

**BREAKING FREE FROM MATERIAL
TERRESTRIAL CONTINGENCY:
THE PATH OF THE HEGELIAN SPIRIT
TOWARDS ABSOLUTE FREEDOM**

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ABSTRACT: This article explores Hegel's Philosophy of Nature in the light of his Philosophy of Mind. It claims that the Absolute Spirit (or Mind) should be understood as the ultimate stage of the series teleologically driving the gradual scale of the natural products. Looking closely at the articulation between the second and third tome of the *Encyclopaedia of the Philosophical Sciences*, the paper shows that the natural products are hierarchized according to their vicinity with the main features of the Absolute Spirit, namely inner centration and self-referentiality. Those two properties, according to Hegel, grant the Spirit access to absolute freedom. As a consequence, inorganic exteriority – or what we call the initial universal environment from which natural products, including the human organism, originate – should be understood as representing the lowest point of the graduated path toward absolute freedom. I thus propose to understand the movement of disentanglement of Idea from nature, namely its alien medium, as a progressive emancipation from terrestrial contingency via a process of artificialization. Consequently, we make the suggestion that the notion of Life closely associated to the notion of the Concept throughout Hegel's work should be understood less in reference to carbon-based/organic life – that is, the form taken by life under contingent terrestrial conditions – than as a general, logical and relational movement, characterized by absolute self-organization, self-referentiality and self-closure. This broad understanding of the concept of Life, I argue, is closely related to contemporary forms taken by artificial life, which actualizes the life process in an ever-lasting computational medium.

KEYWORDS: Hegel; Philosophy of Nature; Absolute Spirit; Artificial Life; Negarastani

INTRODUCTION¹

Inner centration is the main feature of the Hegelian spirit, as stated by this claim from the lectures on the reason in history: “*Spirit, on the other hand, is that which has its center in itself*”. Generally speaking, both in his philosophy of history and in the *Encyclopedia of the Philosophical Sciences*, Hegel opposes universal matter – characterized by extension, dispersion, and undifferentiation – and the spirit, characterized by self-centration, circularity, and absolute closure. To have an inner center, or a “center of reference”³, does not only grant the spirit absolute autonomy (i.e. an absolute capability of self-preservation) but also absolute freedom and subjectivity. However, these three notions are already present in the second tome of the *Encyclopedia of the Philosophical Sciences*, in the third and last section of the philosophy of nature, namely the organic physics. This suggests a certain continuity between the mode of functioning of the animal organism and that of the spirit within the more general Hegelian system. The reason for that, following Deleuze and Guattari, is that in Hegel’s philosophy “Nature is conceived as an enormous mimesis (...) in the form of a chain of beings perpetually imitating one another, progressively and regressively, and tending toward the divine higher term they all imitate by graduated resemblance”⁴. In fact, the first paragraphs of Hegel’s philosophy of nature describe nature as the Idea in the form of otherness⁵, i.e. like a corrupted *medium* from which the Idea strives to abstract from along the path of the stages of natural development, in search of itself. More precisely, it is through the search of the concept *qua* property of the spiritual sphere that the Idea’s anabasis⁶ drives through the opacity, the

¹ This article is indebted with all the discussions and exchanges that I had with several colleagues in the context of the “Structure and Nature” workshop organized by Phoebe Page, Lydia Azadpour and Daniel Whistler at Royal Holloway University in London on the 18th and 19th November 2019.

² G. W. F Hegel, *Introduction to The Philosophy of History*, trans. Leo Rauch, Indianapolis and Cambridge, Hackett Publishing Compagny, 1998, p. 20.

³ Georges Canguilhem, « Le concept et la vie » in *Revue philosophique de Louvain*, Troisième série, T. 64, n°82, 1966, p. 210. All the English translations of the book are by Emanuele Martinelli. Now textually rendered as (CV).

⁴ Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, Minneapolis/London, University of Minnesota Press, 1987, p. 235. Now textually rendered as (TP).

⁵ G. W. F Hegel, *Hegel’s Philosophy of Nature*, trans. A.V. Miller, New York, Oxford University Press, 1970-2004, p. 13. Now textually rendered as (HPN).

⁶ In paragraph 440 of the *Philosophy of Spirit*, Hegel refers to the chant IV of *Paradise* of Dante’s *Divine Comedy*, in order to claim the possibility for the spirit to get to know itself, and in order for men to fulfill their desire to identify with the divine veracity. This reference allows us to envisage the second tome of the *Encyclopedia*

dispersion, and the multiplicity of the products of nature – as the signs of the degradation of the Idea’s intrinsic identity into the external. Thus, the Idea seeks among the products of nature those properties that tendentially point to its ultimate stage, the absolute spirit. This is identified by Hegel as the philosophical move⁷ in the third tome of the *Encyclopedia of the Philosophical Sciences*.

Consequently, insofar as the absolute spirit plays the role of the final term (TP 236) of the series of the natural stages in the Hegelian system, I shall first outline its main properties. I will then develop the analogies between the spirit’s properties and the two last stages of organic physics, that allow drawing a hierarchy according to a “plan(e) of analogy {that} assigns {them their} eminent term of a development” (TP 265), but that also allow pointing the insufficiencies curbing the latest advance of the organic physics, the animal organism, which is limited, apart from certain subjective aspects, yet to a rudimentary state of autonomy, freedom, and subjectivity, compared with the absolute spirit. Generally speaking, I embrace the following claim: *the presence or absence of a point of inner centration as the ad quem of the series determines the hierarchy of natural levels in the context of organic physics, unveiling the existence of an axiological chain that is teleologically oriented in Hegel’s philosophy of nature*. This chain, I argue, attaches the concepts of autonomy, freedom, and subjectivity to those of self-preservation, self-organization, and individuality. Finally, I unpack Hegel’s reasons for taking these properties on top of the axiological pyramid. In other words, it is through the study of the emancipation and differentiation of the most advanced modes of organization of physical matter, that I shall understand, by contrast, the reasons for the devaluation of its lower stages of organization – and, more generally, the axiological logic that drives the development of Hegel’s entire system.

HEGEL’S ABSOLUTE SPIRIT, OR THE ULTIMATE REASON OF THE SERIES OF NATURAL PRODUCTS.

If one follows closely the different sections of the philosophy of nature, the overall

of the Philosophical Sciences as the katabasis of the Idea inside its non-being, nature, and, conversely, in the last tome of the *Encyclopedia* i.e. the philosophy of spirit, as the anabasis of the Idea, in the act of rejoining absolute knowledge.

