

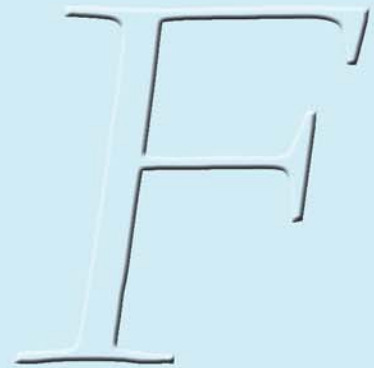
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*azafea*

Revista de Filosofía



**LA NUEVA  
MORFOLOGÍA**



Ediciones Universidad  
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# azafea

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## ÍNDICE ANALÍTICO

Félix DUQUE

El arte como autonegación de la técnica

Azafea. Rev. filos. 19, 2017, 29-61

En la actualidad resulta cuestionable que sea sin más posible hablar de “arte” dentro del contexto de una evolución masiva de tecnologías audiovisuales, así como de su extrema influencia en un mundo globalizado. En este sentido, el arte contemporáneo, a pesar de su innegable similitud con el *modus operandi* de la técnica, no tiene como función el facilitar a la humanidad un mejor acceso a recursos naturales o artificiales. Por el contrario, fomenta más bien la índole de indisposición, opacidad y refractariedad de los mismos materiales de que está hecha la obra. En definitiva, mientras que la técnica abre nuevos espacios, designa lugares y crea redes de significado, el arte contemporáneo muestra cómo esos procesos de apertura están entrelazados con la creación de márgenes, dentro del establecimiento ideológico en ciertos ejes políticos del poder, y contra ellos.

María Antonia GONZÁLEZ VALERIO

Agenciamientos materiales y formales. Variaciones sobre morfologías

Azafea. Rev. filos. 19, 2017, 63-89

La pregunta por la forma está relacionada con la pregunta por la materia y sus posibilidades de agenciamiento. A lo largo de la historia de la filosofía,

la forma ha sido entendida como preexistente, y la materia como indeterminada. Desde una lectura alternativa de la *Metafísica* de Aristóteles, este artículo argumenta que es posible entender la materia como necesaria para la entidad sensible, de tal manera que esta entidad sea el resultado de procesos y circunstancias. A través del análisis de filosofías de la biología, de Kant a Uexküll, el objetivo ha sido señalar que la generación de formas de vida se produce a partir de un entrelazamiento de organismos, cuerpos, entornos y fuerzas, de una manera inmanente que simultáneamente se sitúa como —pp. 201-209: todo el artículo de José M.<sup>a</sup> Mendoza tiene, en las notas al pie, las iniciales de los nombres de los autores de las referencias bibliográficas invertidas, es decir, antecediendo al apellido y no tras él, como marcan las normas de la revista trascendental y que, por lo tanto, puede permanecer en el límite de lo sensible y lo suprasensible”.

Alessandro MINELLI

Líquenes y agallas. Dos familias de quimeras en el espacio de la forma  
Azafea. Rev. filos. 19, 2017, 91-105

Las agallas se producen por la interacción entre una planta y un tipo diferente de organismo, comúnmente un insecto. Muchas agallas, especialmente las que implican a un insecto, tienen una forma muy específica y a menudo compleja, comparable a la forma específica y a menudo compleja de los organismos capaces de reproducirse. Las agallas, sin embargo, no se reproducen —cada agalla individual proviene de una nueva interacción entre la planta y el agente externo—. Hasta cierto punto, lo mismo se aplica a los líquenes: la estructura específica y a veces compleja de su talo puede tener una continuidad transgeneracional a través de la fragmentación u otro tipo de reproducción vegetativa, pero se interrumpe completamente por la reproducción sexual, tras lo cual un nuevo liquen es reconstruido por una recién establecida simbiosis entre una pareja de hongos y algas. ¿Hasta qué punto su forma está limitada por la estructura de los dos socios? ¿Cómo puede actuar la selección natural en su forma?

Paolo VINEIS

Imágenes, morfología y metáforas en la investigación biomédica  
Azafea. Rev. filos. 19, 2017, 107-115



Algunos de los descubrimientos clave de los últimos dos siglos en investigación biomédica pueden ser representados a través de una secuencia de influyentes imágenes que, en origen, fueron poderosas metáforas. La metáfora, como modelo de proposición que incluye los dos extremos de la diáfora y la epífora, puede servir al propósito de representar el conocimiento de una manera dinámica. Las metáforas son imágenes y, por lo tanto, tienen un componente morfológico intrínseco, aunque éste es de un tipo especial: ambiguo. La idea, originalmente sugerida por Wittgenstein y luego elaborada por MacCormac y Rosch, de que todos los objetos correspondientes a la palabra silla, por ejemplo, no son un prototipo fijo es crucial para entender cómo el modelo de abstracción de un esencia desde entidades observables puede ser abandonada.

Sara FRANCESCHELLI

Argumentos de estabilidad en el estudio de la morfogénesis  
Azafea. Rev. filos. 19, 2017, 117-135

Los argumentos de estabilidad, entendidos en sentido amplio, incluyendo la discusión de las condiciones del inicio de la inestabilidad y de los cambios de estabilidad, juegan un papel central en las principales teorizaciones de la morfogénesis en la biología teórica del siglo XX. El objetivo de este ensayo es arrojar luz sobre conceptos e imágenes implicados en la construcción de argumentos de estabilidad en la teorización de la morfogénesis, ya que estos resultan fundamentales para establecer relaciones significativas entre modelos matemáticos y morfologías empíricas.

Maria Filomena MOLDER

El método es una digresión. Una lectura benjaminiana de Goethe  
Azafea. Rev. filos. 19, 2017, 137-168

El propio Benjamin nos dice que leer el trabajo de Simmel sobre el concepto de verdad en Goethe le ayudó a comprender que el concepto de origen propuesto en su libro sobre el *Trauerspiel* era una transposición del concepto goethiano de fenómeno original. Para discutir cómo los hechos económicos pueden convertirse en fenómenos originales, Benjamin se sirve de una analogía con el concepto de Goethe de la metamorfosis de las plantas. Por

eso, aquí, intentaremos demostrar que comprender lo que es la filosofía en Benjamin implica una experiencia de umbral –en forma de salto, discontinuidad, interrupción, renuncia, disipación, obediencia y metamorfosis– cuya formulación suprema, concisa y enigmática es la siguiente: “El método es un desvío” [Methode is Umweg]. Algunos elementos del pensamiento morfológico de Goethe permitirán establecer una constelación de afinidades, algo bastante útil para la interpretación de este enigma.

Chiara SIMONIGH

Antropomorfismo, Cosmomorfismo, Metamorfosis. Entre imágenes y medio ambiente

Azafea. Rev. filos. 19, 2017, 169-184

Este estudio explora algunos de los fenómenos de la cultura visual que contribuyen a reforzar el paradigma antropocéntrico a través de una mimesis de formas auto-referenciales. Esto se basa principalmente en ciertas tipologías del antropomorfismo y en estructuras específicas del complejo identificación-proyección, promovido por medios cinéticos y audiovisuales.

Luís António UMBELINO

No se sabe lo que puede el dolor. Sobre la experiencia del miembro-fantasma en Merleau-Ponty

Azafea. Rev. filos. 19, 2017, 187-199

Asumiendo como punto de partida el caso insólito del dolor fantasma que experimenta, por ejemplo, el amputado, y tomando como eje orientador para el análisis los instrumentos teóricos del horizonte fenomenológico de M. Merleau-Ponty, este artículo investiga la naturaleza o modo de ser complejos de nuestra corporeidad. En tal contexto, se argumentará que el caso de la experiencia del miembro-fantasma permite alcanzar una perspectiva precisa del modo de ser del cuerpo como estructuralmente fantasmagórico.

José M.<sup>a</sup> MENDOZA

Tomás de Aquino y la filosofía: Una interpretación de su comentario al lib. 1, q.1, a.1 de las Sentencias Lombardinas

Azafea. Rev. filos. 19, 2017, 201-219

El presente estudio indaga la esencia de la filosofía según fray Tomás a partir de la distinción entre filosofía, física y teología tal como ha sido expuesta en el lib. 1, q. 1, a. 1 del Comentario a las Sentencias de Pedro Lombardo. Esa distinción busca fijar los límites que separan las diferentes disciplinas. En esta tarea de precisar los límites y las distinciones entre las ciencias se vuelve manifiesta, a su vez, la interrelación entre el pensar racional y la iluminación por la fe, a partir de lo cual parecería que la filosofía quedaría afectada por la tensión entre tales dos modos de conocer.

M.<sup>a</sup> Josefa ROS y Benjamín LARRIÓN RÁNDEZ

El melancólico y el colérico: dos tipos de intelectualidad moral

Azafea. Rev. filos. 19, 2017, 221-249

En este ensayo realizaremos una reformulación de los medios intelectuales de representación emocional en de acuerdo con los principios del cognitivismo, buscando un arquetipo emocional que es diferente de los clásicos *melancólico* y *colérico*. En ambos casos, queremos explorar las emociones que están relacionadas con los temperamentos melancólico y colérico y proponer un vínculo entre múltiples teorías sociológicas del conocimiento y llega a terminar con una reinterpretación de la famosa metáfora de la abeja y de la araña como representaciones de los rasgos característicos del colérico y del melancólico respectivamente.

Paloma ATENCIA-LINARES

Imaginación, Percepción y Memoria. Dando Sentido a las Ideas de Walton sobre Fotografía y Representación Pictórica

Azafea. Rev. filos. 19, 2017, 251-268

Walton sostiene que todas las representaciones pictóricas (incluidas las fotografías) son ficciones que, al ver una fotografía literalmente, uno

–aunque indirectamente– *ve* el objeto fotografiado. Los filósofos han considerado estas afirmaciones implausibles y yo estoy con ellos. No obstante, intentaré dar una lectura razonable de estas ideas waltonianas. Intentaré clarificar (que no defender) la visión waltoniana de la representación pictórica y para ello contrastaré la experiencia pictórica con la experiencia perceptual en general. Me centraré en el caso concreto de la fotografía y sostendré que, a pesar de que *ver* objetos en una fotografía no constituye un ejemplo de percepción *literal* de un objeto, las fotografías comparten un rasgo fundamental con la experiencia perceptual: el contenido de las fotografías, como el de la experiencia pictórica, es un contenido particular. Esto explica su fenomenología. Las fotografías, sin embargo, son más cercanas a las experiencias de la memoria que la experiencia perceptual.

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## ANALYTICAL SUMMARY

Félix DUQUE

Art as a self-denial of technique

Azafea. Rev. filos. 19, 2017, 29-61

Nowadays, the question about the possibility of speaking about “art” in the context of a massive evolution of audiovisual technologies, and their comprehensive influence in a globalized world, is at stake. In this sense, contemporary art, despite its similarities with technique’s *modus operandi*, does not work with the goal to facilitate humankind access to natural and artificial resources. On the contrary, art fosters the viewing of the indisposition, opacity and retractability of those very same materials of which the works are made. In summary, while technique opens new spaces, designates places and creates networks of meaning, contemporary art however, shows how those opening processes are tangled with the creation of marginality, within and against the ideological investments on certain political axis of power.

María Antonia GONZÁLEZ VALERIO

Material and formal agencies. Variations on morphology

Azafea. Rev. filos. 19, 2017, 63-89

The question about form is related to the question about matter in its possibilities of agency. Through the history of philosophy, form has been understood as preexistent, and matter as undetermined. From an alternative

reading of Aristotle's *Metaphysics* this paper argues that it is possible to understand matter as necessary for the sensible entity, in a way that this entity is the outcome of processes and circumstances. Through the analysis of philosophies of biology, from Kant to Uexküll, the aim has been to point out that the generation of life forms is brought about from an intertwining of organisms, bodies, environments and forces, in an immanent way that simultaneously stands as transcendental, and that therefore can abide in the limit of the sensible and the supersensible.

Alessandro MINELLI

Lichens and galls. Two families of chimeras in the space of form  
Azafea. Rev. filos. 19, 2017, 91-105

Galls are produced by the interaction between a plant and a different kind of organism, commonly an insect. Many galls, especially those involving an insect, have a very specific and often complex shape, comparable to the specific and often complex shape of organisms capable of reproduction. Galls, however, do not reproduce –each individual gall takes origin from a new interaction between the plant and the external agent. To some extent, the same applies to lichens: the specific and sometimes complex structure of their thallus may have transgenerational continuity through fragmentation or another kind of vegetative reproduction, but gets completely disrupted by sexual reproduction, following which a new lichen is reconstructed by a newly established symbiosis between a fungus and an algal partner. How far is their form constrained by the structure of the two partners? How can natural selection act on their form?

Paolo VINEIS

Images, morphology and metaphors in biomedical research  
Azafea. Rev. filos. 19, 2017, 107-115

Some of the key discoveries of the last two centuries of biomedical research can be represented through a sequence of influential images that were originally powerful metaphors. Metaphor, as a model of proposition

that includes the two extreme types of diaphor and epiphor, can serve the purpose of representing knowledge in a dynamic way. Metaphors are images, and therefore they have an intrinsic morphological component but of a special kind: ambiguous. The idea, originally suggested by Wittgenstein and then elaborated by MacCormac and Rosch, that all objects corresponding to the word chair are not a fixed prototype is crucial to understand how the model of abstraction of an essence from observable entities can be abandoned.

Sara FRANCESCHELLI

Arguments of stability in the study of morphogenesis  
Azafea. Rev. filos. 19, 2017, 117-135

Arguments of stability, intended in a wide sense, including the discussion of the conditions of the onset of instability and of stability changes, play a central role in the main theorizations of morphogenesis in 20<sup>th</sup> century theoretical biology. The aim of this essay is to shed light on concepts and images mobilized in the construction of arguments of stability in theorizing morphogenesis, since they are pivotal in establishing meaningful relationships between mathematical models and empirical morphologies.

Maria Filomena MOLDER

Method is a detour. A benjaminian reading of Goethe  
Azafea. Rev. filos. 19, 2017, 137-168

Benjamin himself tells us that reading Simmel's work on the concept of truth in Goethe helped him realise that the concept of origin proposed in his book on *Trauerspiel* was a transposition of the Goethean concept of original phenomenon. To argue how economical facts can become original phenomena, Benjamin brings in an analogy with Goethe's concept of the metamorphosis of plants. Thus, here, we try to demonstrate that understanding what philosophy is in Benjamin implies a threshold experience –in the form of leap, discontinuity, interruption, renunciation, dissipation, obedience and metamorphosis–, whose supreme, concise and enigmatic formulation is as

follows: “Method is a detour” [*Methode is Umweg*]. Some elements from Goethe’s morphological thought will permit the establishment of a constellation of affinities, something quite useful for the interpretation of this enigma.

Chiara SIMONIGH

Anthropomorphism, Cosmomorphism, Metamorphosis. Between images and media environment

Azafea. Rev. filos. 19, 2017, 169-184

The study explores some of the phenomena of visual culture which contribute to reinforcing the anthropocentric paradigm through a mimesis of auto-referential forms; this is based mainly on certain typologies of anthropomorphism and on specific structures of the complex of identification-projection promoted by kinetic and audio-visual media.

Luís António UMBELINO

We never know what pain is able to do. On Merleau-Ponty’s analysis of the phantom-limb experience

Azafea. Rev. filos. 19, 2017, 187-199

Beginning with the uncanny case of phantom pain, as it is experienced, for example, by the amputee, and taking in consideration M. Merleau-Ponty’s phenomenological descriptions and inputs on the subject, in this paper we aim to meditate on the nature and way of being of our complex corporality. Our perspective will be developed along the phenomenological analysis of the phantom limb experience, as it allows us to sketch a precise and detailed approach to the phantasmagorical way of being of the body.

José M.<sup>a</sup> MENDOZA

Thomas Aquinas and philosophy: an interpretation about his commentary to Peter Lombard: book 1, q.1, a.1

Azafea. Rev. filos. 19, 2017, 201-219



This study examines the essence of philosophy by Fray Tomas from the distinction between philosophy, physics and theology like has been shown in the book 1, q. 1 a. 1 of Commentary on the Peter Lombard' Sentences. That distinction intends to define the boundaries between those different disciplines. In this task to specify the limits and distinctions between sciences, it's become manifest the interrelationship between rational thinking and lighting by faith, from which it seems that the philosophy can be affected by the tension between their two modes of knowing.

M.<sup>a</sup> Josefa ROS y Benjamín LARRIÓN RÁNDEZ

The melancholic and the choleric: two kind of emotional intellectuality  
Azafea. Rev. filos. 19, 2017, 221-249

In this paper, we will conduct a reformulation of the means of emotional representation in intellectuals according to the principles of cognitivism, searching for the existence of an emotional archetype distinct from the classical *melancholic* and the *choleric*. In both cases, we look to explore the emotions related to the melancholic and choleric temperament and propose a link between multiple sociological theories of knowledge, before ending with a reinterpretation of the famous metaphor of the bee and the spider as representations of the characteristic features of the choleric and the melancholic intellectual respectively.

Paloma ATENCIA-LINARES

Imagination, perception and memory. Making (some) sense of Walton's view on photographs and depiction.  
Azafea. Rev. filos. 19, 2017, 251-268

Walton has controversially claimed that all pictures (including photographs) are fiction and that in seeing a photograph one *literally* –although indirectly– *sees* the photographed object. Philosophers have found these claims implausible and I agree with them. However, I try to give some plausibility to Walton's view. I try to clarify (but not defend) Walton's view of depiction by contrasting pictorial experience with perceptual

experience more generally. I focus on the case of photographs and I claim that, although *seeing* objects *in* photographs is not a case of literally perceiving objects, photographs share an important feature with perceptual experience: the content of photographs, like the content of pictorial experience, is particular in character. This explains their peculiar phenomenology. Photographs, however, are more similar to memory experiences than to perceptual experiences.

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PERSPECTIVES ON A NEW MORPHOLOGY.  
PRESENTATION

*Presentación. Perspectivas para una nueva morfología*

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Raising questions about the topical interest of the morphological perspective today, more than two hundred years after Goethe first introduced it, has a precise and wide ranging significance. It means asking ourselves if and how the relationship between form and image as postulated by Goethe still makes sense today. As far as Goethe is concerned, as is well known, this relationship applied to nature, it defined, in other words, a science of nature that interprets it as an organic whole that expresses itself in its parts, inversely, its components are looking towards this whole<sup>1</sup>. What we aim to achieve, by applying the science of morphology to today's issues, is the possibility of rendering the image intelligible as form endowed with its own autonomous syntax.

There are numerous and well known reasons for considering the issue and for bringing the idea of morphology to the fore. We will try to summarize them here albeit briefly. Recently one of the foremost art historians and image theorists, Horst Bredekamp, wrote that “not since the age of Byzantine iconoclasm and radical Protestant movements, has the status of images been debated with the same intensity as in the last four decades”<sup>2</sup>. Bredekamp adds that all this depends on the sheer number of images that

1. See BREIDBACH, O./VERCELLONE, F., *Thinking and Imagination. Between Science and Art*, trans. W. Kaiser Aurora, Colorado, Davies, 2015; BREIDBACH, O./VERCELLONE, F., *Anschauung Denken. Zu einer Morphologie des Unmittelbaren*, München, Fink, 2011.

2. See BREDEKAMP, H., *Der Bildakt*, Berlin, Wagenbach, 2015, p. 23.

are disseminated throughout our world involving both the public and private spheres which often overlap rendering them indistinguishable. A variety of media broadcast an incommensurable quantity of images worldwide. From smart-phones to television channels, to newspapers we are increasingly dealing with a profusion of images that make up the context of our lives. What we are witnessing is, therefore, a shift in cultural traditions without precedent. The criteria of cultural transmission are changing dramatically, leaving the written tradition in an uncertain half-light to bring forth a memory bank founded on profoundly different hermeneutic mechanisms. With images, we are moving from the logos of the written tradition that is realised on a linear timeline constantly aiming towards the event of Salvation, be it historical or eschatological, towards criteria that create de-synchronisation, pathic identifications, given the radical transformation of the subject's spirituality<sup>3</sup>. In this context it is the very notion of interiority that is modified and, at heart, it is this that enters a profound crisis. This passage presents contradictory features. On the one hand the hyper production of images answers the individual need to find oneself in strong and reassuring identities, whereas, on the other hand, it is this same hyper production that produces ever increasing disorientation. We are moving from the classical conceptualisation of interiority, represented by the faithful or the scholar, by that "buffered self" that Charles Taylor talks about in *A secular Age*<sup>4</sup>, not porous and founded on the principle of individual responsibility, towards identifications that are strongly pathic-affective. This new subjectivity is manifested using powerfully corporeal symbols which can even be embedded. This produces a deep transformation in the subjects at play on whose motivations morphology can intervene and exercise its enquiry. We have to do with an amplification of the senses, in particular with an anthropologic transformation that brings back into the game proximity senses, such as the sense of touch, but also the sense of smell broadening our sensory universe which presents a synesthetic quality. On the other hand the "buffered self", heir of classical modernity, tends to dissolve towards this exteriorization with widespread ramifications in the anthropologic, aesthetic, political and epistemological spheres.

3. See DIDI-HUBERMAN, G., *L'immagine insepolta. Aby Warburg, la memoria dei fantasmi e la storia dell'arte*, Torino, Bollati Boringhieri, 2006; DIDI-HUBERMAN, G., *Storia dell'arte e anacronismo delle immagini*, Torino, Bollati Boringhieri, 2007; VERCELLONE, F., *Il futuro dell'immagine*, Bologna, Il Mulino, 2017.

4. See TAYLOR, C., *A secular Age*, Cambridge Mass and London, Harvard University Press, 2007.

Cultural contexts and the living world itself are profoundly influenced by these changes. The world of image is pressing to be coded as a new life form, having created it. To ask oneself whether culture and the civilisation of the image can take on the appearance of a life form is akin to asking oneself whether the possibility inscribed within the image can exhibit a dialogic relationship which is at the same time ancient and new and has still to be defined.

This is the step that leads us to enter the, by now, vast panorama of *visual studies* in which morphology finds its appropriate place, a reason that could be defined as therapeutic in a broad sense. From this point of view it is irrefutable that, right from the start, *visual studies* have borne a political press-mark indissoluble from the epistemological one. They define the space in which images become in turn models of a dominant politics and cultural strategy and the medium to circumscribe life spaces renewed by the new digital technologies. Just in the background a momentous issue is being outlined which is extremely vast and quite remote. The question, if one dare to pose it in its extreme amplitude, is whether the estrangement introduced into the modern world by the Christian God, whose extreme distance had led to interpreting the sense of life as an effort and impulse towards the infinite, can be reduced within the precarious sphere of artistic forms and human communities. On the basis of this we can glimpse, referring back to Hegel, the foundations of the estrangement of this modern world. In this frame the premises of this tendency of Modernity, to which we are addicted as if it were second nature, seemed set. Moreover, on the horizon one could begin to see the rising of a fundamentally country-less community, incapable of developing a common shared narrative. And narrative, as has been recently observed<sup>5</sup>, helps us to live, it creates and re-creates a common horizon that suspends our anxiety towards reality. In this context, the Romantics had talked about the need for a “new mythology” in a poetic and not neo-pagan sense. A similar proposal, and its realisation, aims to mix cultural worlds following a pattern that reunites the *humanities* and the so called hard sciences, joining them within a varied but coherent narrative scope, as Edgar Morin<sup>6</sup> teaches us first and foremost.

Schiller’s distance from the gods cannot be sustained for long. Human responsibility that should be part payment for this distance is not a sufficient prize for lives that have been dealt the raw deal of being expropriated form

5. See COMETA, M., *Perché le storie ci aiutano a vivere. La letteratura necessaria*, Milano, Cortina, 2017.

6. See the three volumes of *Méthode*, which originally appeared in six volumes, published by Seuil and in 2008 assembled, by the same publisher, in two volumes.

their own protective divinities. In this context, Homeric memories come to our aid. The fog of appearance can protect and safeguard us. Was it not Priam who had access to his son's body thanks to a invisibility that was both fictitious and real, aptly produced by Hermes, making the impossible possible? As we all know, it was this that allowed Achilles' tent to be reached by the most noble of his enemies, and the beloved body of Hector to be given back to his family. The original need for presence reveals and allows the intrinsic need for narrative to come to the surface as a way to lessen pain, to allow us to return to our origins, as a way to remove the anxiety of loss. We could say, going back to Ricoeur's *Temps et récit*<sup>7</sup> that fiction acts as a medium to restore identity when the lifeless body of Hector is given back to the care of his loved ones. So here, in this case, the insubstantiality of appearance becomes the harbinger of benevolent and effective results. The purpose of appearance is not illusion but salvation.

The need for fiction, coincides therefore with the very real need of restoring or building identity whenever this is in danger and runs the risk of being undermined. The risk both in a metaphorical and real sense, is mortal. It is maybe from this ancient if not atavistic, point of view, that we need to look at the rise of these new digital technologies, but even more so at their taking hold in the late-modern world. In a universe tainted by growing estrangement the anthropological need to revive identities that resort to the medium of fiction is accentuated, we could go further and say that resort to necessary fiction. This goes hand in hand with a technological revolution without equals in which, thanks to these new technologies, we have to do with cultural contexts, dominated by images that tend to become naturalized. It is evident that the nature vs. technology antithesis is dissolving, while the technological implementations relating to images entail their transformation into world-environments that bring human communities closer while at the same time dividing them.

It is interesting to look at the premises of this process before outlining its most recent outcomes and presenting the papers written for this monographic issue of *Azafea*, to show in what direction things have been going and, therefore, in what sense the ancient idea of morphology is integrated into a more complex cultural process, and can legitimately present itself as an attempt to assess the current situation in a significant and forward-looking manner.

Once again the temptation is to start from afar and, as we are here, to do a prospective assessment of the situation today. We venture a thesis

7. RICOEUR, P., *Temps et récit*, 3 vol., Paris, Seuil, 1983-1985.



that will take us not from antiquity to today, but from the day before yesterday, a by now remote yesterday, to today. However, it is through this transition that we can define the present. This tendency towards a radical change of direction, which presents many ambiguous and heterogeneous elements, that steers us from a civilization based on the word to a civilization based on the image, is connected as we can see, –taking that step forward we mentioned– with the crisis of the bourgeois world. The latter had found a form of systematic hope in the Hegelian idea, imbued with St Paul’s message, of a subjectivity that could become a world.<sup>8</sup> The concept of the ecclesia as the spiritual body of Christ, coming from St Paul, expands in Hegelian thought to become the idea of a spirit that becomes effectuality. The universality of the bourgeois world, of its hopes, but also the representativeness of its *élites* are all founded on these presuppositions that today seem to have dissolved. All this entails the demise of the logos of the Word as the founding principle of the dominance of a reason that is founded on this. And it is a prelude, on the other hand, to the rise of a world that sees the dominance of this logos come crashing down producing disorientation and a profound identity crisis. This has paved the way for our current situation with its contrasting scenery in which the vision of fragmentation is offered after and within globalization, it is the revolt of the community against society, extreme and lacerating result of the demise of that universality whose roots are to be found in the Hegelian thought that characterized our past.

Therefore, from this standpoint the crisis of this universality represents a political problem, of primary importance that is also indissolubly epistemological. We have to do with a universality that has disappeared giving way to ever more dismembered and needy identities, constantly requesting an answer to the question: who am I? Which means: who are we? –questions that do not correspond to a global identity, but to one which is increasingly local and localized. All this coincides with a technological shift that becomes also an anthropological shift. The fall of the estranged universality coincides with the decline of the imaginary and the technological systems that had gambled everything on estrangement. The estranged universality of technology, which seems to monstrously refract that of the long lost God, is substituted by a more domestic, more personal technology of appearance that goes from

8. See VERCELLONE, F., *Il futuro dell'immagine*, Bologna, Il Mulino, 2017. In this context it would be worthwhile to re-read LÖWITH, K., *Von Hegel zu Nietzsche. Der revolutionäre Bruch im Denken des neunzehnten Jahrhunderts*, in: *Sämtliche Werke*, ed. K. Stichweh/M.B. De Launay/B. Lutz/H. Ritter, vol. 4, Hamburg, Meiner, 1995.

*interaction design*<sup>9</sup> to digital technologies, to “body sensory technologies”<sup>10</sup>, to achieve a domestication of the technological universe based on the notion of style. Globalisations seems to pose its contradictions within a shared style that is also a community of technological styles that uniforms its cultural context even though there are incredible differences between the diverse cultures that come together in a common space. The latter also represents a community of shared styles, which are welcomed, however, with mixed feelings and so pave the way to the need to separate once again into individual vernacular entities, to set aside the global present to go back to a local us.

At this point, after such a long introduction, we must go back to the issue set forth at the beginning: why ever can we talk about morphology in this context? In what sense does the ancient Goethean perspective acquire a new, and according to the writer, significant relevance today? In essence the answer is but one: in a panorama that is brimming with a variety of requests and identities, image technologies renew the analogic intelligence which pertains to morphology. It represents a thought structure that brings different identities into contact without squeezing them into one place. We have to do with thought structures, whose contents do not belong primarily to individuals, but to the interactive community that leads this common intelligence down its own path. This is the issue and the problem: we are in a common room, as Weinberger postulates, that shares, a common style that is also a community of communication styles. But the contents come from the most diverse subjects. As with any style we are dealing with uniformity, with a unified vision that creates a common albeit partial space, analogous and similar to the universal community envisaged by Hegel, but expressed by community worlds with limited boundaries, each with its own language, almost intimate and familiar. This common room is also a common intelligence that emerges through a variety of differences<sup>11</sup>.

It is within this indissolubly political and cultural frame of community building, that the problem of morphology is posed. It relates to an identity that has profoundly changed its logos, whose features must be defined anew, that is, individualizing itself and searches, in particular for those answers that it is not able to give using a universal reason that in the end reveals itself as

9. See *Theories and Practices in interaction Design*, ed. S. Bagnara/G. Crampton Smith, Ivrea, Interaction Design Institute and London, Lawrence Elbaum Associates, 2006.

10. See MONTANI, P., *Tecnologie della sensibilità. Estetica e immaginazione interattiva*, Milano, Cortina, 2014.

11. See the old issue: WEINBERGER, D., *Rethinking knowledge now*, New York, Basic Books, 2012.

impersonal. It is a reason that resorts to images and to their interconnections revolutionizing the hermeneutic models of self-recognition.

The issue of morphology is, therefore, an epistemological one whose political and even bio-politic implications are becoming increasingly evident. The morphological constant moves from the epistemological sphere to that of life form changes, to a truly bio-politic one where these last features act like *à rebours* effects, as a feedback on the first. We could describe this transition as that from an abstract reason to an incarnated reason. This poses a series of significant alterations as we have to do with a change in the symbolic and its structures that tends to become embedded, a symbolic-enveloping body in the true sense. Ideally distant identities share the same space, like a kind of global village in *imago* that should be the “globalized” world. The alterations of the physical body produce in turn an incarnation of symbolic identity that ends up shattering the criteria of a universal reason, to produce, individual identifications, that we could define as “flagship identities” that invest the ideal nudity, which also symbolizes the enlightenment’s individuality, to cover it right from the start in symbols. The classic symbolic nudity of man, bearer of the equal rights that belong humanity<sup>12</sup> as a whole, no longer exists in this context, as testified for example by the presentation manifesto and many of the designs by Jean Paul Gaultier for *THE ONE Grand Show* the great revue presented in 2016 at the Friedrichstadt-Palast of Berlin by the show maker Roland Welke. Every man is born metaphorically tattooed. No man truly bears the same rights, but everyone bears his own incarnations. And these incarnations mean symbolizations of the individual that cannot be universalized, but are embedded in his/her own body. Going down this path, as we were saying, it is the ideal nudity of the human being that is disappearing, in favor of an incarnation of symbols that divide instead of uniting. Images pose questions and answers of such relevance and at times of such intensity that we ask ourselves how even the relative unity of this new logos, which they incarnate and expand ever more, is determined. Such a unity must probably be found in the notion of style. Style is the new tenet of the new common grammar within which a symbolic unity, as new as it is contradictory, is defined, previously represented mainly by the Verb. The styles of vision determine a unity of frame that produces a grammar of the visible founded on cutting what is not within the frame and is, therefore, excluded from sight<sup>13</sup>. Therefore, the image’s grammar becomes

12. See FERRONE, V., *Storia dei diritti dell’uomo. L’illuminismo e la costruzione del linguaggio politico dei moderni*, Roma-Bari, Laterza, 2014.

13. Allow me to refer again to my *Il futuro dell’immagine*, ed. cit., pp. 57-88.

a style grammar that substitutes discursive articulation founded on the verbal attribution of an attribute to a subject. With the image we have to do with an analogic revolution of the logos that supersedes the logic of univocal attribution that pertains to the verbal logos. Actually –in passing– also the research on mirror neurons and the more recent ones on atmosphereology<sup>14</sup>, point to a revolution in which the boundaries of subjectivity become fluid, fuzzy in favor of a pathic-emotional redefinition which at the same time is epistemologically and neurologically founded on the statute of configuration of subjectivity.

The papers on morphology proposed in this issue of *Azafea* come within this framework. They are testament to an ever increasing common articulation of the philosophical, aesthetic, epistemological and scientific research, concerning morphology. If, in one sense, Félix Duque in *Art as a Self-Denial of Technique* starts from the standpoint that “art is a way of seeing and a way of being [...] the conjunction of man and earth’s collaboration, repeatedly concealed by technique” in a huge confrontation with the modern and contemporary Aesthetic tradition, Maria Antonia González, in *Agenciamientos materiales y formales. Variaciones sobre morfologías*, portrays the issue of form as a *non transcendens* transcendental, bringing us to the central issue, in which the legal aspect, reverberating in Duque’s speech, is connected to metaphysics proper in a historical-philosophical context that leads us from Aristotle’s *Metafisica* and the synolon of matter and form to the central point for any morphological understanding which is Kant’s teleological judgement. From here, we move with González Valerio’s essay to that fundamental turning point in the philosophy of biology represented by Von Uexküll. Thus, organism, environment and form find themselves together in one context that does not depend on any one element but on their encounter. In this frame we present Alessandro Minelli’s fundamental epistemological contribution, *Lichens and Galls. Two families of chimeras in the space of form*, where the interaction between differing organisms produces “chimeras”, individuals that oscillate between the animal and the vegetable worlds. Paolo Vineis, in *Images, morphology and metaphors in biomedical research*, defines a metaphorical dynamic of knowledge that starting from Wittgenstein and ending with Goethe and Klee, shows how the semantic invention slides and redefines observed phenomena producing the extremely interesting hypothesis of an understanding that moves on the fuzzy boundaries created by a semantic

14. See in this respect GRIFFERO, T., *Atmosferologie. Estetica degli spazi emozionali*, Roma-Bari, 2010; GRIFFERO, T., *Quasi-cose. La realtà dei sentimenti*, Milano, Bruno Mondadori, 2013. Laterza.

definition/closeness that qualitatively reformulates the object (think about the homology between crab and cancer). Sara Franceschelli in *Arguments of stability in the study of morphogenesis*, undertakes a long journey into the theories of twentieth century morphogenesis, developed within theoretical biology, to highlight those concepts and images that produce both instability and stability. Here, the connection between mathematical models and empirical morphologies is of primary importance.

From this standpoint we can find a profound affinity between what we have said so far and the paper by Maria Filomena Molder, *Method is a digression. A Benjaminian reading of Goethe* where method is to be found in the exteriorization of the subject that comes into contact with the phenomenon following a non linear progression that can advance by empathy and digression. The empathic, immersive relationship redefines the styles of knowledge. It evokes a need for a different kind of universality of the symbol that is transformed into a dialogic identity between the subjects. At this point, therefore, dialogue makes a comeback as a medium among differences, fulfilling its ancient and renewed duty. Discourse in turn moves the symbol, it dislodges it from its stable and fixed position to introduce it to an exchange that no longer pertains to human *societas*, but to the human communities that belong to a biological species that is endowed with extremely diverse symbolical codes. In conclusion we can't but look to the future with Chiara Simonigh's paper, *Anthropomorphism, Cosmomorphism, Metamorphosis. Between images and media environment*. It represents the link between ethics and aesthetics, where *mimesis* is a central element for the development of a non-anthropocentric viewpoint. The technological medium is central to establish connections both in space and in individual relationships, between the Self and the others. From the aesthetics of *Einfühlung* to Deleuze, to the *nouvelle vague* and neorealist cinema, to cite but a few of the points covered in this paper, what is advanced is the overcoming of anthropocentrism in favor of a new cosmocentrism, that modifying the symbolic universe determines a profound transformation in the man/cosmos relationship that is realized not despite technology, but because of it.



## ART AS A SELF-DENIAL OF TECHNIQUE

### *El arte como autonegación de la técnica*<sup>1</sup>

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#### ABSTRACT

Nowadays, the question about the possibility of speaking about “art” in the context of a massive evolution of audiovisual technologies, and their comprehensive influence in a globalized world, is at stake. In this sense, contemporary art, despite its similarities with technique’s *modus operandi*, does not work with the goal to facilitate humankind access to natural and artificial resources. On the contrary, art fosters the viewing of the indisposition, opacity and retractability of those very same materials of which the works are made. In summary, while technique opens new spaces, designates places and creates networks of meaning, contemporary art however, shows how those opening processes are tangled with the creation of marginality, within and against the ideological investments on certain political axis of power.

*Key words:* Art, Technique, Nature, Public Space, readiness-to-hand, retractability, concealment.

#### RESUMEN

En la actualidad resulta cuestionable que sea sin más posible hablar de “arte” dentro del contexto de una evolución masiva de tecnologías audiovisuales,

1. Translation by Paula Martín Salván

así como de su extrema influencia en un mundo globalizado. En este sentido, el arte contemporáneo, a pesar de su innegable similitud con el *modus operandi* de la técnica, no tiene como función el facilitar a la humanidad un mejor acceso a recursos naturales o artificiales. Por el contrario, fomenta más bien la índole de indisposición, opacidad y refractariedad de los mismos materiales de que está hecha la obra. En definitiva, mientras que la técnica abre nuevos espacios, designa lugares y crea redes de significado, el arte contemporáneo muestra cómo esos procesos de apertura están entrelazados con la creación de márgenes, dentro del establecimiento ideológico en ciertos ejes políticos del poder, y contra ellos.

*Palabras clave:* Arte, técnica, naturaleza, espacio público, disponibilidad, retracción, ocultación.

## 1. A MODEST PROPOSAL FOR THE DELIMITATION OF ART

Nowadays, art critics and philosophy teachers certainly know *ad nauseam* that Hegel, in his *Lectures on Aesthetics*, reported art's stagnation and lack of strength to move men in the age of the *prose of the world*, even if he did not talk –as some people say– of art's "death". It is true that he took Greek Periclean art as paradigm, for it had reached a perfect understanding between form (meaning) and content (sensible medium). Hegel was thus returning to the old idea of *techne* as *sophia*: the bond between human "know how" (guided by an idea) and nature's "let do". And from that point of view, he is absolutely right when he says that today we can think only about art (as an aesthetics' branch) but are not capable at all to produce anew such a *primal* collaboration.

Indeed, if we take art to be after Hegel that intimate cohesion between an ideal meaning and its material content we must confess that, reducing and lessening at maximum the sensible load in typically modern arts, that is, in painting, music and poetry, why would we need art at all, always linked to immediate intuition and to the "annoying" presence of the material, when we have philosophy, in whose technical concepts, once "purified" by dialectics, pure meaning that shines without sensible mediation? As it can be seen, Hegel takes the modern program to its most brutal extreme: to end with materiality's apparent autonomy once and for all, to make it only useful, at most, as transparent medium for spiritual communication (as if Hegel already knew the Internet?).

Thus perceived, we should better talk about *violation* against earthly, "natural" things, rather than collaboration between nature and man. This



would be done without even trying to find pleasure in it; the reckless spirit of this age ruled by art would not have even tried to enjoy nature, but to “make it say its truths”. Artists and audience would not even be conscious of it (unfortunately, Phidias did not have Hegel beside him to tell him what he was really doing). That superior Truth would be that nature is just the appearance of the Idea, its pure shine or sensible glow (*Schein*). The Idea would be dispersed and paled across the face of nature, plastered in make-up, whose foundation would not be “natural” (and of course not “earthly”, in our sense) but deliciously *logical*. In this way, it seems clear that art (in Hegel’s terms) was doomed to disappear at the precise moment in which *thought* made its powerful appearance. According to Hegel, thinking is literally a *contra naturam* activity. It would be rather strange to consider, following that conception, that after the Greek miracle (or rather the mirage) art has managed to endure two thousand more years until finally it lies, tired, at Hegel’s feet, while he constrains all post-classic art (Christian-Medieval and Modern) under the unitary tag of “romantic art”.

On the other hand, Heidegger himself had some trouble with the definition of art in his 1964 lecture, when he got himself inside a “circle”: art would be –he says– what an important artist does, and he would be the one “who most purely satisfies art’s supreme requirements”<sup>2</sup>. That is why he felt forced to follow an indirect path: that of space, whose elucidation followed so to say a *boomerang* course. He thus returns to art, understood as *poiesis* (calling forth Aristotle) and defined by Heidegger as a “bringing-forth (*her-vor-bringen*) of Truth; forth: to the unconcealed, and from the concealed, so that the concealment (*Verbergen*) is not left aside, but is thus precisely preserved”<sup>3</sup>.

I will rather focus here on the philosopher’s words themselves than on the meaning openly intended by him. By dismembering the German term *hervorbringen* (“to produce”), Heidegger is tacitly revealing a “lack” in Romance languages (later extended to Germanic languages through modern French: both Germans and Anglo-Saxons speak today about *Produktion* and *production*). The Latin *productio* names indeed the act of “bringing forth”, but it keeps concealed the provenance of the thing thus brought to light (that origin, however, was present in the prefix *her-*). What Heidegger claims *a sensu contrario* is that what is concealed in modern “production” is... the *concealment* itself. And the modern concealment of that concealing

2. HEIDEGGER, M., *Bemerkungen zu Kunst – Plastik – Raum*, St Gallen, Erker-Verlag, 1996, p. 8.

3. *Ibid.*, p. 15.

would be the cause of current impoverishment: the forgetting of being. As it is well known, the essential feature of *being* is precisely that concealment, that withdrawal. We won't follow exactly that path, but will rather take a "mountain" track. Indeed, our path will be guided by the root of *Verbergen* ("to conceal"), where the word *Berg* comes from: "mountain", but also *Bergen*: "to lodge, to shelter".

What Heidegger does not say –neither here nor in any other place that I know of– is that the origin of the noun *Berg* refers to something made by armies endowed with *savoir-faire* –even if they do not know about art, they do know something about space– when they talk about the importance of, let's say, taking a hill. The German term refers to the Indo-European root *\*bharegh*, "high, elevated",<sup>4</sup> from which the Latin *fortis* ("strong, vigorous", that is to say, able to repel an attack) also originates. This term will in turn influence the German and English languages through the introduction of the term *Fort* (a military fortress with a palisade and watchtowers, preferably built on high), the meaning of which is well known to us thanks to westerns. So those who find shelter in the mountains (natural or built ones), those who castle themselves there, do not hide inside them, but peer from their height at the surrounding plains below, in order to avoid being surprised by their enemies. Those who are thus "fortified" are concealed, that is to say: concealed from their enemies, who cannot see them from below. And the other way around: those who resist in the mountain dominating over a particular territory, a *chôra*, can surely have at their disposal that delimited space "below". It is not casual that gods' headquarters have always been mythically located on the top of a mountain (Olympus, Cithaeron, Parnassus, Sinai) or that the Acropolis ("city on high") dominates over Athens. Symbolically, then, castling in the mountain implies the dominion over fertile, cultivable land.

On the other hand, the Latin term which corresponds to *Bergen*, the verb *occultare*, comes from *ob-colo*, that is: actions made for the "cult's" sake–originally practiced on heights, and thus occult from pagan looks– which in turn develops later into "cultivation". "Conceal" is thus related to "occult", in which different important meanings in the military, strategic, and religious, cultic realms intersect in "concealed" ways. Where are we now? We wanted to provide a tentative definition of "art", using Heidegger's words on "concealment", and we find ourselves on the top of a mountain, or fort or watchtower, in order to advantageously repel a possible attack, or to safely appropriate a territory, or to celebrate cultic acts in a sacred place. What do

4. See *DUDEN Herkunftswörterbuch (sub voce: Berg)*, Mannheim/Wien/Zürich, Bibliographisches Institut, 1963, p. 59.

these three actions have to do with art? Let's see. The first one means *violent exclusion*; the second one, *dominion and control*: govern; the third one, *delimitation* and (profane) space planning from a (sacred) elevated center. This is what was concealed in the term "concealment" (*das Verbergen*: "to persist in the concealment"). Therefore, let's use those three factors as "forts" to agglutinate around them the meanings of "art" which have appeared indirectly in the course of this essay.

