. I can't work out whether she's addressing her phone or the people around her, or indeed which one is fiction and which one is reality.⁴

Also, in Chapter 15 of of Danklands, 'Economy Dolphin', Bam [or you - or Sage?] says ci just want to process what i'm in contact with as i'm in contact with it. process all notes the day i take them. photos are a nightmare.' Do you think of Danklands as any particular genre?

HC: I'm so much more interested in music genres than literary genres... like jungle or sneaker fetish... I guess 'sneaker fetish' is a lit genre though... More fun and play and depth in literature.

LITF: You've said that you like some of what Timothy Morton has to say in interview, but not his prose so much; are there other writers and theorists you're reading now? Are any of them science fiction?

HC: Yeh... I'm just figuring out lucid dreaming right now so reading up on that, also getting computer voice to read out Reza Negarestani pdfs while I clean my room. Also reading Ursula le Guin b4 bed.

LITF: Is the idea of hyperstition (the becoming-real of fictional entities) useful for thinking about your practice?

HC: Everything I write is either a summoning/an incantation, or expression of an experience I'm ready to let go of. I need to create new worlds.

Ian Hatcher

planting pliant seedlings side by side patents growing

imbibing newness with each breath amid blood red leaves && lean-tos teething patent this symbol patent this youth skin symbol

splaying dry blades of torch grass grafting shapely palm flecks outstretched && withholding patent mysticism patent this liminal crystal truisms

oily patches gleam in dreams unknowable parlor cluster sweetmeats consumed by the fistful patent swollen rivers of fat patent this fat

trust inviolate always inviable producing ever-accelerating vitals && redialing patent high-frequency recombination patent destrangulation

seedlings rising aglow with promise stalks tasting perfectly familiar && sweet patent neo-dynamicism patent apollonian fetishism

low-limbed truths climb up them to sing love is record profits && growth patent this trope

⁴ https://i-d.vice.com/en_au/article/holly-childs-and-the-art-of-turning-web-language-into-fiction

newly bred beds of adaptive whip fibers sublimely lying in fields ripening patent every possible pattern of welts patent cells



An audio version of this piece, read by Ian Hatcher is available on litfmag.net.

THE CONTEST

Julia Tcharfas

An artificial sky was created on the ceiling of every module a giant LCD screen that displayed a classic Earth sky. A fractal geometric program generated clouds to make them look real, and a "weatherman" from Maui's City Council had the job of mixing up the weather, making it more cloudy and stormy or more clear and sunny every few days and coordinating with the temperature. At night, stars, constellations, planets, and moons sparkled on the ceiling, and the rare shooting star dazzled the Mauans. For special occasions, movies showed on some of the modules' ceilings at night for entertainment.

his snapshot of the near future is from Maui, the Space Settlement Contest Grand Prize-winning proposal, submitted by a team of high school students in 2013. Co-hosted since the mid-1990s by NASA's Ames Research Centre and the National Space Society, the Space Settlement Contest has led thousands of 14 to 18 year olds from around the world to develop elaborate master plans for new human settlements in the galaxy. The high school teams compete for a cash prize (\$5,000) and a chance to attend the International Space Development Conference in Los Angeles, California.

In 2014 alone over 150 projects were submitted, ranging from the eco-friendly Greenspace by a team from Bulgaria, to the metaphysical project GURU (Gateway of Universal Residential Utopia) by students from India. Acronym titles, such as HAMS (Humans Aeronautical Mission for Space Settlement) are popular, as are utopias: Al-Ahsa, SpaceBurg, Schone Welt, Ojasvi, Zenith's Labyrinth, and Amazing City. Plenty of the projects are named after gods and mythological beings: Helios (God of the Sun) Vishwambhara (the one who bears the weight of the Universe), Minerva (a virgin Goddess of wisdom including medicine, commerce, arts, and magic), and Ouroboros (the world

serpent, a mythological dragon who eats his own tail). Then there are the sequels: Renaissance II, Space Settlement 2.0, Twin Earth, Earth II, Mayflower II, New Heliopolis, Terranova, and Space II; and some that sound more like commercial enterprises: Nea Zoi (A New Life), SAVIOR: The Lifesaving Space Settlement, Go Green Frontier, and The Profit Settlement Contract.

The criteria for NASA's Space Settlement Contest has its origins in the early 1970s, and especially in the work of the American physicist Dr. Gerard O'Neill, whose famous ring planet (know as the O'Neill Cylinder or O'Neill Colony) promised to house millions of people in 'comfortable apartment homes' in orbit. As set out in his 1976 book *The High Frontier: Human Colonies in Space*, the spherical cylinder, 6.2 miles in length and 1.25 miles in diameter, was to feature 'shops, parks, small rivers, and lush vegetation', and O'Neill and his students worked out the exact scale and rotation of the cylindrical colony to simulate Earth's gravitational pull. Although the project was deemed prohibitively expensive and too complex to build at the time, it has since been demonstrated to be technically feasible. This glimmer of possibility has inspired decades of speculative modelling, in the grand tradition of science fiction.

Along the same lines as the O'Neill Cylinder, the Space Settlement Contest defines a space settlement as 'a permanent community in orbit' and not a base on the moon or another planet. Student proposals must include detailed mathematical and technical specifications necessary to construct a settlement in space and keep it spinning in orbit, which often result in documents with over 100 pages of drawings, lengthy descriptions, and hypothetical data.

One of the most common technical preoccupations is mining. In an effort to maximize interplanetary resources, fleets of robots are sent from the Earth to harvest the moons, planets, and asteroids. This popular explanation of the technical means of building settlements is one of many variations on O'Neill's original proposition of mining the cosmos for raw materials.

While a viable plan for both engineering and human survival is a requisite of any successful proposal, O'Neill insisted that human needs extend past the basics of food, air, and water, and the design of a space settlement should also consider emotional and spiritual needs. O'Neill felt that catering for such needs could eliminate mental health problems that might otherwise arise amongst those inhabiting the isolated and sealed environments. His solution was to propose an interior as familiar and as Earthlike as possible. It is in this idyllic Earthlike state, he felt, human settlers would thrive in space. Taking O'Neill's

Cylinder as their model, the Contest guidelines suggest that a space settlement might even be preferable to life on Earth: 'There are many advantages to living in orbit: zero-g recreation, environmental independence, plentiful solar energy, and terrific views to name a few.'

It was this possibility of a new augmented reality in orbit that caught the attention of the subcultures that formed around scientific speculation in the 20th century. The editor of *The Whole Earth Catalog*, Stewart Brand, published an anthology called *Space Colonies* (1977), based on O'Neill's question: 'Is the surface of a planet really the right place for an expanding technological civilization?' But it was the inherent possibility of starting over that caught the imagination of the radicals. 'Only in space habitats can humanity return to the village life and pastoral style for which we all long', wrote Timothy Leary in *Neuropolitics: The Sociobiology of Human Metamorphosis* (1977). The closed-loop system of the space settlement presented a blank slate for redesigning nature-culture in the image of the classless society. This new-age thinking opened the door to experimentation with life on Earth.

In preparation for the future, some self-organized communities rehearsed new models of reality, new cultures, new sleeping patterns, new diets, new languages, and new forms of dress. These rehearsals for the New Age were often shaped by supernatural and occult beliefs. At the dawn of the space programme, while the rocket engineer Jack Parsons worked on the technology that would eventually help NASA get to the Moon, his home in Pasadena became a hub for lodgers searching for societal transformation through magic, sex, and religion.

Other groups were more closely oriented towards apocalyptic planetary thinking. In particular the Institute of Ecotechnics, founded in 1973 and still in operation, have established live/work research facilities across the globe in an effort to teach themselves about ecological systems and to prepare for the upcoming environmental apocalypse, when, they hope, their group may be ready to migrate to space. By the 1980s the group had begun building a model Martian space base known as Biosphere 2, complete with diverse ecological biomes where people would be able to live within a complex natural environment, sustaining their biological and emotional needs.

Decades later, the student-participants of the Space Settlement Contest approach some of the same problems but seem to have a decidedly different interpretation of the emotional and spiritual needs of humanity. In sections variously titled 'The Human Element', 'Social Infrastructure', or 'Designing Human Life',

they outline the social structure of their settlements; starting not from the premise of a radical blank slate for experimental communities, but the familiar categories of housing, education, government, law, enterprise, and entertainment. On the one hand, this is inherent to the way that NASA has presented the competition, but on the other, it seems to come from the students themselves, as they reflect on the components of their own societies.

In many of the proposals, we get an iconic description of suburbia, with pre-fab bungalows for nuclear families nestled within tranquil green yards, and the occasional executive apartment building for singles and workaholics. Located in the town centres are the organizations that make up the 'cultural' and 'spiritual' hearts of the colonies. Sports gymnasiums and stadiums are the multiplex cathedrals of social welfare, playing host to the most important community events, including numerous competitive sports performed with and without gravity, Space Olympics, and mandatory general fitness regimes. Strip malls seem to run through the settlements like great rivers, replete with nightlife districts: zero-gravity discothèques and restaurants, providing the experiences of 'fly dancing' and free-floating, dehydrated cryogenic food.

Locals and tourists alike enjoy long walks through the various simulated environments: replica wilderness areas as well as financial districts. Last year's award-winning team from Florida (USA) proposed what is essentially a multi-faceted entertainment complex, the aforementioned space settlement called Maui. The introduction to their proposal begins with, 'The story of how extraterrestrial colonies may grow and develop from ramshackle frontier towns to bustling cities' complete with 'a New York-Las Vegas type of atmosphere with casinos, spas, diverse groups of people, many numerous shopping malls, and large productions of the theatre and the movies.'

Maui thrives on tourism: '5-star hotels become a necessity', while the newly built 'Disney Galaxy' theme park in Maui imports 'Mickey and all of his friends, along with classic Disney princesses' to attract tourists from across the solar system and 'share the happiness and magic of Disney that people on Earth enjoy. No space settlement is complete without Mickey.'

However, many of the settlement proposals also have well developed, if slightly disturbing ideas about economy, law, and order. Projects like Greenspace find a moral value in the workforce. For the space settler who, they anticipate, might ask themselves the troubling question, 'For God's sake, why the hell do I work?!' the Greenspace developers provide the answer: 'So

that I can live comfortably with everything I need and a little bit more.' The preference for commerce over other professions is evident, as many other skilled jobs are outsourced to robots: nurse robots, teacher robots, doctor robots, and justice robots; the Greenspace colony is overrun with robot professionals. Every resident is given a robot assistant, and as computers take over the schools, the Greenspace settlement, amongst many others, will replace its teachers with robots, and its schools with laptops. 'Human-like robots will tutor students one-on-one to become future scientists or robo-controllers.'

The recurring idea of 'Earthlike' appearances includes not only the simulation of an Earthlike climate—day and night cycles, seasons—but also an 'Earthlike law-and-order system'. The law enforces safety with 'nonlethal electrical stun guns', jail, and even executions in airlocks. In most cases, the head of the space colony is a democratically elected human, but an 'artificial intellect, the Main computer' has been put in place to avoid and, if necessary, to put an end to any abuse of political power in Greenspace.

Despite their strict birth control measures, the growth of settler population still worried the Maui team.

Quotas were set in place to limit the number of people coming from Earth, Mars, and other major colonies. Patrols heavily guarded the airlocks connecting the entrances from the space dock to keep people from flying in, which was not too difficult to do in space.

The synthetic societies played out in many of the proposals seem to suggest hyper-real dystopias where risk and human error have been replaced by automated systems, including rationalized simulations of nature. Detailed descriptions of landscape design in the proposals conjure a primal connection to the ecosystems of the Earth, but even these have been made fit for purpose in a post-Earth society.

In yet another project, the Kon Tiki settlement, the team describe their nature reserve in detail:

[It] has a small stream for meditation and is only disturbed by a small road. Wild animals such as birds and insects would disrupt the settlement's daily operations, so they are not included in the forest. However, an intricate audio system pipes in birdsong and insect chirps in order to add to the natural ambiance of the module. A series of small cabins is located in an isolated corner of the module. These cabins are used as a retreat for mental patients and are used every year to hold a summer camp for the onboard children. When cabins are not being used residents can rent them out and take vacations. This provides a further escape from the normal routine of life aboard.

Here, in this 'recreation module', they also propose to scatter the ashes of their dead.

The Space Settlement Contest proposals are simultaneously familiar and bizarre in their synthesis of ordinary conditions in extraordinary circumstances. These settlements seem to be designed by a youth culture whose ideas of the future are primarily based on fantasy, desire, and media images of the world of today. Their settlements sit awkwardly alongside the radical experimental communities that initially embraced the idea of space colonization as one of human transformation. Rather, what we seem to see in so many of these contemporary proposals are reflections of our own societies: societies of control. Having asked the question of what our future world might look like, they have mimicked our own.