⁷ See paragraph 573 of the philosophy of spirit. G. W. F. Hegel, *Hegel’s Philosophy of Mind*, trans. William Wallace, Oxford, Clarendon Press, 1894, p. 182. Now textually rendered as (HPM).

movement towards the Idea through the *alien* medium, “external-to-itself” (HPN 13-14), of nature qua diversely structured universal matter, departs from a continuous and undifferentiated space as its most abstract moment, and gradually moves through increasingly differentiated, i.e. organized – or, in the case of animal organisms, even self-organized – stages of material structuration. The progression of the Idea thus consists in the outflow from its immediacy and exteriority – two notions associated with those of death, space, and environment, as I will show below – towards the stage of nature provided with the most advanced degrees of autonomy, freedom, and subjectivity, namely biological organisms. However, biological organisms are only an intermediate stage in the anabasis of the Idea, oriented by the search for *absolute* freedom, autonomy, and subjectivity. In fact, at the end of its journey through the materiality of the natural sphere, the spirit “must liberate the implicitly rational object from the form of contingency, individuality, and externality which at first clings to it, and thereby free itself from its relation to an Other” (HPM 167-168). In other words, the Idea is truly in itself, absolutely autonomous, free, and subjective, only inasmuch as it has *absolutely* freed itself from universal matter qua exteriority, something of which biological organisms are only insufficiently capable. Let us therefore examine the two extreme points of the series - inorganic exteriority and absolute spirit - in order to determine how those map the middle stages of the Hegelian system (such as organic physics) along the perpendicular axes of their coordinates.

a. *The Horizontal Axis of the Natural Series: The Concept of Inorganic Exteriority in Hegel's Philosophy of Nature*

In the first part of his philosophy of nature, Hegel defines matter as that which is indefinitely divisible, i.e. *external to itself*, or *pure acentric extension*, since the appearance of a point is already a “negation of space” (HPN 29). Conversely, in paragraph 251, Hegel defines the movement of confrontation between the concept and universal matter qua exteriority (i) as the movement away from its subjective center and towards the periphery of its being, namely inorganic exteriority, and (ii) as the consequent movement back into its own subjective center. This movement brings about the *internalization* of the surroundings of the concept, i.e. inorganic exteriority, by the concept itself. Significantly for my purpose, Hegel compares the movement of the concept with the mode of functioning of life itself, with respect to the differentiation from inorganic exteriority and to the assimilation of inorganic exteriority. Here, life is understood

as a general movement encompassing all its individual specifications and instantiations. Hegel writes:

The development of the Notion towards its destination, its end or, if you like, its purpose, is to be grasped as a positing of what it is in itself (...) this positing can therefore be grasped as an utterance or expression, a coming forth, a setting forth, a coming-out-of-self, in so far as the subjectivity of the Notion is lost in the mutual outsideness of its determinations (...) But it preserves itself in them (...) and this going out of the centre from itself to the periphery is therefore, looked at from the opposite side, equally a taking up again of this outer into the inner, an inwardizing or remembering (*Erinnern*) that it is it, the Notion, that exists in this externality (...) The Notion strives to burst the shell of outer existence and to become for itself. Life is the Notion which has attained to the manifestation of itself, which has explicated, set forth, what it is in itself. (HPN 24-25)

Consequently, what brings the concept to the ultimate stage on the scale of autonomy, freedom, and subjectivity is its capacity (analogous to life as a general entity) of *self-preservation*, of maintaining itself as it is, i.e. to *iterate itself*⁸, even though the contact with exteriority exposes the concept to the risk of disorganization, dispersion or even total levelling – i.e. the risk of absolute loss of itself. In this context, it is necessary to unpack what Hegel exactly means when he uses the term *exteriority*, in order to explicit the threat posed by exteriority to the concept qua gathering of sense⁹ and to the biological organism qua self-organized structure, able to preserve (up to its limits) its own structure over time. The last three paragraphs of the organic physics, and thus of Hegel's philosophy of nature, are remarkably explicit about what is actually involved in the term. Hegel deploys the notion of inorganic exteriority in order to define the *modus operandi* of disease, which he understands as a disruptive process that organisms necessarily face during their existence, and whose result is either the temporary disorganization of the organic system or a fatal outcome. The outbreak of disease thus recalls the conflict between the particular biological organism and "a non-organic power" (HPN 440) (also called "inner universality" and "negative power"(HPN 440)) that is defined in contrast to it. This power can be

⁸ For a more developed reading of the Hegelian spirit as a capacity of iteration, see Maurizio Ferraris, "Hysteresis – Metaphysics of the Web" in *Rethinking Schelling. Nature, Myth, Realism*, Emilio C. Corriero and Iain Hamilton Grant, ed., *Revista Estetica*, n°74, 2020, pp. 60-90.

⁹ On life as *sense* and concept, see Canguilhem, CV.

reformulated as universal life *qua* "germinal life"¹⁰, to use Freudian terms. Life as actualized in a particular biological organism thus consists of a permanent struggle to put aside this *alien* and universal life power that threatens it with disorganization and even total decontraction.

Consequently, when the individual falls ill, this indicates that the inorganic power regains the upper hand over the organism that had internalized it, and breaks "the unity of its vitality"(HPN 440), i.e. it disrupts its mechanisms of self-preservation and closure. Now, it is possible to understand what inorganic exteriority does on the (quasi-)closed and self-centered circularity of the particular biological organism, by picturing the deflationary effect of a line crossing a point, thus denying its qualitative individualization in space, and flattening it again in the continuous extension of the spatial plane¹¹. Conversely, the process of internalization of the external, according to the selective needs of the internal economy of the organism, can be understood as a movement of qualitative *contraction*¹² of universal matter, despite its being originally undifferentiated and continuous. To this extent, illness can be reformulated as a movement of *decontraction* (NU 235)(when the disorganization of the biological organism is only temporary) or of *abolition* (when it leads to the death of the biological organism), that hence re-establishes the undifferentiated line of universal matter which the biological organism had qualified, singularized, and differentiated.

Illness thus reveals the fundamental *disparity* that characterizes the individual: it masters only *temporarily* the universal power running right through itself, by internalizing it. Indeed, even provided that the individual can postpone the end of this condition for some time, the disparity between its singularity and universality is "its *original disease* and the inborn *germ of death*, and the removal of

¹⁰ On the relation between germinal life and the death drive, see Keith Pearson, *Germinal Life: The Difference and Repetition of Deleuze*, London, Routledge, 1999.

¹¹ On this point, see the addition to paragraph 201 of the Philosophy of Nature, in particular, consider this on the relation between the line and the point: 'It is because of their Notion that the line does not consist of points nor the plane of lines, the line being rather the *self-externality* of the point in that it *relates* itself to space and is self-sublating, and the plane likewise, being the transcended self-externality of the line'. G. W. F. Hegel, *Hegel's Philosophy of Nature*, trans. M. J. Petry, vol. 1, New York, George Allen and Unwin, 1970, p. 226.

