



Angelaki

Journal of the Theoretical Humanities

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/cang20

SILENT WORDS, WRITING IN TONGUES

architectonics and style

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To cite this article: Vera Bühlmann (2024) SILENT WORDS, WRITING IN TONGUES, Angelaki, 29:4, 108-119, DOI: [10.1080/0969725X.2024.2382604](https://doi.org/10.1080/0969725X.2024.2382604)

To link to this article: <https://doi.org/10.1080/0969725X.2024.2382604>



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Published online: 14 Aug 2024.



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finding a voice

How is it that Michel Serres can “render” virulent ideas across the boundaries of disciplinary conventions, and this in a manner that is appealing to a great diversity of people – scholars as well as laypersons? His biographical background intertwines with his philosophical ambition. Serres liked to emphasize that he was first trained as a mathematician and then, after military service in the French navy, turned to philosophy later – one important reason being the shock, shared by many scientists of his generation, at the atomic bomb and how it demonstrated so drastically that scientific progress will not deliver societies from violence and war.

Hesitations concerning a modern idea of progress through science, and his ambition to construct bridges between the soft and the hard sciences and their respective cultures, demonstrate his ongoing commitment to his first formation. This shows in his commitment to a natural philosophy, taking seriously the reality of a bomb that draws its energy literally from light. Of course the atomic bomb draws its energy from splitting atomic nuclei, made of protons and neutrons, and these owe their electric charge to light,¹ the one invariant in physics that gives us a secular notion and treatment of countable time.

This is symbolic in a metaphysical sense: the bomb manifested a scope of deliberation that operates as if from *out-with* nature. Ever since, Serres tells us, he has been working – that is to

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say in his case *writing* – to help bring about what he calls a “physical culture” that could domesticate this scope of deliberation. In Serres’s approach to a physics of communication,² this scope of deliberation is constituted, as I suggest here, by a chiasmic intertwining of light with time. For thinking the constitution of such a scope of deliberation, I consider the ethical stance of an *out-with* to nature in the sense of an ethics to be shared and cultivated not through following explicit rules (positivization of morals) but as a spiritual mode of

ISSN 0969-725X print/ISSN 1469-2899 online/24/040108-12 © 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

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<https://doi.org/10.1080/0969725X.2024.2382604>

responding to an “answerability” by responding to it mediately, via manifest articulations that are as poetic as they are architectonic.

This evokes a notion of architectonics more in the pre-Kantian manner of Johann Heinrich Lambert’s *Anlage zur Architectonic* (1771) rather than the subjectivist turning outside-in of this tradition.³ Mikhail Bakhtin, the Russian philosopher and literary critic (1895–1975), has more recently attempted to reconnect with this intellectual legacy of how to think “architectonic form,” and how one can grasp its difference to what he calls “compositional form” – Bakhtin’s is an intricate distinction that revolves, as Serres’s quest of a “physical culture” does, around how to actively relate to and appreciate a certain self-sufficiency of things through, as I will argue, an ethical kind of luxuriation that manifests inwardly, through a process of formative involution, rather than in the goods and privileges that come with wealth. Luxuriation in this sense is not a private possession but a public service. It is to be acquired to serve a kind of harmonization between many aims or *teloi*, not absolutely but by finding and articulating situational “tunings” across scales that are, ultimately, incommensurable. This links Bakhtin’s project to Serres’s, for whom the physics of communication relates to music via the unnecessary coupling of noise with beauty, the stochastic noise at the bottom of things (*Le bruit du fond*) which he addresses as *La belle noiseuse* in *Genesis*.

active appreciation of the self-sufficiency of things

What can we understand by this notion, that of a “physical culture”? I want to propose that such a culture would be physical in a very peculiar sense which goes hand in hand with Serres’s peculiar (and peculiarly non-academic) style of writing. Style is constitutive in this kind of writing, and here is how Serres himself characterizes it in *Musique*:

I have been trying to construct a physical culture in which philosophy and works of art move of their own accord away from the

black hole that attracts collective relations and, with literally superhuman effort, come together with the formation of things, of world time, of climate chaos, with the trembling and birth pangs of living beings, of our global dwelling, only later, eventually, to join the calls of people separated from one another. Before our voices, the cries of the living, the noise of things.⁴ (77)

Style is constitutive in the sense that it helps mobilize querying, aspirations, ambitions and enthusiasms in thought, such that they “move of their own accord” away from a dead end and instead “come together with the formation of things.” What Serres seeks to construct is a culture that “gives” – not in reciprocity to what it “takes” from nature, as if the two were separate and ordered – but freely.

