

The Digital, a Continent?

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Vera Bühlmann

The Digital, a Continent?

Nature and Poetics

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How are we to think about an ethical objective for education in post-industrial societies? Where once ‘production’ occupied a central place in our analyses, this has been disposed of by data-processing; we need to switch to a paradigm based on communication. There is an unsettling complicity between modernity and nihilism, whereby citizen-subjects have turned into mere customers

of modern science. The lack of proper philosophical registers to address the era of data effectively serves to short-circuit discourses of science; precision in measuring processes accelerates all events in the 'real time' of the present.

This project offers a big picture to redress this impasse; I propose a metaphysics and architectonics for the Digital as a Continent, capable of countering the acceleration vector of scientific progress with one of a deceleration no less scientific, sophisticated, and progressive but tempering across a great number of different scales rather than along a line.

Nuclear physics has widely troubled philosophical discourses throughout the 20th century. But there is another stratum with respect to energy, equally abstract: photosynthesis. It is a synthetic inverse to the violent deconstruction of fission (molecular chemistry, photovoltaics). It, too, has been mastered but with markedly less fanfare, astonishment, and awe. It is photosynthesis that the project proposes to make central for a conception of architectonics in the '*Meteora*.' Anthropoc nature is recast on the realization that we, like all things existent, organize, metabolize, and bank '*meteora* alloys,' cosmic and natural composites of energy, formality, and active intellection. How can we think of science with the recognition that knowledge can be interiorized just as plants eat light? The capacity for literacy should be recog-

nized in all things, as all things—from suns in the galaxies to plants in the meadows, pebbles in the river to ants and flies and crocodiles, and humans, of course—that communicate in material and embodied ways by receiving, sending, processing, storing and dealing with information. The project proposes to complement such a naturalization of literacy with a ‘becoming-literate’ of nature in a positive metaphysics for which code plays a photometric (transcendental) role.

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in a slightly different version and with a different title: “Europe and its two mothers: Impersonal Logos and the Optical Unconscious. A Geographical Récit of Descartes’s Fable, ‘The World,’” and it will be published in a forthcoming book by Suny Press (New York) on the conference theme, edited by the conference organizers. Finally, “Once Upon the Autonomy of Words” was published in Mihye An, Ludger Hovestadt (eds.), *Architecture and Naturing Affairs* (Basel, Birkhäuser, 2020).

Instead of a Preface, a Frontispiece¹

by Georg Fassl

The sun has a diameter of 1392000 kilometers and still belongs to a category of stars called yellow dwarfs. For comparison, the largest stars in the universe are called red supergiants—one could line up around 2000 suns across their surfaces. And yet, despite being relatively small, the sun accounts for over 99.8% of the mass in our solar system, and its luminosity—its total radiated energy—corresponds to the output of 100 million billion nuclear power plants. Moreover, its distance from the Earth is, on average, about 150 million kilometers. Since light travels 300000 kilometers per second—the fastest speed at which information can travel—it

1 FRONTISPIECE, as if the piece or plate in front of a book; but really from Mid.Lat. *frontispicium*, the decorated front—the face—of a building. Cf. Hensleigh Wedgwood, “On False Etymologies,” in *Transactions of the Philological Society* (London, Taylor and Francis, 1855), 68–69.

takes about eight minutes for the sun's rays to touch the earth's surface.

Bigness and great force are overwhelming qualities, violent at times. But without the sun's intense energy, there would be no life on Earth—it warms the oceans, stirs the atmosphere, generates weather patterns, and gives power to the growing green vegetation that provides food and oxygen for the Earth on its journey orbiting the sun. For earthly life as much as for its cosmic context: “Nichts Schöneres unter der Sonne als unter der Sonne zu sein...” [Nothing more beautiful under the sun than to be under the sun...].²

People have wondered about the nature of nature for millennia. This universal question has left its impressive mark on plenty of texts, images, and works of art, in which the sun—central to many of those—is to be found in the same ambiguity, abundantly generous and threatening alike. In contemporary contexts, be it popular thought or academic discourse, two notions are usually kept apart, and in many cases, rightfully so. However, their incommensurability is not naturally so. In colloquial language, we know of these forces too—we address them whenever we come across

2 Ingeborg Bachmann, “An die Sonne,” <https://www.deutschelyrik.de/an-die-sonne.html> (accessed February 23, 2022).

something that intuitively “leaves us speechless” or “fills us with awe.”

Contingent observations like this can be traced to the beginnings of Greek speculative thought—dating back to the Milesian school—where some of “those [philosophers] who discoursed on nature” discovered them in a geometric relation. Similarly, architecture, building from its cosmic foundations and position relative to the sun, also participates in such climatic affairs. As the light of noon and the dark of the night are the front and back of the same solar day, it is the play—the winds and weather—of both that renders its buildings alive. And, while looking at them in such undecided measure might open a similar space of incompatibility at first, then, secondly, they might engender a strength equally hard to sort out. Much like sunlight, heat, or smoke, a masterful building conveys power, and yet, just like nature itself, any of those forces refuse to be owned, but they can be contracted to welcome the other nature(s) of today.