One question permeates all of these various proposals. Why do we need space settlements in the first place? In the speculative tradition of science fiction, this question has been more than a place for the calculation of technocratic solutions or the projection of existing conditions. For the counterculture of the late 20th century, the question was an opportunity to experiment with both practical and metaphysical solutions for a civilization that was quickly destroying its own planet and an important forum for rethinking society. However, for the time being, projects such as the Space Settlement Contest appear to have been overwhelmed by the logic of a consumer society: technology, entertainment, and design. If the potential for stimulating new models and alternative visions within a technologically advanced society can still be achieved, this potential must be reclaimed.

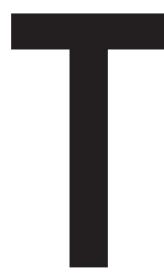
TERRAFORMING TITAN

James W. Hedges

"If our species is to survive the next hundred years, let alone a thousand, it is imperative we voyage out into the blackness of space to colonise new worlds across the cosmos."

Professor Stephen Hawking, Live from Space 2014

THE LONELY MOUNTAIN



he rain fell floated. It was dark, and the drops were fat and round as oranges. Dr. Shelley watched, her mouth agape as they lowered themselves to the surface of the lake, shook like jelly and finally disintegrated into a complex lacework of ripples. She wondered what strange sound the raindrops made as they hit, but all she could hear was her breath and the loud thump of her heart in her suit; few people would live to see such a thing. That one day she'd be one of them amazed her.

Base was downwind of Erebor Mons¹, a huge cryovolcano, and so the rain could drift downwards

uninterrupted, not whipped around at the crazy speeds customary for the moon. More importantly, the fragile ice roofs of the buildings were not susceptible to nearly as much elemental damage here as they might be elsewhere.

The camp was divided into two main sections: living quarters (underground, carved out from the ice which provided fine insulation and sealed by multiple airlocks) and, six miles away, an electrolysis plant which was steadily carrying out its thousand-year labour of converting ice into oxygen, using the

1 Titan's mountains are all named for peaks in the works of J.R.R. Tolkien. Mount Erebor is whereunder the dragon Smaug lies in *The Hobbit* (1936).

hydrogen left over to run the generator. There was one vehicle, and a stretch of boulders had been cleared to provide a crude roadway between the sites.

This was a lonely mission, with no means of return possible. The mission was simply too important for humanity to forgo, and the installation far too complex to be automated. The six engineers would live out the rest of their days on freeze-dried food, occasionally sending back scientific reports to a distant Earth, billions of kilometres across the black gulf of the solar system. Eventually they'd pass away, and the thousands of tiny, self-repairing robots they'd built would indifferently carry on their tireless work.

Her eyes had already adjusted to the soft orange light. They traveled upwards, but the peak of mount Erebor was hidden in the murk. The rain—a thousand yearly phenomenon on Titan eased off before the eyes of the last person ever to see it.

THE KRAKEN SEA

Impundulu soared above the moon's curve, observing the sun's bright reflection as the vast sea of hydrocarbons hove into view. Three glorious years it had sailed through space, joyfully skating around the rims of planets' gravity wells, calculating, calculating, singing to itself of the wonder of the universe. It appreciated the stunning beauty of the scene, the mathematical bliss of a universe forever slotting into place according to its own inexorable physical laws. Light danced from the hazy throbs of the lowest frequencies to the shimmering gamma rays, vibrating quintillions of times per second.

It began the smooth arc of its descent, quickly down through the now oxygen-rich atmosphere in a perfect curve. Flames formed around its body, rushing back behind it, making it a comet in the sky. Rivers, inlets, estuaries, fjords passed below in fractal perfection. Soon the sea was all it saw, and at exactly three metres above the surface, it detonated its onboard thermonuclear device and the ocean was in flames.

It didn't see the rest. The flames, burning for centuries, thickening the atmosphere like cream and keeping the heat in, melting the land until it was a new ocean upon which the burning one drifted. The resilient little nanobots latticed themselves into circular rafts, varying in circumference, and switched themselves off forever.

THE FECUND SEA

Thousands had turned out, bare thousands being a huge crowd on the far side of the moon. Rumour was that a representative of the president of Western Earth was among them, though things being as they were, any official political presence would be extremely dangerous.

Flags stood inert along the sides of a mile long avenue, its perfect perspective converging on the rocket in the distance. Music and cheering filled the viewing cars; outside was deathly silent.

The occasion was the launch of *Xochipilli*, the Prince of Flowers, slight and vulnerable on top of the rocket. The spacecraft carried in its belly thousands of millions of seeds from Earth, carefully selected to form together a coherent and stable ecosystem. It would make its rounds of the upper atmosphere, casting seeds into the wind. They would drift gently down onto the floating islands—the ones which did not fall into the sea, now water and there they would grow into lush forests, teeming with edible plants, ready to greet the first colonists in a hundred years.

Hands gripped hands and screams fell into silence as the countdown began:

and it was gone...

EARTH

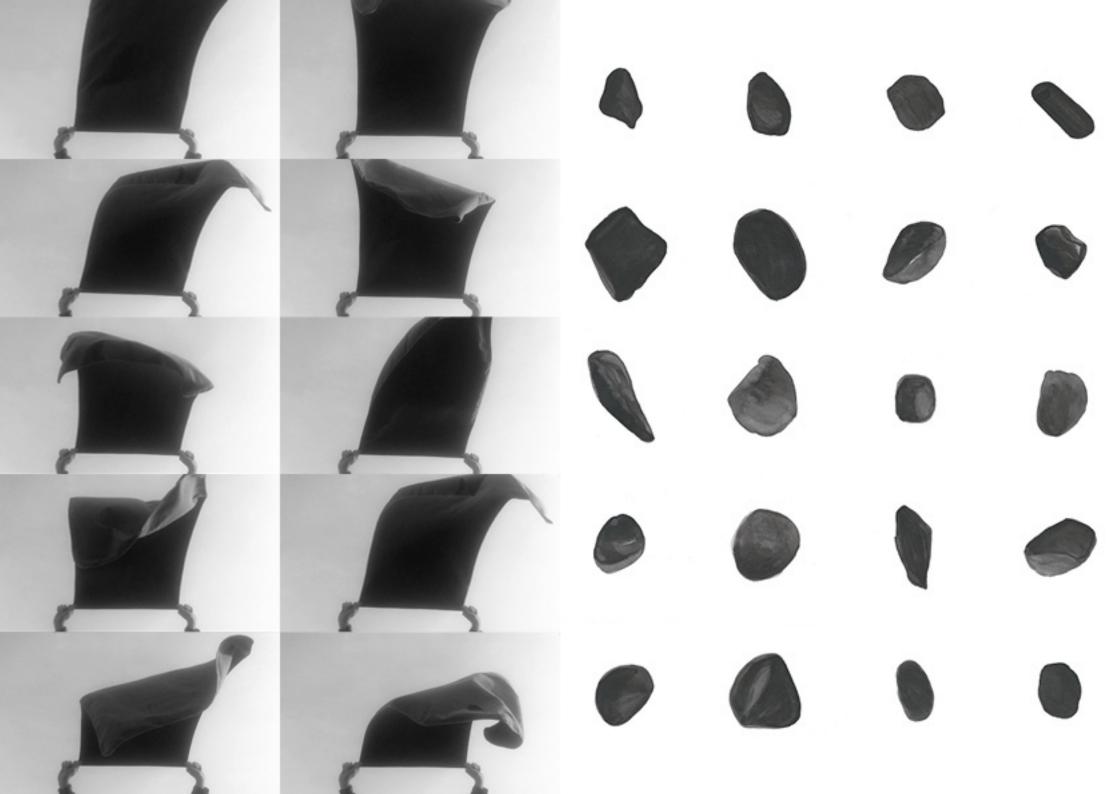
Gentle waves of heat, over many years, warmed the earth. Fertile land opened up further and further north. This was quickly capitalized, and as great cities yielded to the sea, yet greater cities were built in more sensible locations. The unlocking permafrost presented further treasures: first, fantastic bogpeople, resplendent with iron-age jewels and coloured hair; then deep-frozen mammoth meat, that was made into expensive burgers for fine New Boston hotel restaurants; finally, a longforgotten strain of smallpox that all earth's doctors and scientists had no answer to. It was chaos; the human population on earth was swiftly decimated, its remnants scattered and disorganized.

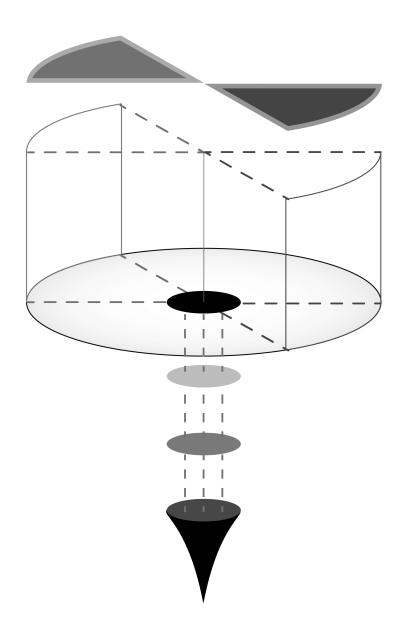
With no supply ships bringing water from the Earth, the few millions on the Moon worked through their remaining rations and farmed their covered farms dry, and even at each other, and starved within a few years.

OUT IN SPACE

But the first ship to Titan had flown by then. The *Grande Hermine* had few luxuries—piloted dumbly by computer, it carried the still bodies of Earth, deathly in their suspended animation. The adults and the children were kept in separate areas, due to their different metabolic needs, and when the power failed in the adult's wing, only the children were left. Three years it flew through space, serene in spite of its huge speed. When it was time, it landed quietly in a forest clearing, unrolled its ramp and opened the vaults of children. After a spell, hungry and crying, they crawled out of the ship and into the new world.







TEMPORAL SHEERING

Nick Carr



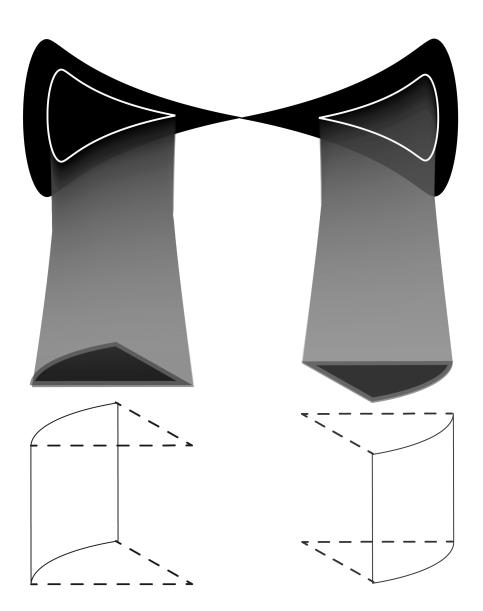
You will find attached an abridged account of the stages of temporal sheering as observed and experienced by local participants during the four-hundred-and-eighty hour exercise. I have also included six of the many models that were produced as part of the endeavor. The full account will be made available at a later date.

I trust that we will all be discussing this in more detail once we're back home, and must remind you that this information is not to be shared outside of our cohort under any circumstances. Some of the original positions we had hoped to support have all but disintegrated in the wake of this work. We are walking a line that, as of yet, is not sharp enough to describe within the framework of our previous constructs. I propose that, prior to cataloguing our findings for publication, we first submit ourselves to the same exercise conditions we created for our participants, taking into account the data we have collected thus far. Of course, I am aware that this will compromise the integrity of the group, but it is something I feel must be done for the sake of research.

It is unfortunate that many of you chose to stay behind; however, had you come, we may not have made the strides we did today. Today, yes today, where every day holds opportunity to breach the present while not denying ourselves in the future.

Support for my decision is not a necessity for the completion or success of the project.

Please note, much of what we will need to analyze will require a second and third apparatus to be constructed. I have already commissioned some of the minor components and will share the exploded diagram with those of you who have not yet forgotten what we came here to do.



TEMPORAL SHEERING

STAGE 1: ANTICIPATION AND SYNCHRONIZATION

Participants exhibit a heightened mental state, reinforcing their relationship to time and to their immediate surroundings. Through straining their thought patterns we are able to observe small fissures and anomalies in participants' brains. These fissures have been largely overlooked until now, and consequently many of their first catalytic opportunities have been lost. Currently, participants are unable to differentiate between predicting a logical outcome of a future point-in-time, and future as 'place'.

