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RESEARCH

Telluric Recollection: On the Disappearance of History in Deep Time

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Since the turn of the millennium, the humanities have been progressively forced to come to terms with the materiality of a warming world, in particular the entanglement of natural environments with technical infrastructures that lies at the heart of anthropogenic environmental change, and its implications for the hithertofore seemingly impenetrable ontological wall of separation between natural and human history. In an effort to address the concomitant insufficiency of remaining solely at the discursive level, some scholars have sought to reorient the interpretative concerns of the humanities by submerging the modern subject into geological registers of deep time. This paper cautions that along with such a reorientation, any sense of a limit – such as a horizon of understanding belonging to human history – recedes into the modal void of deep time, with the unfortunate side effect that questions of human agency and responsibility have a tendency to get lost in the more-than-human networks of the earth's geophysical forces. This is ironic, given that the purported novelty of the so-called 'Anthropocene' condition is to highlight the anthropogenic dimension of global environmental change, and thus the deep time consequences of human action.

Keywords: Deep time; geology; history; the material turn; unconscious

A 'Material Turn'

Around the turn of the millennium, the political, economic and not the least environmental state of the world seemed to demand of the human sciences that they rediscover the significance of materiality – and that they certainly did! In the wake of having laboured for almost two decades under the hegemony of social constructivism in the continental-philosophical tradition, and linguistic analyses of language games in its analytical counterpart, philosophers and social theorists alike, united in their reaction against the '[…] excessive power granted to language to determine what is real' (Barad 2003: 802), began exploring various avenues for affirming the primacy of matter. Often with an appeal to natural scientific discoveries of the latter half of the twentieth century, such as climate change, ecological collapse and the mass extinction of species, scholars of such a 'material' inclination have turned a critical eye to the prevalence of the idea of humankind's presumed removal from nature in Western metaphysics, emphasising in its stead the more-than-human configurations that symbiotically connect humans to their terrestrial environment in relationships of reciprocal interdependence.[1] The ground for one such avenue, which I will be chiefly concerned with in this paper, is the post-war global environmental change research program, which, since the 1980s, has gradually rigidified into the transdisciplinary endeavour known as 'earth system science', and then, in the early 2000s, exploded onto the scene of the public consciousness by framing the global implications of the 'material turn' with the help of the now-popular neologism 'Anthropocene'. Indeed, the widespread adoption of this term during the last 20 years – in the natural as well as the human sciences – indicates the wide acceptance of the view that human activities have become such a powerful driving force for global environmental change that our destructive legacy will be recorded in geological history (Crutzen 2002; Crutzen & Stoermer 2000). Humans now move more rock and soil than all of the earth's glaciers and rivers combined, fix more nitrogen than microbial activity does and consume such vast quantities of resources as to qualitatively alter the structure of the planet as a whole (Galloway 2004; Wilkinson & McElroy 2007). Although the Promethean myth and the interpretation of the human as essentially Homo faber points to a prevailing cultural self-consciousness in Western history which refers to humankind's remarkable ability to drastically alter his environment, there is nevertheless the sense that modern technology represents an entirely novel ontological condition (Bonneuil & Fressoz 2016: 19, 37; Chakrabarty 2012: 9–15; Hamilton 2017; Hamilton & Grinevald 2015; Zalasiewicz et al. 2010). In fact, it has become a generally accepted claim that, in the twentieth century, a new component of the earth established itself: The emergence of modern technology as a multi-scalar system, comparable

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in the reach and range of its effects to the planet's geospheres (Barnosky et al. 2012; Ellis & Haff 2009; Haff 2013, 2014). As industrialised humankind has literally become a 'force' to be reckoned with on the geological scale of deep time – an agent exerting a domineering influence on par with the earth's geophysical forces – issues of global environmental change appear both as consequences of human activity qua geophysical force and as an urgent and inescapable demand to take responsibility for the faltering sustainability of the biospheric life-support system.

In the Anthropocene, the ontological dichotomy between nature and artifice has supposedly imploded, resulting in a deep intertwining of the fates of humans and the earth. We need only to consider the global environmental challenges that we currently face – an accelerating loss of biodiversity, degradation of land and freshwater, rapidly changing precipitation patterns, increasingly frequent extreme weather events, declining permafrost, etc. *ad nauseam* – for it to become evident how these are increasingly experienced as indications of an osmosis between nature and artifice: Between the artificial products and processes of humankind on the one hand, and the natural products and processes of nature on the other, gradually suffusing into each other to create an amorphous, indeterminate hybrid of the two (Ellis 2015; Ellis & Haff 2009; Haff 2013). As stated by the chair of the Anthropocene Working Group of the International Commission on Stratigraphy, Zalasiewicz et al. (2010: 2231), '[…] the Anthropocene represents a new phase in the history of both humankind and of the Earth, when natural forces and human forces became intertwined, so that the fate of one determines the fate of the other'. Most forcefully argued by the historian Chakrabarty (2009: 207), the Anthropocene entails a novel conceptual circulation across deep and historical time, posing a powerful challenge to the modern, ontological separation between the two:

> [T]he distinction between human and natural histories – much of which had been preserved even in environmental histories that saw the two entities in interaction – has begun to collapse. For it is no longer a question simply of man having an interactive relation with nature. This humans have always had, or at least that is how man has been imagined in a large part of what is generally called the Western tradition. Now it is being claimed that humans are a force of nature in the geological sense.

By the 'geological sense', Chakrabarty (2009: 220–222, 2015) refers not only to the empirically observable effects that humans have had on the earth, but also to the alterations in self-consciousness undergone by a culture experiencing an increasing unease as it pertains to its own alienation; that is, as an active participant in, and as a driving force of, global environmental change. As the climate impact researchers Johan Rockström and Will Steffen (Steffen et al. 2011: 757) have repeatedly emphasised, '[w]e are the first generation with widespread knowledge of how our activities influence the Earth system, and the first generation with the power and the responsibility to change our relationship to the planet'. It seems that, if anything, the Anthropocene signals that there is now an encouragingly widespread recognition that we are in the midst of a unique phase in human history, where, for the first time, we have been made aware of the causal connection between events on the geological scale and the everyday practices of our daily lives. Likewise, if the Anthropocene carries any meaning, it seems to consist in its challenge of the assumption that whatever remains natural about humankind – our essence – has no real history, while the rest of the world supposedly belongs to the province of an entirely distinct 'natural history', such that, insofar as humankind does have a history, it is only relevant to the extent to which human activities are artificial and, in effect, unnatural. History, in the conventional sense of the word, and to which artifice thus belongs, only commenced, then, when humans began to act 'unnaturally' – to craft tools, cultivate crops, and eventually erect entire civilisations (LeCain 2016: 15). But according to Chakrabarty (2009: 201–207), our knowledge of anthropogenic environmental change has breached this once seemingly impregnable ontological wall of separation (Chakrabarty 2009: 201–207; Szerszynski 2017); and the Anthropocene is precisely the name for the existential implications of this ontological collapse.

