

In Medias Naturae

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Abstract

Media, to Michel Serres, are not solely a cultural praxis, technology, or institution; in his circumstantial universalism, there is a veritable metaphysics of milieu at work. At the core of Serres' relevancy for media theory (on whose project this article focuses mainly) is the architectonic status of public knowledge in what he calls the Chronopedia. This architectonics involves radical reconceptions of space and time that allow philosophy, at least in principle, to maintain compatibility with contemporary science and technology. This article profiles two related projects in the light of each other, that of a Grand Récit of the Universe (Michel Serres) and that of The Unnameable Present (Roberto Calasso). For both projections, there appears nothing more urgent today than re-connecting a broad public vocabulary, repository of images and ideas, puzzles too, as well as expectations and understandings with regard to the abstractions and powers at work in the technology and science that organise how we live today, in the dawn of the Anthropocene.

Keywords

Noise, New Materialism, the Cryptographic Locative, Circumstantial Metaphysics, Diachronicity, Chronopedia, Ecstatic Epiphany, Meteorological Order, Spaces of Similitude, White Concepts, Quantum Optics

Does an intelligence of things exist? Of living things? Does the natural, as though in dormancy, prepare the cultural, in labour or in luminescence? The world's background noise murmurs like a *præ-cogitat* (Serres, 2018a: 37).

Prescript

If one encounters Michel Serres' philosophy through the lens of media theoretic interests, one is asked to submit to a basic inversion with respect to established philosophical pre-assumptions: one needs to begin reconsidering the status of

knowledge in relation to and before the background of non-knowledge. This involves a relative mode of thinking, but one that does not relate to epistemological keywords like superstition, falsity, or the like. Rather, the relativity at stake *concerns* the question – literally ‘takes into’ account, as well as ‘gravitates around’ – how the encyclopaedic scope (or cycle) of public knowledge can accommodate a place for its own background of ‘non-knowledge’. Serres’ work is devoted to straddling a rationalist metaphysics with realism (Serres, 1995a; 1997), in a circumstantial and coincidental universalism (Serres, 1980a.; 2014), he proposes thereby an architectonic of knowledge before the background of non-knowledge as *public* knowledge. This is for ethical reasons, and mediacy indeed plays an important role in this set-up.

Let’s begin disentangling this prescript. In many regards, this project sounds untimely: how could one come along today and say something like this, that knowledge needs to be relativized not with respect to different cultures of it, but categorically, with respect to what it is not – just as knowledge and its secular institutions of governance/administration appear to establish into a truly ‘common ground’ that promises to consolidate cultural differences in a technologically manifested and controllable foundation for inclusivism for our societies? Just as the disciplines keep multiplying, subdividing and re-combining into a great and greater number of specialist academic fields? Just as the sheer amount of people basically literate in the knowledge practices yielded by the sciences, just as the amount of scholars that make a living from being involved in higher education is larger than ever before? How could one come along today, and refuse both: the academic format of strictly demonstrative and argumentative discourse as well as the authority claimed by such specialised discourses, and write instead in a literary language that aspires to be “exact and human” (Serres, 1978), that is informative, convincing, “uncomfortable too” as well as pleasing aesthetically? By writing prose that aspires to be well-done in terms of poetic measures rather than scientometric relevancy or epistemological soundness; beautiful rather than always-already “legitimate”; by publishing in popular media like the radio and TV, with presses that are not primarily publishing academic work, and all the while maintain that what one cares for is the publicness of knowledge? Even more drastically: by maintaining that knowledge can only count as *public* if it keeps ties actively to its own background in non-knowledge? How could one understand in this anything else but empty words, a sophistic (or even populist) agenda?

These are the questions I want to explore here in the form of a commentary; that is, in the form of a text which offers a not-unbiased, yet well-substantiated guidance to the reader in finding one's own ways and dealings when engaging with the work of Michel Serres. The gesture this commentary adapts is perhaps a little bit like that of pointing out a particular constellation of stars in the sky – for which neither sign nor figure has yet been outlined nor coined (at least to my own awareness).

Publicness: How to speak about a screening plot of ecstatic epiphany?