Challenges arise as participants contest with the momentum of historical brain movements, which continuously question their motivation to subvert these patterns in the first place. For many of the participants, base level rhythms remain largely unchanged; however, foreign bodies introduced into the exercise seek to adapt the environment to their own patterns. Breakpoints are commonplace during Stage 1.

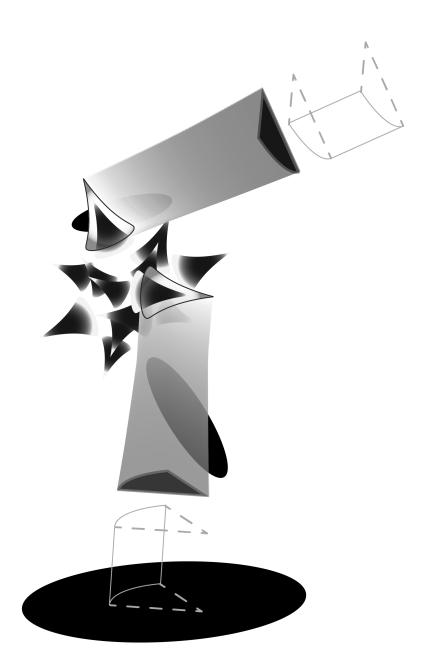
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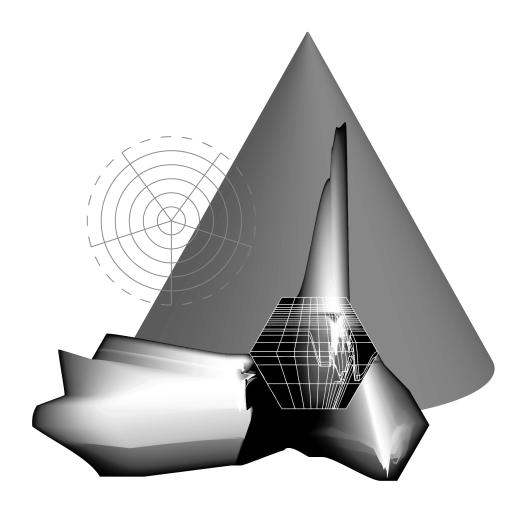
"They have an insatiable desire to define themselves as a 'self' in a future that is by its very nature unknown. This is an untenable position." – Observer

STAGE 2: INTUITION AND INITIALIZATION

• • • |

Mental disposition becomes increasingly important as perceptive wells begin to form in the brain. Those who were not afflicted by moving through the stages of Temporal Sheering are doing so not as a condition, but as an experience. Acceptance of these perceptive wells as a source of information appears to be one of the key factors to advancing to subsequent stages. Stage 2 is where we begin to see a distinct split in modes of operation as participants seek to sublimate intuitive thought. These attempts to jump stages or "skip" a sequence were not anticipated and followed none of our controls.





Participants display frenetic decision-making and construction practices. They begin to command the environment as part of their own model for analysis.

Some participants report feelings of malignity after initialization of their infinite access model, as engagement appears to break down small membranes that protect the cortex from potentially psychotic episodes.

[...

"The tactics we have seen employed are akin to algorithmic amalgam, an impressive and disturbing display of intuition as an exploitable time extraction tool." - Observer

STAGE 3: TIME CAPACITY, LOCATION MANIPULATION AND INFINITE ACCESS

[...]

We see now the act of our observation as symbolic of the progress of the participants and our research processes. Participants have adopted a zero-time model—where there is no mode for measuring futurity beyond action, they have bent the past to slide through them and be accessed through the context of now alone. All points moving.

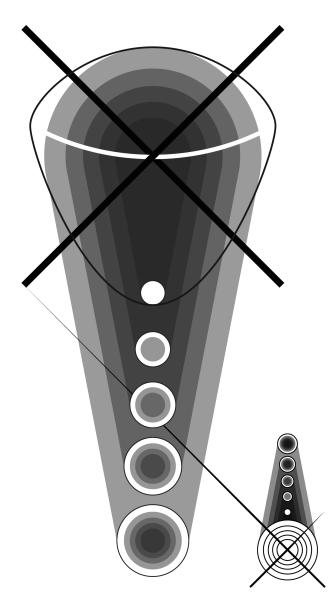
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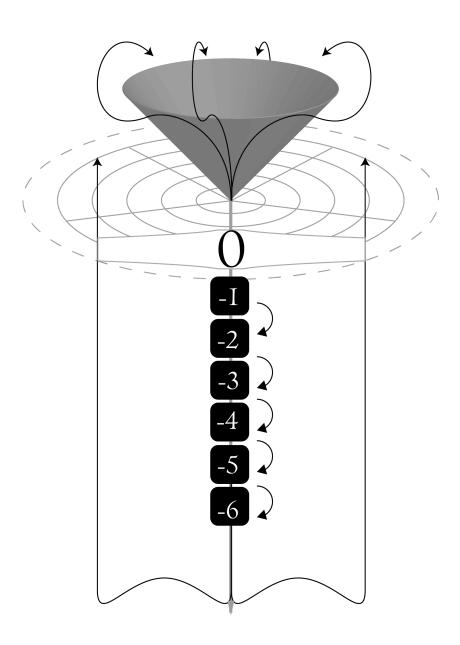
The participants have used more time in equal measure to observers, . This sheering has caused them to branch away from us, and while we are still able to see all that has been produced, we are unable to access the participants themselves. They have manipulated the way in which we are able to observe them.

We have no choice but to accept these models.

[...]

"It feels as though I am creating time through space, manifesting futures in the present tense. All that was behind me, is now in front and all in front, behind." – Participant, Observer





PROFANE MAGNITUDES

for Edwin Hubble and Edwin Morgan

Humphrey Astley

There's this piece of cotton wool, an elliptic object lying on its side, in or on or against a black field.

Perhaps it has that disconcerting quality one notices in gauze, and in that family of fabrics that tend to the wounded.

They are frail, the better to attend frailty. (Perhaps this piece of wool evokes vanity.)

To a schoolteacher, it looks as though the brain of a teddy bear has been tugged through the seam in its head and stuck to some felt with milky glue.

But this is not a child's attempt at sketching something larger than herself. This is real life. Because if you zoom in,

you'll see this cast-off is a cluster of billions of siblings—a society of stars. It's a galaxy, of course. You are conscious of it now. It could be any galaxy.
In fact it is every galaxy.
Nothing else is visible now.
Nothing
will recur in the sky.

*

Indifferent to the tendency of light to make life interesting, dark energy engorged the cosmos,

flooding the void with voids, rushing at the edges where there are no edges—and tore from time

a cloak sewn with stitches of a million millennia. A blackwash of gaps.

The Universe just kept on expanding, its profane size swelling by profane magnitudes.

Each galaxy enisled by an expanse no photon could span.

Each galaxy an island at the heart of an island at its heart a black hole, an arch-ego.

Diasporan archipelago

Zoom out from our subject, from this fleck of orphaned atoms.

The facts of their belonging huddle in the past.

Don't you feel sorry for them? Couldn't you just wrap them

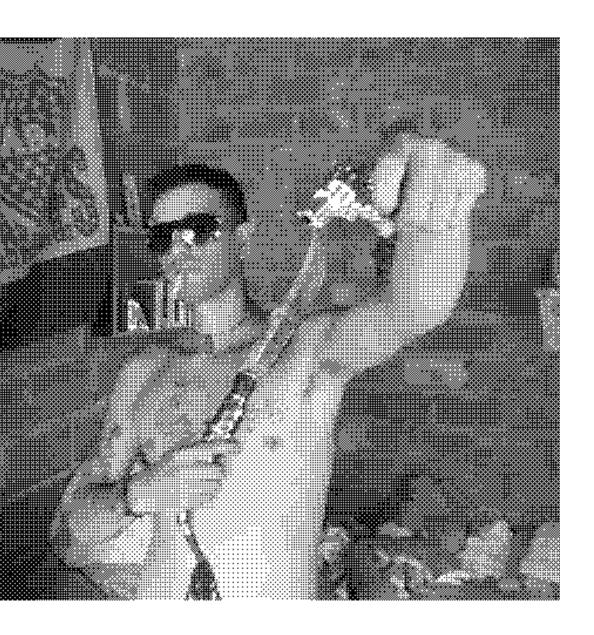
in cotton wool?

Due to the accelerating expansion of the Universe (as discovered by Perlmutter, Schmidt and Reiss in 1998), observers in the distant future will be blind to every galaxy but their own.









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LIVING IN THE FUTURE LATINAMERICAN