## 2. ART EXISTS ONLY THROUGH TECHNICAL EFFICIENCY BUT TO THE SUBVERTING OF ITS GOALS.

It is obvious that art has a close relationship with technique, both linguistic and factual. According to the aforementioned definition, technique constitutes the collaboration between a conscious "know how" and an unconscious but effective "let do" on earth's part, the "telluric" element (and not simply of "natural" things!). But to understand this relationship, we must first investigate what is this strange "thing" called *earth*. For it seems to be not only what is *occult* par excellence, but also something that has always tried to conceal itself. Aristotle implicitly acknowledges this—he also begins by trying to reduce it, like Empedocles and so many others, to the status of an element, just as fire, air and water—when he says that "all the elements have their defendants, except earth"<sup>5</sup>. But earth, as I understand it here, is not an element; nor is it the other elements' foundation—something like their "raw matter"—and even less the abased "matter" of Modernity, seen as *mass*, defined in mathematical terms as the relation between volume and density (as much an exact as circular a definition). All those attempts at apprehension (at finding a definition that binds its object) had as their aim precisely the attempt to master the earth's resistance, to put it at human action's service through an operation much bolder and slyer than Prometheus' theft. What can earth be then, if we do not want to approach it through mystical fantasy? The answer I propose is that earth is *resistance*. But it is a resistance that (as one of the extremes of an essential relationship) never appears on its own, isolated, simply because it does not exist in an isolated way (and therefore, there is no concept or definition of "earth" as such).

The earth is not at the bottom of planet Earth, nor is it in the land's underground; it is not inside the mountain or hidden deep in water molecules, and neither is it darkly concealed behind the sky's blue. Summing up, the earth

## 5. ARISTOTLE, *De anima*, 405b8.

is not “natural” at all (nor the barbarous and wild side of nature). The earth only *shines* in technical or artistic works (where could it be but there?). It is the one which lends Doric temples’ the impenetrability of their groove, the one which shines in Titian’s canvases and the one which empties itself in the hollow of Duchamp’s urinal (about which we will talk in a while). It can be felt (but not measured!) in things’ weight, solidity and closure, but also in the words of a poem about the lovers’ embrace: “Is not the undeclared intent / of Earth, in urging lovers on, / to make creation thrill to/ the rhythms of their rapture?”<sup>6</sup>. The urge to make creation thrill –not of its own accord, but to the rhythms of the lovers’ rapture– means that it goes beyond itself. Where to? To its origin? Yes, understood as its *arché*. That origin is not concealed in the bowels of the earth, but it is evident on the surface of elaborated things, as the limit of that labor and the resistance to it. We are not allowed to say that earth *exists*, but that there *is* earth on the house floor –but too late: when the house is already built– on the armor’s polished surface, on the creased working table or in the gesture of pain for the death of a loved one. Earth always exists in a specific, *singularizing* way. It prevents *this* table from being just one more table, my friend from being one among others and even this old computer I’m working with (it is already five years old!) from being just a trademark product in a series, remorselessly disposable when it stops working. It exists in technique, but it cannot be reduced to technical production, because it marks the limit of man’s ecumenical *generalizing* action. Man is, after all, the animal with language capacity, who turns –like king Midas in an inverted way– everything he says into something general, subject to be manipulated by anyone; but the same true language, that of poetry, makes each word *repristined*, said *for the first and only time*:

Earth, is this your will?  
An *invisible* resurrection (*erstehn*)  
within ourselves?  
Is it your desire  
one day to vanish?  
Earth! Invisible!  
What do you demand  
but transformation?<sup>7</sup>.

6. RILKE, R. M., *Duino Elegies*, trans. Robert Hunter, Eugene OR, Hugolosi, 1993, IX, vv. 35-37. For the original text, I recommend the handy and well-documented edition by KIPPENBERG, K., *Duineser Elegien. Die Sonette an Orpheus*, Zürich, Manesse, 1991; 8, 48.

7. *Ibid.*, vv. 67-70; 8, 50 in the original.

Earth is indeed invisible because it *allows to see*: it is made of contrasts and negations, as in the light and shade games of baroque façades. That is why it imposes technical transformation: only in it does the present's *un-availability* come to light, the limits of things' helpfulness. This explains human, too human attempts to erase that indelible trace, to turn earth into "nature", as if it were an inventory of things at hand, or at machine's disposal (the English talk about the *furniture of the world*), reducing it to matter or mass (the "dough" of which things are made) or making it just one more element. But earth cannot be reduced to that; it is not even sensible in itself, but rather it makes the sensible be so: the sensible's *essence*, guarantor of that *pure multiplicity* both needed and feared by Kant, which Hegel tried to eliminate with his *logic*. Earth is dispersion, dissemination, disagreement. It is the one which makes paths *that lead nowhere*. It is the negation of dimensions: there is earth in water's ungraspable fluidity, in fire's light and in air's clarity, but also, evidently, in the cultivated field's underground or inside a marble statue; but only after its "outside" has been sculpted. Or rather: earth is that game, that essential relation between outside and inside.

However, "earth" only appears as retractile inappearance when we try to bank water by means of dikes, to capture light in a torch or a halogen light bulb, or to distribute air in buildings' hollows and rooms, where walls raise with flying colors (a dialectic expression for a grave issue) *from* the foundation *towards* the skies. Earth only exists in technical production: the work's position is *at the same time, indivisibly*, the presupposition of earth<sup>8</sup>. Before human works there was no "earth". There could well be a deserted planet turning around the sun, but even the stable identification of the first as a "planet" and the second as the "sun" can only take place in a techno-scientific context, grounded in turn –although the "expert" does not care about it– not on *the Earth*, but on "earth".

What is technique then? If we put what has been said about Heidegger's *Verbergen* together with this brief meditation on the "telluric" *arche*, the answer is a simple one: technique is the collaboration between two attempts of reciprocal "concealment". Man acts *as if* there was no earth in him: he resists from the heights of his "know how" and tries, concealed, to tear things from the unavailable bosom of the earth to turn them into products that follow an

8. The Latin term *productio* refers only to what is put "forth": *pro-*, thus concealing the origin. The German *Hervorbringung*, instead, points to the origin as well thanks to the *pre-*fix *Her*: an always displaced origin, inserted in the work and only glimpsed through it. "Raw matter" is only such when we know, retrospectively through the finished product, *what to do* with it.

*a priori* law. His aim is to transform things into *Objekte*, that is to dominate and control them “from the outside”, so that there is no chance for frights. So that, as far as possible, it seems that there would be no destruction or death at all in the producer-consumer community and its members. The fact that technique has always been aggressive can be seen not only in the abstract terminological violence of its “coming through”, but on its first expressions such as flint axes or arrow points. Otherwise, what would explain the determination to erase every trace of *subjective* action over the things called “natural”, attributing their existence and shape to God, to Nature or, in the modern sphere, to a pure *objectivity* “discovered” by science, which is imagined to be running like the purest glass that allows us to see things as they are, “independent” from men? The determination to consider everything as a wide and alien “reality” is due to this concealed (and concealing) technical action, by means of which man conceal from himself his own shaping activity.

Why? Because otherwise he would have to admit that he *needs* things and that they are not mere “circumstances” of a central subject. Because man would then have to confess his *finitude*, his mortal status after all. However, it would be stupid to blame technique for numberless evils, current and past ones, because without technique there would be no man. He learns *malgré lui* about his mortal, finite condition when he *proves* himself in technical transformation, experimenting how much will his power stretch when dealing with earth. Wanting to last forever, by means of domination and control, means in turn to acknowledge that it is impossible. They are both aspects of the same process, in the same way as there is no mountain (what is concealed and safe) without valley and plain (the opening that lets life be, but at the same time shows it as needy, as needed of skills and abilities in order to survive).

Earth, in turn, “collaborates” in that technical activity by *concealing* in it (it would be absurd to talk about “concealment” in itself –as Heidegger seems to suggest at times with his *Seyn-Beyng*– as much as it is absurd to talk about the *absolute Other* –as it can be apparently read in Levinas–). Rilke briskly understood what the earth “wants”: *to rise (erstehen)* someday, invisible, in us. Why “someday”? Because for the time being we take it to be the sphere itself of *visibility*. What else can be as visible for common sense as the earth, vast and conquerable, as it can be seen in William Wyler’s film *The Big Country*, from the title itself to its very end, when the betrothed couple look *from above* the territory that will be theirs?

In this way, earth would be not concealment, but what is artificially *concealed* behind the shiny and varied mask –human, too human– of *virgin*

*nature* (and we all know what predator males want virgins for, in the same way as bread is meant – to be eaten). That is how we perform violence on *the earth's sense*. And that is also how we can solve the apparent difficulty of the term *erstehen*. We can approach the meaning it has for Rilke (which we will take advantage of *pro domo*) analyzing its most explicit synonym: *hervorkommen*, that is to say: “to come out from hiding”. Again, one feels tempted to refer to its closed origin (in the same way as in *hervorbringen*, “bringing forth...”, which seemed to refer to a deep, original closure, something similar to Kant’s “thing in itself”). The same thing happens to the corresponding English version, *to rise*, which also seems to refer to that sullen origin, always at the back of it (*hervorkommen* as “to come out from behind”). But it only seems, because, if we read carefully Rilke’s verses, we will realize that what the poet says is that the earth longs to rise *in us* as what it truly is, that is to say, as an *invisible entity*. The question is: where does it rise from? Obviously, it is not from an underlying origin in which it alone existed (something like a dark bosom or matrix of all things, previous to them and procreator of them all). This “theological” temptation (that of seeing earth as a “god” anterior to the world) is radically eliminated when we realize that earth is a *way of being*, a movement (not a “thing”) that takes place (not static but dynamic: that lends itself) always in the same *way*, having no separate consistency of its own. It is, if you like, a shipment, a “destination” of being. Therefore, earth rises as a radical negation of its numbed visible state, of its appearance (*Schein*); from the disguise technique has covered it with, concealing it as nature or as raw material. It will rise “in us” as what it really is: invisibility. The poet does not say that the earth was invisible in itself, *ab initio*. On the contrary, he says its dream is to be invisible *one day*, and not at all that it wants to be so *again*: because it was never so before. Its truth is in its *télos*, its destiny, not in its origin. And finally, who does the poet refer to with that “us”? Certainly, not to men in general, and even less to “concealing” technicians, but to those who go with Rilke: the *poets*. In them, in their poems, the earth will get to be invisible at last.

In this interpretation, we find a thread to disentangle the phenomenon we call art. Art commonly uses the same procedures as technique, even with much more refinement (this has been so from cave paintings to computer or video art). That is why both regions have been mixed for ages, taking the artist as a more exquisite *artifex*. But *we* see that the intentions of the artist and the technician are diametrically opposite. The technician, concealing his occupation in his mastery’s height, produces objects *as if* they were natural fruits, understood as “obliging”, fit for use or consumption. That is to say, as if they were not products, constructed by his wise art. That is

why the technician has been seen as creation's "collaborator". And that is also why, from Aristotle to Kant, the aim of *techne-ars* (in German: *Kunst*, from *können*: "to can make something") has been ideally identified as the quasi-spontaneous and effortless production of objects to be directly put in the user's or consumer's hands, taking into account that "natural" things do not lend themselves to human needs or pleasures as easily as elaborated objects do.

Contemporary technology still tends to this ideal, though it does so with more resources and success than it had in Antiquity. It allows us to understand the phenomenon of slavery, cynically defended by Aristotle in his *Politics*: "if every instrument could accomplish its own work, obeying or anticipating the will of others, like the statues of Daedalus, or the tripods of Hephaestus, which, says the poet, "of their own accord entered the assembly of the Gods"; if, in like manner, the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves"<sup>9</sup>. Beyond moral considerations (which would be both anachronistic and probably illicit) this long conditional clause is very revealing in the techno-natural context. As long as instruments –that is to say, the tools used to turn things into tools, transforming them– cannot work by themselves, as beings can do by *physis*, then it is necessary that other men –considered as *katà physin*, even if they are not *politai*– handle them, imposing a finality on them that is nevertheless subordinated, for the true finality is that of the slave-owner. There is an implicit (and anachronistic) prophecy in this, which would have been unthinkable for a Greek: when instruments (our machinery), erase every trace of *earth* (in the sense previously used) that is to say, of unavailability, then there will be no slaves any more. Such is the *program*: instruments, and the products made with them, have to be so artificial that they will spontaneously and suddenly turn into "natural" ones, and even more: into *hypernatural* ones, absolutely at man's hand. Man is like nature's "rosette", taking as his future role that of fully dominating his "mother". But "Mother Nature" did never exist: *physis* is the greatest and smartest invention of the Greek *technîtes*, whose progeny extends until the dawn of Modernity, and whose cunning ideology is still occasionally supported (usually without realizing the technical origin of such a fertile "technical invention") by the nostalgic and the reactionary.

It has already been said that art and technique have diametrically opposed intentions, even if they use the same media. It is time now to have a look at

9. ARISTOTLE, *Politics* I, 4, trans. Benjamin Jowett, Oxford, Clarendon Press, 1959, 1253b33-1254a1.



art, *technique's poisoned flower*. Most of our considerations had as their departure point the Greek world and we have seen over and over again that no one in it would call himself an "artist" nor was called thus. Are we supposed to conclude, then, that there is art, but not artists, in that "political space" (as in the Roman or the medieval one)? It may seem paradoxical, but it is so.

Following the usual terminology in Hegel's *Phenomenology*, we could say that there is art *for us* –or which amounts to the same thing: *in itself*– wherever a work "unconceals" the earth, even though the agent, *for himself* and *as it seems*, still considers himself to be a technician. On the contrary, a work tends to turn into *nothing but* a technical product when the mutual relationship "man-earth" in it is seeing *as if* it was external and it took place between two separate entities: on the one hand, man (owner and user) and on the other hand, nature (which resists being possessed, and must be then forced to, with delusion rather than violence). Both are thus integrated into the finished product, excluding from it both the maker and the earth, considered as "disposable rests".

Anyway, this concept of art entails a difficulty: we have to solve as soon as possible an absurd misunderstanding that is implied in the comparison of two divergent features: *helpfulness* and *unavailability*. Up to this point, we have insistently claimed that –*for* the classical man and *as it seems*– nature seems to have a *helpful* character (even when it do appear as a hostile element, the technician will find other "natural" forces to make it accomplish the role it has been attributed); but at the same time we have emphasized as an essential feature of the earth its opacity and *unavailability*. Someone could rightly point that a work of art would then be defective and wrongly done, while a technical product should be something accurate, appropriate and, at most, perfect. In order to solve the misunderstanding between these features, it suffices to ask: perfect, *for whom*? Who benefits from that perfection? Obviously, the user does. Therefore, this objection is circular: it says that something is right when it is useful to its user, and even more: when he possesses not only the thing itself but also the means to produce it.

From that answer, nevertheless, another possible, classical objection can rise. Taking the previous idea to its extreme, we could indeed argue that, a thing could be said to be perfect when it matches its own end and not another one's (for instance, those of the producer or the owner). According to this, the greatest perfection would be natural (as far as possible –a Greek would say–, as animals are the highest beings, for their capacity to *move*, so the best of animals –on earth– would not be man, but the *pólis*, that moves itself when trying to move everything around it) and not artificial; moreover: as nature has a *privative* root after all (*hyle*, that precludes the *morphe* from

fully, roundly and effortlessly developing), the Perfect Being would be the one who, beyond the stars, was literally *superhuman*, that is to say: *o theos*, the God, who has nothing to do at all with either art or technique. *For us*, this objection can be easily solved. What lies under that perfect circularity is nothing but the ideal of *autarchy*, of self-government and self-sufficiency, without need to produce or to consume anything, that is to say, free from care and death. Are not gods precisely called “immortal”? Does not man flee from the classic circuit that nevertheless constitutes him and every *mortal* essentially? The idea of a *self-sufficient* Nature and a *self-sufficient* God clearly and painfully underlines, *a sensu contrario*, human destitution and his need to lead a precarious subsistence by technical means.

The ideology of perfection leads to paroxysm the “humanist” (or what is the same, theological) concealment of the earth and its taming as nature (which, ideologically speaking, will be at last dominated when art works *as if* its products were natural and even *more natural* than what is phenomenically natural). It is uncanny that, in all cultivated languages, the *perfectum*, what is accurate and “finished”, also means what is fulfilled, what solely rests in its finality, and what is *dead*, “done” (*factum*), to such an extent that, due to its persistence on “being already finished” (*per-fectum*), it wears out to the point of exhaustion: it ends up *being finished*. That is why we should avoid considering art as “perfect” (or as “imperfect”). These features are perfectly valid instead for technical works (and also for so-called “natural things”, to which technique ideologically extends its ideal of finality). A work can be perfect without being artistic (for instance a nuclear power station or a *Pentium* laptop computer) or imperfect but highly artistic (as the babbling verses of some of Hölderlin’s hymns, or Novalis’ unfinished *Heinrich von Ofterdingen*). But it can also be perfect (that is to say, absolutely fit to its use) and artistic (like Chartres Cathedral) or imperfect and not artistic at all (as some plumber’s or electrician’s domestic odd jobs).

What do I mean to say with all this? To begin with, that art and technique do not need to be focused on realms or things different from technical ones (or from so-called natural ones). This explains an apparent mystery: the fact that *for us* or *in itself* there has been –especially in the pre-modern world, but nowadays as well– art in works that were not considered “works of art” by men of former times, and that we could not take to be an *exclusively* artistic one. There can be art in a work without its being consciously art as such (think again of Greek temples or Gothic cathedrals; but also of a humble “vaso de bon de vino”: “a glass of good wine”, as Juan Ruiz, the loose-tongued Archpriest of Hita used to say). It follows from this, in the second place, that art is an *overdetermination*, an addendum *we* project

(anachronistically, in the aforementioned examples) on particular works. Art is a way of seeing and a way of being, without need to be individualized or concentrated on a particular “thing”. A way of seeing what? The *conjunction* of man and earth’s collaboration, repeatedly concealed by technique. Seeing Michelangelo’s *I prigionieri*, the expert, the technician, will try to rightly point at the statue’s formal proportions, its “beauty”, and he will regret that the work is unfinished, or at least *seems* to be so. The real art lover, instead, will admire the stone’s might and the marble’s opacity behind the polished surface of its carved parts, *together with* the artist’s effort to *negotiate* with that telluric force, making it come forth in the work. This is not the perfect union between form (or meaning) and matter (or sensible content) Hegel sought, but a clash between opposing *forces* in which is “unconcealed”, following Heidegger’s terminology, that what hiddenly beats, both in nature (whose “phenomena” seem to be and say sincerely what they “really” are, without any artifice) and in technique (whose “works” seem to be pure hoaxes, tricks and artifacts imposed on nature to trap and dominate it) comes to light.

And yet what comes to light in this way *happens* in the work without *appearing* in it (otherwise there would be two “things”: the work and what is present in it). It happens *with a side-glance*, we would say, in an oblique way. On the one hand, a man’s (and hence a people’s) effort happens in the work, an attempt to leave a living trace of his ambitions and desires, of his fears and hopes, that is to say, of his past traditions and his future projects; the technical aspect of the same work, on the other hand, is only valid for the present, which once the work is finished –as a product or as use or exchange value– will be useless: it will be dead and valid only to rest in a museum as part of the past’s *cultural* stock. This means, moreover, that the artistic value of a work always comes *at the wrong moment*. Sometimes, it even presents as something *untimely*, as a real *dis-appointment*. Strictly speaking, there is art in the present, but not art *of* the present. That explains the temptation to explain art as a timeless thing, as the sensible image of eternity. On the contrary, that *byproduct* (*untimely* rather than timeless), that rest –maybe unnoticeable or despicable for the man or the people who produced the work– is what inaugurates art’s *ecstatic* character. We *read* in the work, *between the lines* (that is what “intelligible” means), that ecstatic quality, the artist’s “being out of himself”, thrown into what is *symbolized* (from *symbállein*: to throw one force against another until they mingle) in the work. It is precisely because of this that the ecstatic quality articulates in turn the artistic *conjunction*, as the artist’s activity works with the material “to make it say its truths”, to underline the *earth*’s unavailability at the very moment in which he wisely mixes his colors or skillfully carves the stone.

And the other way around, the earth is glimpsed in art through the brush's stroke or the chisel's blow, but also through urban planning or computer design. The earth *is* not: the earth *emerges* on the work's surface as an opacity or a dense bulk; in the work, it allows it to "coagulate" when it –the earth– *withdraws* from sensible contemplation, as the negation of pure formality and also as the rejection of mere materiality. To put it in negative terms: we feel, rather than see, how the earth acts its retraction through the sustained beat of the line or the chromatic gradation, through the earth's heavy weight or the ethereal levity or "air" in an *aria*. Summing up, and I hope this does not sound esoteric: two "concealments" meet in art, to be "unconcealed" in it:

- 1) that of human activity, endeavored to fight death, not in spite, but precisely because man knows he is mortal,
- 2) that of the earth's retraction, trying to escape what would constitute its "death" by consumption, that is, its staying calm, self-enclosed, with no relation to man.

It is always too *late* to appreciate that activity in art and as art. When we try to perceive it, technique conceals the earth and turns it into bland, available, insipid "matter". It is not late simply because the artist has already left his activity expressed in the work, but because silent mortality passes through his know-how, like an overwhelming bridge between past and future that rejects to *present* itself. It is also always too *early* to capture the earth's invisible retraction (remember Rilke's verses: the earth dreams this will come true one day, but not now, in the present). When we try to grasp that escape, the only thing that remains in our hands is "nature", something that apparently has nothing to do with man. That is why it is only in art that man is projected *in and towards* the earth, at the same time as, correspondingly, it retires, ejecting itself *in* human activity.

Art: a violent, loving mortal struggle of opposed movements, in which each one (projection and rejection) *is* only when it turns into the *other*, different from itself, when penetrating the other, who in turn can only become instantly *itself* through that movement, and not when it is in the other (this is where Hegelian dialectics stop, and he had to "license" art, as he did not know what to do with it). Art, man and earth are always *in partibus infidelium*: antithesis of the Brothers Grimm double hedgehog, art is only such when each movement is given to the other, ceasing to be itself to let the other be. Ephemeral identity, never present, crisscross of opposed alterities. Were it true that, according to Heidegger, metaphysics has been constantly governed by the ideal of *constant presence*, then there would be nothing as

anti-metaphysical as art. That is why it is not strange to find that philosophy (at least, traditional philosophy) and art have always been at loggerheads, on bad terms.

### 3. HOW ART DOES NOT GIVE A DAMN ABOUT LOSING ITS AURA

Remember that, when tracing the etymology of Latin *occultare*, we mentioned among the different meanings of “occult” that art –as revelation of the opposed movements of two forms of “concealment” or “occultation”– had primarily to do with the delimitation of two spaces: on the one hand, the –sacred– space, delimited in height (or at least far from the eyes of common people)<sup>10</sup>, where the *cultic* action takes place (the word “temple” comes from that “cutting” or delimitation: from the Greek *témmein*, to cut); on the other hand, a space excluded from that “enclosure” and at the same time produced, expelled and sent by it: the profane space. It is the *limes* what creates the world (the *kosmos* as ordering) according to its two faces or edges (the internal limit, with its centripetal attraction: concentration; the external limit, centrifugal, expels and dispels spaces towards the four cardinal points of the horizon at the same time).

Therefore, the ambivalence of the root *colo*, latent in *occultare*: on the one hand the celebration of the religious cult; on the other, the duties of cultivation. This ambiguity will extend to the progressively lay space of Modernity in every aspect of *culture*. As we know, technique is the one that traces the “limit” which engenders the world. But as we also know, we must refuse the (either theological or metaphysical) temptation of believing that art is in turn *concentrated* inside the sacred enclosure and even petrified in the statue of a god architectonically enclosed –and closed– inside the temple and poetically enclosed by any given myth or *creed*<sup>11</sup>. According to such an easy division, technique would then be at profanity’s service, and art at holiness’.

10. It could also exist in the deepest and most inaccessible cavern, as in Altamira or Lascaux.

11. In German, poetry is *Dichtung*, and the corresponding verb (*dichten*) also means “to condense, to concentrate”. That is why Heidegger –and many others– has been often led to conclude (for instance in the conclusions of the aforementioned *Bermekungen*) that art is “poetry” (in the broad sense of the Greek *poiesis*), that is to say, concentration: all the elements should be gathered in the Thing (of thought or poetry: both aspects of the Same); all the words should be gathered in the Word. In this way, he dangerously and even mystically approaches the “metaphysical” ideal of *constant presence* that he had so brilliantly demystified elsewhere.

The only problem is that both technique and art *ontologically* pre-exist those two “enclosures”. Technique, we have already noted, is the one who traces the limit that “creates” them, thus feeling free to operate on both sides. And what about art? Art constantly reminds technique the *essence* from which it comes, that is: the original struggle between the earth (that invisibly “longs for” dispersion in the work) and humanity (that tends towards “concentration”, visible for all the members of the community in the city’s horizontality; a visibility which in the vertical, sacred enclosure of the temple is only accessible by some). Technique enunciates the collaboration between man and earth, while showing human activity’s desire for domination against a resistance considered to be “natural”; art means instead the *conjunction of exclusions*: it is the latent violent coupling in the technical collaboration between man and earth. Art enunciates indissolubly *concentration-and-dispersion*.

That is why it does not care about losing its aura<sup>12</sup>. The term obviously comes from a religious sphere and its most well-known instance is in medieval saints’ *aureole* or halo. As we all know, Benjamin correctly states that, with the advent of the capacity to reproduce works of art mechanically, they have lost their *hic et nunc*, their unique and genuine character (*Echtheit*), and finally their privileged existence as *original* “things”. He certainly acknowledges that art has always been reproducible; in the Greek world, thanks to bronze casting (*Guss*) and ceramic molding (*Prägung*); he could have added the serial production of statues, textile manufacture, the reproduction of architectonic styles and procedures, etc.; in the medieval world, by means of woodcut; and in the modern age -in a continuous flow- by chalcography, the printing press, lithography (the origin of illustrated magazines), photography, phonograph records (origin of sound films), etc. But what Benjamin really claims is that the (mechanistic) modern technique has led to the loss of the artistic *original* (so that it would not even be accurate to talk about “reproducibility”, as there would be nothing to be reproduced), that is to say, of the work of art as such, of *this* thing here we call “art”). This would be

12. Walter Benjamin seems to regret this very much, instead. In his 1936 seminal essay “Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit”, published in the book of the same title (The Work of Art in the Age of its Mechanical Reproduction), when he criticizes fascism, he seems to confuse again “art” and “technique” at the people’s service. He says that society, devoted to imperialist war in a suicidal impulse, “instead of draining rivers, [...] directs a human stream into a bed of trenches; instead of dropping seeds from airplanes, it drops incendiary bombs over cities; and through gas warfare *the aura is abolished in a new way*”, BENJAMIN, W., *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit*, Frankfurt/M., Suhrkamp, 1963, p. 44; my italics.

the end of the 19<sup>th</sup> century's attempts of *l'art pour l'art* (lead by Mallarmé), which now is to be considered as an ideological reaction.

Now art is used for the ideological indoctrination of the masses, and it leads to fascism, which would promote the *aesthetization of politics*. On the contrary, Marxism proposes –as Benjamin notes at the end of his *The Work of Art in the Age of Mechanical Reproduction*– a different unction: “the *politization of art*”. In both cases, however, Benjamin is sure that art has ceased to be at religion's or prince's service, lacking any kind of “cultic value” (*Kultwert*), and that it has passed to be at politics' service, entirely exposed to the people's eyes, to the public eye (*Ausstellungswert*: “exposure value”). Apparently, of this general loss of “authenticity”, only one shelter remains: in fact, quoting as an example Pierre Duhamel's idea about the social function of cinema, Benjamin opposed it –as a sort of compensatory mechanism– to the lost religious *concentration* and he sees it (in the modern mass society) as a necessary –and sometime subversive– means of distraction and dispersion (*Zerstreuung*).

It seems to me that there is a *quid pro quo* here. I feel almost tempted to agree with the scholastic sentence: *concedo, sed distingo*. It is one thing how art is used, and quite a different one what art is. For a work of art can also be technically contemplated for its *helpfulness*; and this function changes: pyramids, whose bricks are kneaded with many slave's sweat and blood, are now a lucrative business (in spite of fundamentalist terrorism) for Egypt, and specially for *tour operators*; but still they are art *for us*. In the Plaza Mayor in Madrid, *sacramental plays* were represented, then bullfighting, and nowadays it is occasionally used for summer performances (a good example of public art), and it has always been a place for pedestrians and tourists (a good example of cultural industry).

Benjamin seems to take art for a set of “things” (either reproducible or not) that work as an instrument of power. That is true but banal: nothing escapes power, but this overused term is but the global abstraction of social workings. It all depends on the political organization which assumes that power. But, as we have seen, art is not a “thing”, but a function of technique's overdetermination (which is not a thing either). Benjamin still thinks like Aristotle: a work depends on its finality, and this belongs to the owner. If he is unique, original and unrepeatable (a god or tyrant, in its extreme forms), then it is logic to consider the work as original as its owner. If the ultimate end is in collectivity (either proletarian or fascist), it is equally logic that there are no originals, that each work of art is a “copy”. But a copy of what? Obviously, of the political diagram which, in turn, would determine the engram or technical project, ultimate responsible for the serial production of objects. This

would be the truly “original” diagram. The only different would then lie on the artist, rather than in the work of art.

In fascism, the supreme artist would be the *Führer* or the *Duce* and his clique of artists (for instance the Futurists, led by Marinetti, who was deeply hated by Benjamin). In communism (first guided by the Academy of the Arts), each man –individual and versatile– of the people would be the artist. The people would project a creative “light” over their works, bestowing on them a new *aura* (a “democratic” aura this time). If we believe Benjamin, simplifying things a lot, the first thing would be bad, and the second one would be good. It could be. But not for art. No one will deny that there is a fascist art of a high *artistic* quality (as the E.U.R. buildings in Rome and Speer’s works and projects testify), independently of its spurious use. In the same way, we cannot deny that there exists a very low quality communist art (“socialist realism”) and another, superb one –which was immediately stopped– (constructivism, Eisenstein’s or Djiga Vértov’s films, some of Shostakovich’s symphonies), even if we agreed, being really tolerant, that Soviet leaders had very good social intentions.

Therefore, any attempt to attribute artistic quality to religion or politics is barren. Where do *we* measure that quality from, instead? Obviously, from the perspective of the work’s capacity to *disseminate the earth*, to allow the sensible to show as such, that is, as unavailable for technical action which, nevertheless, lies at the work’s heart. The quality of a work of art depends on whether it makes things’ expiration and men’s mortality instantly shine, *together with* man’s effort to technically escape from that vertigo. The work of art is thus permanent, but it is not at all a copy or a sensible gleam of eternity (only God can know what that is). It is rather the *guardian of the ephemeral*, as Baudelaire already glimpsed, an artist who cheerfully rejected both artist’s and work’s “aura”. That aura was not, it was never properly artistic. It was a borrowed shine. And it is not very likely –and definitely undesirable– that it will be hung again on some genial artist’s eminent head (it is enough to see the famous pictures of Picasso in his underwear and to compare them with Lord Byron’s portrait wearing a Turkish turban).

But this lost welcome (not for art, for it had never an aura of its own) also encompasses the disappearance, from artistic consideration, of the work’s armor as *this* individual thing, *hic et nunc*, as an unrepeatable original. This assessment comes, all in all, from the Aristotelic exaltation of the Great Individual, of an unrepeatable and unique Lord (*kouranós*), that is to say, of the *prôte ousía*. According to this conception each single man, each *tóde ti*, longs in vain to truly become the First Substance: a God. What is unrepeatable is not the thing, the *feeling* that it produces on the audience, but the



underlining, *in each case*, of the ephemeral character of our space-temporal existence, spread along the chromatic scale of Monet's *Nymphéas* in the Orangerie Museum, but latent as well in the performance of *Parsifal* or, with greatest strength, in Joseph Beuys' *actions* or Bill Viola's video installations.

Of course, we can finish these controversies with a discordant voice, by asking what have all these considerations—bordering the realm of the mythic—on man and earth to do with the common idea of art as *aesthetic region*, or with its modern Kantian definition. Is it not art an *ad libitum* production of objects, according to rational laws? It certainly is. But we will have to analyze what that *means* to us, and not within the complex system of Kantian philosophy.

#### 4. KANT'S FREE WILL AND DUCHAMP'S "FONTAINE"

It has been repeatedly said that, according to Kant, the *Kunst* operation ("art-technique" before being differentiated) can be defined as the arbitrary (*willkürliche*) production (*Hervorbringung*) of objects, according to reason. *Kur* used to mean "decision" (cf. *Kurfürst*) and *Wille* still corresponds to the English word "will", so that arbitration would be the act of *deciding* that something exists by the agent's will, that is, in a free way. In art, however, this must happen following the voice of reason (*Vernunft*, from *vernehmen*: "to perceive, to listen carefully"). We are now in a position to spell Kant's definition in the following way: *Kunst* is the free act on man's part to bring forth particular objects by cutting, tearing them *from* (that is what *de-cide* means: to cut, to separate something from something)—from what? Kant does not explicitly say it, but taking into account how carefully he usually distinguishes between production of *Objekte* and existence of *Gegenstände*<sup>13</sup>, we

13. Kant (and later idealists) uses the neologism *Objekt* (from the Latin *objectum*: what is thrown before us) to name something already understood and structured in the analytic's mind (e.g. the transcendental Object is the "thing in general": a kind of correlate of *construct* in which the subject's categorical and formal apparatuses are clearly projected, without attention to the "materiality" of things. We can thus say that the "Aesthetics" and the "Analytics" in the *Critique of Pure Judgement* deal with the attempt to reduce things, phenomena, to the status of mere Objects; while the "Dialectics" deals with the impossibility to reduce all of reason's Ideas—and therefore reason itself—to the status of Object). A car is a *Gegenstand*. The computational analysis of the car's design is an *Objekt*. A *Gegenstand* can produce fears and shaking (for instance, if a car runs over a pedestrian) because we are not sure yet what it is and, therefore, how to control it; instead, we dominate and control *Objekte* by means of philosophy, science, technique, politics and ethics (and art?).

understand that the decision is supposed to extract a thing (or parts of things) from another situation or realm, considered as “natural”, that is, immediate, thoughtlessly received and, therefore, imposed and opposed to man. This implies that, even if an “object” was not made to suffer a factual transformation, the very act of extracting it from its “phenomenical”, apparent bosom in order to put it in the free and reflective human realm would already be a techno-artistic action.

For instance, a urinal separated from the sanitary system (flushing tank, plumbing, sewer, recycling plants and transmitters), put in a museum’s room under the inscription *Fontaine de vie* and signed by R. Mutt (one of Marcel Duchamp’s heteronyms) is an artistic production, even if only because it makes us think (in an indirect way) about a function we all consider to be absolutely natural (that is: men urinating, hiding in a way, in spaces delimited according to sex inside public buildings); because of that reflection, the “urinal” *Gegenstand* becomes an *Objekt*: an object of reflection and understanding. Besides, that very same urinal, were it connected again to the sanitary system, excluding or erasing the inscription and the signature, would return to be part of what it *was* before: a technical product. But not always, not essentially. It was such product because some quartz mineral had been previously grinded –together with other materials– and torn from its “natural” bosom, vitrified, etc. As we can see, in a global system of exclusion from –and of inclusion in– a reference diagram (in a “meaningfulness net”) what is decisive, in order to know whether something is art, technical product or natural thing (if it were possible to get at “natural” things as such, which is questionable) is established according to the degree of proximity to the maker’s will. But simple will is not enough.

Many art lovers still think that what Duchamp (and his large artistic progeny) did was precisely an arbitrary oscillation between extravagance, farce and madness; an act which was only mitigated by the reverential awe imposed by the high valuation the “work” received and by its location in a museum. If prophet Isaiah cried out against the idolater who worshipped the carving he had made himself with cedar bark, we might imagine what he would have thought of a “urinal” like Duchamp’s, which had not undergone any physical transformation (and indeed, it is well known that Duchamp considered such works as *ready-mades*). But it has really undergone a transformation. And a powerful one indeed. Here is where Kant’s *caveat* intervenes: the arbitration in techno-artistic production should be subject to reason. For instance, the same people who make fun of Duchamp’s “artistic” production and who violently complain against its being put in a museum, with the consequent expenditure (a urinal, paid with taxpayers’ money!)

would find perfectly reasonable that the urinal was connected to the (first sanitary, then meaningful) net, because in this way the “thing” would be in its *place*. They grumble: is it reasonable at all that a museum should be the appropriate place to show a single urinal? The answer is: yes, it can get to be, in case we “reasonably” understood the system (the conscious and all-encompassing link) of all possible relational subsystems, and not only the system of mere utilitarian connections. That implies, in the first place, that in order for links to exist, it is necessary that there exists hierarchical exclusion and separation as well; in the second place, that this exclusion guarantees the –limited– dominion over the chosen reference diagram (here, the sanitary system stands before the fabrication of ceramics, using ovens, etc.); that this dominion will only be effective and enduring if it accepts being in turn subject to a superior diagram (public health, in this case), which is subject in turn to considerations of economic planning (ask any bathroom fittings manufacturer), space planning (toilet installation in public buildings)<sup>14</sup>, urban planning (connecting those spaces to the general plumbing system and sewers, and these in turn to recycling plants, underwater transmitters, etc.), political planning (waste and its transmission have to be hidden in every single city) and even ethical-religious planning (it is not acceptable to see adult men urinating in the streets as dogs; here, the *modesty* of Zeus’ law is still at work). This huge set-up of *exclusion* and separation, of *domination* and control and of the public “creation” of a private space constitutes a perfect example of what sociologists such as Nicklas Luhmann call “great technical systems”. And we all agree that such are *rational* systems, because they bring to light in the social realm *functional connections* rather than “things”.

After all this, what does Duchamp’s “artistic” operation with the urinal consist of? By violently tearing the basin from its techno-natural system, he connects it with equal violence to a subsystem (the museum’s) which is rationally connected as well to other superior systems (that of instructing and teaching the public to appreciate culture and lay and “humanist” patriotic values, thanks to the effort of abnegate and privileged individuals, artists, whose aspirations are clearly higher than those of bathroom fittings manufacturers). It is clear that the subsystem “museum” is considered to be superior to the subsystem “public toilets installation”, even if it is only because there are toilets in museums and not the other way around, and because a work of art (also Duchamp’s urinal, of course) is much more expensive than a toilet. What does Duchamp do? He *connects* those two subsystems against

14. In a broad sense, that is. Offices, factories and malls also have toilets with urinals to collect and drain male urine.

any of their normal uses, and with them, a “great technical system” and a similarly great “cultural” system, thus ridiculously *questioning* both, as if the artist looked at them from a *watchtower* or a *fort*, while at the same time allowing us to see *a sensu contrario* the totality of the modern “political space” in which those systems are joined.

From this (highly elevated) perspective, Kant’s definition of Kant<sup>15</sup> is not only used for the production of the technical object “urinal” through a will subject to reason (to sum up, of the kind present in public health), but especially to bring to light (*hervorbringen*) through a free decision –by which something is excluded from a subsystem and connected to another one– an *Objekt*, that is: a conscious and lucid interpenetration of systemic functional connections and separations in the “work”, *actu* (thing plus title plus signature). In this way, the “previous” object (*Gegenstand*) arbitrarily invades another subsystem, “making it say its truths”, without fully abandoning its original subsystem (neither its form nor its matter have changed; but its function has changed). And all this happens according to reason’s superior dictate (superior, because it questions the so-called rationality of systems when they pretend to be meaningful and complete in themselves, in an isolated way, and because it connects and ridicules at the same time two “spatial” or “power relations” systems within the great supersystem “City”). The only thing that, in my opinion, would make the *Fontaine de vie* a total work of art, exquisitely rational, would be to put a toilet from which a urinal had been torn (naturally, it would have to be the exhibit one) beside the Museum’s room in Philadelphia, thus precluding the “normal” use of the item –in that place–.

In this way, not only Kant’s, but Heidegger’s definition would be right as well: a work has been brought to light (or “unconcealed”), brought “forth” (in the public room of a museum) in which *truth is actualized*, as in it are made clear several aspects for all the people:

1) the act of bringing (*bringen*) a thing into a “space-forth” (*vor*) –the *Being* of that room, which opens paths and places, which collects, selects

15. “By right we should not call anything art except a production through freedom, i.e., through a power of choice that bases its acts on reason”, KANT, I., *Kritik der Urteilskraft*, vol. V, in: *Kants Werke.*, Berlin, De Gruyter, 1968, § 43, p. 303 (Translator’s note: I follow J.H. Bernard’s edition (*Critique of Judgment*, London, McMillan, 1914). I am not at all trying to attribute these meditations to Kant, but using –as I have done with Heidegger– the weight of his words to approach the phenomenon of art. What Kant intended to say is probably rather “modern”: We can arbitrarily produce objects because we have almost already reduced nature to a trustable set of laws (*natura formaliter spectata*); and the subjection of that will to reason consists in following its rules both in speculative and practical uses.

and arranges things—, and 2) the violent separation of the thing from its origin (*her*) which is, we could say, a meaningfulness net usually “concealed”: concealed, as it goes unnoticed precisely because it is permanently exhibited (such a concealment would be the sanitary net’s *Being*).

In this way, the “work-thing” *that actualizes truth* unconceals and at the same time preserves a yet more secret function’s concealment (especially if it takes place in public spaces): the necessary ejection of waste human fluids (an operation which obviously corresponds to the *Dasein* or “man-Being”). And it does indeed preserve the concealment (*bewahrt*, Heidegger says), because no one dares to urinate in Duchamp’s basin, even though its unconcealed vision reminds us (as in Platonic *anamnesis*) of a physiological need that has to be kept secret and retired, at least in public: this is the extraordinary crossing of public light and closed opacity underlined by Duchamp’s work of art<sup>16</sup>.

## 5. PRIVATE ART AND THE PUBLIC SPACE OF MODERNITY

In any case, an undeniable fact is to be established at the beginning of Modernity, that is the birth of a reflexive artistic conscience as an *author* of something that does not exist as merely a copy of an external thing, but as a new “creation” (taken to the extreme: not as a thing of the world, but as a thing which *makes world*), and the succeeding introduction of the word “art” in most European languages to refer to an ontological branch now torn from the old stem of technique (which will in turn be thus called from the nineteenth century onward, leaving craftsmanship aside)<sup>17</sup>. It is like a branch

16. There is no need to say that there is yet a more private sanitary item; so private that its name comes from withdrawal itself: the *privy* (Saint Teresa of Avila still spoke about “the soul’s privy”). Even if the choice of that item would have earned the work a higher charge of unconcealing concealment as such concealment, on the one hand, on the other hand it would have lost the suggestive strength of the urinal’s connection with a great female sexual organ (an analogy which is underlined by the way the urinal is placed in front of its user) and of urinating with male sexual organ’s ejaculation (thus the ironic title of the work: “The fountain of life”). This is a strong analogy we have prudishly overlooked before, when talking about systems subjected to reason. Anyway, Hegel had already connected urinating and genesis force in his *Phenomenology of Spirit*.

17. There are exceptions, of course. The uses related to old terms resist dying. Thus, we talk about Arts and Crafts Schools, or we say that a skilful person is “a real artist”. In general terms, “arts” still refers—although in an indirect way—to the whole field of manual work, from cooking to bullfighting. The same can be applied to the term “philosophy”, used to mean any theoretical project or calculus (some time ago there was much talk about “politics”: a firm’s politics, commercial politics, etc.; now—maybe because of the

office that separates from its old head office to work on its own, claiming its superiority and distinction over it. Even a venerable transcendental joined that branch: *pulchrum*, “the beautiful”, which had been used until then to name the way in which the supernatural is latent in the sensible. That is why *splendor entis* corresponded to *pulchrum*; the splendor came after all from the *ens summum*, from God, who covered beautiful things with his light (this is where the idea of the halo or nimbus comes from; and it also explains why natural beauty, or the one that emanates from saints and their actions, was considered to be highly superior to artificial beauty)<sup>18</sup>.

All in all, we have not been able until now to explain the reasons for this fundamental change, due to the way in which it altered all old distinctions and also because it was flanked by two other essential phenomena in Modernity, which were also in need of analysis: In the first place, the close connection from then on between science and technique, and in the second place, the very close connection between capitalism and the practical ethical-political sphere. We are ready now to investigate those reasons, once we have determined already the relationship between art and technique in general (something that is only possible for those who know themselves to be heirs of Modernity, even if they grumble against it).