In Michel Serres' late book, *The Incandescent* ([2003] 2018), the first chapter is entitled 'Le Grand Récit' (cf. also Jolivet et.al., 2007; Serres 2007a). Serres' Récit is not called 'grand' only in terms of scope and survey, as in Lyotard's grand narratives (Lyotard, [1979] 1984), but also in those of magnitude and measurement. It begins with the depiction of the 'plot' that this 'récit' is to unfold, and this unfolding is to happen circuitously – repeatedly spoken, repeatedly read, affectively received. It is a plot that relies upon 'depiction' rather than 'telling' or 'writing'. In Serres' book, the depiction of this plot unfolds as a screening scene of revelation, a scenery which is not properly poetic nor dramatic in the modern prosaic sense, nor is it a topos, or a motif, in the artistic/technical sense of rhetorics. Rather, Serres speaks of this plot as the site of "an ecstatic epiphany". This means first and foremost that his passage is to let a peculiar scene emerge before the inner eye of the reader, in a peculiar manner that combines the tradition of the *ars memoria* with the rhetorical one of *ekphrasis*. It does not lend itself so well to put in place and store one's thought; rather inversely, it aims at emptying out the very place occupied by one's thought, in order to render present an ideation that is neither properly one's own, nor that of anybody else in particular. Serres' passage does not speak about the insight, content, or message of such 'revelation', rather it adopts a viewpoint of 'treatment', and considers revelation as the inverse to the art of remembering – revelation, then, is the complementary pole of this art; it complements an art of remembering with an art of forgetting. What we read is this:

At the end of the lane rising through the forest, positioned on a tall grassy hillock, surrounded by a torrent descending from the mountain, a farm

and its annexes overlook a cirque dominated by glaciers. Beneath the morning sun and the motionless air, this view, this landscape, this scene *reveal to me, in an ecstatic epiphany* [emphasis added], the quiet presence of the things in their exact place. Transparent and wide, space here seems to swallow up time, suspended (Serres, [2003] 2018: 2).

This site of revelation is to reveal “the quiet presence of the things in their exact place”. This emphasis on silence is perhaps unlikely for an expectation that builds upon reading Serres foremostly as a philosopher of communication. But this is only when communication is not approached through its physics, which is quantum physics; the physics of communication then starts from the unsettling coincidence of light and mass, as embodied by every sun in every galaxy (stars, according to contemporary astrophysics, are at once ‘all light’ and at the same time the ‘heaviest bodies of all’). This site then, where “all things are present in their exact place”, is the site of a universal ‘order’. This is why this site is full of stillness – in quietness, sounds cancel one another out. Silence is a local property, but the locality at stake cannot be pinpointed as a location within space; it can only be *attended to* – by active recital and contemplation – of how space appears “to have swallowed up time”. Serres’ notion of communication is one in terms of physics, because from its angle, space indeed keeps time suspended¹; this is the core idea of his new materialism in the terms of an intra-material software, a materialism which involves a notion of the generic or impersonal cogito in the singular form, whereby, he suggests, one ought to say of it that “it” thinks like one says “it rains”.²

The act of choosing doesn’t concern us alone. Ice sheets, cliffs, radioactive bodies engram memories. Let’s not claim we alone remember. In short, the things themselves, inert, as well as the living things, exchange elements, energy and information, preserve this latter, spread it, select it. Let’s not claim we alone devote ourselves to exchange. This writing, these decisions, these memory storages, these codings, among other examples, endow objects with quasi cognitive properties. ‘It thinks’ in the sense of ‘it rains’ exists as much as ‘I think’ or ‘we think’ (Serres, 2018a: 191).

What can this gesture, of considering the role of code in this communicational physics in the terms of mnemotechnics and ekphrasis facilitate? *Ars memoria* is a hermetic art when it comes to how it is to facilitate remembering, and so is the case when it comes to facilitating forgetting. But by unfolding in two hermetic directions at once, it can accommodate architectonically an approach to code through cryptography: information now is cryptic not because a direct access to it would have been eclipsed for moral or religious reasons, as for example the story of the tower of Babel seems to convey; rather, a direct access has been concealed simply by time that passes, by things ageing, by the world(s) unfolding throughout the universe since the Big Bang. Relating knowledge to its background of non-knowledge becomes possible because knowledge comes to be treated in a Rosetta Stone manner: its kernel remains dark, many narratives co-exist and need to be translated, and transcribed, into each other (Serres, 1968). This plenitude of story-telling is what the architectonics of knowledge is to lodge; this, at least, is what I would like to suggest considering. The *Grand Récit*, as Serres proposes it for a novel manner of encyclopaedic understanding of knowledge, is architectonic: This architectonic is to accommodate knowledge emplaced in chronic time – in the countable atom time constructed by contemporary chronometry and data science.³ If we continue with the next paragraph Serres wrote after the above one, we can easily find references for better picturing how he thinks of insights due to such “ecstatic epiphany”. The next paragraph is entitled “Descent into duration” and it picks up the motive of the farm and its annexes. It starts as follows:

In front of the door of the house built at the foot of alpine pastures, a little girl of three is playing; as a birthday gift yesterday, she received a cream pink doll with green pants. Behind her, the calm facade with stone lintels still shines with the ochre paint applied with a great deal of effort back when the hay harvest abounded seven years ago. Her grandfather built the metal shed to the left of the main building, itself constructed at the beginning of the last century on the ruins of an old windmill erected in the location of an ancient monastery set up long ago on the premises of a temple – whether Roman or Gallic, we have forgotten – in front of rocks moved by a thousand-year-old flood on the part of this dancing and malicious torrent whose course is dug into the Jurassic strata of the

mountains enclosing the semicircular horizon beneath snows said to be eternal (Serres ([2003] 2018a: 2).