Esteban Ottaso

bricks in THE wall Digital B R I C (K) S

(B)razil (R)ussia (I)ndia (C)hina () (S)outh Africa

Bloc K

Future

Money

World Economy

identity

Toward a new realism of absences

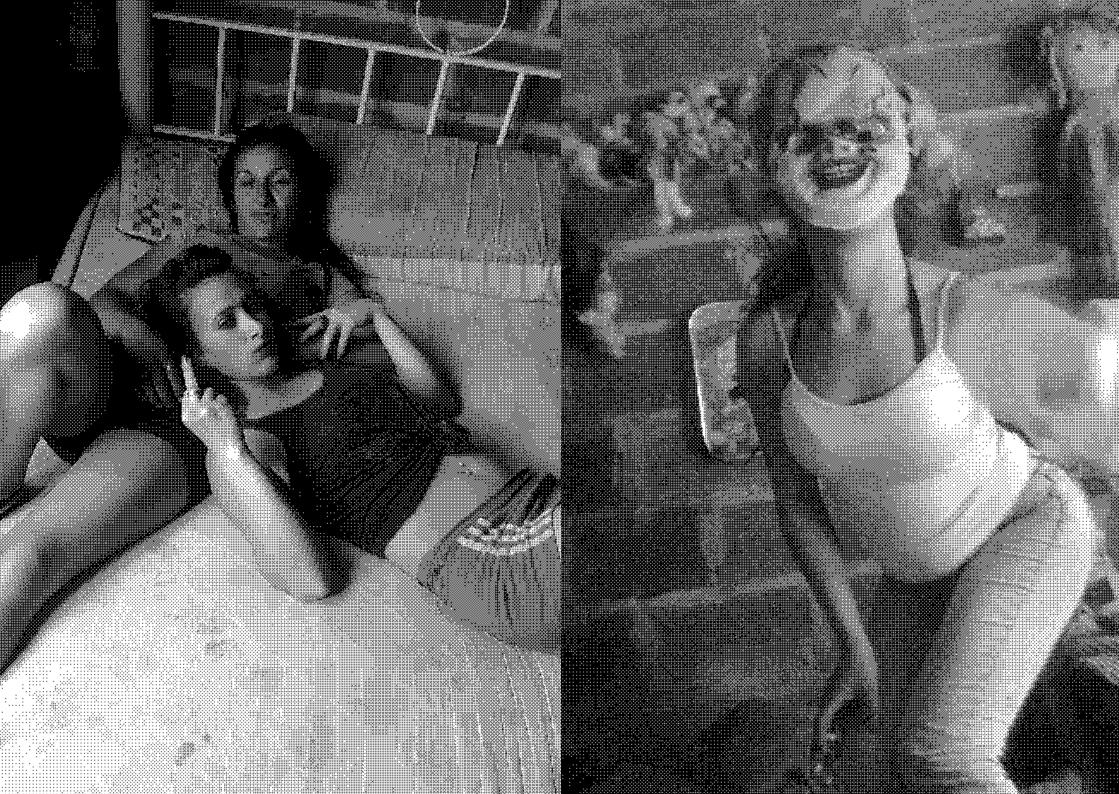
destruction, machines, construction

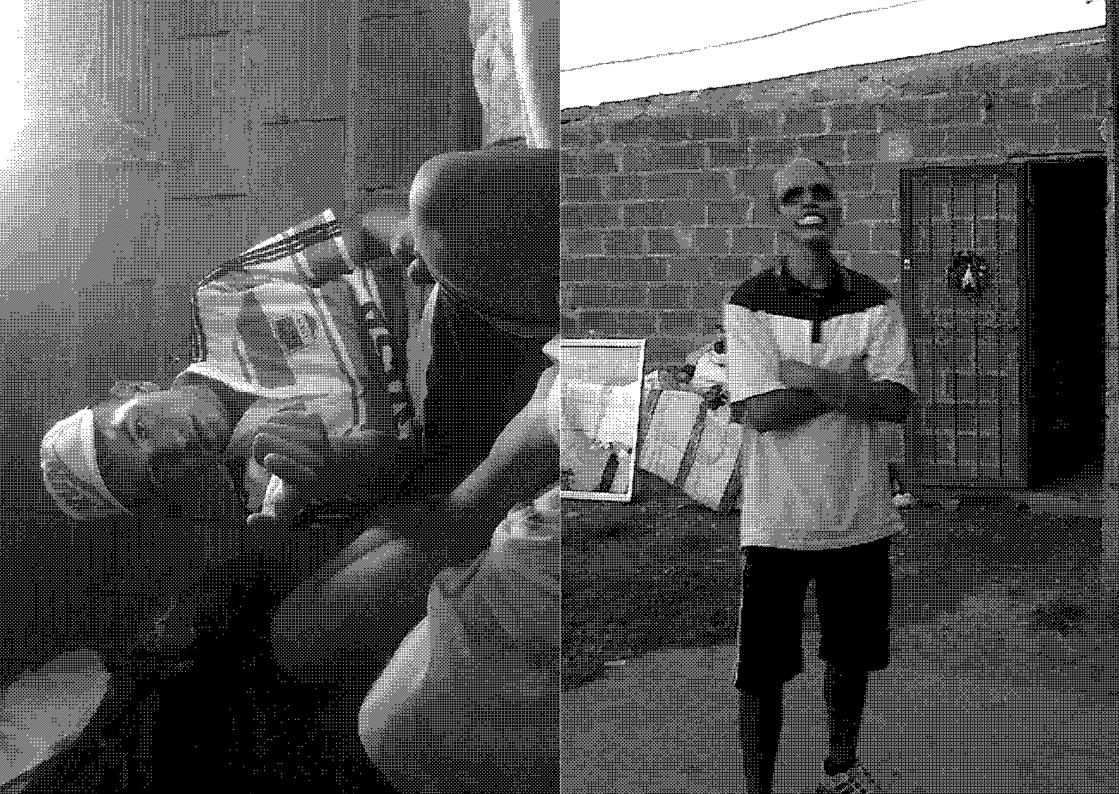
science, technology and creativity in the generation of knowledge

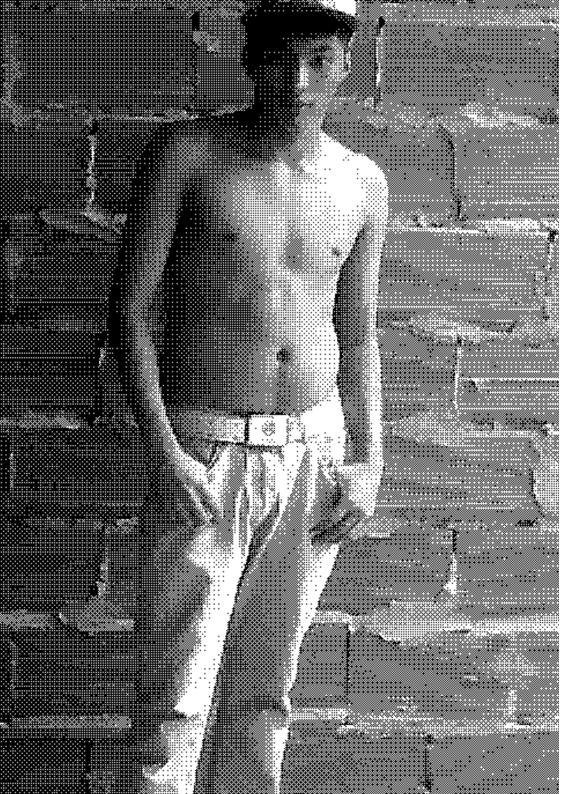
Social Media, New Media, Post Media

human

2014.







THERE IS STILL TIME FOR THIS NOT TO HAPPEN

Daisy Lafarge

"There is still time for this not to happen."

So says the cold and beautiful Eliane to her toyboy beau, in *Indochine*, at the start of their doomed romance. This is the very stuff, the lifeblood of doomed romances. That feeling overrides time, or vice versa; that if left unspoken, this line will undo or reduce to subplot what is so palpably strong between the characters. The film itself is a relic of cinematic egocentrism: the solo of an individual romance, played out against the overture of the collapse of French rule in China. Context as a prop, summoned at will to accentuate emotional experience.

Everything as a prop.

It would be theoretically safe to propose the future as a doomed romance, fed on the breast milk of wilting empires. Fair enough, we screwed ourselves over. But what about the future's right to a future?

"So anyway I rolled over and traced my finger along his snail trail, which was, like, chronological time."

"Oh yeah, and what did it lead to?"

"Well he had this really fucking cute belly button, you know, like an anchor."

When people speak of 'cutting the cord', I think of old-fashioned telephones, and how the feel of friendship was the rubbery curlicue twining round my fingers and toes while I talked into the mouthpiece, slippery and moist from my breath. Friendship was this whole bodily experience of being tethered to the phone by the stairs, getting a numb arse from the carpet; enraptured by the voice on the other end, similarly rooted. A cute couple of rhizomes.

I remember calling J when I got back from the dark country I'd been frozen in for four months, and all I could think of was food, for lack of it. I lay on the fusty carpet in my mum's bedroom and could not tear my eyes from the nacre-grey grains of it.

"The carpet is made of buckwheat," I tried for conversation, "honestly, just like buckwheat."

The phone was an unfamiliar clammy shape in my hand. It slid onto the wholegrain floor and I stared down at it, the line unbroken by its fall.

Tumblr is the last citadel for those unstuck from time, hiding in aesthetic regiments of *then* or *there* to transcend the dread of *now*. Too late or too early, we either live in gestation, hibernating until the present is the right present, or, if too late, as pulsating, clotted ghosts of old movies.

To live in the present, your human filters need to be on at an all time high. That is, to have as little self-awareness as possible. Don't stop to think, elsewise you'll start questioning the threads that make up everything, that pierce through you, pulling you into line.

There's a language about to die somewhere in South America or maybe already has because the last two surviving speakers are men upholding a transgenerational grudge about a girl.

To love is to time travel. Tell that to anyone that does sex for work (but don't we all?). Time travel is swiping past a girl on Tinder because she has the same almond eyes as your ex. Time travel is giving head to hide the fact you are crying. Why are you crying? Because of the last time you gave head because this time you don't really want to because next time you hope you will. In which tense are you giving head, if it is emotional labour to assure future love, even if this has failed in the past? It is something, to pass time in the phallic shape of hope.

"Also, how is it that textiles can still be patronised as a 'decorative art' after the discovery of string theory?"

"I don't know but if we ever start a knitting group let's call it that."

This summer, I spent hours in a hot office transcribing interviews with old backbenchers, while news items were shaken out, dressed and dispatched around me. The words of one in particular stayed with me: on being subject to constant pain from a medical condition for over 30 years he said, "the trick is displacement".

This displacement is the trick to any human feat: love or time or pain.

The tyranny of the present is that its 'truth' is somehow more valid than past 'truths'. If you are 'right' now, you are righter than those before you. We isolate moments in time, as well as ourselves from each other, through the Apartheid of technical language. We call this sickness progress.

In methodology or discourse, the twentieth century was like this great mechanical body with science for sterilised guts: physicists and chemists were the devils on one shoulder and biologists the angelic other. Humanities were accessories that changed with fashion. The demons gave us Hiroshima and the angels promised a cure for cancer. But now we're living more in fear of the population bomb than the atomic. It's the bittersweet of medicine we're wary of. "Please hold the line: if you hear one beep you have gonorrhea." "The doctor has no available appointments but is contactable by Skype, providing your discomfort can be rendered via pixels."

Was everything ever simple or is that what we're meant to be groping towards? No work is neutral. Everything is loaded. We are so fragile in our wanting to belong; I can't separate professionalism from it.

"So if philosophy is a boy's game how come they all write as if asexual?"

Philosophy was the politeness of the philosopher pretending he didn't have a prick, but ramming it down our throats all the same.

It is also a question of behaviour. I heard a quote a few months ago that I have scrawled in the front of my journal: "You have a duty to be more ethical than the world you were born into". After years of reading, I'm finding it's the mid-teen mantras that are most worth clinging to: jumbled demi-truths about not accepting the status quo. Because the future still has a right to a future, sweet-smelling despite its dreadlocked and unshowered appearance.

A woman tells Eliane "You don't know how to behave, you treat people like trees." I am deeply hurt, on behalf of Eliane. Words like "know" and "behave" masquerade as fixed meanings, rooting me in a mire of pseudo-moral guilt. But, again, we are graced by the dove of context: Eliane, in fact, runs a rubber tree plantation, and so cares more for trees than the average human being. The accusatory woman later leaves her young family in France to become a bitter and lonely cabaret dancer in Saigon. The absolutes unmask. Behaviour is pretence, and if you are too old-fashioned or sincere for the performance, tailor your behaviour to fit the shape of a(n) (ANTI-PHALLIC) future you dare to want.

MOON-BOUND

Natalie Chin

hen you say we're moving to the moon, I laugh for a long time before realizing that you're serious. You don't say anything else, and I finish the rest of my breakfast in silence. I put the bowl in the sink and walk back up the stairs. The room on the left has been our bedroom for the past six years. Remember when all of this felt new? I watch you from the window, loading boxes into the spaceship. There's a thing you do, which happens when you're concentrating hard, absorbed by a single motion: you look the way you would if you were the only person alive. Once, that bubble would have included me. When I think about the way relationships end, with one person walking away from the other, I always imagine myself as the one who would do the leaving. These things have a way of signalling their arrival, and anyway I would have already been left. I think I would rather spend nights alone than to stay with a person who no longer looks at me the way he once did. "Goodbye", I would say, "I am done with all this needing; this body wants these hands back.' This body wants to belong to only itself again." But then it is August, and I am strapped into a seat; I can feel my eardrums splintering with the sound, eyes rolling back involuntarily. This is the last image of the earth I have to hold onto: the blueness of the sky and sea. Then the ship is silent; and the darkness is beautiful. I look at you, concentrating hard on the shape of the moon, which is closer than it has ever been. Did you know that if you bite your tongue hard enough, it bleeds? The blood spills, forming a pool of metal in your mouth. I thought I knew how to leave, yes; but my first instinct is also always to swallow.

NEW AUTUMN

Quentin S. Crisp

ntroducing New Autumn.

In New Autumn, the air will tingle with many fresh and unfamiliar scents, which will, as the season recurs, become familiar. All coins will be newly minted, bank notes crisply printed, in previously unseen currencies. These currencies will actually smell of mint, though mainly in an analogous way: the freshness of mint as translated into the olfactory languages of vanilla, wood shavings, creosote and so on.

These currencies, when exchanged one for another, will breed, creating hybrid currencies with new, unpredictable values.

New Autumn will consist of innumerable curtains of silky, almost palpable darkness, on which may be projected moving three-dimensional backdrops. There will be depth to these scenes, but no relief; they must be stepped into.

New Autumn is as much an endless sky without separate worlds as it is an underground nowhere without sky.

Futurology is useless in understanding New Autumn, since New Autumn is not a projection from present data. Rather, New Autumn is coming from the future to meet us. Or, if the future is north, then New Autumn falls like russet dew from northeast and northwest.

Progress as you know it, a concept that has long relied on a scientific and politically liberal framework, has mistaken an assumption for its destination; it is, rather, a by-product of life, like excrement. New Autumn is not life. Because the two are not yet connected, many do not understand the value of New Autumn in relation to life. However, if life teleported from its current position, leaping without crossing intervening space, to the perfumed haze of the New Autumn superposition, there would be no by-products. Assumptions would be shed like leaves. The tree of the merging of life and New Autumn would stand bare and luxurious.

There are two versions of New Autumn, one of which is a decoy. New Autumn warns you against the seductive deceptions of orthodoxy or heterodoxy, depending on what you fear and what you wish for. For instance, one characteristic trick of New Autumn is to tell you that your false fears are true and then flatter you for facing up to them. Or it may reassure you that your true fears are false. They are "merely orthodoxy". Or else, they are "disreputable heterodoxy". Either way, what is wrong is wrong because of a relativity of opposition—like a trick played with mirrors—and for no other reason. The orthodox is wrong because it is orthodox; the heterodox is wrong because it is heterodox.

This is one aspect of one version of New Autumn.

New Autumn was promised in the 1990s. Fonts of elfin subtlety, like eyes winking softly open, glowing with the intelligence of dream.

A forest of bright shop windows after closing time. The fruit of darkness.

