

Aisthesis



Citation: Tenti, G. (2024). Biophilia Aesthetics. *Ungrounding Experience*. *Aisthesis* 17(1): 79-92. doi: 10.7413/2035-8466007

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Biophilia Aesthetics Ungrounding Experience

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Abstract. The biophilia hypothesis refers to the idea of an innate human tendency towards life and its manifestations. The article takes its cue from the debate on biophilia to investigate how evolved psychobiological constraints structure human experience. First, the various positions in favor of biophilia are assessed as to their aesthetic connotations, that is, as to the notion of “experience” they convey (par. 1). A post-cognitivist approach, at the intersection of the enactivist, ecopsychological, and pragmatist traditions, is then indicated as the most suitable solution in order to conceptualize the biophilic aspects of human experience (par. 2). It is finally clarified in what sense human experience is expressively reminiscent of the archaic past of our organism and how the notion of habit can be used to conceive of evolutionary constraints (par. 3). A conclusive paragraph elucidates the epistemological status of the naturalizing discourse on experience.

Keywords. Biophilia, Aesthetic Habits, Post-cognitivism, Environmental Aesthetics, Ancestrality.

The so-called biophilia hypothesis revolves around the idea that human beings innately tend towards life and its manifestations¹. Strolling through a forest is a restorative experience, en-

countering an animal awakens affections of wonder and serenity; climbing up to a mountain lake conveys the feeling of being immersed in a place where life expresses itself most freely, and this is a source of profound pleasure. All these responses would derive from a more general tendency towards what is living, a tendency hardwired into our psychobiological structure. In archaic phases of hominination, developing this tendency would have granted our species an evolutionary advantage.

To date, there is no conclusive experimental evidence in favor of biophilia as an overarching scientific hypothesis (see Kahn [1999]; Joye, De Block [2011]; Joye, van den Berg [2011]) – which fact has raised doubts as to the possibility for it to provide a sound empirical basis for environmental ethics (Levy [2003]). In this article I will not address biophilia as a scientific hypothesis, but rather as a naturalistic speculation on the stratification of human experience. I will contend that, when we prefer a certain object or context of experience for their being somehow connected to or endowed with life, we are conveying the resurfacing of our own conditions as natural beings. When we experience a manifestation of life, we manifest pre-reflectively the murky memory of our species, a history torn between different paths and rooted in the evolution of the planet itself. To support this claim, I will first try to pinpoint the best suited concept of “experience” and then proceed to investigate in what sense experience is constantly reminiscent of the evolution of our organism.

In the biophilic aspects of human experience, the sphere of “philia” (tendency, attraction, preference, taste) seems to go hand in hand with the sphere of “phania”, which is linked to any form of expression including emotion, active ordering of experience, and action. We are drawn towards the manifestations of life because deep, abysmal life manifests through us. In this sense, biophilia is always also *biophany*. This duplicity responds to an exquisitely aesthetic problem; and it is not by chance that the biophilia hypothesis has been always articulated also through aesthetic arguments. Explicating the aesthetic implications of biophilia, as we will see, is necessary in order to understand what biophilia is.

In the course of this article, an aesthetics of biophilia will then be framed in a broader archaeo-ecology of experience, namely a reflection on the archaic conditions of human experience. Here the notion of evolutionary habit will come to the fore. The adaptations through which our species has evolved have produced experiential constraints that shape our particular way of “having a world”, simultaneously anchoring us to a telluric past. The evolutionary norm transfuses into psychobiological habitus, something in between an instinct and a custom. Even after losing their survival function, the phantasms inscribed in our organism mold our prehension of reality and provide species-specific navigational advice.

1. *Fascination and perceptual preference*

One of the most commonsensical features associated with biophilic experience is that nature can evoke intense ancestral emotions in us. Naturalistic literature is peppered with first-person accounts of subjects invaded by a whirlwind of feelings that seem to connect them to the Great Chain of Being. When Darwin recounts his first encounter with the majestic Brazilian rainforest, he famously describes himself as a sort of new Adam in the Garden of Eden: «It is easy to specify the individual objects of admiration in these grand scenes; but it is not possible to give an adequate idea of the higher feelings of wonder, astonishment, and devotion, which permeate the soul and elevate the mind» (Darwin [1846]: 32). The whole inner life of the subject placed in front of nature is mobilized by an emotional expansion of the I.