We can see here how the plot where architectonic order can lodge knowledge with its dark kernels, the plot that is ideated as an ecstatic site of revelation by Serres, is at once also the site of greatest possible contingency in the literal sense of the word, namely that of *con-* and *-tingere*: various durations touching upon one another. This approach to time is why Serres stresses again and again how the term *temps*, in French and many other languages too, carries the double sense of time and weather. Indeed, the site of such ecstatic epiphany is thought of as a meteorological order rather than as a cosmic one of divine harmony or the like. Again: Serres' gnomonic architectonics in relation to his proposed circumstantial metaphysics of the milieu maintains that one should say "it" thinks, like one says "it rains". Thought pours out objectively, participates in cycles of elemental transformations like those of ancient meteorology, those that were thought to transform earth, fire, air and water. If Serres was one of the first philosophers sensitive and affirmative for the importance of what is commonly called the Anthropocene today, it is due to this: thought has become a physical force (Serres, 1974; 1995b; 2014; 2016). This force needs to be contracted in a pact with nature (Bühlmann, 2018).

Architectonics of Knowledge: Space keeps time suspended like Chronos does (who swallows his own Children)

With respect to better grasping the ideation of such a mysterious plot, to be reconstructed by a Grand Récit, we can best turn to Serres' article 'Exact and Human'. It depicts the domain of mediality as one of meteorological order (cf. also Serres, 1980a; 1980b), and helps to imagine what kind of architectonic order is at stake thereby. Here, Serres depicts such a mediate domain (the space of similitudes) as a milieu that does not properly belong to one metric space, but is the space of representation, where things can be lodged publicly. Relative to this, we gain a notion of order that is, inevitably, architectonic and schematic (since the notion of 'space', here, remembers its geometric constitution in an established homothesis, and is hence one of analogy, and proportionateness). This schematism is to present order derivative to the objective (gnomonic) transcendental,⁴ and he elaborates:

Here we have it: it is indeed a question of a homothetic standard and of conveyance, of increasing and decreasing. The space of similitudes is indeed that of ordinary geometry, hence the loss of movement, the immutable is stationary. It is the space of “like,” and the space of model. [...]

The space of similitudes, well-embedded in the chain of inclusions, well-marked by the law of relations, and where the local corresponds to the global, the space of representation and images, of shield and iconography, remains, of course, a schema of ordering (Serres, 1978: 11-12).

The architectonic domain of such contingency manifests, hence, architectonic order through staging schemata of ordering, in great plurality. For each schema, it is valid that its ‘local’ corresponds to a ‘global’. Thereby, since there are many forms of metrics of ‘locals’ and ‘globals’, architectonic order takes on an *active* form – there is structure at work in schematic ‘ordering’. Here lies the radicality of Serres’ proposal, namely that the domain of milieux manifests a *structural order* which, because there is a plurality of schemata, in reality nevertheless is also hierarchical. To relate structure to hierarchy offends the beauty philosophical structuralists see in the notion: it affirms that mathematically speaking, structure is an algebraic, a topological notion. From an epistemological point of view, it is often cherished as differing from ‘order’ (which mathematically speaking is a geometric notion), in that structure is supposed to remain neutral with regard to hierarchy (hierarchy is inevitable in any geometric order). But Serres’ interest is to relate a rationalist metaphysics with realism,⁵ and hence in an *architectonic* notion of ordering (not an ontological or epistemological one), and this can no longer be reduced to strictly ‘mathematical’ reasoning. To Serres, there is an architectonics of knowledge (rather than a history of ideas, or one of epistemological practices) because structure is, mathematically speaking, always characterised by an immanence of ordering relations which, in turn, are subject to a calculus.⁶ Constitutive for what is called linear algebra, the ordering relations of a structure can be computed combinatorically. Here lies an often-held misunderstanding: topology and calculus are *in pact* together, this is the key motive of all structuralist theory. Models that are exact, in the mathematical-empirical sense of the word, are organised by such a *pact*. This is a radical stance that insists, contrary to 20th century philosophy, that *there is* thinking at

work in mathematics; mathematical thinking then remains tied up with ethics and aesthetics. It is what Serres elaborates in his early book on Leibniz (Serres, 1968a), with its emphasis on mathematical models and how they organise multiscale domains. Such models, even though they are exact, need to be addressed as architectonic, namely as “exact and human”, rather than as ideal and formal; in the terms of Serres’ architectonic realism, one must think of mathematical models as always contracting with other mathematical models, in nested relations – just like in the space of similitudes, of which he speaks in the above citation. Let’s return to it and continue. Serres elaborates:

The chain is structured by a relation of order. The house in the street, and the little street in Guérande, the city in its province, and Brittany in France, all of this is non-reflexive, asymmetrical and transitive. Here then is the *structural order* [emphasis added] that can unfold in a carillon-arrangement of models (Serres, 1987: 12).