¹² Ray Brassier, *Nihil Unbound*, New York, Palgrave Macmillan, 2007, p. 235. Now textually rendered as (NU)

this disparity is itself the accomplishment of this destiny. The individual removes this disparity (...) it is in this way that the animal brings about its own destruction" (HPN 441). Inorganic exteriority thus exceeds the individual, which is fundamentally only one of its contingent actualizations. The proof of this is that the individual – and this is the ultimate freedom that Hegel attributes to biological entities, to follow their *telos* and to die by themselves for *internal* and not for *external* reasons – ends up resorbing itself into inorganic exteriority, in order to remove the tension produced by an intrinsic conflict: that between the *internalizing* tendency of the biological organism, that qualifies the plane of exteriority, and the *externalizing* tendency of inorganic exteriority that is indifferent to the contingency represented by any local instance of structuration.

The conflict between the internalization of the concept and the externalization of the universal power can be understood more precisely through the distinction made by Deleuze and Guattari in *A Thousand Plateaus* between two kinds of planes, conceived by naturalists to solve problems related to the classification of natural species: (i) the plane of organization, that drives the development of one or more species (or, at a smaller scale, of an organism¹³) along an ascending axis, directed towards the ultimate goal of the series, and (ii) the plane of consistency, which crosses, "disperses and flattens" (CV 211) any instance of configuration, structuration or territorialization, in a *natura naturans* kind of way. As the authors put it:

The plane of organization is constantly working away at the plane of consistency, always trying to plug the lines of flight, stop or interrupt the movements of deterritorialization, weigh them down, re-stratify them, reconstitute forms and subjects in a dimension of depth. Conversely, the plane of consistency is constantly extricating itself from the plane of organization, causing particles to spin off the strata, scrambling forms by dint of speed or slowness, breaking down functions by means of assemblages or microassemblages. (TP 270)

Deleuze and Guattari's analysis grid is all the more relevant to the purpose of this paper, as the two formalize the opposition between the mode of functioning

¹³ On this point, see (HPN 20): "Nature is to be regarded as a *system of stages*, one arising necessarily from the other and being the proximate truth of the stage from which it results: but it is not generated *naturally* out of the other but only in the inner Idea which constitutes the ground of Nature". In the inner Idea that grounds the progressive development of nature, it is possible to recognize the first kind of plane as defined by Deleuze and Guattari, namely the plane of organization, which "hidden, makes visible what is seen (...) which at every instant causes the given to be given, in this or that state, at this or that moment". (TP 325).

of the plane of consistency (which becomes a "plane of abolition" when the outcome is fatal) and that of the plane of organization in the terms of the opposition between a linear mode of functioning (the "line-system of becoming" and system of the rhizome) and a punctual mode of functioning (the "point-system" of memory¹⁴ and arborescence), organized around a center of reference, unification, and understanding:

What constitutes arborescence is the submission of the line to the point. (...) One does not break with the arborescent schema, (...) contiguous points. A line of becoming (...) passes *between* points, it comes up through the middle (...) The line-system (or block-system) of becoming is opposed to the point-system of memory. Becoming is the movement by which the line frees itself from the point, and renders points indiscernible: the rhizome, the opposite of arborescence; breaks away from arborescence. *Becoming is an antimemory*. (TP 293-294)

I have previously mentioned the conflicting characters of the point and the line according to Hegel. However, in order to better understand how the notion of punctuality contrasts with the notion of the environment (*milieu*), thus justifying Deleuze and Guattari's claims, let me clarify again for a moment the features of punctuality and centration. In the book with the evocative title *The Power of the Centre*, the gestalt theorist Rudolf Arnheim distinguishes the system of concentric spatiality – which he associates with the natural products and, more generally, with the *cosmos* as a whole – from the continuous and homogeneous spatial system of the Cartesian plane. According to Arnheim, the main characteristic of the Cartesian spatial system is that "it has no center, and therefore it has no way of defining any particular location¹⁵". Not surprisingly, it is an identical conception of space, considered as strictly continuous and undifferentiated, that opens up Hegel's philosophy of nature as its most abstract moment: space "is a *side-by-sideness* because it is self-externality; and it is absolutely *continuous*, because this asunderness is still quite *abstract*, and contains no specific difference within itself" (HPN 28). In contrast to this abstract and continuous conception of space, a concentric system is "by definition, organized around a center (...) That central point allows for orientation. In contrast to the homogeneity of the right-angled

¹⁴ For a deeper understanding of the mode of functioning of the Hegelian spirit as a form of memory (recording), see Ferraris, "Hysteresis..." , op. cit.

¹⁵ Rudolf Arnheim, *The Power of the Center*, Berkeley, University of California Press, 1982, p. viii. Now textually rendered as (PC).

grid, the concentric system defines each layer by its distance from the middle. It creates a hierarchy" (PC ix). Therefore, it is possible to say that the emergence of a singularity in the spatial continuum allows the creation of qualitative differentiation. The appearance of a centration point on the line of inorganic exteriority allows to bend it into a loop of interiority¹⁶ within which instances of structuration are then possible. The centration point thus represents a qualitative contraction of the line of dispersion that is associated with inorganic exteriority.

Drawing from some hints advanced by Canguilhem in *Knowledge of Life*, it is possible to go one step further and to associate the above-mentioned notion of space with the notion of environment (*milieu*). The French epistemologist has indeed remarkably shown the *mechanical* origins of the notion of *milieu*, which have been imported into biology at the end of the 18th century from Newton's work on the ether. This conceptual transplant brings into the field of biology the modern definition of space as previously defined, i.e. as a continuous, homogeneous, and undifferentiated plane. Canguilhem insists on the persistence of these mechanical origins of the notion of milieu until the first half of the 19th century. In this period,

With the success of the term milieu, the representation of an indefinitely extendible line or plane, at once continuous and homogeneous, and with neither definite shape nor privileged position, prevailed over the representation of a sphere or circle, which are qualitatively defined forms and, dare we say, attached to a fixed center of reference (...) but milieu does not evoke any relation except that of a position endlessly negated by exteriority¹⁷.

Hegel's philosophy of nature, as said above, opens on a continuous and homogenous spatial plane, and proceeds axiologically towards its peak, namely the animal organism (structured around an internal point of centration), through a series of natural productions, from the terrestrial globe to plants. Given the above, it is now possible to describe the general movement of Hegel's philosophy of nature as a *progressive detachment* of the various stages of nature from the *initial universal environment* from which they originate. This movement translates into gradual empowerment in contrast to the external determinations imposed by the

¹⁶ Reza Negarestani, "Undercover Softness: An Introduction to the Architecture and Politics of Decay", in *Collapse VI*, Mackay, Robin ed., Falmouth, Urbanomic, 2010.

