

Eppur Si Muove

More and more, I am coming to regard evil as an emergent property. It is hard not to suspect that even discounting the algorithmic primitives of cruelty and vice, we have somehow *still* made the world worse than the sum of its parts. Confronted by chaos, everywhere and all of the time, I find myself compelled to seek meaning in it. To try - in a life defined by technology - to find some scrap of teleology. Absurd and futile, but I do it anyway. It is my only defence against drowning, against the permanent nagging mindache of everything everywhere all of the time.

It's something I think about a lot when smoking. That filthy fucking habit, maintained as a permanent concession to my id. Another common weapon in the friendly contest between my heart and lungs to see which can do me in first. The fags were a temporary concession from my wife while waiting for the pills, the ones supposed to make me less me. Now the medication has arrived so the smoking must sadly expire. In the interregnum of this final pack however, I believe I spy another little metaphor.

I blame this on the fact I do not actually own a working lighter. Instead my present incendiary solution is to combine a bic with plenty of fuel but no flint with a long-dry piezo jobbie. Push them close and keep clicking in the hope that the gas from one will meet the spark of the other. It is of course immensely frustrating, but I now realise that might have been the point. Something to focus on, and displace my cravings for *everything else*. This awful need makes me nothing but ire and bile, taunted by desires only partly within my power to satisfy. There is a persistent, annoying little click, in discordant chorus with that hiss of wasted butane. It rarely works the first

time, necessitating the shaking of one and the cursing of the other. Persistence is necessary. When it comes - and it *will* come - you must be ready to strike. The flame never lasts, and requires a decisive mind. Clench your teeth, and draw deep. Success is a hit quite separate from nicotine. A sense of seizure, of assertion, vitrified by the alchemy of combustion. An instant that - for once - you did not allow to pass you by.

That might be why I do it. Determined to make meaning from broken things, in a world so ready to discard them. It makes me feel as if I have *earned* my vices. Here in this darkened winter world, there is not much else to do. It is a ready distraction while I walk the dog. She likes to sniff around the cemetery, meaning most every day we follow a path running distressingly close to the graves of children. It can feel invasive, to be there in the moments when they are tended to. You find yourself wishing that the dog - unburdened by the human condition - could resist wandering over to see if there's any food in that memorial.

So it is that on one of these grey December afternoons, I meet one of the mourners. He is coming to the end of no-little labour, tending to one of those fun-sized headstones. Decorating it. Baubles and tinsel and - of course - Christmas lights. Those winking circuits of confected tradition. I find my eyes meeting his, and while the dog takes a piss up the tree between us, I say that it's a nice thing he's doing.

Well they weren't his he says, quick not to claim ownership of the grief. He was just a friend. But she - and here he indicates a second fully pimped-out resting place - lost them both within a year of each other. So he does what he can.

Christ. I don't know what to say. Don't know what *could* be said. I never do in these small moments that demand a humanity I appear to lack. All I have is a reflexive need to deflect poignancy wherever I encounter it. To sneer at that Peppa Pig headstone, and the inarguable gaudiness of it all. I want to find a reason not to care, and that bone deep elitism usually provides it. Contempt for the tastelessness of poverty, and therefore the people living it. Why do I do it? To try so remorselessly to undercut the intimacy of simple feeling? Because it is easier than to imagine a stranger utterly ruined by grief. Easier to imagine than a field of them. A world of them.

So rather than take the five minutes to empathise, I nod and walk on. The image stays with me though. At night I see them, glittering like marshlights. A hundred acts of devotion, markers of irretrievable loss. Each little light in this great field is a star. And now like Galileo I have learnt a fraction more about those in closest orbit.

Self awareness is not what I am struggling with. It is this other-awareness that is proving to be such trouble. Pain, it seems, is our only truly renewable resource. I am still trying to figure out what can be done with such inexhaustible supply. Half a mind for science. Half a soul for art. That's all I have to work with. On days like this - most days now - it does not feel like enough. Addled by the ambition and frustration and the drugs and lack of them.

I can't be the only one who feels this way, can't be alone in wondering how we all came to inhabit our own private realities. Delocalised lives running in parallel, mediated only by the

alchemy of rare-earth semiconductors, and the capacity of vacuum to bear an informational load.
How the fuck did we get here?

I am a physicist, and therefore fatally afflicted with the astigmatism of reductionism. If I try to explain the world as it appears to me, it can only be articulated through that language. The structures underlying reality as I understand it. That is, to frame the now as reflective of deeper principles of information and energy, and to cast our struggle up the technological ladder as the imitation and application of the same laws that animate all dynamics.