Whenever the immanence of a structure is being employed in reality, it manifests as a chain. Serres here refers to the multiscale of an order that is structural as “a carillon-arrangement” of models; it constitutes an economy of the universe that accommodates a harmonics which is subject to *being played* with a “keyboard”, and which is, hence, a universal harmonics *because* it is capable of making sounds and music as well as of producing noise and clamour, not despite this. Such a universal harmonics is how the place of ecstatic epiphany is, to Serres, the place of *silent* presence of things in their exact place.

The Unnameable Present

Let’s take another angle, and bring into play Roberto Calasso and his re-conception of history, such as to avoid solipsism. The Italian philologist, who like Michel Serres invests his oeuvre in a re-conception of time, also explores a circular kind of ‘writing’ that in his case anchors in how to translate between a mythic time of metamorphosis and a computational approach to form. Let’s bear in mind that where, for Calasso, a philological kind of erudition plays the central role with respect to such translation, there is a communicational (information theoretic) understanding of physics at work for Serres. But where there is a clear like-mindedness between them is in their

commitment to a realism that concerns the rational (reasonable) order that can accommodate the transformative self-referentiality of myth with its foundations in rite and cult, and hence also the cosmic and social constitution(s) of such architectonic order. Both project thought into a space of similitudes, and explore the topologies of substitutions facilitated in the ‘places’ that provide ‘residence’ there. Let’s see how Calasso’s approach to re-conceive of history unfolds. He begins his recent book entitled the *Unnameable Present* thus:

For we who are living at this moment, the most exact and most acute sensation is one of not knowing where we are treading from day to day. The ground is brittle, lines blur, materials fray, prospects waver. Then we realize more clearly than before that we are living in the “unnameable present” (Calasso, 2019: 3).

Calasso’s notion of time too remains attached to the world, while not being properly *of* the world. Where Serres speaks in terms of mathematical models with respect to the multi-scalarity that applies to architectonic ordering relations, it is the notion of ‘prosthesis’ that allows Calasso to speak of a temporal (a tensed and tempered) ‘present’ that cannot *properly* be named. For Calasso, the tensed present counts as the ‘improper’, in the sense of an ‘in-appropriable’ *em-placement* in time – it counts to him as the domain where life ‘occurs’ and takes place. Like Serres’ notion of the mathematical model (on the algebraic basis of structure), Calasso too has an operative notion which allows him to maintain this stance. His is that of ‘prosthesis’. It too intercepts algebraically into the domain of mimesis and similitude. For Calasso’s notion of philology, as for Serres’ notion of communication, ‘language’ is code-constituted and manifests materially – for real, but as a site of mysteriousness: “For science, the ‘unreasonable effectiveness of mathematics’ is the mystery of mysteries” and “no explanation has yet been given for this” (Calasso, 2020: 114). To him, the ‘unnameable present’ is a place of contingency, where different temporalities touch upon one another. To Calasso as to Serres, such a place unfolds as the plot of an ecstatic epiphany where life *really* but *mysteriously* takes place. Calasso’s re-conception of history involves a circular – algebraic – form of writing, and this is because, like Serres’ notion of the *Récit*, it treats of repetition and mimesis, but by taking in a polluting, parasitic, element via a material notion of time that passes, percolates; it is a temporality in terms

of material ageing, but the referent of such ageing cannot be named (identified). Let's see how Calasso introduces this notion of 'prosthesis', in his book *The Celestial Hunter*:

If pushed to the extreme, imitation is metamorphic. Not only does it reproduce something that was previously extraneous, but it assimilates it. It brings the imitator inside the imitated—and vice versa. In metamorphosis, the imitator invades an entity from which he allows himself to be invaded. When the imitator goes back to where he started, he will no longer be the same. Something of what he has imitated is now a part of him (Calasso, 2020: 104-105).