We live first in the world: nights, oceans, seasons, ice, floods ... We see them sometimes, but will we be able to hear them? Intoxicated by the formatted spectacle, we do not see this culture of things that are self-sufficient coming – I am here at least proposing to hear it. (Serres, *Musique* 77–78)

What Serres associates with physics is, as he puts it, “things that are self-sufficient.” This self-sufficiency is a material-spiritual disposition; it is not a starting point that gets corrupted with the desire to know. Quite the opposite, it needs tending – cultivation – such as to be “brought out” and bloom.

scientific culture, positivism of luxuriation

What Serres saw in such a notion of culture entails what we could perhaps best call a kind of positivism of luxuriation: a positivism that expresses a moderate thankfulness for the unlikelihood of being “here.” I call it a positivism because the role of metrics is central (hence the emphasis on “moderateness”), but in a way whereby the notion of the cosmos plays a constitutional role for how precision and rigour establish objectivity formally – namely by acting as what Serres calls “a static tripod,” a

generalized notion for a placeholder, as will be elaborated shortly.

To *luxuriate*, this term is often too quickly derived from the Latin *luxuria*, for excess, extravagant living, profusion, also rankness and extravagance. If we rather relate the Latin term to one of its likely equivalents in Greek, namely to *polytèleia*, the moralist sense of the verb to *luxuriate* opens up into a more spiritual domain of ethics, and the involutively formative scope of conduct.⁵ The Greek notion denotes a uniting of many (poly) aims or goals (teloi) in a form that can accommodate a joint tuning between them, a certain mode of *being-in-sync*: rival forces, opposites, can establish rhythms with one another – this is, as I want to suggest, how we can understand this movement “at their own accord.”

Shape, form, syntax and articulation then are subject to a teleonomy of indeterminism. They are governed by an architectonics of synthetic reduction that aims at accommodating the well-tuned cohabitation of a plurality of teloi. Within this frame it is easier to understand how the words cosmos and cosmetics share the same roots: to speak adequately of the world as a whole (as cosmos) involves a kind of understanding that is reasoned via processes of luxuriation – cosmos, then, names the world as the dialectic outcome of such “synthetic reductions.” Luxuriation thereby owes its process to communication, but a positivist culture involves an *out-with* to the immediate participation in communication, a domain of responsiveness that knows how to “listen” without having a language in common. Such listening-responsiveness is necessary to *furnish* communication, to accommodate harmonically in shape, form, syntax many languages of things. Communication then, in such a culture of a positivism of luxuriation, manifests a teleonomy of indeterminism – a rhythmic *pas de deux* across a difference.

It is not an entirely arbitrary or mystic domain, this *Out-with*. It can be considered in the same sense as saying that notions like forces, laws, symmetries, harmonies, “are” physics; it concerns a domain of abstractness that is at work in how physics “understands”

nature. Norbert Wiener’s famous dictum that “Information is information, not matter or energy” points to the actuality of reconsidering this categorial aspect that keeps “physics” (the scientific understanding of nature) in tune with but not coextensive with nature at large. I call this domain of abstraction a “domain” (rather than a “space”) to emphasize that abstraction entails a certain contractuality across categorial orders.

We can consider Serres’s earlier book *The Natural Contract* to better imagine how to think of this. Here, the contract consists in never ceasing to articulate the terms of “the real” and “the rational” as two incommensurate domains whose relations need to be settled in a metaphysical kind of contract as a relation of “equipollence,” meaning that they are equally powerful, in a term used especially in the context of Greek scepticism, where the arguments on each side of a question are often supposed to cancel each other out.⁶

What can facilitate such cancelling out is on the one hand the commitment to a pact, and on the other a very particular device Serres calls “the static tripod” (*Statues* 162–70) with which he works specifically in *Statues* (1987), in his dialogue between Oedipus and the Sphinx where both affirm that their lives are placed in each other’s hands. The set-up is symbolic insofar as what is at stake in this exchange is nothing less than the nature of humans as a kind. In Serres’s dialogue, we find the nature of the human caught up in an inchoate process of hominence that is ongoing as long as Oedipus and the Sphinx do not stop talking. They silently conspire against the tragic plot the fateful riddle has foreseen for one of them, by decorating, adorning and ornamenting their exchanges, by inflating their formulations to cosmic dimensions in a way that saves them, again and again, from coming to a conclusive point *just yet*.