¹⁷ Georges Canguilhem, *The Knowledge of Life*, trans. Stefanos Geroulanos and Daniela Ginsburg, New York, Fordham University Press, 2008, p. 103. Now textually rendered as (KL).

environment, by the means of individuation, structuration, and differentiation. Conversely, the inaugural space of Hegel's philosophy of nature can be understood as a "pure plan of abolition or death", that is, a "regression to the undifferentiated"(TP 270). Space, as the most abstract moment of the concept, therefore represents the definitive point of cessation of creative activity, albeit disorganizing, of inorganic exteriority qua plane of consistency. It is also in this sense that space arguably is the exact opposite of the activity of the plane of organization, which is by contrast essentially structuring, channeling, and configuring – that is, the "inner idea" (HPN 20) behind the movement of the spirit into outer materiality. In fact, according to Canguilhem, "the *milieu* becomes {at the end of the 18th century} a universal instrument for the dissolution of the individualized organic syntheses into the anonymity of universal elements and movements" (KL 103). In this optic, Hegel's philosophy of nature would thus hierarchize the different stages of nature according to their capacity to disentangle as much as possible from their dependence on their initial environment, in order to oppose the thanatropic¹⁸ threat it represents for their individuation. This is what Kurt Goldstein calls the tendency of organisms to "exist, that is to say, seek to realize their capacities as best they can in a given environment"(KL xix).

From these elements of analysis, it is now possible to better understand the primary property of the concept: the ability to self-preserve in spite of its exposure to exteriority, which is always apt to blur its semantic structure – as well as the ability to impose its plane of organization on the plane of consistency, that is to say, to impose its own structuring norms on universal matter. In still other words, it is possible to consider the capacity of contraction displayed by animal organisms as the capacity of the point to capture the line of exteriority, in order to put it to work within the framework of its strict semantic interests. In fact, as the following sections hope to make clear, it is possible to describe the Hegelian

¹⁸ Ray Brassier, through a remarkable reading of Roger Callois' works on animal mimetism, has shown how Thanatropism (the drive to go back to one's former inorganic stage) corresponds to a form of *attraction to space*. Imitating their environment, the insect or the plant "marks the compulsion whereby the organism is driven to disintegrate into the inorganic". See (NU 43). In fact, in his work on mimetics, Callois insists on the search for the loss of individuality by the animal that tries to hide in the environment. Callois describes mimetics as a "loss of boundaries" in order to "apply them to some uniform background (...) against which it would appear evident without such adaptation». See Callois, Roger, *Méduse et Cie*, Paris, Éditions Gallimard, 1960, p. 102. In the terms of the *Gestalttheorie*, Thanatropism consists of the drive of the animal to melt its shape (*Figur*) against the background (*Hintergrund*).

concept – and, to a lesser extent, the living in general – as the selective seizing of the features of the inorganic exteriority that contribute to its conservation, whilst rejecting the damaging ones, or, even more properly, as the quest to break free from the inorganic exteriority as much as possible; to the point, in the case of the absolute spirit, to become *absolutely* detached from it. Consequently, Hegel's absolute spirit can be envisaged as a plane of organization that utterly neutralizes the deterritorializing effects of the plane of consistency, as well as the annihilating effects of the plane of abolition. Or, as we shall see in more detail in the next section, it is possible to envisage Hegel's absolute spirit as a punctual and centered tree system, characterized by its enclosure and absolute autonomy.

b. The Vertical Axis of the Natural Series: The Spirit as a Plane of {Self-}Organization.

The way animal organisms function is tendentially brought closer to that of the absolute spirit by their ability to act against the controlling and disorganizing effect of inorganic exteriority, through processes of structuration, configuration, and organization. However, animal organisms remain irremediably burdened in their emancipatory drives by their irremediable exposure to external determinations. This, as we shall see again in our case study on organic physics, mainly takes the form of spatio-temporality and the force of terrestrial attraction (also called gravity). It would therefore be this insuperable bond with the coordinates of material terrestrial contingency that would prevent the animal organism from reaching the same ultimate degree of freedom, autonomy, and subjectivity as the spirit. In this sense, the project of the Russian cosmist Nikolai Fedorov, mentioned by Thomas Moynihan in *Can Intelligence Escape its Terrestrial Past? Anticipations of Existential Catastrophe & Existential Hope from Haldane to Cirkovic*, that consists in a "psychozoicization (i.e. artificialization) of the entire earth system as the exteriorization of human cerebral function" and in "the wholesale capture of the earth system in intentional activities"¹⁹, is nothing more than pushing the logic of the Hegelian spirit into its final consequences. The Hegelian spirit could thus be understood as the sphere in which the Idea has become absolutely disalienated and disembedded from any relation of subjection to the plane of consistency and its blocks of becoming, in order to gain, on the converse,

¹⁹ See Thomas Moynihan, "Can Intelligence Escape its Terrestrial Past? Anticipation of Existential Catastrophe & Existential Hope From Haldane to Cirkovic", in *Cosmos and History*, The Journal of Natural and Social Philosophy, vol. 16, n°1, 2020, p. 81.

eternity: "Thought, as this universal which exists for itself, is *immortal being*; mortal being is that in which the Idea, the universal, exists in an inadequate form (HPN 444)²⁰". In the terms of Georges Canguilhem, the Hegelian spirit can be understood as a movement of organizational synthesis, absolutely free from the destructive - and eventually levelling - effect of entropy – that is to say, as the general movement of life disengaged from what seems to be its irreversible *telos*, namely its rush towards death. Hegel writes as follows:

Nature is, in itself, a living Whole. The movement through its stages is more precisely this: that the Idea *posits* itself as that which it is *in itself* (...) *in order to be*, first a *living creature*, but further, to sublimate this determinateness also in which it is only Life, and to give itself an existence as Spirit, which is the truth and the final goal of Nature and the genuine actuality of the Idea (HPN 24)

The Hegelian spirit would thus represent the most complete attempt to disentangle itself from any subjection to inorganic exteriority, and, more broadly, from any heteronomous relationship with the initial universal milieu. To this extent, it is possible to follow Reza Negarestani, in *Intelligence and Spirit*, in its daring interpretation of the nature of the Hegelian spirit. The contemporary Iranian philosopher presents a renewed reading of the Hegelian spirit (*Geist*) in the light of certain advances in contemporary cognitive philosophy, as well as in the study of General Artificial Intelligence (GAI). In this perspective, Negarestani views the Hegelian spirit – which Hegel identifies with the movement of philosophy – as a program, i.e. "as a form of thinking whose project is to turn thinking into a program²¹". The Hegelian absolute spirit, as it is identified with the movement of philosophy, would then be:

Thought's own cognitive-practical prosthesis (...) for developing and augmenting the drive to self-determination and realization. A thought that has a drive to self-realization is a thought that, before anything else, secures its own demands (...) These demands are first and foremost concerned with wresting thinking from

²⁰ Deleuze and Guattari highlight at a great extent in *A Thousand Plateaus* the difference between eternity understood in the context of punctual, arborescent, and memory systems, and in the context of change, i.e. as the product of linear or rhizomatic systems: "The dividing line passes not between history and memory but between punctual "history-memory" systems and diagonal or multilinear assemblages, which are in no way eternal: they have to do with becoming; they are a bit of becoming in the pure state; they are transhistorical" (TP 363).

