the libarynth

alchorisma_reader

Of things written in stone

(foam_earth contribution to the Alchorisma Reader → https://fo.am/events/alchorisma/ [https://fo.am/events/alchorisma/])

> Everything dreams. The play of form, of being, is the dreaming of substance. Rocks have their dreams, and the earth changes… —Ursula Leguin

> Human beings have from prehistoric times recognized the potentialities within the lithic to send communication across vast spans of time. Hence our fascination with structures like Stonehenge, designed to persist across atemporal duration no human culture can surmount. As information endurance devices, such rocks communicate long after their successive human co-dwellers have been obliterated. (…) Human immediately becomes posthuman as a consequence of the enlarged temporal frame that geology demands. Such a stone-etched counter-vision invites reflection on what it means to inhabit a world that is potentially indifferent to humanity and yet is intimately continuous with us. (…) Rocks possess much of what is supposed to set humans apart.They are neither inert nor mute, but like all life are forever flowing, forever filled with stories.
>
> —Jeffrey Cohen

> 假作真时真亦假，无为有处有还无。(Truth becomes fiction when the fiction's true; Real becomes not-real when the unreal's real.) —Cao Xueqin

> Here is the Stillness, which is not still even on a good day. Now it ripples, reverberates, in cataclysm. Now there is a line, roughly east-west and too straight, almost neat in its manifest unnaturalness, spanning the girth of the land's equator. (…) The line is deep and raw, a cut to the quick of the planet. Magma wells in its wake, fresh and glowing red. The earth is good at healing itself. This wound will scab over quickly in geologic terms, and then the cleansing ocean will follow its lie to bisect stillness into two lands. Until this happens, however, the wound will fester with not only heat but gas and gritty, dark ash - enough to choke off the sky across most of the Stillness's face within a few weeks. Plants everywhere will die, and the animals that depend on them will starve, and the animals that eat those will starve. Winter will come early, and hard, and it will last a long, long time. It will end, of course, like every winter does, and then the world will return to its old self. Eventually. Eventually. (…) Eventually meaning in this case in a few thousand years. —NK Jemisin

> In its exile from the Earth's simmering interiority, crustal rock provides a platform and venue for biological life. Living things can approach, engage, even ingest this minority of minerals. Indeed, here rock and life transform each other, generating composite formations—rocks assembled out of once-living bodies, biological bodies composed in part of minerals. But we should not forget that this florid organic-inorganic interface is but a 'gloss on the surface' of our astronomical body, and that the stone that invites life's embrace is a chilled and pallid shadow of its seething progenitors.
>
> —Nigel Clark

> In all of history the crystal is perhaps the most overloaded symbol; used by writers, prophets, medicine-man and orators of all times to express in one clear psychogeonamic object otherworldliness. Novalis, poet and student of mining, held the crystal to be a dark, soul-eating parasite transforming the human heart into the dead cold of a stone; some believe it to be an early apocalyptic warning against the cyborg. The sentiment is easily understood; is it, after all, not true that it is with more than just amazement we listen to the stories about that Indian sect that refuses to eat anything organic and, consequently, rather suck on amethyst for the rest of their life than touch organic matter, even when it is as profane as centipede-excrement. Mineral cults evoke in us absolute horror and disgust, suggesting crystal-phobia lurking at the deep of our instincts. Crystalpunks are challenging the basic conditions of their humanity. But at least one standard metaphorical use of the crystal, that of the crystal as object of utopian perfection, as pure geometrical-molecular-ethnicity, in most cases turns out to be a chemical fiction. One of the most interesting qualities of crystals is their ability to encapsulate alien particles. Crystals too produce noise, as one flaw entered during packing distorts tessellation for ever after.“
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> —The Crystalpunk Manifesto