And what exactly *are* those laws? What *is* the mathematical structure that pays not just for physics, but the algorithmic scaffolding into which we pour our lives?

Vectors.

It's vectors I swear.

They point the way.

They do so because three centuries of linear algebra have honed them into weapons of devastating expressivity, into containers for both known and unknown, and the ultimate compressor of meaning. They are the kernel. The numinous glimmer I cling to. Linear algebra.

It's ruined my life.

And whether you realise it or not, it's probably ruined yours too. Because within this geometric abstraction runs a conceptual thread from Newton to Hamilton to von Neumann. Drawing it tight has rendered information *physical*. It enables the all-consuming monster that is computation, and its bastard progeny machine learning. Beautiful in its minimalism. Terrifying in both its capacities and limitations.

It has been on my mind for months. Since I stepped into Pisa with a fag in my mouth and evil in my heart. I was there for a workshop on quantum computation and thermodynamics - perfect if questions of entropy and irreversibility will not let you be. It was happening with typically insalubrious timing, but it's always a bad time when that's what you're having. In this case however the programme overlapped with one of the periodic psychiatric appointments I have been subjected to. So it is that in a too-small hotel room - one where to power my laptop I've had to dismantle a fridge - that I'm virtually diagnosed with a second neurodevelopmental disorder. What a wretched experience, simultaneously invasive and pointless. There is no cure, no succour in having what you already knew confirmed. The incapacity to change it robs it completely of its liberating potential. There in that hard-bedded room, with its dodgy toilet and single desultory sachet of shower gel, I am categorised twenty years too late for it to matter. I am asked if the outcome is surprising to me, while being recommended some pamphlets to read. I am more interested to learn if I'm now entitled to a discount in model shops.

I mention all this simply to frame the mood, and blame it for the decision to punish myself. To choose violence. After our move back from the US, my wife took custody of the 126 tabs of LSD I had smuggled back. We agreed in the aftermath of my slow motion breakdown that a pause on

some of the drugs was necessary. I could not however bear to be wholly unarmed, and kept a secret charge within my diary. Just so that when the moment of maximum damage presented itself, I would be ready. I load myself up with all 300 µg of Chekhov's drugs, and wait for the poison to do its work.

Ninety minutes later, and I am smoking. I'm out in the crush of tourists that surround the tower's piazza, being. What previously appeared merely contrived becomes - in the light of the acid - fully fucking weird. They're all... *posing*. Like a tai chi flashmob, with only one move. And it's people, just people of every persuasion. They're *everywhere*.

I take a breath, feeling more than slightly sick. The sky overhead is darkening. People are on the grass where there are signs telling people that people are not allowed on the grass. Omens of doom. Or at the very least, some of that weather my wife warned me about before I left my raincoat behind. I'm no longer quite so sure I don't need it.

Ahead of me is the cathedral. Shelter. Inside I go, crossing the threshold as the first drops begin to fall. Struck by the warmth of incense, I swallow. I go to sit at a pew, and realise my hands are shaking slightly. Reflexively, they go for my diary. I tug it out of the pocket, and perform the usual ritual. Find the page. Try the pen. Fight with the pen. Shake and rage and screw and unscrew until ink once again flows from its nib. Test pen. Test pen again for luck. Grab A—'s crystal gift from the Sedona vortex and worry at its quartz leaves. Will the words to come.

Nothing.

Looking around, my eye alights on the central chandelier, swinging softly. In a sort of automated reverence, I take my pulse with two fingers on the wrist. It's a harmonic oscillator. But this is where such an idea first entered the human mind, when Galileo timed its swing. A perfect pendulum, an ideal spring, the first and best approximation to the universe at large. It is the *first* harmonic oscillator. It spreads the scent of myrrh with each isochronous swing. It brings me back to catechism.

Adam, it was said, knew all things. At least all things which it was possible to know. It was *scientia infusa* - infused and intrinsic knowledge. But in a fallen world such truths could only decay. *Scientia acquisita* - the knowledge we acquire through experience - must therefore be regarded as unreliable, suspect, liable to malign warpings. Do not believe your eyes, they lie. Do not rely on your reason, it is insufficient. Trust Aristotle, and when the evidence of the senses comes into conflict with the wisdom of the beatified past, do not be alarmed. It is simply evidence of the imperfection of immanence, of the incapacity of any mortal to encompass the divine.