December 2021, Vienna

Incipit, a Chord

by Vera Bühlmann

Titles are labels, but the incipit is like a chord.

—Ivan Illich, *In the Vineyard of Text* (1996)

Figure is the context
in which definition and delimitation
are the same thing,
for to give a definition of a figure
is to give its boundary
and to give its boundary
is to give the figure as 'definition'
and as 'boundary.'

—David Reed, *Figures of Thought.
Mathematics and Mathematical Texts* (1995)

Think of a kitchen table—without you being there.

—Virginia Woolf, *To the Lighthouse* (1924)

Thus acquired, knowledge extends towards three dimensions: by the first one, cognitive, I know some theorem; by the second one, collective, I am part of those who know it and who, sometimes, put it to good use. I readily call the third of these dimensions stony, inasmuch as this information

doesn't transform me any more than it does a rock I hold in my hand, which I can transmit, of course, but can also forget or let drop. I know but don't comprehend. I can teach this theorem; it can thus be spread, but I take said knowledge, objective like this stone, to be as cold and dead as it is. In the ad hoc discipline, we do indeed speak of dead information.

—Michel Serres, *Branches: A Philosophy of Time, Event and Advent* (2020 [2004])

Considering the Stars in the Sky, a Tour du Monde

The earth is bathing in the sun stream. Its pantropic place in the universe is, to the utmost or most absolute extent, a *whereabouts*—the place of a *where* that finds its spot by setting itself off from an *about*. Embarking on a world tour by considering the stars in the skies concerns a traveling that actively figures out how *not* to move.

How can we consider the cosmic “extent” of such a pantropic notion of “place”? With plant mentality, as an adventure in botanic thought—like plants whose metabolism involves photosynthesis, thought, too, feeds on light. Might the life of thought be like the life of plants, an ongoing cosmogony, the restless genesis of our cosmos?

Through plants, life articulates itself cyclically. Fauna and flora circulate vivacity; they are not so

much separate kingdoms but rather spheres of sustenance, inseparable and yet contingent one upon the other, in symbiosis. Across the spheres, life engenders itself cyclically within the heterogeneity of forms, the distinction of species, and the ways of life. Plants participate in the coming-to-be of their own milieu. Still, their existence has always affected the cosmic milieu at large—the whole wide world which they imbue, impregnate, and penetrate, which in turn imbues, impregnates, and penetrates them. They engendered the atmosphere for animal life before the first footed beings strolled through deserts, forests or swam through waters. Is thought not, like plants, reaching out towards the skies while staying put on its grounds? For a plant, mentality, the existence of any form of being is a cosmogonic act in which being and doing coincide. A world is inevitably in *status nascendi*, in a state of delivering itself through its own engendering. In its adventurous and botanic mode, then, thought involves vessels that carry the *wherewith* from an elsewhere to the location of an active *whereabout*. We can think of such vessels as furnishings of conviviality.

Such vessels are ideated, but they are neither concepts nor metaphors. They are amphoras; they articulate space in two canonic determinations: it

extends, and it divides. “Space must be thought as spacing: as granting-space and thus as an allowance of a space and as clearing-out, and thus as allowing the emptiness of space.”¹ Amphoras organize the categoricity of this double determination that renders space active as spacing. Amphoras are doubly bounded jugs—place, in its pantropic articulation, is open because it must keep apart the two boundaries simultaneously as it holds them together. Places, in this sense, give way to an emptiness that is neither a thing nor an interval but a cipher. Such emptiness constitutes pantropic places as the whereabouts of a domain that is common not through belonging but only through the impacting participation of all that this domain accommodates. Pantropic places are not discrete; they are discretion itself. In this active sense, this domain is public. Amphoras embody how each whereabouts spans and conjoins *an uttermost extent* with a *most absolute extent*.

The world that is toured in an adventure of botanic mentality wells from encircling and englobing the difference between a doubled way of thinking *extent*: a surface or area covered maximally (an uttermost extent, an extent in the last

1 Werner Hamacher, *On the Brink: Language, Time, History, and Politics*, London and New York, Rowman & Littlefield, 2020, p.220.

instance) and a surface or area covered without diminishing any of its facets (an absolute extent, an extent in the first instance). If the two were to coincide, the world would have disappeared. Touring the world as an adventure in botanic thought is a lofty endeavor carried by the winds of a longing that is both cosmogenic and cosmogonic. It keeps the Uttermost and the Absolute at once conjoined and apart by casting off the *abouts* of a *where* that is delivered from their non-coincidence. This lofty endeavor casts itself off by unfolding from the radiant *where-within* of this non-coincidence's *spot*.