After everything that has been said before, those reasons seem to appear on their own will. Modern science and technique tend to strip the varied sensible coat from old substances, both in the sense of a continuum (phoronomical or dynamical) or in discrete (i.e. atomist) units. Taking two plastic images from machinist industry, continuists would see phenomenic truth as a huge forest whose wood, pressed and mixed with water, would provide a dense and viscous “pulp” from which all kinds of goods would be produced *ad libitum* (in the same way as, in technical reality, paper and textile industries are born from that pulp). Atomists would instead grind apparent reality as if it were an immense granite quarry, turning it into fine gravel for roads or melting it into glass or porcelain.

This industrial simile is corroborated, moreover, by the all-embracing expansion of epistemology. In a methodical way, it first reduces secondary qualities (debased as “subjective” ones: flavors, colors, sounds, tactile feeling) to primary qualities (enhanced as “objective” ones: shape, size, extension,

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common low regard for politics— it seems more elegant to talk about “philosophy” in those cases). What has disappeared from linguistic use (and it is not casual at all) is the denomination “fine arts”.

18. This goes as far as Kant, even in a dubitative form; this judgement will only be inverted in a decisive way by the powerful influence of Hegelian *Aesthetics*.

movement); then it “translates” them into mathematical entities, and finally it turns the old “true reality”, substance, into a colorless and almost useless frame (an *I don't know what*, Locke would say), an abstraction about to be lost in Hume’s phenomenalism. The true frame now, what is “literally down there” holding up reality, is understanding. That superior ability of the “I” is in charge of both “conceiving” and “judging” (that is to say, of abstracting and generalizing, on the one hand, and of analyzing and discriminating, on the other hand) as well as of synthesizing, that is, of composing and (re)constructing objects from phenomenical things. The supreme faculty is located above understanding; reason, in charge of relating and organizing judgments by means of laws and principles until it turns reality into a gigantic composition, a sphere in which things do not have places of their own, but *sites*, locations that are unconditionally allotted by that Supreme Judge.

Nevertheless, it is possible that the modern mechanic entrepreneur had understood –lat.: *intel-lectum*, that is: “reading” between the lines of preserved old books– Democritus<sup>19</sup>. Galen provides us with two antithetic dictums from this skeptic and wary atomist that seem to have been deliberately written to preside over Modernity’s whole epistemology: “After [Democritus] having said that ‘by convention there is color, by convention sweetness, by convention bitterness, but in reality there are only atoms and space’, he makes the senses address reason in this way: ‘Oh wretched mind, after you took your certainties from us you reject us? Our rejection is your collapse’”<sup>20</sup>. Democritus, like Modern man, offers with one hand what he takes away with the other: on the one hand, science –and technique– can only progress by reducing the sensible to mathematical formulae that can in turn be expressed by the regular and rigid movements of machines; on the other hand, senses are not only at the beginning of the mechanical process, but also at its end, in empirical verification.

Modern science and philosophy noted Democritus’ warning and tried to establish an armistice that satisfied both parts: sensibility and reason. The incipient modern art also took note of it, but it took to its extreme *sans le savoir* its function of symbolic dismantling technical arrogance. Its attempt to relate the two spheres of the modern soul–trying to make us see reason’s

19. There is no need to insist that with Modernity there also begins an endless task of cleaning, polishing and clearing away, of ordering and translating the disordered and mostly fragmentary legacy of Antiquity, which would also be used as “raw matter” from which to extract examples and incitements for emulation, while the rest was kept in a scholarly way for later re-workings.

20. GALEN, *De medicina empirica*, Diels-Kranz, 68B125, fragment 8.

supremacy over “sensible flesh” itself—would literally end in a *catastrophe*<sup>21</sup>. For us, it is both a nihilist and a laughable catastrophe, if we remember Kant’s amazing definition of laugh: “an affection (*Affect*) arising from the sudden transformation of a strained expectation into nothing”<sup>22</sup>.

## 6. HOW SENSORY KNOWLEDGE, ALBEIT CONFUSED, IS STILL KNOWLEDGE

We can say, to begin with, that this scientific and philosophical operation obeyed an ideological principle which parallels one that had already succeeded in Rome. It seems interesting that it took place in the realm of epistemology, trying to close the wound opened, as we have seen, by the reception of Democritus’ work, with the fight between senses and reasons. It was decided that, in the *urbs*, all its inhabitants except slaves and foreigners—and later on, after Commodus, everyone that lived within the *limes* of Empire, no matter their origin or social condition— would be considered *civites romani* in legal and political terms. In a parallel way, science decided to give the right of “citizenship” to sensible impressions (though they had a lower status than mathematical “constructs”), thus establishing the basis for empirical psychology. As a consequence—mirroring social movements, what is not surprising at all—in the second half of the eighteenth century some radical authors related to English sensationalism, such as Condillac—who followed the trace of Hume, another “insurrect”, carrying his doctrine to its extreme consequences—proposed a conception of man as a “machine” made of sensations from outside to inside (so that the armistice would have truly been a pause for the sensible “plebs” to assimilate and subject its “rational” lords). Leibniz, on the other hand (especially in his *Meditationes de veritate, cognitione et ideis*) undertook a cannier and subtler operation which attempted to restore the *statu quo*, though it was less satisfactory at last than the sensationalist one (as it was later demonstrated in philosophy by Kant’s superiority, and in politics by the French Revolution). Leibniz accordingly conceived knowledge as a gradual *continuum*, in correspondence to a universe ontologically organized in a continuous *scala entium*. That is to say, senses (and even the highest strata of inferior understanding, such as imagination, fantasy or memory)<sup>23</sup> offer a *cognitio confusa* of external reality;

21. The original Greek term, *katastrophé*, means disturbance, inversion; to turn things “upside down”, so to say.

22. KANT, I., *Kritik der Urteilskraft*, ed. cit., § 54, p. 332.

23. This distinction was established by Christian Wolff, the great organizer of Leibniz’s philosophy (what we have called “fantasy” corresponds to the *facultas fingendi*, the capacity to combine images in an arbitrary way). See his *Psychologia empirica*, §§ 56-233.



if that cognition could be someday *–per impossibile–* analyzed, cleared away and organized by understanding, it would turn into *cognitio clara, distincta et bene ratione fundata*, as the one we already have of intelligible *realitates*. In Rome, there were no rights but for the *populus*. The high class was part of it, although actually they were the only ones who could access the *Senate* and therefore the government. In the same way here –bearing in mind the political space of Enlightened despotism in which this philosophy is born– there is a single universe (and not two worlds, a sensible one and an intelligible one); continuous, but hierarchically organized. Therefore, a true follower of Leibniz would say, both in philosophy as in politics: “really there are people with a touch of class”.

It can be easily seen that these “distraction maneuvers” would not content neither the sensible “plebs” nor the rational “elite”. The first, surer of its rights the less they were recognized, was therefore reluctant to be just an “occasion” for the “conceptual class” to show off; the second would not accept at all the fact that its lower strata (physical-mathematical concepts or formulae of phenomena) would be contiguous to the higher layers of the sensorial “common people” (remembrances, fixed, classified and ordered by memory). This was emphasized as the “aristocracy” suspected that this continuity was being established by the all-embracing Reason (represented by the *philosophie*), parallel to the “Reason of State” incarnated by the King, the “first server of the State”, as Frederick II of Prussia liked to call himself. This was the situation when Alexander Gottlieb Baumgarten, a well-meaning follower of Leibniz and Wolff with a touch of sensationalism, appeared. In order to calm down the plebs he inadvertently promoted (like a new Epimetheus) the insurrection of sensibility against logic which still goes on. No one questions his merits, however. Baumgarten is the founder of the “science” of aesthetics, and he was the first to use that term as a noun (*Aesthetica*), deriving it from the Greek *aisthetiké*: “what is related to *aesthesis* or sensation”<sup>24</sup>.

## 7. THE AESTHETIC STRATAGEM

The aristocratic idea that a confused understanding corresponds to a confused thing is still Platonic (present, for instance, in the simile of the “line” in the *Republic*). It is unworthy of the Modern Age, presided by *method* (according to the famous dictum by Galileo: *mente concipio*); it is also unworthy

24. Cfr., CASULA, M., *La metafisica di A.G. Baumgarten*, Milano, Mursia, 1973 (especially section IV, A); CASSIRER, E., *The Philosophy of Enlightenment*, Princeton, UP, 1979, pp. 338-359.

of the 18th century State, in which the Enlightened King (*imago mentis* of Power) dominates over all his subjects, no matter how their hierarchy is scaled. That is why Baumgarten's simple and genial operation consists in distinguishing between sensible "understanding" (which belongs to animals) and *cognitio sensitiva*, which could be translated as "understanding of the sensible"<sup>25</sup>. That the sensible is characteristically obscure does not mean in fact that we should perceive it as such; on the contrary, it urges us to penetrate the *perfectio phaenomenon* thanks to a *forma specialis*. It turns necessity into virtue by considering the *perceptio confusa* not as the chaotic presentation of mixed sensations, but as the ordered and articulated *representation* of everything that is accessible to the senses, thus keeping the original meaning of the term (*cum-fusio*: fusion, conjunct integration, *synopsis*). This knowledge constitutes an *analogon rationis*, and its field is that of *aesthetic intuition*, subjected of course to reason and legality. Another essential point follows from this, characteristic of the *subjective turn* of Modernity, that is: Nature's rights are *borrowed* (not discovered) by man. In concordance to the sphere ideal we have been tracing in different realms, *sensation* itself is now attributed to man's care. Indeed, sensation (already "translated" into a representation, and no longer as an external impression) is –Baumgarten says– promoted by the soul's *vis repraesentativa*, according to the human body's *central* position in the universe<sup>26</sup>.

The fact that Aesthetics has contributed to a great extent –in spite of its manifest aim– to the "humanist" project of "cleaning up" the sensible does really sound like sarcasm or, using the Hegelian term, as the "cunning of reason". Aesthetics puts Man in the place of the naturally given, highlighting the *expression* of his genius in the *artist*; highlighting in the *public* (that is born at last with the new aesthetic consideration) the emotional –and ideological– *experience* that they, as individuals, will be "safe" for some time from the Machine's and the Market's tyranny when they enter the superior sphere of Art; and highlighting in *politicians* the *establishment* of their power as the Nation's representatives (or, in socialist revolutionaries, trying to attain power as Humanity's representatives).

25. In the same way, it is evident that there has never been an empirical science, but science *of* (that is to say, on behalf of) the empirical.

26. WOLFF, C., *Psychologia empirica*, in: *Metaphysica*, Halle/Saale, 1739, §534. Baumgarten's *Psychologia* (§§ 504-699) is reprinted (following the 1757 fourth edition) in the fifteenth volume –*Anthropologie*– of the academic edition of Kant's *Gesammelte Schriften*, as he used Baumgarten's work for his teaching.

## 8. WALKING ALONG THE WASHINGTON MALL

The fulfilment of these aesthetic and politic ideals will take place in *Neoclassicism*, triumphant in the 1776 American “revolution” (disguised as a colonial war) and, immediately after, in the 1789 French revolution. We attend here the “political geometrization” of the brand-new *Nation*, represented in colossal monuments (erected “from top to bottom”, so to say) in which the *citoyen* can “read” the republican greatness he is a part of and in which, in turn, he seems to be diminished: the Nation is everything, and the individual must be ready to self-sacrifice for the new collective Life.

This explains the “sublime” size of neoclassical buildings. The model for the great architectonic projects of this age (many of which remained just projects of layouts precisely because of their size and their costs, as it happened in the exemplary case of Boullée) will not be Rome, but rather Egypt (think of Schinkel’s scenery for *The Magic Flute*) and the stout –and a bit rough– pre-classical Greece<sup>27</sup>, whose paradigm would be the temples of Paestum. They were brought to light by the good Spanish king Charles III (who was, at the same time, king of Naples) by draining the marshes and swamps in which they were sunk (again, *to grub up, to hew through!*). The discovery of Doric columns *without base* in Paestum was a revolution for the age’s architecture, which was endeavored to get rid<sup>28</sup> of the ornamentation and “vegetable” overload typical of the Baroque period and its monstrous heir, Rococo, in order to welcome the naked functionality of Laugier’s canon: column, architrave, frontispiece<sup>29</sup>.

Maybe the most successful example of this “patriotic” colossalism is the Washington Mall, in which the US citizens see the cosmic order reflected here on earth. It is a long landscaped rectangle, in which we can see a –maybe unconscious– combination of the sacred avenues of Luxor or Teotihuacan<sup>30</sup>

27. Which had little to do with Winckelmann’s ideals of *edle Einfalt* and *stille Grösse*: “noble simplicity and silent greatness”.

28. As it becomes the puritan austerity of American revolutionaries, as well as the Masonic severity of its rulers (think of Jefferson and the Dollar bill, with its pyramid and its sun eye) and German and French enlightened men (led by Fichte).

29. Nevertheless, some of the great baroque buildings would serve as models for the severe revolutionary simplicity. Think for instance of Bernini’s colonnade in the Vatican or of the Louvre’s façade, by Claude Perrault, in which paired columns hold a straight wainscoting. That is why the transparent pseudo-Egyptian pyramid by Ieoh Ming Pei fits that *cour* very well.

30. Nevertheless, Athanasius Kircher, in his extravagant but very influential *Oedipus aegyptiacus*, had already noted in the seventeenth century the close similarity between

and the royal gardens of Versailles or Schönburg, in Vienna. It is an adequate space for mass demonstrations and patriotic meetings, limited on the East by the Capitol (began in 1793: a great scale transformation of Bramante's *tempietto* in Rome, with two wings shaped like a Greek temple, sheltering the two Houses), on the West by the Lincoln Memorial (a Doric dodecastyle mausoleum –like the Parthenon– flanked by two votive vessels), on the North by the White House (a development of Palladian buildings' "Gregorian" style, with a Ionic tetrastyle portal; and before it, the usual equestrian statue, with cannons and all that) and on the South, by the Potomac, by the Jefferson Memorial, inspired by Augustus' or Adrian's mausoleums, by the Roman temple devoted to Vesta and, remotely, by the Greek *thólos*<sup>31</sup>.

This spatial distribution is not casual (as it happens instead with New York's skyline) but it expresses a great symbolic value. As we saw in Chartres cathedral, the location of a building or of its accesses according to the four cardinal points explains its function. In the Mall, the East is politically defined by the Capitol, the dawn of the new nation, Humanity's universal hope. The first sunbeams shine on the statue of Liberty that crowns the building. The West is the somber place for meditation on death, the announcement –perpetuated day after day– of the end of everything. That explains the Doric severity of the Lincoln Memorial, and Lincoln's own grave and thoughtful aspect, for he was the president who had to bear the only civil war in American land. The North condensates the energy of decision and perseverance in promises; that is why the White House points in that direction.

Finally, the South is the smiling realm of light (an obsession for any republic that deserves the name), equally spread over every citizen, as it corresponds to the Constitution, the nation's lighthouse and guide: the *Charta Magna* was written to a large extent by Jefferson, and that explains as well the graceful and gentle character of his Memorial, so opposed to Lincoln's.

The Washington monument rises in the center of this "sacred" –it does not matter how secularized it is– and "cosmic"<sup>32</sup> area. The celebrated 555 feet

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Egyptian and Precolumbian (especially Mexican) pyramids and sacred avenues. We cannot dismiss the idea that this influence might have reached Pierre-Charles L'Enfant, the French architect and landscape designer who projected Washington's layout in 1791, from different sources.

31. For further information, see great essay by GRISWOLD, CH. L., "The Vietnam Veterans Memorial and the Washington Mall: Philosophical Thoughts on Political Iconography", in: SENEI H.F./WEBSTER S. (eds.), *Critical Issues in Public Art*, Washington and London, Smithsonian Institution Press, 1998 (2), pp. 71-100.

32. The base on which the statue of Liberty which crowns the Capitol stands is surrounded by the legend *E pluribus unum* (that is, *uni-verse*). This legend would be

*Obelisk* was erected in –disproportionate– imitation of the Egyptian helio-centric icon: as if all the other monuments were planets turning around this petrified sunbeam. The huge obelisk –which was built quite late, between 1848 and 1884– is the only monument which is not oriented or pointed at any of the cardinal points in relation to the Mall (or to the rest of the city). It is the vertical axis of the city and the Empire, the lineal extension of the celestial zenithal point, stable, solid and superb in its nakedness. There is no writing in it telling the deeds of the hero on whose honor it was raised (in opposition to what happens in the Lincoln and Jefferson Memorials), no inscription or drawing tears its marble skin. Precisely because it centers this new political space, the Washington Monument “expels” directions without absorbing any, in splendid isolation. It is very meaningful that hardly anyone approaches to have a close look at it (what for?) and that there are no demonstrations around its base<sup>33</sup>.

All this vast extension collects and condensates in it the Neoclassical ideals in architecture and sculpture (think of the Lincoln and Jefferson statues), which are in turn a reflection of the new republican and, immediately afterwards, *imperial* –it does not matter that it is sheathed as democracy– order. It is consciously designed to amaze and *overwhelm*: there is no place in it for the quotidian. The buildings which flank it or are close to it are museums (like the different sections of the Smithsonian), libraries (as the exhaustive National Library of Congress, scattered in several buildings with white pilasters of an almost pre-fascist style) or official sites (like the Supreme Court, an octastyle lay temple of Corinthian style, thus completing all the classical orders).

There is no *housing* here, unless we consider as such the eternal dwelling of “demigods” Lincoln (thoughtful, as a suffering hero out of the Poems of Ossian) and Jefferson (the merry lay thinker, as Athena’s descendant); or unless we think, at the other extreme, of the homeless who establish –creating vivid postmodern contrasts– their nightly den in the sculptures at the sides of the avenue<sup>34</sup>. Who is then the usufructuary of the Mall’s vast openness

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read were it not *hidden* from simple mortals by its height. American “democracy”, nevertheless, in opposition to the Heideggerian *Verbergen*, grants that every citizen can comfortably ascend to the top in an elevator and patriotically enrapture with the “legend”.

33. Compare this centralizer function –and slightly *repulsive* and exclusive– with the “coquettish” obelisk (truly Egyptian, in this case) in the Place de la Concorde in Paris, around which people celebrates the arrival of the New Year.

34. Allow me a little personal anecdote: I saw, together with my *cicerone* in Washington, Ruth Pérez-Chaves, a homeless comfortably lying four meters high in a sort

(the Heideggerian *das Freie!*), that huge *void court* (cut by the line of buildings and trees) whose dimensions make walking impossible, in opposition to what happens in the *Tuileries* in Paris or in Berlin's *Unter den Linden* or—a long time ago—in the *Paseo del Prado* in Madrid? The whole set looks like an immense *catafalque*<sup>35</sup>, as if it was the rectangular layout of a grave designed for a dead giant who will never rest in that place. As if it was a void sepulchre, devoted to air: pure surface, centered by the obelisk: a sun post ready to be nailed to the heart of the deceased, if he existed. This giant (who would prefer not to exist instead of occupying the grave devoted to him) is the medieval and even baroque *God*. There are no churches in the Washington Mall, which could be compared as well with the *cast* of a vast temple with a basilica ground plan, with no “walls” but the trees, with no “roof” but the sky, with no “nave” but the grass, with no “altar” but the Obelisk. Who will take its place now? *We, the People*: a collective and anonymous subject, that only exists when it gathers in mass concentrations. The whole Mall is then—allow me yet another comparison—like an aerial monument to the *Unknown citizen*. *The People* is not the “people”, well structured according to capitalist production relationships, but the “mob”, that is to say, *the Public*, a mobile incarnation (moved as it is by emotions and passions, rather than by reasons) of the “political space”, a *subjectivization* of the neuter term “the Public”.

Therefore, here and now (and not, as in the Baroque: *Neque hic neque illic*) the Mall's exterior, its vane, is *reflexively interiorized* in each of the individuals who make, in an amorphous way, the public. Politically taught by the Capitol they visit, fearful and *guided*, but in which they are not allowed to intervene (their legitimate representatives do it for them); bewildered by the stored knowledge in the Library they do not consult (scholars do it for them; they will lead their destinies or will reproduce the system ideologically through public education); warned by Jefferson of the Constitution's goodness and by Lincoln of the horrors of civil war; proud, at last, of the wonders the Empire, with millions of dollars (military plunder is no longer necessary; it belongs to the times of the *Musée Napoléon*, for instance), has stored in magnificent museums with no regular visitors but foreign tourists or students (for both, this visit is part of the “program”!). This *public*

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of metallic vane graciously connecting two vertical triangular structures as a hammock (God only knows how he got there). The whole set seemed a funny minimalist mockery of the Obelisk: one of Alexander Calder's works, inhabited by a human “bird”! A sort of “primitive-postmodern cottage”!

35. Indeed, none of the two Memorials near the Mall keeps a grave inside it, in opposition to what would be the usual thing in baroque churches. Therefore, they are literally *in memoriam* monuments.

does not know much about laws or books, they have mechanically quoted at school a Constitution whose meaning escapes them, they hate civil war but they are ready to promote it obediently *ad majorem Imperii gloriam* in any other part of the planet; this public not only does not understand or enjoy the sculptures integrated in the Hirschhorn, but they would consider them –if they saw them– as a “witness for the prosecution” for the squandering of their taxes. They admit their accumulation, however, because they glimpse somehow that democratic Power is thus “treasured” in some sort of *potlatch* (is there a greater extravagance than ordering in a scientific, mortal way the so-called riches that have no use at all, separating them from capitalist accumulation?). This public, at last, what does it have to do with the People? Everything and nothing. It is the People’s ghostly abstraction, its *cognitio confuse*, a “spirit” that should appear when called forth by the public powers’ spell, as if the Mall –a new comparison to try to describe this vacuous and effective “political space”– was an enormous “table” (with no legs) in which a *seance* was performed.

What is truly meaningful about all this is that the whole political-artistic set-up has rarely been used. In opposition to what happens in French parties of *l’Humanité*, in opposition as well to what used to happen in fascist mass concentrations, the American ghostly “public” has very rarely (for instance, at the end of the Second World War) filled the space designed for that by public powers. The public is rather cast and organized as “tourism” by *tour operators* (without them, they would not know where to go) or either it bursts in tumultuous collective demonstrations (as in the Vietnam War or in “colored people” –let’s be politically correct– concentrations), addressed precisely against the abstract Power which prepared the political space to see its glory reflected in it, now fallen into its own trap (though maybe it is not so tragic: people must vent their feelings, there must be movement in order to introduce some wary *amendments* to the Constitution, a lay replacement of Newton’s clockmaker God).

Is this a *public art*? Certainly not. It is an art designed for public use, or better: *so that in the future exists something like an involved “public”*. The problem is that the public today refuses to occupy that “Procrustean bed”, unless it is to protest in that space opened and artistically arranged by democratic Power. The People has been ideologically displaced by a ghost. And we all know ghosts do not exist, *unless they scare us*, when they threaten to blow up the system.





## AGENCIAMIENTOS MATERIALES Y FORMALES. VARIACIONES SOBRE MORFOLOGÍAS

*Material and formal agencies. Variations on morphology*

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### RESUMEN

La pregunta por la forma está relacionada con la pregunta por la materia y sus posibilidades de agenciamiento. A lo largo de la historia de la filosofía, la forma ha sido entendida como preexistente, y la materia como indeterminada. Desde una lectura alternativa de la *Metafísica* de Aristóteles, este artículo argumenta que es posible entender la materia como necesaria para la entidad sensible, de tal manera que esta entidad sea el resultado de procesos y circunstancias. A través del análisis de filosofías de la biología, de Kant a Uexküll, el objetivo ha sido señalar que la generación de formas de vida se produce a partir de un entrelazamiento de organismos, cuerpos, entornos y fuerzas, de una manera inmanente que simultáneamente se sitúa como trascendental y que, por lo tanto, puede permanecer en el límite de lo sensible y lo suprasensible.

*Palabras clave:* Ontología; Materia; Forma; Agencia; Biología; Auto-organización; *Umwelt*; Inmanencia; Morfología.

### ABSTRACT

The question about form is related to the question about matter in its possibilities of agency. Through the history of philosophy, form has been understood as preexistent, and matter as undetermined. From an alternative

reading of Aristotle's *Metaphysics* this paper argues that it is possible to understand matter as necessary for the sensible entity, in a way that this entity is the outcome of processes and circumstances. Through the analysis of philosophies of biology, from Kant to Uexküll, the aim has been to point out that the generation of life forms is brought about from an intertwining of organisms, bodies, environments and forces, in an immanent way that simultaneously stands as transcendental, and that therefore can abide in the limit of the sensible and the supersensible.

*Key words:* Ontology; Matter; Form; Agency; Biology; Self-organization; Umwelt; Immanence; Morphology.

## 1. APERTURA. O DE LAS POSIBILIDADES DE PREGUNTAR POR LA FORMA

La pregunta por la forma, su surgimiento, su proveniencia y su permanencia es una de las preguntas filosóficas fundamentales, sin las cuales el pensar no podría producir sentidos y comprensiones del mundo. Resulta una pregunta tan básica que no habría manera de obviarla a lo largo de la historia de la filosofía, de ahí que sea posible recorrer las múltiples respuestas y acercamientos que se han ido generando para entender la historicidad con la que la misma pregunta se ha transformado.

¿Pero por qué resulta básica y fundamental? ¿Por qué parece que no hay pensamiento posible sin que la cuestión que interroga por la forma se haga presente? ¿Cuál es la idea de mundo, de fenómeno, de objeto, de realidad que tiende a aparecérsenos a lo largo de la historia como para que la cuestión que interroga por la forma sea ineludible? Esto es, ¿en qué punto se hace posible la división entre el mundo y la forma, se trata de una separación modal que pertenece sobre todo al entendimiento? Y si fuera una separación modal, ¿sería entonces la forma una inteligibilidad con la cual nos apropiamos racionalmente de la realidad sensible y nos permitimos entonces generar el mundo de lo inteligible sobre el que podemos trabajar lógicamente?

Lo que sorprende quizá de entrada es la separación, sin llamarle necesariamente dicotomía, sin acusar a la historia del pensamiento, de la metafísica de una división entre materia y forma, entre sensible e inteligible; es simplemente un asombro, de que la realidad se nos dé de tal modo que permita modalmente la separación frente a lo que podría ser unidad. Una separación modal que deviene ontológica y que se aúna a la pregunta que interroga por el ente, por sus condiciones de posibilidad y de surgimiento.

¿Cómo es que al preguntar por el ente aparece la pregunta por la forma? ¿Qué modo de comprensión del ente subyace a este interrogar? Sin duda,

podríamos comenzar por recorrer cierta parte de la historia del pensamiento y entonces buscar en Platón los indicios que nos hicieran comprender las condiciones de emergencia de la pregunta, pues al interrogar por lo físico y sus causas termina descubriendo y fundando el ámbito de lo inteligible, termina surcando el terreno más propio del pensar<sup>1</sup>.

Sin embargo, no se trata de hacer aquí una historia de las ideas, sino de pensar en la pregunta por la forma y sus sendas posibles. En esa pregunta el momento platónico es diciente, en la medida en que permite la separación, y eso conduce a un cierto planteamiento sobre el modo de ser de la realidad sensible, de la materia, de las causas, de la capacidad de producción y auto producción del mundo, y simultáneamente presenta también un planteamiento acerca del modo de ser de la forma, de la inteligibilidad, del pensamiento, de la relación entre ser y pensar. Esto es, la misma pregunta que interroga por la forma, en la medida en que implica la división modal de esa unidad fenoménica, funda modos de ser de lo real.

Ahora, esto tampoco significa una afirmación bruta de que hay unidad fenoménica dada y anterior a la separación modal que alude a la forma. No es necesario asumir de entrada un compromiso ontológico de tal magnitud. Baste, por lo pronto, con señalar la separación y el asombro que eso produce y que apunta en dirección de la insuficiencia causal de lo material. ¿Cómo

1. “-¿No es cierto que éstas [cosas] puedes tocarlas y verlas y captarlas con los demás sentidos, mientras que a las que se mantienen idénticas no es posible captarlas jamás con ningún otro medio, sino con el razonamiento de la inteligencia, ya que tales entidades son invisibles y no son objetos de la mirada?

-Por completo dices verdad -contestó.

-Admitiremos entonces, ¿quieres? -dijo-, dos clases de seres, la una visible, la otra invisible.

-Admitámoslo también -contestó”, PLATÓN, *Fedón*, 78d-79a.

En estas palabras, en las que Sócrates dice verdad, la filosofía encontraría el modo de preguntar por el mundo sensible. Por eso tendrá tal relevancia la duplicación de los mundos en Platón: “con las Ideas Platón descubrió el mundo de lo inteligible, como *la dimensión incorpórea y metaempírica del ser*. Y este mundo de lo inteligible incorpóreo trasciende efectivamente lo sensible, pero no en el sentido de una absurda “separación”, sino en el sentido de *causa metaempírica* (es decir, la “la verdadera causa”); y, por consiguiente, es la verdadera razón de ser de lo sensible. En conclusión, *el dualismo de Platón no es otra cosa que el dualismo de quien admite la existencia de una causa suprasensible como razón de ser de lo sensible mismo, considerando que lo sensible, debido a su contradicción, no puede ser una razón de ser global de sí mismo*. Por consiguiente, el “dualismo” metafísico de Platón no tiene absolutamente nada que ver con el ridículo dualismo de quien hipostatiza abstracciones, y luego opone la hipostatización a lo propiamente sensible”, REALE, G., *Por una nueva interpretación de Platón*, Barcelona, Herder, 2003, pp. 194-195.

comprender la materia para que ésta sea ontológicamente insuficiente y requiera de la forma como determinación? ¿Qué acercamiento hay al mundo material, de qué modo considera la filosofía lo real sensible, cómo lo experimenta, cómo se aproxima a ello, incluso cómo es que lo toca y lo mira para buscarle allende la materia la causa de su ser?

Insisto en que no se trata de meramente acusar a la metafísica de haber fundado un ámbito inteligible trascendente, tal acusación con todas sus consecuencias ha sido ya llevada a cabo innumerables veces, resulta más interesante ahora dejar de lado la acusación e intentar reflexionar acerca del modo de comprensión de lo material e incluso de la inmanencia. Pero no tanto porque quisiésemos hallar en Platón las claves de interpretación de lo material en su insuficiencia causal, sino porque al indicar algunos momentos de la historia de la filosofía en la interrogación por la forma, nos permite cuestionar qué sucede hoy con las apuestas de las filosofías inmanentistas, por los agenciamientos materiales y por intentar otro modo de acercamiento a lo real sensible.

¿Puede la materia ser causa de su propia determinación? Esta pregunta es fundamental para comprender lo que intentan las filosofías inmanentistas en términos de agenciamientos materiales y de provocar otro acercamiento a lo natural<sup>2</sup>.

¿Hacia dónde conduce esta pregunta? Al hablar de forma como separación modal nos enfrentamos también al ámbito del orden, de las posibilidades de ordenamiento de la realidad sensible, el cual además ha de ser pensado en función del modo de ser del ente del que estemos hablando en cada caso.

Habría de entrada que hacer una división sustancial entre aquellas formas que han sido consideradas en la historia de la filosofía como trascendentes, ingeneradas y eternas, de donde sus posibilidades de transformación y adecuación a condiciones específicas de lo sensible resulta impertinente, y aquellas que provienen o se relacionan o se imbrican con un cierto modo de ser y de darse el ente sensible y que por tanto pertenecen a una particular circunstancia. Esto es, habría que distinguir entre formas trascendentes, apriorísticas, inmutables, preexistentes a la materia y formas que pertenecen a y permanecen en una particular circunstancia sensible, inmanente y que se relacionan ontológicamente con el modo de ser del ente (incluso con una

2. Los ejemplos de filosofías inmanentistas que transitan por esta senda son vastos en las últimas décadas, sólo por mencionar algunos nombres señalo a M. Serres, G. Agamben, P. Sloterdijk, G. Deleuze, F. Guattari, M. De Landa entre muchos otros. Incluyo allí mi propia propuesta en GONZÁLEZ VALERIO, M.A., *Cabe los límites. Escritos sobre filosofía natural desde la ontología estética*, México, Herder/UNAM, 2016.

cierta región del ente). Es esta segunda manera de ser de la forma la que será aquí interrogada.

¿De dónde proviene la forma? Esta pregunta resulta esencial. Pero de nuevo no se trata de hacer el trazo histórico y entonces dibujar el mapa de las diversas maneras de comprender la forma, sus condiciones y sus proveniencias. Baste con señalar la pregunta, porque indica una senda que es necesario transitar desde la demora.

¿Proviene la forma de la materia, le antecede, le es simultánea? ¿Tiene una historia narrable o es sempiterna? ¿Tiene un origen, es un modo de ser del ente, es una causa, una categoría, un sentido, un significante, un concepto?

Más allá de las formas trascendentes, eternas e imperecederas que la metafísica ha planteado en tantas ocasiones, lo que me interesa aquí es ver el modo en que es posible establecer relaciones forma-materia en ciertos ámbitos que permiten pensar lo natural desde la inmanencia, es decir, que en la manera de interrogar por lo inteligible y su ámbito propio (incluida ahí su lógica, sus determinaciones de orden y sus organizaciones) se funda también una comprensión del mundo sensible en donde lo material tiene una agencia que al ser posicionada de manera determinante (para el modo de ser del ente en cuestión) compele a pensar por multiplicidades y relaciones lo trascendental-inteligible y lo sensible. Es esta posibilidad del pensamiento la que abriré en lo que sigue, a través de un recorrido que comienza con una relectura de la *Metafísica* de Aristóteles, para desde allí llevar acabo algunas aproximaciones a lo biológico con el fin de cuestionar diferentes modos de comprender el surgimiento de la forma en su relación con la materia, con las entidades sensibles, con las circunstancias y los entornos.

## 2. DE LA ENTIDAD SENSIBLE. ENTRE UNIDADES Y MULTIPLICIDADES

Cabe la posibilidad de interpretar algunos momentos del aristotelismo en términos de una filosofía inmanentista, donde la materia tiene una agencia, una especificidad que se da en relación con la forma en la entidad sensible.

Dentro de la metafísica aristotélica ha sido cuestión de largo debate el estatuto ontológico que ocupa la *ousía*. Lejos de quererme introducir en las complejidades de ese debate, lo que interesa para el argumento que aquí intento sostener es señalar algunas posibilidades de interpretación que permiten comprender el poder de agenciamiento de la materia, a partir de la relación que establece con la forma, y del modo en que las categorías se relacionan con la *ousía*. Frente a interpretaciones que quieren ver en el aristotelismo un puro formalismo, donde el carácter ingenerado del *eidos* convierte a la materia en

una especie de receptáculo impotente y donde la entidad sensible depende del carácter trascendente del *eidos*<sup>3</sup>, es posible entender la *ousía* compuesta (el *synolon*) participando tanto del *eidos* (que es causa de su determinación) como de la materia y del resto de las categorías. Para la discusión, me centraré solamente en algunos puntos del libro Z de la *Metafísica*.

Del predominio de la *ousía* como categoría fundamental y primera, que es presupuesta por las demás categorías que la requieren como polo referencial del enlace *pros hen* y que se da separadamente, dice Aristóteles: “lo que primeramente es, lo que no es en algún aspecto, sino simplemente, será la entidad. Pero ‘primero’ se dice en muchos sentidos. Pues bien, en todos ellos es primera la entidad: en cuanto a la noción, en cuanto al conocimiento y en cuanto al tiempo. En efecto, ninguna de las otras cosas que se predicán es capaz de existencia separada, sino solamente ella”<sup>4</sup>.

Hay una relación entre la forma, la materia y el compuesto, pero sería la forma la *ousía* primera pues la materia no cumple con las características requeridas:

Y llamo materia a la que, por sí misma, no cabe decir ni que es algo determinado, ni que es de cierta cantidad, ni ninguna otra de las determinaciones por las que se delimita lo que es [...] A quienes parten de estas consideraciones les sucede, ciertamente, que la materia es entidad. Pero esto es imposible. En efecto, el ser *capaz de existencia separada* y el ser *algo determinado* parecen pertenecer en grado sumo a la entidad; por lo cual la forma específica y el compuesto de ambas habría que considerarlos entidad en mayor grado que la materia<sup>5</sup>.

Que la materia no es entidad en grado sumo al menos en estas sentencias de Aristóteles, no implica necesariamente que carezca de agenciamiento o de fuerza de determinación del compuesto. Más allá de decidir si la entidad primera es el *eidos* separable o el compuesto, lo que interesa resaltar aquí es la relación entre materia-*eidos*-compuesto, ya que la realidad sensible no se da sin aquéllas. Si el *eidos* es causa primera de su ser, del ser de cada cosa<sup>6</sup>, lo que

3. Véase, DE LANDA, M., “Deleuze and the Genesis of Form”, *Art Orbit*, nº 1, Stockholm: *Art Node*, marzo, 1998. Disponible en línea: [http://www.artnode.se/artorbit/issue1/f\\_deleuze/f\\_deleuze\\_delanda.html](http://www.artnode.se/artorbit/issue1/f_deleuze/f_deleuze_delanda.html). Resalto esta lectura, que si bien no pertenece a la discusión contemporánea del aristotelismo sobre el punto, me parece relevante ya que muestra una tendencia a buscar en los autores actuales las posibilidades de filosofías inmanentistas obviando el pensamiento clásico, lo que, a mi juicio, reduce los márgenes de interpretación.

4. ARISTÓTELES, *Metafísica*, Z 1, 1028a30-34.

5. *Ibid.*, Z 3, 1029a20-30.

6. “Pues bien, esto es la entidad de cada cosa (ya que esto es la causa primera de su ser)”, *Ibid.*, Z 17, 1041b28. Hay que subrayar en que es causa de *su* ser, no del ser.

hay que enfatizar es la relación del *eidos* con el compuesto, siendo el primero principio y el segundo principiado.

Y si interesa fundamentalmente mantener una relación determinante-determinada entre *eidos*, materia y compuesto es porque permite abrir la posibilidad de que se den simultáneamente el *eidos* que es causa primera del ser de cada cosa y que pertenece a un ámbito trascendental (más allá de defender la existencia de entidades suprasensibles y de intrincarnos en los debates sobre el libro duodécimo de la *Metafísica*) y el compuesto (el cual requiere de la materia, que también es entidad, pero por ser indeterminada no puede ser causa).

Pensarlo de este modo abre la posibilidad de que la realidad sensible no sea comprendida ni a partir de un fisicalismo en el que las causas están dadas por la inmanencia de la materia, en sus leyes y principios, ni tampoco de una metafísica trascendente en la que lo inteligible se da con independencia de lo sensible y donde el concepto se causa a sí mismo. Ni física ni metafísica en tal sentido, sino ontología inmanente, para la cual tiene que haber simultaneidad entre lo trascendental y lo sensible, tiene que darse lo real sensible por y partir de lo inteligible, pero lo inteligible al mismo tiempo se da por y para la entidad sensible<sup>7</sup>.

Esto implicaría pensar la posibilidad de una idea de morfología que es atravesada por el plano de lo trascendental y de lo inmanente, y que al depender tanto de lo uno como de lo otro, es susceptible de transformaciones y de historicidad, y puede además determinarse a partir de varios estratos. Hay que comprender la relación materia-forma en tal sentido, y además ampliarla para romper relaciones uno a uno (una forma para una materia, del tipo forma de caballo/caballo), es decir, que hay que trabajar con unidades mayores que las del organismo vivo, las del individuo o las del objeto, trabajar pues con multiplicidades e incluso desde allí intentar establecer una relación materia-forma que pasa por esta simultaneidad en la que se da la trascendentalización y la inmanentización. De tal modo que, pensar la determinación de la entidad sensible (porque ésta es determinada) implica acercarse a mapas móviles y multiestratificados desde los cuales se va determinando (lo que es, es siempre determinado). Ahora bien, para poder explorar esa posibilidad, seguiré andando el camino de este Aristóteles alternativo.

Hay particularmente dos interpretaciones en las que se ve esta vía del pensar, la primera de Pierre Aubenque y la segunda de Teresa Oñate.

Desde la perspectiva de Oñate, no se trata de entender la entidad como un universal abstracto y trascendente, como el uno-todo extenso, sino como

7. “Aquello en que consiste el ser de cada cosa y la cosa son uno y lo mismo”, *Ibid.*, Z 6, 1032a6.

límite, es decir, como aquello que distingue lo móvil de lo inmóvil, la causa de lo causado, que por tanto tiene una doble naturaleza, es simultáneamente la entidad compuesta y la entidad primera (el *eidós*):

Sólo cabe que sea entidad por sí (*kat' auto*) el límite-enlace que posibilita la unidad sintética del compuesto. Ahora bien, *ousía* es simultáneamente, por un lado, la propia entidad compuesta, y por otro, la causa de la determinación del compuesto y entidad primera, es decir, presenta los dos lados de la estructura propia del límite. Pues, como parte, estará en conexión con el ámbito del movimiento; como entidad, será inmóvil. La entidad es el *eidós*, puesto que el *eidós* es la otra cara del límite que no es a su vez limitado, en tanto límite que diferencia –la diferencia ontológica– entre el ámbito cinético de las contrariedades o ámbito categorial; y el ámbito inmóvil de los principios<sup>8</sup>.

Y esta pregunta es esencial: ¿Cuál es la causa de la unidad sintética del compuesto? El compuesto es una unidad que viene a ser, que no está dada de suyo ni por sí, e implica tanto como preguntar cuál es la causa de la determinación del ente sensible, o bien por qué estas piedras se dan en esta casa<sup>9</sup>. Lo que me parece fundamental de esta lectura de Aristóteles, es que abre la puerta para pensar la causa de la unidad sintética más allá (más acá) de la conciencia, más allá de la modernidad subjetivista. La síntesis no está puesta por el sujeto (como sucede con el kantismo, por ejemplo), y tampoco está reducida al puro movimiento de la materia (como si ésta se diera a sí misma su causa), sino que está puesta en el *eidós*, el cual ni es subjetivo ni es trascendente. No hay que perder de vista la idea de simultaneidad que se da aquí y que es la clave. Simultaneidad de dos planos que sin embargo se diferencian, porque no hay que confundir la causa con lo causado, ni el ámbito cinético-predicativo, con el inmóvil-intenso.

Lo interesante será construir una posibilidad del *eidós* que no sea simple y nominativo, es decir, que no se resuelva en la mera identificación de caballo/ forma de caballo, sino que se convierta en un mapa con/de transformaciones. Pensar, pues, en la causa de la síntesis de un modo inmanente, es decir, que pertenezca al ente sensible y a sus circunstancias, pero sin que ello quiera decir que se agota en la materialidad, sino que siga perteneciendo al terreno de lo ontológico y, por ende, de lo trascendental, que sin embargo no es *a priori* (como el trascendental kantiano o el heideggeriano de *Ser y tiempo*), porque

8. OÑATE, T., *Para leer la Metafísica de Aristóteles en el siglo XXI*, Madrid, Dykinson, 2001, p. 610.

9. El ejemplo de la casa, que es referido por Aristóteles en Z 17, será citado aquí en varias ocasiones.



es simultáneo, y deviene, esto es, que viene a ser según las circunstancias. Devenir no es movimiento, porque el segundo se da en el ámbito predicativo y del espacio extenso, y el primero lo posibilita y lo condiciona. Lo que hay que afirmar es que la condición de posibilidad es múltiple y plural, y está arraigada en el espaciotiempo, es simultánea a la circunstancia. Afirmar esta simultaneidad quiere decir también afirmar que no hay identidad entre lo sensible y lo suprasensible, sino que se dan al mismo tiempo, que se dan cada vez.

Más allá de las dicotomías metafísicas que pueden sostener lo móvil-material, y lo inmóvil-trascendente, en donde o bien la causa de la síntesis está dada por la materia (aun siendo ésta lo indeterminado) o bien por una entidad allende la materia y ontológicamente independiente a ésta y separada, el desafío para pensar la relación forma-materia, está en darle a la forma una potencia y caracterización ontológicas que la hacen pertenecer a un plano ni trascendente ni material, sino simultáneo, y es por tal simultaneidad que el devenir acontece. Si la forma antecediera (no por no anteceder deja de ser primera, en el sentido aristotélico) entonces sería indiferente a las circunstancias y no sería afectada por la historia, pero hay que pensar un trascendental histórico, deviniente, circunstancial, como modo de ser de lo que es, como causa de la síntesis del compuesto, como causa de la determinación del ente sensible.