What better indication of the insufficiency of reconciling oneself to the prison-house of language, and hence the necessity of attempting a jailbreak on the post-Kantian shackles of the 'correlationist' circle (Meillassoux 2008: 5)? Surely, problems of global environmental change lay bare the absurdity of historicising or deconstructing oneself out of a changing climate, and thereby forces one to seriously confront the residual traces of Kantianism still at the heart of a culture obsessed with the interpretative aspects of an unsurpassable conceptual horizon? It seems but indisputable that no matter the amount of discursive analyses produced, the human sciences will merely contribute to their own self-obsolescence insofar as they continue to ignore the fundamentally material aspects of a warming world. If one happens to be hermeneutically predisposed, however, and especially if it is a predisposition of the 'suspicious' kind, such a conclusion will unlikely be accepted at face value. Not the least because, in the essential indeterminacy between nature and artifice, the question of their relationship is also abolished, thereby leaving one with a confounding dilemma: If nature is intertwined with artifice in its very being, then how might one even begin imagining a different attitude to one's environment than the current, technological one? For while addressing contemporary environmental problems requires knowledge of how physical processes in the natural world operate, it also necessitates a critical self-consciousness that pertains to the understanding of 'the natural' vis-à-vis 'the artificial' that underlies this kind of knowledge production. Proceeding from the latter, this paper proposes to examine the kind of subjectivity – or, as I will argue, the complete lack thereof – that figures in the Anthropocene discourse, paying particular attention to the suggested erasure of the ontological divide between nature and artifice that characterises the concomitant

'material turn' in contemporary theory. Contrary to taking the supposed ontological implications of the Anthropocene for granted, I will stubbornly return to the Kantian question *par excellence*, that is, to the conditions of possibility for the aforementioned erasure. Although some would surely deem my Kantian predilections a 'regression' rather than a 'return', the reason for insisting upon this seemingly exhausted project is born out of a concern – and it will be my task to demonstrate, during the course of the paper, that this concern is well-founded – that the disclosure of the earth in terms of an ontologically flat 'system' simultaneously conceals that the deployment of the vocabulary of the natural sciences – including that of earth science – is itself an artificial phenomenon. This is to argue that the study of natures – including the endeavour of earth system science – itself has a history, and that its own nature, if any, must be approached through the study of that history. For as human artifice is deemed to have become a 'natural force' – in the literal sense of the word – there is a risk that we are blinded precisely to the historicity of the norms that articulate the contents of the concepts applied, and thus the historical process by which these norms are artificially instituted, determined and developed.[2] My concern, therefore, is as follows: What becomes of history when we are invited to let go of the foundational divide – 'foundational' at least since Wilhelm Dilthey, in his *Introduction to the Human Sciences* (1989), marked out the territory of what in German is known as the *Geisteswissenschaften* – between historical and deep time? When human scientists are encouraged to extend their perception to the past tens of thousands of years, what happens to narrative and interpretation?[3] Have the human sciences reached the expiry date of historicity itself, when the scale of history, consumed in the depthlessness of geological eons, becomes as vast as to defy hermeneutic interrogation altogether (Roudeau 2015: 1–2)?

While this concern has been astonishingly absent from the Anthropocene debate, it was to my understanding first raised by the philosopher Malabou (2017: 40–41), when she noted that:

> Chakrabarty denies any metaphorical understanding of the 'geological.' If the human has become a geological form, there has to exist somewhere, at a certain level, an isomorphy, or structural sameness, between humanity and geology. This isomorphy is what emerges – at least in the form of a question – when consciousness, precisely, gets interrupted by this very fact. Human subjectivity, as geologised, so to speak, is broken into at least two parts, revealing the split between an agent endowed with free will and the capacity to self-reflect and a neutral inorganic power, which paralyzes the energy of the former. Once again, we are not facing the dichotomy between the historical and the biological; we are not dealing with the relationship between man understood as a living being and man understood as a subject. Man cannot appear to itself as a geological force, because being a geological force is a *mode of disappearance*.

But in order to clarify what Malabou means by 'a mode of disappearance', we must first return to the genesis of the idea of deep time in Western thought – namely, to the turn of the eighteenth century – and examine its intellectual affiliation to the concept of the unconscious.

Towards a Geophysics of the Unconscious

Although the phrase 'deep time' has its origin in nineteenth-century literature (Carlyle 1895: 139), the notion of an abyssal past beneath our feet emerged with the Plutonic geotheory first presented by the Scottish savant James Hutton in 1788. For if it was due to Nicolas Steno's 1669 postulation of the Stratigraphic Law of Superposition that depth first acquired a temporal meaning, then it was upon the basis of this idea that Hutton's theory of infinitely repeating cycles of deposition and erosion – powered by a self-propelling heat engine at its core – freed the discipline of natural history from foundationalism by radicalising the depth of the telluric netherworld into that of an unfathomable void. '[T]he oldest rocks', Hutton (1788: 216) posited, are merely '[…] the last of an antecedent series', such that were we theoretically to proceed all the way down to the most foundational strata in their hardened state we would find that not even these constitute in any sense an origin or a beginning to earth history. As a result of his ambitions to illuminate the mechanisms of humankind's terrestrial home much in the same way as Isaac Newton had provided an explanation of our cosmic abode (Rudwick 2005: 133–139), Hutton (1788: 304) became convinced that not only were scripturally informed accounts of the earth's formation fundamentally wrong, but that the very project of geogony was futile other than as pointing towards an irrecoverable antecedence (Grant 2011: 44–45). While the theory quickly became popular on the British Isles, where the dominance of empiricism – after all, Hutton was well-acquainted with his Edinburgh contemporary David Hume – presumably made the Geological Society of London particularly receptive to Hutton's hostility toward geogony and to '[…] questions as to the origin of things', (Lyell 1997: 8) the geological discovery of an incomprehensibly vast natural historical past was rather differently received on the continent, where the rationalists – including those young Germans who saw themselves as intellectual inheritors of the great Idealist of Königsberg, Immanuel Kant – viewed this inorganic antecedence as a challenge to reason; and rightly so, for by marking out existence's inanimate provenance, life, as noted by Jonas (1982: 8–9), had for the first time in Western thought become the exception in the natural world rather than the rule.