*Architectonic Counter-Wording of Time*²

How can we cover the extent of such a swelling distance that rises on the spot? And how to devise a compass that could give orientation for a *tour du monde*? The electro-magnetic force of a compass needs to be metronomically paced by an incipient chord that sounds silently like an unknown constellation of stars in the sky. Let our stars be called quantum words, kitchen tables, cenotaphs, and screens, and let us try to devise a categorical

2 While exploring the whereabouts of Paul Celan's Meridian Poetics, Werner Hamacher devises and introduces this term, "Gegenworten" (counter-wording), for an architectonic kind of philology. See his 95 *Theses on Philology*, in *Diacritics*, Vol. 39, No. 1, Baltimore, Maryland, The Johns Hopkins University Press, 2009, pp.25–44.

instrument that is capable of sounding them together as an incipient chord—let us think of such an instrument as the syntactic optics of text-linguistic tempus.

Quantum Words

In a recent article entitled “Quantum Words for a Quantum World,”³ we can read about a remarkable scene in Alfred Hitchcock’s movie *Torn Curtain* (1966), a movie that tells a story of spying and science. It features a scene where two physicists confront one another on some theoretical question. Thereby they engage in a strange kind of “discussion” that “consists solely in one of them writing some equations on the blackboard, only to have the other angrily grabbing the eraser and wiping out the formulas to write new ones of his own, etc., without ever uttering a single word.”⁴ This picture of theoretical physics as an aphasic knowledge entirely consisting of mathematical symbols may be very common in popular representations, our author maintains, but “we know [it] to be wrong [...] and we have to acknowledge that, far from being

3 Jean-Marc Lévy-Leblond, “Quantum Words for a Quantum World,” in D. Greenberger et al. (eds.), *Epistemological and Experimental Perspectives on Quantum Physics*, Amsterdam, Kluwer Academic Publishers, 1999, pp.75–87.

4 Ibid., 75.

mute, we are a very talkative kind; physics is made out of words.”⁵

Physics, being made from words, urges us to engage with a notion of time through optics that allows us to see through time’s diachronic sedimentations. Could it be a grammatical kind of optics we are looking for? Or syntactical optics whose devices themselves are tempered, steady, and in mechanical pace, like a metronome? Could there be a category for physical time that captures its amphibious nature the way the category of *tempus* does in text linguistics?⁶ *Tempus* knows how to render the grammatical present tense as living at once in *disputation* as well as a *description* (in German *Besprechung* and *Beschreibung*). Syntax and grammar do not coincide in this category. The *tempus* in a text does not settle the consequentiality of events as facts, nor does it dramatize them as the plots of stories. Rather, it provokes their discretion in a great variety of ways. It is not a matter of multiple perspectives co-existing next to each other; it is about common optics, an objective and scopic treatment of the living gaze, oscillating between

5 Ibid.

6 Cf. Harald Weinrich, *Tempus. Besprochene und beschriebene Welt*, Berlin, De Gruyter, 1966.

the completeness of grammar and the correctness of a particular syntax.

Kitchen Tables

For such an optics, things would appear objective in how they oscillate around a virtual axis. Such an axis of time is not well addressed as the axis of an analytical scope whose capture in full (the extent in oversight covered by this scope) acts as the goal to be approached.⁷ Such address would eclipse the distinction between grammar and syntax. No, if physics is made of time articulated and embodied in quantum-words, then the scope of such a virtual axis in time owes its virtuality to the instrumentality of the optics, not to any semantically distinguished fields that would organize the area covered by the sight it affords. The scope of such a virtual axis is rendered through a transcendental plane that unfolds with the course of how time passes. For such an active optics, the physics of light is coded and its syntactical mechanics brings words into constellations. The axis of time is virtual in the

7 Cf. Karl Jaspers's concept of the "Axial Age," in *The Origin and Goal of History* (New Haven, Connecticut, Yale University Press, 1953), in whose foreword he writes: "A present that has attained fulfilment allows us to cast anchor in the eternal origin. Guided by history to pass beyond all history into the comprehensive - that is the ultimate goal which, through thought can never reach it, it can nevertheless approach."

sense that it straddles categorically (universally, but also rhetorically) a cipher relative to the encryptions it facilitates.

Let us also listen here to Virginia Woolf. In *To the Lighthouse* (1927), Woolf devotes herself to the passing of time by exploring the tempus of a house—an *oikos*. We have here a Mrs. Ramsey who can never quite say what her husband, a metaphysician, actually does. She asks someone else to explain it to her: what your husband is doing is concerned “with subject and object, with reality.” Mrs. Ramsey cannot grasp what might be meant thereby until she is told: *Think of a kitchen table*, he tells her, *when you are not there*.