La causa de la síntesis es la entidad, pero comprendida como límite en el que simultáneamente se dan cada vez lo sensible y lo suprasensible; lo-que-es es multiplicidad y diferencia: “la *ousía kai eidos* es la entidad esencial como causa o entidad primera del sujeto compuesto”<sup>10</sup>.

Esta idea de forma es la que conviene a lo que queremos pensar aquí, y la iremos delineando junto con la noción de circunstancia.

Para ello, la idea de esencia será fundamental, pues tiene que ser esencia de algún ente, de un sujeto, de lo contrario, la esencia no sería tal<sup>11</sup>, de ahí que haya que insistir en que el *eidos* no es causa del ser, sino de *su* ser, es decir, del ser de cada cosa (1041b28).

La esencia es el *eidos*, pero la esencia no es algo dado ya de por sí, sino un *to ti en einai* (aquello diferencial que era ser<sup>12</sup>), aquello que para ser llega a

10. OÑATE, T., *op. cit.*, p. 614.

11. “De estos argumentos se concluye que cada realidad singular y su esencia son una y la misma cosa, y no accidentalmente, y que conocer una realidad singular no es sino conocer su esencia [...] Y resultaría claramente absurdo si {separándolas de las cosas} uno pusiera un nombre a cada una de las esencias, pues habría otra más aparte de ella, por ejemplo, una esencia distinta de la esencia de caballo”, ARISTÓTELES, *op. cit.*, Z 6, 1031b20-30.

12. La fórmula *to ti en einai* ha tenido diversas traducciones, yo sigo aquí la de Teresa Oñate. Tomás Calvo, por su parte, aclara en una nota al pie en su traducción

ser. Seguiré la interpretación de P. Aubenque sobre el libro Z, al relacionar el *eidós* con el *to ti en einai*, y al entender la esencia como quiddidad. Más allá de la complicación de explicar la fórmula *to ti en einai* en su relación con el *ti esti* y las conclusiones aporéticas a las que llega, lo que me interesa resaltar de la interpretación de Aubenque es que presenta la posibilidad de una lectura aristotélica en la que la entidad sensible es el resultado de transformaciones, de modos de estar y aparecer en el mundo, y no una identificación simple, como decía antes, del tipo caballo/esencia de caballo, puesto que no basta con definiciones genéricas para pensar la entidad sensible, ya que se trata de una cosa singular (un *to de ti*, un ente concreto), que para ser comprendida requiere incluir también allí las singularidades en las que se da, y por supuesto tomar en cuenta las categorías, como cantidad, cualidad, etc. La entidad sensible no se da al margen de las categorías.

Más allá del análisis gramatical y etimológico y de la complicada traducción<sup>13</sup>, la recuperación que lleva a cabo Aubenque de la fórmula *to ti en einai* como determinante para pensar el modo de ser de la entidad sensible, implica que lo que hace que una cosa sea aquello que es es el paso y la transformación, de ahí que considere que para la pregunta *ti esti* Sócrates, la respuesta es genérica, a saber, un hombre, pero al preguntar desde el *to ti en einai* tiene que ser más específico: “se opone entonces al accidente propiamente dicho, pero incluye los atributos accidentales por sí, para definir la esencia individual concreta. Así, el *ti en einai* de Sócrates no es ser pequeño, viejo, etc., ni de ser simplemente un hombre, sino de ser un hombre dotado de tales y cuales cualidades inherentes a su naturaleza”<sup>14</sup>.

Estos atributos por sí, son los accidentes por sí (*symbebekos kat'auto*) que se distinguen de lo accidental contingente. Porque es contingente que Sócrates

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de la *Metafísica* que: “En cuanto a la controvertida y peculiar fórmula *to ti en einai*, su traducción literal sería ‘qué era ser’ o ‘qué es ser’”. Nota 13 al Libro A, 3. Pero Calvo opta por traducirlo en general simplemente por “esencia”. Valentín García Yebra, en su traducción de la *Metafísica* (en versión trilingüe), señala que: “el sentido fundamental de *to ti en einai* es el de lo que podríamos llamar ‘concepto esencial’, es decir, la esencia considerada en abstracto, con anterioridad lógica frente a la cosa constituida por tal esencia; en otras palabras es el contenido abstracto de la definición”, GARCÍA YEBRA, V., “Prólogo”, p. XXXVIII, *Metafísica*. Sin embargo, también vierte finalmente *to ti en einai* por “esencia”.

13. Para un análisis detallado de la historia del concepto, sus traducciones, su etimología y sus usos, véase CONDE, I., “Más sobre imperfecto: *To ti en einai*”, *Revista española de lingüística*, año 19, fasc. 1 (1989), pp. 85-110.

14. AUBENQUE, P., *Le problème de l'être chez Aristote*, Paris, Presses Universitaires de France, 1962, p. 462.

esté de pie o sentado, pero no lo es que sea sabio. De ese modo, para pensar la esencia de Sócrates, no basta con señalar que es un hombre, sino que hay que dar cuenta de la historia de una vida, de aquello que Sócrates ha sido. Estos accidentes por sí pueden ser considerados como las circunstancias, en el sentido que aquí me interesa defender, esto es, que la entidad sensible para llegar a ser aquello que es, requiere del paso por las circunstancias que le son específicas en cada caso, lo que impide, por tanto, que haya respuestas genéricas para la entidad sensible, puesto que ésta es, insisto, el resultado de un paso y una transformación.

El tema entonces acerca de la unidad de la entidad sensible no se resuelve del lado del género, sino atendiendo a la multiplicidad de los accidentes, sobre los que hay que establecer una gradación, ya que no todos tienen el mismo grado de determinación de la entidad sensible, pero, en opinión de Aubenque, lo que Aristóteles gana frente al platonismo es la posibilidad de establecer un discurso coherente sobre los accidentes por sí (aun cuando no hay ciencia del accidente). Esta es, a mi juicio, la manera de introducir la multiplicidad. Además, se trata de una multiplicidad que no está dada, sino que depende de cada entidad sensible, de su singularidad, de su historia, y no es contingente, en el sentido de que la entidad sensible no puede darse sin ella, de ahí que sea también la esencia, el *to ti en einai* como esencia.

¿Cómo determinar cuáles son los accidentes contingentes y cuáles son por sí?<sup>15</sup> Esta pregunta indica en dirección de las circunstancias, ¿cómo considerar aquellas que hacen que algo llegue a ser lo que es? Y la pregunta se vuelve fundamental, si, de acuerdo con el argumento, se comprende que la entidad sensible no se da al margen de éstas.

Ahora bien, para Aubenque habría una aporía en todo esto, ya que la entidad sensible no coincide consigo misma: “en el caso del ente sensible, hay que distinguir entre su ser, que es un ser compuesto, y aquello que es, es decir, aquello que era. El ente sensible no es lo que es”<sup>16</sup>. Pero ya que la definición no incluye lo accidental y tampoco se trata de preguntar por qué una cosa es ella misma<sup>17</sup>, de lo que hay que buscar definición es del compuesto y ahí hay que introducir los accidentes por sí. En este punto y hacia el final del libro Z aparece el ente técnico o artefacto para guiar la interrogación: cómo

15. Para Aubenque aquí entra el tema de la muerte, que liga a la *Ética nicomaquea*, acerca de si la persona tiene que haber muerto ya para poder entonces decir aquello que era: “Sólo la muerte puede, en el caso del viviente, terminar con el curso imprevisible de la vida, transmutar la contingencia en necesidad retrospectiva, separar lo accidental de aquello que pertenece verdaderamente por sí al sujeto que no es más”, *Ibid.*, p. 469.

16. *Ibid.*, p. 473.

17. ARISTÓTELES, *op. cit.*, Z 17, 1041a13.

es que esto se da en aquello. Tenemos entonces la pregunta por el ser humano (la vida de Sócrates), por el viviente y por el artefacto. El ejemplo de la casa es luminoso para comprender de qué modo el artefacto hace ver la composición y de qué modo la materia juega un papel fundamental. Al preguntar: “¿por qué estos materiales son una casa?": porque en ellos se da la esencia de casa"<sup>18</sup>, de lo que se trata es de comprender que la materia de la entidad compuesta determina también la forma, ya que no son cualesquiera materiales los que pueden hacer una casa, tienen que ser resistentes, dar protección, etc. Es decir, es como si la materia tuviera un poder de agenciamiento, y no como si fuera el puro ámbito de la indeterminación. La separación materia-forma en el caso de la entidad sensible que es compuesta sería más bien modal, porque la materia sólo se da en el compuesto (la forma es separable por el pensamiento). No hay casa sin las características propias de la materia, sin las piedras y los ladrillos:

¿Se trata solamente del *ti esti* (el género de la casa, es decir, aquí el cobijo) o del *ti en einai* (la casa en su particularidad esencial)? Es manifiesto que aquí no se trata del género (que es indiferente a sus diferencias), sino de la quiddidad (la cual va lo más lejos posible en el sentido de las determinaciones de la cosa, con la condición de que no sean accidentales). Vemos entonces que los límites de la esencia, en el sentido estrecho de quiddidad, devienen aquí particularmente imprecisos; la esencia se proyecta hacia los accidentes, los absorbe en su propio movimiento como parte de la realización de su exigencia: si la casa es un cobijo, la materia de la que está hecha debe ser resistente, así una cierta calidad de la materia entra en la quiddidad, es decir, en la definición formal. La quiddidad nos aparece entonces bajo una nueva luz: no es más solamente el límite más allá del cual el discurso versaría sobre la accidentalidad, sino que deviene principio y causa de sus propios accidentes [...] deviene en tanto que principio y causa, el principio unificador, mediador, que concilia la cosa consigo misma, es decir, la cosa como materia y la cosa como forma<sup>19</sup>.

Por eso para Aubenque se entiende la conclusión de Aristóteles de que en los materiales se da la esencia de la casa. Los materiales, entonces, determinan también la forma de la casa, porque no es lo mismo la piedra que la madera, porque hay un grado de resistencia de la materia con el que hay que trabajar, y porque la forma, en todo caso, se da en y con la materia, atendiendo a sus particularidades, a sus agenciamientos, a sus circunstancias.

Para concluir este derrotero por la filosofía aristotélica, quiero atraer algunos argumentos de la interpretación que Heidegger lleva a cabo de la idea

18. *Ibid.*, Z 17, 1041b5.

19. AUBENQUE, P., *op. cit.*, p. 478-479.

de *physis*, puesto que la manera de comprenderla en términos de movilidad y venida a la presencia, deja ver que la entidad sensible es un proceso que se da dentro del límite (*peras*), que acaece en la circunstancia y que requiere ser pensada no como un objeto con atributos y propiedades sensibles (medibles y descriptibles), sino como algo que llega a ser lo que es.

Quiero destacar la interpretación que hace de *ousía* como venida a la presencia, precisamente porque resalta la movilidad, y la distingue del movimiento en términos cinéticos, de cambio de lugar. Y porque si hemos de mantener la idea de que en la entidad sensible se da también simultáneamente el plano suprasensible, eso no quiere decir que del lado sensible esté lo móvil, y del suprasensible todo sea permanencia, lo meramente dado, sino también lo que llega a ser, más no en términos de cambio de lugar, sino de venida a la presencia. Así, si bien seguimos a Oñate y mantenemos la distinción móvil-inmóvil, sensible-suprasensible, lo que podemos agregar ahora es que independientemente de si estamos tratando con entes naturales o artefactos, ambos dependen de la movilidad, la cual tiene un *arché* distinto en cada caso, puesto que, como claramente distingue Aristóteles en la *Física*, los primeros tienen el *arché* de su movilidad en sí mismos y los segundos en la *techné*<sup>20</sup>.

Entonces, para los artefactos la *arché* de su movilidad y de su venir a ser está en algo distinto de ellos mismos (en el *architecton*) y para los entes naturales está en la *physis* y: “la *physis* no es en absoluto y únicamente disposición de partida sobre la movilidad de algo móvil, sino que forma parte de eso mismo que es móvil, de tal modo que éste dispone sobre su movilidad en sí mismo, desde sí mismo y hacia sí mismo”<sup>21</sup>. E importa mantener esta idea porque evita comprender al ente a partir de atributos y propiedades, como si fuera una unidad que reúne esas multiplicidades, más bien, el ente es multiplicidad porque constantemente está en esa movilidad o atravesado por esa movilidad, dándose en su límite<sup>22</sup> (en su circunstancia), haciendo que las categorías (como determinaciones del ser de lo ente) entren en juego.

La causa de la síntesis del compuesto es la *ousía*, y ésta es venida a la presencia, es decir, que la síntesis no es estática, sino un estar-siendo (también a partir de lo que ha-sido, por eso es relevante mantener el imperfecto de la fórmula del *to ti en einai*). En ese estar-siendo, la materia también ocupa un

20. ARISTÓTELES, *Física*, II, 1, 192b10-25.

21. HEIDEGGER, M., “Sobre la esencia y el concepto de la *physis*. Aristóteles, *Física*, B, 1”, en: *Hitos*, Madrid, Alianza, 2014, p. 211.

22. “[...] desde el punto de vista de la filosofía griega, *péras* no es límite en el sentido del margen exterior, es decir, no es aquello en donde algo termina. Límite es lo que limita, determina, lo que da sostén y consistencia, aquello por lo que y en lo que algo comienza y es”, *Ibid.*, p. 223.

lugar fundamental, otra vez, no pensándola como lo meramente indeterminado, sino como aquello que a partir de sus características propias permite que haya entidad sensible, la cual, en tanto aparecida, es decir, en cuanto tiene un aspecto (una forma) requiere de una materialidad específica, y esto es así para el artefacto y para el viviente.

Hay que pensar la materia no como aquello que simplemente es informado, por una forma que le antecede, sino como aquello que participa del aspecto (*morfé*) en el que se da la venida a la presencia de la entidad sensible, y para ello tiene que ser la materia adecuada, la madera para la mesa, la carne y los huesos para el viviente.

Heidegger destaca la idea de “adecuación para algo” al hablar de la materia e interpretar de tal modo la *dynamis*:

Aristóteles caracteriza la *hyle* como *to dynamei*. La *dynamis* significa la capacidad, o mejor dicho, la adecuación para algo; la madera que está presente en el taller es adecuada para hacer una “mesa”; sólo y únicamente la madera seleccionada y cortada con ese fin. Ahora bien, la selección y el corte de la madera, es decir, lo que le da un carácter adecuado, se determinada de acuerdo con la “producción” de “lo que se va a producir”. Pero producir [...] significa: *Her-stellen*, es decir, disponer aquí en la venida a la presencia, en cuanto eso que tiene tal o cual aspecto y está acabado. La *hyle* es lo que está disponible y tiene un carácter adecuado, lo que como la carne y los huesos es parte integrante de un ente que tiene dentro de sí la disposición de partida para su movilidad. Pero el ente sólo es lo que siempre es y tal como es cuando está establecido en el aspecto<sup>23</sup>.

La entidad sensible procede, por tanto, de la materia y de la forma, no de cualquier materia, sino de la que es adecuada en relación con el aspecto y con un fin (*telos*). La disquisición de Heidegger en este texto continuará en el sentido de afirmar que la *morfé* es *physis*, y que la *physis* es *ousía*, un modo de ser, como venida a la presencia, como *alétheia*: “Puesto que *physis* en el sentido de la *Física* es un modo de *ousía* y puesto que *ousía*, en su propia esencia, surge de la *physis* inicialmente proyectada, por eso la *alétheia* pertenece al ser, y *por eso* se desvela como un carácter de la *ousía* la venida a la presencia en lo abierto de la *idea* (Platón) y del *eidos kata ton logon* (Aristóteles), *por eso*, para este último, la esencia de la *kinesis* se torna *visible* como *entelecheia* y *energeia*”<sup>24</sup>.

Materia y forma no son elementos del compuesto, sino momentos del pensamiento del ente en movimiento<sup>25</sup>, el cual viene a ser, y en donde la

23. *Ibid.*, p. 232.

24. *Ibid.*, p. 249.

25. Véase, AUBENQUE, P., *op. cit.*, p. 462.

materia pertenece a la quiddidad de la cosa: en los materiales se da la esencia de casa.

Este paso por las interpretaciones de Aristóteles nos permite rescatar para el argumento que aquí nos interesa sostener: la simultaneidad de lo sensible y lo suprasensible en la entidad compuesta, que la causa de la síntesis del compuesto es la *ousía*, que la *ousía* es venida a la presencia y movilidad que viene a aparecer en un aspecto donde la materia tiene que ser adecuada para, que la forma no puede ser pensada como género y separada, sino a partir de la singularidad del ente concreto y por tanto también de la materia que le corresponde en cada caso, que la materia no es lo simplemente in-formado por una esencia que le viene de fuera y es trascendente, sino que tiene un poder de agenciamiento a partir de lo que ella misma es y que por ende el límite (*péras*) en el que surge la entidad sensible puede ser comprendido como una multiplicidad en la que la simultaneidad de sensible-inteligible nos permite introducir el *to ti en einai* y los accidentes por sí.

### 3. UN GIRO DE TUERCA SOBRE LA FORMA: DEL VIVIENTE AL ENTORNO, REVOLUCIONES SOBRE TELEOLOGÍAS Y MUNDOS CIRCUNDANTES

Pensar el tema de la vida y la morfología, desde una perspectiva biológica, significa en gran medida tomar en consideración las ideas de funcionalidad, instrumentalidad e incluso teleología.

Para comenzar a trazar un camino que permita seguir interrogando acerca de la forma, abriremos ahora la perspectiva kantiana, solamente en cuanto a su definición del organismo y su organización, puesto que, precisamente este término y su vinculación con la función y la finalidad, es lo que nos permitirá conducir la cuestión hacia las ideas de límite y circunstancia, según las cuales queremos pensar las determinaciones de la entidad sensible.

La clásica definición de Kant señala que:

An organized product of nature is that in which everything is an end and reciprocally a means as well. Nothing is in vain, purposeless, or to be ascribed to a blind mechanism of nature. [...] It is well known that the anatomists of plants and animals, in order to investigate their structure and to understand for what reason and to what end they have been given such a disposition and combination of parts and precisely this internal form, assume as indispensably necessary the maxim that nothing in such creature is *in vain*, and likewise adopt it as the fundamental principle of the general doctrine of nature that *nothing happens by chance*. [...] It might always be possible that in, e.g., an animal body, many parts could be conceived as consequences of merely

mechanical laws (such as skin, hair, and bones). Yet the cause that provides the appropriate place must always be judged teleologically, so that everything in it must be considered as organized, and everything is also, in a certain relation to the thing itself, an organ in turn<sup>26</sup>.

Para Kant esta idea es meramente regulativa y depende de quien juzga y no de la causa eficiente. ¿Qué determina la unidad de la composición? ¿Cuál es, pues, la causa de la composición, de la organización del organismo, tanto interna como en relación con la naturaleza como un todo? La teleología, como idea regulativa.

La idea de teleología del kantismo ha sido ampliamente recusada por la biología contemporánea y por muchas filosofías de la biología, que buscan explicaciones materiales (físicas, químicas e incluso mecánicas) que permitan dar cuenta de la morfogénesis a partir de la organización interna del organismo, y no apelando a lo que podrían denominar como una causa trascendente. Sin embargo, atender al organismo en su organización interna y apelar a la idea de función para explicarlo, muchas veces termina por pretender explicar la entidad sensible viviente a partir de sí misma (aun cuando incluyan perspectivas evolucionistas, que consideran por supuesto poblaciones y especies), y evita considerar la totalidad y también por ende el ámbito trascendental y suprasensible que nos interesa defender.

Si bien la perspectiva kantiana a la luz de la *Crítica de la razón pura* puede ser comprendida como mecanicista, la idea de teleología que introduce en la tercera crítica permite sobrepasar la explicación de los fenómenos desde las partes, para entenderlos desde la totalidad, es decir, rebasar el ámbito de la ciencia, en donde lo fenoménico se explica desde lo fenoménico. Apelar a la totalidad y a la unidad (es decir, a la síntesis del compuesto) permite introducir un horizonte más amplio para lo fenoménico, que lo sitúa en una red de relaciones sin las cuales no sería lo que es. Esto es, en vez de pensar la determinación de la entidad sensible a partir de sus atributos inherentes, de sus partes, de sus elementos (aun así, queda siempre abierta la pregunta por la causa de la unidad de las partes), habría que decir que su determinación proviene también de una totalidad que lo constituye, que lo comprende. ¿Desde dónde y cómo explicar esta condición que va allende lo fenoménico, pero sin ser trascendente? Tenemos la idea de límite y circunstancia, además de los accidentes por sí (*symbebekos kat'auto*) a partir de la lectura que hemos hecho de Aristóteles. La teleología es otro punto a considerar y nos llevará hacia el entorno (biológico, existencial, histórico, etc.), *i.e.*, considerar

26. KANT, I., *Critique of the Power of Judgment*, Cambridge University Press, 2000, § 66. Énfasis en el original.



la determinación de la entidad sensible desde el medio, y para ello echaremos mano del kantismo de Jakob von Uexküll.

Sobre la teleología kantiana, sigo la interpretación de Jacinto Rivera, quien defiende el punto de vista trascendental y reflexivo para pensar la naturaleza, y recupera la teleología para señalar que los fenómenos, tanto en su singularidad como en sus relaciones, requieren una mirada holística que rebase lo meramente objetivo, y que en términos más actuales conduce hacia las posturas que desde la biología defienden la autoorganización y la complejidad:

El mecanismo va de las partes al todo, decía, pero desde su óptica nunca se llega a la totalidad. [...] Pues bien, esta totalidad de sentido, este proyecto, *acota el espacio* y determina él también la dirección del todo a las partes, convirtiéndole en un espacio vivido, existencial, que sería primariamente el cuerpo, y en sentido lato el horizonte de la vida o entorno biológico, donde hay diferencias y paisaje. [...] se nos presentan fenómenos que, al objetivar una cierta totalidad, o sea, en su misma singularidad, se descubren irreductibles al mecanismo [...] el mecanismo aunque constitutivo y por tanto actuante en todo objeto, representa una infradeterminación de lo fenoménico mismo. [...] Al querer avanzar en la determinación más completa posible de los fenómenos, el principio mecanicista habrá de ser tenido en cuenta, pero no bastará, sobre todo no donde los objetos manifiesten un comportamiento holístico y autoorganizativo. Con esto hemos dejado espacio para otro principio de explicación de los fenómenos<sup>27</sup>.

¿La infradeterminación de lo fenoménico mismo puede ser ultrapasada manteniendo la simultaneidad en la entidad sensible entre la forma y el compuesto, entre lo sensible y lo suprasensible? De lo que se trata es de no renunciar al plano ontológico al explicar la naturaleza, de no renunciar a lo suprasensible para dar cuenta del fenómeno, y de trazar una posibilidad pero que permanezca en el plano de la inmanencia. En dirección a ese camino habrá que hacer todavía un par de decursos más.

El primero, y sólo para señalarlo, porque no será aquí objeto de discusión, es que dentro de ciertas perspectivas de la ciencia, las ideas de autoorganización y complejidad han permitido ampliar el horizonte de interpretación, para buscar que la entidad sensible no sea explicada solamente a partir de sus componentes y elementos internos, sino desde relaciones más amplias que indican hacia la multiplicidad.

El entusiasmo con el que se han tomando estas perspectivas que permiten pensar lo plural ha dado lugar a interpretaciones de lo natural que incluyen el

27. RIVERA DE ROSALES, J., *Kant: la "Crítica del juicio teleológico" y la corporalidad del sujeto*, Madrid, Universidad Nacional de Educación a Distancia, 1998, pp. 112-115.

entorno como determinante, y desde allí se han abierto caminos de interpretación que van desde el rompimiento del dogma del determinismo genético, hasta las apuestas por la biología evolutiva y del desarrollo. Incluir relaciones múltiples y plurales que determinan la entidad sensible, más allá del análisis de datos concretos de porciones del organismo vivo tratando de comprender sus funciones a partir de la alteración de genes, implica abrir el terreno de la incertidumbre, puesto que las relaciones pueden ser tantas que uno de los puntos a considerar críticamente es la pregunta por la unidad, esto es, si rebasamos el organismo vivo como unidad, ¿dónde empieza y dónde termina una entidad sensible, podemos hablar de entidades sensibles que son más amplias que el organismo (y sus componentes), por ejemplo, hablar de la relación entre la garrapata y su entorno como una entidad, o hablar de enjambres o de manadas como entidades? ¿Y no es acaso que el organismo es hoy también una entidad incierta en la medida en que no está cerrado sobre sí mismo sino habitado por una microbiota que hace estallar las denominaciones antiguas de identidad en el caso del cuerpo humano? ¿Desde una perspectiva inmunológica, no obliga esta relación con las bacterias a considerar eso que somos como multiplicidades interactuantes y de afectaciones múltiples y aún incomprendidas e incuantificables?

Sin embargo, hay que mantener una cierta sospecha en relación con el entusiasmo que el concepto de autoorganización ha generado, puesto que si bien ha permitido introducir lo incierto y lo múltiple, también hay que considerar que sigue siendo un punto de vista que interpreta lo fenoménico desde lo fenoménico, es decir, que aunque las variables y las relaciones sean más extensas y alcancen a abarcar más ámbitos de lo real que la cuantificación de moléculas, las preguntas sustanciales de la ontología siguen allí flotando. Menciono a este respecto la crítica que hace Evelyn Fox Keller en su análisis de la historia del concepto de autoorganización, porque si bien reconoce que el origen del orden en sistemas complejos presenta un nuevo paradigma en términos de propiedades emergentes y sistemas dinámicos no lineales que posibilita pensar mecanismos inestables para la morfogénesis, sigue estando abierta la pregunta, planteada en términos kantianos, acerca de qué es lo distintivo de una entidad biológica, es decir, la pregunta por su unidad y singularidad (diríamos aquí, la causa de la síntesis del compuesto, que apunta hacia la teleología):

Analyses of nonlinear dynamical systems clearly demonstrate the ease with which complexity can be generated, but notably lacking from such demonstrations is any account of the properties for which Immanuel Kant originally introduced the term self-organization. The patterns that are observed to emerge spontaneously in the systems studied thus far are complex, but they remain

patterns without meaning. Stripes, rolls, whirls, eddies are all phenomena indicative of complex, nonlinear dynamics; they are phenomena that can only be found in systems that share with organisms the property of being open, far from equilibrium, dissipative. But they still lack the properties that make organisms so insistently different from physical systems. Most notably, they lack function, agency and purpose<sup>28</sup>.

El ámbito inteligible parece ser irrenunciable, aun cuando se vea lo fenoménico en estos términos de multiplicidad y complejidad. Lo fenoménico sigue siendo infradeterminado, falta la pregunta por el sentido, por la unidad, por la causa de la síntesis.

Si bien cierta parte de la biología ha renunciado a la exclusividad de las explicaciones físico-químicas para dar cuenta de lo viviente, el giro que ha dado hacia las funciones y la funcionalidad pero tratando de esquivar el espinoso tema de la teleología, merece ser considerado aquí para seguir indicando en relación a la simultaneidad de lo sensible y suprasensible para pensar la entidad.

La manera en la que los modelos de conocimiento han cambiado en los últimos tiempos ha provocado que las aproximaciones clásicas a los problemas epistemológicos y ontológicos sean relegadas a favor de la búsqueda de diferentes modelos, conceptos y metáforas; es decir, en vez de preguntar “qué es algo”, una pregunta que se enmarca en las fronteras metafísicas, la cuestión ahora tiende a ser algo como “cuáles son sus funciones”.

Concentrarse en las funciones también implica que el movimiento, la acción, los procesos y la temporalidad están en el centro de las explicaciones. Incluso se puede decir, hasta cierto punto, que la forma, o la pregunta por la forma se ha convertido en la pregunta por la funcionalidad (por tanto, se trata de la pregunta por el movimiento).

Hasta dónde la biología usa las ideas de función y funcionalidad para construir explicaciones no es un punto al que quiera referirme aquí de manera específica<sup>29</sup>. Sólo quiero indicar que, en términos generales, de la genética a

28. FOX KELLER, E., “Organisms, Machines, and Thunderstorms: A History of Self-Organization, Part Two. Complexity, Emergence, and Stable Attractors”, *Historical Studies in the Natural Sciences*, vol. 39, n° 1 (Winter 2009), p. 27.

29. Para un estudio de las ideas de función y funcionalidad a las que me refiero aquí, véase WRIGHT, L. *Teleological Explanation*, Berkeley, University of California Press, 1976; MILLIKAN, R., “In Defense of Proper Functions”, *Philosophy of Science*, vol. 56, n° 2 (Jun. 1989); WOUTERS, A., “Four Notions of Biological Function”, *Studies in History and Philosophy of Biological and Biomedical Sciences*, vol. 34, n° 4 (2003). No me detengo ahora a explicar sus diferentes definiciones de función.

la ecología, la función juega un papel muy importante, casi sustancial. La idea de finalidad, fin, y claro bienestar y progreso han sido prácticamente prohibidas de este tipo de epistemologías, las cuales aspiran a lograr un modelo de conocimiento que pueda ser fisicalista, es decir, que puede encontrar la causa de la materia en la materia.

Intentar explicar la vida en términos de movimiento y transformación de la materia, manteniendo la argumentación en un nivel cuantificacional, como hace la física, es un esquema limitado, pues lo vivo no es meramente materia y no puede ser comprendido solamente como materia, y eso a pesar del furor de la biología molecular.

Aquí quiero introducir brevemente la aproximación de Uexküll porque permite abrir un camino en el que se rebasa la relación instrumental de la función, para dar cuenta de la relación que el organismo establece con su medio, y a partir de allí intentar dar cuenta de éste, del modo en que llega a ser, pero no por relaciones uno-a-uno, sino por circunstancias y límites, y atiende al mismo tiempo a la idea de teleología como “conformidad a plan”<sup>30</sup>, lo que hace resonar la posibilidad de mantener el plano sensible y el suprasensible para pensar el modo en que se da lo vivo.

La idea de teleología de Uexküll va más allá de las determinaciones físico-químicas para explicar el desarrollo ontogenético del viviente a partir de relaciones funcionales y con el entorno, lo que significa pensar las relaciones como constituyentes, tanto del viviente como de su mundo (la *ousía* como entidad sensible deviene principio y causa de sus propios accidentes por sí, los cuales son, entonces, constituyentes).

Por eso su propuesta termina siendo tan sugerente para lo que aquí queremos proponer, en la medida en que las unidades son mayores que el organismo (y sus componentes) y son construidas a partir de trazos significantes con el entorno, el cual, a su vez, no es tampoco un espacio extenso, sino construido por interpretaciones (dicho esto con un guiño hermenéutico) que son dicentes para el viviente en particular, no se trata así de un mundo, sino de pluralidades de mundos de acuerdo a las singularidades de los vivientes.

Espacio y tiempo, lejos de ser un *a priori*, son construcciones-efectuaciones que se van generando en ocasión de lo vivo, y lo vivo no cabe en una definición simple, puesto que se con-forma en y a través de su medio, atendiendo a una temporalidad propia (de la temporalidad del árbol a la de

30. “Llamo ‘conformidad a plan’ [*Planmässigkeit*] al poder actuante en el mundo animado con el que debe relacionarse el ajustamiento [*Einpassung*] general de los seres vivos”, UEXKÜLL, J., *Cartas biológicas a una dama*, Buenos Aires, Cactus, 2014, carta sexta, p. 91. Y más adelante señala que: “Una fuerza supraespacial y supratemporal sostiene, mueve y forma todo: la conformidad a plan”, *Ibid.*, p. 94.

la garrapata)<sup>31</sup>. El tiempo humano no es aquí el parámetro del tiempo, ni es tampoco el más originario. Hay más bien que considerar lo singular en su venir a ser a través de relaciones múltiples y significantes. La entidad sensible, entonces, pensada a partir del *to ti en einai*, en donde hay una idea de adecuación (conformidad a plan) con el medio y con lo viviente (esto es, que viene a ser según el límite, en el sentido de *péras*).

El límite no es tampoco ningún *a priori*, no es espacial-extenso ni un espacio abierto previamente dado. Es constituyente-constituido, determinante-determinado o un límite-limitante como lo llama Oñate<sup>32</sup>. Es simultáneo con aquello que posibilita: la entidad sensible.

Al mirar más de cerca el modo en que Uexküll caracteriza lo que aquí denominamos límite, no basta con señalarlo como *Umwelt* o mundo circundante, esa categoría que ha sido tan cara a filosofías como la de Heidegger<sup>33</sup>, Ortega y Gasset<sup>34</sup>, Agamben<sup>35</sup> o Deleuze y Guattari<sup>36</sup>. Hay que ver la manera en la que se compone<sup>37</sup>. Hay un *Umgebung* o entorno físico y geográfico,

31. Dice sobre los seres que viven poco tiempo: “Desconocerían también el crecimiento de los árboles, al igual que nosotros el de las montañas. [...] Pero la unidad de cada medida temporal es diferente entre los seres vivos. Unos miden por minutos, otros por segundos”, *Ibid.*, carta tercera, pp. 62-63.

32. Véase OÑATE, T., “Gadamer y los presocráticos. La teología de la esperanza en el límite oculto de la hermenéutica”, *Éndoxa: Series Filosóficas*, nº 20 (2005), Madrid, pp. 795-934.

33. Véase HEIDEGGER, M., *El ser y el tiempo*, México, Fondo de Cultura Económica, 1968; particularmente el existenciario del ser-en-el-mundo en los parágrafos 12 y 15.

34. Ortega no sólo publicó en la *Revista de Occidente* la traducción de *Ideas para una concepción biológica del mundo*, sino que además, el concepto de circunstancia, que es fundamental en su propia filosofía, se liga con los estudios de Uexküll: “La ciencia biológica más reciente estudia el organismo vivo como una unidad compuesta de cuerpo y su medio particular: de modo que el proceso vital no consiste sólo en una adaptación del cuerpo a su medio, sino también en la adaptación del medio a su cuerpo. Yo soy yo y mi circunstancia, y si no la salvo a ella no me salvo yo”, ORTEGA Y GASSET, J., *Meditaciones del Quijote*, citado por JORDANO BAREA, D., “Ortega y la ecología de Jacobo von Uexküll”, *Boletín de la Real Academia de Córdoba*, nº 105 (1983), pp. 107-111.

35. Véase AGAMBEN, G., *Lo abierto. El hombre y el animal*, Valencia, Pre-Textos, 2005; donde cita extensamente el famoso episodio de la garrapata, para señalar que aparecería como paradigma del animal que no está cruzado por lo humano y que no es parte de nuestra visión del mundo ni de nuestro habitar.

36. Gilles Deleuze y Félix Guattari emplean también el ejemplo de la garrapata para hablar de la relación entre forma y medio, en *Mil mesetas. Capitalismo y esquizofrenia*. Pero de esto hablaremos más adelante.

37. Sigo en esto el estudio de HEREDIA, J.M., “Jakob von Uexküll. Portador de mundos desconocidos”, en: UEXKÜLL, J., *Cartas biológicas a una dama*, ed. cit.

que el animal codifica de acuerdo a su modo de ser, a sus características, este mundo así visto, como interpretable, es un *Merkwelt* o su mundo de percepción, a partir del cual tiene su propio mundo circundante. Es decir, no hay un mundo, sino los mundos:

Ello implica, por un lado, dejar de ver a los vivientes sea como animales individuales aislados y mecánicos, sea como poblaciones estadísticas, y pasar a verlos como un complejo activo sistema de relaciones con el mundo (la unidad mínima de análisis deviene la pareja individuo-medio asociado), y por otro lado, dejar de pensar el medio como espacio físico objetivo o terreno de la competencia y pasar a considerarlo a partir de sus cualidades semiológicas. De modo que, el primer movimiento del concepto de *Umwelt*, nos impele a reconocer en cada especie animal una particular forma de percepción. Cada viviente es permeable sólo a un conjunto limitado de señales, o portadores de significación, que lo desinhiben y lo disponen, siéndole totalmente indiferente e inaccesible el resto del entorno, sus propiedades físicas y su multiplicidad de estímulos<sup>38</sup>.

El mundo es entonces interpretado a partir de sus cualidades hermenéuticas diría yo –atendiendo a la tradición gadameriana–, en vez de semiológicas. Está sujeto a variaciones individuales que atraviesan los órganos, el cuerpo, los afectos. Y el animal así visto puede ser pensado como un *to de ti* y viniendo a ser desde un *to ti en einai*, en el que la materia (el cuerpo) con su poder de agenciamiento construye el mundo-límite, y hace aparecer la causa de la síntesis, la *ousía*, como simultaneidad, entre el mundo sensible (*Umgebung*, *Merkwelt* y *Umwelt*) y el suprasensible (la teleología de la conformidad a plan).

Es importante hacer notar que cuando hablamos de agenciamiento de la materia y lo relacionamos con el viviente en el caso concreto de la biología de Uexküll, y miramos el modo en qué este recusa fehacientemente las explicaciones físico-químicas y el darwinismo, que juzga como la reducción de lo vivo a procesos quimicomecánicos, estamos pensando la materia –el cuerpo y más que eso, sus componentes, incluso a nivel molecular y genético– no como reductible a explicaciones físico-químicas, como si al estudiar, por ejemplo, la acción de los genes diseccionándolos en cadenas de proteínas y alterando ciertas secciones para observar desarrollos mutantes en el embrión, afirmáramos que es eso lo que produce la forma, en todo caso, un enfoque epigenético sería más conveniente a la perspectiva que estamos aquí desarrollando. En tal sentido, la manera en que Uexküll analiza el cuerpo del animal,

38. HEREDIA, J.M., *op. cit.*, p. 23.

como algo interpretante-interpretable conduce a pensar en diferentes escalas, estratos, niveles con distintas potencias de interacción, lo que hace que la forma sea más bien el resultado de procesos dinámicos que se desenvuelven a distintas escalas, podríamos decir, del medio al nivel molecular. El agenciamiento de la materia no se da más que en simultaneidad con la forma, y ésta, como veíamos releendo a Aristóteles, no sería sino un resultado de uno o varios procesos comprendiéndola desde el *to ti en einai* y los accidentes por sí como *symbebekos kat'auto*<sup>39</sup>.

Específicamente sobre la forma, Uexküll la entiende desde un kantismo donde el cuerpo tiene un lugar esencial: “¿Cómo se origina la forma? Es evidente que la forma no representa otra cosa que una relación espacial determinada de lugares que pueden ser adornados con distintas propiedades. Sin embargo, las relaciones espaciales de lugar a lugar crean los grados de dirección. La forma es también un tipo de esqueleto espacial revestido por las sensaciones de contenido con la carne de las propiedades”<sup>40</sup>. Pero ante la multiplicidad, tiene que producirse la síntesis, y ésta se lleva a cabo según la apercepción, que repite con Kant y la entiende como “fuerza formativa en su actividad sintética”, pero que interpreta como un órgano: el órgano de la apercepción, el cual crea unidades. Dentro de su kantismo, para Uexküll el mundo es el resultado de la ordenación de la subjetividad. “El mundo entero se derrumbaría, si se quitaran los lugares, las direcciones y el tiempo”<sup>41</sup>. Más allá del subjetivismo, sí que podríamos afirmar que no hay mundo sin categorías, que la entidad sensible se da en las categorías y que el carácter trascendental de éstas es sostenible pero con diacronía (porque éstas también devienen).

Y en esta descripción, ¿cómo entra lo animal? Aquel que según Heidegger carece de mundo<sup>42</sup>. Para Uexküll el animal conforma su mundo circundante,

39. Esto también se puede decir hegelianamente, en la medida en que el ente no es algo dado, sino puesto: “Anything which *is*, is to be considered *to exist* not as an *immediate*, but as *posited*; there is no stopping at immediate existence but a return must rather be made from it back into its ground, and in this reflection it is a sublated being and is in and for itself”, HEGEL, G.W.F. *The Science of Logic*, Cambridge, Cambridge University Press, 2010, Capítulo 3, “Ground”, Remark, p. 388.

40. UEXKÜLL, J., *op. cit.*, carta quinta, pp. 76-77.

41. *Ibid.*, p. 81.

42. “La piedra no tiene mundo, las plantas y los animales tampoco lo tienen; pero sí pertenecen al impulso oculto de un ambiente en que están sumergidos. En cambio la campesina tiene un mundo porque se mantiene en lo abierto de lo existente. [...] La piedra se usa y se gasta en la confección del útil, por ejemplo, en el hacha. Desaparece en la servicialidad. La materia es tanto mejor y más apropiada, cuanto más se agota sin resistencia en el ser útil del útil. Pero el templo, al establecer un mundo, no hace que la materia se consuma, sino ante todo que sobresalga en la patencia del mundo de la obra;

partir de los trazos hermenéuticos que hemos ya mencionado: “Los seres vivos y, en especial, los animales son capaces de realizar prestaciones que no son solamente efectos de sus propias propiedades, sino que también pueden unirse por medio de un plano de construcción [Bauplan] unitario a ciertas acciones. Como *sujetos independientes* con un plano de construcción *propio* se presentan al mundo en el que forman nuevos centro para agrupar de nuevo los objetos [Objekte] y convertir una parte de sus propiedades en características nuevas”<sup>43</sup>. De tal manera, cada animal con su organización corporal forma una unidad con su mundo circundante, y esto produce multiplicidad de mundos circundantes que se oponen a la idea de un único mundo físico, el cual, para el biólogo alemán no es más que un mecanismo yermo.

El origen de la forma, por tanto, estaría en el ajustamiento del ser vivo con el mundo circundante: “El fin de toda formación embrionaria consiste en llenar plenamente este lugar interconectado con el mundo. [...] La conformidad a plan es la potencia del mundo que crea sujetos. Pero un sujeto no es un mecanismo estructurado cualquiera, sino un organismo arraigado en todos los sentidos, y forma con su mundo circundante un haz agrupado y uniforme de relaciones activas.”<sup>44</sup> Por eso, puede concluir que lo primario es la relación en la generación de las formas, la relación entre las propiedades del viviente y el mundo.

El siguiente giro que da Uexküll es pensar en especies en vez de en individuos, y afirmar que éstas son construidas periódicamente y que deben ser consideradas como una unidad, como un todo y entonces hablar de la forma de la especie como “un entramado enorme” que se ajusta a la conformidad a plan (resuena por supuesto la propuesta de Guattari y Deleuze en *Mil mesetas* en relación con las manadas, con las multiplicidades, con los muchos lobos<sup>45</sup>).

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la roca llega a soportar y a reposar, y así llega a ser por primera vez roca”, HEIDEGGER, M., “El origen de la obra de arte”, en: *Arte y poesía*, México, Fondo de Cultura Económica, 1989, pp. 66-67. El énfasis es mío.

43. UEXKÜLL, J., *op. cit.*, carta sexta, p. 85. El énfasis es mío.

44. *Ibid.*, carta séptima, pp. 103-104.

45. “[...] los tipos de formas deben comprenderse cada vez más a partir de poblaciones, manadas y colonias, colectividades y multiplicidades [...] la embriogénesis y la filogénesis invierten sus relaciones: el embrión ya no manifiesta una forma absoluta preestablecida en un medio cerrado, la filogénesis de las poblaciones dispone de una libertad de formas relativas, no estando ninguna preestablecida en un medio abierto. [...] Nos formamos, adquirimos formas por poblaciones; progresamos y adquirimos velocidad por pérdida. Las dos conquistas fundamentales del darwinismo van en el sentido de una ciencia de las multiplicidades”, DELEUZE G. y F. GUATTARI, “La geología de la moral”, en: *Mil mesetas. Capitalismo y esquizofrenia*, Valencia, Pre-Textos, 2008, p. 55.



Una vez que hemos llegado al punto de las multiplicidades para pensar la generación de las formas de lo viviente, y aun cuando después Uexküll hace una investigación sobre los objetos técnicos y los compara con los organismos vivos, argumento que sería de interés desarrollar aquí pero el cual dejaremos de lado, habremos de tomar en cuenta las consideraciones que el teórico finlandés Jussi Parikka lleva a cabo desde Uexküll para pensar una ontología immanente.

Habría que hacer una salvedad. La argumentación sobre la generación de las formas tendría que relacionarse con la técnica, lo tecnológico y los artefactos. Cuando menos porque el vínculo entre Gilbert Simondon y Uexküll permite producir un universo de sentidos en el que la relación entre entidades sensibles naturales y artefactuales nos permite seguir investigando en dirección de las multiplicidades que conforman las entidades, y porque al introducir lo artefactual abrimos también el paso para hablar del arte, el cual, es una vía necesaria para dar cuenta de la generación de formas desde la simultaneidad de lo sensible y suprasensible. Sin embargo, hemos de dejar esta vía solamente indicada.