The cosmic references in Serres’s version are not immediate, they are always rendered through a static tripod in between them – a chair literally as the human-made device that can hold the place that can accommodate the attribution of *lieu-tenants*, the substitutes that act in tending to the place of action. Serres’s

stance in the *Natural Contract* strikes a similar note, when he laments the a-cosmic philosophies having only language or politics, writing or logic, whereas our actions pertain to physics. “We have lost the world,” he mourns,

[w]e have transformed things into fetishes or commodities, the stakes of our stratagems; and our a-cosmic philosophies, for almost half a century now, have been holding forth only on language or politics, writing or logic. (Serres, *Natural Contract* 29)

The notion of cosmos acts as a static tripod, a placeholder, for the communication that accommodates the natural contract in its active plotting, forging, formulation and articulation.

In the *Natural Contract* too, Serres emphasizes the inchoate character of relating reality and rationality by reason. One needs to understand the ethical character of Serres’s natural contract: it is by *principle* that an ethics of science that commits itself to a physical culture (in Serres’s sense) cannot settle for a polarized view: the rational cannot ever explain the real exhaustively and correctly, and neither can the real ever disempower the rational categorically, by facticity.

If our rational could wed the real, the real the rational, our reasoned undertakings would leave no residue; so if garbage proliferates in the gap between them, it’s because that gap produces pollution, which fills in the distance between the rational and real. (Serres, *Natural Contract* 24–25)

To approach a culture of self-sufficient things is, arguably, a different way of speaking of the same thing – the more reduced the distance is between the rational and the real, the less the pollution, the less the wielding of violence and the closer the holocaust, in the old sense of this word from Ancient Greek sacrifice rituals where it meant the highest sacrifice that offers an animal by burning it whole, until nothing is left.⁷

[O]n the tripods on which holocausts are smoking: the inaugural place where the word is equivalent to the thing, entirely, without excess or lack, and where first and foremost the verdict is equivalent to the

body. If you don’t know the answer you die, your life being answerable. (Serres, *Statues*, ch. 16)

Among the holocaust ritual’s symbolic promises was, apparently, to ensure the “immortal light of reason” (Ó Maoilearca vi). For Serres, the immortal light is not the transcendental light of pure reason. A culture of self-sufficient things goes together with finding a cornucopia when looking for foundations, a horn of plenty whose bottom is deeper than can be fathomed. For him, the light of reason is not coextensive with the light of a universal intellect. The light of reason is universal intellect embodied. Hence it is caustic, that is, massive and material, finite and not “whole.” Precisely for this reason (its abysmal absurdity), the cornucopia is a precious notion to Serres for poetically implicating his genesis story of how information rises out of noise, as a genesis story that involves “cosmos” – a splendour of thinking that manifests also in style and adornment:

the bottom of a cornucopia, rich and saturated with material and informational plenitude that represents both the world as it is and the joyful splendor of thinking. I do not see any difference anymore between reality and representation, since the latter is part of the former. (“Information and Thinking” 19)

At stake is, as we started by saying, how to think of the domain of deliberation and unbound power we are confronted with through quantum physics, and how to learn to temper and moderate it through a “physical culture.” That there is such deliberation, then, is nothing new; what Serres emphasizes is that it is out of scale today, unbalanced and hence threatening. Through “having lost the world” (a-cosmism) in “the stakes of our stratagems” the distance between real and rational has widened. The natural contract articulates the world as cosmos, whose architectonics is constituted by a *pact* where humanity and world conspire, to keep talking like Oedipus and the Sphinx do – not plainly but riddled and tempered. That is to say: to keep talking in coded manners, hence with deliberation,

adornments, fashionings, cosmetically, not despite but exactly because the stakes are high: we talk at risk of death.

How to keep talking, what to talk about if the aspiration is not getting it right at the cost of the other's arguments? Underneath words and languages one finds "mathematical utterances" that are "spoken" by things themselves. In his article "Information and Thinking," Serres puts it like this:

In other words, the atoms encode. Material elements, they perform as well as signs; they inform each other mutually, elect each other, choose each other, reflect each other, repel each other, like the diamonds in that cave of wonders, like all molecules do, like the codes of the living combine with each other and eliminate each other. Therefore their world, just like ours is conspiring and consenting; it is woven with disparate encodings and with composites arranged in networks.