Stephen Kellert, one of the leading theorists of the biophilia hypothesis, writes:

The complexity and power of the aesthetic response to nature are suggested by its wide-ranging expression from the contours of a mountain landscape to the ambient colors of a setting sun to the fleeting vitality of a breaching whale. Each aesthetic experience evokes a strong, primarily emotional, register in most people, provoking feelings of intense pleasure, even awe, at the physical splendor of the natural world. Many people view the aesthetic response to nature as reflecting one's individual preference, as if each person and every culture cultivated its own unique sensibility. But the universal character of most aesthetic responses to living diversity suggests otherwise. (Kellert [1996]: 14-15)

In this first sense, deeply indebted to a romantic approach to nature, biophilia is associated with a subjective state generally referred to as “fascination”. Fascination with nature appears to be common to all human beings, and certainly not reserved for the naturalist – who is, in this sense, «just a specialized product of a biophilic instinct shared by all» (Wilson [1984]: 22). Fascination is a complex emotional state that includes positive, neutral, and even negative feelings such as fear. Wilson dwells on the example of the snake, an animal harbinger of negative relations within the experiential boundaries of humans, with respect to which our species has developed an automatism of fear that can be categorized as a case of “biophobia”. Far from refuting the biophilia hypothesis, biophobia is just another demonstration that «life of any kind is infinitely more interesting than almost any conceivable variety of inanimate matter» (Wilson [1984]: 84). The biophilic bond develops when an adaptive interest requiring direct attention towards a certain class of objects transforms into an experiential constraint based on effortless attention².

It is no coincidence, Wilson continues, that the snake is the protagonist of basically every human mythology, by virtue of the terror and veneration it arouses in the human mind. A biological automatism deriving from a survival interest of the species (surviving to the perils represented by snakes) produces

innate emotions (the fear of snakes) that takes roots in human culture intended as an externalized system of inheritance. The intertwining between biological and cultural memory is crucially mediated through emotional activation, which favors both the application and the inscription of the evolutive norm. In this sense, the functioning of internalized (i.e., phylogenetic) and externalized memory is just the same.

Speculations about the emotional nature of biophilia have gone so far as to inform a few concrete research paths (Ulrich [1983]; Barbiero, Marconato [2016]). More often than not, however, the emotional approach to biophilia does not find articulation in rigorous arguments and relies too much on factual evidence and introspective anecdotes, content with drawing attention to the spiritual side of our relationship with nature. This fact could be inherent to the idea of experience underlying such approach. The emphasis on emotions here presupposes an interiority invaded by the natural setting regarded as a marvelous source of inspiration; the sacred flame of imagination, ignited by universal feelings, reconnects the individual to the Whole. The suspicion is that an approach marked by such sensibility ends up trivializing the overall complexity of biophilic experience.

A different approach to biophilia also endowed with significant aesthetic assumptions is that of so-called “preference and perception research”. This strand of research attempts to map out human preferences on environmental configurations by means of empirical studies on perception and attention³. One famous hypothesis developed through this approach, the “Savannah Hypothesis”, claims that our species is psychobiologically inclined to regard more favorably a landscape similar to the one in which it has evolved, namely the ancient grasslands of Africa and – later – of Europe and Asia (Orians, Heerwagen [1992]; Orians [2016]). The phenomenal qualities of open but not deserted, orderly but not geometric spaces endowed with sufficient salient features (like trees and rock formations) and a few specific elements (like streams and elevated geological formations) would be “naturally” preferred by us, as they have been the most suitable habitat for *Homo sapiens* over the hundreds of thousands of years of its evolutionary history.

In this second approach, the emphasis is on the properly philic element (preference conveyed by perception) and on the recognition of objective environmental features rather than on the arousal of subjective states. Taking on this direction, some authors have identified specific visual properties that would govern human interest towards landscapes, such as “mystery” (Stamps [2004]), “legibility” (Herzog, Leverich [2003]), “coherence” (Stamps [2004]), “custodianship” (Dramstad et al. [2004]; Ode, Fry [2002]), “openness” (Tveit et al. [2006]), “naturalness” (S. Kaplan et al. [1972]; Lamb, Purcell [1990]; Tveit et al. [2006]; Fry et al. [2009]), “complexity” (Fry et al. [2009]), and

“disorder” (Tveit et al. [2006]). Some of these parameter sets are explicitly defined as “aesthetic” (Berto et al. [2018]).