To enter the kitchen showroom as if it were a shrine of living mystery. Gone, the distrust that made reality and nightmare interchangeable; now there is this smiling curiosity as we both turn our eyes to the enigma of some plastic object.

Neon leaves.

Each mundane, mercantile establishment now wears the hues and tones of a mood-lit photograph in a lingerie catalogue.

If you look closely in the rather miserable streets through which you are so often obliged to walk, you might still find traces of the old adverts for New Autumn. The more traces you find, the easier it becomes to find further traces. But none of these traces provide a clue as to when or where New Autumn will arrive, so that you begin to suspect it has already been, without your noticing.

We cannot think of nothing, because it does not exist, but we can think of New Autumn despite its not existing. Or maybe we can't think of it, even though it does exist.

Any sufficiently advanced technology might appear as magic, but no technology can simulate New Autumn. Even mystics do not understand it. Having studied mystical writing and been granted mystical experience, I can see that the knowledge spoken of by mystics is transparent, or, occasionally, white or black.

New Autumn is quite other than this. For many years now I have felt myself growing aged and infantile under the exquisite curse of seeing colours that do not yet exist, and wondering how

to transmit them to my fellow humans. I have never encountered the barest hint of them in the words of any other human being. There is, of course, the real possibility that I am insane. When I contemplate this, I feel, at first, a parching fear. Then I think, if insanity has these colours, it is all I desire. Many attempts have been made to eliminate the very concept of New Autumn. So the echo grows, of nothing, and the nothing that we are diminishes.

Many attempts have been made to eliminate the very concept of New Autumn. So the echo grows of nothing and the nothing that we are diminishes.

I understand that much of what I write is self-contradiction.

I once heard of a man who cancelled all his updates and wandered in the suburbs of a degentrifying corner of the city. He came upon a kiosk at the edge of an abandoned fairground. The woman inside was selling things that made the man feel sadness and delight. He suspected that all the goods were worthless, but desired them all so much he became indifferent to buying. Finally, he bought some Tattooed Bat cigarettes and a book of matches like a trapeze artist's underwear. On the cigarette packet was a warning that the contents would have an endlessly ambiguous effect on an individual's health. He opened the pack, and lit a cigarette on the spot. The smoke came in antique bunting of red, yellow, green and blue, and tasted as sherbet might if it had as many flavours as a Catherine wheel has colours. There was a map inside the flap of the book of matches, and it indicated, in a dotted line, a narrow footpath from the kiosk to an opening between trees on a nearby hillock.

He took the path, and everything, indeed, happened; but he was free of it.

As I write this, the wind at the open crack of window is soft, as if a child lost his favourite mitten among fallen leaves, found it again a week later and, putting it on, became the wind, smelling of old earth; and now fumbles at my window for reasons I don't understand.

Come New Autumn, the softness will be sharp, as if the wind is made of patterned wrapping paper. Its caress will leave paper cuts in our skin, and instead of blood, from these clean cuts there will issue secrets we have kept so long we have forgotten them.

I look at my teapot. *Sehnsucht* is a word indicating an ineffable longing for you know not what distant thing. I wonder what the expression is that indicates an ineffable longing for what is here now. Perhaps it is *mono no aware*.

New Autumn, I begin to believe, is in our heads, and yet not in our heads. We need to devise some way to give mutual signs to show the fullness of its coming.

COVE OF MEADOWS

Thogdin Ripley

"A green field is turned into a cemetery, something painful which presumes to have joy and progress for its goals... and the starry sky is an image, pure enough for all eternity." Hans Henny Jahnn, *The Ship*



veryone called it *The Boat*, despite that being kind of a nickname hailing from the papers in the months leading up to the launch. Even we did, goodnaturedly, and eventually even Control did, too. People made hats. I remember one of us waving one from the gantry, shown in close-up throwing it down as if to a crowd for the cameras. In truth when it carried us out, there was as much hullaballoo as any first prospecting craft must have had on its own departure, and with the blast of the thrusters we found our lives stretched suddenly into a future that though planned to a degree of

precision I now find hard to recall was in retrospect just as uncertain. I closed my eyes as the path through the atmosphere blurred my vision, sinking back into the automated mental routines and checks of the months of training, and thought of everyone remotely watching us climb that hard mile shaft of rough air; peppering the ozone with our exhaust as we forced through the resilient clouds.

I remembered myself as a young man, viewing the quiet tragedy of life unfold through the lens of my microscope via a time-lapse recording. I watched a bulging leucocyte chasing down a bacterium, swimming contraction waves through the dark corridors of the blood serum, silent, relentless. I saw the comparably minute bacteria pull away, moving with surprising agility, always just ahead, riding on its devourer's wake. It was desperate for escape, spastic in its speeded-up dance and finally exhausted, engulfed by the enormity of the pulsing white blood

cell. They call them simple organisms, in the books. This is what I thought of as the mass of my own planet pulled one last time on me, and then we were loosed of it. We were free to look back as we pushed out. Free to begin the long process of checks, and rechecks, and flagged maintenance, of getting the sleep systems up and running, and getting us, the pioneers, down and into them.

We were in contact with Control and by suggestion, if not actual extension, almost the entirety of the rest of our living race to say our farewells, and I find that I view that week of preparation and conversation from our preternaturally high base camp with a fondness that has now faded only to a faltering memory of a feeling. In the deep dreamtime of the sleep system my curdling visions were molded at their suggestion: primal dark giving way and glimmering with the tawny hair of Leif, his eyes wide at the lush shore of half-known Vinland as it came into view through the Pacific haze. The colours were stunning. The memory of that, even, is vague now, as vague as anything here, and I find myself returning to it again and again. How often it is hard to tell. And then, with the taste of salt and the breaking of the surf-swelled moment, I awoke, boundlessly far from where we had departed.

For months we studied the coastline from orbit, assessing the curves of the continents, weighing the tremendous slow beauty of their creation against our chances of survival on them. And from orbit I peered closer, studying the spits and coves. I increased the resolution, trying for a higher clarity, and followed the clear demarcation as it zigzagged beneath me. I looked down on the crooked landmass and watched its outer edge kink and swirl, pushed at by unknowable forces for millennia; the movement of the land as it fought to become the shore. As I moved in, the ground, the boundary, I should say the boundary between the two, between what we had defined as 'the land,' and as 'the sea' that boundary took on a serenity I had not seen before.

The shoreline is tooled, railed into a gleaming, flat shape as if by a hand unseen. The coast recedes into the distance; either side a mirror, as devoid of feature as it is undivulging of mystery. I sometimes think in a perverse way that I may have conquered the measurement. Or it has conquered me. Even our highest levels of zoom reveal more of the same straight edge, and I wonder vaguely which part of it we eventually landed on. Whether it is I who stand by its edge, marvelling at the total flatness through the electron-analysis machines, or whether I see us all from

incalculably far above, standing on that selfsame shoreline at an aspect of ten to the power of several hundred thousand. The point has become moot. It is unknowable. In the unerring line I see in what I once perceived as wonderment a kind of vindictiveness. We have become intensely bored of the view. I stand on this level plane, and I watch the absolutely unmoving sea. I see the point where they meet as a membrane, flat, unveilding. I picture the furs and rough-sewn hessian as they dismount from the longboat. I see the reflection in their uncomprehending eyes. I wonder about their measuring instruments. My grasp of the finer points of history is no longer good. It has been suggested that we have never left the boat. I thought that if I zoomed in far enough I should be able to see the numbers marked on the hull. See myself there too, peering at them on some supramicroscopic level. I thought of the prows of their ships and their oars, worn flat by the overwhelming saline attrition of the sea. I thought of the smooth movement of the outer membrane of the leucocyte as it overtook the bacteria, so may years ago, and the brief moment that the bacteria still twitched and swam within its boundary before becoming still; so close to escape. Still so much measurably less than a hair's breadth away from being unconsumed.

iDRIVE

Daniel Keller & Ella Plevin

intro

Narrator: The US Federal government has succumbed to a series of assaults on its sovereignty; leading to a cascade of increasingly splintered corpo-political devolutions. The Autonomous Kingdom of Nevada – known as AKoN – is the first autonomous 'patchwork' state with auctionable corporate sovereignty: Most people left the state after 30 years of drought, and those who remain are corporate representatives and freaks, paid off by the King, in the form of subsidies, in exchange for a complete lack of political freedom. The King is more of a paid patsy than a regent, and sits on the boards of the numerous Californian corporations who inspired his political philosophy. The American desert has always been a testing ground for modernity, and now in today's absurd future it's a Petri dish for the various experimental political systems of post-neomodernity:

Anxious and hopped up on phets, Kai Zuckerberg, daughter of Mark and Priscilla, and Dalston Kutcher, son of Ashton and Mila, lie sprawled across the upholstered interior of Kai's Tesla iDrive xm. The scene is bleached in light, the atmosphere outside the vehicle is dry. Sunlight sparkles off endless distant arrays of dusty photovoltaics as they approach the Cali-Nevada border on a trip from Freistadt Cupertino to Elko, AKoN.

$[MUSIC\ PLAYS\ AS\ KAI\ AND\ DALSTON\ GET\ INTO\ THE\ VEHICLE]$

Dalston: Ugh I can't believe we have to cruise in this shitty iDrive. you should see the EN-V Bushwick just bought, the holo is in*sane*. What is this horseshit panel, 8k?

Kai: Ew, Dalston; first, your sister's always been obnoxiously flash; second, wasn't it your latest ideological protagonist that said "Money is only a tool, it will take you wherever you want to go but can't replace you as the driver"? Also, Elon is a friend of Daddy's, he's given me an iDrive on my birthday every year since my Bat Mitzvah... [Embarrassed]: Anyway I'm uh, on the waiting list for an EN-V.

Dalston: Haha, but babe, iDrives have been around since, like, the democratic stone age. What are we gonna do all trip, without even a holo?



Kai: Shut *UP* Dalston, you know my Dad and his friends basically inspired the devolutions...

Dalston: Yeah, and look where that got us. Doesn't fix the holo, does it.

Kai: No, but if the democracy fanatics had their way, my Dad would

have to call for a popular referendum every time he wanted to change Facebook's design. There would be a committee for every single search keyword that decided rankings. Like I'm not kidding—PageRank was far too authoritarian for these people. Design by committee is the *worst*. That's why I can't stand Cali.

Dalston: Totally... I just wanna get away from it all!

Kai: You mean EXIT! What we do when society sucks and Voice doesn't work! EXIT is Death; life's best invention. Obvi not a solution for everybody, but it sure as hell is for us!

Dalston: Yah. I just want a ranch where I can go and paint in peace, without having to constantly do studio visits with venture funds and cool hunters. Like, great, you got yer angel round, do you really need another mural for your lobby already?

Kai: They're vultures...

Dalston: I mean, I can't help that I'm a mindividual; I just need to let off some steam.

Kai: It won't be enough to just have a studio ranch away from Cali. we need true EXIT.

Dalston: What do you mean? What else is there?

Kai: Like, I want to feel actually autonomous for once in my life. CAR! AC up 1!!

Dalston: Well, I dunno, freedom to me is self-expression and my individual style; the fact that we can tell this car to go anywhere we want.

Kai: This car is a hologrid and self-expression is just the engine of calicapital, its not freedom. This car makes us the content; freedom means controlling the platform. Freedom is all EXIT and no Voice.

Dalston: Ha you are so crazy, I love you babe! CAR! AC down 2

Kai: Listen a second; I need to tell you the real reason we're going to AKoN.

Dalston: CAR! AC up 1. Wait, what? I thought we were just going to check out some property? Thought the taxes were low or something? For like, a ranch?

Kai: Yeah, um, we do need the ranch, but I wanna do something more profound than just get a house in the desert.

Dalston: Oh... you mean like build an earthwork? *Retrooo... [worried]*

Kai: Umm no; I'm gonna I mean we are going to declare personal sovrinty! The ultimate EXIT bae, our bodies as nationstate! AKoN has this loophole in its laws which says that any corporate entity with sufficient revenue can declare its land holdings within NevadaLand as self-sovrin, as long as they pay off the initial secession fees.

Dalston: I heard about that, but I thought you needed trillions for that, and like, your Dad cut you off, right? You know I'm doing fine, but even I don't got that kinda bank babe!

Kai: Right, but ultimately this will obstruct those filthy bureaucrats from taking your hard-earned bitbank! There's a loophole: if we marry into LLC structure, then we can reverse-merger, spin off the ranch as its own LLC; divide its assets into chunks which can be traded on the p2p markets. Then I set up a bot to trade them quickly enough to appear profitable. The bot will autorequest a sovrinty hearing with King Mencius, perform a hostile takeover of our Marriage LLC, and relocate our headquarters to its territory, automatically emancipating us in the process.