²¹ Reza Negarestani, *Intelligence and Spirit*, Falmouth/New York, Urbanomic, 2018, p. 414. Now textually rendered as (IS).

heteronomous influences, be they associated with a higher authority, with the contingent conditions of its original setup, with the conditions of its development, or with final or material causes. However, as these demands evolve, their focus shifts away from a resistance against the hold of heteronomy, toward an active articulation of the consequences brought about by the formal autonomy of thinking (IS 443).

In fact, Hegel, in the addition to paragraph 441 of the philosophy of spirit, insists on the incompatibility of the spirit with all that belongs to the order of finiteness, of limits, and ultimately, of *imperfect actualization*:

Mind is initially only the indeterminate certainty of reason, of the unity of the subjective and objective. Therefore here it still lacks determinate cognition of the rationality of the object. To attain this, mind must liberate the implicitly rational object from the form of contingency, individuality and externality which at first clings to it, and thereby free itself from its relation to an Other. *The finitude of the mind gets in the way of this liberation (...)* The finitude of mind must not, however, be taken for something absolutely fixed, but must be recognized as a mode of the appearance of mind, which is nevertheless infinite by its essence. This implies that the finite mind is immediately a contradiction, an untruth, and at the same time is the process of sublating this untruth. This struggling with the finite, the overcoming of the limit, constitutes the stamp of the divine in the human mind and forms a necessary stage of the eternal mind (HPM 167-168).

Through a spiraling and ascending movement of return to oneself, or *feedback loop*²² - the famous plasticity²³ of the Hegelian dialectic – the spirit employs its cognitive capacities in order to return reflexively to the conditions of its present actualization and to bring out new potentialities. In a second step, those potentialities are developed. In so doing, the spirit emancipates itself from the limitations of the previous stage and proceeds to the higher level, and so on. The progression of the spirit along the natural and the spiritual series thus follows a diagonal ascending line, in the framework of a punctual system which ensures the connection and localization of the various stages of the progression and complexification of the spirit, with respect to the ultimate reason of the series: the

²² Paragraph 573 of the *Philosophy of Mind* well describes “this movement which philosophy is” as the knowledge of its own concept, i.e. “a look back on its knowledge” (*auf ihr Wissen zurücksieht*). (HPM 182).

²³ On the plastic mode of functioning of the Hegelian dialectic, i.e. its tension towards self-discovery (or self-preservation) and fission (or division and differentiation), see Catherine Malabou, *L'avenir de Hegel*, Paris, Vrin, 2015.

absolute self-production, self-preservation, and self-organization of the spirit. The spirit initially acts as a "creative activity" (HPM 168), as a vector of "alteration of the object" (HPM 169) originally given as external to it. At the higher stage, that of the philosophy of spirit, the spirit acts as a program, i.e. as a process of permanent rearrangement of its own determinations, along a progression aimed *at actualizing, that is to say, at exhausting as far as possible all its possibilities*. At this stage, the spirit expresses its self-referentiality, an expression of its true infinity. In *Concept and Life* Canguilhem says a similar thing about life as a universal entity, which must come to terms with the divisive, particularizing, or limiting character of materiality, in the evergreen aspiration of bridging this gap once and for all: "Matter orders life and constraints it into specification, that is into simulating an identity. Life in itself is impetus, that is the transcendence of any position, ongoing transformation" (CV 211). The movement of the spirit would therefore tend to gradually but definitively disengage itself from its initial natural origins (IS 445), in order to realize itself in an absolutely autonomous way.

This tendency points to the *artificial*²⁴ aspect of the spirit's ways of functioning. Negarestani defines artificiality as "the idea of an art (*craft*) understood as a recipe for making something whose purposes are neither contained nor given in its material ingredients, even though they are made possible by the properties of those ingredients" (IS 445). In fact, the spirit *captures and transforms* the contingent properties offered by the environment to achieve its own ends: its absolute self-production, self-preservation, and self-referentiality. In the last section, I will show in more detail that animal organisms differ from plants in their capacity to seize the features of inorganic exteriority and to configure them according to their own purposes. What animal organisms and the spirit would have in common, therefore, is a certain tendency towards *artificiality*, understood as an arrangement through transformation – which can go as far as absolute emancipation, in the case of the spirit – of the natural boundaries initially imposed by the surrounding environment.

In order to give substance and consistency to these hypotheses, whose form and structure we have so far sketched out, I must now dive into the materiality of

²⁴ Maurizio Ferraris, in "Hysteresis...", op. cit., remarks that the notion of the natural is not opposed to the notion of the artificial, as the tendency to technicity displayed by living beings demonstrates.

Hegel's work in order to study the ways in which the inner Idea underlying the whole system orders and hierarchizes the succession of concrete instantiations – cosmological, mineral, vegetable, and organic – that appear in the philosophy of nature.

INNER CENTRATION: A DECISIVE CRITERIUM IN THE ASCENDING SCALE OF THE NATURAL SERIES.

a. Hegel's Biocentric Cosmology: A Laboratory for his Late Philosophy of Nature?

The relationship between Hegel's cosmology, the spirit, and inner centration as a vector of autonomy, freedom, and subjectivity does not seem obvious *a priori*. However, the first text to explicitly value inner centration as a vector of freedom in Hegel's work is his 1801 probation dissertation, written in the Jena period. The text deals with a problem that comes under both the philosophy of nature and cosmology, namely that of the nature of the relationship between the sun and the planets of the solar system. The element that concerns us here is that the Dissertation presents the celestial sphere as the definitive image of freedom, inasmuch as it has its own center of gravity. This characteristic is associated with the liberation of the heteronomous relationship that the terrestrial attraction (or gravity) exerts on the sublunar sphere.

In fact, Hegel defines the celestial bodies as “*corpora autem coelestia glebae non adscripta et centrum graavitalis perfectius in se gerentia*”²⁵ (“free from *gleba* and perfect enough to bear their center of gravity fully within themselves”²⁶), that is, as bodies not subjected to the “*gleba*”. The term “*gleba*” comes from the feudal lexicon, and originally designs the portion of soil that was assigned to the serf, with no hope of future redemption from that fixed spatial determination. According to his work in Jena, Hegel suggests that the sublunar elements are subject to a similar condition, due to the laws of terrestrial attraction (or gravity). Consequently, their behaviors are regulated by a center of reference that is *external*

²⁵ G. W. F Hegel, *Dissertatio philosophica De Orbitis Planetarum*, Iéna, 1801, p. 3. <http://dx.doi.org/10.3931/e-rara-532>.