The situation of imitation can become "desperate", that is when there is no return from metamorphosis: "Metamorphosis, then, rather than expanding a being, imprisons it," Calasso considers and continues: "If, on the other hand, the imitation develops a prosthesis, it takes over a being for a certain time—and can then be cast aside" (Calasso, 2020: 104-105). What he calls 'prosthesis' intercepts into the domain of imitation and similitude by factoring in something extraneous to both the imitator and the imitated. This extraneous thing, this is knowledge related to in a mediate order of modelling, mediated via algebra/myth and code (rather than speech or writing or geometry or arithmetics immediately).

Hence, prosthesis here is not so much at play with regard to complementing, augmenting, the bodies or minds of individuals. Rather, it comes into play in order to establish an impersonal cognitive domain, to which Calasso does not hesitate to attribute the status of agency. The domain of the impersonal singular, the 'it's' agency, manifests as a reservoir, a repository of in-appropriable power that consists as knowledge, and that can nevertheless not receive a proper name – it can only be reasoned through an interplay between connection and substitution; this indeed is what code does, namely to link together and to introduce place-holder marks. Without such a material and communicative order constituted by code, namely

[w]hen imitation entails an appropriation, it also harms what is singular: an inevitable act, since knowledge, above all, means moving ahead in the dark, imitating. The violence of imitation is hidden in every act of knowledge. And first and foremost in this most obscure and critical

process is the transition from the realm of metamorphosis to the realm of prosthesis.

And this transition, he continues, is

accompanied by an immense growth of power (which is still occurring) and a gradual elimination of the communality with the rest of nature. What mankind had lost, in relation to primates, in the fixity and certainty of their repertoire of gestures, it would recover in its capacity for metamorphosis (Calasso, 2020: 106).

The prosthesis hence alienates whoever employs it with respect to the gestures it had acquired and interiorised before, but it also introduces – objectively so, impersonally so – a capacity for substantial change. “The prosthesis is defined by the fact that it can always be detached from the person who carries it,” and “it is first of all an imitation” (ibid., 106). This is important because with such a code-based architectonic, it is conceivable how to think an order with respect to the world that accommodates the power of knowledge *amidst* and *amongst* the very things this order orders – Calasso’s concept of prosthesis, like that of mathematical models in Serres’ approach, places knowledge within temporary bounds of time passing materially. Consequently, every imitation unfolds as an act of simulation. Let’s see how prosthesis interferes here:

Simulation presupposes, in the end, a return to the state from which we had begun. But this doesn’t guarantee that we can effectively begin all over again. The prosthesis is a way of sidestepping this inconvenience. It always remains available. It can be used or not used—though it still offers the certainty of the object, its fixity (ibid.: 104).

It would be naïve however to think the most powerful prostheses are extensions of the body (instruments, weapons, etc.), Calasso maintains. Rather, these are prostheses that all depend on other prostheses – he names formal systems, algorithms here – which are “sequences of fixed signs on an impalpable medium” (ibid.: 114). Here is one of the rare instances where we find used the term ‘medium’, with respect to signs, in Calasso. But different from linguistic theories, which celebrate the palpability of materials through the medium (e.g. McLuhan, *The Medium is the Massage: an Inventory of*

Effects), a code-based, information theoretic approach gains from the medium-sign relation a notion of the impalpable. Calasso, the algebraic philologist rather than the linguist-anthropologist or media theorist, speaks of certain “sequences of fixed signs” as a prosthesis because they are preserved within an *impalpable* medium of which, he maintains, “paper is an imitation”. What he calls “the wonder of the prosthesis” is not just that certain mental operations are transferred into an object, such as the computer, but that these operations are applied to the world (*ibid.*). And the notion of the world at stake here is a realist one, according to which the world “is external to us as well as to our prostheses” (*ibid.*)

Interlude: Didactics and ideology within the power of institutionalized media

Let’s turn briefly to how we started, to the prescript added to this text. This aspect, the status of something that counts as external to us as well as to our prostheses/mathematical models, is precisely what the currently established politics of basic as well as higher education disrespects. We ought to relate knowledge to its background of non-knowledge, this is what we started from. This disrespect manifests in one particular condition today: namely the hesitation to engage philosophically with the implications of quantum physics – which manifests itself essentially as a quantum optics, and a quantum mechanics that operates upon the spectrality of matter in the domain of probability. The currently established politics of knowledge, which specifically Serres sought to step out of, aims at instilling trust into science and technology as forms of *positive* and *secular* knowledge and power from an as early as possible age. Most likely because the basic ideas of quantum physics are held to introduce too much confusion,⁷ and hence prevent the building up of trust, pre-university school curricula have begun to cancel quantum physics out of their teaching subjects all together; or if not proceeding so drastically, they render it – for didactic reasons – continuous with the classical paradigm of Newtonian forces. A broadly cultural and even a philosophical engagement with this new kind of physics, and its mathematics, remains largely missing also in academia. Here, an interest in quantum physics by a non-physicist tends to be considered ‘esoteric’; suspicions of new-ageism are quickly being expressed. Its acceptance would counter-act the post-war (WWII)

trend to territorialise science into fields of specialist expertise and administration, and the industry-driven paradigm for research which this facilitates.⁸