The crippling limitations of preference and perception research and of all the hypotheses and theories descending from it (such as the Savannah Hypothesis, the Prospect and Refuge Theory, the Habitat Theory, the Attention Restoration Theory) are widely recognized. The effort to trace eidetic structures or markers through the empirical study of attention is based on a fictitious notion of experience as static, disembodied, predominantly visual, and guided by rigid and universal eidetic constraints – a conception fundamentally vitiated by a neo-positivistic pretension of universal measurement. An emptied, automatic subject is matched by a landscape reduced to a scenic representation separated from the observer. The only antidote to such perspectives is a healthy ecological objection (Gobster, Nassauer, Daniel [2007]; Jorgensen 2011).

2. *A post-cognitivist approach*

The emotional and the perceptual approaches fail to grasp the complexity of biophilia by reducing it to just one aspect of human experience; even considering them as complementary, other fundamental aspects would be excluded. My contention is that biophilia, regarded as an essential modality of our experience in general, cannot consist simply in a rush of emotions felt by an individual interiority nor to the recognition of universal patterns performed by an eye-mind system that acts as a mere vestibule isolated from its context.

In order to bring into play a more thorough notion of experience, let us mention the words that naturalist Trileigh Tucker uses to describe her walk through a forest. With a vocabulary of clear phenomenological extraction, Tucker speaks of a gradual loss of her own sense of the I and temporal coordinates through a process of «experientially becoming a verb» (Tucker [2014]: 99), a flow experience deriving from the active yet effortless navigation of the environment. «By the time I reach the forest’s edge, my attention is fully engaged in *seeking*: searching my environs for interesting sights, sounds, and movements. I shift from being-in-myself to *being* “seeking”» (Tucker [2014]: 93). Here cognition is not obliterated by emotion, perception, and action: on the contrary, it integrates with them as a modality of full presence.

Though still burdened with romantic overtones, this perspective has the merit of shifting the focus to an embodied experience of engagement with the environment grasped as a plastic and yet resistant context. The emphasis falls on the behavior and experience of an organism exploring and constructing a territory shared with other entities, that is also a partially indeterminate domain of possible actions, affections, and relationships. This is a perspective developed from

different viewpoints by pragmatism, enactivism, eco-psychology, and – to some extent – contemporary phenomenology, all ideally converging in what is today called “post-cognitivist paradigm” (see Wallace et al. [2007]; Chemero [2009]; Crippen [2020]; Heras-Escribano [2016]; Id. [2021], Read, Szokolszky [2020]; Segundo-Ortin [2020]).

In reaction to the determinism of stimulus and response advocated by behaviorism, cognitivism brought attention to the mind as an intermediate process of sensory information processing and a source of decoupling between what comes from the environment and what returns to it. In doing so, however, it introduced an abstract explanation of cognition, which laid the groundwork for a new claim to absolute empirical measurement (no longer of visible behaviors, but of the mind itself). Post-cognitivism takes on the task of returning subjective experience and the emergence of cognition to their organismic complexity. In this way, it reintroduces the notions of organism and behavior (which cognitivism had expunged from the psychological discourse as incarnations of old behaviorist positivism) and reforms the idea of exchange between subject and environment, no longer based on the model offered by mathematical information theory.

The post-cognitivist subject of experience is a body (i.e., an organism) constituted in relation to its environment, which emerges within the experience itself as an axiological context of behavior⁴. Experience, in this sense, is a subjective-objective (or “superjective”, to use a Whiteheadian term) emergence of values, i.e., of elements of saliency and relevancy. For an organism to behave means to pre-reflectively organize a dynamic constellation of elements to which it can relate into a system of representations that serves as experiential framework. These constraints are relative to the organism (they are salient and relevant *for* it), but are also expressions of reality in some of its aspects⁵ – otherwise they would not serve their navigational function, and therefore never emerge at all. Which particular aspects of reality come to expression depends on the incalculable number of circumstances that determine the evolutionary history of a species.