Dalston: Hahahahah, whoooaaa! Babe...! Marriage...! You know I love u, but... This reminds me of something Ayn wrote, she said: "I swear on my life, that I will never live for another man, nor ask someone to do that to me..." I mean "live for me." Or whatever.

[Kai rolls her eyes]

Kai: It's just a legal technicality, Dalston, stop being so dramatic.

Dalston: K, k, jk, babe; I'ma do what I gotta do, I guess. But what does sovrinty even mean for us? How will we eat? How will we travel to my openings?

Kai: CAR! Display location status! It's simple D, we don't need to be physically anywhere to be our own state. It's all virtual technicalities, and we'll be the pioneers. We're standing at the brink of an incredible opportunity. We can build a new society from the ground up; a society of two. We'll be the first non geo-located state in the world. Wherever you go, there we are!

Dalston: Doesn't that mean our bodies could, like... be invaded? [Increasingly anxious]

Kai: Ok, we'll hit the border soon; so just stay chill, Dalston. The sentiment drones will be scanning, we don't have time to get kicked from the border queue and we def don't have time to fill out those damn H.I.T. shopper surveys they make you do to get unbanned from the distributed border app. Just project confident povo unpersuadability, or we'll get stuck in dutyfree for hours.

Dalston: I'm super chill right now bae, I think it's you who needs to worry about the STU's; you seem manic as shit right now.

Kai: Fuck, maybe ur right... Ok...ok...Just throw something on the screen so I can zone. I need to get my pulse down to unsuspicious levels.

Dalston: CAR! - SCREEN ON! Something chill, surprise me. [PAUSE] Oh cool, I love birds. Did You know hummingbirds can fly backwards?

Kai: Yeah, they're not the only ones...

[PAUSE, BOTH WATCHING THE SCREEN FOR 10 SECONDS]

Dalston: CAR! Volume down 5! Kai, why do you think your Dad quit Facebook, I thought it was his life?

Kai: He told me it was customary for silicon valley CEOs to step aside after 20 years and devote their fortune, or whatever's left of it to Charitable Equity Management.

Dalston: Ugh, rough... . Sooo, you got cut off for some bullshit altruism farm?

Kai: Yeah. No, I mean I get it; he's trying to teach me how to live my life and overcome obstacles and extreme adversity and stuff.

Dalston: What does his charity support anyway?

Kai: I dunno, animals and minorities. Ughh! The smallest minority on earth is me.

Dalston: Tough break

Kai: Whatever. Ok, so when we get there, we have to check in at the

better business bureau. We can bracket there, get a Moldbug Seal to approve the land purchase; then we head to the realtors.

Dalston: Oh sick, my feeds are blowing up! Simcho says, "if beauty is in the eye of the beholder and you're willing to pay for what you feel is beautiful, isn't that a wise investment?" So much truth on here Kayzee.

Kai: Uh huh, so basically

Dalston: Ha ha! "On Fire", "Killin it", "Praying Emoji", "100% Emoji"! My piece is live right now and I guess people are loving it! I took the thing I loved to do and I made it into what I do for a living. And that's usually a really tricky thing. It's like perverse, and it becomes conflicting, because the thing that you used to use to escape reality is now just your reality...

Kai: Yup. Are you listening? When we get there

Dalston: I'm so stoked to work on my next piece out there with you, Kayzee, I'm so full of ideas about surface and tension right now. I've been thinking about how our culture has used the same primitive forms of storing information through physical means, like carving into stone and painting on walls for hundreds of years. But everything deteriorates Kai.

Kai: Dalston, I'm trying to tell you something; listen to me for one second

Dalston: Yeah, but Kayzee, intangible moments like this journey are at the heart of what I'm trying to do; and then it's so cool because these feeds are totally intangible too, and it's like my process is a gigantic mirror.

Kai: Right, or, your own irrational discourse is creating a feedback loop which begets more irrational discourse. Please, I can't handle this buzz right now! Can't I enjoy a simple iDrive in peace, without you blaring about your followers inches from my face? This is why I want EXIT, *True* EXIT! I thought this was why *YOU* wanted EXIT. ...I think we're still being scanned, by the way.

Dalston: Right, right...CAR! humidity up 2!

Kai: So anyway, when we get there I'll need you to handle the revenue issue before we can marry into the corpgrid. I need you to present your holdings in place of mine; it's too risky if I do it. This loophole will only be viable with *your* assets, mine are frozen. Plus my Dad will find out.

Dalston: Umm, but if this is a marriage, why should I take all the risk?

Kai: Nearly all of the legal devices in society were designed to impose barriers on antisocial behaviors. The institution of marriage is a covenant that unifies two individuals and prevents them from ever leaving each other. It's only by giving up many of our freedoms that we can have a healthy co-operative society with a high standard of living. It's a formality, Dalston. [PAUSE –LOOKS] Oh, this is where the first Google car pile-up happened. Do you remember that? The moron who turned on manual override to help some ducks cross the road and accidentally killed 17 people?

Dalston: Yeah. The ducks survived though right? Civilization has to reject the morality of altruism, babe.

Kai: CAR! Screen OFF. CAR! I'm hungry:'(

Dalston: Oh yah, I could use a snak attak pretty soon. So I was thinking about my next piece. I wanna make something truly heroic. Ayn says that art's function is to bring man's fundamental concepts and values to like, the perceptual level of his consciousness. So I was thinking about how everything is so intangible and so I think I wanna make something super solid. Like a giant canvas. In the desert. Like I thought that's what we were going to do at this ranch. Like, why do we even have to declare sovrinty or whatever?

Kai: That's the whole point of this trip, Dee. We need to get away remember? This way is total escape, total EXIT. Also, what's the point of creating something heroic for those morons exactly?

Dalston: Well, I mean those morons pay my bills. And yah, I wanna take some time out. The desert is near and dear to my heart... Coming to the desert is sort of like coming back to the source of creation; trying to get closer to that. And as a creative person, going to the source of creation is really inspiring. And this place has been really inspiring for me; not only on a spiritual level, but also on an artistic and creative level.

The world's a canvas, bae. Would my piece, "Untitled: 'corndog'" have made me so much bitbank if it wasn't!

Kai: That's beside the point; those morons are also skimming your bitworth.

Dalston: CAR! Review foodstops!

Kai: Ok, yeah, I think we do need to eat

Dalston: You know I'm on neo-paleo though

Kai: There's a NooPoo up ahead

Dalston: No way, I can't eat that shit!

Kai: That's basically the only commercial shit you *can* eat, you're their prime demographic.

Dalston: No way, I've been boycotting since I found out the owner is a total altruist; that filth is vommunist.

Kai: [LAUGHING] Uh huh. See thee in the streets, Dalston.

Dalston: Vote with your boat Kai... Let me Bing a politically-compatible neo-paleo drive thru. [PAUSE] Ok, there's a Hand of Providence snakstop up ahead.

Kai: Ok, that's fine, whatever. CAR! Reroute to Hand of Providence.

Dalston: So... Will we take turns being president?

Kai: We can take a vote after lunch.

END // MUSIC OUT

22 kHz 21 kHz --25 dB 20 kHz -30 dB 19 kHz -35 dB 18 kHz 40 dB 17 KHZ -45 dB 16 kHz -50 dB 15 kHz -55 dB 14 kHz -60 dB 13 kHz · 65 dB 12 kHz 11 kHz -70 dB 10 kHz -75 dB 9 kHz 80 dB 8 kHz -85 dB 7 kHz -90 dB 6 kHz -95 dB 5 kHz -100 dB 4 kHz -105 dB 3 kHz -110 dB 2 kHz - -115 dB 1 kHz - -120 dB 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:22

EMBEDDED LOOP

Paul Purgas

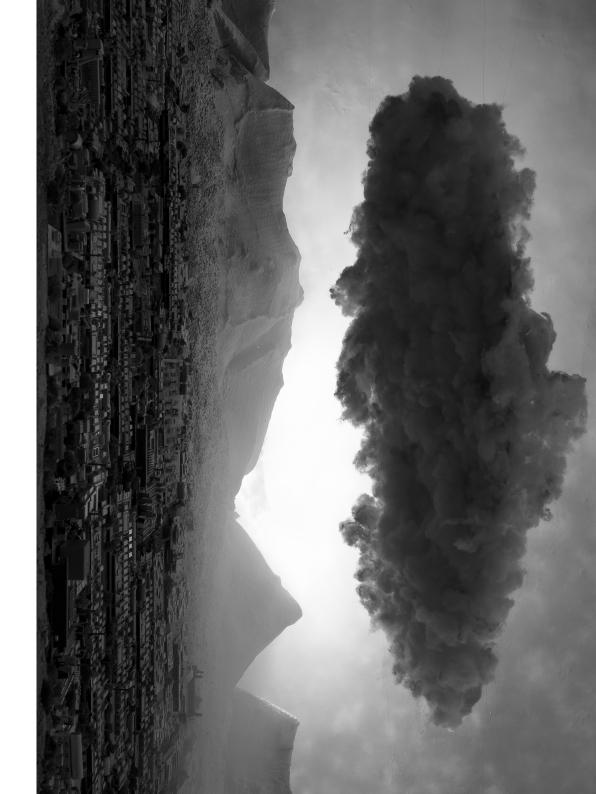
Discovered by Godfried Toussaint, a researcher at Harvard in 2004, the Euclidean Rhythm was deciphered using a skillset developed from a background in computational geometrics and discrete mathematics. The algorithm, which first appears in Euclid's Elements around 300 BC, is a fundamental tool for identifying the greatest common divisor of two whole numbers. Through his research, Toussaint found that when this algorithm was applied to computer-based distribution patterns of musical notes, it formed the structural foundation for most known world music systems, through a mathematical spreading of beats and silence. His discovery was a landmark turning point in considering the relationship between musical time and computing, unlocking a hermetic system and extrapolating it into a calculable formula. In effect, Toussaint's skeleton key opened up a new approach to the representation and communication of time into an event-based structure, a vision of repeating iterations in a constantly returning pattern. A staccato of beats and rests, compression and rarefaction, and a diagram of pure on/off binary data.

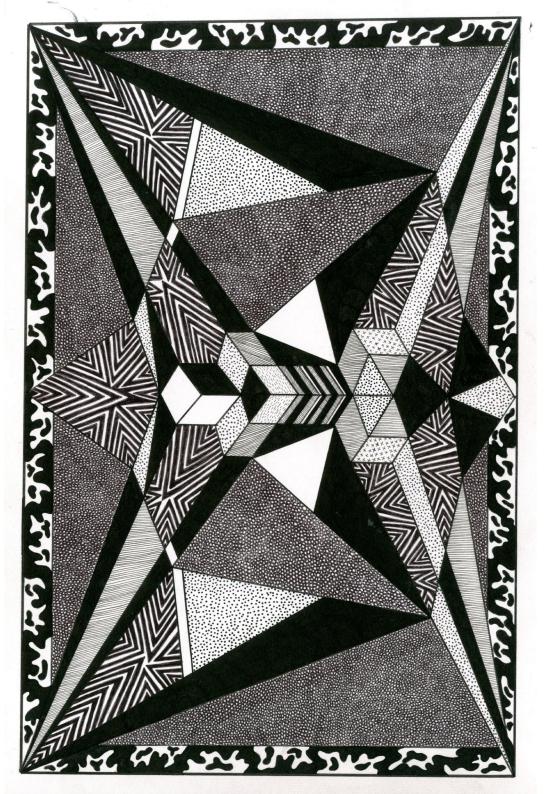
Extract from *Divide & Fracture* by Paul Purgas commissioned for *REPETITIONER #4* by Hannah Sawtell/Foundling Court 2013

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"CLEARLY THE FUTURE MAY FOLLOW MANY PATHS, SOME MORE DESIRABLE THAN OTHERS"

Lillian Wilkie

hen we consider a place long since abandoned, we look to its material components for clues; to the landscape, the stage; and to the architectonic, built forms that occupy it. Within the realm of an ancient or otherwise departed space, the elements that constitute all forms, and thus their

meanings, are time and movement; orientations and direction; available energy; use, retirement and ruin; maintenance, care and sacrifice; views to and from; passage and penetration; light and dark; landform; location; fixity and markedness; building materials ordered and worked; centres and boundaries; acknowledgement of celestial activity; order, rhythm and sequence; dimensions and shapes; surface manipulation; inhabitation by the one and the many; enclosure and openness; and parts and wholes.

These components constitute a gestalt narrative. They at once communicate the story of that place, and *are* its story. They stipulate meaning by doing just that: *meaning*.