Cenotaphs

Time with a virtual axis in this sense does not happen along a line from past to present, it manifests an architectonic crypt that straddles nature with poetics. One can think of this as an architectonic gesture inversive to the one we know well from Etienne-Louis Boullée’s cenotaph for Newton, which he endowed with a dedication: “Oh Newton, if you have managed with the light and the sublimity of your genius to determine the figure of the earth, so it is my own project to envelop you with your own discovery. This is, in a certain manner, to

have you being enveloped with yourself [...].”⁸ The inverse gesture of this architectonics would also seek to remember Newton, but by way of neutralizing his face in that of the Earth—it would set out to explore the Earth anew, with a body of thinking that has interiorized Newton’s genius and the scientific instrumentality crafted in its terms—Newton’s optics that conjoins prismatically the darkness of all colors with the whiteness of pure light. For it, too, the anchor point of the axis of time demarcates an empty grave. But sighted through a syntactic optics of nature’s *tempus*, this categorical cenotaph would both screen and comprehend the silent and transparent presence of the absence of color. This screening cenotaph would act like a place holder that may strive to—but cannot—hold its place all by itself; hence, it gives way and makes room vicariously. Such an architectonics of counterwording depends upon an incipit as a chord rather than a point of origin; an incipit is a constellation, a group of notes sounded together. In mathematics, a chord is the name of a line that spans the two points of an arch—a figure for bridging and countering

8 Etienne-Louis Boullée, *Architecture, Essay on Art* (1778–88). My own translation, originally in French: “O Newton! Si par l’étendue de tes lumières et la sublimité de ton génie, tu as déterminé la figure de la terre, moi j’ai conçu le projet de t’envelopper de ta découverte. C’est en quelque façon t’avoir enveloppé de toi-même. [...]”

gravity's force on a logistic basis of distribution and interplay.⁹

Screens

Time hence acquires a face. It is time appearing and being recognized in public. Time so rendered accountable accommodates knowledge publicly, but not exhaustively. Public knowledge comprehends only common concerns. It erects itself out of the background of its own non-knowledge, vividly facing—and challenging—its own ignorance. In this sense, Knowledge accommodated by time stabilizes itself abductively through actively practiced harmonics, not by deductive legitimation with reference to an underlying harmony. Harmonics, then, concerns manifest affairs in space, while harmony concerns immaterial affairs in time. The relation between harmony and harmonics spans the indexical referentiality between code and cipher in the public domain. It rises by sounding silently, transparently, the zero as a chord. The syntactic optics of tempus engenders a philological and architectonic harmonics that is public in so far as it seeks to build bridges rather than to purge the

9 Ivan Illich, *In the Vineyard of the Text: A Commentary to Hugh's Didascalicon*, Chicago, Illinois, University of Chicago Press, 1996.

plane from the noise against which it can be what it is—its spotting scope spans the audible extent of a sounding chord that can be voiced and heard in many tempers, that can be sought and brought into innumerable constellations while still anchoring a common focus of reference, but without appropriating this global reference's meaning nor the rationality of its reasoning.

Within Reach of Light's Radiant Beginnings

Is this not the essential force at work in the astrophysical idea of the Big Bang? If one thinks in the light of the universal incipit, all the time with which one can engage rationally is diachronic: it screens through scales, it percolates layers of organized *chronicles*, it displays the noted keys of innumerable scalarities that temper the world in ever new contemporary *meteora* domains that remain current, each and every one of it but at different paces, in the material memory of the universe. For the scopic views in the optics of this hypothesis (Big Bang), all things “conduct” themselves *as vivid memories*.¹⁰ Time rendered through the optics of *tempus* gives us a mechanics that links invention with remembering, representation with screening,

10 Cf. Michel Serres, *The Incandescent*, trans. Randolph Burks, London, Bloomsbury, 2018a.

projection with reflection, figure with mask, and body with face. Its mechanics confounds the stereoscopic projections of light in its material aspects (the relational analytics of thermodynamics) with the perspectival projections of light in its ideality aspects (optics and its representation, perspective) without conflating them in a full present-ism. In this, the scopic extents of such quantum mechanics resonate with an old sense of the word “mechanics”: Greek *mēkhanikos* meant literally “full of resources, inventive, ingenious.”¹¹

Through its inherent mode of placing the speaker in her own absence, writing cautions us against the enchanting powers of speech’s presentism. Writing and reading awaken one’s curiosity for the distant and somewhat mediate. But what about the alphabets, their codes and codexes? There is an attention of care proper to reading and writing; is this not also the case when numbers and mathematical symbols are at stake? What is such care taking taking care of? Think of how, from a quantum physics point of view, “physics is made out of words,” and physicists, when they “discuss” with each other through writing and erasing formulas, are “a very talkative kind.” Even when they are to-

11 <https://www.etymonline.com/word/mechanic> (accessed October 24, 2023).

tally silent, they are “far from being mute.” How to sound such silent talks?