Del argumento de Parikka quiero rescatar que su mirada sobre los insectos y los enjambres, muy de la mano de las interpretaciones sobre autoorganización y complejidad que hemos mencionado anteriormente, da lugar a afirmar unidades mayores a las del organismo vivo en donde la pregunta por la forma aparece como producción a partir de fuerzas inmanentes en las que el entorno juega un papel fundamental.

Aún más, él dirige la atención hacia las formas que los animales generan en su entorno (siguiendo la idea de mundo circundante), la construcción de arquitecturas, las cuales piensa –de la mano de Deleuze y Guattari– como singularidades. No se trata ya sólo de dar cuenta del viviente, sino también de aquello que produce el viviente, por ejemplo, los panales y hormigueros, haciendo que en ello el poder de agenciamiento de la materia sea preponderante:

If the subject invests in a certain object or milieu, it is as important to say that the object invests in the subject, affording it a certain potential affects. Instead of a representational approach to building and technology, insects suggest a mode of inhabiting and creating space by which they seem to track the contours and of the matter at hand in order to push it toward certain key forms, singularities. [...] insects do not merely “reproduce” ideal models but continuously create them from the grassroots level up, in an emergent manner, so to speak. [...] The solutions found to specific problems are immanent to the functioning of the system, so there is no outside plan governing the action (whether the plan, in our case, would be imposed by genes, instincts, intelligence/rationality, or whatever). Instead, it is a question of bending matter

toward certain locally optimized ends. There is no universal law that would be primary solution to the problem, but the focus is on tracking problems from the intensive matter, where the solutions are found locally from the qualities of the matter –as in the case of an ambulant insect tracking characteristics of building materials found from nature and constructing a nest –not by judging it from outside but by quite concretely following the edges and qualities of matter<sup>46</sup>.

Da que pensar la idea de producción de singularidades desde el mundo animal, puesto que, esa sería precisamente una de las particularidades de la obra de arte, produce singularidades (haecceidades) desde lo material.

En la propuesta de Parikka tratamos con una morfogénesis inherente a la materia. Esta es una de las apuestas más contundentes de este tipo de pensamientos, incluidos allí Deleuze y Guattari, Manuel de Landa<sup>47</sup> y Peter Sloterdijk<sup>48</sup>, por citar sólo algunos ejemplos. Mas esa morfogénesis no puede ser pensada como un sistema cerrado, sino que, siguiendo a Uexküll, hay que pensar en una tensión y un entrecruzamiento entre el medio y las entidades sensibles (vivientes o artefactuales).

En vez de concluir resumiendo lo aquí dicho, quisiera solamente indicar un camino posible a seguir a partir de los argumentos esbozados: el cruce de lo viviente con lo artefactual. Habría que considerar la técnica y la tecnología como saberes que no son universales, igualitarios y simplemente intercambiables y considerar que sus desarrollos y apropiaciones dependen de los contextos específicos en los que se inserten. Frente a la visión del mundo tecnológico e ingenieril que pretende que tanto el conocimiento como las innovaciones sean una cosa que transita indiscriminadamente entre culturas y fronteras, habría que integrar la tecnología y sus apropiaciones a circunstancias específicas.

Se trataría de pensar apertura distinta del saber y del objeto tecnológico. Esto quiere decir que hay que permitir que objetos y saberes crezcan en un

46. PARIKKA, J., *Insect Media: An Archaeology of Animals and Technology*, Minneapolis, University of Minnesota Press, 2010, pp. 44-46.

47. La apuesta de De Landa es por una morfogénesis immanente en la que: “matter becomes an active material agent, one which does not need form to come and impose itself from the outside”, DE LANDA, M., “Deleuze and the Genesis of Form”, *loc. cit.*

48. La propuesta de Sloterdijk en ese sentido da que pensar, además de que cruza con la biología y con lo vivo, pero también con la materia y con lo físico; de ahí la idea de la espuma, del siglo XXI como el siglo de la espuma: “Habría que hablar de un descubrimiento de lo indeterminado, gracias al cual –quizá por primera vez en la historia del pensamiento– lo no-nada, lo casi-nada, lo casual y lo informe han conseguido conectar con el ámbito de las realidades teorizables”, SLOTERDIJK, P., *Esferas III*, Madrid, Siruela, 2006, p. 33.

determinado medio y que las condiciones específicas de ese medio le determinen, le concreten. Si algo tenemos que aprender del incesante esfuerzo del cruce de la tecnología y las ciencias de la vida, es que es necesario repensar los contextos de producción y apropiación de lo tecnológico.

¿Qué pasaría si lo pensamos desde lo vivo? ¿Qué cruce saldría de la relación entre tecnología y vida?

Al margen de cualquier esfuerzo biomimético, en el que lo tecnológico emula las formas de la vida o su potencia, y dadas las consideraciones actuales de las ciencias de la vida desde un horizonte complejo (es decir, relacional, ecosistémico), en las que lo vivo no aparece como una unidad autónoma y tampoco como una cosa cerrada sobre sí misma, determinada a partir de su propio código genético, sino inserta en un medio ambiente que lo modifica y lo hace ser lo que es a partir de relaciones múltiples, podríamos ensayar un enfoque hacia lo tecnológico que lo pensara desde allí.

Ni el objeto ni el saber tecnológico se dan al margen de sus circunstancias ni se determinan desde sí mismos. Estas circunstancias, pensadas como medio ambiente, no son sólo el espacio de surgimiento, sino también de crecimiento. Y si bien éstas han sido obliteradas a favor de una universalización y homogeneización crecientes, también podemos regresar a la pertinencia de la circunstancia concreta.

¿Qué quiere decir pensar, desarrollar, producir y apropiar tecnologías haciendo presentes las circunstancias? ¿Y qué quiere decir pensar las circunstancias de modo que sean efectivamente constituyentes de las tecnologías? ¿Cuáles son sus condiciones de surgimiento? ¿Cómo se transforma mutuamente lo tecnológico y la circunstancia?

No hay aquí tiempo para extenderse en esta posibilidad del pensamiento, pero baste con decir que, en vez de pensar lo artefactual desde la instrumentalidad, podríamos hacerlo desde lo vivo y la generación de formas. La vida se presenta como una apertura, un límite, en el cual lo que es llega a ser. La vida en su formación abre un espacio en el que se dan las relaciones y los procesos, los actos y los movimientos, y en los que por un momento algo permanece. Y luego muere. La vida es precisamente aquello que muere. Justo por eso no puede ser nunca materia ni comprendida como materia, sino a partir de la simultaneidad de lo sensible y lo suprasensible. Hay que pensarla desde sus límites, desde esas circunstancias que independientemente de las escalas, los niveles o las unidades la hacen ser. Estos límites pueden ser teleológicos y orientar hacia un fin, como adecuación, que se da en cada caso, atendiendo a lo que es que va siendo.



## LICHENS AND GALLS. TWO FAMILIES OF CHIMERAS IN THE SPACE OF FORM

*Líquenes y agallas. Dos familias de quimeras en el espacio de la forma*

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### ABSTRACT

Galls are produced by the interaction between a plant and a different kind of organism, commonly an insect. Many galls, especially those involving an insect, have a very specific and often complex shape, comparable to the specific and often complex shape of organisms capable of reproduction. Galls, however, do not reproduce –each individual gall takes origin from a new interaction between the plant and the external agent. To some extent, the same applies to lichens: the specific and sometimes complex structure of their thallus may have transgenerational continuity through fragmentation or another kind of vegetative reproduction, but gets completely disrupted by sexual reproduction, following which a new lichen is reconstructed by a newly established symbiosis between a fungus and an algal partner. How far is their form constrained by the structure of the two partners? How can natural selection act on their form?

*Key words:* Adaptation; Evolutionary Developmental Biology; Lichens; Plant Galls; Scaffolded Development.

### RESUMEN

Las agallas se producen por la interacción entre una planta y un tipo diferente de organismo, comúnmente un insecto. Muchas agallas, especialmente

las que implican a un insecto, tienen una forma muy específica y a menudo compleja, comparable a la forma específica y a menudo compleja de los organismos capaces de reproducirse. Las agallas, sin embargo, no se reproducen –cada agalla individual proviene de una nueva interacción entre la planta y el agente externo–. Hasta cierto punto, lo mismo se aplica a los líquenes: la estructura específica y a veces compleja de su talo puede tener una continuidad transgeneracional a través de la fragmentación u otro tipo de reproducción vegetativa, pero se interrumpe completamente por la reproducción sexual, tras lo cual un nuevo líquen es reconstruido por una recién establecida simbiosis entre una pareja de hongos y algas. ¿Hasta qué punto su forma está limitada por la estructura de los dos socios? ¿Cómo puede actuar la selección natural en su forma?

*Palabras clave:* Adaptación; Biología Evolutiva del Desarrollo; Líquenes; Agallas vegetales.

## 1. LICHENS AND PLANT GALLS IN DEVELOPMENTAL BIOLOGY

Concepts, methods and research agenda of scientific disciplines depend to some extent on the criteria used to determine the set of objects that we regard as legitimately pertaining to each field. In this respect, disciplinary boundaries are usually revised when this is required by the discovery of new kinds of objects or phenomena, but the same does not happen regularly as a consequence of a revisitation of the properties of long-known systems that would deserve to be approached from a fresh perspective.

Paradigmatic in this respect is developmental biology. This discipline's tremendous advances in the last decades, especially at the frontier of the molecular mechanisms underlying the generation of living form, are not accompanied by an equally successful and universally agreed delimitation of its scope, not to mention by an explicit, fully articulated theory of development. The disparity of viewpoints expressed by the contributors to a recent volume on this subject<sup>1</sup> demonstrates (1) widespread disagreement on the inclusion of systems (e.g., unicellulars) and processes (e.g., regeneration and carcinogenesis) within the legitimate scope of this discipline, and (2) widely divergent opinions about a possible theory of development, ranging from denial of interest in establishing it to lack of agreement on its possible nature and contents.

1. Cfr., MINELLI, A./PRADEU, T. (eds.), *Towards a Theory of Development*, Oxford, Oxford University Press, 2014.

In this article I will discuss two kinds of biological systems, both of which deviate, in more or less important respects, from those on which developmental biology has been progressing thus far. In these systems, the lichens and the plant galls, we see form emerging at the interface between the tissues, the genes and the behaviour of two very distantly related partners: a fungus (the mycobiont) and an alga (the photobiont) in the case of lichens, a plant and an insect in the case of galls. (Galls are induced on plants by interactions with a diversity of organisms including insects, mites, nematodes, fungi, and also viruses, but in the following account I will restrict attention to those produced by the interaction of a plant with an insect, because of their distinct morphological properties: structural regularity, diversity, and species-specificity).

## 2. BAD TAXONOMY CAN KILL<sup>2</sup> (THOUGHT)

With the discovery of their symbiotic nature, lichens continued to be treated as natural systems articulated into species, diagnosable through morphological traits and/or the peculiar molecules they produce. There is nothing in nature like “pure mycobionts” corresponding to as many fungi associated with algae in lichenic symbioses. However, by realizing that the mycobionts of distinct lichenic taxa are in fact strictly associated with different lineages of non-lichenized fungi has eventually suggested to distribute the lichenized fungi across the system of the Ascomycetes and Basidiomycetes, following their phylogenetic relationships, rather than confining them to an artificial class of their own. This was a major reorganization of the fungal classification, although one that did not require a major conceptual revolution.

2. “Bad taxonomy can kill” – with these words and a pertinent illustration, the cover of issue 6289 of *Nature* (13 September 1990) highlighted the important message conveyed by an article published in that issue (DAUGHERTY et al., 1990). The article provided a dramatic example of the potential consequences of an inadequate appreciation of the way nature is articulated, e.g., in species. Tuataras (genus *Sphenodon*) are rare and endangered lizard-like reptiles of New Zealand, the only living representatives of the Rhynchocephala. In 1877, the herpetologist BULLER described as *S. guntheri* what he regarded a species distinct from the already described *S. punctatus*, but his views were not accepted and *S. punctatus* continued to be regarded as the sole living rhynchocephalan. Since 1895 this animal is protected by law. But by 1990, when the taxonomic distinction between the two species was revisited and eventually confirmed, *S. guntheri* had long become extinct without notice. Bad taxonomy had caused it not be mentioned by national laws on nature conservation. Bad taxonomy had already killed it.

The new taxonomic approach allows for an easy accommodation of discoveries such as the existence of multiple lineages of delichenized fungi (i.e., non-symbiotic fungi derived from lichenized ones), or the possibility to cultivate a lichenic mycobiont in isolation from its natural algal partner.

The gall case is different. Galls are nearly universally regarded as pathological constructs of plants, produced under the influence of an external agent able to cause a local disruption of normal development. Insect-induced galls are often compared to the morphologically irregular tumours produced on plants by bacteria, only to remark the sometimes astonishing degree of morphological regularity (let's say: elegance) and repeatability of the former, contrasted with the accidental, unpredictable form of the latter. Besides the fact that the mechanisms underlying the regularity and repeatability of form of insect-induced plant galls are still unknown, this comparison (especially with the crown gall, caused by *Agrobacterium tumefaciens*, whose etiology is quite well known at the molecular level<sup>3</sup>) does not change the current description of both insect-induced galls and crown galls as pathological plant tissues. To some extent, this is justified because, at variance with the lichen case, galls exist in nature alongside the plant species on which, under appropriate circumstances, a gall may form. Thus, if the plant has its legitimate place in the classification, why should the gall also have one? To be sure, there is no place for "gall taxa" in the system (or the classification) of living beings. However, calling them simply, as we are accustomed to do, as, for example, the gall of *Andricus hungaricus* (a tiny wasp) on *Quercus robur* (the pedunculate oak), should not prevent us from studying these natural productions as legitimate and well-circumscribed developmental systems, within which specific and peculiar organic forms are generated.

### 3. LICHENS AND GALLS IN DEVELOPMENTAL BIOLOGY

To be sure, lichens have long found their little place in developmental biology. Different as they are, from minute, powdery (e.g., *Lepraria*) or endolithic (e.g., *Buellia*) blobs of living matter to foliose (e.g., *Lobaria*, *Parmelia*) or fruticose (e.g., *Ramalina*, *Usnea*) thalli, lichens exhibit shapes that are very different from those of non-lichenized fungi, still more from those of their algal partners, which are mostly unicellular, otherwise filamentous.

3. E.g., BINNS, A. N./THOMASHOW, M. F., "Cell Biology of *Agrobacterium* Infection and Transformation of Plants", *Annual Review of Microbiology*, 42 (1988), pp. 575-606.



This emergence of form has been studied both in terms of morphogenesis (how an individual lichen thallus takes its form<sup>4</sup>; and phylogenesis (from which morphological, genetic or developmental aspects of their non-lichenized ancestors did lichens eventually evolve their form; see below). On the other hand, plant galls have been always considered as abnormal products of plant development. Together with cancers and other pathologies accompanied by morphological change, galls have therefore a marginal place in respect to developmental biology: the place of systems to be explained by identifying the processes of normal development that have been troubled, and the nature of trouble, rather than the place of legitimate objects of the discipline, those that contribute, with others, to shape its basic concepts and perhaps its theory.

If a reliable production of form, often a complex one, accommunates lichens and galls, these two kinds of systems differ, however, in two important respects. The first is *adaptation*. Lichen symbiosis is largely acknowledged to be mutualistic, that is, to benefit both partners, the fungus as well as the alga. The mycobiont benefits from sugars and oxygen deriving from the metabolism of its partner, which apparently gets in turn a mechanical advantage in terms of availability of substrates and physical protection. On the other hand, the insect-plant relationship culminating in the production of a gall is a skewed one. The benefit to the insect is clear: nourishment and protection of the larva developing inside the gall. In the energetic budget of the plant, instead, the gall tissue is an unproductive burden that will turn into serious shortcoming if the gall's growth damages a flower or an inflorescence. That the production of a gall also represents a way to reduce the damage caused by an insect's attack is also probably true, but to limit the consequences of a potentially more serious damage caused by the interaction with the insect is not the same as obtaining instead an advantage from the insect-plant relationships. By analogy, a burst of fever can be a good strategy to kill the bacteria responsible for an attack to our health, but not suffering from any attack is better than releasing an adaptive response to an actual attack. Summing up: from the perspective of the plant, the production of galls is likely adaptive as a defensive strategy, but it is not adaptive per se, that is, with respect to the normal course of the plant's development.

The second difference between lichens and galls is in their *replication*. This requires some explanation. Lichens reproduce in different ways, sexual and asexual. More precisely, it is the fungus that can reproduce either sexually

4. E.g., HONEGGER, R., "Morphogenesis", in: NASH, T.H. III (ed.), *Lichen Biology*, Cambridge, Cambridge University Press, 1996, pp. 65-87.

or asexually, whereas sexual reproduction of the algal symbiont has been reported only a couple of times<sup>5</sup>. The sexual reproduction (of the fungus) involves the dissolution of the symbiosis, followed by its reconstitution during the next generation. In asexual reproduction, instead, the continuity of the symbiosis is maintained. Multiplication can occasionally occur by simple fragmentation of the thallus into small portions containing both fungal hyphae and algal cells, but in most lichens fragments are not normally able to survive and to grow into a new thallus<sup>6</sup>. Much more frequent is the production of reproductive units, often suitable – due to their tiny size – for long dispersal, each of which contains, again, both fungal hyphae and algal cells. The cyclic dissociation and reconstitution of the symbiosis alongside the sexual cycle may suggest that the lichen as such cannot be regarded as an integrated reproducing unit and thus does not fully respond to the list of properties often declared to be foundational for organismicity (but see below).

The individuality of a lichen thallus is also often problematic. A lichen may have arisen from the coalescence of originally separate thalli eventually fusing together<sup>7</sup> or as a mixture of separate propagules<sup>8</sup>. Sometimes, hyphae growing on the substrate get in touch, here and there, with scattered groups of compatible algal cells; as a consequence, separate patches of mycelium are initially lichenized and only subsequently will they grow to form a continuous thallus<sup>9</sup>.

Compound lichen thalli can even include different mycobiont genotypes and different photobionts<sup>10</sup>. As a consequence, what appears to be a single lichen is sometimes a mixture of genotypically distinct individuals, as documented

5. SANDERS, W., “In Situ Development of the Follicolous Lichen *Phyllophiale* (Trichotheliaceae) from Propagule Germination to Propagule Production”, *American Journal of Botany*, 89 (2002), pp. 1741-1746.

6. BÜDEL, B./SCHEIDEGGER, C., “Thallus Morphology and Anatomy”, In: NASH, T. H. III (ed.), *Lichen Biology*, Cambridge, Cambridge University Press, 1996, pp. 37-64.

7. HAWKSWORTH, D. L./CHATER, A. O., “Dynamism and Equilibrium in a Saxicolous Lichen Mosaic”, *Lichenologist*, 11 (1979), pp. 75-80.

8. E.g., SCHUSTER, G., “Die Jugendentwicklung von Flechten. Ein Indikator für Klimabedingungen und Umweltbelastung”, *Bibliotheca Lichenologica*, 20 (1985), pp. 1-206.

9. Cfr., LETROUIT-GALINOÛ, M. A./ASTA, J., “Thallus Morphogenesis in Some Lichens”, *Cryptogamic Botany*, 4 (1994), pp. 274-282; SANDERS, W., “A Feeling for the Superorganism: Expression of Plant Form in the Lichen Thallus”, *Botanical Journal of the Linnean Society*, 150 (2006), pp. 89-99.

10. GRUBE, M./HAWKSWORTH, D. L., “Trouble with Lichen: the Reevaluation and Re-interpretation of Thallus Form and Fruit Body Types in the Molecular Era”, *Mycological Research*, 111 (2007), pp. 1116-1132.

by DePriest<sup>11</sup> in *Cladonia chlorophaea*. Lichens, by the way, are not alone in this condition. Even among animals there are species in which mosaicism (cells issued from different zygotes contributing to the body of one individual) is indeed the rule. In different forms, mosaicism is widespread among colonial animals such as sponges, cnidarians, bryozoans and tunicates. For example, fusion of larvae has been reported as a normal developmental process in freshwater sponges<sup>12</sup>, whereas in a small freshwater fish (*Cynolebias*) one zygote often gives rise to two separate “twin embryos” that subsequently merge to reconstitute a single embryo<sup>13</sup>.

With respect to the recurrence of form, the case of galls is very different. In no sense can we speak of their “reproduction”. Even if a long-lived tree or shrub can host, over the years, galls produced by interactions with many generations of gall-inducing insects, there is no continuity between the plant cells forming a gall today and those that will form a new gall next year. Continuity goes only through the insect generations.

Despite this fundamental difference between lichens and galls, there is nevertheless a common conceptual framework within which we can describe both lichens and galls as two kinds of developmental systems. This framework is the metaphor of the *scaffolded biological systems*.

#### 4. SCAFFOLDED SYSTEMS

To raise a wall, or to build a house, we usually need a *scaffold*. As soon as the wall, or the house, is finished, the scaffold is dismantled. At no time is the scaffold a part of the wall or the house but, as long as building goes on, it takes part to the process. Of course, completing the building process does not necessarily imply the release of the scaffold. What characterizes the relationship between scaffold and scaffolded system is the functional role of the former, as a process relevant to the scaffolded system would not run (or at least would not run so expeditely and reliably) without its help.

A functional coupling between a scaffold and a scaffolded system is not limited to the products of human activity. To the contrary, many biological

11. Cfr., DEPRIEST, P. T., “Small subunit rDNA variation in a population of lichen fungi due to optional group-I introns”, *Gene*, 134 (1993), pp. 67-74.

12. BRIEN, P., “Les demosponges. Morphologie et reproduction”, in: GRASSÉ, P. P. (ed.), *Traité de Zoologie* (1973), Paris, Masson, Vol. 3, pp. 133-461.

13. CARTER, C. A./WOURMS, J. P., “Naturally Occurring Diblastodermic Eggs in the Annual Fish *Cynolebias*: Implications for Developmental Regulation and Determination”, *Journal of Morphology*, 215 (1993), pp. 301-312.

phenomena can be described in these terms. Griesemer has recently provided examples<sup>14</sup> of the new stimulating perspectives on reproduction and development that are disclosed when these processes are described as undergoing in unit systems representing *hybrids* between an organism and a living or non-living scaffold. An approach in terms of scaffolding has been suggested in many other sciences including neurosciences, cognitive sciences, cultural change, sociology, development of social systems and economics<sup>15</sup>.

As recently suggested<sup>16</sup>, we can define the scaffold as any resource used by the biological system without incorporating it as happens instead in the case of resources fuelling metabolism.

It will be important to take the following remarks into account. First, the relationships between scaffold and scaffolded system are often reciprocal. Second, reciprocity does not mean symmetry, that is, the relationship is often strongly skewed in favour of one of the partners. Third, scaffolding relationships can be temporary or permanent but even permanent associations can be occasionally terminated, sometimes with interesting results. Finally, the reciprocal association of two organisms as partners in a reciprocal scaffolding does not rule out the possibility for one of them (or for the whole hybrid system) to associate additionally to a non living scaffold.

In the following section I will describe the lichen symbiosis as an example of reciprocal scaffolding relationship between the fungus and the alga. In another paper<sup>17</sup> I have already addressed, although briefly, the plant gall case, where the gall itself provides a indispensable although temporary scaffold to the development of the gall-inducing insect. Other metaphors or models may prove sensible here, especially *niche construction*<sup>18</sup>, as the gall can be

14. GRIESEMER, J. R., "Reproduction and Scaffolded Developmental Processes: an Integrated Evolutionary Perspective", in: MINELLI, A./PRADEU, T. (eds.), *Towards a Theory of Development*, Oxford, Oxford University Press, 2014, pp. 183-202; GRIESEMER, J. R., "Reproduction and the Scaffolded Development of Hybrids", in: CAPORAEL, L. R./GRIESEMER, J.R./WIMSATT, W. C. (eds.) *Developing Scaffolding in Evolution, Cognition and Culture*, Cambridge, MA, MIT Press, 2014, pp. 23-55.

15. Cfr., CAPORAEL, L. R./GRIESEMER, J. R./WIMSATT, W. C., *Developing Scaffolds in Evolution, Culture, and Cognition*, Cambridge, MA, MIT Press, 2014.

16. MINELLI, A., "Scaffolded Biology", *Theory in Biosciences*, 135 (2016), pp. 163-173.

17. *Ibid.*

18. *Sensu*: ODLING-SMEE, F. J., "Niche-Constructing Phenotypes", in: PLOTKIN, H. C. (ed.), *The Role of Behavior in Evolution*, Cambridge, MA, MIT Press, 1988, pp. 73-132; ODLING-SMEE, F. J./LALAND, K. N./FELDMAN, M. W., "Niche Construction", *American Naturalist*, 147 (1996), pp. 641-648; ODLING-SMEE, F. J./LALAND, K. N./FELDMAN, M. W., *Niche Construction: The Neglected Process in Evolution*, Princeton, N. J., Princeton University Press, 2003.

described as an adaptive modification of the proximate environment due to the insect's activity. We could otherwise describe galls as the insect's *extended phenotype*<sup>19</sup>. The latter language has been used, e.g., by Raman<sup>20</sup> who, for unclear reasons, applies it in the reverse, by describing galls as the plant's extended phenotype. While the following section is focussed on lichens as an interesting class of scaffolded relationships, I will return on galls later, to discuss their singular behaviour in respect to adaptation, with possibly far-reaching implications for the interpretation of their form in terms of evolutionary developmental biology.

## 5. SKEWED DEVELOPMENTAL SCAFFOLDING

The development of a lichen thallus can be described as the result of a reciprocal, but skewed scaffolding relationship. To some extent, the mycobiont provides a scaffold to the photobiont, and viceversa. In our context, scaffold should not intended in a purely spatial, mechanical sense but, following the definition of scaffolding relationship given above, as a set of resources used by the scaffolded partner. In the case of lichens, both components of the hybrid system are living organisms and their scaffolding relationship is a reciprocal one.

As mentioned above, there is no symmetry in this partnership: the lichen's phenotype is mainly fungal. However, the role of the two partners in the process through which a lichen's thallus takes its form is different in different lichen species.

In many crustose lichens, a mat of hyphae covers the symbiotic thallus: it will be progressively colonized by algal cells, but in the meantime the fungus will produce new hyphae projecting free from the surface<sup>21</sup>. A comparable uncoupling of the two partners has been observed in the fruticose lichen *Aspicilia californica* whose thallus is composed of branching axes with tapered tips. These axes have a central medulla of fungal cells covered by an algal layer which is in turn surrounded by a cortex of fungal cells. The tip of the branches, however, is formed exclusively of fungal tissue. Using the term in the original, purely mechanical sense, Sanders<sup>22</sup> described this projecting fungal tissue as a

19. *Sensu*: DAWKINS, R., *The Extended Phenotype*, Oxford, WH Freeman, 1982.

20. RAMAN, A., "Morphogenesis of Insect-Induced Plant Galls: Facts and Questions", *Flora*, 206 (2011), pp. 517-533.

21. SANDERS, W. "A Feeling for the Superorganism: Expression of Plant Form in the Lichen Thallus", *Botanical Journal of the Linnean Society*, 150 (2006), pp. 89-99.

22. *Ibid.*

scaffolding over which the algal layer and cortex will advance and differentiate subsequently.

In other terms, in *A. californica* the different layers (fungal and algal) of the thallus do not differentiate simultaneously, but sequentially<sup>23</sup>. Similar events have been observed in the lab in experiments of reconstitution of the lichenic symbiosis from previously separated mycobiont and photobiont of *Cladonia calycanthoides*<sup>24</sup>. In other species of *Cladonia* the growing areas have also been reported to involve the fungal symbiont only<sup>25</sup>.

To be sure, we cannot expect a substantial contribution of the photobiont to the overall morphogenesis, especially in the case of unicellular algae, which may be shifted about by the mycobiont, distributing the proliferating algal cells throughout the developing thallus. In other lichens the algal symbiont is filamentous, like the fungus, and the two symbionts often grow in parallel, unless the filamentous algal symbionts are broken up into individual cells or short segments by the push of the growing fungal hyphae.

But there are also examples of lichens where the photobiont seems to have the leading role in the morphogenesis of the thallus. This is the case of some lichens where the photobiont is a blue-green alga (that is, a cyanobacterium), whose spherical cells are embedded in a common sheath of gelatinous material emerging from the surface of the lichen almost independently of the fungus. These little branches will eventually become fully lichenized when the fungal hyphae will grow over the alga<sup>26</sup>.

The degree of integration between the two partners of the lichenic symbiosis is sometime flexible along the development of an individual thallus<sup>27</sup>. Moreover, differences between species are not simply expressed by the obvious differences in external form or in the spatial arrangement of fungal filaments and algal cells, but extend to the different degrees of “histological”

23. SANDERS W., “Thallus Organization and Development in the Fruticose Lichens *Aspicilia californica*, with Comparisons to Other Taxa”, *Lichenologist*, 31 (1999), pp. 149-162.

24. STOCKER-WÖRGÖTTER, E., “Experimental Studies of the Lichen Symbiosis: DNA-Analyses, Differentiation and Secondary Chemistry of Selected Mycobionts, Artificial Resynthesis of Two- and Tripartite Symbioses”, *Symbiosis*, 30 (2001), pp. 207-227.

25. HAMMER S., “Modular Growth in Verticillate Podetia of *Cladonia*”, *Mycologia*, 88 (1996), pp. 533-538; HAMMER S., “Developmental Variability in *Cladonia strepsilis*”, *Mycologia*, 91 (1999), pp. 334-342.

26. SANDERS, W. “A Feeling for the Superorganism: Expression of Plant Form in the Lichen Thallus”, *Botanical Journal of the Linnean Society*, 150 (2006), pp. 89-99.

27. GRUBE, M./HAWKSWORTH, D. L., “Trouble with Lichen: the Reevaluation and Re-interpretation of Thallus Form and Fruit Body Types in the Molecular Era”, *Mycological Research*, 111 (2007), pp. 1116-1132.

differentiation of the thallus, such that some loose symbioses have been described as “borderline lichens”. Examples are *Collemopsidium pelvetiae* and *Mastodia tessellata*, where the photobiont is enveloped by fungal tissue but without the differentiation of discrete layers<sup>28</sup>.

## 6. EXAPTATION AND LOST SCAFFOLDS

The lichen symbiosis is very old: filamentous hyphae closely associated with cyanobacteria or algae have been found in rocks of the Doushantuo Formation (between 551 and 635 million years old) at Weng’an, South China<sup>29</sup>. This discovery, and also the reconstruction of the phylogenetic relationships of lichenized and nonlichenized lineages of fungi<sup>30</sup>, have shown that lichens evolved earlier than hitherto believed, whereas new events of lichenization have been infrequent during the evolution of the ascomycetes, the fungal lineages to which the large majority of lichens belongs. But the opposite trend, that is, the loss of the symbiosis with algae, has occurred multiple times independently<sup>31</sup>. As a consequence, major Ascomycota lineages of exclusively non-lichen-forming species are derived from lichenforming ancestors.

This temporal perspective is of great interest for the question of the evolution of complex structures both in lichens and in non-lichenized fungi. Lichen thalli, especially the most elaborate among the fruticose and foliose ones, are far more complex than a simple mat of hyphae; in the fungal morphology, complex structures are limited to the fruiting bodies (mushrooms and equivalents). Therefore, it has been suggested that the complex structure of lichen thallus evolved from reproductive tissue of the fungus<sup>32</sup>. However, if lichens are very old, as the above mentioned reports suggest, we should perhaps take also an opposite scenario into account. External inputs such as

28. KOHLMAYER, J./HAWKSWORTH, D.L./VOLKMANN-KOHLMEYER, B., “Observations on two Marine and Maritime ‘Borderline’ Lichens: *Mastodia tessellata* and *Collemopsidium pelvetiae*”, *Mycological Progress*, 3 (2004), pp. 51-56.

29. YUAN, X./XIAO, S./TAYLOR, T., “Lichen-like Symbiosis 600 Million Years Ago”, *Science*, 308 (2005), pp. 1017-1020.

30. E.g., LUTZONI, F./PAGEL, M./REEB, V., “Major Fungal Lineages are Derived from Lichen Symbiotic Ancestors”, *Nature*, 411 (2001), pp. 937-940.

31. *Ibid.*

32. DAL-FORNO, M./LAWREY, J. D./SIKAROODI, M./BHATTARAI, S./GILLEVET, P. M./SULZBACHER, M./LÜCKING, R., “Starting from Scratch: Evolution of the Lichen Thallus in the Basidiolichen *Dictyonema* (Agaricales: Hygrophoraceae)”, *Fungal Biology*, 117 (2013), pp. 584-598.

those deriving from algal cells already present on the substrate where fungal hyphae are growing may have been instrumental in stimulating the fungus to produce increasingly complex structures: these would have represented early forms of lichen thalli and their morphogenetic potential may have been retained by delichenized fungi and exapted as mechanism for the production of their fruiting bodies. Not being a specialist of lichens or fungi, I must leave to the specialists to evaluate this tentative hypothesis. What is clear, anyway, is that the contact with an appropriate photobiont causes in the fungus an alteration in gene expression patterns thus initiating a cascade of morphogenetic events leading to the expression of a mature thallus<sup>33</sup>.

## 7. ADAPTATION AND ORGANISMALITY

Are lichens and plant galls organisms?

Despite the somehow loose degree of morphological and functional integration of its components, the organization of the lichen thallus is definitely adaptive, especially in the case of the more complex foliose and fruticose lichens, with their effectively displayed photosynthetic surfaces, with their marginal or apical zones of growth and branching that allow flexible proliferation in relation to the availability of light<sup>34</sup>. The symbiosis between the two partners, the fungus and the alga, is mutualistic: that means that within the thallus there is more cooperation than conflict, thus showing what Queller and Strassmann describe as the key signature of any organism<sup>35</sup>.

Plant galls are different. Galls are systems on which the widely accepted point, that the form of organisms, and their part reliably and consistently generated by developmental processes are adaptive, as a result of selection, is hard to apply. The gross features of gall morphology are quite probably adaptive from the perspective of the gall-inducing insect, although the sheer diversity of gall forms, including those generated by interactions of closely related insects (e.g., members of the same genus of cynipid wasps or cecidomyid midges) on closely related plant species, suggests that many peculiarities

33. TREMBLEY, M. L./RINGLI, C./HONEGGER, R., "Morphological and Molecular Analysis of Early Stages in the Resynthesis of the Lichen *Baeomyces rufus*", *Mycological Research*, 106 (2002), pp. 768-776.

34. SANDERS, W. "A Feeling for the Superorganism: Expression of Plant Form in the Lichen Thallus", *Botanical Journal of the Linnean Society*, 150 (2006). pp. 89-99.

35. QUELLER, D. C./STRASSMANN, J. E., "Beyond Society: The Evolution of Organismality", *Philosophical Transactions of the Royal Society of London B Biological Sciences*, 364 (2009), pp. 3143-3155.



of gall morphology are probably neutral for the survival of the growing larva and the eventually reproductive success of the adult into which it will develop. What about the adaptive value of these peculiarities from the perspective of the plant? Arguably, none except for the different cost of producing larger or smaller galls, or different amounts of peculiar metabolites that the plant does not produce in normal tissues.

Summing up, there is probably no selection for many structural traits of the gall, and possibly of those that make it conspicuous and morphologically distinct not less than a biological species. On the other hand, plant and insect are both exposed to natural selection and this will be of consequence for the morphological properties of the gall. Intra- and especially interspecific variation in either partner will have an effect of gall morphology, witness the astonishing diversity of galls sometimes produced by conspecific insects on conspecific plants, as those of *Andricus* spp. on *Quercus* spp. On the other hand, if it seems hard to explain the morphological peculiarities of a given gall in terms of adaptation, the same peculiarities are likely caused by precise developmental constraints. As far as we know, this uncoupling of development (the arrival of the fittest) and evolution (the survival of the fittest) is very uncommon in nature, and perhaps unique among the forms exhibited by multicellular eukaryotes. For this reason, some plant galls deserve to find a place in the roster of model species in evolutionary developmental biology even if, to follow Queller and Strassmann definition<sup>36</sup>, their nature as organisms can be questioned. But developmental systems they are nevertheless, although unconventional ones like the symbiotic lichens or the maladaptive and eventually self-destroying cancers.

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36. *Ibid.*

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## IMAGES, MORPHOLOGY AND METAPHORS IN BIOMEDICAL RESEARCH

*Imágenes, morfología y metáforas en la investigación biomédica*

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### ABSTRACT

Some of the key discoveries of the last two centuries of biomedical research can be represented through a sequence of influential images that were originally powerful metaphors. Metaphor, as a model of proposition that includes the two extreme types of diaphor and epiphor, can serve the purpose of representing knowledge in a dynamic way. Metaphors are images, and therefore they have an intrinsic morphological component but of a special kind: ambiguous. The idea, originally suggested by Wittgenstein and then elaborated by MacCormac and Rosch, that all objects corresponding to the word chair are not a fixed prototype is crucial to understand how the model of abstraction of an essence from observable entities can be abandoned.

*Key words:* Ambiguity; Biomedical Research; Morphology; Metaphor.

### RESUMEN

Algunos de los descubrimientos clave de los últimos dos siglos en investigación biomédica pueden ser representados a través de una secuencia de influyentes imágenes que, en origen, fueron poderosas metáforas. La metáfora, como modelo de proposición que incluye los dos extremos de la diáfora y la

epífora, puede servir al propósito de representar el conocimiento de una manera dinámica. Las metáforas son imágenes y, por lo tanto, tienen un componente morfológico intrínseco, aunque éste es de un tipo especial: ambiguo. La idea, originalmente sugerida por Wittgenstein y luego elaborada por MacCormac y Rosch, de que todos los objetos correspondientes a la palabra silla, por ejemplo, no son un prototipo fijo es crucial para entender cómo el modelo de abstracción de un esencia desde entidades observables puede ser abandonada.

*Palabras clave:* Ambigüedad, Investigación Biomédica; Morfología; Metáfora.

### 1. INTRODUCTION: SOME INFLUENTIAL IMAGES AND METAPHORS IN BIOMEDICAL RESEARCH

Some of the key discoveries of the last two centuries of biomedical research can be represented through a sequence of influential images that were originally powerful metaphors. Figure 1 is Darwin's famous drawing representing the "tree of life", preceded by an "I think" that reveals the intuition of the origin of species. The metaphorical nature of this image can be understood if we remember

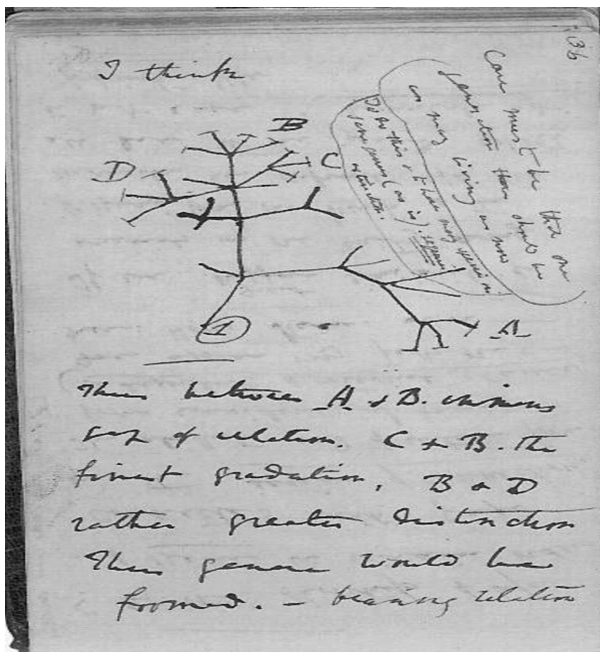


FIGURE 1.

that the current truth at the time was a-historical and creationist ("fixist"), with the species created at the same time and with no tree-like series of connections. Figure 2 is instead the first crystallographic image of DNA (obtained by Rosalind Franklin and Raymond Gosling in 1952), another morphological feature that led to a powerful and fruitful metaphor, the double helix. This image also clarifies the relationship between image and scientific creativity: the "double helix"

nature of the structure of DNA is not obvious from the image itself, and was instead constructed by Watson and Crick through careful modeling, i.e. a series of hypothetical models of the chemico-physical connections across the DNA bases, that could explain the crystallographic image. Though contemporary biomedical research is dominated by images, their role is not always acknowledged. Not necessarily they play the role of metaphors (i.e. leading to new hypotheses or discoveries), being rather simple heuristic devices.

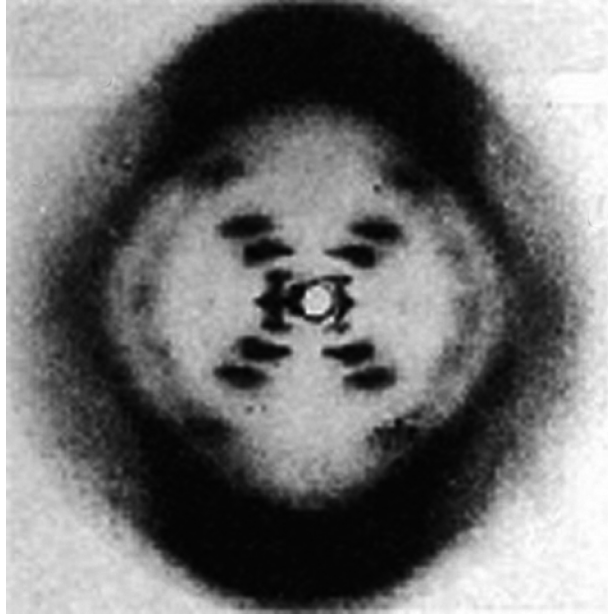


FIGURE 2.

For example, “Manhattan plots” in genetics are one of the many useful representations that have no other function than facilitating a decisional process such as in pattern recognition. In this case the plot allows the researcher to identify the strongest statistical relationships among hundreds of thousands of genetic or epigenetic signals measured in DNA, an image that has become familiar to many.

What follows aims at clarifying how morphology can be simply used for “functional images” with no heuristic value or may lead to powerful metaphors that allow discoveries.

## 2. A METAPHORICAL THEORY OF KNOWLEDGE

In his first conception of language Wittgenstein suggested an interpretation of the proposition as a “measurement tool”: the only true knowledge is scientific knowledge consisting in the description of “states of affairs”. The relation between proposition and state of affairs was allowed by a correspondence between words and objects (experience data), so that there is, between the components of the proposition, the same structural relation that exists among single elements of the “state of affairs”.

A descriptive proposition can also be compared to a miniaturized model of a ship, which has, on a lower scale, the same parts of the original. A model thus conceived has something that corresponds to the original and something that does not correspond, and the latter is supposed to be inessential for the identification of the real object. But if all propositions were of this kind, there would be no progression in knowledge: advancement would consist just in increasing detail—that is, the accuracy with which the original can be found in the model.

Let us consider scientific theories of cancer. In fact we never have “cancer” in its true essence in front of us, but only different ways of looking at malignant tumors: a morphological modality, based on microscopic description of cancer tissues; a genetic modality based on alterations observed in DNA; a biochemical modality based on metabolic malfunction of cells, and so on. An even superficial history of theories of carcinogenesis can easily persuade us that there was not at all an increasing ability to describe details of “cancer”—that is, something fixed, existing “there” outside our paradigms. Therefore the use of a proposition as a “measurement tool” is a condition (perhaps) necessary but certainly not sufficient to describe knowledge processes. The figure of speech that incorporates change across time is metaphor, which allows an enrichment of knowledge and not only an increase of detail.

In the theory of metaphor scholars have distinguished between those metaphors whose primary function is descriptive, and those whose function is suggestive. The former, called *epiphors*, are based on analogies in which the relation between the model and the “state of affairs” is obvious: “what corresponds” is thus prevailing in them. In the second type instead there is an anomaly, a lack of correspondence: they (*diaphors*) suggest new meanings by emphasizing the dissimilarities among referents rather than their similarities. An epiphor is a proposition whose correspondence with reality is not discussed, while a diaphor can contain those surprising elements that are typical of discovery (and, for that matter, literary communication). In the case of scientific theories, it is hypothesized that they are born as diaphors, and, if successfully validated, slowly become epiphors. For example, the word “force” as suggested by Newtonian physics was subject to a metaphoric use, obtained by juxtaposition of the meaning of force typical of Aristotelian mechanics and the new theory elaborated by Newton on action from a distance (gravity). The following experimental verification of the uses of this word transformed the diaphor into an epiphor, the expression of an accepted analogy instead of an uncertain and innovative suggestion.