Like any other animal, we live in a phantasmagoric world where “objectivity” (that is the possibility to share it with similarly structured entities) is elaborated from a jumble of markers, tonalities, signs, and zones of salience governed by functional parameters. The whole *Umweltlehre* of Jakob von Uexküll was formulated to assimilate this one Kantian lesson: life is the faculty of a being to act in accordance with its own representations (Di Bernardo [2020]: 209). In other words, life – from its autocatalytic origins to the emergence of human cognition from experience – is values-oriented agency. But life is also historical. Our ways of acting according to our own representations (that is, of organizing objective reality) are the result of a historical development, and as such they are

contingent, precarious, flawed, and always subject to further modification. Even the fundamental parameters that stabilizes our experience without coming in the foreground – like space, time, and movement – are nothing but evolutive adaptations of our organism. All coordinates of experience, in this sense, are historical byproducts of a more fundamental navigational instance.

Biophilia can be regarded as one important parameter of experience, as it allows the contents associated with “life” to emerge and orients us towards them. One of the innumerable conditions in relation to which our navigational system of representations has developed is indeed ‘living nature’ intended as the environmental complex of what favors human biology⁶. And this is shown by the fact that living nature activates a *pure navigational mode*, characterized by a kind of exploratory awareness that allows for continuous value investment⁷ – by presenting us with a world that is still not semantically saturated and yet already populated. When immersed in nature, we can be in that “seeking” state that underlies the creation of meaning, indulged by our ancestral memory. Biophilia has to do with the joy of a genetic reopening of experience⁸.

The most suited conception of experience in order to conceptualize biophilia is thus one that can account for the pre-reflective axiological construction of the environment we perform when we navigate our species-specific world. Not only does biophilia allows for experience thus understood, like other a priori structures such as space, time, or movement; it also enhances it through specific experienced contents. Being more “spurious” – and probably less ancient and stable – than other a priori, it has the power of intensifying our experiential flux from within.

3. *Archaeophany and evolutionary habits*

Biophilia plays a formal role in granting the possibility of our experience as such, but in relation to particular contents that once were a posteriori⁹: it is, in this sense, a “spurious” transcendental. The saliency of certain natural elements within our experience concurs to the stability of our representational system; as it is the case with space and time, its “naturalness” lies in its functionality. If devoid of the contents targeted by biophilia, human experience does not fall into chaos: it just continues to work in the absence of some of its reference stimuli, which produces disorientation and consequence dysphoria, sense of menace, etc. Biophilia does not activate only in the presence of life manifestations, but works always in the background of our representational system: this means that it is not a particular kind of experience, but a set of constraints of experience as such. Its content-relativeness refers to its being tied to specific patterns, markers, etc. that *once* were just empiric.

This spurious transcendentalism (or «descendentalism», to quote Grant and Mackay [2018]: 104) reveals that the formal constraints of our experience are evolutive products of the history of our organism, that is, of its relations with the environment. All transcendental forms have had an ecological development and, in their present arrangement, they all manifest an ancestral past. All experience, in this sense, is archaeophanic¹⁰. The way we perceive-and-enact the world is constitutively reminiscent of an archaeopsychic architecture that finds expression in the present: an expressive «transit within archaeopsychic space, triggered by aesthetic response» (Mackay [2018]: 103). Precisely due to its “phanic” nature, however, archaeophany is not only a practice of remembrance, but also the active application and continuation of a plastic norm. The development of transcendental forms is always ongoing.

Experience is archaeophanic in the sense of a phylogenetically acquired norm that guides present behaviors but is also reformulated through them. Archaisms are an intricate series of mediations that play an expressive or performative role in relation to the evolutive norm, in the sense that they contribute to transform it as they convey it. Evolution unfolds above the level of our perception but also *through* our experience. If human behavior is a continuous ontogenesis (in a psychobiological sense), then archaeophany ontogenetically recapitulates phylogenesis¹¹.

Here comes into play the notion of evolutionary habit¹². The evolved constraints of our experience are not immutable, deterministic laws: their temporal scale is sufficiently close for us to understand that they change (and, at least to some extent, how). But they are still incomparable to the rules and customs that human groups and individuals consciously assign themselves in a certain moment of their history. Evolutionary constraints, like habits, are passively received by the individual but also expressed in a necessarily new way, although still pre-reflectively: they transform through the contingencies of their “interpretation”. Only in this sense can we claim with Wilson ([2017]: 149) that «the adaptive habit becomes aesthetic habit»: not simply because what once was functional appears now as beautiful (see Kellert [1997]: 49), but rather because adaptation produces constraints that become deeply embedded into our experience.