Literacies train one’s intellectual sense of intuition for not entirely evident tracings and readings between the lines, for flashing out implicit orders, and for exploring the overshadowed aspects of things. Sounding silent talks is the key concern of literacy in the digital. This book’s invitation is to con-fabulate of the digital as if it were a continent that surfaces publicly, here and there—anywhere, really, under the sun—from within the depth of the oceans of time and amidst the seas of their textured renderings (rendered in the aspect of scopic tempus) by acknowledging Gravity, while conspiring in the many public words that pronounce its counter word, Grace.

The Publicness of Cosmogonic Mentality

How should we proceed? Can one think of the powerful—inviting and horrific—analogy between soul and city through four meteoric elements of universal and poetic thought like one once spoke of fire, earth, air, and water as the four universal elements of nature? Let’s consider some further stars in the sky. But how to spot them out? We need to devise an instrument. Let’s take as our instrument for considering this powerful analogy thus

the Platonic proportioning of thought into imagination or *eikasia*, belief or *pistis*, mathematical ideation or *dianoia*, and the scopic unsettledness of thought or *dialectic*¹² as the representatives of the four meteoric elements we dare to invoke. Our path of proceeding must be that of a mechanic, or else we would leave the public domain. We want to learn to treat those placeholders in an inventive and resourceful manner, without being disrespectful by fancying to reveal thereby the immemorial truth they keep contained.

Our companion in this episode of our adventurous *tour de monde* shall be Hugh of St. Victor, the mystic theologian of 12th-century France who dared to take the ideality of Plato's analogy in its unlikely delicacy and vulnerability into sight amidst the fallible promises of doctrines. He devised a virtual kind of mechanics which he attributed to his Mystic Ark,¹³ an instrument for scopic plays of imagery. The aim of such plays, with which

12 Cf. Plato's analogy of the divided line (*Republic*, 509d–511e). He speaks of these four terms as "affections of the psyche." In my adaptation here, I think of the line as a chord and hence replaced the fourth segment in Plato's analogy (Plato has "*noesis*" here) with "dialectic," an active reading-through, a "scoping," objectified through syntactical optics.

13 See also Conrad Rudolph, *The Mystic Ark: Hugh of Saint Victor, Art, and Thought in the Twelfth Century*, Cambridge, Cambridge University Press, 2014.

he sought to equip the dawn of modern science, was to incept terms that could articulate a novel pact between art and thought. The Mystic Ark subjects mathematics in its old sense of “all that pertains to learning”¹⁴ to the scope of a moral domain of “all things to be sought”¹⁵ to guide processes of individuation of thought on absolute grounds. This absolute ground was the resourceful domain to catalyse mystic skills in learning to imagine (*eikasia*) how to accommodate beliefs (*psistis*) in a technical and, in that sense, common way (*dianoia*) and how to acknowledge in these skill’s explanations (*dialectic*) an inevitable but never evident fallibility.

These individuating skills were to learn how to recognize and participate in the diverse treaties of convivial pacts that do and do not recognize the authority of old age.¹⁶ We commonly consider the domain “Of All Things to be Sought” as absolute orders. But we should rather think about this domain in the vernaculars of quantum words. What if any sight upon a domain of “all things to be sought” was dependent upon an in-folded, but essentially objec-

14 Greek *mathēmatikos*, adj., for “relating to mathematics,” from *mathēma* (genitive *mathēmatos*), literally “that which is learnt.”

15 Cf. Ivan Illich, *In the Vineyard of the Text: A Commentary to Hugh’s Didascalicon*, Chicago, Illinois, University of Chicago Press, 1996, pp.8, where he refers to this formulation “as a keynote phrase in Hugh’s book on the art of reading.”

16 Cf. Dante Alighieri, *Convivio* (1304–07).

tive practice of interior landscaping and edification that is achieved in every artful kind of tracing notes marked by a nature that speaks physically? Singularized notes that have left their textual place, broken up and echoing chords, numerical and linguistic characters and letters in the full ambivalence of a novel coding literacy's "meaning"?

Meteoric Foundlings

With digitalization, science has become a way of life. Medicine, commercial products, devices, and artefacts endow science with the quasi-religious magnitude of a global *ethos*.¹⁷ How does one talk publicly today about one's ways of life? If science has become an ethos, then quantum words need to be sounded as articulating themselves in vernacular tongues. How can we think about the whereabouts of such vernaculars?