As the vast majority of nature's history was uncovered to be abiotic, the German *Naturphilosophen*, eager to radicalise Kant's transcendental project, nevertheless had to acknowledge that the majority of the liberal humanistic self could no longer be assimilable to intentional consciousness (Žižek 1996: 32–42). Even so, due to their systematic ambitions, they were convinced that the modern subject's selfhood still had to be included in

the catalogue of mind, and therefore must be somehow contained therein, albeit then as pre-conscious desires or mnemonic traces, thereby inflaming ontological idealism's inclusivist worldview from within; and although it is indeed thus contained, it is only as a form of self-alienating irrecoverability or unconscious depth (Ffytche 2012: 102; Rajan 2008). Contrary to the experimental approach of the empirical sciences, which assumed that the circle of its knowledge would one day complete itself, and which imposed principles on nature from without, the infinite task of the nature philosopher was therefore that of collecting the fragments of the great system of nature into a whole which is constantly on the cusp of itself; that is, it involved investigating the internal necessity of principles instead of assuming their a priori nature – and such a project is already 'proto-psychoanalytic' (Barentsen 2019: 93, 103). As opposed to the post-Freudian reception of the unconscious as an exclusively psychological and brain-bound domain, the German Romantic version was that of a radically geophysical phenomenon, taken to permeate the entirety of nature and in effect attributed specifically to abiotic processes (Ffytche 2012; McGrath 2011; Nicholls & Liebscher 2010). In the introduction to his *Philosophy of Nature*, Hegel (1970: 206) wrote, attributing the phrase to his confidante Friedrich W. J. von Schelling, that before '[…] the stones cry out and lift themselves up to spirit', nature remains a 'petrified intelligence'.[4] Having ontologised Huttonian deep time in order to make the point that philosophy is '[…] nothing other than a natural history of our mind', Schelling (1988: 30; 1978: 119) had called this negative-philosophical basis of natural history 'the past-in-itself', and pointed out that insofar as one tries to include this unconscious source of the subject in the schematism of the mind's catalogue, it retracts infinitely from intentional consciousness by introducing an 'indivisible remainder': A surplus unassimilable to cognition, yet therefore also productive of it (Žižek 1996: 29). Crucially, though, this kind of inversion is nothing but the ontological idealist principle of identity restated naturalistically (Moynihan 2020b: 83–94): Perfectly in line with an 'archival' discourse popular among natural historians of the eighteenth century (Heringman 2004: 64; Ziolkowski 1990: 33–34), the geocosm for the Romantics became an unconscious, and the planet its geophysical memory bank.

Hence, the notion of unconscious memory first emerged as a curious synthesis of the self-identity of absolute idealism with the geological discovery of its radically inorganic, natural historical anteriority. For while the former has its roots in the ancient Greek stipulation of all existents as infinitely contained within the rational structure of ideation's inclusive schema, this collided with the latter's emendation of nature's inorganic antecedence and its postulation of an abyssal geophysical provenance necessarily prior to the finitude of the modern subject's observing gaze. In fact, the philosopher Bloch (1986: 1153) diagnosed German Romanticism's 'inorganic unconscious' as an immune response against the encroaching threat of death inaugurated by the modern scientific world picture. Responding to the latter's wholesale expulsion of reason and morality from mechanistic nature, the ontological idealist lineage, in order to survive, could only counter by positing a geocosmic *un*conscious, in effect inverting nature's purported self-presence into the underlying drive of an irrational will, and thereby securing its inherent purpose – and ironically so – in purposeless self-production. The percolation of ontological idealism through the birth of geology as a scientific discipline thus provided the milieu of conceptual innovation within which the German Romantics could begin enunciating the inflammatory self-obsolesce of the ancient Greek stance that had thus far equated reason with being. It arose, in other words, as a final defence of ancient convictions in nature's inherent prudence against an increasing number of modern scientific discoveries to the contrary – or, to run with the 'immunology'-metaphor: An autoimmune compromise that replaced the inclusivism of ontological idealism with the modern legacy of the unconscious. No longer subordinating nature to judicious reason, this new schema instead submerged its discriminating faculties within unconscious nature's depths. Either way, however, the outcome was the same, for both absolve reason of having to track the propriety of its contents relative to existence insofar as there is already a foundational identity between the two (Moynihan 2020a: 1965). In fact, to make a characteristically Heideggerian point: To posit such an abyssal *Abgrund*, as a proto-Nietzschean attempt to overturn the Platonic lineage of epistemic foundationalism, is nevertheless to remain within the logic of *Grund*, such that the alienated belonging it generates, even though it subsists precisely in trauma, fundamentally remains a belonging nonetheless.[5] Although the Romantic response consisted in overflowing wilfulness rather than exhaustive judiciary, it was nevertheless so that mind, disincentivised from tracking the properties of its concepts, ultimately remained incapable of admitting to its contingence, and thus retained a kind of inverted belonging to nature, even if this meant that a stirring, unconscious World Soul had to take the place of the pre-established harmony of the ancient *logos* (Grant 2004; Welchman & Norman 2010).