Unlike that of many other voices in media theory, Serres' style was in search of a popular discourse accessible on many coexisting levels – he developed a rhetorical and poetic style that is capable of reaching lay persons as much as experts. Serres' interest in literary language, in poetic meter and rhetorical figures, in etymological methods, and the building out of novel vernaculars, never accepted the separation of writing into precise and formal styles (academic) vs natural language of speech and journalism. Also, his acceptance to engage in popular media formats, especially radio programs and TV shows, is very likely informed by the same ethical maxims. I say unlike the broad tenor in media theory, which has evidently become more and more ideological with the increasing power over the social foundations of civil order, because Serres maintained a disgust towards employing ideology in his work; where a popular voice usually travels by ideological vessels, Serres always invites us to travel in the vessels crafted by metaphysics and mathematics.

Metaphysics of milieu: Empty words, white concepts

But what is meant by 'employing ideology' in popular writing? Serres comments on this condition (which is one of illiteracy with respect to contemporary physics⁹) with his discussion of 'matter' as an empty metaphysical word. In *Statues, First Book of Foundations*, he elaborates:

“Matter” remains an empty metaphysical word, with neither value nor foundation in the physical sciences. If philosophy doesn't have to dominate science or become its slave or handmaiden, it must at least maintain compatibility with it. Now under the word “matter” in the subject catalog in the libraries, it can easily be verified that matter left positive knowledge around two centuries ago, and that consequently it won't be found there. Some political philosophies use it while laying claim to that scientificity that would give us divine knowledge if we could define it. Misleading advertising sometimes seduces: above all in philosophy because its practice requires an entire reflexive metalanguage in which one says what one is doing without always doing it. Physics ignores matter, for

its part, studying atoms and particles and calculating their mass. Language knows matter better and links it to the mother, its origin, if I dare say so (Serres, [1987] 2015a: 51).

To call matter an “empty metaphysical word” does not entail that metaphysics at large were nil and void of relevancy; it reveals matter, which in the vocabulary of most lay people stands at the centre of physics, as a metaphysical word which is in the citation above discredited because it is associated with the wrong place, namely the positive knowledge associated with physics. What used to be denoted as ‘matter’ in the classical paradigm of physics, with its notion of natural forces and laws has, with the emergence of thermodynamics in the 19th century, long given way to less deterministic notions of energy balances, the differential spaces of heat and weight, to entropy measures; and throughout the 20th century it gave way to even more abstract relations of mass and light, via the entropic as well as negentropic relations between energy and information. By failing to consider that matter is itself *of* light, the reference to ‘matter’, due to the ‘scientificity’ which this term connotes, has thereby turned into an ideological instrument.¹⁰

Nevertheless, one would be mistaken if one thought that Serres deems ‘matter’ a useless concept of a bygone time; quite the opposite. The concept of matter needs to be placed again in its adequate context, which is that of metaphysics. Indeed, Serres complements his project of a Grand Récit with a metaphysics which he calls ‘white’: White metaphysics is Serres’ concrete proposal for a novel materialism capable of considering light in terms of mass – and mass in terms of light, in a relation facilitated as well as mediated by a material notion of time that passes – percolates – throughout and within the domain of chronic time (history) like the weather: universal but cyclical, locally varied and as a physical force (cf. Bühlmann, 2020). The reason why the concepts of this metaphysics are called ‘white’ is with reference to the ‘white light’ out of which all mass in a galaxy is formed. We can easily see an analogous reasoning here like that of Calasso, with the *impalpable* medium “of which white paper is but an imitation” (Calasso, 2020: 114). When Serres maintains that “language knows matter better” (Serres, 2015a: 51), and that it links it with its own origin, the origin of language (*ibid.*), Serres is seeking to establish a frame to maintain compatibility with regard to the literally universal, in the sense of astronomical scope of contemporary physics:

When physics concerns itself again in investigations of originality (the notion of the Big Bang and the age of the universe, according to which we determine the atomic weights of sub-atomic particles; chronometry in terms of light's speed; geology and evolution as sciences that determine the appearance of life forms on earth, etc.), then so must our spoken tongues.