Fabulation (or Praising the Autonomy of Words)

By way of *fabulation*. How else would it be possible to speak of ideas in vernacular? The registers of classi-

17 "From having learned, we know. A truth, a piece of information were found amid the internet's ocean, in a tradition, by way of an interlocutor, at a chance person's home ..., and we received it through education, communication, hearsay or effort." Michel Serres, *Branches: A Philosophy of Time, Event and Advent*, trans. Randolph Burks, London, Bloomsbury, 2020 (2004), p.50.

cisms and all the vernaculars need to conspire. This is difficult to imagine because it cannot be a purely theoretical exercise. Speaking of ideas in vernaculars, without claiming patronage from their classic articulations, this implicates one's flesh, blood, and body: Knowledge needs to be digested before it can inform the counter-wording talks that are to negotiate settlements on the digital as a continent. Just as the world of plants for a plant mentality does not pre-exist but results from their own active lives, so does this public place of the digital as a continent result from finding settlements in convivial pacts. Fabulation is essentially confabulation.

A fable is not only a spectacular dramatization of something that can but needs not be said in words. With quantum words in a quantum world, fabulation articulates itself physically: it instantiates, mobilizes, translates, transports, transcribes, in short, conveys and shares interiorized gestures of striving, making, and living. A fable invites to being picked up and carried elsewhere; but it says plainly that it needs to be digested, interiorized, appropriated—the plot of a fable says nothing, really, until one has interiorized it. Anything in this sense can be a fable, even a theorem. A fable, then, lives from the difference between knowing and comprehending.

Public talks that confabulate will almost immediately begin to stand on their own feet, what they have to say does not stay put where it has been placed. With this, one can think of the public as a place where nothing properly belongs. For intellectual life on the digital confabulated as a continent, everything depends upon acknowledgment of a certain autonomy of words. Its peace can be kept as long as one does not subject what words do to the determinative stance of authorship. If “physics is made out of words,” then one must come to terms with words having an objective autonomy—just like physical objects do too.

To fabulate ideas in quantum vernaculars means to be friends with words and to value and care as friends would for their objective autonomy. Convivial pacts depend upon not being intimately kin with either words themselves or with one’s peers that voice them in public talks; one maintains a relation of symbolic formality that can never hope to transcend the stance of an “out-with” with respect to them (words or voicing peer). There is an objective transcendental in play wherever coding is an active practice and is kept from being lost/forgotten in the apparent transparency (diaphaneity) that it has established; this, indeed, is why I speak of convivial “pacts.” With respect to such

formality, it is always the one (impersonal “it”) that speaks in public (by articulating and formulating the terms of such a pact-based “contract”), as a rhetorical subject (orator) lending “its” voice for concerns that are essentially in lack of lucid clarity, but of which everyone can assume that they are concerns common to them all. Skill here rests not in the individual’s faculties of understanding nor in his or her erudition. Eloquence blooms in and as objects: in the poetics they embody, tempered by the time of the analemma, and with which they actively counter-word the steady force of gravity in and throughout the world and even upon the earth.

Legends (Tempered in the Time of the Analemma)

As Vitruvius knew well,¹⁸ the sun clock sounds cadences and consonances that keep with time’s diachronicity. It yields abstractions that have cast off and lent themselves for fashioning in a general manner what keeps happening. If we want to attend to the material passing of time through an optics of tempus, we need to remember the sun clock today. The sun clock stops time, inflates one moment to articulate many tempered cases objectively, each capable of being lifted from the deep waters of

18 Book IX, “De Gnomonice,” in Vitruvius Pollio, *The Ten Books on Architecture*, written in the first century BC.

the *now and here* such as to be projected to a lofty and burning *whenever and wherever*. Gnomonics proceeds by an automatic mentality that couples *metrics* with *tempus*. It pertains to the cogito of the third person singular “it,” just as we evoke it when we speak of the weather when we say “it rains”: It is an impersonal cogito that articulates itself with air and light (vowels) and earth and water (consonants) in the time of the analemma—time thought of as weather and seasons, where the natural elements percolate both with and through each other, where time passes massively. There is *auctoritas* to this impersonal cogito, but it is climatic and it tempers, it does not dictate.

Earlier, we asked how we might think about ideas in vernacular tongues. If we are interested in the coding literacy that propels and fuels today’s digital sophistications, it is not distinct statements themselves and what they claim to represent that ought to preoccupy us—much more interesting is the abstract and yet domestic domain from where-within statements and arguments are being forged, crafted, decorated, and ornamented. A chiasm between nature and poetics achieves Publicness; a poetics that does not set up a domain of the analog continuity (nature) vis-a-vis one of digital discretion (culture), but an architectonic poetics that appeals to a digital

dignity of nature in the *tempus* of the Analemma—the tracing of the sun’s course throughout one year, showing the position of the sun in the sky as seen from a fixed location on Earth. The analemma resembles the figure of eight, the mathematical symbol for the infinite. Mechanically, the analemma depicts a projection of the celestial sphere onto the meridian plane.