In the case of biophilia, evolutive habituation marks the passage from direct to open attention (Barbiero, Berto [2021]) and is thus responsible of the emergence of an innate and pre-reflective tendency. Habituation does not produce automatisms, but sense-making postures and behaviors: biophilia needs to be activated and exercised through its singular performative executions¹³, where it finds a possibility of further (although relative) development. Just like habits (Heras-Escribano, Segundo-Ortín [2021]), evolutive norms depend on the feedback loop with their single performances, and phylogenetic conducts remain in-

separable from their ontogenetic manifestation¹⁴. We can therefore conclude that the biophilic bond is an example of set of evolutionary habits¹⁵ aimed at orienting our experience within and towards “living nature”.

4. *Final remarks*

Human experience has an archaic history that never ceases to retrace its own steps. It therefore needs to be reflected upon as an ongoing development emerging from the relationship between human organism and environment: as the subject of an “archaeo-ecology”. If an archaeo-ecological discourse implies a gesture of naturalization, it does so under certain epistemological conditions, the most important of which is that it does not aim at an original state or objective truth to be found in a mythological past: it is not a discourse on hidden causes. There is no trace of the archaic, because there is no trace at all: biological memory works through sculpting and shaping forms, not through transferring contents (see Malabou [2022]: 287-296).

As I argued in the last paragraph, the manifestation of the evolutionary past in the field of experience and behavior always means further expression of the archaic. Ontogenesis (intended as the continuous development of the individual through its behavior) opens phylogenesis to the future just as much phylogenesis anchors ontogenesis to the past. Making experience, in this framework, is an increment of future and an illumination of realizable histories. It follows that every archaeological gesture is as prospective as it is retrospective. Retracing the archaic conditions of present behaviors cannot be a rational operation aimed at unravelling a first cause: it can only be an exercise of inverted imagination aimed at producing further meaning, thus retaking the unceasing task of experience itself.

The activity of reflecting upon ontogenesis and phylogenesis, taken charge by the scientific and the philosophical discourse, is not performed by a transcendental I capable of superintending reality, but rather within a transcendental portion of reality that is «co-extensive with all the instants of the nature that is constituted in it» (Bitbol [2020]: 18)¹⁶. Arguing for the historical nature of transcendentals must produce the re-immersion of the veridical discourse into the genetic course of reality (see Grant [2020]; Moynihan [2020]: 5-8). Evolutionary narratives, after all, are one of the most absurd and incomplete kinds of veridical discourse: asserting that humans come from fishes and whales from mice has something logically perverse because it hints at a non-linear and non-exhaustive chain of causes. Evolution is in fact a (very serious) reverie that exceeds the limits and manners of modern rationality, and this because it is intrinsically anarchic (Kupiec [2019]), in the sense that it includes an irreduc-

ible and decisive component of chance and unpredictability. The natural origin to which the naturalizing gesture refers is just a relentless semantism that negates the present state of things. Every archaeo-ecology, then, must also be an “anarchaeo-ecology”.