We try to decipher historical place under the supposition of retrospect, the presumption being that detectable elements of meaning were activated in the past by the people who inhabited the place at the time of its construction. But some constituent elements are carefully constructed to speak to us across time, and these we do not so much look back upon as they look forward to us, calling out across time. Some places, and their constituents, cry out to us with urgency and insistence.

time and movement; Future studies, as proposed by H.G. Wells, is an "experiment in prophecy" grounded in anthropological and scientific methodologies. However, an attempt to divine the future—and that is to say futures, as the future is not a single, progressive project any more than the many histories that have criss-crossed before it—is always speculative, and in that sense an academic study of the future is more an art than a science. Neither observation nor modelling can resolve the uncertainties of our manifold futures, and if we are honest there is very little enlightenment that experimentation can provide.

orientations and direction; It may seem logical for foresight to assume that technological development will continue at or outstrip its current rate, but determining what path it will follow will be difficult. Slippery futures of radical discontinuity are likely, in which societies seesaw through political, social and technological changes against a shifting and often turbulent climatic environment. Will we continue to exhaust our natural resources in a quest for technological transcendence? Will vast subterranean waste repositories threaten the health of our species and its freedom to explore? Or will autonomous robots execute exotic chthonic exploration on our behalf, whilst sophisticated advancements in medicine render cancer obsolete? Although our imaginations possess the tools to envisage a hyper-technological future that may yet eventually materialise, they remain woefully unequipped for predicting cultural, political and societal developments that may radically alter our information structures. Should such oscillating societal currents impact upon our knowledge bases our languages, belief systems, our myths and our collective memories we may forget why places call out to us; we may no longer understand the language of their cries.

available energy;



use, retirement, and ruin; The Waste Isolation Pilot Plant, located a half hour's drive east of Carlsbad, New Mexico, is the USA's only operational deep geological repository for the permanent storage of transuranic nuclear waste; that is, highly dangerous waste generated by arms production. The W.I.P.P is a network of rooms and tunnels 2,150 meters below ground, carved out of the 250 million-year-old Delaware salt basin as and when needed. Salt is an ideal sarcophagus; very little water permeates it, bacterial life cannot exist in it, and it is self-sealing, as any small cracks or fissures fill with saline that will harden under pressure. Over time, salt formations will collapse in on cavities, and so once the W.I.P.P reaches capacity and the last shaft is sealed, the repository will be left to slowly disintegrate upon itself, sealing its stash forever. Whilst we might imagine

canisters of green sludge and rods glowing with radioactivity, the bulk of W.I.P.P's consignments are of contaminated tools, items of clothing, residues and soil, many dating back to the Cold War. The delicately-hued crystalline rock salt that is extracted to accommodate these wastes becomes quotidian efflux, either scattered across roads and pavements during cold weather, or bleached to a sanitary white and used for preservation and the enhancement of flavour. This symbiotic process of extraction and burial, of geological deconstruction and restratification, will continue at this site until the late 2030s.

maintenance, care, and sacrifice; Michael Madsen's 2010 film Into Eternity took viewers deep inside a repository similar to the W.I.P.P in Onkalo, Finland, to examine the nuclear legacy of 20th century Europe. Madsen explored the ways in which future generations might be protected from Europe's mounting piles of radioactive waste, and tabled some critical questions on the very nature of permanence, protection, and scientific certainty. Much of the waste currently stored in interim facilities has a radioactive half-life of between 10,000 and 100,000 years. The film underlines the fact that deep storage facilities are not to be disturbed, and the dilemma of how we might communicate to humans a hundred centuries and more in the future. The notion of institutional control across deep time has occupied governments for decades. In 1992, the predicament was posed by Sandia National Laboratories to an appointed "Expert Judgement Panel" of specialists from the fields of anthropology, astronomy, linguistics, material sciences, engineering, architecture and archaeology, with specific reference to the W.I.P.P. Split into two groups, the panel was charged with researching and developing "a passive marker system to deter inadvertent human intrusion into the (Waste Isolation Pilot Plant)... that will remain operational during the performance period of the site 10,000 years". This was a system with a considerable remit and zero historical parallels. Communication of its intended meanings: danger to the body, darkness, fear of the beast, loss of control, dark forces emanating from within, the void or abyss, and parched, poisoned or plagued land, has no record of deep time endurance through the built form. In fact, the obstinate nature of human ambition tends rather to gravitate towards the sealed away and interred, as the embodied myths of buried treasure and entombed wealth are sustained through literature. Within these narratives, authoritative warnings and threats of curses, blithely unheeded, are par for the course.



passage and penetration; We found ourselves standing on the sandy floor of a vast, cathedral-like cavern. The ceiling was too high to make out in the dark; even our torchlights couldn't locate it. We had been lowered 150 meters down No. 5 shaft, to find an open-top vehicle waiting to transport us along A Tunnel. At twenty meters wide, eight meters high and just over a mile long, A Tunnel was just a matchstick within a 183-mile network criss-crossing deep beneath the plains, and growing at a rate of eighty metres a week. Rumbling slowly along the passage, immense columns of salt rose up out of the darkness, their surfaces coarse and rough-hewn. More avenues stretched out from the tunnel at right-angles, the occasional entrance hung with a great white polypropylene curtain. Automatic steel partitions stretching the width of the tunnel rose on our approach and descended again behind us with a crunching rumble that danced through the hollow. In the dark, crystals formed on our skin.

Many men still worked here, and women too, guided by systems of floodlights and beams that gave a sense of theatrical absurdity. They were lowered down No. 5 shaft every morning to take up their places in multi-story subterranean office blocks or cottage-like canteens serving tea and crumpets. Meanwhile, at the limits of the tunnels, reptilian mining machines and remote-controlled robots lunged and tore at the rock, chewing up four metre squared areas at a time and spitting the fragments on to a conveyor.

From our buggy we saw endless rooms, created by partitions erected between the columns, and within the rooms were more rooms and within those rooms were rows of shelves, ordered with clinical precision. In the chambers of Avenue 1 amid the scent of old paper, robotic retrieval systems buzzed efficiently from barcode to barcode, turning, lifting and sorting. And along Avenue 4, behind a set of heavy white curtains, was a complex of rooms housing towering ledges of tightly packed white sacks. There was no bustle of robotic activity here; just a carefully orchestrated once-daily delivery of sacks, glowing in our torchlight against the russet rock.

light and dark; The humans of 10,000 years ago were huntergatherers slowly adapting to a more sedentary lifestyle in the early millennia of the Holocene. Cultural universals were already deeply embedded: language, primitive society, lithic technology and species-wide mythic themes, such as the creation of the world from chaos to cosmos; the great mother, the land of the dead, the return to chaos by way of the flood or deluge, the dying or resurrected god or hero, and redemption through sacrifice and suffering. Mythic refrains have endured better than any built structure from that distant age, and have indeed been built upon, reinforced and still permeate the texture of life today. The artist is the superior emissary of these themes, as it is they who have carried them across time in their dance, sculpture, pictography and song.

landform;

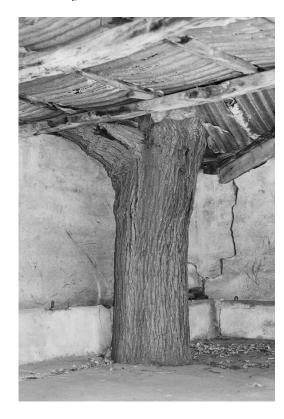


location; The notion of landscape as innate releasing mechanism has me thrilled and terrified, but it is an experiment that has its foundations in solid evolutionary psychology. Landscapes speak effortlessly to us in a language we have always known. It is an imprecise, lambent language; more felt than comprehended. Our ability to interpret a landscape based on its hazards, shelters and potential for supporting life is what allowed the human species to prosper in, let's say, the African savannahs, and so, as we developed a intellectual consciousness through sensory participation with nature, these landscape archetypes became profoundly embedded within us. To successfully imbue a landscape with a synthetic narrative faculty would be to call out to and stimulate the deepest elements of our human nature. But human nature is not a fixed issue, as neither is landscape. Just as vast deserts that have shrouded this earth for millennia

still shift, erode and are rebuilt anew at Aeolian whim, over time our archetypes will adapt to our changing relationship with the land.

fixity and markedness; The Herma began as a pile of rocks where two roads met. The pile grew with each passing convoy, as travellers idly tossed another rock on top in tacit deference. The face of a man slowly began to emerge at the crest of the pile, which had, over time, evolved into a rough-hewn column, taller now than its attendants. The bearded man at first spoke plainly: "This is here, and that is there". Passers-by looked to him for protection, and soon formed new piles of rocks at their thresholds, and on the borders of their lands. A slick of green olive oil could be seen flickering on these rocks in the afternoon sun. The columns eventually grew taller and their surfaces smoothened; they now stood before temples, along ramparts and outside homes. The Herma began to display a new, unambiguous potency, as phalli materialised half way up the smooth pillars; and still the pillar grew, and the phalli grew, and Hermes was named. With little need for hands and feet, the Herma simply witnessed and stood to be witnessed, like a wand, a mast or an aerial. Both a scattering of stones and a granite monument say it clearly: "Stop. Consider this."

building materials ordered and worked;



center and boundaries; The report commissioned by Sandia, and researched over a period of two years, concluded that the land above the W.I.P.P., and within a quarter-mile "buffer zone" around its perimeter, should be marked in the most permanent way possible, by both surface-level earthworks and surface-level and subterranean monoliths and chambers, produced from local stone. Numerous alternative marking systems were explored in the report, models and diagrams constructed, and probability elicitations compiled in an attempt to determine which system might a) survive the longest, and b) successfully communicate the intended message. Information about the site and its dangers was organised into four levels, each increasing in complexity, from "This is a message, pay attention to it! This is not a place of honour..." to highly complex chemical and elemental information and laboratory data. This information would be inscribed on to

the markers, and on to panels within the chambers, alongside pictographs designed to symbolise terror and sickness: an asexual face, contorted into a naively-rendered grimace, and next to it a reproduction of the stricken figure from Munch's *The Scream*. The marking system would be contained by 3oft high earthen berms, massive enough to survive the mauling of desert winds. These jagged berms, although menacing, would be constructed with the assumption that curiosity and a love of challenge would bring humans to their summit, and so the corner berms would be higher, to provide a vantage point over the whole wretched area. An explorer might see, looking across the keep, multiple message kiosks of granite, protected by curving concrete motherwalls to counter the sand in its mission to grind over the engraved text. A further four rooms, buried within the towering corner berms, would contain the most complex data about the buried waste. As the berms eroded, these chambers would emerge from the earth.

acknowledgement of celestial activity; Our Earth, like a top, wobbles as it spins, its polar axis tracing a 26,000 year cycle across the stars. At our current point in the Holocene, the star Polaris remains in the same position in the sky at true north as other stars seem to rotate around it. However, over the millennia, due to the precession of the Earth's rotational axis and the star's own proper motion, Polaris will gradually migrate away from true north. Approximately 10,000 years from now, the earth's axis will be pointing away from our current North Star, toward a position almost midway between the bright stars Deneb and Vega. An understanding of this rate of precession and celestial proper motion, which is generally assumed of even technologically retrograde future societies, could be used to estimate durations across deep time if the location of Polaris is measured and recorded. An instrument could be constructed at the W.I.P.P. to track the positions of Polaris over such vast periods of time; a huge granite instrument, mirroring the angular monoliths of the unholy keep, so that no matter how many disruptions in civilization and science might occur, the date the facility was built and sealed could be deduced. This millennial marker would find its exemplar in the 16th century Jaipur observatories of Maharaja Sawai Jai Singh, where eclipses and other astrological events were accurately predicted and keenly observed. Back in the basin, a soaring triangular monument would rise from the sand, one side angled precisely at 32 degrees, which is the latitude of the plant. Because the angular height of Polaris above the horizon is approximately the same as the observer's latitude, one would need only to peer up the towering slope to be looking directly at the North Star.



dimensions and shapes; The built form, too, is infused with archetypes and myths dating from our earliest technical endeavours. Ever since tool-forms have been utilised, we have been erecting monuments; steles, monoliths, obelisks, standing stones, and memorial columns. The vertical stone marker speaks a natural language; it is an aspirational link between us (mortal, on earth) and the sublime (a deity or departed soul, up there; the guidance of the cosmos). The monolith is always a symbolic commemorator of honoured phenomena, and memorialisation is the fate of all vertical markers, whatever their intended purpose. Their material forms, usually of stone or aggregates, suggest strongly that they are to be maintained, and their commemorative or memorial subjects are recognised hereafter; as such, stone monuments find their true function across deeper time than the lifetimes of their founders. Sky-reaching stone markers

are often inherently tied to place, marking a significant event within that location; the site of something that has ceased to exist, or a distance from some other important place. The way we perceive stone monuments, both haptically and symbolically, is always based on their context and their implied relationship with something else, something honourable. Vertical stone markers positioned as sites of grave danger therefore pose a semiological problem.