²⁶ G. W. F Hegel, *De Orbitis Planetarum in Jena 1801* (Hegel text), trans. David Healan, Berlin and Yokohama, 2006 (Translation) by hegel.net. Revision of the translation by Emanuele Martinelli. Now textually rendered as (DOPJ).

to them. This point is decisive, since two decades after Jena, Hegel would propose again this image of thought in his philosophy of nature, envisaging freedom of action within nature as the ability for any biological entity to (imperfectly) emancipate from its subjection to the terrestrial attraction (or gravity). Hence, in the addition to paragraph 351 of the second tome of the *Encyclopedia of the Philosophical Sciences*, Hegel claims that “the whole of Physics is the form which develops in contradistinction to gravity”(HPN 354). In the addition to paragraph 350, he compares the animal organism to the sun (HPN 352), in virtue of its capacity to overcome (temporarily) the impositions of gravity, thereby becoming “a filled centre, which has itself for fulcrum and first, as such, is a truly self-subsistent centre” (HPN 352).

In fact, in the 1801 dissertation, Hegel views the solar system as an “organism” (DOPJ) (*animali illo*²⁷), coherently with what Canguilhem calls the “biocentrism” (KL 116) of ancient cosmologies. Also in the *Timaeus* for instance, Plato presents the *cosmos* (which literally means “good order” in Greek) as a self-sufficient ensemble, eternally outliving the corruption of its parts, i.e. perpetually self-preserving. In Greek philosophy, the *cosmos* (which was limited to the solar system) in fact “should be one, leaving no remnants out of which another such world might be created: and also that it should be free from old age and unaffected by disease”²⁸ and “of design he was created thus, his own waste providing his own food and all that he did or suffered taking place in and by himself”²⁹. Hence, it is not surprising that this conception of the *cosmos* inspired Hegel’s concept of Reason, at least as long as we can say, in more contemporary terms, that it functions as an organized entity *par excellence*: it is at the same time “its own cause and effect” (CV 203), it self-organizes, “reproduces its own organization” (CV 203), and keeps each part “under the control of the Whole” (CV 203). In this sense, the Greek *cosmos* represents the “infinite movement of life” (CV 204), as much as it is not divided, dispersed, and disseminated along with the multitude of species and particularities.

Hegel’s choice of a premodern cosmological model is not arbitrary. It must be placed in the context of the intense debates that follow the emergence of modern

²⁷ Hegel, *Dissertatio philosophica*, p. 3.

²⁸ Plato, *Timaeus*, trans. Benjamin Jowett, 33a.

²⁹ Ibidem.

cosmology³⁰. The latter is based on a continuous, homogeneous, de-qualified, and decentralized space, which constitutes the starting point (and the most abstract moment) of Hegel's philosophy of nature. Moreover, according to Canguilhem, "from Galileo and Descartes on, one had to choose between two theories of milieu, that is, between two theories of space: a centered, qualified space, where the *mi-lieu* is a center; or a decentered, homogeneous space, where the *mi-lieu* is an intermediary field" (KL 117). The infinitist modern cosmology, which postulates an infinite and expanding Universe, suggests the dissolution of the ancient *cosmos* as harmoniously structured, qualified, and centered³¹. In the second tome of the *Encyclopedia of the Philosophical Sciences*, Hegel notoriously rejects the infinitist hypothesis, plainly deeming it as *nonsense*: "The multitude of stars in immeasurable space means nothing to Reason; this is externality, the void, the negative infinitude to which Reason knows itself to be superior. The wonderment is purely negative, an uplifting which remains confined within its limited standpoint" (HPN 62).

Hegel's Reason – i.e. the Idea at its highest stage – is thus elaborated from a biocentric conception of the *cosmos*, as the opposite of an infinite, homogeneous, continuous, and undifferentiated space – that is to say, as the opposite of the expanding Universe rushing towards heat death qua genuine plane of abolition. In this respect, Hegel's self-enclosed, self-centered and rational system represents a strong enclave of resistance against the homogenizing force of entropy and the a-significance of inorganic exteriority. It is in virtue of this rationality that structuration, and, hence, the production of the meaning become possible. Consequently, Hegel's system finds its "logical limit in the idea of infinite, a-centration, of that which is without definite location or extension³²". The philosophical movement of the absolute spirit qua programming thus should be fundamentally understood as the most efficient way to face exteriority, i.e. the most efficient method of seizure, mastering, and exploitation of the destructuring

³⁰ On Newtonian physics as the incarnation of scientific materialism and of the cosmology of modern times, see Didier Debaise, *Nature as Event*, trans. Michael Halewood, Durham, Duke University Press, 2017.

³¹ This concern has been vividly expressed by Kepler, who is explicitly a model for Hegel's cosmology, in *De Stella Nova*, where the astronomer tries to reaffirm the stability of the structuration of matter in the enclave of sense represented by the solar system on the plane of consistency of the Universe. On this point, see Koyré, Alexandre, *Du monde clos à l'univers infini*, Paris, Gallimard, 1973, p. 95.

³² Sarduy, Severo, *Barroco*, Paris, Gallimard, 1991, p. 89.

force of inorganic exteriority, whose links with the notions of *milieu* and *Thanatos* I have already underlined.

To conclude this section, then, I suggest viewing the 1801 dissertation as Hegel's first attempt to envision the main image of thought of his system, and as his first attempt to forge the axiological chain that produces its performative effects in later works. In the dissertation, Hegel builds a tension between the heteronomy (i.e. activity as governed according to a center of reference, meaning, and subjectivization that is *external* to the governed entity) of the sublunar world, and the autonomy (i.e. an activity sparking from a drive that is *internal* to the governed entity) of the celestial world. In the dissertation, this tension concretely translates into the possession or the lack of an internal center of gravity for natural products. In later works, this tension appears in more complex ways, as the next section shows, according to the *degree of emancipation* from the subjugation to the terrestrial attraction that each stage of the natural series displays. The degree of submission to gravity, on the contrary, then becomes the indicator of the degree of heteronomy investing natural productions due to their materiality, despite their aspiration to reach absolute autonomy, freedom and subjectivity.

b. *The Hierarchy of the Living in the Philosophy of Nature: The Case of Plants and Animal Organisms.*

In the last section of this article, I want to make more concrete the following claim: it is according to the modes of resistance through which the different stages of nature oppose the destructing force of inorganic exteriority, that they are distributed along the axiological scale of autonomy, freedom, and subjectivity. In order to do so, I propose to compare the modes of organization of plants and animal organisms. The former, according to Hegel, represent the living beings with lower autonomy, freedom, and subjectivity, while the latter represent those with the highest possible level of such properties – at least in nature.

The features that suggest the subjective deficiency of the organizational structure of plants, according to Hegel, are (i) the immediateness in the relation with inorganic exteriority, and (ii) an essentially acephalous and rhizomatic way of functioning, more inclined towards the anarchical proliferation of differences than towards the rational organization around a center of control. Hegel supports the first argument on two simple considerations, which are still much indebted to

the prejudices of the ancient philosophy (Platonic and Aristotelian) on plants³³: (i) plants are assigned a particular place that they cannot escape, which marks their total dependence on gravity and space³⁴ (ii) plants are directly depending on exteriority to self-preserve and grow, in virtue of their modes of nutrition as a “continuous flow” (HPN 305). This constitutes a notable disadvantage with respect to the mode of nutrition of animals, which allows them to select and stock the nutrients needed for their conservation, their development, and their reproduction, in their search amidst what the universal *milieu* has to offer. It is precisely the ability to stock that makes animal organisms capable of “interrupt[ing] their relationship with the outside world” (HPN 335).