How to think of the origin of language? *Through public knowledge*, Serres maintains; we cannot think of it through religion or philosophy directly, with their emphasis on Hebrew, Greek, Latin, or any other particular 'first tongue'. Unlike those, mathematics counts to Serres as a language that is not, on a social level, proper to anyone natively. It needs to be acquired; but the form of its 'words' can doubtlessly count as universally valid. And just like it is (mathematical) information theory which facilitates the investigations into the originality of the universe, the earth, etc., information theory also facilitates investigations into the originality of the spoken and written tongues. The concepts of this metaphysics do not seek to do away altogether with mythic or religious associations and beliefs, but they push those beliefs into a background noise which demarcates the boundary between physics and metaphysics, knowledge and non-knowledge, public knowledge and its many and diverse concrete practices. Serres' white metaphysics says nothing-at-all, that is: nothing in particular before the background of an all; and there are clear instructions (meta) of how to 'speak' (physically) like this: White concepts are constituted logically of a sheaf of six categories that are to articulate the world's proper name in all the world's places, durations, workings, spoken tongues, colors, sexes.¹¹ In 'Information and Thinking' (Serres, 2017), Serres elaborated how all things in the world 'communicate' with empty words. It is communication as a silent form of speaking, rather than communication through lettered writing; for there is a metaphysical 'presentness' in effect, a voidness that facilitates the circuitry of information: all things send, receive, store and trade information, Serres maintains:

Bacteria, fungus, whale, sequoia – we do not know any life of which we cannot say that it emits information, receives it, stores it and processes it. Four universal rules, so incontrovertible that, by them, we are tempted to define life but we are unable to do so because of the following counterexamples. Crystal and, indeed, rock, sea, planet, star, galaxy – we

know no inert thing of which we cannot say that it emits, receives, stores and processes information. Four universal rules, so uniform that we are tempted to define anything in the world by them but are unable to do so because of the following counterexamples. Individuals, but also families, farms, villages, cities and nations – we do not know any human, alone or in groups, of whom we cannot say that they emit, receive, store and process information (Serres, 2017: 13).

If one understands the architectonics of such a materialist notion of natural conception, whose agency is the nature of the world, including the human nature – as articulations of the white concepts by an objective Logos that speaks silently and naturally – one can see how Serres' new materialism can indeed hope – yet not guarantee – to find ways of maintaining compatibility with contemporary mathematics and its abstractions (category theory, sheaf and topos theory for example): 'Proper' to the name of the world, with respect to the universality that can be claimed by the energetic 'breath' articulated of such speech, is the entire genealogy and architectonic of the universe, including the domain of so-called pre-history – i.e. the time before the appearance of writing (Serres, 2016). Such a material mode of conception proceeds by indexation, by pointing out constellations. Its conceptions are articulated by a voice that speaks objectively and silently – in order to let thought percolate; in order to 'let it rain'. Therefore, such silent speech *articulates itself* in many scales all at once, but in an eco-sophical sense we might perhaps say, also transversal throughout. Such translating speech happens as if articulated in many tongues.¹²

Seeking to address the world in its proper name parallels in many respects Calasso's unnameable present; although for Calasso, the unnameability bears facets of an accusation of 'homo secularis', whereas Serres' gesture is more apologetic, addressing the situation in terms nature/physics. But for both it is the philosophical quest to know, that *through* participating, situatively, in a universal play of imitation, one can hope – but not be sure – to step out, for a while, of the tragic cycle of imitation that is submitted to a give and take. Animated by such hope, such translation gives itself in – seeks to be consumed – in a quickening and insatiable aspiration. It is imitation driven by aspiration rather than desire, and as such it is conspirative. It participates in a conspiracy that wants to say nothing in particular, by learning to attend to the world

as a miraculous site of inexhaustible ecstatic epiphany. It is this conspiracy in attentiveness that, like photosynthesis in the world of plants, facilitates growth in a kind of cosmic ornamentation that celebrates *this* life, always here and now, through descending into durations. Such is the mode of aspiration that gives birth to and comes to coincide with what Serres calls ‘physics’ that can be born from relating the symbolic to text (Serres, [1980] 1982) mediately so. It is the proposal of a monadism, but one where immanence coincides with necessity that arises out of contingency. When the classical formulation for the symbolic in terms of a monadism is: *The king is dead, long live the king*, then Serres’ materialist notion of the symbolic complements the immanence of the intellect with one of the body: *Nature is dead, long live nature*. The form of its quest is performative and representative, cyclical and radiatingly active, as well as multi-linear and diffractively reflective. This is because the intellectually open quest may be impredicative, but it is nevertheless bounded as if by a horizon, from Greek *horizon* (*kyklos*), “bounding (circle)”.¹³ There is to every self-referential pursuit of such meteorological thought the bounded scope of a generic kind of iridescent rainbow; generic, then, refers here to the public domain of chronopedic knowledge – Chronopedia, this is indeed the term Serres introduces in the *The Incandescent* for a new politics of public education.