While such an understanding of natural history at first glance seems to belong to the classical sense of the term, depicting nature as a set of elements ordered by precise identities and differences, which, as pointed out by Foucault (1989: 157), enframes nature into the artificial schematism of categories and tables of beings with the task of reconstructing its ideal form in terms of '[…] the continuous, ordered, and universal tabulation of all possible differences' into a totality of representations, it is nonetheless characterised by the organic structure of '[…] functions or invisible tissues' that Foucault (1989: 149) sees as specific to the modern *epistēmē*. In modernity, he argues, the power of representation had to be sought in conditions '[…] outside representation, beyond its immediate visibility, in a sort of behind-the-scenes world even deeper and more dense than representation itself' (Foucault 1989: 259) – and for Foucault (1989: 264), this withdrawal of nature from its instrumental reduction into a present-at-hand schema was what allowed for the domain of nature to be properly historicised insofar as it '[…] opens up […] the possibility of another metaphysics;

one whose purpose will be to question, apart from representation, all that is the source and origin of representation[.]' But there is simultaneously another pathway from the classical *epistēmē* that opens up in modern thought, in the form of an ontologisation of the artificial supplement rather than a transcendental-critical reflection upon its limits of access, thus overturning the primacy of epistemology – be it the effort to render the entirety of nature knowable within a single horizon of experience *or* the critique of such efforts – through an ontological shift that situates humans' production not in opposition to the being of nature but precisely in line with its becoming. For although the modern discipline of geology can be said to have begun proper with the late-eighteenth century de-mythification of sundering world from earth – in the wake of Hutton's (1788: 304. My italics) declaration of '[…] having, in the natural history of this earth, seen a *succession* of worlds' – it is not the same as to argue that the opening up of surface appearances to the deeper, elemental forces of its fiery core therefore rid geology of the desire to uncover some ultimate foundation – even when such a residual foundationalism resides, as in the case of Hutton's Plutonism, in an inverted form – upon which to ground all knowledge, so as to retain the possibility of systematising nature in its entirety. In this manner, Huttonian geology may very well sunder world from earth – surface from depth; appearance from reality – all the while still retaining the primacy of appearance, because although Hutton undoubtedly opened up the planet's physical depth, by completely ungrounding it in an abyss of infinite productivity he nevertheless closed down its modal depth. Additionally to Merleau-Ponty's (1968: 258–259) identification in *Naturphilosophie* a so-called 'transcendental geology', there is thus the simultaneous inauguration, in modern thought, of another genealogical lineage; namely, that of its opposite: An 'immanent geology', perhaps most famously practiced by Professor Challenger, with his method of 'stratoanalysis', in *A Thousand Plateaus* (Deleuze and Guattari 1987: 39–74).[6] Such an immanent geology may avoid the modern problem of representation – which is essentially a concern for the correspondence between the natural and the artificial – through a re-inscription of humankind's artificial organs into nature, in effect circumventing the concern for such a correspondence altogether by refusing the terms upon which Kant's transcendental idealism framed the relationship between subject and object as an epistemological problem.

In the history of ideas, we can arguably witness the first outlines of this genealogical pathway in the Romantic ontologisation of the Huttonian idea of deep time, which, by effectuating an ontological inversion to the reduction of nature to mechanistic causation, extended the organic structure of organised matter from the domain of the biotic to that of the abiotic (Grant 2008: 11; Matthews 2011: 7–8, 187–188). It was in accordance with this – admittedly quite peculiar – synthesis of the ancient and the modern that it became appropriate for some of the Romantics to speak of our planet's geological destiny as embodied in human intentionality, assuring that even the tiniest cracks in that which we took as a solid foundation upon which human history can safely progress were circumscribed as but natural inevitabilities in the much more fundamental and traumatic experience of deep time.[7] Although habitats and lives are threatened by environmental catastrophe, and although national foundations are cracked, the dissolution brought about by the steam engine upon humankind's environment – natural as well as social – is made into as fundamental an aspect to the regenerating vigour of the earth's unconditioned productivity as the sluggish drift of its tectonic plates. In a geopoetics of disintegration and revolt, destruction is rendered invigorating, and the cracks themselves become part of its form(lessness) and part of its meaning(lessness). Planting human activity – and grief – in deep time is to re-innovate the elegiac by retrieving from its heart the ambivalence of an equal cause for celebration. For at the same time as these Romantics acknowledged the artificial power of impending, industrial civilisation, they did so only by weaving humankind's artificiality – whether Promethean or transcendental-critical – back into the immanent web of the earth's geophysical forces. Hence, the point is not merely that the deep history of technological innovation discloses the mechanical heat engine as but a quantitative increase in power and precision in the lineage of '[…] a single, complex pyrotechnic tradition' (Wertime 1973: 676) that seeks to dissolve the boundaries between history and paleontology by including everything from the ceramic, metallurgical, to the glassmaking arts (Clark 2018: 176–177); but even more radically, that the concept of deep time is employed in such a manner as to do away with the ontological distinction between nature and artifice that such a history of innovation is premised upon by disclosing technology in light of the natural historical evolution of increasingly complex structures generated by the earth's self-organisation (Clark 2015). As it turns out, artifice poietically 'brings forth' in the same manner as the rest of nature's geophysical forces. In this manner, the history of technology is conflated with earth history: Metals and chemicals get deterritorialised from the sublimity of geological stratification and reterritorialised in the 'abstract machines' (Deleuze & Guattari 1987: 63–74 et passim) that characterise the global technological cultures of postmodernity.

As opposed to the geosomatic notion of homeostasis that dominated the imaginary of the ancient Greeks, the manner in which the inclusivist lineage may survive the wake of modernity is thus by depicting nature as being already caught in antagonistic interaction with collective human labour (Wark 2015: 200). But this is supposedly not because we never encounter nature in itself – as if with the disappearance of humankind, nature would return to perfect harmony. On the contrary, it is held that the fiction of a stable nature only secondarily disturbed by anthropogenic intervention is illusionary even as an inaccessible ideal that humans may approach if they withdraw as much as possible from the activities through which they express their species being. Instead, nature is portrayed as in itself already out of joint (Žižek 1996: 220, 235 f.n. 31): Human labour is simply an expression of that

metaphysical drive understood to be inherent to nature as such, with the ontological consequence that humankind's drastic modification of its terrestrial environment seemingly remains in perfect (dis)harmony with the far-from-equilibrium dynamics of the earth system. Rather than dogmatically retreating to the organic harmony of the ancients, this kind of naturalisation of artifice functions in the complete opposite manner; that is, by rendering nature essentially *unnatural*; or, as Neyrat (2019: 18–19, 134, 155–157 et passim) puts it with reference to Baruch Spinoza, *natura de-naturans*. Nature in itself is nothing but unlimited production – an indeterminate vitality that comes to expression in the industrial capitalist project of endless growth (Cooper 2007; Pellizzoni 2017).