> The Anthropocene marks the fall of humanity from cosmic Big History into terrestrial Deep Time. The Big History narrative is an evolutionary epic, a bio-centric teleological tale of emergence and ascending complexity that culminates in a cosmic anthropic vision of human beings as the universe becoming conscious of itself. By contrast, Deep Time is a rocky ride, a disaster movie, a lithic-centric cyclic story of explosions and extinctions, periods of equilibrium punctuated by catastrophes, which in turn open niches in new fitness landscapes for opportunists to fill.
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> The geologic record, the rock cycle, the movements of tectonic plates, stratigraphy: these all remind us that the earth is not a ground but a process of ungrounding and regrounding, a layered history of layers punctured by unconformities, gaps and skips in the record.
>
> —Paul A. Harris, Richard Turner, A.J. Nocek

> When our animal senses are all awake, our skin rippling with sensations as we palpate the surroundings with ears and eyes and flaring nostrils, it sometimes happens that our body becomes part of the larger Body of the land—that our sensate flesh is taken up within the wider Flesh of the breathing Earth—and so we begin to glimpse events unfolding at other locations within the broad Body of the land.
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> The smartphone replicates something of this old, ancestral experience of earthly acumen that has long been central to our species: the sense of being situated over Here, while knowing what’s going on over There.
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> Perhaps it is easier to understand, now, why we’re so enthralled by our digital technologies, such that once we’re online and synapsed to the screen, it’s remarkably difficult to tear ourselves away. For all these technologies awaken something primordial in us, a biophilic proclivity layered deep in our genome, a penchant for animate interchange with bodies whose shapes are very different from our own. The renewal of that age-old animistic sense of a world all alive, awake, and aware brings an upwelling of wonder, or at least an anticipation of a wondrous possibility waiting just around the corner.
>
> —David Abram

> So, image for a moment an object, a material, which can literally do anything. It can move across categorical boundaries with no difficulty whatsoever. So what do I mean? I mean that if you possess the philosopher's stone and you were hungry, you could eat it. If you needed to go somewhere you could spread it out and sit on it and it would take you there. If you needed a piece of information, it would become the equivalent of a computer screen and it would tell you things. If you needed a companion, it would talk to you. If you needed to take a shower you could hold it over your head and water would pour out. Now, you see, this is an impossibility. That's right, it's a coincidencia apositorum. It is something that behaves like imagination and matter without ever doing damage to the ontological status of one or the other. This sounds like pure pathology in the context of modern thinking because we expect things to stay still and be what they are and undergo the growth and degradation that is inimical to them, but no, the redemption of spirit and matter means the exteriorization of the human soul and the interiorization of the human body so that it is an image freely commanded in the imagination.

> —Terence McKenna, Lectures on Alchemy

> Charisma makes us hesitate, wavering in its force field. What if charisma were actual? What would the emission of such an energy field imply? It would imply, for a start, that art isn't just decorative candy. It would imply what “civilized” philosophy from Plato on has been afraid of, the fact that (shock horror) art has an effect on me over which I am not in control. Art is demonic: it emanates from some unseen (or even unseeable) beyond in the sense that I am not in charge of it and can't quite perceive it directly, in front of me, constantly present. A dangerous causative flickering: magic. Magic is taboo cause and effect, or unthinkable cause and effect: either ridiculous or dangerous or impossible, or some weird borrowed-kettle combination of all three. (…) Magic implies causality and illusion, and the intertwining of causality and illusion, otherwise known in Norse-derived languages as weirdness.
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> Appearance and essence are like two different “sides” of a Möbius strip, which are also the “same” side. A twisted loop is exactly what weird refers to, etymologically speaking. The minimal topology of a thing is the Möbius strip, a surface that veers all over, where a twist is everywhere. This is because the appearance of a thing is different from what it is—yet the appearance is inextricable from it. There is no obvious dotted line between what a thing is, a thing data. Attuning is like studying a Möbius strip.
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> What art gives us, argues Kant, is the feel of data, the data-ness of data, otherwise known as givennes (datum, Latin for what is given). This data-feel is, he argues, an attunement space, the one place in the whole universe where mesmerizing hesitation can happen—a very important mesmerising hesitation, because it underwrites the existence of a priori synthetic judgement, because in this experience, I get a magical taste of something beyond my graspable experience, a transcendental beyond-ness…
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> Attunement is the feeling of an object's power over me—I am being dragged by its tractor beam into its orbit.
>
> —Tim Morton