They encode, we encode; they count, we count; we speak, they speak. Knowledge is thus the ability to listen and to translate the scattered languages of things. They usually speak mathematics. (20)

This talk can be "sounded" by coded words that foreground mathematical acoustics and harmonics in the way we connect mathematics to nature. In *Musique* (2011), Serres speaks about a certain musicality in language that involves a peculiar kind of in-attention to sense and semantics (the domain of our stratagems). Serres's style, I want to suggest in what follows, is to "write in many tongues" so as to cultivate such "musicality."

materialist poetics of time

How are we to think of this? We will need to relate the passing of time with such writing. In his contribution to the presentation of Van Cleef & Arpels' watches ("Dur et doux, travail et œuvre" 27), Serres characterizes it as a cosmic kind of architectonics in which work (travail) and work (œuvre) mutually implicate one another. Time clocked by the luxurious jewelled watches opens up a poetics of

time that does not merely concern the art of watchmaking, but that implies a new materialist attention to the preciousness of stones as a complexly tempered and delicate bundle of hardness, forged of polychromatisms and polytopicalities.

What does one see in a lapidary's shop? Rare stones: ruby, emerald, sapphire, corundum or beryl, adamantine transparency; or even semi-precious stones, amethyst, chalcedony, lapis lazuli, topaz, opal, tourmaline... Nothing is harder than a diamond. And yet! So many softly luminous colours emanate from the bowels of these invincible hardnesses: discreetly refracted gleams, a mobile fan of multiple chromatisms, earthly constellations bursting with ochre, sand or pale isabella, here is madder, cinnabar, carmine, here is Vécarlite and poppy, ponceau, tango, bordeaux, glazes of garnet, crimson or vermeil, see your dazzled eyes unfold the detailed, analysed, finely spread spectrum of white light, colourless and, for that reason, little looked at. (28)

With this emphasis, we need to bring light into play, in between time and writing in tongues. Let us inflate the scope to a cosmic scale and think a tripod of light, writing in tongues, and time as an existential kind of metaphysics that starts out from a lapidary's work with and on stones – these "stars in the belly of the earth," these objects "forged of polychromatisms and polytopicalities." This existentialism does not seek to do away with metaphysics – it thinks about metaphysics architectonically. It works out mathematical models that can accommodate how sedimentations of atoms are bound up in mathematical talking that "traverses" a plurality of inchoative formation processes – as processes of massively passing time.

Such an existentialism would want to learn to see in every reasoned object a cosmic *diamond-in-the-forging*. But it is not pure poetic celebration to say that time passes massively. In contemporary cosmology – in quantum physics – light provides the measure for counting time as an absolute value (light speed), while at the same time exhibiting light in a double constitution, as mass, corporal, with temperature, of

colours on the one hand and light as photons, defined as being timeless, quanta of the universe before its “birth” as physics, that is, before the Big Bang. Physics speaks of photons also as “incandescent,” as giving a “cold” light, meaning light without mass, hence without temperature and colour spectra). It is doubtlessly with an acute awareness for this double nature of light that Serres can write:

like anything in the world, like everything that lives, I am a diamond, made of hard carbon that is at times pure, transparent or granular, reflecting a thousand times over the thousand and one hues of the rainbow, shining out of the multiple things of the world and of the thousands of people and living things I ever met. Matter and mirror, media and messages, white and sprouting multiple color lines, bedecked gamut of thousand reflections, I, too, am the cornucopia; the multiplicity of reality downstream and the possibility of limits upstream. Like everyone else. (“Information and Thinking” 19)

A materialist poetics of time – a poetics that celebrates writing in tongues – could perhaps be conceived around adorning the idea of a natural contract into a cosmic marriage of Time and Light.⁸ Awkward and anthropocentric as it might sound at first, the relation of marriage lends itself to thinking the relation between time and light because it is a relation that is essentially subject to a motivic and infinitary mechanics of “con-summation.” The Oikos of this Cosmic Marriage would accommodate a transcendental kind of dialogue (in Serres’s sense of the objective transcendental, cf. Crahay) amidst its cosmic economy (*nomos* of the *oikos*): an involutive formation where Self and World are involved in an ethical and political “dialectic.” We can think of the relation of such an involutive formation as analogous to one between an existentialism that exhausts itself in achieving synthetic reductions by the “literally superhuman effort” that is needed when seeing in the abysmal nothingness (material mass, darkness of the sum of all of light’s temperatures and colours) also the bottom of a cornucopia – a horn of plenty out of which can be drawn white concepts, articulated thoughts of what