The Speculative Turn to Matter as Psychoanalysis in Reverse

It is from the perspective of an inorganic unconscious that we may understand how, in Romantic discourse, a depth-psychological dimension to nature's abyss all of a sudden revealed itself – not exclusively in terms of the Ferenczian *regressus ad uterum* suggested by the very act of descent into the tellurian womb of Mother Earth, but also in the sense of psychoanalysis as an archaeological excavation into that primal cave containing humankind's presubjective well-spring. As we saw above, Schelling and his fellow Romantics have often been identified as the first explorers of the unconscious (Ffytche 2012: 75–177; McGrath 2011) – what the Schellingian naturalist Gotthilf H. von Schubert (1808) called *Der Nachtseite der Natur*; that is, the 'nocturnal' or 'dark' side of natural science, connoting the limitations and blind-spots of an all too confident instrumental rational attitude coming out of the Enlightenment, misleadingly thinking itself capable of enframing nature in its purported self-presence. But the Romantic critique of instrumentalism does not solely refer to a certain hubris, for 'nocturnal' also carries connotations to the occult – phenomena which, when properly conceived, offer a glimpse of deep, hidden truths about the ends, origins and structure of the earth. Such an approach must be understood as a provocation towards the objectifying and self-interested gaze of the modern sciences. For the subjective pursuit of knowledge characteristic of Cartesian dualism, insofar as it sets humankind upon a path of embracing individual autonomy and recognising the earth as an object distinct from itself, constitutes a veritable fall away from the source of its primordial connection to the grand, evolving totality of the planetary body. Such a process of enframing will thus achieve the exact opposite of grasping the absolute: It compartmentalises and fragments precisely to the point of a *lack* of understanding. Instead of continuing upon this path upwards, toward the enlightening daylight of humankind's self-reflexive estrangement from its primordial immediacy in nature, the sciences must seek to retain some of the buried traces of this ancient, nocturnal knowledge by turning inward rather than outward – what Novalis, in *Heinrich von Ofterdingen*, called an 'inverted astronomy', again comparing geology's penetration of internal depths to astronomy's exploration of outer extension (Zielinski 2006: 18–25). An archetypal exercise for the Romantics, to proceed down into the earth was, in Ziolkowski's (1990: 32–33) words, '[…] not simply [to enter] a cold dark hole in the ground', but rather to encounter '[…] a vital, pulsing place into which man descends as into his own soul'. For due to the inverted re-inscription of reason into nature, the *Naturphilosophen*'s exploration of 'the caverns of mind' could be figured as a speculative practice pertaining to nature in itself rather than that of a mere symbol of speech.

So, when the sociologist Szerszynski (2018: 221) asks whether '[…] thinking of the Earth as something that remembers and forgets [might] change the way that we think about this thing we call the Anthropocene', I would argue that the very revival – unconsciously – of this Romantic discourse is more informative than any conceivable answer to the question itself. What do I mean by an unconscious revival, though? Well, I think that the return of *Naturphilosophie* in Anthropocenic garbs perfectly demonstrates the forgetting of historical time that follows from the subject's negative-philosophical remembrance of its own unity with the earth in deep time – an inverted relationship between nature and artifice that the *Naturphilosophen* themselves not only recognised but in fact operationalised as the central mechanism of their entire system. Insofar as being alive – from the point of view of the German Romantic genesis of the unconscious as a geophysical memory-bank – is a form of amnesia, since the subject is but a product of a geocosm that has just temporarily forgotten that it is inorganic (Schelling 2004: 69), then perfect recollection would equate to a complete victory of the Freudian death drive, which operates precisely on a desire '[…] to lead organic life back into the inorganic state[.]' (Freud 1926: 55). In other words, the psychoanalytic task of *anamnesis* relapses into the inorganic depths of the earth's unconscious should the subject be successfully geologised; hence it constitutes, in Malabou's (2017: 41) words, a 'mode of disappearance'. This implies, as she points out, that humans can never *appear* to themselves as a geological force, for appearance is a concern that arises out of subjectivity. It also implies, I would add, that any vocabulary that makes its home in the mystical and intangible depths of these speculative material forces will lack the terms by which to invest the historical with the dignity of being real, and thus render itself incapable of historicising the institution of such a vocabulary – which of course includes its *own* vocabulary, whether scientific, philosophical or both.

Judging by our contemporary geocosmic imaginary, the conceptual horizon of the Anthropocene is, indeed, in many ways still conditioned by an ontological inclusivism, expressed in the notion of inorganic life; that is, the idea that the earth is already vitally productive – in an ontological sense – prior to the emergence of the organism, such that the advent of biological life on the planet is but one feature that carries forward the inherently expressive qualities of matter, and that the artefacts of the organism too serves as but yet another feature of an inexhaustible productivity inherent to nature as such (Clark 2011; Clark & Szerszynski 2020; Connolly 2017; Yusoff 2013). Recalling the German Romantics' preoccupation with the geological unconscious,[8] Haraway (2016: 31, 51–54, 173–174 f.n. 4)

has tellingly proffered the concept of 'the Chthulucene', invoking the Lovecrafteanesque 'chthonic', or, 'the subterranean', whose lineage in the Western tradition she traces back to an inversion of the figure of Gaia, the Goddess of the earth in the ancient Greek pantheon. While Gaia – a mythological figure indebted to the archaic belief in *terra mater* – signifies the harmonious and homeostatic nature of the ancient Greeks, the abyssal powers of the *khthōn*, she suggests, are on the contrary both generative and destructive; they constitute, as she puts it, '[…] an ongoing tentacular threat to the astralised ones of the Olympiad, not their ground and foundation[.]' (Haraway 2016: 181 f.n. 38). Neither subject nor object, such a force of nature – as expressed, for instance, in Grosz's (2008) overtly Romantic aestheticisation of life as a work of art – is conceptually converted into unconditional production by and for itself. Perhaps most forcefully affirmed by the self-proclaimed 'vital materialist' Bennett (2010), our distinctively normative status – with its Kantian basis in '[…] concepts as the norms that determine what we have made ourselves responsible for, what we have committed ourselves to, and what would entitle us to it, by particular acts of judging and acting' (Brandom 2001: 33) – thus vanishes together with the subject in the same ontological void that subordinates human to natural history; for as she notes, '[i]n the long and slow time of evolution […] mineral material appears as the mover and shaker, the active power, and human beings, with their much-lauded capacity for self-directed action, appear as *its* [i.e., the homeorrethic earth's] product'. (Bennett 2010: 11). Although human history plays out in accordance with this blind drive, humankind is never in control, because the underlying force itself is rather akin to that pre-subjective agency that Friedrich Nietzsche, by drawing upon the resources of Schopenhauerian animism, sought to articulate with his cosmic vision of the world as will to power.