No Introduction, a Didascaelic Instrument

The individual chapters have not been written as a sequence of steps that would build upon each other such as to form and lead through an argument. The book arranges several texts written as chapters for other books or manuscripts for lectures in diverse contexts. Each one of them emerged from an embrace circling around an obstacle. While the obstacle has always been one and the same (an invariance), it figures in each chapter with a different temper, in a different way. Rather than giving indexical summaries to each of them here, this introduction wants to hand the reader a didascaelic instrument, a digital version of a St. Hugh’s Mystic Ark, mathematically conceived for the purpose of objective confabulation. As such, it is a mechanical instrument that works metronomically as well

as gnomonically. That is to say, it works partially automatically. It displays the mnemonic plots of scattered algorithmic steps inscribed in the palimpsest of digits that cover its clock face. Like St. Hugh's Mystic Ark, its digital version cannot act as an orientation compass for inner landscaping with edifying effects without an appeal to nature's digital dignity.

A Gnomonic Gimbal

This Digital Didascaelic Instrument is a Gnomonic Gimbal that helps to keep metrical instruments steady and in a right angle while being underway in the pursuit of a world poetics of the current present, on our *tour du monde*, in the light of the sun and the moon, on grounds that are rarely plain or steady, through currents in water or air, capable of lifting and drawing down—of thought in its botanic mode, in short, embodied and exposed to the weathers and the tempers of time that passes. The Gnomonic Gimbal is an instrument that rings for the restful soothing it knows it can provide; it rings for this on the unsteady legs of three radiant ideas:

- (1) that of a Gravitational Monochord
- (2) that of an Axiology and Genera of Ethos
- (3) and that of an Architectonic Caustics

Tempered in the Time of the Analemma
Harmonics and Architectonics, an Appeal
to the “Digital Dignity” of Nature
by Elias Zafiris

In the old tradition of Natural Philosophy, the resolution of an obstacle that is abstracted as a mathematical problem is conceived as a means of tuning into the Cosmos. Since this is an action taking place in the domain of Harmonics, where constellations of wholes abide by the rhythmic of symphony cycles choreographed by the invariance of the obstacle, the mechanics of this invariance paves the path of abducting the metaphysical essence of the obstacle.

Metaphysics in this sense is not a formal logical meta-level lying beyond the physical and addressing the obstacle by means of a tailored ontology but pertains to the concordant circulation around the obstacle enacted metaphorically by the mechanics of its specific invariance. The metaphorical circulation around a fulcrum that hypostasizes the obsta-

cle unveils the invariance underlying its diachronic presence. In this manner, the hypostasis of the obstacle is objectified not by means of an ontology but by means of a natural axiology emancipating from its invariance.

The axiology rests on a canon of scalar values proportionating homologically the points of stasis, that is, the resonance harmonics of tuning into the Cosmos in the presence of the obstacle as it is manifested purely in terms of its invariance. As such, axiology is not hierarchical, but it opens a teleonomic *topos* of communication, whose variable existential bounds are commensurable to the invariance of the obstacle. It is due to the plasticity of the bounds in respecting invariance under reciprocally adjoined encoding/decoding communication bridges that axiology can be always embodied metaphorically in the Cosmos by means of the tuning harmonics of the pertinent canon, persisting through the sequential ordering of time. The roots of Humanism are not intelligible without such axiological canons gauging the invariance of obstacles.

The harmonics of the canon are not absolute truths. Their universal role is the modular infiltration of the consonances of communication through the sieve of the canon, which is expressed in terms of their homologizing ratios with respect to the in-

terference co-bounds of this *topos*. In this manner, consonance or dissonance do not determine classes of binary classification but instantiate categories for the spectral tempering of these ratios by means of rhythmic architectonic forms.

The axiology of consonance implemented by the scale of the canon gives rise to a discrete series of binary digits, a digital string characterizing a *melos*, which modulates any continuous thread through the sieve according to the ubiquitous criterion of symphony expressed by the homologizing ratios. Thus, symphony transcribes the modulated thread to a topologically circular oriented chord, whose universal covering helix can be either ascended or descended palindromically. If the descent is congruent with the directionality of the sequential entropic passage of time, the ascent is congruent with the inverse directionality of in-formation synchronization as diachronic mneme subject to the gnosis of the invariance of the obstacle.

Henceforth, the “melodic” qualification of Humanism according to the proportionate cyclotomy of the invariance in terms of the axiological criterion of symphony, that is, in terms of the canonical scale of harmonic consonance ratios is impossible without the ethos of the pertinent digital string characterizing categorically the *melos*. In this sense,

the current concerns about Digital Humanism pertain to the ethos of these modulating digital sequences, what differentiates a symphonic *melos* eidetically from a series of binary classification digits making a decision product. Digital Humanism cannot be aspired on normative regulations.