This specificity of their inner economy provides animal organisms with the ability to emancipate – even *temporarily*, and depending on the species and the individual – from their dependence on exteriority, i.e. on the milieu viewed as an energetic source crucial to the mode of functioning of the organic system. This temporary independence from the environment marks the capacity of animal organisms to differentiate from the plane of exteriority. This independence is reinforced by a second potentiality inherent to animal organisms, namely to move through space, and hence to liberate (even though still superficially and imperfectly) from the assignation of a fixed place, bounding them with gravity; on the converse, animal organisms are able to determine autonomously their individual spot in space³⁵. Concretely, the animal partially “excludes and separates itself from the universal substance of the earth”(HPN 255). In this article, I already insisted on the fact that emancipation from gravity and, thus, from raw materiality, is one of the spirit’s main features. Insofar as the spirit is the organizing principle of the Hegelian system, that is to say, that “it assigns the eminent term of a development [and] it establishes the proportional relations of a structure” (TP 265-266), it is possible to suggest that the ability of animal

³³ On this point, see Hall, Matthew, *Plants as Persons: A Philosophical Botany*, New York, Suny Press, 2011, more particularly the first chapter, “The Roots of Disregard”, pp. 17-35, that deals with the exclusion of the vegetal realm from ancient Greek philosophy.

³⁴ (HPN 307): “The sensuous element which remains for the unity is space. Since the plant thus cannot entirely destroy the element of sense, it is not yet pure time within itself; for this reason, the plant is in a specific place which it cannot get rid of, although it unfolds itself within it”.

³⁵ (HPN 354): “The particularization of place lies therefore in the animal’s own power, and is not posited by another; it is the animal itself which gives itself this place”.

organisms to partially detach from their symbiotic relationship with Earth places them proportionally higher on the pyramidal hierarchy of the natural series.

On the contrary, the mode of nutrition of plants fails to provide them with the partial energetic autarchy characteristic of animal organisms. In fact, a plant “relates itself not to the individualized inorganic Nature but to the universal Elements” (HPN 305). This means that, according to Hegel, plants do not transform in any way the nutrients for their conservation, growth, and reproduction. Instead, plants absorb them (i) in their *initial* state and (ii) *continuously*. These two factors bound plants with an *implacable* dependence on exteriority, and with a symbiotic relationship with universal elements – that is to say, with the contingent determinations of the “universal *milieu*” (CV 223) that is planet Earth. Consequently, plants undergo dangerous proximity to their environment, which threatens them with undifferentiation or, even worse (according to Hegel), interracial “anti-natural” relations with other beings; this suggests a mode of functioning of nature that is more chaotic and anarchical than most naturalists would allow³⁶.

The tendency of plants to form symbiotic relations is particularly illustrated by their relationship with the sun, towards which the growth of their extremities is utterly devoted. Hegel elaborates this symbiotic relationship between the plant and the universal element in terms of *decentralization*: the solar ray constitutes the physical self (HPN 306) of the plant, as *external* to it. The plant thus finds itself alienated, as its center of control lies beyond itself. Hegel compares the relationship between the plant and the sun with the subjugation of primitive people to an almighty god external to them: “This simple principle of selfhood {*einfache Selbstischkdt*) which is outside of the plant is the supreme power over it; Schelling therefore says that, if the plant had consciousness, it would worship light as its god” (HPN 306). This way of functioning, guided by an external control system, has the important consequence of pushing the plant to going-forth-from-itself (HPN 304).

The vegetal world is thus characterized, according to Hegel, by the lack of a central instance that could canalize plant growth under the control of a hierarchically superior Whole, as it is the case in the animal world: animal

³⁶ (TP 241): “Unnatural participations or nuptials are the true Nature spanning the kingdoms of nature”.

organisms, in fact, follow what Hegel calls a unique guiding “shape”, as much as their growth is “only an alteration in size but at the same time remains one shape, because the totality of the members is taken up into the subjectivity” (HPN 304). From this we can conclude that (i) animal organisms work as a tree system, i.e. as “hierarchical systems with centers of signification and subjectification (...) where an element only receives information from a higher unit, and only receives a subjective affection along preestablished paths” (TP 16), and that (ii) the enduring shape that protects animal organisms from the disorganization power of inorganic exteriority must be viewed as a *Gestalt*, that is as a “maintaining one’s self active under one form, and under one specific form, despite unreliably, in order to delay, but not to stop, the fall of matter and the degradation of energy”(CV 212).

Contrary to animal organisms, plants cannot oppose a specific shape to their own environment, coupled with a strive to preserve it. Plants are better characterized by the metamorphosis of their parts, i.e. by variable multitudes that are flattened on “a single plane of consistency or exteriority” (TP 9). In fact, Hegel describes plant growth as “an increase of the plant itself, as an alteration of form” (HPN 304), as opposed to the structural stability of animal organisms, aiming at the preservation of their *Gestalt*. These elements justify reading Hegel’s views on the vegetal world in the light of what could be called a (rhizomatic) *assemblage*. Deleuze and Guattari define the latter as an “increase in the dimensions of a multiplicity that necessarily changes in nature as it expands its connections” (TP 8). Hegel insists negatively on the rhizomatic logic of the vegetal modality of growth and preservation, characterized by the exteriority and acephality of the relations between the different parts of the plant:

A multiplication of the individuality: so that the one individuality is only the superficial unity of the many. The individuals remain a separated plurality, indifferent to each other, which do not proceed from their substance as from a common essence (...) The growth of plants is a perpetual addition of new parts which did not exist previously. Bound up with the homogeneity of the parts of the plant, therefore, is their falling asunder, because they are not related to each other as inner, qualitative differences— in other words, the organism has not at the same time acquired a system of viscera (HPN 304-305).

This passage clarifies very well what Hegel thinks of the vegetal world in opposition to the higher level in the hierarchy of the natural series, namely the

animal organism. Consequently, it is in the light of the self-centered mode of functioning of the animal realm that Hegel ascribes to plants a modality which Deleuze and Guattari, together with Jean Petitot, call “acentered systems”. In this kind of system, “communication runs from any neighbor to any other, the stems or channels do not preexist, and all individuals are interchangeable, defined only by their *state* at a given moment—such that the local operations are coordinated and the final, global result synchronized without a central agency” (TP 117). In fact, Hegel highlights in paragraph 343 that not only all the parts of the plant “are themselves wholes” but that, moreover, “one part may as well play the function of another”(HPN 304). To sum up, it is the tendency of plants to multiply their parts (turning themselves into multiplicities) in an anarchical and *arational* way, that makes Hegel consider that “the propagation of plants by division never occurs spontaneously (*von freien Stücken*) but always artificially or by chance” (HPN 313). Hence, plant growth might be envisaged as a plane of consistency that escapes all attempts of ordered systematization around a center of reference:

The type of the whole plant is simply this: there is a point (utricle), a germ, a grain, a node, or whatever you may call it. This point puts out threads, develops into a line (...) and this linear movement outwards stops again, develops a fresh grain, a fresh node (...) It is at first a matter of indifference whether these nodulations (*Verknotungen*) keep within a single individual or whether they split up into several individuals (HPN 311-312).