Coda: Iris and iridescent horizons, in a new materialist key

The constellation that I aimed at pointing out in my commentary here, which lets us sight such horizons, should perhaps be called by the name of Iris. Iris is a word of unknown origin and traditionally derived from PIE root *wei-* “to bend, turn, twist”. Is it a kaironic coincidence that the name *Iris* also stands for a cultural form of public service? Her name used to refer to the minister and messenger of the Olympian gods (especially of Hera). She was visibly represented by the rainbow, which was regarded in antiquity as the descent of a celestial messenger. From the oldest parts of the Iliad, so we can learn from the etymological dictionary, the word is used for both the messenger and the rainbow. Another sense was “prismatic rock crystal”, and it also names the eye region which gives color to the eye; the Greek word was used for any brightly colored circle “as that round the eyes of a peacock’s tail”.¹⁴

This proposal, to name the said constellation by the name of Iris, is also to honour Michel Serres’ imports to media theory in the appreciation of one of his most daring

but also cryptic books, *Eyes, Thinking in the World* (2015). Serres pioneers in this book a radical philosophy that aspires to achieve compatibility with quantum optics by interrogating ways of seeing, thinking and knowing. He explores in it the capacities of eyes as *organs* and *instruments*. Instead of adopting a cognitive science approach or a faculty psychology approach for thinking about the subjectivity of knowledge, Serres affirms human intelligence as but a subspecies to artificial intelligence (Serres, 2007b; 2014a; 2014b; 2015c). The agency of this artificial intelligence too is generic (in the sense of being universal, like human intelligence is too); the agency of this artificial intelligence is embodied in the Gnomon, the sun clock, to whom the objective cogito committed to public knowledge is to subject. Relative to it, knowledge is objective – but this is far from a further disenchantment of the world. Rather, objects “cast shadows once again”, as Serres (1972) maintains. By employing his own metaphysics of white concepts, the *ekphrastic ars memoria* of remembering and forgetting which it facilitates, Serres can ask again questions like these: how do we see? What is seeing, or being seen? Can we imagine the sight of non-human eyes, and how does this change our perception of the world and ourselves?

Key to asking these questions once again in a fresh manner is agreeing to cope with the embodied reality of knowledge (Serres, 2015.). This is what makes Serres such a relevant source of inspiration, also for new materialist media theory.

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Notes

- ¹ This is important because here, Serres' approach differs from the usual attention given to communication by philosophers, which is rather epistemological and relates communication via logics to space (not via mathematics, as we will see, to physics).
- ² The agent here is the gnomon, the objective subject of intelligence insofar as intelligence is artificial. The objective agency of the gnomon is constitutive for Serres' notion of the objective transcendental, see (Serres, 2018a: 37; 1995c); cf. also Crahay (1988) and Bühlmann (2020). It is through gnomonics that the Grand Récit aims at reconstructing conditions for knowing that may date back millions of years, by studying how objects keep universal time suspended as if "a sort of temporal transcendental" (Serres, 2018a: 37).
- ³ Serres sketches this as an outlook at the end of his book, and calls it accordingly "the Chronopedia"
- ⁴ See footnote 1.
- ⁵ This is how his arguably quite enigmatic text, 'Les Anamnèse Mathématiques' (1968c), can be read with great insight; substantiating this reading is also the way in which Serres relates Mathematics and Myth (Serres, 1968b; see also Bühlmann, 2020: ch.7).
- ⁶ Cf. Malabou, 2016, who makes a similar point with respect to a certain blindness at work in many monist philosophies of immanentism.
- ⁷ Like the collapse of the categorical distinction between matter and light as its immaterial counter-pole (a 'quantum' is, de facto, a quantum of the sun's white light radiation), that between unambiguous hierarchy between foreground and background in an observation (particle and wave aspects of a 'quantum').
- ⁸ This, to Serres, is the employment of ideology at the basis of the thus socially constituted 'common ground'.
- ⁹ Cf. Bühlmann, 2020: Introduction and ch. 1.
- ¹⁰ It seduces by misleading advertisement, and fosters the development of purely reflexive (not ordinarily practical) meta-languages which decouple the ethical responsibility that arises from relating *knowing* to knowing what one is doing by experience.
- ¹¹ Serres, 2018a: 120: Pantope (all of its places), Panchrone (all of its durations), Panurge (not demiurge, the public worker, but the universal worker), Panglosse (all of the spoken tongues), Pangnose (all of knowledge), Panthrope (all sexes).
- ¹² Serres, [1977] 2018b: 42, where what Serres calls "The Invention of the Paraclete, on the Pentecost" model of communication. Cf. also Bühlmann, 2020: ch. 6.
- ¹³ From *horizēin* "bound, limit, divide, separate," from *horos* "boundary, landmark, marking stones".
- ¹⁴ www.etymonline.com

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