Metaphor, as a model of proposition that includes the two extreme types of diaphor and epiphor, can serve the purpose of representing knowledge



in a dynamic way. Metaphors are images, and therefore they have an intrinsic morphological component but of a special kind. In the case of cancer theories, the idea that cancer was an infectious disease, transmissible by personal contact was for a certain period a diaphor, that was then falsified by epidemiological research (most cancers do not transmit by contact, although cervical cancer is due to repeated, long-term exposure to human papillomavirus). The hypothesis that cancer is a genetic disease (in a broad sense—that is, a disease related to DNA alterations) is a still vital diaphor. And the hypothesis that it is an environmental disease is an epiphor supported by clear and numerous observations (for example, the fact that migrants acquire the risk of cancer of the population into which they migrate). The elements that constitute the intrinsic image (analogy) in the metaphor are spatially (morphologically) related in a way that we examine later.

Let us see how, according to the analysis done by Ludwig Wittgenstein and, more recently, by Rosch, the use of the word “chair” and its understanding occur in practice. If I show a chair and pronounce its name, a listener who does not understand my language could think I refer to the wood it is made of, the legs, its red colour, the shallow surface or whatever other property. It is not just by the direct act of showing a prototype that the use of language is learnt, both because in showing the prototype I can be misunderstood about the meaning of my gesture (do I refer to the material, the colour or a part of the chair?), and because the listener will find herself in front of many other chairs whose correspondence with the prototype is only partial. It is not memorizing an abstract model that allows her to link the word chair with the relevant objects, but instead a continuous work of adaptation and rearrangement of the concrete uses of words that the community of speakers makes. Even if not all chairs have four legs, like the prototype, even if they do not have arms, and so on, the subject will identify, when examining the forms and functions of various chairs, those characters that allow her to talk about chairs in an appropriate way. Therefore, in addition to the description of prototypical situations, the literal use of language is also the product of a material interaction with the world.

MacCormac has defined the *literal* as the use of ordinary language to express concrete objects and events, noting that, however, the borders between literal and metaphorical are not clear cut. It is likely that, beyond prototypical situations, most literal uses of the language are “old epiphors” whose ambiguity has been progressively lost in the course of centuries. It is very suggestive, in any case, that the development and use of language are, in this interpretation, linked with a strict interaction with the material world: according to the concept used by both Wittgenstein and Simone Weil, “*originally was*

*action*” (a concept now reinforced by neurophysiological research on “*mirror neurons*” in the work of Giacomo Rizzolatti and others<sup>1</sup>).

The idea, originally suggested by Wittgenstein and then elaborated by MacCormac and Rosch, that all objects corresponding to the word chair are not a fixed prototype –recalled by our mind in front of concrete chairs– is crucial to understand how the model of abstraction of an essence from observable entities can be abandoned. According to this simplistic inductive model, we come to defining what a chair is –or a protone or a chromosome– by progressive simplification, by giving up with the individual characters of single chairs; at the end of this inductive process a nuclear element, a single element that guarantees the unequivocal inclusion in the category, would be identified. This is what philosophers call “Merkmal-definition” (Merkmal meaning distinctive sign, feature) –that is, the definition would be allowed by the isolation of that unique crucial property– a necessary and sufficient condition –that makes a chair out of a chair, a proton out of a proton, etc. However many objections have been raised by Wittgenstein to this idea: a Merkmal is not always identifiable, and more often the word is used to indicate not a homogeneous and unequivocal set of observations, but a confused constellation with blurred borders. This constellation has been called a *fuzzy set*, and is at the basis of the semantic theory of metaphors by MacCormac.

Within the fuzzy set called “chair” we have, in a central position, the definition of chair that one can find in the dictionary; around this prototypal meaning there is a cloud of meanings, which on the one hand include ambiguous objects that serve to seat but do not have the shape of chairs, and at the other extreme ambiguous objects that look like chairs but do not serve for seating. The concept of chair gives up with a *monothetic* definition that is being amenable to a necessary and sufficient characteristic, to become “*polythetic*.”

### 3. FUZZY SETS

A fuzzy set is a set in which membership is not crisp (yes or no), but comes in degrees according to a function. For example, there is not a crisp distinction between cold and hot, but an intermediate category of warm with fuzzy borders.

The fact that many words are used as fuzzy sets –that is, with flexible meanings with blurred borders– assures the possibility of change and progress

1. RIZZOLATTI, G/CRAIGHERO. L., “The mirror-neuron system”, *Annual Review of Neuroscience*, 27/ 1 (2004) 169-192.

in knowledge. This is particularly true if the word plays an important role in a metaphorical proposition. If the word had a fixed meaning—that can be deciphered through a dictionary—the metaphorical extension that allows the development of new metaphors would not be possible. Diaphors would not exist if a word had not a prototypical meaning plus other meanings showing weaker links with the prototype within the fuzzy set. Inclusion in the category of objects defined by the word is determined by the “*distance of similarity with the prototype*”—that is, by similarities and dissimilarities between the object and the prototype. Strictly speaking, in Wittgenstein’s conception there is not necessarily a prototype, but a sequence of overlapping correspondences; the comparison that has been proposed is with a rope made of many different threads, none of which however is long like the rope itself: thus, in the case of the chair we have at the centre the prototypical chair, on one side a sequence of objects without four legs but serving to seat, and on the other side a sequence of objects that have four legs but serve many different purposes.

Metaphor comes from the juxtaposition of words apparently in conflict, at least in a diaphor; this contrast is sensible only if the meaning of the two words can be “stretched” sufficiently so as to allow the identification of a *perspicuous image* of the world. The fact that I say that cancer is formed by “crazy cells” has some possibility of succeeding only if the concept of craziness can be expanded in order to cover the biological behaviours of those cells that, invading surrounding tissues, conferred to breast cancer the aspect of a crab (= cancer) when the image of “cancer” was coined. MacCormac invites us to imagine the semantic space of a metaphor as a space in which different words are linked to each other by *vectors*. The length of each vector determines how strictly the two words are related. For example, “animated” will have a short vector that links it with “man” and “dog,” but a very long vector that links it to “locomotive.” Every language creation, from the poetic ones to the ethical and the scientific ones, is based on the proposal of new vectors that link, in a more or less convincing way, different words. There is obviously a relation between the length of vectors and belonging in a fuzzy set: an object with an ambiguous status, say between a vehicle and a children’s game (like a rudimentary chart) will have a weak linkage with both fuzzy sets—that is, it will be far from the prototypes of both categories, and will tend to possess very long vectors that link it to other objects that could be reasonably linked with the prototypes. A long vector that links two objects indicates that it is unlikely that the two objects can be reasonably included in a same fuzzy set; but this cannot be easily established a priori: who would have thought of a connection between crabs and madness, as in cancer?

How is the relation between metaphor and truth set, considering that those who formulate a new diaphor put themselves intentionally in the position of uttering an apparently false proposition? It is clear, first of all, that in this perspective it is necessary to abandon an absolute concept of truth, and introduce the idea of degrees of truth. Metaphor is a hypothetical utterance that needs verification. Truth or falseness are judged from how the different components of language link to each other: there is not a real direct comparison of constitutive parts of a metaphor with a state of affairs; rather, the words included in the basic similarity that underlies the metaphor are compared with events in the empirical world to establish the credibility of the similarity. As MacCormac claims: “A person who wants to formulate a new hypothesis or to express a deep emotion stretches the language metaphorically in order to produce new and deep meanings; certainly she does not create intentionally false propositions”.

#### 4. CONCLUSIONS: MORPHOLOGY IN PAUL KLEE AND GOETHE: “NATURA NATURATA” AND “NATURA NATURANS”

Goethe –in addition to being a writer and a poet– also developed a scientific theory of morphology based on his observations of anatomy, geology and botanics. Also, Goethe developed an original theory of color (1810). Though the latter was found to be incorrect by subsequent observations, it was very influential at his time and for the following century. A painter who was explicitly influenced by Goethe’s morphology theory (such as in Goethe’s “Urpflanze”) is Paul Klee, who developed graphically his own concept of plant morphology<sup>2</sup>. His painting “Uhrpflanzen” is based on the similarity between “Uhr” (watch) and “Ur” (original) in the German language, and describes imaginary plants in the shape of watches (Figure 3).

Klee’s conception of painting is highly relevant to the theory of knowledge I have sketched above. His paintings are all based on a central role of irony, defined by Shaftesbury as the way that humans have to enlighten truth beyond the conventions of language. Irony is the act of saying one thing with the goal of understanding another. This is what Klee did in his paintings but also what innovative science does when coining new diaphors. In Klee, coherently with what we have claimed above, the ironic understanding of reality was a dynamic conception of plastic signs, that entertained a play with

2. PAQUET, C., “L’influence de Goethe sur l’oeuvre de Klee”, in: *Paul Klee. L’ironie a l’oeuvre* [Cat.], Paris, Centre Pompidou, 2016.

ambiguity, used double meanings and polysemy and engaged the spectator in an active way<sup>3</sup>. This clearly resonates with McCormac's definition of the metaphor: "metaphor results from a cognitive process that juxtaposes two or more not normally associated referents, producing semantic conceptual anomaly, the symptom of which is usually emotional tension"<sup>4</sup>.

This dynamic, playful and ironic conception of art and knowledge changes our view of Nature itself. Like Darwin fought against "fixism" of species ("*natura naturata*" in Spinoza's words, i.e. an objectified Nature "our there"), we embrace a much more adequate conception of "*natura naturans*", an incomplete and constantly transforming process that we try to capture scientifically and artistically with our metaphors. (We have thus closed the circle from Figure 1 to Figure 3, both images of trees).

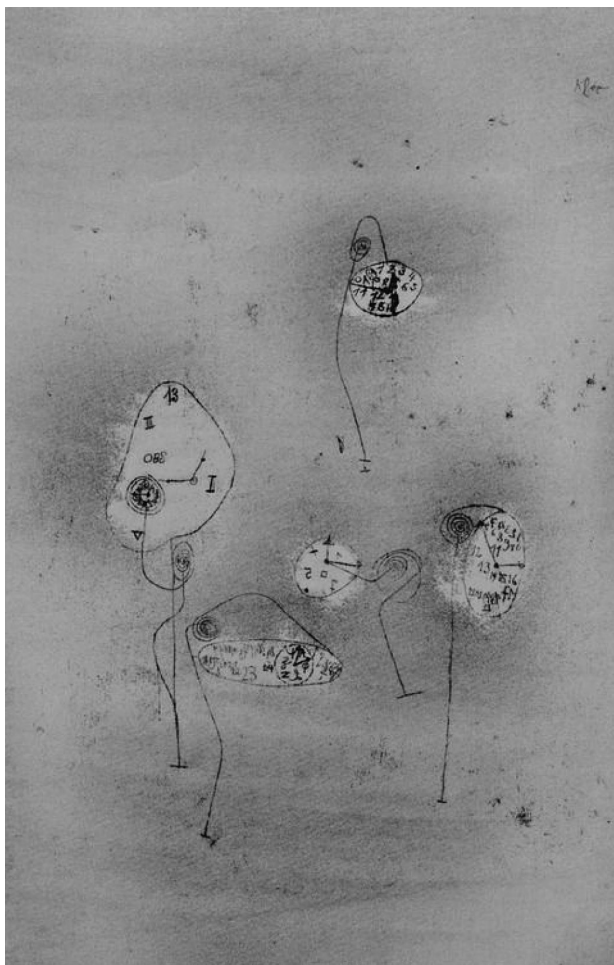


FIGURE 3. Paul Klee, *Uhrpflanzen* (Watch Plants), 1924.

3. *Ibidem*.

4. MACCORMAC, E. R., *A Cognitive Theory of Metaphor*, Cambridge, Massachusetts, The MIT Press, 1985.



## ARGUMENTS OF STABILITY IN THE STUDY OF MORPHOGENESIS<sup>1</sup>

*Argumentos de estabilidad en el estudio de la morfogénesis*

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### ABSTRACT

Arguments of stability, intended in a wide sense, including the discussion of the conditions of the onset of instability and of stability changes, play a central role in the main theorizations of morphogenesis in 20<sup>th</sup> century theoretical biology. The aim of this essay is to shed light on concepts and images mobilized in the construction of arguments of stability in theorizing morphogenesis, since they are pivotal in establishing meaningful relationships between mathematical models and empirical morphologies.

*Key words:* Morphogenesis; Stability; Metastability; Equilibria; Competence; Epigenetic Landscape; Catastrophe Theory; Semiophysics.

### RESUMEN

Los argumentos de estabilidad, entendidos en sentido amplio, incluyendo la discusión de las condiciones del inicio de la inestabilidad y de los cambios

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de estabilidad, juegan un papel central en las principales teorizaciones de la morfogénesis en la biología teórica del siglo XX. El objetivo de este ensayo es arrojar luz sobre conceptos e imágenes implicados en la construcción de argumentos de estabilidad en la teorización de la morfogénesis, ya que estos resultan fundamentales para establecer relaciones significativas entre modelos matemáticos y morfologías empíricas.

*Palabras clave:* Morfogénesis; Estabilidad; Metastabilidad; Equilibrio; Competencia; Paisaje epigenético, Teoría de catástrofes; Semiofísica.

Arguments of stability, intended in a wide sense, including the discussion of the conditions of the onset of instability and of stability changes, play a central role in the main theorizations of morphogenesis in 20<sup>th</sup> century theoretical biology.

Thus, Alan Turing (1912-1954) in his work on the chemical basis of morphogenesis establishes a link between the study of the onset of instabilities in a system of reaction-diffusion equations with phenomena of pattern formation. On another side, René Thom (1923-2002), in the framework of catastrophe theory, is not only interested in the asymptotic stable states of the studied dynamics (attractors), but also in the changes of structural stability of the same dynamics *i.e.* in the changes of the attractors of the dynamics, that he associates to morphological changes in the substratum.

Both these approaches to morphogenesis, despite their differences and specificities, share the fact of having being inspired by the research of the experimental embryologist and promoter of theoretical biology Conrad Hal Waddington (1905-1975), whose experimental work, theoretical constructions and open questions have been concerned, in turn, with questions of stability.

The aim of this essay is to shed light on concepts and images mobilized in the construction of arguments of stability in theorizing morphogenesis. These arguments are pivotal in establishing meaningful relationships between mathematical models and empirical morphologies. A synoptic view of these questions can thus provide a perspective from which to look at the renewal of morphological thinking that, from theoretical biology spread, or could spread, into other domains.

## 1. LOOKING FOR THE ONSET OF INSTABILITY

In the opening of “The Chemical basis of Morphogenesis” Turing declares of being interested in writing “a mathematical model of the growing



embryo”<sup>2</sup>. However, he immediately recognizes that he has to limit his interest on the chemical aspect only of this phenomenon, leaving aside, for the moment, the mechanical one. He is thus concerned with the diffusion dynamics of two interacting chemical substances (Turing calls them “morphogens”) on a tissue, that he translates into a two variables system of non-linear partial differential equations (known as a reaction-diffusion equations). As Turing explicitly states, the “investigation is chiefly concerned with the onset of instabilities”<sup>3</sup>. Mathematically studying the onset of instability of this system in different situations, Turing shows that it presents spontaneous pattern formation through symmetry breaking.

From the point of view of biology, Turing’s contribution can be seen as an example of a too abstract and purely mathematical model, in the tradition of modeling typical of mathematical physics, but regrettably disconnected from biologists concerns<sup>4</sup>. The main reasons of this appreciation are due to the fact that Turing does not attribute a decisive role to genes in the phenomenon of pattern formation. Genes are in fact supposed to have only a catalytical function in Turing’s model, whereas in general they are, and were already in Turing’s time, considered to play an essential role in explanations of biological phenomena. However, despite his unconventional position regarding genes role, we think that Turing has the ambition to connect his proposition to questions coming from theoretical biology of his time. In order to defend this point of view, it is necessary to consider the main actors of Turing’s reaction-diffusion model, the interacting chemical substances diffusing on a tissue that define his system, that Turing calls “morphogens.” Morphogens are defined as follows: “These substances will be called morphogens, the word being intended to convey the idea of a form producer”<sup>5</sup>. Turing precises that the term “morphogen” “is not intended to have any exact meaning, but it is simply the kind of substance concerned in this theory”<sup>6</sup>. A morphogen is thus a chemical substance that enters in a certain relation with another chemical substance (another morphogen), relation that can be described through reaction-diffusion equations, the study of the onset of instability of which allows to understand pattern formation with

2. TURING, A. M., “The chemical basis of morphogenesis”, *Philos. Trans. B*, 237, 641 (1952), pp. 37-72.

3. *Ibid.*, p. 37.

4. See on this point FOX KELLER, E., *Making Sense of Life. Explaining Biological Development with Models, Metaphors, and Machines*, Cambridge MA, Harvard University Press, 2002, pp. 95-100.

5. TURING, A. M., “The chemical basis of morphogenesis”, *op. cit.*, p. 38.

6. *Ibid.*, p. 38.

respect a previous homogeneous situation. The definition of morphogen is thus merely relational and any substances behaving as the ones defined by Turing's system can potentially be considered as morphogens. Turing thinks that genes, since they do not diffuse, can be considered as morphogens of a particular kind that exercise only an indirect action (a catalyzing action). They do define the reaction rates and, "Insofar, for organisms with the same genes, they can be eliminated from discussion"<sup>7</sup>. What is at the core of Turing theoretical proposition, and captured by the form of his system of equations, is the fact that one has to look for the onset of instability. The connection with theoretical biology of his time comes from the fact that Turing explicitly refers to "evocators," a notion introduced by Waddington, as examples of morphogens: "The evocators of Waddington provide good examples of morphogens (Waddington 1940). These evocators diffusing into a tissue somehow persuade it to develop along different lines from those which would have been followed in its absence"<sup>8</sup>.

Among the several concepts and the corresponding neologisms created by Waddington in the course of his career, we are thus going to discuss, for its link with arguments of stability, the concept of "evocator," introduced during the 1920s.

## 2. FROM "EVOCATOR" AS A CHEMICAL SUBSTANCE TO "COMPETENCE" AS AN UNSTABLE SYSTEM

Waddington creates the concept and the term of "evocator" in the framework of his experimentations in embryology on "induction," following the research line opened by the work of the embryologists Hans Spemann (1869-1941) and Hilde Mangold (1898-1924) on "induction" and on "organizers"<sup>9</sup>. Experimental research in embryology consisted in studying the effects on development of the grafting of embryos, or of regions of embryos, in other embryos or regions of embryos. "Induction" was for Spemann and Mangold the process through which the identity of certain cells influences the developmental fate of the surrounding cells. An "organizer"

7. *Ibid.*, p. 39.

8. *Ibid.*, p. 38.

9. For more details on Waddington's works, in the context of his time research at the interface of genetics and embryology, one can report to GILBERT, S.F., "Induction and the Origins of Developmental Genetics", in: GILBERT, S.F. (ed.), *A Conceptual History of Modern Embryology*, New York, Plenum Press, 1991, pp. 181-206, on which I rely here for what concerns the definitions of "induction" and "organizer".

was considered a region of the embryo producing an induction on other, surrounding regions. Waddington, working among others with the biochemist Joseph Needham (1900-1995), wanted to understand the role played by organizers during the process of induction.

In this research context, Waddington and Needham consider an “evocator” as a chemical substance responsible for induction in the creation of tissue in a living organism: the evocator as a substance is present throughout the whole embryo and is activated in one particular region, the organizer center, by way of a gradient system. The point that mostly concerns us in the framework of this research on the arguments of stability, more than the material identity of evocators, is the fact that their activation is realized means a *gradient system*. Waddington defends the idea that each induction process depends both on the properties of the inductive agent and of the material that undergoes induction. This idea is better expressed by another Waddington’s concept: “competence.” For Waddington a material that is capable of reacting to a given inducing stimulus is said to be “competent” for that process of induction<sup>10</sup>. For Waddington “a competent tissue should be thought of as an *unstable system* with two or more ways of change open to it, the decision as to which way it actually follows being taken by the relevant organizer”<sup>11</sup>.

Summarizing, Waddington’s work expresses the idea that the phenomenon of induction could/should be interpreted through the attribution of the property of competence to certain tissues (t.i. a property of instability with two or more changes open to it). When Waddington writes in 1940 his *Organisers and genes*, it is clear that he considers genes as evocators and this allows him to translate his idea of competence coming from embryological experiments into the language of contemporary genetics, implying genes and gene-products as controllers of the switches between different ways of change. However, his attention seems more directed towards the dynamical state of the complex of considered reactants than towards the nature of the same reactants (genes or genetic products); in fact, this analogy between dynamic equilibria is what allows Waddington to think embryology *and* genetic through the *same* conceptual scheme of competence: “We had described competence as a state of disequilibrium in a complex

10. WADDINGTON, C.H., “Experiments on the Development of Chick and Duck Embryos, cultivated in vitro”, *Philos. Trans. Roy. Soc. B* (London) 221 (1932), pp. 179-230.

11. WADDINGTON, C.H., “The Origin of Competence for Lens Formation in the Amphibia”, *J. Exp. Biol.*, 48 (1936), pp. 86. Italics in the quotation is mine.

systems of reactants, and had suggested that the reactants are ultimately genes or gene-products”<sup>12</sup>.

Considered the networks of waddingtonian concepts to which belongs the one of “evocator,” and the importance of arguments of stability and instability within this network, Turing’s search for the onset of instability in a reaction-diffusion system seems a quite pertinent theoretical attitude with respect Waddington’s questions. In fact, Waddington expresses his interest in Turing’s approach in a letter of September 1952<sup>13</sup>: “It is very encouraging that some really competent mathematician has at last taken up this subject”. However, he thinks that the kind of processes described by Turing plays certainly a role in pattern formation (“in the arising of spots, streaks and flecks of various kinds in apparently uniform areas such as the wings of butterflies, the shells of molluscs, the skin of tigers, leopard, etc.”), but he doubts that the kind of processes described by Turing plays “a very important role in the fundamental morphogenesis which occurs in early stages of development”. Waddington thinks in fact that the new fertilized egg does not satisfy the condition of homogeneity that Turing’s model supposes. The new fertilized egg for Waddington “always possesses some element of pattern of its own, although this may be to some extent labile”. We quote extensively the rest of the letter, since it details Waddington’s desiderata that mathematical models adapted to describe the early stages of embryological development should satisfy. These desiderata correspond to a property of development that Waddington calls, elsewhere, “canalization”.

### 3. CANALIZATION AS BUFFERING AGAINST PERTURBATIONS

The problem of embryological interest which I should most like to see tackled from a mathematical point of view is the following: *Development is particularly characterised by the fact that it produces a finite number of quite definitely distinct tissues and organs and does not produce all intermediate types of tissues between the kidney and the liver for instance.* If one imagines a series of synthetic chemical processes, probably autocatalytic and interfering with or stimulating one another, for instance by competing for substrates or in other ways, *under what conditions will the system have a finite number of distinct paths, which it may follow?* What sort of alterations would be

12. WADDINGTON, C.H., *Organisers and Genes*, Cambridge, Cambridge. The University Press, 1940 (1947), p. 92.

13. Letter from Waddington to Turing, 11 September 1952, from the Turing Digital Archive, AMT/D/1TLS (images 19-20).

necessary to cause the development to click over from one path into another alternative?<sup>14</sup>.

Waddington clearly expresses an interest in the kind of mathematical models Turing proposes (“autocatalytic, interfering with or stimulating one another”), but he thinks that Turing’s model itself is not able to represent a process presenting a finite number of distinct alternative paths, without possibility of intermediate solutions. This Waddington’s commentary gives a privileged access to the understanding of the difficulties of translating, in mathematical terms, concepts describing biological processes. Even if Waddington does not use the term, what is in question here is the possibility of mathematical expressing the notion of “canalization,” notion that Waddington had introduced in 1942 and that is, from its introduction, deeply intertwined both with arguments from natural selection and from genetics. In his paper “Canalization of development and the inheritance of acquired characters”<sup>15</sup> Waddington introduces “canalization” as a property of developmental reactions that depends from the nature of the same reactions; since developmental reactions occur in organisms submitted to natural selection, they are, for Waddington, canalized: “That is to say, they are adjusted so as to bring about one definite end-result regardless of minor variations in conditions during the course of the reaction”<sup>16</sup>.

From this point of view, Waddington’s neologism “canalization” seems to indicate a property of “robustness,” that in contemporary complex systems language indicates the property of a system to withstand different kinds of failures and perturbations. However, while discussing canalization, Waddington, does not use the term “robustness” and does not express himself on the possibility to mathematically model this property. The inability in mathematical expressing the property of canalization does not characterize Turing’s approach only. It is a difficulty that has been acknowledged, several decades later, by René Thom, too. In a late inventory of Waddington’s concepts he provides in 1989, René Thom stresses that the mathematical concept of structural stability is unable to express canalization:

[Canalization] describes any kind of process whose temporal evolution is buffered against external perturbations. There is apparently no strict mathematical equivalent to this concept, as the classical “structural stability” is

14. WADDINGTON, C.H., *Organisers and Genes*, *loc. cit.* Italics is mine.

15. WADDINGTON, C.H., “Canalization of development and the inheritance of acquired characters”, *Nature*, 3811 (1942), pp. 563-565.

16. *Ibid.*, p. 563.

of global topological nature, whereas “canalization” has a metric and local character<sup>17</sup>.

This consideration deserves our attention in the framework of this quest about arguments of stability in the study of morphogenesis. If structural stability, which is the mathematical concept founding (since the end of the 1960's) Thom's approach to morphogenesis through catastrophe theory, turns out to be admittedly inadequate to express canalization, what can be the pertinence of the same catastrophe theory in understanding morphogenesis? In order to better appreciate this question let us now turn to the role of arguments of stability in the definition of an important source of inspiration of Thom's catastrophe theory, the “epigenetic landscape”, a set of mental images introduced by Waddington to think to embryological development since the end of the 1930's.

#### 4. PROPERTIES OF THE EQUILIBRIA OF THE EPIGENETIC LANDSCAPE

Waddington first introduces conceptually the main traits of the epigenetic landscape, without introducing the expression itself, in his *Introduction to Modern Genetics* (1939)<sup>18</sup>. The first pictorial illustration, realized by the painter John Piper, one of Waddington's friends, appears the following year in the frontispiece of *Organisers and Genes* (1940)<sup>19</sup>. The painting depicts a river flowing towards the sea. From the description Waddington gives of the epigenetic landscape, the centrality of arguments of stability for the constitution of this image emerges:

The system of developmental paths has been symbolised in two dimensions as a set of branching lines. Perhaps a fuller picture would be given by a system of valleys diverging down an inclined plane. The inclined plane symbolizes the tendency for a developing piece of tissue to move towards a more adult state. The sides of the valleys symbolize the fact that developmental tracks are, in some sense, equilibrium states. The meaning which must be attached to this term in such a context may at first sight not be obvious, since the

17. THOM, R., “An Inventory of Waddingtonian Concepts”, in: GOODWIN, B./ SAUNDERS, P. (ed.), *Theoretical Biology. Epigenetic and Evolutionary Order from Complex Systems*, Edinburgh University Press, 1989, p. 3. I wish to thank Peter Saunders for having attracted my attention on this Thom's inventory.

18. WADDINGTON, C.H., *Introduction to Modern Genetics*, New York, Macmillan, 1939.

19. WADDINGTON, C.H., *Organisers and Genes*, ed. cit.

developmental processes move along the tracks and do not stop anywhere in their course. It is not meant, however, that any point on the track is a position of equilibrium; it is the track as a whole which, compared with any other line lying between the tracks, is a description of an equilibrium. The equilibrium is a moving one and the state of the system changes as time passes. But it is an equilibrium in the following two senses. Firstly, it is a definite, and normally repeatable, result of a whole complex of factors. [...] Secondly, the normal developmental track is one towards which a developing system tends to return after disturbance. [...] This symbolic representation of developmental processes can be spoken of as the “epigenetic landscape”<sup>20</sup>.

In this first description of the epigenetic landscape is already expressed the idea that a *whole track* is the description of an equilibrium, a *moving equilibrium* through the course of development. This will be later conceptualized, and expressed in an extended form in *The Strategy of the Genes* (1957), through the notion of “homeorhesis” (“same flow”), which is the term Waddington introduces to qualify this particular equilibrium of the developing embryo, manifesting itself along a developmental track. To indicate such a developmental track, Waddington creates another neologism: “creod” (t.i. a “necessary path” of development)<sup>21</sup>. These neologisms are introduced in the chapter “The Cybernetics of Development”, in which Waddington provides a new figurative version of the epigenetic landscape. Here the landscape, that Waddington himself qualifies of “mental picture” to help in thinking the developing embryo, is defined by an undulated surface, on which a ball is ready to move along one of the paths opened in front of it<sup>22</sup>. The landscape is completed by a “hidden” part, underlying the undulated surface: a network of pegs fixed in the ground, interconnected by guy-ropes and strings<sup>23</sup>. Waddington writes that the undulated surface represents the fertilized egg. The path followed by the ball represents the developmental history of a particular part of the egg. As far as the underlying part, on the basis of an analogy –between the pegs and the genes, and the strings and the chemical tendencies produced by the genes– it offers the possibility of understanding how the surface itself is modeled:

20. *Ibid.*, pp. 92-93.

21. Cf. the description of the epigenetic landscape that Waddington gives in WADDINGTON, C.H., “The Cybernetics of Development” (ch. Two), in: *The Strategy of the Genes*, London, Allen and Unwin, 1957, pp. 11-58.

22. For the image see *Ibid.*, p. 29.

23. WADDINGTON, C.H., “The Cybernetics of Development”, ed. cit., p. 36 (for the image of the underlying part of the epigenetic landscape).

*The complex system of interaction underlying the epigenetic landscape.* The pegs in the ground of the figure represent genes; the strings leading from them the chemical tendencies which the genes produce. The modeling of the epigenetic landscape [...] is controlled by the pull of these numerous guy-ropes which are ultimately anchored to the genes<sup>24</sup>.

The mental figure of the epigenetic landscape translates into images the dynamical desiderata of the process of embryological development as already described by Waddington in terms of competence as an unstable state. The epigenetic landscape, in fact, “makes one reflect that there may be regions at upper levels which are almost flat plateaus from which two or three different valleys lead off downwards. These, in fact, correspond to what we know as states of competence, in which embryonic tissues are in a condition in which they can be easily brought to develop in one or other of a number of alternative directions”<sup>25</sup>.

Waddington also reaffirms the considerations already expressed in the quoted letter to Turing about the form that mathematical expressions of the property of canalization of development should take. He thinks that this phenomenology can be instantiated by autocatalytic reactions producing threshold effects, multiple steady states, and exaggerated responses in small changes in the initial concentrations, quoting at this regard, as examples coming from other fields of theoretical biology, the work of mathematical biologists of populations such as Alfred James Lotka (1880-1949) and Vladimir Alexandrovic Kostitzin (1883-1963). The reference to Lotka is not trivial, also in light of some qualitative considerations expressed by Waddington concerning the necessity to switch from an algebraic to a geometric mode of expression of the solutions of the sets of equations defining these developmental pathways. Waddington observes in fact that it is usually impossible to integrate these sets of equations, even if for some particular systems (and here Waddington evokes Turing) it is possible to compute numerical solutions. Due to the general impossibility to integrate this kind of equations, Waddington suggests the introduction of a representation in “phase space” as follows: “A system containing many components can be represented by a point in multidimensional space, the co-ordinates of the point in each dimension representing the measure of a particular component. A space of this kind is known as phase space”<sup>26</sup>.

In the attempt of depicting a phase space for development, Waddington writes: “The *true representation* of this, as has been stated, is a multidimensional

24. *Ibid.*, p. 36, from the original caption.

25. *Ibid.*, p. 30.

26. *Ibid.*, p. 27.



space, subdivided into a number of regions, such that trajectories starting anywhere within one region converge to one certain end point, while those starting in other regions converge elsewhere”<sup>27</sup>. The statement that immediately follows presents the image of the epigenetic landscape itself as a model of this “true representation:” “I have tried to give a simple model in three dimensions which will correspond with this to some extent”<sup>28</sup>.

This illuminating commentary, establishing a connection between the epigenetic landscape and phase-space, leaves nevertheless a non-obvious open question: is the epigenetic landscape to be intended as a simple model in three dimensions of a “true representation” of development *in* phase-space, or as a simple model in three dimensions of a “true representation” of the *phase-space of development* itself? In other terms, is phase-space to be considered an external container in which to depict the epigenetic landscape, or it is to be considered a solidary space to the epigenetic landscape itself, and as such, something which is not totally pre-given?

This is a crucial question for the pertinence and fruitfulness of images of epigenetic landscape to think morphogenesis well outside theoretical biology, as the reader will himself appreciate, and for that reason we’ve mentioned it here. However it is not the purpose of this essay to try to answer this question. We are on another hand going to proceed to another question, following the thread of the use of arguments of stability in the study of morphogenesis. How possibly Waddington came to think to development in terms of a *hilly landscape* and, more specifically, to a hilly landscape defined by the arrangement of different equilibria and alternative pathways and end states in phase-space? If the concepts of competence and canalization Waddington introduced in the previous decades are compatible with representations in terms of a hilly landscape, these representation themselves are certainly underdetermined by these concepts, and the question whether Waddington has been under the influence or the inspiration of other theoreticians having used the image of a hilly landscape to study and represent equilibria is fully justified. The motivation of this question goes far beyond the historical interest for the paternity of an idea, being justified by the conviction that finding the source, or a possible source, of the images of the epigenetic landscape could provide an access to the understanding of its theoretical aspirations to depict developmental processes. Through an archeological enquiry that, through Needham’s *Order and Life* (1936), goes back to the work of Alfred Lotka,

27. *Ibid.*, pp. 27-28. Italic is mine. Cfr., the image p. 28, Waddington gives to illustrate a phase-space diagram of development.

28. *Ibid.*, pp. 28-29.

we will see in the following that the landscape can be interpreted as the set of integral curves in phase space, charted thanks to a qualitative study of the instability of the equilibria of a given dynamics expressed by a set of non-linear equations.

## 5. LANDSCAPES AND METASTABILITY

Collaborator of Waddington, and sharing with him the interest for theoretical biology, the biochemist Joseph Needham in his *Order and Life* (1936) devotes a chapter to theories of morphogenesis in embryo development and to images representing some key concepts of these theories<sup>29</sup>. In general, what Needham discusses in this chapter are not images of embryo development itself, but representations of concepts that should grasp the mechanisms of this development and illustrate the concept of “determination” as used in embryology at his time, *i.e.*, “the fixing of the fates of parts of the embryo at a definite time in development”<sup>30</sup>. Through the lens of determination, development is defined by Needham as “a progressive restriction of potencies by determination of parts to pursue fixed states”<sup>31</sup>. For Needham this state of affairs can be pictured in the manner of a series of equilibrium states as he illustrates through a diagrammatic way of representing the course of embryonic determination that he calls “Waddington’s cones” and that Waddington suggested, without graphically representing it, in its already quoted article of 1932 where he discusses competence<sup>32</sup>. Needham describes as follows Waddington’s cones:

At the top of the uppermost cone there is a ball in a position of extremely unstable equilibrium. It will tend to fall along the side of the cone at some one of the 360° degrees of the cone’s circumference. Here it will again find itself in a position of unstable equilibrium, only with respect to a second stage of determination, and will again be pushed in one direction or another, again to occupy a passing equilibrium, and so until the final stage of absolute stability is reached; *i.e.* the plan of the adult body<sup>33</sup>.

29. NEEDHAM, J., *Order and Life*, Cambridge MA, MIT Press, 1936.

30. *Ibid.*, p. 49.

31. *Ibid.*, p. 58.

32. WADDINGTON, C.H., “Experiments on the Development of Chick and Duck Embryos, cultivated *in vitro*”, *ed. cit.*, p. 221.

33. NEEDHAM, J., *Order and Life*, *ed. cit.*, p. 58.

For Needham the understanding of the passage from unstable to stable equilibria is the key point to describe embryological development and it offers opportunities for advances in the mathematization of embryology. Clearly motivated by providing a visual representation of this process, he proposes himself a picture of a plaster model representing a hill resting on a flat soil. The walls of the hill descending towards the soil present, irregularly, several plateaus that can be seen as local states of equilibrium. Needham defines this plaster model as “a qualitative three-dimensional model of embryonic determination, illustrating the passage from unstable to stable equilibria”<sup>34</sup>. Discussing further this model, he explains that “the state of harmonious equipotentiality would then correspond to the summit point, where the instability is maximal, and a point could descend to the successive levels of instability not in one direction only, but in many, according to its position and other relations to the organizer region”<sup>35</sup>.

Even from Needham’s discussion are absent Waddington’s considerations on the role of the genes as switches of different pathways of development, since Needham is only concerned with visual representations of development determination, without genetic or epigenetic considerations, Needham’s plaster model seems to be a very relevant source for what became Waddington’s images of the epigenetic landscape. There is another striking aspect in this Needham’s contribution: he presents his plaster model as an intuitive representation of an unstable equilibrium coming from a study of Alfred Lotka on the use of equilibrium-concepts in biology.

In his treatment of equilibria in biology, a subject extensively developed in his *Elements of physical biology* (1925)<sup>36</sup>, Lotka chooses to look at the kinetic conception of equilibria: a stationary state is defined as a state in which certain velocities vanish. Thus general condition for equilibrium (intended, for Lotka purposes, as a stationary state) is obtained by equating to zero the velocity of growth of each component of the system. This furnishes in general  $n$  independent equations, determining one or more sets of values of the variables  $X_i$ .

In order to obtain a graphic representation of the different types of equilibrium, Lotka does not seek for solutions of the fundamental equations expressing the variables  $X_i$  as a function of time  $t$ . He eliminates  $t$  from this system of equations, which leads to a new system defining a family of curves passing

34. *Ibid.*, p. 60.

35. *Ibid.*, p. 61.

36. LOTKA, A.J., *Elements of Physical Biology*, Baltimore, Williams & Wilkins, 1925, pp. 143-155.

through the equilibrium points. The study of equilibrium points (their kind and their topography) is realized by Lotka through methods of qualitative analysis of the singular points of differential equations<sup>37</sup>.

If only two variables are in question, the integral curves may be plotted on rectangular co-ordinates. As an example, Lotka figures the topographic chart of the Ross malaria equations<sup>38</sup>, which describe the course of events in the spread of malaria in a human population by the bites of certain breeds of mosquitos infected with malaria parasite. Lotka shows that there are two singular points, one unstable, and one stable. The stream lines of the chart suggest the construction of a qualitative three-dimensional model. Lotka gives a graphical representation of this model. He notices that in this model, that he calls *landscape*, the unstable point is represented by a *col* (a “notch”) in *the landscape*, and one stable, represented by a pit in the *landscape*.

We see thus how, through a perfectly rigorous, even if qualitative, mathematical study, Lotka obtains the representation of a three-dimensional landscape depicting the integral curves as lines of flow of a system of differential equations of two coupled variables<sup>39</sup>. If we remember Waddington’s considerations about the necessity of switching to a geometric instead of an algebraic approach to the representation of the solutions of the equations of a developmental system in phase space, it seems pertinent to think that this Lotka’s landscape influenced not only Needham, but Waddington as well.

A further Lotka’s consideration is remarkable in this analysis of arguments of stability: discussing the unstable equilibrium, Lotka precises that it is as a case of “metastable” equilibrium. Thermodynamically, the characteristic of a metastable equilibrium is that the thermodynamical potential of the system, though a minimum, is not an absolute minimum. Lotka affirms that this is the common characteristic of growth of a living system (autokinetic character):

37. Regarding this question Lotka refers to a specialized mathematical literature (PICARD, E., *Traité d’analyse*, 1891, and LIEBMANN, H., *Lehrbuch der Differential gleichungen*, 1901). Even if Lotka does not quote explicitly Poincaré, he uses his qualitative methods and terminology for the study and classification of singular points.

38. ROSS, Sir R., *The Prevention of Malaria* (2d ed. 1911), p. 679 ; also LOTKA, A.J., “Contribution to the analysis of malaria epidemiology”, *Am. Jour. Hygiene*, 3 (1923 January suppl.), pp. 1-121.

39. For a discussion of Needham’s and Lotka’s landscapes with respect Waddington’s epigenetic landscape, in particular concerning the difference in involved variables, see FRANCESCHELLI, S., “Morphogenèse, stabilité structurelle et paysage épigénétique”, in: BOURGINE, P./LESNE, A. (ed.), *Morphogenèse. L’origine des formes*, Paris, Belin, 2006, pp. 298-308 (Eng. Tr. *Morphogenesis. Origins of Patterns and Shapes*, Berlin and Heidelberg, Springer Verlag, 2011).

Growth is initiated by a nucleus of the same species of matter that is added by the growth. Conversely, in the entire absence of any nucleus of a particular species of living matter, growth of that species cannot take place, even though all other conditions for such growth may be satisfied, even though the system may be, as it were, supersaturated with regard to that species of matter. In these circumstances an equilibrium may be presented which is unstable in the sense that, upon the introduction of a suitable nucleus, growth immediately sets in<sup>40</sup>.

Now, another Lotka's remark is retained in Needham's chapter from *Order and Life* from which we started our inquiry: inorganic systems, in an analog manner, can present metastable equilibria, for example in the case of supersaturated solutions or vapors that are brought to crystallization or to condensation by the introduction of a suitable nucleus. This consideration allows Needham to emit the hypothesis that the term metastable could be applied to the plateau-states occurring in his plaster model of embryonic determination, allowing him to establish an audacious analogy between crystallization and embryo development that leads him to suggest that the "appropriate organizer would then correspond to the nucleus which ends the state of supersaturation in an inorganic system [...] Just as inorganic metastable systems are stable in the absence of their nucleus, so, in the absence of the organisers, normal development and differentiation will not occur [...]"<sup>41</sup>.

In conclusion of this section we can summarize by saying that the association of images of landscapes and arguments of stability, accompanied by a quest for a pertinent mathematization of developmental or growing processes, is not a particularity of Waddington's approach. It is, in the case of Lotka, the result of a rigorous study of the qualitative dynamics of a set of non-linear equations and it allows, in the case of Needham, to establish analogies between crystallization and embryo development. In the three cases, images of landscapes are able to grasp conceptual issues in a synthetic manner and help in establishing fruitful analogies. We will see in the next section that images of landscapes are at the core of René Thom's approach, too.

## 6. FROM STRUCTURAL STABILITY TO LANDSCAPES AGAIN

It is well known that the image of the epigenetic landscape has inspired Thom for the creation of catastrophe theory as a mathematical theory

40. LOTKA, A.J., *Elements of Physical Biology*, ed. cit., p. 151.

41. NEEDHAM, J., *Order and Life*, ed. cit., pp. 62-63.

morphogenesis - Thom himself declares it in the *princeps* article in which he first presents catastrophe theory<sup>42</sup>. It is interesting to observe that the same image continued to inspire him till the end of his career, in his attempts to go beyond catastrophe theory as a general mathematical theory for morphogenesis through the elaboration of his “semiophysics” and the notion of “pregnance”.

Thom adopts a very broad sense of “morphogenesis”: to him this term describes any process that creates or destroys forms, without taking into account neither the nature (material or not) of the substratum of the considered forms, nor the nature of the forces causing these changes. With catastrophe theory Thom proposes a new kind of modeling for the natural sciences. As Jean Petitot stresses (2015)<sup>43</sup>, catastrophe theory is not properly speaking a theory, but a method leading to an “art of modeling” (an “art des modèles”)<sup>44</sup>. At the core of this art of modeling is the property of “structural stability”, that allows Thom to link his view of morphogenesis through catastrophe theory to the waddingtonian notions of epigenetic landscape and creed. The intuitive idea is that a mathematical function is structurally stable if, for a sufficiently small perturbation of that function, the perturbed function keeps the same topological properties of the unperturbed function. The technical definition used by Thom has been introduced in the framework of the Andronov’s school of non-linear oscillations during the 1930’s<sup>45</sup>, and has been influential for the development of dynamical

42. See THOM, R., “Une théorie dynamique de la morphogénèse”, in : WADDINGTON, C.H. (ed.), *Towards a Theoretical Biology I*, Edinburgh, University of Edinburgh Press, 1968, pp. 152-166 (reprinted in: THOM, R., *Modèles mathématiques de la morphogénèse*, Paris, Christian Bourgeois, 1980; eng. trans.: *Mathematical Models of Morphogenesis*, Chichester, John Wiley and sons, 1983).

43. PETITOT, J., “Les premiers textes de René Thom sur la morphogénèse et la linguistique: 1966-1970”, <hal-01265180> 2015. For a history of catastrophe theory the reader can report to AUBIN, D., *A Cultural History of Catastrophes and Chaos: Around the Institut des Hautes Études Scientifiques, France 1958-1980*, Ph. D. thesis (Princeton University), UMI #9817022. See also, on modeling practices related to catastrophe theory, AUBIN, D., “From Catastrophe to Chaos: The Modeling Practices of Applied Topologists”, in: DAHAN DALMEDICO, A./BOTTAZINI, U. (ed.), *Changing Images in Mathematics: From the French Revolution to the New Millenium*, London, Routledge, 2001, pp. 255-279.