> The necessity of changing methods is all the more obvious when it is a question of finding the explanation of a phenomenon that nature offers in all of its complication. There, where the givens are by their very existence more complicated than the results we seek, direct synthesis becomes inapplicable, and it is necessary to take recourse either to direct analysis if possible, or to indirect synthesis, to feeling around (tâtonnement) and explanatory hypotheses. — André-Marie Ampère

> The response to technology in this period thus confounded familiar oppositions: fetishism and scientific truth; magic and mechanisation' charisma and instrumental rationality. Walter Benjamin's discussion of “the aura” of a work of art offers insight to such doublings. In “The World fo Art in the Age of Mechanical Reproduction” he spoke of the aura as a “nearness in a distance,” explaining the concept with reference to a poem of Novalis that described a landscape that seemed to look back at a human spectator. For Benjamin, such an encounter was the paradigmatic experience of aura: “the transposition of a response common in human relationships to the relationship between inanimate or natural object and man. In other words, “To perceive the aura of an object we look at means to invest it with the ability to look at us in return.”
>
> —John Tresch

> Rock is passionless. “Stone hearted” and “cold as stone” are as much a part of our lithic vocabulary as various expressions for stony silence. Without a human hand to impress meaning upon it, stone would be blank, impassive, aloof. Immobile and sterile, stones do not do much. Or perhaps our lexicon for stone is impoverished. When observed within their particular and nonhuman duration, stones are forever on the move.
>
> —Jeffrey Jerome Cohen

> Deleuze and Guattari introduce the concept of a “machinic phylum,” which they define as “materiality, natural or artificial, and both simultaneously; it is matter in movement, in flux, in variation, matter as a conveyor of singularities and traits of expression”. Because of its constant flow and variation, the machinic phylum is very hard to measure indeed. Therefore, Deleuze and Guattari argue that the “matter-flow can only be followed”
>
> —Patricia Pisters

> Despite software's abstraction the geological maintains a particular attraction, as earth substrate, that which surrounds us, our material. Substrate equally presents a set of economic, political and economic consequences which contrast with software's lack of coded visibility, its inevitable “encryption”. — Martin Howse

> A post-digital re-reading of his stones might invoke entirely new kinds of narratives. By reinterpreting Caillois's stones in relation to the aesthetics of digital simulation, algorithmic visualization can be used as decryption device to decode and unravel new fictions.
>
> The crystal deposits in stones might now chronicle the arching trajectories of boids as they trace pathways defined by chaotic parabolas of a Lorenz Attractor. In other rocks, mineral accretions may delineate facsimiles of reaction diffusion patterns—the scattered pointillist aftermaths of activator-inhibitor liaisons. Other patterns tell tales of cellular automata self-assembling themselves into unpredictable, but scrutable patterns—Conway's Game of Life frozen inside a crystalline snapshot. So, the stones become a collective unconscious for dynamical systems, an oblique strategy for algopoetic revelry, and a divination system for generative pattern recognition.
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> (…) their values are intrinsic and without external reference,“ might he be imagining a kind of geological Turing Completeness?—a universal lithic calculating machine whose solution is its own morphology (Turing). This possibility echoes the inklings of tantric cybernetician Stafford Beer in Pebbles to Computers who saw that “Nature's computers are that which they compute” and who maintained that “We cannot read off numbers” from these calculations “because nature does not put labels on its solutions—it becomes them”. The sealed language of stones…
>
> —Paul Prudence

> The field of meta-heuristic search algorithms has a long history of finding inspiration in natural systems. Starting from classics such as Genetic Algorithms and Ant Colony Optimization, the last two decades have witnessed a fireworks-style explosion (pun intended) of natural (and sometimes supernatural) heuristics - from Birds and Bees to Zombies and Reincarnation.
>
> https://github.com/fcampelo/EC-Bestiary [https://github.com/fcampelo/EC-Bestiary]