It is in the face of such an enthusiasm to eagerly jump into the abyss that we may fully sense the gravity of Malabou's (2017) concern with, as she puts it, the 'mentality' of the Anthropocene. To be sure, it is not the intellectual genealogy *per se* that is disconcerting, merely the forgetting of our conceptual horizon that occurs when the history of the study of natures is subsumed back into natural history; that is, when the contingency of our socially instituted normative vocabulary is *absolutised* in such a manner that it dissolves us as concept users of our responsibility as well as the possibility of holding other concept users accountable for theirs. I would thus venture that even though its adherents claim to emphasize the primacy of matter, at least some of the more overtly speculative branches of the otherwise loose collective of projects that proclaims to offer a 'new materialism' (Coole 2013), often by portraying itself as a metaphysical corrective to its historical materialist progenitor, ironically still remains an idealism in the most fundamental sense of the word, precisely because it inherits – unlike its progenitor, it should be stressed[9] – the inclusivist imperative of ontological idealism in an inverted form. Indeed, my contention is that submitting reason to mindless becoming via an unconscious abyss is, at the end of the day, just as dogmatic as subordinating being to judicious reason, for the former amounts to but a reversal of the psychoanalytic project of archaeologically excavating the socially instituted grounds of transcendentally mediated experience by denying the existence of ground altogether. If the objective of psychoanalysis is that those unconscious conditions of our experience are to become reflected, then an unfortunate consequence of a material turn run amok – to such a degree that speculation is allowed to gain a stranglehold on critique – is that it produces the opposite: Instead, the progressively self-conscious 'I' of the modern subject regresses into the ontological abyss of the unconscious 'it' of generative nature. A little provocatively, albeit not completely tenuously, such a material turn – if we take it to mean, in an admittedly restricted sense, the circumvention of post-Kantianism through practices of 'duomining' (Harman 2013), such as grounding a version of modal realism in an unconditioned monism (van der Tuin & Dolphijn 2010) – may thus be likened to 'psychoanalysis in reverse'; that is, that process whereby the last remaining parts of the critical-emancipative garrison of the modern subject's suspicion becomes unconscious.[10] Because the attempt to circumvent nature's inherent loss of meaning and value in the wake of modernity, by imbuing it with an abiotic organicism and planetary unconscious, consists – essentially – in the prioritisation of an ontologically primitive will, insofar as such an inversion can put reason safely back into nature solely by way of making it secondary to a fundamentally irrational geodynamic motor reliant on purposeless production. Echoing Nietzsche's *amor fati*, reason cannot steer or navigate the unconscious productivity of nature; on the contrary, it is consigned to await the poietic revelation of nature otherwise. Such is the product of an ontology in which transcendental critique is suspended and neutralised within a state of speculative delirium. All we can really do, as subjects, is to retreat into a quietist self-transformation, so that we may become better 'attuned' to the earth and thus more likely to 'register' how productive forces of a more-than-human character animate human history as opposed to the other way around (Rekret 2016).[11] Emphasising nature's blind drives and unconscious becomings, the ancient Greek principle of plenitude thereby persists long past its theodical permutation in Gottfried W. Leibniz's declaration that we already live in the best of all possible worlds (Moynihan 2020a: 1964–1968),[12] albeit now with the provisio that the unconditional proliferation of worlds have rendered the normative question of their desirability irrelevant other than to legitimise the mere fact of their realisation:

> [This upended Leibnizian theodicy thereby] licenses a semantic […] dissoluteness. For if we apply such a principle to intentionality itself, the constraining and shepherding normativity of objectivity (the tribunal against which we upbraid inapposite judgements so as to sort 'correct' from 'incorrect' and selectively drift towards truth) is replaced by a blinding conceptual voluptuosity wherein it is only in being profligate, and in proliferating in as many ways as is possible, that a judgment or action 'justifies' or 'licenses' itself. (Moynihan 2020a: 1965)

No longer promising, as Leibniz did, that all legitimate possibilities are realised, but rather stating that all legitimacies are the realisation of possibilities, there is still an accompanying assurance that the realisation of no possible can be illegitimate.

Notice also the topographical inversion from Plato's allegory of the cave. As opposed to the gradual and progressive training of the eye of the prisoner, who ascends from his subterranean captivity by stepping into the illumination of the supreme idea of the good, and thereby proceeds from the vision of mere shadows or appearances to the vision of essences, the Romantically inclined thinker is one who descends back down into the ground, pickaxe in hand, to discover the limits to the disclosure of nature as being; or, in Heidegger's (1978) terms: 'Earth' as 'world'.[13] Yet, with a bottomless abyss gaping open beneath the intelligible world, there is ultimately no ground – however impermanent – to stand in contradistinction to its surface. Like hostages to ontological idealism's last stand against the modern world picture suffering from Stockholm syndrome, subscribing to such an inverted inclusivism would mean that we willingly descend back into the pre-philosophical cave, chain ourselves to the wall, and condemn our vision to the two-dimensional surface of appearances; and since the flat ontology of the cave wall prohibits us to go beyond the purported concreteness of 'actants'[14] to ask, as Karl Marx did of the personified commodity, what alienated human practices might be concealed therein (Hornborg 2014), we would have to dismiss critical-emancipative questions of human freedom as not only overly anthropocentric but even outright unintelligible. For if beings are what they are only in and through their relation to other beings, such that they can have no independent being apart from these relations, then it is incredibly difficult to understand what projects of emancipation could possibly be about, because insofar as '[…] relata do not preexist relations' (Barad 2007: 140) there would be no beings to emancipate, since those beings calling for emancipation would possess no independence apart from the field of relations within which they are already inscribed (Harman 2016: 22).