44. THOM, R., *Stabilité structurelle et morphogénèse. Essai d’une théorie générale des modèles*, Massachusetts, W.A. Benjamin, Inc., Reading, 1972, p. 324.

45. ANDRONOV, A. A./PONTRYAGIN, L.S., “Coarse Systems”, *Dokl. Akad. Nau. SSR*, 14 (1937), p. 247.

systems theory<sup>46</sup>. The question at the origin of the concept of structural stability is: how a mathematical model can be a good model to represent a system of the physical world? The question is relevant, since when writing a mathematical model one cannot take into account all the factors that influence a physical system; moreover nothing guarantees that these factors will remain constant during the evolution of the system. The idea of structural stability is that certain topological properties are shared by classes of mathematical models. This means that one thinks that what is important in order to represent a certain target system does not depend from all the mathematical details of a particular mathematical system. Focusing on *families* of mathematical models instead of a *particular* mathematical model, the notion of structural stability introduces an important epistemic modification in the relation between mathematical models and empirical systems. For Thom, the stability properties of the creods composing the epigenetic landscape are expressed by the mathematical property of structural stability, in the sense that a creod is not but a region of the parameters space for which a process is structurally stable (t.i., roughly, it does not depend from small enough variations of its parameters). However, when Thom exposes these ideas in his article, that has first been published as a chapter in the volume *Towards a Theoretical Biology I* (1968) edited by Waddington, he is criticized by Waddington. Waddington considers that homeorhesis, the property of moving equilibria characterizing creods as pathways of living processes, is not satisfactory represented by Thom's mathematical approach. For Waddington, structural stability is only able to express homeostasis, as the tendency to maintain a stable state, and not homeorhesis, as a moving equilibrium along a pathway of development (a creod). This misunderstanding has aroused a correspondence partially published as an annex to the French version of Thom's article as a chapter of the book *Modèles mathématiques de la morphogenèse* (1982), showing that the two scientists did not really find a definitive agreement<sup>47</sup>. Despite the convincing arguments Thom provided in favor of the pertinence of the property of structural stability, the polysemy of "stability" and its irreducible vagueness when attributed to living systems have accompanied his intellectual enterprise in the following decades.

46. The reader can report to ROQUE, T., "The role of *genericity* in the history of dynamical systems theory", in: CHEMLA, K./CHORLAY, R./RABOUIN, D. (ed.), *The Oxford Handbook of Generality in Mathematics and in the Sciences*, Oxford, Oxford University Press, 2016.

47. For a more detailed commentary of this correspondence, see FRANCESCHELLI, S., "Morphogenèse, stabilité structurelle et paysage épigénétique", *loc. cit.*

In his *Esquisse d'une sémiophysique* Thom intends to take up the succession of "natural philosophy"<sup>48</sup>. For Thom "Semiophysics is concerned in the first place with the seeking out of significant forms; it aims to build up a general theory of intelligibility"<sup>49</sup>. The neologism "Semiophysics" has been inspired by an expression used by Jean Petitot, presenting the use of models of catastrophe theory as a "physics of meaning" (*physique du sens*)<sup>50</sup>. For Thom, this general intelligibility could be provided through the development of a theory of *saliances* and *pregnances*. How is this theory related to catastrophe theory?

For Thom a "salience" or a "salient form" is "any experienced form clearly separate from the continuous background against which it stands out"<sup>51</sup>.

This notion can be seen as encompassed by the program of catastrophe theory, which is, in fact, a theory of the genesis of salient forms. Catastrophe theory says us that when the structural stability of a phenomenon changes, *i.e.* when we attend to a change of attractor of the dynamics under study, a new salient form appears.

At a first look, it is more difficult to recast the notion of "pregnance" in terms of catastrophe theory. "Pregnances" are in fact defined as "non-localized entities emitted and received by salient forms"<sup>52</sup>. "Pregnances" or "pregnant forms" carry a biological significance: "Among these are the forms of prey for the (hungry) predator, of the predator for its prey, of a sexual partner at the appropriate time. The recognition of these forms gives rise to a very ample reaction in the subject: the freeing of hormones, emotive excitement, and behavior designed to attract or repulse the inductive form"<sup>53</sup>. The relation of pregnancies to saliances is at the core of Semiophysics, but does not seem to offer an immediate connection with catastrophe theory: "When a salient form seizes a pregnancy, it is invaded by this pregnancy and consequently undergoes transformations in its inner state which can in turn produce outward manifestations in its form: we call these *figurative effects*"<sup>54</sup>.

However a clarification comes from a further distinction between physical, or objective pregnancies and biological, or subjective pregnancies,

48. THOM, R., *Esquisse d'une sémiophysique*, Paris, InterEditions, 1989 (eng. trans. *Semio physics: a sketch*, Redwood City, CA, Addison-Welsey, 1990).

49. THOM, R., *Semio physics: a sketch*, ed. cit., vii

50. PETITOT, J., *Morphogenèse du sens*, Paris, Presses Universitaires de France, 1985, Vol.1, p. 293.

51. THOM, R., *Semio physics: a sketch*, ed. cit., p. 3.

52. *Ibid.*, p. 16.

53. *Ibid.*, p. 6.

54. *Ibid.*, p. 16.



which allows Thom to affirm that structurally stable forms are physically pregnant forms.

Thom proposes also a formalization of subjective pregnancies: the structure of a pregnancy is depicted as potential well, more exactly as an “epigenetic landscape” in Waddington’s sense of term<sup>55</sup>, where the source forms are at the bottom of the potential well. As if René Thom had never stopped to come back to the initial sources of embryology and in particular of Waddington writings, that had been at the origin of catastrophe theory, the discussion of the properties of the epigenetic landscape in the elaboration of semiophysics is relevant, too. But in this case the landscape, as the formalization of a subjective pregnancy –a concept that largely exceeds the domain of embryological development– must possess further properties of stability or of instability, included the ones of being able to propagate and to be modified in its proper morphology.

55. *Ibid.*, p. 10.



## METHOD IS A DETOUR. A BENJAMINIAN READING OF GOETHE

*El método es una digresión. Una lectura benjaminiana de Goethe*

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### ABSTRACT

Benjamin himself tells us that reading Simmel's work on the concept of truth in Goethe helped him realise that the concept of origin proposed in his book on *Trauerspiel* was a transposition of the Goethean concept of original phenomenon. To argue how economical facts can become original phenomena, Benjamin brings in an analogy with Goethe's concept of the metamorphosis of plants. Thus, here, we try to demonstrate that understanding what philosophy is in Benjamin implies a threshold experience –in the form of leap, discontinuity, interruption, renunciation, dissipation, obedience and metamorphosis–, whose supreme, concise and enigmatic formulation is as follows: "Method is a detour" [*Methode is Umweg*]. Some elements from Goethe's morphological thought will permit the establishment of a constellation of affinities, something quite useful for the interpretation of this enigma.

*Key words:* Benjamin; Goethe; Morfología.

### RESUMEN

El propio Benjamin nos dice que leer el trabajo de Simmel sobre el concepto de verdad en Goethe le ayudó a comprender que el concepto de origen propuesto en su libro sobre el *Trauerspiel* era una transposición del concepto

goethiano de fenómeno original. Para discutir cómo los hechos económicos pueden convertirse en fenómenos originales, Benjamin se sirve de una analogía con el concepto de Goethe de la metamorfosis de las plantas. Por eso, aquí, intentaremos demostrar que comprender lo que es la filosofía en Benjamin implica una experiencia de umbral –en forma de salto, discontinuidad, interrupción, renuncia, disipación, obediencia y metamorfosis– cuya formulación suprema, concisa y enigmática es la siguiente: “El método es un desvío” [Methode is Umweg]. Algunos elementos del pensamiento morfológico de Goethe permitirán establecer una constelación de afinidades, algo bastante útil para la interpretación de este enigma.

*Palabras clave:* Benjamin; Goethe; Morphology.

## 1. TRANSPOSITIONS

Benjamin himself tells us that reading Simmel’s work on the concept of truth in Goethe helped him realise that the concept of origin proposed in his book on *Trauerspiel* was a transposition of the Goethean concept of original phenomenon<sup>1</sup> “extracted from the pagan context of nature and brought into

1. Here are a few Goethean excerpts on the original phenomenon:

“The highest point man can reach is astonishment [*das Erstaunen*]. When an original phenomenon inspires that astonishment in him, he must consider himself satisfied; nothing greater can be conceded to him, he cannot look for anything that is beyond it, here is the limit. But, in general, the sight of an original phenomenon is yet not enough for men; they think they need to go even further. They are like children, who, having seen themselves in a mirror, at once turn it around to see what is on the other side”, GOETHE, J.W., “Conversation with Eckermann, 18 February 1829”, in: *Gedenken Ausgabe der Werke, Briefe und Gespräche* 28. August 1949, [AA], 24 vols., ed. Ernst Beutler, Zürich, Artemis Verlag, 1948-1954, p. 319.

“[...] We call these primordial phenomena, because nothing appreciable by the senses lies beyond them, on the contrary, they are perfectly fit to be considered as a fixed point to which we first ascended, step by step, and from which we may, in like manner, descend to the commonest case of every-day experience. Such an original phenomenon is that which has lately engaged our attention. We see on the one side light, brightness; on the other darkness, obscurity: we bring the semi-transparent medium [*das Trübe*] between the two, and from these contrasts and this medium the colours develop themselves, contrasted, in like manner, but soon, through a reciprocal relation, directly tending again to a point of union [*auf ein Gemeinsames*]”, GOETHE, J.W. *Theory of Colours*, trans. Charles Lock Eastlake, Cambridge, Massachusetts and London, The M.I.T. Press, 1970, §175, p. 72.

“*Urphänomen*: ideal, real, symbolic, identical. [...] *Urphänomen*: Ideal as the ultimate we can know. Real as what we know. Symbolic, because it includes all instances.

the Jewish contexts of history”<sup>2</sup>. And he adds that, in the book about Paris he is preparing, he will return to the concept of origin, now in relation to the forms and transformations of Parisian arcades, from birth to decline<sup>3</sup>. Economic facts act as original phenomena, but only if they are not defined as causes –which would curtail their original character. At this moment, to argue how economical facts can become original phenomena, Benjamin brings in an analogy with Goethe’s concept of the metamorphosis of plants: “[t]hey become such only insofar as in their own individual development –“unfolding” might be a better term– they give rise to the whole series of the arcade’s concrete historical forms, just as the leaf unfolds from itself all the riches of the empirical world of plants”<sup>4</sup>. Later, during the explanation of the concept of origin, this passage will be revived and its connection with Goethe expanded.

Let us take this direction from Benjamin as both an omen and an aegis of what we intend to do, namely, try to demonstrate, by analysing the “Prologue” to *The Origin of German Tragic Drama* –in combination with excerpts from other texts, specifically *One Way Street*, “Thought Figures”, *The Arcades Project* and “On the Program of the Coming Philosophy”– that understanding what philosophy is in Benjamin implies a threshold experience –in the form of leap, discontinuity, interruption, renunciation, dissipation, obedience and metamorphosis–, whose supreme, concise and enigmatic formulation is

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Identical with all instances”, GOETHE, J.W., *Werke*, “Hamburger Ausgabe” [HA], vol. 12, ed. Erich Trunz, Hamburg, Christian Wegner Verlag, 1948-1966, München, Deutscher Taschenbuch Verlag, C.H. Beck, 1982, *Maxim* 15, p. 3.

2. BENJAMIN, W., *The Arcades Project*, trans. Howard Eijand/Kevin McLaughlin, prepared on the Baui of the German Volume edited by Rolf Tiedemann, Cambridge, Massachusetts, and London, The Belknap Press of Harvard University Press, 2002, [N2a, 4].

3. A polarity that is essential to the constitution of the dialectical image, which is, in fact, a variation of the concept of origin: “Actualized in the dialectical image, together with the thing itself, are its origin and its decline. Should both be eternal? (eternal transience)”, *Das Passagen-Werk*, “Addenda” n° 24. This rhythmic polarity will return later on, in conjunction with the developments in the relationship between the concepts of origin and of original phenomenon.

4. Here is, in Goethe’s own words, the concept of the metamorphosis of plants: “Whether then the plant vegetates, blossoms, or bears fruit, it nevertheless is always the same organs, with varying functions and with frequent changes in form, that fulfil the dictates of Nature. The same organ which expanded on the stem as a leaf and assumed a highly diverse form, will contract in the calyx, expand in the petal, contract in reproductive organs, and expand for the last time as fruit”, GOETHE, J. W., *The Metamorphosis of Plants*, Wyomimg, Bio-Dynamic Literature, 1978, § 115, p. 54.

as follows: “Method is a detour” [*Methode is Umweg*]. Some elements from Goethe’s morphological thought will permit the establishment of a constellation of affinities, something quite useful for the interpretation of this enigma.

## 2. SECRET EPIGRAPHS

As we return to the comparison between art and science, we light upon the following consideration: (here begins the quote used as the epigraph to the “Prologue” of *Origin*) neither in knowledge nor in reflection can anything whole be put together, since in the former the internal is missing and in the latter the external; and so we must necessarily think of science as art if we expect to derive any kind of wholeness from it. Nor should we look for this in the general, the excessive, but, since art is always wholly represented in every individual work of art, so science ought to reveal itself completely in every individual object treated (here ends the abovementioned quote). In order to meet such a demand, all human faculties must be brought to bear on scientific work. The depths of premonition, a precise intuition of the present, mathematical profoundness, physical precision, elevation of intellect, sharpness of understanding, agile and nostalgic imagination, benevolent joy of the senses; nothing can be left out of the lively and fecund capture of the moment, which is the only means through which a work of art, of whatever content, can come to be.

Johann Wolfgang Goethe, *Materialen zur Geschichte der Farbenlehre*.

Above all, he who dedicates himself to analysis should investigate, or more properly direct his attention to the issue of finding out whether it has more to do with a mysterious/secret synthesis or whether his pursuit is no more than aggregation, juxtaposition [...] or how all this could be changed.

Johann Wolfgang Goethe, *WA*, part. II, vol. II, p. 72.

Let us identify these epigraphs: the first belongs to *Ursprung des deutschen Trauerspiels*, the second to *Der Kunstkritik in der deutschen Romantik*. The secret nature of these epigraphs is not related to any omission of their source. In both cases their author is mentioned, in the first via the simple indication of the quoted work’s title [more precisely: “Betrachtungen über Farbenlehre und Farbenhandlung der Alten” (“Considerations on the theory of colours and the treatment of colour among the Ancient”<sup>5</sup>)]; as for the second, the

5. GOETHE, J.W., *HA*, ed. cit., vol. 14, p. 41.

Weimar edition is mentioned, as well as the volume and pages, but not the text's title, to wit: "Analyse und Synthese"<sup>6</sup>. What is secret here is the effect they have on the works to which they act as "threshold dwellers", protectors of the homes' existence and entrance (we will return to them at the end of the present text). The finest formulation of their power is probably one Benjamin applies to the link between form and content in an artistic domain: the metaphysical content should not be seen as situated within the form, "but should appear in action, like the blood coursing through the body"<sup>7</sup>.

The epigraphs, therefore, are secret because their links to the writings over which they preside are not made explicit. In fact, the traces of their effects can only be followed if we make the effort to return to them as we read and re-read the texts. They are long-term effects, lingeringly taking on new aspects.

As to the second epigraph, straightforward evidence of its effectiveness is even harder to come by; but in future works, particularly *Origin* and *The Arcades Project*, signs of its action will become quite evident, demanding a re-reading of *The Concept of Art Criticism in German Romanticism* (though that particular book does not concern us here). In *Origin*, we come across a fine demonstration of this when Benjamin argues that names have different values depending on whether they are taken as concepts (agents of knowledge, features of understanding) or ideas (words that, having had their symbolic value restored to them, disengaged themselves from the core of reality) within the context of the philosophy of art. To him, what such names as Baroque and Renaissance cannot accomplish as concepts they achieve as ideas: "they do not make the similar identical, but they effect a synthesis between extremes. Although it should be stated that conceptual analysis, too, does not invariably encounter totally heterogeneous phenomena, and it can occasionally reveal the outlines of a synthesis even if it is not able to confirm it"<sup>8</sup>.

As for the *Arcades Project*, the connection could not be clearer, bringing the Goethean demands of the relationship between analysis and synthesis back to the core of the dialectical image: "The dialectical image is that form of the historical object which satisfies Goethe's requirements for the object of analysis: to exhibit a genuine synthesis. It is the primal phenomenon of history"<sup>9</sup>.

6. GOETHE, J.W., *HA*, ed. cit., vol. 13, p. 52.

7. BENJAMIN, W., *The Origin of German Tragic Drama*, trans. John Osborne, intro. George Steiner, London, New York, Verso, 2003, p. 39.

8. *Ibid.*, p. 41.

9. BENJAMIN, W., *The Arcades Project*, ed. cit, [N 9a, 4].

It is always a matter of highlighting the complex rapports between analysis and synthesis –because for Goethe the original phenomenon is the phenomenon that, having undergone analysis, reveals itself as condition, that is to say, a true synthesis (we will return to this)–, of shielding oneself against false syntheses or hasty, arrogant hypotheses, and accepting the fragmentary, inconclusive, true synthesis: a drawing, a profile, an outline, a miniature, all that is within the power of human creativity (for it lacks access to flesh, to the *parenchyma*), that which Goethe calls an *Aperçu*:

Everything depends on an *Aperçu*. It is the highest point man can reach, and neither can he reach any further. He cannot offer the *parenchyma* of detail, for he is not a second creator. This power to formulate an *Aperçu* is similar to his artistic power, the power of capturing and subjecting the image of an object. As for the historic *Aperçu*, the only thing one can do concerning the origin of an event is present an outline of the whole<sup>10</sup>.

What do science, knowledge and reflection mean to Goethe? Knowledge [*das Wissen*] is a form of cumulative, operatory cognition that lacks an internal (in modern terms, the subjective element, which Goethe sometimes uses, but prefers to call internal or intimate self). In turn, science [*die Wissenschaft*] is a form of cognition that emerges out of a crisis in knowledge: the revelation of the problematic, that is to say, the recognition that what stands between two points of view is not, contrarily to general belief, the solution, but the problem itself.

All individuals and, in the event of their having the ability to influence others, all schools see the *problematic* in the sciences as something in which, through which or against which they must struggle, as if it were one more side to take or oppose, instead of understanding that the scientific element [*das Wissenschaftliche*] demands a solution, a compromise or a relationship between irreconcilable antinomies<sup>11</sup>.

This recognition is a form of mature knowledge, an overcoming of the naive belief that “truth will not evade us”. In this context, morphology, the science of forms, is a prime example of a crisis in knowledge. Morphology is a science without an object, which deals with “whatever the other sciences approach randomly and occasionally, gathering together what is scattered across them and defining a new point of view, out of which things are easily

10. GOETHE, J. W. in: SCHMIDT, F., “Über den Wert des *Aperçus*“, *Jahrbuch der Goethe-Gesellschaft*, 29 (1967), p. 266.

11. GOETHE, J.W., *HA*, ed. cit., vol. 12, *Maxim* 414, p. 41.



and adequately contemplated”<sup>12</sup>. Lastly, reflection [*die Reflexion*], certainly philosophy, lacks an external, since it is unable to return to reality once it has left it (a condition without which there can be no philosophy), and this intensified critical feature also keeps most philosophers, due to their insatiable voraciousness regarding the foundation of things, from contributing to the weaving of the world’s tapestry, which lends to their words a marked degree of unreality<sup>13</sup>.

On the one hand, Benjamin wishes to attain that point at which science –in the Goethean sense– would, just like art, manifest fully in its singular objects. We must think science as art, if we are to expect from it some kind of totality; and, to do so, we will have to separate science from both knowledge and reflection. As it will be shown, there exists an affinity between science in the Goethean sense and philosophy (of art) in the Benjaminian sense.

On the other hand, he is guided by the conviction that only through immersing oneself in the work it is possible to find its universal, its idea (the dramatic genre, tragedy or *Trauerspiel*). Also of extreme importance is the Goethean concept of the relationship between the singular and the universal<sup>14</sup>, which is highly useful to the Benjaminian task of understanding a literary genre as an idea that is historically actualised as an origin.

Neither criticism nor the criteria of a terminology –the test of the philosophical theory of ideas in arte– evolves in response to external comparison, but they take shape immanently, in a development of the formal language of

12. GOETHE, J.W., “Betrachtung über Morphologie”, in: *HA*, ed. cit., vol. 13, p. 127.

13. He calls them “philosophers of understanding”, who write “obscurely out of their great love for clarity” And why? “Because they want to show the source or path of each statement, from its position in the reasoning to its origin, and at that point another [reasoning] is set in motion and brought in; they act like someone who follows a river from its mouth to its source and is constantly finding rivulets and streams that flow into it and branch out, causing him to become completely lost and constrained to lodge himself in *deverticulis*”. Examples: Kant and Hegel. Aristotle is not yet wholly taken by that obsession. “They do not weave a carpet; instead, they unravel it and pull out its threads; ideal philosophers [Spinoza?] actually take the weaver’s seat, prepare the warp and throw the shuttle. Sometimes, of course, a thread snaps or becomes knotted, but, in the end, we will have a true carpet”, in: GOETHE, J.W., “Conversation with Riemer, November 1806”, in: *AA*, ed. cit., vol. 22, pp. 421-422. (Cfr., also “Winckelman”, *HA*, ed. cit., vol. 12, pp.118-120).

14. “What is the universal? The single case. What is the particular? Millions of cases”, GOETHE, J.W., *HA*, ed. cit., vol. 12, *Maxim* 489, p. 433. “The universal and the particular coincide: the particular is the universal made manifest under different conditions”, GOETHE, J.W., *HA*, ed. cit., vol. 12, *Maxim* 491, p. 433.

the work itself, which brings out its content at the expense of its effect. It is, moreover, precisely the more significant works, inasmuch as they are not the original, and, so to speak, ideal embodiments of the genre, which fall outside the limits of the genre. A major work will either establish the genre or abolish it; and the perfect work will do both<sup>15</sup>.

All forces, all energies, all spiritual moods in their irreducible singularity and mutual calls, “nothing can be left out of the lively and fecund capture of the moment”, the only rule that is not a rule, but actually the source from which all works of art flow and to which critical analysis must do full justice. In fact, even though Benjamin chose not to include these lines in the epigraph, they echo throughout his text on the *Trauerspiel*, as illustrated by the quotation above, besides an agreement with the spirit of early Romanticism, recognisable in the demand for a critical approach immanent to the work itself as the only means to access it. Later, in *The Arcades Project*, we find a kind of symmetry of resonance, in which all the life and fecundity of seizing the moment<sup>16</sup>, that joyous obedience to the instant’s intimations, floods our face like the sober light of dawn; through that image, we discover how progress in art might be defined, to wit: every time for the first time, that is to say, when a work both founds a genre and transcends it:

In every true work of art there is a place where, for one who removes there, it blows cool like the wind of a coming dawn. From this it follows that art, which has often been considered refractory to every relation with progress, can provide its true definition. Progress has its seat not in the continuity of elapsing time but in its interferences – where the truly new makes itself felt for the first time, with the sobriety of dawn<sup>17</sup>.

### 3. CRITIQUE OF THE SUBJECT/OBJECT RELATIONSHIP MYTHOLOGY

Why is method a detour [*Umweg*]? The answer can only be found within the scope of the process whereby truth is defined as self-presentation, which presumes and demands the implicit overcoming of the “subject/object relationship mythology”<sup>18</sup>, as well as the dissolution of the modern concept of

15. BENJAMIN, W., *The Origin of German Tragic Drama*, ed. cit., p.44.

16. A major subject and constant feature in Goethe’s life and work. See Pierre Hadot’s *N’oublie pas de vivre. Goethe et la tradition des exercices spirituels*.

17. BENJAMIN, W., *The Arcades Project*, ed. cit, [N 9a, 7].

18. Cfr., BENJAMIN, W., “On the Program of the Coming Philosophy”, in: *Selected Writings*, General Editor Michael W. Jennings, Editorial Board Markus Bullock, Howard

empirical. In Benjamin's thought, the connection between the dissolution of the empirical element and the overcoming of the subject/object relationship will be enriched with the discovery of such concepts as origin, original fact or original phenomenon. Furthermore, one should also avoid confusing empirical with concrete or empirical with fact, in the Goethean sense<sup>19</sup>.

Strictly speaking, the poor and empty experience that is the theoretical plane in Kant did not demand any degree of metaphysics, since its very determinations eschewed it. Now, it is a matter "of envisioning this future metaphysics"<sup>20</sup> from the vantage point of a superior experience, whose unity and continuity cannot be mangled by disciplinary dispersion or foiled by the predominant physical-mathematical paradigm.

If Kant's contribution to philosophy can be described as reducing experience to scientific experience, it is no less true, adds Benjamin, that he also developed a stance against the dispersion and division of the "experience into the realms of the individual sciences"<sup>21</sup>. At any rate, "[a]rt, jurisprudence, and history; these and other areas must orient themselves according to the theory of categories with much more intensity than Kant oriented them"<sup>22</sup>.

In Kant's admirable attempt to justify knowledge, Benjamin finds, alongside the restricting concept of a mechanical-mathematical approach, Kant's

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Eiland, Gary Smith, vol. 1 1913-1926, ed. Marcus Bullock and Michael W. Jennings, trans. Marcus Bullock and Michael W. Jennings, Cambridge, Massachusetts, and London, The Belknap Press of Harvard University Press, 1996, pp. 100-110.

19. A constant feature in all of Benjamin's work, from "On language as such and on the language of man" to *The Arcades Project*. Consider, particularly, the following statement in "The Task of the Translator": "Even in times of narrowly prejudiced thought, there was an inkling that life was not limited to organic corporeality. But it cannot be a matter of extending its dominion under the feeble sceptre of the soul, as Fechner tried to do, or, conversely, of basing its definition on the even less conclusive factors of animality, such as sensation, which characterizes life only occasionally. The concept of life is given its due only if everything that has a history of its own, and is not merely the setting for history, is credited with life. In the final analysis, the range of life must be determined by history rather than by nature, least of all by such tenuous factors as sensation and soul. The philosopher's task consists in comprehending all of natural life through the more encompassing life of history", BENJAMIN, W., "The Task of the Translator", in: *Selected Writings*, vol. 1 1913-1926, ed. cit., pp. 254-255. The empirical is the phenomenon left to its own devices, subjected to all manner of operative abuse, deprived of the recollective experience that makes up history, in which the body, soul and animality are seen through redemptive eyes.

20. BENJAMIN, W., "On the Program of the Coming Philosophy", ed. cit., p. 102.

21. *Ibid.*, p. 105.

22. *Ibid.*, p. 107.

own awareness of that restriction, which lends heroic grandeur to his effort. In other words, Kant acknowledged, if not the lack of dignity, at least the limitations of that “temporal experience” regarding above all the living creatures and the works of art, both neglected by the “transcendental Logic”.

To overcome the constitutional meagreness of the “temporal experience” and its effects on the lasting one, it is mandatory to reject the “mythology” of the subject/object relationship. In fact, Kant never managed to relinquish a “conception of knowledge as a relation between some sort of subjects and objects”<sup>23</sup>. For Benjamin, the coming philosophy must eliminate “the subject nature of the cognizing consciousness”<sup>24</sup>, freeing it from any traces of psychologising mythology, which, though in sublimated form, is recognisable in Kant, namely: “the notion [...] of an individual ego which receives sensations by means of its senses and forms its ideas on the basis of them”<sup>25</sup>.

On the one hand, this rejection should be read in the light of Benjamin’s constant concern with doing justice to experience, freeing its understanding from a theory of subjectivity<sup>26</sup>. On the other, what is at stake here is the search for a superior knowledge that does away with the concepts of subject and object, which implies that experience must be withdrawn from the sphere of empirical consciousness, the place in which the abovementioned mythology can be applied, thus keeping intact the notion that the conditions of knowledge are the conditions of experience, which is now expanded to comprise religion, history and language.

It is necessary to preserve the unity of experience, something that, according to Benjamin, is already highlighted in the “transcendental Dialectic”. However, one category is missing to complete that unity: identity, which as an autonomous entity could define the sphere of knowledge without resorting

23. *Ibid.*, p. 103.

24. *Ibidem*.

25. *Ibidem*.

26. Which seems quite nonsensical within the Kantian context. And yet, in the “Analytics of the Beautiful” in the *Kritik der Urteilskraft*, Kant introduces a concept that disturbs, so to speak, the continuity of that mythology, because the structure of sentimental affection has come to the forefront and also because subjectivity is conceived as expressive energy, a free play. Besides that, the concept of object is gradually replaced by the concept of visible and audible form. Consequently, it becomes impossible to avoid unforeseen passages between faculties (without resorting to schematism) and between the human being and nature (without resorting to a law court), so much so that imagination seems to be, in a way, not only the sum of all faculties but also of all things perceived as forms, which brings into action a new concept of *a priori* and a new sense of human community, which intersects with a nature that now speaks to us. Objectively, the subject/object terminology is avoided.

to any subject-object terminology. Even so, that point is not pursued, perhaps because Benjamin had focused so much on it in his essay on two poems by Hölderlin. Besides that, and with the same objective in mind, Benjamin reckons that empirical consciousness must be absorbed by transcendental consciousness, because it is precisely in the former that mythological construction takes place; at the same time, he wonders whether it still makes sense to speak of consciousness at the precise moment it must “be stiffed of everything subjective”<sup>27</sup>. A good question, which must receive a decidedly negative answer, considering that, once one admits that language is the medium for thought and its expression, there ceases to be a separation between the empirical and transcendental consciousnesses, and consequently there will be no more use for the structure of subjectivity, as formalised by Kant. Focusing on language invariably leads to the abandonment of any theories of subjectivity.

#### 4. A HUGE “CHUZPE”

In this “Prologue” to *Origin of German Tragic Drama* we find, laid out with the utmost care, the methodological stipulations that support the theory that “in the sense in which is treated in the philosophy of art the *Trauerspiel* is an idea”<sup>28</sup>. A consequence of this was the conduction of a survey of the various theses which have emerged since Baroque times regarding that age’s version of the tragedy –another form of drama– since “all essences exist in complete and immaculate independence”<sup>29</sup>.

What is at issue here? Nothing more and nothing less than the most thorough definition of philosophy, more precisely philosophy of art, ever attempted by Benjamin. So thorough, indeed, that he offered no further development of the subject, though the text would henceforth influence his work. In fact, this “Prologue” remained a model to which he would refer back at key moments<sup>30</sup>.

It is not insignificant to highlight the fact that the “Prologue” is presented as epistemo-critical or its description as a “huge ‘Chuzpe’” (letter to Gerschom Scholem, 19 February 1925), if we consider that it represents a bold attempt

27. BENJAMIN, W., *Gesammelte Schriften* [GS], ed. Rolf Tiedemann/Hermann Schweppenhäuser, Frankfurt am Main, Suhrkamp, 1978, vol. II, 1, p. 163.

28. BENJAMIN, W., *The Origin of German Tragic Drama*, ed. cit., p. 38.

29. *Ibid.*, p. 27.

30. Take, for instance, *The Arcades Project*, [N 1a, 2]: “The book on the Baroque exposed the seventeenth century to the light of the present day. Here, something analogous must be done for the nineteenth century, but with greater distinctness”.

at organising all the recurring philosophic motifs (which, as it will be later shown, is one of the features of a true philosophical style) that were more or less recognisable in Benjamin's previous writings: language as medium, the link between truth and theology, history as real life, the critique of empiricism, the overcoming of the subject/object relationship mythology. In this work, all these motifs will attain their constellation (a concept that was in fact coined in *The Origin of German Tragic Drama*).

## 5. CONTEMPLATING AND BREATHING. PHILOSOPHY AND PHYSIOLOGY

Thinking is breathing, renewal, ceaseless restarting: "This continual pausing for breath is the mode most proper to the process of the contemplation"<sup>31</sup>. That is the reason why philosophical presentation resorts to an original form of prose, one that aims not to enrapture or excite. It befits writing to take time with each sentence and start over again. This losing and catching of breath conveys the rhythmic impulse and structure of the contemplated object itself. Contemplating is thus an initiatic activity that follows the intimations of its object. "The more significant its objects, the more detached the reflexion must be. Short of the didactic precept, such sober prose is the only style suited to philosophical investigation. Ideas are the object of this investigation"<sup>32</sup>. Besides the presence of Novalis, we also manage to recognise here a "productive scepticism"<sup>33</sup> regarding all the usual methods of philosophy of art, namely induction, deduction and empathy –strictly speaking, not so much a method as a stance– which should be compared to "a pause for breath, after which thought can be totally and unhurriedly concentrated even on the very minutest object without the slightest inhibition"<sup>34</sup>. This immersion is always exceedingly lucid but, as we will see later, devoid of intentionality. It is more like a drowning: you plunge into the object, and the waters of truth submerge you.

## 6. IMAGES OF IDEAS: CONSTELLATION AND MOTHER

"Ideas are to objects as constellations are to stars"<sup>35</sup>. Ideas, as objective interpretations of phenomena, that is to say, of their elements, determine

31. BENJAMIN, W., *The Origin of German Tragic Drama*, ed. cit., p. 28.

32. *Ibid.*, p. 29.

33. A version of the Goethean concept of "conditioned trust". Cfr., GOETHE, J.W., *HA*, ed. cit., vol. 12, *Maxim* 299, p. 406.

34. BENJAMIN, W., *The Origin of German Tragic Drama*, ed. cit., p. 45.

35. *Ibid.*, p. 34.

their reciprocal belonging [*Zusammengehörigkeit*], an insight that is not achieved by means of the inductive or deductive methods. Of special interest is the supreme importance of magnetism-based images, which will become a constant in future texts. “Ideas are timeless constellations<sup>36</sup>, and by virtue of the elements being seen as points in such constellations, phenomena are subdivided and at the same time redeemed”<sup>37</sup>. *Zusammengehörigkeit* is the concept that makes explicit the magnetic imagery. The idea can be defined as the configuration of a context (the constellation) in which extremes, in their utmost form (as their most intense limits) meet their equals: the more the empirical can be perceived as an extreme, the deeper it will be possible to penetrate it, and that same extreme is the starting-point of the concept<sup>38</sup>. In the rapport between idea and image –for instance, tragedy, a unique instance in which origin and idea coincide– these extremes reveal themselves as guilt and expiation; or, on a broader canvas, like the idea of the *Trauerspiel*, as their virtual development, conceived as pre- and post-history.

Ideas –or, to use Goethe’s term, ideals– are the Faustian “Mothers” [...] It is the function of concepts to group phenomena together, and the division which is brought about within them thanks to the distinguishing power of the intellect is all the more significant in that it brings about two things at a single stroke: the salvation of phenomena and the representation of ideas<sup>39</sup>.

Faustian mothers are those who engender the outlines of all things. In truth, they are more matrices than mothers (those who give birth to and look after children). Matrices preserve phenomena by displaying their essence and conceding them their reciprocal belonging, thus preventing their dispersion.

However, we find the image of the mother at the same paragraph outside the Faustian context: “Just as a mother is seen to begin to live in the fullness of her power only when the circle of her children, inspired by the feeling of her proximity, closes around her, so do ideas come to life only when extremes are assembled around them”<sup>40</sup>.

That is the reason why it is not enough to add the *kath’auto* epithet to a concept-word for it to turn into an idea; consequently, Hegel’s “so much the worse for facts” is read here in non-idealistic terms, which is to say

36. This concept should be taken in the same light as the “eternal subject” that man is for art: cfr. *Ibid.*, p. 103.

37. *Ibid.*, p. 34.

38. Cfr. *Ibid.*, pp. 33-34.

39. *Ibid.*, p. 35.

40. *Ibidem*.

that, in order for the word to strike us like a *rocher de bronze*<sup>41</sup>, the authenticity of phenomena must be kindled at their source: “The authentic –the hallmark of origin in phenomena– is the object of discovery, a discovery which is connected in a unique way with the process of recognition”<sup>42</sup>. We will return to this.

## 7. TRUTH AND TREATISE

If we accept that there are certain objects without which we cannot think about the truth, namely, the theological objects<sup>43</sup>, we will have to admit that the treatise is the form of written thought in which that is evident: the treatise cares not about the name of its writer, quotation and commentary being the two tools in its workshop. It is a matter of stripping oneself of all subjective authority, listening to the many voices and obeying that which causes one to think and must be thought about. The treatise becomes the paradigm of the voice that becomes medium, the voice without authority. Then, the anticipated formula appears: “Its method is essentially representation. Method is a digression”<sup>44</sup>. Its most salient distinguishing feature is its relinquishment of the unbroken flow of intention.

The model of the treatise, the sober form of prose, reemerges in *One Way Street*<sup>45</sup>. Benjamin details its characteristics: discretion, secret structure, discreet expressiveness due to ornamental interlacing, which in expository terms means that “the distinction between thematic and excursive expositions is abolished”. A decisive feature that links itself with the concepts of

41. A quote from King Frederick I of Prussia reproduced in a passage of an essay by Jean Hering quoted by Benjamin: *cf. Ibid.*, note 3, p. 257.

42. *Ibid.*, p. 46.

43. Acknowledging this does not imply any degree of confusion between the sphere of revelation and philosophy. Theological objects are intimately linked to the meaning of languages and particularly to the desire for salvation.

44. *Ibid.*, p. 28.

45. “Interior Decoration”, *One Way Street*: “The tractatus is an Arabic form. Its exterior is undifferentiated and unobtrusive, like the façades of Arabian buildings, whose articulation begins only in the courtyard. So, too, the articulated structure of the tractatus is invisible from the outside, revealing itself only from within. If it is formed by chapters, they have not verbal headings but numbers. The surface of its deliberations is not enlivened with pictures, but covered with unbroken, proliferating arabesques. In the ornamental density of this presentation, the distinction between thematic and excursive expositions is abolished”, BENJAMIN, W., “One Way Street” in: *Selected Writings*, vol. 1 1913-1926, ed. cit., pp. 444-488.



vestige and fragment in *The Origin of German Tragic Drama*, which should be read as miniatures of a whole whose image was shattered: “The value of fragments of thought is all the greater the less direct their relationship to the underlying idea, and the brilliance of the representation depends as much on this value [...]”<sup>46</sup>. A conception’s degree of truth “is only to be grasped through immersion in the most minute details of subject-matter”<sup>47</sup>. Obeying the object, being loyal to the object, letting the object (it may be a text, of course) step into our life: these are the ingredients that turn method into a digression.

As the object of a treatise on philosophy of art, the *Trauerspiel* is consequently an idea, while as a concept from the history of literature it would be added to the number of classifying concepts in aesthetics:

In literary-historical analysis differences and extremes are brought together in order that they might be relativized in evolutionary terms; in a conceptual treatment they acquire the status of complementary forces, and history is seen as no more than the coloured border to their crystalline simultaneity. From the point of the view of the philosophy of art the extremes are necessary; the historical process is merely virtual<sup>48</sup>.

The idea –the extreme of a form or genre– has no place in the history of literature, and it is the idea that interests Benjamin in his book on the *Trauerspiel*.

## 8. WHAT DO PHILOSOPHIES DO? PHILOSOPHY, ART, SCIENCE. THE PHILOSOPHER’S TASK

What do philosophies do? They bring the world into the order of ideas. The philosopher’s task: to pursue a project into which the empirical world spontaneously enters and dissipates itself. We are looking here at an anti-empiricist statement. The philosopher stands midway between the scientific researcher –whose work and dignity consists in extinguishing the empirical order, by scattering it as concepts– and the artist, who also has its representative gesture: sketching “a foreshortened picture [*ein Bildchen*] of the world of ideas”. The effects of Goethe’s epigraph are quite visible.

46. BENJAMIN, W., *The Origin of German Tragic Drama*, ed. cit., p. 29.

47. *Ibidem*.

48. *Ibid.*, p. 29.

Here are the typical paradoxes of the philosophic style: 1) an art of the discontinuous, as opposed to the chain of deduction<sup>49</sup>; 2) the perseverance of the treatise, as opposed to the gesture of the fragment (it is not, therefore, a matter of making philosophy via a mimesis of the fragmentary; the intention is to grasp truth, as if it were a *rocher de bronze*); 3) the repetition of motifs, as opposed to shallow universalism; 4) the plenitude of concise positivity, as opposed to negative polemics<sup>50</sup>. Let us now spell it out, as an aide-memoire: discontinuity, perseverance, repetition of motifs and positive plenitude.

If we rely on Benjamin's words, presentation as philosophic method implies the philosopher's task is a recurring one: "It is the task of the philosopher to restore, by presentation, the primacy of the symbolic character of the word, in which the idea is given self-consciousness [...]"<sup>51</sup>. The breathing image remains valid.

## 9. SCIENCE AND PHILOSOPHY

Let us try to summarise the contrasting features between science and philosophy, knowledge and truth. First criterion: the elimination of *Darstellung*. Second criterion: renunciation to the truth domain conveyed by languages [*meinen*<sup>52</sup>], something quite obvious in mathematics (so begins the "Prologue"). What the languages mean is always related to God, with the implements of theology, even though "philosophy may not presume to speak in the tones of revelation"<sup>53</sup>. A third criterion is an immanent relationship with

49. Logic, ethics, and aesthetics are names of specialised disciplines, but they are also "monuments in the discontinuous structure of the world of ideas". A confirmation of the "art of the discontinuous": cfr. *Ibid.*, p. 33.

50. Cfr. *Ibid.*, p. 32.

51. *Ibid.*, p. 36, translation modified.

52. This appears to contradict the following: "The proper approach to it [the truth] is not therefore of meaning in knowledge, but rather a total immersion and absorption on it", *Ibid.*, p.36, translation modified. But there is actually no contradiction, if we consider that *meinen* can have two different meanings depending on whether its context is truth or knowledge. If the focus is on the connection with truth, to mean is the proper task of languages. The identity of meaning between all languages, on which the original condition of their relationship is based, is what Benjamin calls pure language (cfr. BENJAMIN, W., "The Task of the Translator", in: *Selected Writings*, vol. 1 1913-1926, ed. cit., pp. 254-255). If the meaning finds its determination in the empirical sphere, then it is part of an intentional cognitive process. In fact, this double scope of concepts is not unusual in Benjamin; witness, for instance, the double use of the concept of history in the above-mentioned work and in his 9 December 1923 letter to Florens Christian Rang.

53. BENJAMIN, W., *The Origin of German Tragic Drama*, ed. cit., p. 217.

beauty. Actually, this is not just another criterion, but the master criterion, since it “provides an explanation of that simple and yet unpopular fact that even those philosophical systems whose cognitional element has long since lost any claim to scientific truth still possess contemporary relevance”<sup>54</sup>.

#### 10. METHOD IS A DETOUR. THE CONCEPT OF ORIGIN

Essence is not attained through comparisons and the definition of average values. Words that emerge from a thought or concept that is superficial, generalist or formal will never reach the level of ideas; hence the caution the philosopher must exercise regarding the tendency to convert words into typological concepts in order to better grasp them<sup>55</sup>. Philosophy of art has often been a victim of this tendency. Regarding those authors who place Greek tragedies side-by-side with Baroque plays, the following must be said: “whether the tragic is a form which can be realized at all at the present time, or whether it is not a historically limited form, then, [...] the effect [...] is not one of tension, but of sheer incongruity”<sup>56</sup>.

Such a form of research –which has subjected itself to all that shapeless mass in order to establish a “common ground”– can yield nothing more than some psychological data, impressions and behavioural reactions to tragedy, which are actually indicative of indifference towards tragedy, since they are comparable to reactions triggered by other elements, and are thus unable to convey “the essence of a field of artistic endeavour. This can only be done in a comprehensive explanation of the underlying concept of its form, the metaphysical substance of which should not simply be found within, but should appear in action, like the blood coursing through the body”<sup>57</sup>.

Dependence on diversity (subjection to empirical variety); indifference towards rigorous thought (indistinction between concepts and ideas; relinquishing the presentation of essentialities –once again by referring to the Platonic theory of ideas): such are the ruling principles of induction in art history, and they entangle the researcher in a “boundless scepticism”<sup>58</sup>.

A methodology should not be reduced to a preventive canon, ruled “by the simple fear of inadequacy on a factual level”<sup>59</sup>, sometimes mingled with

54. *Ibid.*, p.32

55. *Cfr. Ibid.*, p. 39.

56. *Ibidem.*

57. *Ibidem.*

58. *Ibid.*, p. 40.