> When you cook bread from a recipe, you’re following an algorithm. When you knit a sweater from a pattern, you’re following an algorithm. When you put a sharp edge on a piece of flint by executing a precise sequence of strikes with the end of an antler—a key step in making fine stone tools—you’re following an algorithm. Algorithms have been a part of human technology ever since the Stone Age.
>
> —Christian & Griffiths

> Since their translation more than a century ago, it has not escaped the notice of esotericists that there is a distinctly alchemical idiom to the Pyramid Texts with their reference to stones, metals and distinct processes of magical transformation. If geo-polymerisation was used in the Old Kingdom's grand, astrotheological building project it certainly becomes a part of the legend that grew over the millennia into what we now call alchemy.

> From earlier cultures Egypt inherited much of its star lore as well as the sanctity of stone. The innovations she brought to these beliefs were dramatically improved forms of masonry and a calendrical and mathematical sophistication that went unequaled for thousands of years. (…) We may speculate here that entangling one's consciousness with certain stars lead to certain 'inspirations/innovations', which improved the technology of consciousness entanglement, which lead to further 'inspirations/innovations'. Think of it like a cosmic version of runaway climate change.
>
> —Gordon White

> symmetry breaking (algorithmic technique) To differentiate parts of a structure, such as a graph, which locally look the same to all vertices. Usually implemented with randomization.
>
> https://www.nist.gov/dads/HTML/symmetrybrek.html [https://www.nist.gov/dads/HTML/symmetrybrek.html]

> antichain (definition) A subset of mutually incomparable elements in a poset.
>
> https://www.nist.gov/dads/HTML/antichain.html [https://www.nist.gov/dads/HTML/antichain.html]

> Bloom filter (data structure) A data structure with a probabilistic algorithm to quickly test membership in a large set using multiple hash functions into a single array of bits.
>
> https://www.nist.gov/dads/HTML/bloomFilter.html [https://www.nist.gov/dads/HTML/bloomFilter.html]

> Simulated annealing (SA) is a probabilistic technique for approximating the global optimum of a given function. Specifically, it is a metaheuristic to approximate global optimization in a large search space for an optimization problem. It is often used when the search space is discrete (e.g., all tours that visit a given set of cities). For problems where finding an approximate global optimum is more important than finding a precise local optimum in a fixed amount of time, simulated annealing may be preferable to alternatives such as gradient descent.
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> The name and inspiration come from annealing in metallurgy, a technique involving heating and controlled cooling of a material to increase the size of its crystals and reduce their defects. Both are attributes of the material that depend on its thermodynamic free energy. Heating and cooling the material affects both the temperature and the thermodynamic free energy. The simulation of annealing can be used to find an approximation of a global minimum for a function with a large number of variables”
>
> https://en.wikipedia.org/wiki/Simulated_annealing [https://en.wikipedia.org/wiki/Simulated_annealing]

> Hydrological Cycle Algorithm (HCA) simulates nature’s hydrological water cycle. More speci cally, it involves a collection of water drops passing through different phases such as flow (runoff), evaporation, condensation, and precipitation to generate a solution. It can be considered as a swarm intelligence optimization algorithm for some parts of the cycle when a collection of water drops moves through the search space. But it can also be considered an evolutionary algorithm for other parts of the cycle when information is exchanged and shared. By using the full hydrological water cycle as a conceptual framework, we show that previous water-based algorithms have predominantly only used swarm-like aspects inspired by precipitation and flow. HCA, however, uses all four stages that will form a complete water-based approach to solving optimization problems effciently. In particular, we show that for certain problems HCA leads to improved performance and solution quality.
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Images

Alchorisma album on flickr (in progress): https://www.flickr.com/photos/foam/albums/72157703407322714
[https://www.flickr.com/photos/foam/albums/72157703407322714]

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