Galileo changed all this. Rewriting the laws of motion did not satisfy him, and mapping the heavens was insufficient. These could only be tools in service of his ultimate goal - nothing less than the complete reshaping of the human condition. No amount of conventional success could achieve it, because the demand he made was not of himself but of the world. To make the rightness of his perspective undeniable, and force a recognition that we sit not at the centre of creation but on a cosmic periphery. He made his manner of thinking, writing, and *being* a living

rebuke, a means by which to expose the prior falseness of belief. A triumph not just of intellect but of *will* - though that same animus for greatness also laid him low. He could not bend without breaking, could not resist needlessly making himself a martyr.

He is surely my spirit animal.

I am not unaware of what an outrageous comparison this is to draw, based only on our shared profession and common hostility to authority. I need to make it though, because now more than ever I require *something* to sustain me. Some locus of belief to fix on, while I am failing and flailing and *tired*. I became a physicist for negative reasons, because I simply do not know of any other way to be. Now I am all that remains of a thing that no longer exists, that sought nothing but permission. To be impractical, indulged and erratic. To be mad, and yet carry that madness with a scarcely believable moral smugness. I see now what a juvenile ontology it is. And yet for all that I still do it. I care about it all so much more than I should, because it is simply my identity.

But my identity is not in my hands. Is there a person alive being more consistently fucked by academia than me? Certainly no one complaining about it so much. I am coming to truly hate universities. They punish what they pretend to protect. A final sanctuary for credentialed morons, proudly wearing the skin of values they have *eaten*.

Still, I persist, for reasons I do not fully understand. Caught firm in this rusty bear trap of a system, and here by *choice*. Why can't I do the sensible thing and lie still? Because my problem

is Lutheran. Here I stand, I can do no other. Can't help it. Can't help my feral thrashings, even as those teeth shred my trotter. Numb the pain it brings with drink and drugs and *rage*.

Will there ever be a version of myself I recognise? All I see is a hard person to know. Harder to love. A sullen Roman Catholic, so Irish as to be inbred, and predisposed towards any substance that can be abused. A non-believing stain on concrete. There is nothing behind the eyes.

Nothing. And now that nothing is finally forced to sit with itself, and feel shame. I try to keep my eyes dry, and resolve this must be the last time on acid. I do it to distract myself, not caring for the trail of minor traumas left in my wake. The dozen, hundred times and places have warped me in too many ways. It commands me to laugh, in the way only horror can. It sent me to scotland. It left me to disassociate barefoot in Miami' airport. It made me shit myself in Hemingway's house.

This *has* to be the last time.

But the moment I think it, a chuckle slips through the sob. Is that not exactly what I said the last time I was high in a church? The acid shortens the mental distance to the event, and I find myself returned bodily to the moment. We're in a church just beyond Holborn station, kneeling at the pews. I am unable to stop myself giggling, even as my wife mouths at me to stop. We have spent the day enjoying the company of friends, visiting from the American home that was, and now one of them is holding us hostage.

Perhaps I should have expected this.

We'd all met around lunch for a pint, with a plan to take a day wandering about central London and the haunts of my PhD, before ending with dinner. A nice day out, which D— and I - with the reluctant agreement of our wives - will do on acid. It's a venerable tradition for us, and - for me at least- a chance to feel like I'd reclaimed some piece of the life I'd lost in the move.

Unfortunately I didn't reckon with the uncompromising mania that would take hold of D— in the presence of religion.

He spots a church, and suggests we enter. This is coolly received. He pleads with us. What has he asked for? Five minutes. *Five minutes* is all he wants. I try to relay to him the degree to which his insistence is becoming uncomfortable. The sky is spitting, the women are becoming anxious.

He's getting so wound up about it, is this really the hill he wants to die on? I offer reluctantly to go alone with him, but he wants us all. He brings up the volume of his demand in a manner that makes it impossible to refuse. We're left slightly stunned, helpless to resist as he shepherds us inside. He insists it will be good for us, and in a tone like a disciplining father tells us we are going inside, we will be *five minutes*, and we will be respectful. He has that frenzy in his eyes, that look of a self uncontained. To my eye he has transmuted into one of the Manson family.

In we go, feeling slightly traumatised by how rapidly this has escalated. D--- has taken matters into his own hands. We are going to experience the imminence of the divine whether we like it or not. What the fuck is happening. Fuck is all I can think. Did I want this sort of chaos? I have been doing my best to invite it in. Fuck. *Fuck*.