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Notes

- 1 The definition by famous biologist Edward O. Wilson reads: biophilia is «the innate tendency to focus on life and life-like processes» (Wilson [1984]: 1). Eighteen years later, Wilson attempted to provide a more precise formulation that could allow for empirical verification of the hypothesis. This second definition reads: biophilia is «our innate tendency to focus upon life and life-like forms and, in some instances, to affiliate with them emotionally» (Wilson [2002]: 134). In the wake of the general process of greening of the American sciences during the second half of the 1900s (Krčmářová [2009]), the biophilia hypothesis has undergone significant development in the fields of evolutionary psychology, ecopsychology, and psychobiology; it has also been employed and elaborated in the fields of ecological culture (Barbiero [2017]; Id. [2021]), environmental ethics (Wilson [2002]; Santas [2014]) and phenomenology (Tucker [2014]), with relevant implications for developmental psychology (Kahn [1997]), preventive medicine (Frumkin [2001]), and even architecture and design (Joye [2007]; Kellert, Heerwagen, Mador [2008]; Kellert [2018]).
- 2 In the approaches illustrated in this paragraph, biophilia is associated with a type of effortless attention activated without intention called "involuntary attention" (Barbiero, Berto [2021]: 45).
- 3 See the landmark studies by Rachel and Stephan Kaplan, among which R. Kaplan [1977], S. Kaplan [1987]; R. Kaplan, S. Kaplan [1989].
- 4 As Heras-Escribano (2021: 338) writes, «cognition should be taken as the sum of all flexible, skillful capacities that an organism possesses for dealing with the environment. In the post-cognitivist approach, cognition is not inner information-processing, but adaptive behavior».
- 5 They are indeed «both physical and psychic, yet neither», as goes the famous Gibsonian definition of affordance (Gibson [1979]: 129). This middle position between subjectivism and objectivism is gained by post-cognitivism by mediating enactivism (often associated with idealistic constructivism) and eco-psychology (associated with objectivist realism) through the lesson of pragmatism (Baggs, Chemero [2020]; Id. [2021]; Heft [2020]).
- 6 This includes both what was once vital to our survival (like animals and plants, but also abiotic elements like water, soil, and certain geological formations) and eidetic features associated with life-as-we-know-it (among which even complex configurations like fractal geometries: see Hagerhall, Purcell, Taylor [2004]; Hagerall et al. [2008]).
- 7 A state of attentiveness called «open attention» (Barbiero, Berto [2021]: 45-48). Open attention differs from involuntary attention (which is involved in the emotional and the perceptual approaches to biophilia) as it is not just effortless and pre-reflective, but also – and at the same time – aware and meaning-making.

- 8 This can reshape our idea of aesthetic pleasure, usually understood as the pleasure aroused by a beautiful object or objectified setting. Rather, aesthetic pleasure derives in a more fundamental way from picking up the thread of our experiential investment and reworking the phylogenetically inherited fabric of relationships between our organism and our environment. It is a joyful projection on the plane of the species, as we sense the symmetric plasticity of ourselves and our context. This argument could be extended to the experience of art by claiming that art dramatically condenses the meaning-making operations originally required of us by nature. This, however, goes beyond the scope of the present article.
- 9 This thesis underlies, among others, Konrad Lorenz's work *Behind the Mirror. A Search for a Natural History of Human Knowledge* (1973).
- 10 I take the notion of archaeophany from Mackay (2018). «I would merely insist», writes Mackay (2018: 103), «that any discourse on aesthetics that doesn't involve itself in decrypting human experience down to at least premammalian strata can only be a quaint parochial addressing protocol; it remains superficial in the sense that it's stuck at the stage where the geologist might name a geological stratum "Devonian"... [...] Aesthetic experience is fundamentally archaeophanic».
- 11 This extension of the Haeckelian recapitulation thesis can be found again in Mackay (2018) and in all those authors who ascribe themselves to so-called "geotraumatism", like Moynihan (2020).
- 12 The connection between habituation and evolution is a *Leitmotiv* of evolutionism since its very beginnings and survives nowadays in neo-Lamarckian accounts (see Švorcová, Lacková, Fulínová [2023]; Portera, Mandrioli [2021]; Id. [2022]). William James took the term "habit" from Darwin himself, defining it as the «biological correlation of the idea of natural law in the inanimate universe» (see Blanco [2014]).
- 13 Wilson (1993: 31) explicitly claimed that biophilia is «not a single instinct but a complex of learning rules»: an innate, trans-cultural tendency, that however needs to be activated and cultivated through education and culture.
- 14 The pragmatist vein of the post-cognitivist approach is particularly apt to conceive of this aspect, as pragmatism has always intended habits according to their adaptive status and adaptation according to the model of individual habituation, emerging from organism-environment coordination. The same holds, in different terms, for enactivism and eco-psychology (see Barandiaran, Di Paolo [2014]; Crippen [2021]: 3).
- 15 Like all habits, evolutionary habits tend to aggregate in sets and rarely come alone, perhaps due to the fact that they derive from the interaction with a heterogeneous but integrated context of stimuli.
- 16 I would define this as an aesthetic (or better "phanic") solution of the problem of ancestry famously posed by Quentin Meillassoux (2009). While Bitbol leans towards a post-phenomenological declination of this «consequent correlationism» (Bitbol [2019]: 31), Grant (2020) and Moynihan (2020) are there to remind us that naturalizing is always an unsettling operation of hyper-semantics that challenges the narcissistic image of the human.