Consequently, to flatten being by subordinating the difference between nature and artifice – or subject and object – to the moral indifference of unconditional production is (Adams 1974), as Malm (2017: 218) has cautioned, merely to swim with the current of late capitalism '[…] when what is needed is an affirmation of nature as something *other* than the commodity'. In fact, to adopt a flat ontology is merely to consign oneself to the fact that nature, in the Anthropocene, has become entirely functional in relation to the technological systems that now enframe and construct our place of dwelling in terms of 'hybrid environments'[15] – what the French sociologist and diagnostician of the postmodern condition, Baudrillard (1993: 31), termed 'hyperreality': The infusion of the virtual into the actual, and the absorption and appropriation of the actual into the virtual; a process that is at once ubiquitous and naturalised for us in our simulacrum of artificial worlds. For as Baudrillard has reminded us, the danger resides in that we no longer see or notice this kind of technological appropriation of nature insofar as we have abandoned the critical distance that critique requires in order to acknowledge our being trapped in the meshes of the former. Such a tendency, to abandon the negativity of critique in favour of a boundless production of simulacra, is a textbook case of the resurgence of myth in modernity, with the help of which '[…] the bourgeoisie transforms the reality of the world into an image of the world, History into Nature'. (Barthes 1991: 140). No wonder, then, that a return of certain aspects of Schellingian *Naturphilosophie* in the works of some of today's leading proponents of an ontological reorientation of materialism towards a fundamentally productive and agential nature (Latour 2007), such as that of Bruno Latour (Wilding 2010), has been accompanied by the strikingly anti-modern declaration that 'critique has run out of steam' (Latour 2003). We would therefore do well to learn from Hegel (2018: 12), who already cautioned Schelling that to give up critique and remain forever trapped on the level of social appearances is like blindly – and futilely! – wrangling one's cattle in the proverbial '[…] night in which […] all cows are black'.

Re-evaluating the Uses and Abuses of History

If, since the turn of the millennium, a pseudo-hermeneutic vein has reappeared that was believed to have been consigned to the dustbin of human history for good – namely, the return of the metaphysical dogmatism of natural history in a new guise and under a new designation: That of the supposed *longue durée* deep time[16] – I have suggested that we may in fact have been too enthusiastic in enrolling in such geological registers in the paradoxes of our turn-of-the-millennium desire for novelty, inadvertently erecting the sepulcher of social relations as we turn a blind eye to the comparatively shorter, but the only hermeneutically compatible, *durée* of human history. Because deep time allures us precisely by slipping through our narrative tools (Roudeau 2015: 2). It proves a double-edged sword, indeed. Overturning the inclusivism of Plato's eternal realm of ideas, it nevertheless tends to resuscitate foundations in their inverted form and, moreover, fails to question their condition for, complicity with, and relevance to the ideological tenets of our postmodern age. Would deep time, then, be a hermeneutic and practical impasse that would merely have us swap prudence for proliferation? Recalling the anti-historicism implicit in its ontologisation, the suspicion at least seems to me warranted. What this paper has proposed, therefore, is the necessity to restore the notion of deep time itself to a *longue durée* – in the proper, *Geisteswissenschaftliches* sense of the word – so as to reassess the ideological function of its discursive structure. By historicising the Anthropocene not as a natural historical epoch but rather as the product of a scientific paradigm, it serves to remind us that the ontological collapse of the distinction between nature and artifice does not follow from the empirical findings of earth system science, but quite to the contrary, that the scientific facts produced by this discipline is already informed by an implicit acceptance of the collapse in question (Pellizzoni 2016: 315; 2017:

68–71) – an ontological condition which, as we have seen, cannot be dogmatically taken as given, but in fact has an intellectual genealogy of its own. Differently put, it is not because modern technology is gradually becoming more seamless, more indistinguishable from nature's forces that the barrier between what is considered 'natural' vis-à-vis 'artificial' has seemingly collapsed; rather, it is because the collapse of the barrier between what is considered 'natural' vis-à-vis 'artificial' has a priori come to dictate our horizon of experience that modern technology is seemingly becoming more seamless, more indistinguishable from nature's forces.

Notes

[1] I would go so far as to venture the suggestion that the so-called 'material turn' can be understood as much in terms of a political reaction against a humanities in crisis due to its obsession with our transcendental access to knowledge, having thereby rendered itself incapable of conversing with the natural sciences and in effect irrelevant as an interpreter of their findings – not to mention the prohibition indirectly put on speculation! As the argument goes, abandoning 'the great outdoors' by reducing its own domain to the purview of representationalist concerns, the human sciences only paved the way for the march of scientism; leading, in the best case scenario, to claims like those advanced by James Ladyman and Don Ross in *Every Thing Must Go* (2014), that cutting edge research within the natural sciences now have monopoly on what is a serious metaphysical inquiry, such that the metaphysics of space and time ultimately must be decided by relativity theory, the metaphysics of natural kinds by evolutionary theory, the metaphysics of substance by quantum mechanics, etc.; while, in the worst case, to the claim that philosophy is in fact already dead, as argued by one of the most esteemed cosmologists of the late twentieth century, Stephen Hawking. For it is against this background that the adherents of the so-called 'material turn' like to preach the overturning of Kant's first critique so as to return speculation to the forefront of the human sciences. Certainly, the role of speculation in the constitution of *any* science still remains contentious terrain since it transports us into territory fraught with the antagonisms inherent to the so-called 'science wars' and the old 'two cultures'-debate. Redundant though those debates may seem to philosophers and social theorists neither encumbered with the dogmatism of pre-Kantian realism nor with the structuralist notion of reality as a linguistic or cultural construct, this is nonetheless waters which must be charted carefully; hence the recurrent references, amid the various camps of 'new materialism', to scientific evidence supposedly supporting their speculative ventures. I owe this observation to Graham Harman. See Iliadis' (2013) 'Interview with Graham Harman'.