Serres calls “the incandescent,” impersonal and objective, capable of “quantum optical insights,” of thoughts “conceived” partly in sync with the white and cold light of photons. “The white one,” Serres elaborates, is “[f]ar from escaping from the common run by means of exceptional qualities, she or he, hidden in the incandescence, melts into knowledge, humans and horizons” (*Incandescent* 120).⁹ Hidden in the incandescence are the white concepts of a metaphysics in which an anonymous, impersonal agency is at work in the kind of “knowing” that this metaphysics “principles,”¹⁰ an agency that addresses the entire world only as a whole, yet relative to a certain scalarity of categories. In Serres, these categories are the sixfold sheaf for this impersonal agency’s “proper name,” what Serres calls its “Pano-nyme”: for all of its places (Pantope), for all of its durations (Panchrone), for the universal worker (Panurge, not demiurge (the public worker)), for all of the spoken tongues (Panglosse), for all of knowledge (Pangnose) and for all sexes, Panthrope (instead of only “man” as in “Anthropos”) (120).

music sum, dignity

If, with and through the arts, one can *study* the nature of such physical culture of self-sufficient things (and not only be involved in this culture’s “makings,” *poiesis*), it is because the style of writing in tongues is a silent way of speaking. Such speech pronounces silences and articulates a spiritual kind of summation. It is a summation that involutes what it composes, a kind of cosmic canonicity. It is in relation to such a notion of canonicity, I would like to suggest, that Serres has introduced the notion of a “music sum” (*Musique-somme*). He writes:

What do you hear beneath these languages of science? I will tell you: exactly what the Sibyls have taught you: the stochastic noise of the world and – you don’t know it yet – its music sum. As Aphrodite, mother of all beauty, born from foam and surf, rises abruptly from the chaotic sea of noise: music.

It smooths its thorns and fits signals to it. The grand récit flows in a grand rhapsody.¹¹ (Serres, *Musique* 19–20)

At the bottom of every humanism, also that propagated by Michel Serres, is what religions call the problem of evil. It is what the modernist belief in progress through science had hoped to deliver cultures from; Serres's humanism weds art with philosophy – the rationality of spiritual summation with that of considerate reasoning – in a notion of knowledge that does not seek to spot, to pinpoint, the revelation of a truth, but that takes residence in a domain of wisdom as the domain of such a physical culture. This kind of humanism praises musicality as a source of an impersonal dignity that pertains to nature at large, including human nature. In *Musique*, Serres almost liturgically attributes to such musicality a power of salvation from evil: *may music deliver us from evil* (37).

silent words, tempered form: architectonics

How to search for such musicality in writing? How to sound silent words by writing in tongues? Serres's interest in a physical culture is an architectonic one, in a sense of that word that is largely neglected today. Mikhail Bakhtin captures nicely what is at stake in this sense of architectonics when he sought to distinguish what he called, in his own materialist poetics, the architectonic form from the compositional and technical forms of lyrical articulations: "The form of the lyrical is architectonic, but there are compositional forms of lyric poems" (270). Bakhtin's proposal and discussion is as interesting as it is intricate; for us here, the important point is this: "Humor, heroization, type, character are purely architectonic forms, but they are realized, of course, through specific compositional devices" (270). What is at stake is that architectonic form regards inner and bodily values, Bakhtin continues, and yet one needs to understand them as forms of nature. He concludes: "They all are achievements, actualizations; they serve nothing, they are tranquilly sufficient unto themselves" (270), and in that they differ from what he calls compositional forms; the latter "have a teleological, implemental character, a 'restless' character, as it were, and they are subject to a purely technical

evaluation: to what extent have they adequately fulfilled their architectonic task?" (270).

Bakhtin registered (and wrote against) a certain neglect of the architectonic aspect of form and formality: "a tendency often arises to dissolve architectonic forms in composition" (270), and as a result one is bound to miss the particular temperament that architectonics brings to form, and which insists silently in any composition. I want to combine this observation with an anecdote Serres tells of a trip to Rome in his youth, where he spent one evening in a tea house. There were women of all ages offering sweets while "chattering elatedly, deafeningly and tipsily." He remembers how he perceived their sound rather than their sense, and he had the obscure impression that he was listening to Scarlatti – "those female coloraturas sounded like the sonatas of that so dry Domenico." He elaborates:

This musician seems to me to compose differently from others, because he limits melody, sometimes even annuls it, in order to remain in the formal: recurring notes, arpeggios, scales, trills, tiroles, ductus, ornaments, appoggiatura [...] Does he reduce his partite to grammar? Less singing, less sense, more pure bearing. In this Roman café, where I understood little, it seemed to me that behind the meaning I heard the scaffolding of this language, its tonal skeleton, its shrill music, its scarlet syntax. (Serres, *Musique* 51)