I am so absorbed in the guilt of it all that I almost miss seeing what D--- is doing. He has approached the altar. He has taken off his shoes. He has knelt before the altar in an *extremely* Buddhist manner. He is making a sort of hooting and gibbering - whatever deity he *thinks* he is communing with, it's not one I recognise.

I smell no incense, only smoke. It fills my nostrils and reminds me that on the promise of five pounds a week, I was once an altar server. It never suited me. Too easily bored and distracted, never knowing my cues for that bloody bell. So I would ring at random intervals and lengths, to give the appearance of engagement. No wonder they gave it to the other boy, the *good* boy. He knew exactly how to play the backing track to the eucharist's transubstantiation. That strategic obedience clearly served him well - he's baron of Letchworth now.

Something about that act of secular simony sticks with me. That it seems somehow a betrayal of all the sanctimonious cant I was raised on. And withered as it is, I still hear it within me. Still feel it. Try as I might, I am still in the grip of that primeval thing. Led by its paradoxical dogma, the light that darkens. It took two attempts to get me confirmed because I could not reconcile what I was being sold with the people selling it. The stick convinced me the carrot was a lie. But God help me I believed in the stick. Made the guilt load bearing. And now there's no way to reform my interior architecture without collapsing the whole edifice.

It is at root why D— keeps trying to do this to me. To force me to love myself. That's the rock of his identity, a kind of helpless compassion bred from being the son of a preacher man. It drives him wild with anguish, to believe so completely he has an answer worth hearing, and have it fall

on such hostile ears. The failure of each attempt winds the spring of despair a turn tighter. Makes grace and charity that bit harder. The blunt indifference of the world to the meaning you make becomes so outrageous - *so utterly intolerable* - that eventually you snap. It becomes existentially necessary to reciprocate the bluntness of demand, the deafness to compromise, that you have been living. You start taking hostages. This *is* my fault.

After some time ever so slightly short of five minutes, D--- is approached by his spouse. His side of the conversation is more than loud enough to follow, and he spits in a stage whisper something about how she *almost* gave him his five minutes, but couldn't quite manage it. Our cue to leave arrives as D--- rises and storms from the church. The effect is only slightly diminished by the fact he has to go back for his shoes.

As we exit, I wonder how the day is going to recover, and regret my part turning this into what is surely already going to be a memorable anniversary for *both* D— and his wife. Even worse, I am *really* beginning to worry we're not going to be making tonight's dinner reservation.

I chuckle at the memory, and am appalled to discover that in my reverie I have been repeating D—'s aural faux pas. It appears I have been making some hoots and gibbers of my own - why else would they be staring? I reflexively begin to cringe, but find - in an act of inexplicable grace - that my usual compulsion toward shame does not weigh quite so heavily upon me. Why should I care? I think of vectors, which point where they will. There is no amount of manipulation - of teasing and pleading - that will make them other than what they are. Changing their label does not change their function.

And in the moment of thinking it, I have a moment of profound happiness, in knowing it must be true. I want to laugh, to delight in the fact that so simple a semantic trick the ugliness in my head can be made beautiful. A further glance around and catch the eye of a nonna giving me daggers. The laughter can wait until I'm out of God's earshot.

It doesn't last. Those trite acid revelations never do. But it is enough to hold, to remember on those pallid winter days when it seems the light is flickering. Flickering, but just enough to get this bloody fag lit.

And because life is random, and sometimes ironic in its randomness, this happens to be the moment I get a call. It's that broker, the one to whom my honesty months prior had rendered the question of life insurance impossible. She's ringing to let me know that a policy now exists which is compatible with my *details*. Do I happen to have five minutes? I pause, reflecting on my troubled relationship to the request. It all worked out in the end. No one was arrested or hospitalised, and D— even managed to recohere in time for dinner. It was fine, and now this broker is asking me to admit that it's not. The idea struggles for life on my tongue, competing with the other faculties. Friends on my mind, commerce in my ears, and my eyes...

My eyes are on the dog. Little old poodle. Missing half her teeth, completely deaf and going blind. Stumps around on her three remaining legs, wagging her tail. I find myself slightly choked by the purity of her consistency. Always the same, across all our travels together, through swamp and desert and all the miles that joined them. She sprinted across the beaches of the Atlantic

coast, and tumbled down the dunes of the Sangre Cristo mountain. She's stolen my drugs and I've stolen hers. That dog has *lived*.

And she so easily might not have. She came to us as a medical foster, with a smashed pelvis and dim expectations of survival. Vet didn't think she'd walk again.

And yet, *she moves*.