The ethos of a digital string as the crucial quality pertaining to the character of a *melos* according to axiology has already served as the major categorical means of cultivating musical information in classical antiquity. The *diataxis* of consonance ratios on the scale of the canon according to their ethos gives rise to three categorical genera; the diatonic, the chromatic, and the enharmonic, where each of them transfuses a distinct character to the *melos*, although all preserve the same invariance. If the pure ratios are stochastically dissolved within well-tempered sections of the canon due to objective variability or indistinguishability in the continuum, twelve distinct categorical genera arise, each characterized by its distinct ethos.

The reduction of a modulating digital string into a formal logical classificatory chain of productivity and decision-making disregarding the categorical ethos associated to a *melos*, according to axiology, annihilates the capability to ascend the helical arc covering the underlying modulated chord in sym-

phony with a categorial genus. What remains is the gravitational descent following dynamically the instantaneous center of curvature according to the directionality of the entropic arrow of time.

The descent tuned unidirectionally towards the centroids of big data utilized for adaptation and classification needs to be turned inside-out to restore the inverse directionality of information synchronization according to a rhythmizing categorial genus that persists diachronically as an ethical mneme of civilization subject to the gnosis of the invariance of the pertinent obstacle. The interference between these two inverse directionalities from the inside to the outside and from the outside to the inside with respect to the elastic boundary of a *melos* ascribes to it the harmonic equilibration of an architectonic aeon.

The thesis is that the categorial spectral tempering of a *melos* by means of a rhythmic architectonic form takes place by turning inside-out the axiologically modulating digital string characterizing the *melos* according to the ethical genera of harmonics. Equivalently, an architectonic form molded out of the rhythm of a modulator is the enveloping shape that is bounded by the curve of evolutes of the points of stasis of the *melos* according to the *diataxis* of a certain ethical genus. Reciprocally and sym-

metrically, the guiding thread on which the points of stasis lie constitutes the boundary of involutes of the architectonic enveloping shape of the evolutes.

Thus, it is in the axiological terms qualified by the interference between these two inverse directionalities with respect to the binary topological in/out distinction that the static tripod consisting of harmonics, mechanics, and architectonics becomes intelligible. In this stable constellation, mechanics—considered in the original Archimedean sense as a method of tuning through leveraging with respect to a fulcrum—serves as a bidirectional encoding/decoding functorial bridge between the domain of harmonics—where a modulating digital string of homologizing ratios respecting the underlying invariance lies—and the domain of spectral geometry—where the enveloping shape of the corresponding architectonic form lies. The preservation of the same invariance under functorial metamorphosis from one domain to the other through mechanics is attained by the involute/evolute translation code.

The involute/evolute binary code was first conceived by Apollonius of Perga and further developed by Huygens. For any point on a curve, we consider the tangent and normal orthogonal directions at this point as well as the osculating or kiss-

ing circle of the curve at this point. The evolute of this curve is the envelope of all normal directional lines to the curve traced by a moving point. In this way, the original curve is identified with the involute of its evolute. The original normal directional lines become tangential directional lines of the evolute of the curve and reciprocally. The center of the osculating circle at a point, thought of as the center of curvature at this point, is considered in the following way: For a fixed point on the curve, one may construct two normals to the curve, one at and another at a nearby point on the curve. The center of the osculating circle is the limit of the intersection of these two normal lines as approaches. Thus, the evolute of a curve is the enveloping shape of all centers of curvature traced by a moving point along this curve.

The notion of a center of curvature bears the connotation of a center of synchronization in the domain of harmonics, whence the notion of an osculating circle provides the means of tuning a curve at any point with its center of synchronization with respect to this point. The concept of local curvature is associated physically with the idea of the degree of local bending due to gravity, whence the reciprocal of the curvature at a point is the radius of curvature of the tuning osculating

circle. In other words, the bending of a curve, expressed through its curvature at any of its points, is the tuning of the curve to the invariance of the obstacle of gravity taking place through rolling an osculating circle along it, whose radius is variable from point to point being equal to the reciprocal of the curvature.

Let us wonder about the nature of the tuning offered by the osculating circle at any of the points of the bending curve due to gravity. According to Euclid, a point on the curve is something without parts, but a moving point along the curve may be thought of as a fluxion, according to Newton. Physically, it is conceptualized as a moving corpuscle due to gravity, such that the bending curve is its continuous thread subject to this obstacle altering its uniform straight-line motion that would sustain in the absence of the obstacle. The bending around a point of this thread is the local curvature that localizes the invariance of gravity at this point. As a local measure, it expresses the average rotation per unit area with respect to the center of the osculating circle at this point.

Therefore, local curvature is a tempering measure of the degree of bending around a point that is expressed by the average rotation per unit area around the center of the osculating circle at this