We usually speak in order to say something, he continues, and then we let the sense of our intention be carried by a grounding that uses vocabulary and syntax blindly: "Attentive to the often banal content of the message, we forget the linguistic tools. We communicate – that's all" (52). But there is another way to communicate, an artistic way – no less formal and technical, but which aspires to "bring out the meaning from pure form" (52).

artistic communication: "bringing meaning out of pure form"

It is with regard to such "bringing out" that architectonics is crucial, and to Serres this

“bringing out” lives from a kind of transcendental listening and hearing of the sound, of the prosody and rhythm in words and phrases. Language works with means whose employment transcends relations of signification and semantic sense-making in a manner whereby the writer acts like an architect who seeks to accommodate what is already here but lacks a place of dwelling together:

If you take only the grammar and the dictionary: what are they saying, together and without an other intention? Rather, what do they vibrate, through consonants and vowels, through word and sentence associations? Either you speak, without thinking, of the means of language, or you let it speak, sound, and sing of itself. (Serres, *Musique* 52)

The ordinary speaker chooses the first, simple solution, as does Serres: “He chats.” But the speaker who is concerned with summation and perfection, the architectonic speaker, will work on her style and voice:

But the architect or builder who works on style or voice – with the two more or less sensible treasures, vocabulary and syntax – devotes himself to the second. A writer needs only these two books in his library: the book of good usage and the dictionary. That is one of the reasons my books have no bibliography. The meaning emanates from the form; it is all the more profound, the more the form obeys these two books or their counterparts on the internet. (52)

Listening and hearing is essentially synthetic; it cannot survive on analytical accounts alone. Meaning has to be “brought out,” “not broken out.” But such synthesis brings out a reduction: The kind of summation such synthesis blooms from praises music as the mother of all sense and meaning, as Aphrodite is praised as the mother of all beauty: arising from foam and surf out of the chaotic sea. As Aphrodite does not claim her children to be mere copies of her own beauty, so music does also not claim sense and meaning to be mere copies of her. Music makes itself heard, if one can listen, at the shores of code and quantification. Music adds

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signals to noise. Serres’s “music sum” generalizes the “stochastic noise of the world.”

To Serres, such ability to give attention by taking one’s individual self out is an art in the old sense of the word, tangled up summation of what cannot be summed up entirely rationally: to speak of a “music sum” is not strictly a technical term, it is a formative term that comes closer to the Medieval tradition of writing “Summae,” or treatises that try to convey something canonic. Serres writes:

Meaning is rarely important, at least in the mundane, where in an audience focused on who will win or who will die, only what is already known is implied or exchanged. (*Musique* 53)

But everything “takes place underneath” what is known (53). And this “underneath” is where Serres’s “music sum” seeks to accommodate the kind of temperaments that belong to form when studied by art and technique:

The writing emanates from the scaffolding, the style lies beneath the meaning and expresses how the pillars, the entablature and the buttresses of this immense scaffolding of vocabulary and syntax have trembled for centuries, which no listener and no writer have fully mastered. What does Scarlatti say in scales and arpeggios? The Acoustics of Italian Grammar. (53–54)

This thematic motif, the cultural and ethical importance of architectonics and style, also underlies his book on Leibniz. A philosophical system comes with “its” mathematical models like a spoken phrase comes with “its” musicality:

Fortunately, Leibniz’s system is made in such a way – if we are careful – that, in a single movement, it constantly builds itself and speaks of itself, it forms itself and describes its formation, that it intertwines, if we may use this word, its semantics and its syntax. (Serres, *Système de Leibniz* 3)

in the time of the analemma

The grand récit *flows* in a rhapsody, but what does it tell of and how? In *Musique*, Serres

celebrates how in the beginning, there is rhythm (not words) – a motion in time that manifests a return to oneself:

Why do linguists have such a hard time with the word rhythm, which certainly describes a return to oneself, but comes from a Greek word meaning “to flow, in the manner of one form (*uniformément*)”? They find a contradiction between the reversible of beating and the irreversible of flowing. But there is only one composition here. (67)

There is something remarkable in how Serres thinks of rhythm, because for him, there are two countering motions tangled up in it – *beating*, discrete tapping, countable, and *flowing*, disbalance, continuous and irreversible. And yet there is only one composition in which these two opposed motions mix without resistance – they mix to do what? To *clock* time. This is how Serres writes it:

In fact, it is enough to have sailed once on the Garonne to know what it means to struggle with the counter-current [...] In life, in the body, in music as, in rivers, the two opposites, imbalance and beating, mix without opposition, such as, overall, to beat time, to compose it, to weave it, I would say, to produce it. Still the spinning top (*la toupie*), the waltz, the pas de deux. (67)

The ideation of such production of time links harmonics to architectonics, whereby the music sum of which Serres speaks comes to act somewhat like the notion of a pre-established harmony acts for Leibniz. It acts as a presupposition, but it establishes an optimist form of criticality in thought which I suggested can be characterized as a positivism of luxuriations. Such manufacturing, such an active role in the bringing about of time manifests “vivid” thought then because life itself manifests in a whirling motion:

Doesn't the universe itself also whirl? Spiral galaxies, solar systems, planets, cyclones, tides, climate ... are they not deviations from equilibrium that are compensated for by rhythms or self-returns? Or rhythms that are uninterruptedly interrupted by

irreversible deviations? It is a matter of making oneself a musician in order to inhabit one's body better, to live one's life better, to finally claim one's own status of being-in-the-world. Live the rhythms of your body, of life, of the rivers, of the world and of the galaxies and you are a composer of music as a matter of course. In this immense musical consonance the body and life beat the time set by rivers and planets. (68)

Elsewhere (e.g., in *The Five Senses*), Serres elaborates how we should see in every organ a clock, how every functional coupling in an organism should not be thought of as a mapping but rather in wholistic terms of rhythmic re-turn flow movement, in and across organs as scales whose “beating together” can be out of tune. The importance Serres attributes to the technical devices of gnomons in relation to geometry and logics finds its roots in the same thinking – there is nothing derogatory about artefacts, to Serres as well as to Leibniz. Matteo Favaretti Camposampiero captured nicely the point I wish to make in an essay titled “Leibniz and the Perfection of Clocks”: “According to Leibniz's rhetoric [...] the invention of devices is neither a purely empirical discovery nor the outcome of mere speculation, but rather the fruit of scientific knowledge of the inner mechanisms of nature” (157). Nature is compared with a clock in Leibniz, as intellection is compared with the writing of the sundial in the tempered palimpsest-surfaces bounded by the analemma in Serres, to clarify the concept of hypothesis by stressing the difference between hypothesis and observation (157). In a contemporary horological treatise on analemmas and gnomons, we find a reminiscence that might help us attune anew to this appreciation for technical devices, largely forgotten today over the debates that obsess with opposing the mechanism to organicism, in how they participate in a physical culture that involves spiritual summation. The term *mechané* means “resourceful” and “inventive” in Greek, and this has implications for epistemological and methodical topoi of *problematics* vs. *axiomatics*, often treated today as

referring to an empiricist vs. a rationalist stance.

The word analemma means much the same as lemma; the analemma is for graphical constructions what the lemma is for geometrical demonstrations; it is a subsidiary figure which is taken up to shorten and facilitate the construction of the principle figure. (Sawyer 2)

Weaving together the proposed threads by plotting the network of their constellation, we could say: occupying oneself with the art of clockmaking fosters a culture of healthy reservations that involves the architectonic agency of an impersonal cogito that thinks of the world, in an objective transcendental that involves many scales, only as a whole, by sounding the realization of its proper name (its Panonyme (Serres, *Incandescent* 120)) as the inchoative identity of contracted nature in formation.

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With the assurance of objective mechanical devices – provided one masters the intellection that has come to fruition in the forging of it – the style of writing in tongues becomes architectonic. Both art and techné, in the old sense of this relation, are tangled up in the summation of what cannot be summed up entirely rationally. To speak of a “music sum” cannot be a technical term in our anti-euphoric praise of technology today; it comes closer to the Medieval tradition of writing “Summae” or treatises that try to convey something cryptic and canonic. Such treatises do not aspire to be creative, they teach how to acquire a tuning of intuition and how to temper one’s attention in concentration and focus. Treatises revolve around instructions of how to handle and touch, how to pick up what is already there, not driven by the “right” or “correct” kind of understanding – but in the rhythmic flow of subtleties and dexterities of an embodied manner of knowing how to make something conveyable, and in that sense, of how to keep something “safe.”