[2] I use the term 'historical', here, to refer to the particular sense that 'human history' (as opposed to 'natural history') acquired in the German *Geisteswissenschaftliches* tradition, alluding in particular to Georg W. F. Hegel's naturalisation of the Kantian picture of conceptual norms by taking those norms to be instituted by public, social, recognitive practices, thereby bringing the noumenal origins of this normativity '[…] back to earth by understanding *normative* statuses as *social* statuses – by developing a view according to which […] *all transcendental constitution is social institution*'. (Brandom 2001: 34). This tradition holds that, although of course artificial activities arise within the framework of a natural world, artificial products and activities become explicit as such only by the use of a normative vocabulary that is in principle not reducible to the descriptive vocabulary of the natural sciences. Note, however, that the deployment of the vocabulary of the natural sciences is itself an artificial phenomenon: It is possible first with the use of concepts and is therefore something that becomes intelligible only within a conceptual horizon that is already artificially instituted; which, incidentally, is contingent upon the history of social institution studied by the human sciences.

[3] An illuminating example of such a lack of critical distance toward the conceptual horizon of the natural sciences can be discerned in the world historian William H. McNeill's call for an 'intellectual partnership' between natural and human scientists, arguing that '[i]t is time for historians to […] begin to connect their own professional thinking and writing with the revised scientific version of the nature of things'. (McNeill 2001: 5).

[4] See also Alison Stone's (2005) *Petrified Intelligence: Nature in Hegel's Philosophy*.

[5] For Heidegger's (1987: 6–8, 155–157, 161–163, 182–183, 190–192) infamous reading of Nietzsche's concept of the will to power as the 'consummation' of Western metaphysics, see 'The Will to Power as Knowledge and as Metaphysics'.

[6] See also Dillet's (2016) 'Geopower: A Strato-Analysis of the Anthropocene'.

[7] For instance, comparing history to a theatrical drama guided by '[…] an unknown hand,' Schelling (1978: 209–210) metaphysically affirms a general '[…] spirit who speaks in everyone' so as to compose this geocosmic performance on the world stage as '[…] a progressive […] revelation of the absolute.' See also Matthews (2011: 189–191) treatment of freedom in Schelling's 'organic' philosophy.

[8] For a more exhaustive treatment of the relationship between the German Romantic concern for the unconscious and the interest of the *Naturphilosophen* around the turn of the eighteenth century into the then burgeoning earth sciences, see Groves' (2020) *The Geological Unconscious: German Literature and the Mineral Imaginary*. See also Ziolkowski's (1990) *German Romanticism and Its Institutions*. See especially chapter two, 'The Mine: The Image of the Soul.'

[9] While historical materialism is a descendant of the later period of German Idealism, after its effort to complement *Naturphilosophie* with a philosophy

of history, my suggestion is that an excessively speculative turn to matter may be understood as essentially a *re*-turn to a premature philosophy of nature; namely, one that fails to testify to the kind of moral responsibility that Kant tied to concept use.

[10] I have borrowed the expression 'psychoanalysis in reverse' from the Frankfurt School, which figures in its sociological theorisations of the function of mass culture and fascist agitation. See, for instance, Adorno's (1991: 174) 'How to Look at Television.' Obviously, this is not to suggest that there are fascist tendencies inherent to new materialism. In fact, I am not even committed to an objection against new materialism in this paper, which in any case is far too complex and heterogenous a body of work to be fairly treated here. Instead, what I am exclusively concerned about is a turn to matter that substitutes transcendental critique in favor of unrestricted speculation. It means that I shall remain silent on the value of, for instance, the notion of 'ethico-onto-epistemology' developed by Barad (2007: 381), or the 'response-ability' pursued by Haraway (2016) – not because I am already convinced that there is no value to be found there, but rather because their attempts to rethink responsibility lay outside the scope of my argument.

[11] Or, as the title of Latour's 2014 Tanner Lecture on Human Values puts it: 'How to Better Register the Agency of Things.'

[12] For the principle of plenitude, see Lovejoy's (1936) *The Great Chain of Being: A Study of the History of an Idea*.

[13] For an informative insight into the figuration of excavation-metaphors alluding to the necessity of overcoming the Platonic notion of truth as 'correctness' by descending back into the ground of being, see in particular Heidegger's (1998) introduction to *What is Metaphysics?*, entitled 'The Way Back into the Ground of Metaphysics'.

[14] The term 'actant' commonly figures in the actor-network theory of Latour (1988: 159–175 et passim) as an effort on his part to circumvent the modern strife between objective physical matter on the one hand and subjective social force on the other, in order to free his notion of agency from the confines of the autonomous rational subject developed from René Descartes to Immanuel Kant and at the core of the valuation of individual sovereignty in Western humanism. His intention is instead to put all entities on the same ontological footing: atoms and billiard balls are actants, as are microbes, chemists and podcars. All actants are equally concrete and thus irreducible to some deeper substance underlying the surface of their accidents and their relations to other actants. For more on Latour's actants, see also Harman's (2009: 15–32) *Prince of Networks: Bruno Latour and Metaphysics*.

[15] For affirmative accounts of such hybridities, see, for instance, Latour's (2011b) 'Love Your Monsters: Why We Must Care for Our Technologies as We Do Our Children'; Latour's (2011a) 'A Cautious Prometheus? A Few Steps Toward a Philosophy of Design with Special Attention to Peter Sloterdijk'; Ellis' (2011) 'The Planet of No Return: Human Resilience on an Artificial Earth'; and Hoły-Łuczaj and Blok's (2019) 'How to Deal with Hybrids in the Anthropocene? Towards a Philosophy of Technology and Environmental Philosophy 2.0'.

[16] In *The Order of Things*, Foucault (1989: 140) contends that the classical discipline of natural history nothing less than eliminated 'history' altogether by spatialising nature so as to make the entire world legible within a given discursive frame, in effect collapsing temporality into '[…] a taxonomic area of visibility.' As he points out, '[f]or natural history to appear, it was not necessary for nature to become denser and more obscure, to multiply its mechanisms to the point of acquiring the opaque weight of a history that can only be retraced and described, without any possibility of measuring it, calculating it, or explaining it; it was necessary – and this is entirely the opposite – for History to become Natural'. (Foucault 1989: 149–150).

Competing Interests

The author has no competing interests to declare.

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