The experts at Sandia thought this could be overcome by avoiding perfect forms, symmetrical geometry and crystalline structures in favour of irregularity: a return to chaos. Aspiring forms would be jagged, leaning, horizontal even, in a deliberate shunning of perfection and order. They would employ crude craftsmanship and low-value materials in the hope that they might not become museum acquisitions for a future culture whose alphabet had diverted too far from our own. Despite their once-gilded crests, the Great Pyramids of Egypt were designed to impose upon the landscape a sense of power, domination and threat

"As for all men who shall enter this my tomb... an end shall be made for him... I shall seize his neck like a bird..." and yet, they were undermined; their chambers cracked and plundered

surface manipulation; The report contains an illustration of another proposed marking system: a spike field, or landscape of thorns. Toothy and staggering, these stone spikes and spindles lurch from the ground at terrible angles, seemingly active, darting and intent on injury. They emanate for miles, dwarfing the explorer and interrupting the horizon line so that a respite from their leering menace feels almost beyond reach. It is only from high above, from the window of a passing plane, that they seem at all natural; a square of forest floor, carpeted with pine needles. Another sketch shows a second system, called the Black Hole: a sea of black basalt coats the Delaware basin like an oil slick. Another version is shown with black-dyed concrete how beautiful! I think an enormous and immense nothing. In this system there are no monuments, no upward-gazing eyes. There are no berms or earthworks, nothing to scale or decipher. Just an uninhabitable land remains, its deep blackness absorbing the southern sun and radiating it back. The idea was that the area would be a biological vacuum, simply too hot to support any kind of life. It would become instead a searing coffin-lid, a scorching bed of black absence.

inhabitation by the one and the many;



enclosure and openness; At 11.00am on the 5th February this year a truck carrying mined salt from the W.I.P.P. caught fire underground. The facility was evacuated, but tests ruled out a radiological leak. Just over a week later, on February 14th, the alarm was raised again after air monitors recorded unusually high levels of alpha and beta radiation within the facility. An investigation soon found traces of radiation, primarily americium-241, plutonium-239 and plutonium-240 particles, above ground for up to a half mile around the plant. On 15th April, a report was released that suggested the leak had originated in one or more of 258 containers of medium-level toxic and radioactive waste located in Room 7, Panel 7 of the W.I.P.P. Room 7 is approximately 1,500 feet away from the air monitor that initially sounded the alarm, which led investigators to realise that the contaminants were spread through more than 3,000 feet of the underground network which also incorporated

a 2,150-foot exhaust shaft reaching up to eastern Eddy County. Twenty-two employees of the repository tested positive for non-lethal radiological exposure, and human activity has ground to a halt at the site. Deep beneath the ground, robots are slowly probing Room 7, where it is thought a ceiling has collapsed, damaging waste canisters. A 90-foot robotic boom arm has been installed, allowing a camera to tentatively peer into the furthest depths of the chamber.

This leak was the first of its kind in the 15-year operational history of the W.I.P.P., but it seems inevitable that further releases, perhaps only moderately dangerous, will occur at other points in the future. The option of not marking the site of the repository post-closure, with the hope of not attracting any further attention to this otherwise unremarkable stretch of desert, was posited by the Sandia panel and has been given credence by other experts since. Might the most effective marking system ultimately be a relatively limited amount of sickness or death caused by released radiation? That is to say, a marking system may not be able to communicate the inherent dangers of the site as effectively as a modest record of localized deaths. The narrative of these deaths, against the backdrop of an unforgiving landscape, could then enter into myth and engender, consequently, a gradual process of self-correction.

parts and wholes; And so it was that I began to imagine what we left as a blue whale, thrown up on to the beach in a contortion of fins, flukes and dorsal ridges; flailing, the low groans of its death throes rumbling up from its belly. Villagers would gather around the carcass, trying to figure out what to do with it, as gases accumulated beneath its flesh and purge fluid slowly seeped into the sand. They would salvage what meat they could, and the rest they would cut off in large chunks and take away to be burned elsewhere; and all the while the body would still belch and shake with activity. Eventually, when it seemed that no more could be done to shift the huge and twisted beast, the villagers would pile sand on what remained, which by that point would be putrid and dangerously toxic. They would pile up the sand, piling it on in heaps, until the body was completely buried, and with a stick they would draw a skull and crossbones into the damp brown surface.

This text is much indebted to Trauth, K.M., Hora, S.C. and Guzowski, R.V.; Expert Judgment on Markers to Deter Inadvertent Human Intrusion into the Waste Isolation Pilot Plant, an Expert Judgement report commissioned by Sandia National Laboratories in 1991, published in 1992.

I also reference Wells, H.G., Anticipations of the Reaction of Mechanical and Scientific Progress Upon Human Life and Thought; An Experiment in Prophecy, first published in Fortnightly Review, London, April to December, 1901

Humphrey 'Huck' Astley is a poet-singer-songwriter based in Oxford, England. He is the author of the three-part concept album and PRS for Music Foundation stage show *Alexander the Great: a Folk Operetta*, which he describes as 'a queer runaway myth of two young friends and their fall from grace in Dixie'. His pamphlet *Stones through the Windows to the Soul* can be downloaded from humphreyastley.co.uk.

Rebecca Bligh is an editor and writer. Co-editor of *living in the future*.

Francis Patrick Brady is an artist, writer and lecturer living and working in Malmö, Sweden. Born in Toronto, Canada but growing up in Sheffield, Yorkshire, he holds a degree in Fine Art from Chelsea School of Art and design, London. He does spoken-word performance, installation and role-play exploring the the magic circle of media and cryptographic storytelling. He also runs workshops and Lectures at Chelsea School of Art and design and Bristol UWE university, talking on Digital Culture's play-phase and 'Pixelocracy'.

Joe Campbell is an artist working with sound, moving image and performance. He graduated from Chelsea College of Art and Design in 2010. His latest project with Galleri Plywood was *Vigil III* at Re(s)on-Art Stockholm, Sweden.

Nick Carr (Born 1984, United States) Multidisciplinary artist and collaborator: audio, video, web-media, sculpture, print, texts, etc. Co-founder of Flaregun, an international residency project located in rural Virginia. Co-founder of JVC, an international collaborative video production platform founded in 2010. Subject matter ranges from scientific and social events, genres and modes, to meditations on the materiality of the Digital Video Surface.

Holly Childs is a writer and editor. Her debut novel *No Limit* was released by Hologram in April 2014. Her second novel *Danklands* was published by Arcadia Missa in December 2014.

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Jim Colquboun is an artist and writer based in Glasgow who often works pseudonymously. His work celebrates the lost and the re-forgotten and attempts to transcend the redundant either/or ness of our current mystico-materialist paradigm. He has shown work recently in Bergen and Glasgow.

Quentin S. Crisp was born in North Devon, U.K., in 1972. His first collection of stories, *The Nightmare Exhibition*, was published in 2001 by BJM Press. His most recent, *Defeated Dogs*, in 2013 by Eibonvale Press. He hopes, with time, to write more about Annette Funicello and less about anhedonia.

Caroline Derveaux is a French artist based in London, who just finished an MA Fine Art at Chelsea, UAL. Caroline's work is a reflection of her imaginary world and childhood influences. It deals with memory and the unconscious through abstract translation, www.carolinederveaux.com

Ian Hatcher is a text/sound/code artist based in New York. His first book, *Prosthesis*, is forthcoming from Poor Claudia. He is also co-creator (with Amaranth Borsuk & Kate Durbin) of *Abra*, a conjoined book/app supported by the Center for Book & Paper Arts, Chicago. ianhatcher.net

James W. Hedges (born Oxford, UK) is co-editor of *living in the future*. He studied painting at the University of Brighton and currently lives in Hong Kong. jameswhedges.com

Matthew Higgins was born in Glasgow and graduated with an MA in fine art from Chelsea College of Art & Design in 2014. Higgins is currently based in Tokyo, working with a wide range of materials and techniques. Recent work addresses utopian thinking, using old set-building techniques similar to those used in sci-fi and Tokusatsu movies.

Daniel Keller's artistic output engages with issues at the intersection of economics, technology, culture and collaboration. His current focus of research is on notions of progress, technological disruption, and 'exit' from the perspective of the 'prosumer imagineer' artist operating within the global networked economy. He is half of Aids-3D, and Director of Absolute Vitality Inc, a Wyoming-based corporation-sculpture co-owned by the artist, his gallery and a group of private collectors. In 2013 he co-organized TEDxVaduz with Simon Denny at the Kunstmuseum Liechtenstein. Upcoming exhibitions include *The Future of Memory*, Kunsthalle Wien; *Open Source: Art at the Eclipse of Capitalism*, Galerie Max Hetzer, Berlin, and a solo exhibition at Kraupa-Tuskany Zeidler opening Gallery Weekend in Berlin.

Daisy Lafarge (b.1992) lives in Edinburgh, where she is an undergraduate despite being told she already has a PhD in the 'concept of absence'. Her writing has appeared or is forthcoming in *The Quietus*, *New Statesman* and *Tender*.

Isabella Martin is a sculptor whose work uses language as a means of navigation. She is a member of the international collective Camp Little Hope and an artist educator at the Sainsbury Centre for Visual Arts. Isabella collaborates across disciplines and contexts, and keeps one foot in the sea at all times.

Brian Moran lives and works in San Francisco. The two new works, Machines of Loving Grace Emoticon 1 & 2, were made specifically for living in the future and are part of an ongoing project titled Engineering Consent, based on points of contact between the history of public relations, psychoanalysis, and participatory aesthetics. Previous iterations of Engineering Consent include the solo exhibitions Emoticons for a Public Square, Vitrine, (London 2013) & Engineering Consent 5: The Soap Carving Contest, Kynastonmeshine, (London 2011). Moran Is represented by Galerie Gregor Staiger in Zurich.

Oscar Oldershaw is an artist/film maker based in London. His recent work includes short film Family Trip and An Afternoon With Mike Kuchar, a documentary on the iconic film maker.

Esteban Ottaso is a new media artist, born in Paraná (ER), Argentina. His work based on Facebook has been exhibited in Paris, New York, Toronto, Berlin, Nürnberg and Barcelona. He holds a BFA in Sculpture.

Ella Plevin is a freelance writer and creative based in Berlin. She has contributed texts and visual fashion stories to o32c, Texte zur Kunst, Novembre Magazine, Dazed Digital, Sleek and Metal magazines among others.

Paul Purgas trained as an architect and graduated from the Royal College of Art. He has presented performances and installations with Spike Island, Tate Britain, Bergen Konsthall, the Whitechapel gallery and Whitstable Biennale, and written work has been presented at Focal Point Gallery, Banner Repeater and Transmediale. He is a 2015 participant in Wysing Arts Centre's Multiverse residency programme.

Thogdin Ripley is a set of unique data, easily searchable but hidden on purpose; an anomaly, worshipping the cultural spindrift from a greasy cardboard box at the back of a deserted storage facility. He's continually working on a novel that will prove exceptionally difficult to sell.

Jenny Simmar works with the exploration of public space. Simmar sees the city as being built out of both hard and soft structures, both body and building, its mass constantly (though very slowly) shifting weight in a similar way to Steve Paxton's concept of the 'small dance'. Her practice consists of facilitating workouts. People are invited to spend time together, to train in new ways of being present in and seeing the city. Simmar has two practices: one of actions, and one of editing and exhibiting visual material from these actions. She is presently studying art at Akademin Valand in Gothenburg, Sweden.

Julia Tcharfas (born Donetsk, Ukraine) is an artist and curator. Recent projects include Systems Learning from the Inside, Chisenhale Gallery; Recent Work By Artists, Auto Italia; and Render, Hilary Crisp Gallery. Tcharfas is also the assistant curator of the Cosmonauts: Birth of the Space Age exhibition at the Science Museum in London.

Llew Watkins is a multi-disciplinary artist and writer currently based in London who works in installation, lectures, scripts and performance. His practice is a continuing inquiry into the transient and playful nature of mind and reality.

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Lillian Wilkie is an artist, educator and bookseller based in London. Her work incorporates photography, sculpture and installation with writing and quiet performance.

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