The subject matter of a treatise is that of representation too, but the words in which it is

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written are to turn idea or image – intuitive and imaginative thought – neither into a picture nor into a sentence, but into the *ideational skins* or abstracted surfaces of volumetric figures – into statues, sculptures. Serres evokes hereby a notion of “the general” that is accommodated entirely in the relation between art and mathematics, in a *General Treatise on Sculpture*. Such a treatise would have to be a treatise on, as he puts it, “what has always hitherto been placed outside of Logos, namely Statues that manifest a transcendental kind of silence” (Serres, *Statues*, kindle edition loc. 3785) – a “double kind of silence,” the silence of language and that of noise (loc. 3785). Music and sculpture both precede language, so Serres – “subject side, object side, hard side, and soft side – they go beyond traditional philosophy, which is entirely devoted to the soft and languages,” in order to ask: “Have I succeeded in showing a philosophy, a knowledge, an experience of silence by making an effort toward that hardness?” (loc. 3785).



disclosure statement

No potential conflict of interest was reported by the author.

notes

1 The dual nature of light is one of the key principles of quantum physics, described by the theory of quantum electrodynamics. Light acts both as a wave and as a particle. The potentially confusing aspect concerns the term “particle” used for photons (“particles” of light): photons are labelled as particles even though they are, by definition, light insofar as it has no mass; photons are “mass-less particles.” It is because of this strangeness that the above formulation might sound somewhat tendentious.

2 I have elaborated this optics in my book *Mathematics and Information in the Philosophy of Michel Serres* (Bloomsbury Academic, 2020).

3 This approach is, among others, inspired by Werner Hamacher’s article “Ex Tempore: Time

as Representation in Kant,” where he discusses how Kant characterizes time not only as relation, but also as the relation of representation in a manner in which it no longer describes a relation that is somehow conditioned, but “precisely and only that relation that is only opened in the act of representing and therefore is not in the first instance a relation between representations but one arising from representing itself, a relation arising from a relation” and therefore “the absolute event of the form of relation itself” (3–4). For Hamacher, there is a constitutive analogy at work in his notion of an “ex tempore,” namely that poetics is to philology as metaphysics is to physics. He evokes thereby, in my understanding, a tradition of natural philosophy, a gesture through which he (with his notion of philology) arguably comes close to Michel Serres’s approach in attending to communication through physics. By “natural philosophy” is meant here nothing more and nothing less than acknowledging that physics and metaphysics cannot be purified *against* or of each other.

4 This and subsequent translations are my own.

5 Cf. the edited volume on the Spartan lifestyle in respect to a reevaluation of the role of wealth and luxury in it by Stephen Hodkinson and Chrysanthi Gallou, *Luxury and Wealth in Sparta and the Peloponnese* (Bloomsbury Academic, 2022). While Spartan lifestyle proverbially describes austerity, the contributions to this book reverse the stereotype and explore the role of luxury and wealth at Sparta with respect to a strengthening in the sense of an involutive formation rather than as privileged possession in an affluent and morally decadent lifestyle. Cf. especially Paul Christesen 119–37.

6 The theory of equipollence was developed by medieval logicians and concerned the equivalences that result from inserting a negation sign before or after a sign of quantity, cf. www.oxfordreference.com.

7 Ancient Greek *holokaustos* (ὁλόκαυστος), from ὅλος (*hólos*, “whole”) + καυστός (*kaustós*, “burnt”) or καίω (*kaíō*, “I burn”).

8 Such an idea of adornment follows the tradition of teaching the seven liberal arts by way of personifying and dramatizing its “disciplines,” as in Martianus Capella (*The Marriage of Philology and Mercury*, fifth century AC) or Roberto Calasso (*The*

Marriage of Cadmus and Harmony, 1988). In *Musique*, Serres too evokes this tradition by personifying the arts, but as far as I am aware he does not employ the rhetorical topos that would situate their canonic co-dependency in a speculative marriage plot.

9 In my current understanding, this is what Serres points toward when he speaks of his appreciation for “mystics of mathematics”; but also the third chapter in *Musique*, where Serres thinks about the immaculate conception of Mary is perhaps a place to find more elaborations on how Serres thought of this.

10 I evoke thereby the understanding of metaphysics as operating in terms of doctrines, postulating principles for which no derivative necessity is claimed and accounted for within a particular metaphysical approach itself; in that sense we can speak of “knowing” as being “principled.”

11 Since this footnote is complex to translate, I add the original French:

Sous ces langues de connaissances, qu’entends-tu? Je vais te le dire: cela, justement, que viennent de t’apprendre les Sibylles: les bruits stochastiques du Monde et, tu ne le sais pas encore, leur Musique-somme. Comme Aphrodite, mère de toute beauté, naquit d’un coup de l’écume et du ressac, émerge soudain de la mer chaotique du bruit: la Musique. Elle en lisse les épines et en intègre les signaux. Le Grand Récit coule en une grande rhapsodie.

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