It is only inasmuch as the growth of plants escapes from the plane of organization that “organizes, stabilizes, neutralizes the multiplicities according to the axes of signification and subjectification belonging to it” (TP 13), that, according to Hegel, plants enjoy the least amount of autonomy, freedom, and subjectivity in the organic realm. Those properties, in fact, can only be preserved by organisms that have the ability to form an enclosed and self-organized system – Hegel consistently insists on the movement of “closed circle” (HPN 355) that characterize animal organisms and their capacity to “preserve themselves in their bodily nature and in their contact with an outer world” (HPN 352). By contrast, plants “are outwardly driven yet without building any relation to anything else” (HPN 352). However, as we have seen above, the tendency to self-enclosure of the animal organism, that is to say, to maintain one’s shape against everything else, rushes towards its breaking point, because of the linear drive of the plane of exteriority out of the planes of organization and signification.

Therefore, contrary to plants, animal organisms envisage exteriority as a fundamental *threat*, insofar as it tends *to their negation*, i.e. to the “the dissolution of individualized organic syntheses into the anonymity of universal elements and movements” (KL 103). When confronted with the possibility of decontraction, animal organisms split themselves up in order to oppose the inorganic matter that is internal *and* external to them, to confront and negate its disruptive power. In this context, they consider natural determinations as “the object and the negative over against the subjectivity of their organism, which the latter has to overcome and digest” (HPN 395). Therefore, it is insofar as the animal organism is “in a state of tension with a non-organic nature which stands over against it as its *external* condition and material” and is “exclusive” (HPN 380) of this condition – in more contemporary terms, it is insofar as the animal organism keeps balance on a dynamic equilibrium, away from entropy – that it lies at the highest stage of the natural series, driven by the absolute spirit as its ultimate reason. In this sense, it can be said that the capacity of animal organisms to *partially* emancipate from their initial natural determinations makes them approach a mode of functioning that Negarestani calls the passage from “being” to “should”. This is typical of the progression of the spirit in the search for itself. This movement renders the “self-actualizing propensity of reason – a scenario wherein reason liberates its own spaces despite what naturally appears to be necessary or happens to be the case³⁷”. Through this, reason turns the external natural necessities into “manipulable variables that are required for its construction³⁸” of autogenous ends: so, we end up again with the above-mentioned notion of *artificialization*. Animal organisms present an analogous tendency to seize, select, and transform the features of the “universal *milieu*” (CV 223). In fact, animals, instead of cooperating symbiotically with their environment, like plants, try to adjust it to build up their own milieu. This tendency to craft a world around their needs can be found both externally (in formal assimilation) and internally (in real assimilation).

The first kind of assimilation, a technical process, configures the environment of the organism on a purely external – or what Hegel calls a *mechanical* basis - that is to say, without transforming the intrinsic properties of the absorbed materiality.

³⁷ Reza Negarestani, « The Labor of the Inhuman » in *#Accelerate : The Accelerationist Reader*, Mackay, Robin and Avanesian, Armen eds., Cambridge MA, The MIT Press, 2014, p. 138.

³⁸ *Ibidem*.

Hegel calls this “leaving their objectivity untouched” (HPN 390). This kind of assimilation, as in the case of the construction of nests, burrows, or dens, is then merely a question of bending nature towards the organism's own conservation needs. The second kind of assimilation – what Hegel calls real assimilation – is closer to the proactive and transformative mode of functioning of the spirit, since the animal organism *actually* absorbs inorganic things, thus “destroying their specific qualities” (HPN 390). In fact, through nutrition and digestion, the animal organism transforms an originally *alien* environment into an assimilable substance, that is, into something identical to it – what Hegel calls the process of *idealization*. Real assimilation (or digestion) thus makes it possible to cancel the conflict that opposes the organism to *alien* exteriority by “the conversion of the externality into the self-like unity” (HPN 393). Paraphrasing Canguilhem, it can be said that both formal and real assimilations make inorganic exteriority – or the universal *milieu* – “nothing but a medium *centered* on that subject of vital values in which living things essentially consist” (KL 112). It is therefore in virtue of its capacity to *artificialize* the universal substance of the Earth from which it originated, that is, in virtue of its capacity to seize certain features of the external world and to configure them according to its own standards, that the animal organism sets itself at the highest level of analogy with the reason's search for self-determination – the axiological climax of Hegel's system. It is in this respect that the German philosopher justifies its place at the top of the natural series, axiologically oriented by the spirit as its ultimate reason.

EPILOGUE

Hegel's philosophy of nature, as we pointed out in the introduction, is not the ultimate goal of the Hegelian system. In fact, it only occupies a median place in it. At the end of the second tome of the *Encyclopedia of the Philosophical Sciences*, the gradual detachment from inorganic exteriority by the different stages of the natural series leads to definitive emancipation of the spirit from nature itself as its other-being. This marks the transition to the philosophy of spirit. The liberation of the spirit from inorganic exteriority as a contingent determination of the universal environment results in the definitive suppression of the disparity between the singular (i.e. life as specified and individualized) and the universal (i.e. Life as univocal and identical) of which mortality was the symptom. Nature,

Hegel writes in the final paragraph of the second tome, hence gives death to itself and gets consumed by flames, liberating the spirit from any determination which is external to its own essence. More precisely, the spirit frees itself from all materiality, being in essence "so refractory towards the unity of the Notion" (HPN 444). Once spirit has been "fashioning Nature out of itself" (HPN 444), the spirit can then aspire to its own end: autonomy, freedom, and self-referentiality, as absolute because totally dematerialized – at least with respect to contingent terrestrial materiality. In this sense, the notion of "Life" entailed in the expression "Life of the Concept", so meaningful for the Hegelian project in its entirety, should not be understood in reference to carbon-based life, that is, the form empirically taken by life under its contingent terrestrial conditions, but rather in terms of a logical, functional and relational process that can be actualized in various media, including artificial and computational ones. Given the preceding analysis, I would even make the claim that such an artificial life actualizes way better Hegel's general notion of Life as it relates to the concept of Absolute Spirit. Indeed, in contrast to carbon-based life, artificial life is not subjected to death – the irreparable sign of inadequacy between the natural sphere and the spiritual sphere. Rather, it is capable, in theory, of eternal self-maintenance and iteration, thus actualizing Hegel's most speculative views in the third tome of the *Encyclopaedia of the Philosophical sciences*.

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