59. *Ibid.*, p. 41.

empathy, that is to say, the intuition of subjective moods, a stance that is untenable from a critical point of view. On the other hand, these studies also encompass a deductive method, in which the work is evaluated by means of “given magnitudes”, created out of comparisons between eminent representatives of each genre. This allows the definition of rules and laws, whereby the singular work is evaluated; the comparison between genres inspires a desire for universal artistic laws<sup>60</sup>.

While induction degrades ideas into concepts by dispensing with their articulation, deduction degrades them by projecting them onto a pseudological continuum<sup>61</sup>. Croce’s correction of this problem in philosophy of art exerted a decisive influence on Benjamin (the generative element, the use of history and the refusal of generalist concepts), though he opposed Croce’s severity regarding the existence of ideas and refused his concept of intuition. In this manner, he reached his own concept of origin: “(one must look) for that which is exemplary, even if this exemplary character can be admitted only in respect of the merest fragment<sup>62</sup>”. Here we have the good method, one that does not set out aggressively towards its object. As we will see, to look around is a Goethean gaze.

Quite elucidative in this context is a passage in “Versuch einer Witterungslehre”<sup>63</sup>, where a “central point” is presented as a means to overcome rushed and restrictive causalities, purely empiricist inductions and formalistic deductions. This echoes in the concept of “literary genre” as idea in *Origin*, a name that finds itself once again elevated to its symbolic status, instead of a generalist concept that conveys the average value obtained through empirical comparison.

Also in “Essay on Meteorology”, we find the concept of correlate, which qualifies the rapport between the condition of appearance and concrete appearance.

60. Cfr. *Ibid.*, p. 42.

61. Cfr. *Ibidem*.

62. *Ibid.*, p. 44.

63. “Essay on Meteorology”: “What the researcher must always pursue is that *central point* out of which rapports can be grasped [...] we cannot think about anything in isolation, in absolute muteness, whether existing or appearing, remaining or passing through, each one is always entered, transformed, enveloped by the other, causing and undergoing changes; and, if so many beings act through one another, when could we finally be able to decide who is master and who is servant, what determines beforehand, what necessarily follows? This is the great difficulty that accompanies all theoretical statements, here lies the danger of confusing cause with effect, sickness with symptom, action with character. In these circumstances, nothing more is left to the serious observer than deciding where to situate the central point [*der Mittelpunkt*] and then try to see how he might deal with the rest”, GOETHE, J.W., *HA*, ed. cit., vol. 13, pp. 306-307.

Correlates stand out from the stream of becoming as products of activities that manifest themselves by competing and cooperating with one another<sup>64</sup>. This notion undeniably resounds in the concepts of origin and dialectic image.

Origin is what Benjamin calls the rhythmic confrontation of an idea with history; in other words, the original phenomenon is an actualisation of the idea presented as virtuality. Contemplation tends to resort to “an ever wider-ranging, an ever more intense reappraisal of phenomena [...] as long as the representation of them is also a representation of ideas, for it is here that their individuality is preserved”<sup>65</sup>. In the concept of origin we find the fullest expression of the contemplative act’s essential features –restoration and incompleteness– and of its method: self-presentation.

The term origin is not intended to describe the process by which the existent came into being, but rather to describe that which emerges from the process of becoming and disappearance (this polarity will reemerge in the dialectical image). Origin is an eddy in the stream of becoming, and in its current it swallows the material involved in the process of genesis. That which is original is never revealed in the naked and manifest existence of the factual; its rhythm is apparent only to a dual insight. On the one hand it needs to be recognized as a process of restoration and reestablishment, but, on the other hand, and precisely because of this, as something imperfect and incomplete<sup>66</sup>.

Each original phenomenon defines the figure under which an idea, for instance, the idea of tragedy or *Trauerspiel*, repeatedly confronts the historic world until it has attained its fullest expression throughout its history. “Origin is not, therefore, discovered by the examination of actual findings, but is related to their history and their subsequent development”<sup>67</sup>. Its proper dialectic develops between singularity and repetition. The effects of contemplative breathing are perceptible.

In the relationship between idea and history where origin plays a central role we observe the influence of Goethe’s epigraph (quoted at the beginning of this text), while the definition of what an idea might be is completed: “For in the science of philosophy the concept of being is not satisfied by the phenomenon until it has absorbed all its history. [...] This gives the idea its total scope. And its structure is a monadological one, imposed by totality in contrast to its own inalienable isolation”<sup>68</sup>.

64. Cfr. GOETHE, J.W., *HA*, ed. cit., vol. 13, pp. 311-313.

65. BENJAMIN, W., *The Origin of German Tragic Drama*, ed. cit., p.45.

66. *Ibidem*.

67. *Ibid.*, p. 46.

68. *Ibid.*, p. 47.

The idea as a monad is a way of minutely concentrating the notion of idea as an objective interpretation of phenomena, while at the same time celebrating the quite Goethean coincidence between the singular and the universal: “The purpose of the representation of the idea is nothing less than an abbreviated outline of this image of the world”<sup>69</sup>.

Let us now consider the relationship between the Benjaminian origin and the Goethean original phenomenon. To Goethe, there is nothing behind the original phenomenon: it is simultaneously the limit of the cognoscible, and thus real, and the brightness of the final cognoscibility, and thus ideal. It is not, consequently, an empirical element; rather, it is the limit of the empirical, though it does not transcend it: it is the figure of growth and appearance in action, displaying across time, so to speak, an outline, a miniature sketch of the world of plants and colours, a drawing in motion, generator of new forms. But probably there is also nothing behind the phenomena, since the original phenomenon is neither a foundation nor a cause that may be behind or under the phenomena, just that condition of the visibility and temporality of phenomena that is inseparable from them and reflects itself on them whenever we immerse ourselves into their details (to use a formulation by Benjamin), for instance, the various leaf shapes in the metamorphosis of plants. Lastly, the metamorphosis has its own rhythm, defined through the polarity of expansion and contraction.

It is time now to address the (far-reaching) irradiation of the conceptual constellation created by the realisation that method is a digression. We will resort to texts written after *The Origin of German Tragic Drama*, which display clear connections with Goethe’s morphological thought, in the hope of expanding our comprehension of the experience of the threshold.

#### 11. WHAT-HAS-BEEN: THE MOST INTIMATE IMAGE OF THE NOW. THE NOW: THE MOST INTIMATE IMAGE OF WHAT-HAS-BEEN

A dream:

A visit to Goethe’s house. I cannot recall having seen rooms in the dream. It was a perspective of whitewashed corridors like those in a school. Two elderly English lady visitors and a curator are the dream’s extras. The curator requests us to sign the visitors’ book lying open on a desk at the farthest end of a passage. On reaching it, I find as I turn the pages my name already entered in big, unruly, childish characters<sup>70</sup>.

69. *Ibid.*, p. 48.

70. BENJAMIN, W., “Vestibule”, in: *One Way Street*, ed. cit., p.445

### Another dream:

In a dream I saw myself in Goethe's study. It bore no resemblance to the one in Weimar. Above all, it was very small and had only one window. The side of the writing desk abutted on the wall opposite the window. Sitting and writing at it was the poet, in extreme old age. I was standing to one side when he broke off to give me a small vase, an urn from antiquity, as a present. I turned it between my hands. An immense heat filled the room. Goethe rose to his feet and accompanied me to an adjoining chamber, where a table was set for my relatives. It seemed prepared, however, for many more than their number. Doubtless there were places for my ancestors, too. At the end, on the right, I sat down beside Goethe. When the meal was over, he rose with difficulty, and by gesturing I sought leave to support him. Touching his elbow, I began to weep with emotion<sup>71</sup>.

These dreams offer precise corroboration of the practice of remembering the night on the opposite bank of life: the day. Both are unsurpassable touchstones of the "now of cognoscibility", a subject that presents itself as an anticipation and confirmation of the now as a matter of interest.

In the first dream, Benjamin sees himself visiting Goethe's house. It reminds him of a school, a row of corridors repeating themselves. As he leafs through the visitors' book to sign it, he sees that his name is already there, confirming that in order to be able to follow the traces of a being, one must have already followed them, which prepares us for the relationship between trace and aura. Following traces is an activity that answers a calling from the aura (an experience that is immediate rather than instantaneous, since immediacy is connected with divestment, something that demands preparation and, consequently, time and delay): "Trace and aura. The trace is appearance of a nearness, however far removed the thing that left it behind may be. The aura is appearance of a distance, however close the thing that calls it forth. In the trace, we gain possession of the thing; in the aura, it takes possession of us"<sup>72</sup>.

In the second dream, we observe an intensification of the then/now relationship, which becomes ever more intimate, ever more profound, as can be seen by the identification of a particular place in Goethe's house (we are there again), in which the dream unfolds: his study. Benjamin had visited it in the Summer of 1928 (while preparing the "Goethe" entry for the *Great*

71. BENJAMIN, W., "Dining Hall", in: *One Way Street*, ed. cit., pp. 445-446.

72. BENJAMIN, W., *The Arcades Project*, ed. cit, [M16a, 4].

*Soviet Encyclopedia*), and wrote a masterful description of it, in which we find the ultimate formulation of the “Antiquity of the poet”<sup>73</sup>.

Goethe welcomes Benjamin and gives him a present. “Gifts must affect the receiver to the point of shock”, as stated in *One Way Street*<sup>74</sup>. Though there is no shock here, properly speaking, there is no doubt that the atmosphere in which the gift, an antique urn, is accepted is disturbing, for the temperature rises: “An immense heat filled the room”. In this first moment where the what-has-been recognises the now, Benjamin receives more than the spoils of the past; he also receives confirmation that “it is the present that polarizes the event into fore- and after-history”<sup>75</sup>. Goethe’s gift anticipates that image in which then and now become magnetically linked and form a constellation, and the most intimate image of the what-has-been emerges out of now<sup>76</sup>.

At a certain point in the dream, Benjamin is led by Goethe to a room with a table set for him and relatives, but so ample that it was certainly also intended for his ancestors. It is impossible not to be reminded of the herald who calls the dead to the feast in *The Arcades Project*: “At any given time, the living see themselves in the midday of history. They are obliged to prepare a banquet for the past. The historian is the herald who invites the dead to the table”<sup>77</sup>. Such is the task of historian Walter Benjamin. But, in the dream, the herald is the poet.

Benjamin is accorded the privilege (born out of veneration, a particular form of connection by affinity) of sitting besides Goethe, at the head of the table. At the end of the meal, Goethe rises and the dreamer, noticing that he staggers, asks permission to help him, thus acknowledging that deep longing to touch the person one venerates. The original instance of that relationship is found in Dante’s *Divine Comedy*<sup>78</sup>. There, the journey

73. Cfr., BENJAMIN, W., “Weimar”, in: *Selected Writings*, General Editor Michael W. Jennings, Editorial Board Markus Bullock, Howard Eiland, Gary Smith, vol. 2 1927-1934, ed. Michael W. Jennings, Howard Eiland and Gary Smith, trans. Rodney Livingstone and others, Cambridge, Massachusetts and London, The Belknap Press of Harvard University Press, 1999, pp. 148-151. Concerning the relation between the “Antiquity of the poet” (Goethe) and the “Antiquity of the philosopher” (Benjamin), cfr. MOLDER, M. F., “O eterno motivo”, in: *Semear na neve. Estudos sobre Walter Benjamin*, Lisboa, Relógio d’Água, 1999, pp. 155-185.

74. BENJAMIN, W., “Fancy Goods”, in: *One Way Street*, ed. cit., p. 463.

75. BENJAMIN, W., *The Arcades Project*, ed. cit, [N7a, 8].

76. Cfr. *Ibid.*, [N 2a, 3].

77. *Ibid.*, [N15, 2].

78. DANTE, *Divina Commedia* [bilingual edition], trans., intro. and notes Vasco Graça Moura, Lisboa, Bertrand Editora, 1977 (3<sup>rd</sup> edition).



that saves the narrator from the *selva oscura* and all its evils is undertaken under the direction of his master, author, guide, father and most loved poet: Virgil. The difference regarding Benjamin lies in the fact that the help Dante receives from Virgil has no reciprocity. On the contrary, Benjamin's dream presents a reciprocal solicitude: he helps his master, who staggers as he rises. Goethe accepts that help. Here we have a second instance of then's acknowledgement of now: in a fecund symmetry, now becomes the most intimate image of then. The emotional weeping conveys the irreparable: nothing can make Goethe live again.

Goethe will always be a very old master, father and author (as Virgil was to Dante), while, before Goethe, Benjamin will always be young, even a child, as indicated by the "big, unruly, childish characters" in which his name is written on the visitors' book in the first dream.

## 12. MAGIC WORKSHOP

To those who focus more on what is calling them than on their reactions to the calling, no moment is idle; all moments interweave in endless combinations, searching for their transmutation into gold. That is why those passages describing penetrating insights into life are more important than finished works, which true writers tend to undervalue. Once again, Benjamin draws inspiration from Goethe to convey to us that work of witchcraft called genius:

To great writers, finished works weigh lighter than those fragments on which they work throughout their lives. For only the more feeble and distracted take an inimitable pleasure on closure, feeling that their lives have thereby been given back to them. For the genius each ceasura, and the heavy blows of fate, fall like gentle sleep itself into his workshop labor. Around it he draws a charmed circle of fragments. "Genius is application"<sup>79</sup>.

In a later text, where he, obeying his own injunctions, follows Goethe's example, we find a variation on that workshop, which he describes as "the method of composition itself", stressing that power of incorporation that is inherent to it. A work in gestation feeds on everything; nothing is alien to it, from voluntary decision through unexpected grace to the vertigo of opposition:

79. BENJAMIN, W., "Standard Clock", in: *One Way Street*, ed. cit., p.446.

Say something about the method of composition itself: how everything one is thinking at a specific moment in time must at all costs be incorporated into the project then at hand. Assume that the intensity of the project is thereby attested, or that one's thoughts, from the very beginning, bear this project within them as their telos. So it is with the present portion of the work, which aims to characterize and to preserve the intervals of reflection, the distances lying between the most essential parts of this work, which are turned most intensively to the outside<sup>80</sup>.

Then, to search every corner of the workshop, Benjamin descends deep into the inner ear in thesis III of "The Writer's Technique in Thirteen Theses"<sup>81</sup>, urging us to "avoid everyday mediocrity". If we want the magical operation to take place, we will not need to restrict ourselves to the "perceptible silence of the night", that natural tuner of the inner ear, since an "accompaniment by an *étude* or a cacophony of voices", once absorbed, will become the touchstone of the alchemical power of the work to come.

### 13. MATTERS OF STYLE

Benjamin will always be closer to an affinity between body and soul (the Greeks, Goethe, Hamann, Wittgenstein) than to the subject/object mythology or to phenomenological reductiveness. Matters of style, too, manifest as physiological matters, depending on bodily moods devoid of transcendence, intentionality or theories of consciousness, moods anticipated by a requirement of loyalty towards things. Hence his comparing of the body of the "bad, untrained runner", which falters through his "slack, overenthusiastic body action", a metaphor of a bad writer, with the "well-trained body" that stands for the good writer.

The good writer says no more than he thinks. And much depends on that. For speech is not simply the expression but also the making real of thought. In the same way that running is not the expression of the desire to reach a goal, but also the realization of that goal. But the kind of realization—whether it is precisely adapted to the goal, or whether it loosely and wantonly wastes itself on the desire—depends on the training of the person who is running. The more he has himself on hand and avoids superfluous, exaggerated, and uncoordinated movements, the more self-sufficient his position will be

80. BENJAMIN, W., *The Arcades Project*, ed. cit, [N1, 3].

81. BENJAMIN, W., *One Way Street*, ed. cit., p. 458.

and the more economical his use of his body. The bad writer has many ideas which he lets run riot, just like the bad, untrained runner with his slack, over-enthusiastic body action. And for that very reason, he can never say soberly what he thinks. The talent of the good writer is to make use of his style to supply his thought with a spectacle of the kind provided by a well-trained body. He never says more than he has thought. Hence, writing redounds not to his own benefit, but solely to the benefit of what he wants to say<sup>82</sup>.

Here we have, then, that rejection of all subjective preeminence that allows us to avoid phantasmal pretensions: refuse “finds”, never fall for your own wit, do not cheat, distance yourself, unknow yourself, keep vigilant: such is the forge of sobriety Benjamin so loves (a legacy from Hölderlin and the Romantics). To soberly state is to renounce undue, premature satiety. Writing must not serve the writer, only the writer’s meaning; here we have the very formula of sobriety. The fact that good writers say no more than what they think does not imply that their writing is totally controlled by reason, for thought encompasses a swarm of activities, of which the first and most absorbing is called contemplation –an immersion in the object that is independent of intention, emphatically refusing any psychological elements–.

#### 14. A DISCIPLINE OF DETOUR: LEARNING TO LOSE ONESELF

We must learn to lose ourselves in a city just as we lose ourselves in a forest. This kind of learning is associated to the most secret inhabitants of the most initiatic garden, the *Tiergarten*: the “threshold dwellers”, protectors of entrances, skilled in waiting, who share a kinship with the Matrices of *Faust* –here they are again–.

Not to find one’s way around a city does not mean much. But to lose one’s way in a city, as one loses one’s way in a forest, requires some schooling. Street names must speak to the urban wanderer like the snapping of dry twigs, and little streets in the heart of the city must reflect the times of the day, for him, as clearly as a mountain valley. This art I acquired rather late in life; it fulfilled a dream, of which the first traces were labyrinths on the blotting papers in my school notebooks [...] He led the way along these paths, and each, for him, became precipitous. They led downward, if not to the Mothers of all being, then certainly to those of this garden [...]

82. BENJAMIN, W., “Thought Figures”, in: *Selected Writings*, vol. 2., ed. cit., pp. 723-724.

Among the caryatids and atlantes, the putti and pomonas, which in those days looked on me, I stood closest to those dust-shrouded specimens of the race of threshold dwellers –those who guard the entrance to life, or to a house–. For they are versed in waiting<sup>83</sup>.

We constantly witness, in Benjamin's writings, a multitude of threshold experiences<sup>84</sup>, of which learning to lose oneself is an exemplary case, a variation on and explanation of "method is a detour". Our awareness grows of how Benjamin's way of thinking drives him to a discipline of vertigo, which began quite early, with the ink labyrinths on the blotters of his childhood. The keepers of the house and existence, the threshold dwellers, are not allowed to enter the house, to wander through existence. The threshold dwellers do not move: they observe, foresee, watch and wait, and because of that Benjamin recognises in them a high form of historical knowledge, the art of waiting, which makes them akin to those who know the full, messianic time.

Lastly, the return to the pit, to the subterranean of the Mothers, of the Faustian Matrices, if not of all being, at least of that garden, the *Tiergarten*. Seriousness and a humorous tone combine to turn that garden into a miniature that redeems both his childhood and the whole of his existence, now dedicated to forebodings of endless destruction.

## 15. NEW OBJECTS, NEW METHODS

Scientific method is distinguished by the fact that, in leading to new objects, it develops new methods. Just as form in art is distinguished by the fact that, opening up new contents, it develops new forms<sup>85</sup>. It is only from without that a work of art has one and *only* one form, that a treatise has one and *only* one method<sup>86</sup>.

83. BENJAMIN, W., "Berlin Childhood around 1900" (Final Version), in: *Selected Writings*, General Editor Michael W. Jennings, Editorial Board Markus Bullock, Howard Eiland, Gary Smith, vol. 3 1935-1938, ed. Howard Eiland and Michael W. Jennings, trans. Edmund Jephcott, Howard Eiland and others, Cambridge, Massachusetts and London, The Belknap Press of Harvard University Press, 2002, pp.352-353.

84. The "Arcades", too, are threshold experiences stabilised as architectural forms within an urban context.

85. How different this is from the negligence and even contempt with which these concepts are handled in "The Author as Producer", where his lack of adjustment to the materialistic thought concerning aesthetics is nevertheless quite obvious. And so, even in that text Benjamin's understanding intelligence does not completely renounce truth.

86. Cfr. BENJAMIN, W., *The Arcades Project*, ed. cit, [N9, 2]

In the above passage we come across, on the one hand, a new variation on “method is a digression”, given that those who focus on an object renounce all rules that precede or are not part of the process of their search for it<sup>87</sup>. And, on the other, we observe a return to the prose form that is appropriate to the philosophy of art, namely the treatise. It is not a matter, evidently, of falling into the false dilemma of wondering whether it is form that yields content or vice versa, but of admitting that works of art generate the magical workshop out of which they themselves emerge, forcing whoever wishes to understand them to follow whatever they find most desirable (in the Goethean sense): “The most desirable would be [...] that the language needed to describe the details of a particular circle, could be drawn from the circle itself [...]”<sup>88</sup>. Once again, we find such Benjaminian motifs as the dispersion of the empirical as elements, the overcoming of the conscious plane, intentionality, and the critique on the mythology of the subject/object relationship: “Each act of vision [*Ansehen*] becomes contemplation [*Betrachten*], each act of contemplation becomes an act of meditation [*Sinnen*], each act of meditation becomes an act of connection [*Verknüpfen*], so much so that we can say that, with each careful gaze, we are already theorising about the world”<sup>89</sup>.

The careful gaze integrates a series of metamorphoses that trigger a crescendo in terms of receptivity, fertility, precision and abundance: vision turns into connection, traversing contemplation and meditation. All this, adds Goethe, takes place in a sphere of awareness, self-knowledge, freedom and irony.

Once again, it should be stressed that this has nothing to do with the empirical, which has become, with the help of the concept, a scientific construct that has solidified as a theory of progress whose petrified apogee is known as Positivism. On the contrary, the careful gaze demands that “the observer must remain as malleable as the organs he sees seem malleable to him”<sup>90</sup>. It is here that we find the “new objects call for the development of new methods” motif.

## 16. SELF-PRESENTATION AND MONTAGE

As a matter of fact, it should be stressed that in *Das Passagen-Werk* Benjamin continues to discuss the form of the treatise. Indeed, he goes a step

87. It is worth noting that in these final writings Benjamin has dropped the opposition between scientific knowledge and philosophy, perhaps out of obedience to science in the Goethean sense, perhaps to adapt himself to the theses of historic materialism.

88. GOETHE, J.W., *Die Farbenlehre*, in: *HA*, ed. cit., vol. 13, §755, p.107.

89. GOETHE, J.W., *Die Farbenlehre*, Preface, in: *HA*, ed. cit., vol. 13, p.317.

90. “Einzelnes”, *LA*, I, p. 90.

further than he did in his *Trauerpsiel* book and takes that discussion to the brink of no return, deepening the “method is a digression” concept. There is a growing conceptual simplicity, closely connected to a proven discipline, namely, the art of quoting without using inverted commas, a suspension of authorship that resorts to an editing technique: a construction of collected and organised facts that entirely does away with theory. “This work has to develop to the highest degree the art of citing without quotation marks. Its theory is intimately related to that of montage”<sup>91</sup>.

Benjamin has nothing to tell, only to show. His guide is still Goethe, as explicitly stated, regarding the fundamental formula of what is at issue: “Formula: construction out of facts. Construction with the complete elimination of theory. What only Goethe in his morphological writings has attempted”<sup>92</sup>. This means that facts are already the theory, and should not be mistaken for the lazy belief that “facts speak for themselves”: “The highest thing would be to understand that everything factual is already theory. The blue of the sky reveals to us the fundamental law of chromatics. One should never search for anything behind the phenomena: they themselves are the theory”<sup>93</sup>.

The above text should be combined with § 228 in the *Theory of colours* in order to grasp the concept of “primitive fact”, which Benjamin associates with the concepts of origin and of dialectic image, and has nothing to do with the empirical of the scientific knowledge, but instead with an underlying coincidence between *ordo de facto* and *ordo de jure*:

[...] when confronted with nature’s manifestations, one needs to perform an act of looking around [*umhersehen*], at the point in which something similar, something akin appears, because only through the reunion of what is akin can occur the slow emergence of a totality that expresses itself and needs no ulterior explanation”<sup>94</sup>.

This Goethean “looking around” will make it possible to revisit motifs already addressed in the “Prologue” to *Origin*. To look around implies a movement of the whole body, fulfils its sagittal alignments and promotes the exercise of contemplation as the power to discover connections until a constellation is formed; in other words, until a comprehensive configuration of reality is drawn out of its core. The look around retains the good resemblance, that is to say, the one that leads to the reunion of the akin (affinity,

91. BENJAMIN, W., *The Arcades Project*, ed. cit, [N1, 10].

92. *Ibid.*, [O°, 73].

93. GOETHE, J.W., *HA*, ed. cit., vol. 12, *Maxim* 488, p. 432.

94. GOETHE, J.W., *Die Farbenlehre*, in: *HA*, ed. cit., vol. 13, §228, p.108.

not contiguity; the magnetic connection is the most powerful affinitive relation), with a view to attain a self-expressive totality, free from any causal explanatory illusion. The fact that method is a digression, interpreted here as a variation on the threshold, has to do with the morphological demands of doing justice to what one observes, by choosing from the realm of what is being observed the elements that allow one to understand it. Benjamin left his fingerprints on the ancient vase Goethe gave him: he wants to disclose, not the growth of plants or the laws of chromatic energy, but the traces of human life, dignifying them in the only possible way: by using them, that is to say, quoting them. “Method of this project: literary montage. I needn’t *say* anything. Merely show. I shall purloin no valuables, appropriate no ingenious formulations. But the rags, the refuse – these I will not inventory but allow, in the only way possible, to come into their own: by making use of them”<sup>95</sup>.

## 17. MAGNETIC NEEDLE AND DANGEROUS HEIGHTS

Let us linger upon the images relating to journey and movement (particularly, climbing up a mountain) –and on the extremely frequent use of images of attraction: the magnetic element– which convey an experience of coming out of one’s self (in Goethe’s mind the magnet itself is the *in nuce* presentation of the original phenomenon<sup>96</sup>). The image of the compass, the quivering of the magnetic needle as it searches for the magnetic north, possesses a primordial value in terms of communicating what happens with those who absorb themselves into study, into contemplative ecstasy.

Comparison of other people’s attempts to the undertaking of a sea voyage in which the ships are drawn off course by the magnetic North Pole. Discover *this* North Pole. What for others are deviations are, for me, the data which determine my course. –On the differentials of time (which, for others, disturb the main lines of the inquiry), I base my reckoning<sup>97</sup>.

What matters is finding the magnetic pole and incorporating the deviations, the digressions. “[T]he philosopher [...] must be someone immune to vertigo –an independent and, if need be, solitary worker”<sup>98</sup>. The look around,

95. BENJAMIN, W., *The Arcades Project*, ed. cit, [N1a, 8].

96. GOETHE, J.W., *HA*, ed. cit., vol. 12, *Maxim* 19, p. 367.

97. BENJAMIN, W., *The Arcades Project*, ed. cit, [N1, 2].

98. *Ibid.*, [N 1a,1].

which is, as previously stated, a Goethean look, is suspended for fear of vertigo, a reticence that paradoxically allows one to train one's body against vertigo, for that reticence is a renunciation of premature happiness, preparing us for the happiness (which will come punctually with the catching of breath) that the landscape, finally seen in all its splendour, will inspire. To scale "dangerous heights", through risk and ascesis, in the joyous expectancy of subjection to plenitude.

How this work was written: rung by rung, according as chance would offer a narrow foothold, and always like someone who scales dangerous heights and never allows himself a moment to look around, for fear of becoming dizzy (but also because he would save for the end the full force of the panorama opening out to him)<sup>99</sup>.

## 18. FINALE

The true method of making things present is to represent them in our space (not to represent ourselves in their space). [...] The same method applies, in essence, to the consideration of great things from the past –the cathedral of Chartres, the temple of Paestum– when, that is, a favorable prospect presents itself: the method of receiving the things into our space. We don't displace our being into theirs; they step into our life<sup>100</sup>.

For the immortal stands like this obelisk (Place de la Concorde), regulating the spiritual traffic that surges thunderously about him –and the inscription he bears helps no one<sup>101</sup>.

In the second excerpt we find a dreadful, grotesque confirmation of the fact that if the thing does not enter our space, changing us, that is to say, if the thing is forced to serve the illusion that we have entered it, then the immortal, the undecipherable one, will fulfill a grotesque duty by reigning over an alien noise, in a shrewd form of glory. The Egyptian Obelisk at the Place de la Concorde is a deafening illustration of that.

If the oneiric state is the transformation inherent in that which has already passed, that which once was and no longer is, and if "[t]he dream waits secretly for the awakening", the awakening that frees it from death, then the false entrance into the temple of Paestum is a twisted control operation (composed of noxiously empathetic gestures) that keeps that awakening from taking place. If

99. *Ibid.*, [N2, 4].

100. *Ibid.*, [H2, 3].

101. BENJAMIN, W., "Paperweight", in: *One Way Street*, ed. cit., p. 462.



we are to fulfill its expectation of being awakened, the temple will have to enter our life; then, what we have been waiting for will flood us.

And that leads us to discover, in the first excerpt, another formulation—one of the most illuminating—concerning the issues of method in Benjamin and the multiple threshold experiences they imply, which sheds light on the metamorphosis undergone by those who open themselves to knowledge, a process that mixes, in quantities no one will ever be able to regulate, being initiated into life with doing justice to it. Hence our joy at the following Goethean words: “Every new object, properly contemplated, opens up a new organ in us”<sup>102</sup>.

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102. “Bedeutende Fördernis durch ein einziges geistreiches Wort”, GOETHE, J.W., *HA*, ed. cit., vol. 13, p. 38.

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ANTHROPOMORPHISM, COSMOMORPHISM,  
METAMORPHOSIS. BETWEEN IMAGES AND MEDIA  
ENVIRONMENT

*Antropomorfismo, Cosmomorfismo, Metamorfosis. Entre imágenes  
y medio ambiente*

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ABSTRACT

The study explores some of the phenomena of visual culture which contribute to reinforcing the anthropocentric paradigm through a mimesis of auto-referential forms; this is based mainly on certain typologies of anthropomorphism and on specific structures of the complex of identification-projection promoted by kinetic and audio-visual media.

*Key words:* Anthropomorphism; Cosmomorphism; Metamorphosis; Mimesis; Environment; Media Environment; Aesthetics; Morphology; Bio-techno-aesthetics; *Sensorium*.

RESUMEN

Este estudio explora algunos de los fenómenos de la cultura visual que contribuyen a reforzar el paradigma antropocéntrico a través de una mimesis de formas auto-referenciales. Esto se basa principalmente en ciertas tipologías del antropomorfismo y en estructuras específicas del complejo identificación-proyección, promovido por medios cinéticos y audiovisuales.

*Palabras clave:* Antropomorfismo; Cosmomorfismo; Metamorfosis; Mímesis; Ambiente; Medio Ambiente; Estética; Morfología; Bio-tecno-estética; *Sensorium*.

## 1. MIGRATION OF FORMS: FROM *TECHNE* TO *PHYSIS*

In the painting contest recounted by Pliny the Elder, Zeuxis was the loser because his painting of grapes deceived only the birds but not Parrhasius and also because in turn he was deceived by the apparent reality of the curtain produced by Parrhasius. Nowadays Zeuxis might again lose the contest, but this time it would be because he might mistake for virtual birds real ones, which, along with other biological and physical beings of the environment, by now appear to be, as it were, the likeness of those depicted in technological images. The illusion that Zeuxis would hypothetically experience today would derive from a culturally and historically determined visual thinking. By a sort of “image-return effect”, this induces things to be normally seen as naturally implicated with the depictions and simulations that man has made of them - for example, this is why, as we all know, Monument Valley is often observed and considered as a “morphologically cinematographic” landscape<sup>1</sup>. It may be that the illusion of our modern Zeuxis could depend above all on the fact that the intervention of technoscience has turned the concrete form of beings of the physical and biological world into the product, or rather the reproduction of ideal, abstract, imaginary forms that function not only as stereotypes, but also, you could say, as prototypes. By means of the direct material action of technoscience and also the immaterial indirect action of visual culture, and of an ever more incisive programming, the form of plants, animals and landscapes sometimes undergoes radical changes. They very frequently imitate the forms found in the media iconosphere, with such effects on the ecosystems as can be imagined if, like Gregory Bateson, you recall that all organisms continually turn to aesthetics, and, like Adolf Portman, that the phenomenal appearance of organic figures is connected to the complexity of their relationship with the context<sup>2</sup>. For example, much of the “genetic editing” that is performed

1. Cfr., among others, BAUDRILLARD, J., *Amérique*, Paris, Grasset 1986; BERTETTO, P., *Lo specchio e il simulacro. Il cinema nel mondo vero diventato favola*, Milano, Bompiani, 2007, pp. 112-127.

2. BATESON G., *Mind and Nature. A Necessary Unity*, New York, Hampton, 2002; ROSETTI, G., *Le radici estetiche dell'etica di Gregory Bateson*, Milano-Udine, Mimesis, 2008;

more and more on plants and animals is targeted with unprecedented precision to respond to demands that are related partly to hygiene and health and much more to market interests. This is a question of productivity, but also of the growing need to mould the forms of living beings or literally to conform them, on the basis of ideals that are very often presented in advertising or, more simply, fiction.<sup>3</sup> As is well known, the landscape, too, is ever more shaped to imitate ideal images circulating in the media. With greater or lesser awareness producers and consumers of things and images choose –and thus with time contribute to molding or actually *standardizing*– the forms of vegetables, animals and landscapes, on the basis of those shown in the spheres of advertising, fiction, videogames and, in general, the heterogeneous environment of the image and imagination.

In the era of images of the world and their ever more auto-referential technical reproducibility, the question of mimesis now concerns both the relationship of the image with its real referent and the opposite relationship, namely that of the real referent with the image. This relationship now involves not only man –with deep cerebral roots illustrated by neuroscience– but also aspects of the environment, through the power of *techne* over *physis*, which is first exercised in the immateriality of imagery and then in actual material, also by visual culture and related technological devices. It primarily concerns the depiction and simulation of the forms in the media. In this sense, visual culture may be considered to be one of the factors of the disjunctive cultural paradigm of European origins, which during the Anthropocene has intensified, accelerated and extended man’s intervention on the cosmos. It is revealed symptomatically in the unprecedented quantity and

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TIEZZI E., *La bellezza e la scienza*, Milano, Cortina, 1998; MANGHI S., (eds.), *Attraverso Bateson. Ecologia della mente e relazioni sociali*, Milano, Cortina, 1998; PORTMAN, A., *Animals Form and Pattern. A Study of the Appearance of Animals*, New York, Schocken, 1967; BECKLEY, B./SHAPIRO, D. (eds.), *Uncontrollable Beauty. Toward a New Aesthetics*, New York, Allworth 1998.

3. The “editing of the genome” is done by manipulations of the DNA carried out with the CRISPR-Cas9 genetic technology, discovered in the USA and now widely used all over the world. In Europe, for example, the question has arisen of the link between these interventions and the legislation of the European Union on the standardization of plant shapes –dimensions, curving, caliber, position and number of morphological details such as veining, navels, etc. On CRISPR technology cfr. REANDON S., “Welcome to the CRIPR zoo. Birds and bees are just the beginning for a burgeoning technology”, *Nature*, 531 (2016), pp. 160-163; KUZMA, J., “Policy: Reboot the debate on genetic engineering”, *Nature*, 531 (2016), pp. 165-167; TRAVIS, J., “Making the cut. CRIPR genome-editing technology shows its power”, *Science*, 350 (2015), pp. 1456-1457.

quality of the changes of physical and biological forms, also induced on the basis of cultural abstractions<sup>4</sup>.

New conceptual paradigms thus become necessary in the sphere not only of bioethics or biopolitics, but also of a prospective bio-anthropological reflection, which could be defined bio-techno-aesthetics, on the basis of studies focused on cultural techniques, anthropology of the media, anthropology and aesthetics of images<sup>5</sup>.

Mimesis is, in the broad sense, a process determined by man, a bidirectional and reciprocal “migration” of forms from *techné* to *physis* and vice versa, or from the iconosphere to the biosphere and vice versa. As such, it may be taken as one of the key factors of culture/nature and man/cosmos relationships and may thus be considered with the wide-ranging effects of its visible and even invisible consequences<sup>6</sup>.

## 2. MEDIA ENVIRONMENT, MILIEU ASSOCIÉ AND SENSORIUM

From Goethe’s *Bildung* to Mach’s *Gestalt*, from Spengler’s cultural and historic morphogenesis to Warburg’s *Pathosformel*, from Wittgenstein’s *Lebensform* and family resemblances to Husserl’s phenomenology and Cassirer’s philosophy of symbolic forms, it has gradually emerged that the characteristic of form consists not only in the manifestation of a structure, a function

4. On the relationship between complexity and ecology as adopted here cfr. MORIN, E./KERNE, A.B., *Terre-Patrie*, Paris, Seuil, 1993; MORIN, E., *La Voie pur l’avenire de l’humanité*, Paris, Fayard, 2011; CERUTI, M., *La fine dell’onniscienza*, Roma, Studium, 2014; CERUTI, M., *Il vincolo e la possibilità*, Milano, Cortina, 2009; CERUTI, M./BOCCHI, G., *Origini di storie*, Milano Feltrinelli, 2009; MANGHI, S., *Il soggetto ecologico di Edgar Morin, Verso una società-mondo*, Gardolo, Erickson, 2009.

5. SIMONDON, G., *Du mode d’existence des objets techniques*, Paris Aubier, 2012; SIMONDON, G., *Sur la technique*, Paris, PUF, 2014; BELTING, H., *An Anthropology of Images: Picture, Medium, Body*, Princeton, Princeton University Press, 2011; MONTANI, P., *Bioestetica. Senso comune, tecnica e arte nell’età della globalizzazione*, Roma, Carocci, 2007; MONTANI, P., *L’immaginazione intermediale. Per illustrare, rfigurare, testimoniare il mondo visibile*, Roma-Bari, Laterza, 2010; MONTANI, P., *Tecnologie della sensibilità. Estetica e immaginazione interattiva*, Milano, Cortina, 2014; MONTANI, P., “Nuovi compiti per la teoria del cinema”, *Fata Morgana*, 26 (2015) pp. 23-38; SIEGERT, B., *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real*, New York, Fordham University Press, 2015.

6. For a reformulation of the relationship between form, nature and history cfr. CERUTI, M., *La fine dell’onniscienza*, ed. cit., in part. pp. 89-116; CERUTI, M., *Evoluzione senza fondamenti*, Roma-Bari, Laterza 1995.

or a process, but additionally and primarily in the soliciting of the sensibility given by all the aspects of its configuration. It is no coincidence that the overcoming of a certain tradition of scientism has led to the reconsideration of form and the recovery of morphology with a growing interest in aesthetics in its original sense of the study of the faculty of feeling. This is related to the crisis and the regeneration of knowledge in recent decades, with its deep environmental, social, cultural, ethical and political implications<sup>7</sup>. It may be remembered, *en passant*, how questions of morphology now underlie the reflection on cultural forms, on the anthropization of the environment, and, starting from Foucault and Hannah Arendt, on biopolitics.

This theoretical and epistemological background may also include the breakthrough in human sciences and natural sciences following the iconic turn or pictorial turn of studies dedicated to visual culture. While studies on intermediality, transmediality and remediation did not refer specifically to the morphological sphere, they drew on the notions of *Pathosformel* and *Bilderwanderung* introduced by Aby Warburg. Particularly after the work of Jacques Aumont and Raymond Bellour, they concentrated on the migration from one medium to another of the forms of vision, composition, figurative dynamism, *mise en scène*, etc<sup>8</sup>. Even more than happened with the theories of *figural* first appearing in Jean-François Lyotard's *Discours, figure* and then becoming widely known with Nicole Brenez, Philippe Dubois, Luc Vancheri and Jacques Aumont,<sup>9</sup> the question of morphology has been able to evolve thanks to the assertion of notions such as media environment and mediascape. As a whole, it could be maintained that it has turned out to be a question of morphogenesis and metamorphosis of a cultural ecosystem.

7. VERCELLONE, F., *Le ragioni della forma*, Milano-Udine, Mimesis 2011; D'ANGELO, P., *Eстетica della natura*, Roma-Bari, Laterza, 2015.

8. Cfr., among others, AUMONT, J., "Migrations", *Cinémathèque*, 7 (1995); AUMONT, J., *A quoi pensent les films?*, Paris, Séguier, 1996; AUMONT, J., *Matière d'images, redux*, Paris, La Différence, 2009; BELLOUR, R., *L'Entre-images. Photo, Cinéma, Vidéo*, Paris, La Différence, 1990; BELLOUR, R., *L'Entre-images 2. Mots, Images*, Paris, POL, 1999; BELLOUR, R., *La Querelle des dispositifs: cinéma, installations, expositions*, Paris, POL, 2012; SENALDI, M., *Doppio sguardo. Cinema e arte contemporanea*, Milano, Bompiani, 2008.

9. LYOTARD, J.-F., *Discours, figure*, Paris, Klincksieck 2013; BRENEZ, N., *De la figure en général et du corps en particulier. L'invention figurative au cinéma*, Paris, De Boeck, 1998; DUBOIS, PH., "La question du figural", in: MURCIA, C./TAMINIAUX, P. (eds.), *Cinéma, Art(s) plastique(s)*, Paris, L'Harmattan, 2004, pp. 51-76; VANCHERI, L., *Les pensées figurales de l'image*, Paris, Armand Colin, 2011; ACQUARELLI L., (eds.), *Au prisme du figural. Le sens des images entre forme et force*, Rennes, Presses Universitaires de Rennes, 2015.

Much of the reflection on cultural and aesthetic phenomena of late modernity, or we could say postmodernity, has with good reason concentrated on simulacra and simulation, which could be understood as different manifestations of an ever more autoreferential mimesis. It tends to *combine morphogenesis with an autopoietic metamorphosis* and to make a marked reduction in the multiplicity of forms and the creative potential of the very *mimesis* within the closed circle of serial, standardized and standardizing repetition. The substitution of the simulacrum for the real and the reciprocal cross-reference of forms on the one hand reveal the internal processes of the ecosystem of the media environment, but on the other they reveal the potential circular and closed characteristic of these processes. Iteration and reiteration fix the form in an increasingly limited number of variants, whose semantics is restricted within ever more precise and predictable boundaries of the abstract universe of interpretations of the world. The intensification and spread of this *uniforming* aesthetic tendency, which was born at the beginning of modernity<sup>10</sup>, could be interpreted as both consequences and causes of the development of the cultural paradigm of disjunction between man and the cosmos.

This transformation could be interpreted as the attainment of a certain “referential indifference threshold” of images and their forms, which is related with what Montani defines as an “misuse of technical power” granted to the container of the images, namely the medium, or more generally, the media environment<sup>11</sup>. A critical point of abstraction of forms compared to reality thus indicates the loss of awareness of interaction between sensibility and the environment, performed by technique and aesthetics in the medium. There emerges a prevalence of *techne* over *aisthesis* with a related imbalance if not actually a suspension of the complex inter-retro-action existing between the cultural sphere of the media and the natural one around it. The media environment gradually becomes an autonomous ecosystem independent of the earthly one, characterized by an increasingly “anaesthetic” praxis, if *aisthesis* is taken in its original sense, namely the faculty of linking man and the environment through feeling, perceiving and experiencing.

This gives great relevance and significance to the aesthetic conception of the medium as a “sensitive environment”, whose origin goes back to the term *metaxu* used by Aristotle in *De anima*, which was subsequently spread under the name of *Medium* by Averroes and then to Goethe, von Humboldt, Herder and others. It finally became a central notion to designate

10. BAUDRILLARD, J., *L'échange symbolique et la mort*, Paris, Gallimard, 1976.

11. DEWEY, J., *Art as experience*, New York, Penguin, 2005; MONTANI, P., *Tecnologie della sensibilità. Estetica e immaginazione interattiva*, ed. cit.



the techno-aesthetic environment where sensibility, technique and nature interact: that of *milieu associé* formulated by Gilbert Simondon, based on Leroi-Gourhan's idea of *milieu technique*<sup>12</sup>. The technological advance coming particularly from photography, cinema and other such apparatus had led Walter Benjamin –but also Moholy-Nagy, Bela Balász and others– to a reorganization of the medium of perception, that is the environment where the sensory experience happens. More recent reflections on the media environments –for example, by John Durham Peters, Peppino Ortoleva, Francesco Casetti<sup>13</sup>– place the relationship between the medium and the environment in a broad ecological sense, steering McLuhan's idea of the media as “extensions of man”<sup>14</sup> in a techno-aesthetic direction, that is towards an interpretation of sensibility as an agent able to mould the “medium”, in the sense of cultural and natural habitat. It could therefore be asserted that on the one hand, man's sensibility, along with his ways of relating with the environment, has been modified by the use of prostheses and technical devices much more than his other aptitudes, while, on the other hand, his very sensibility, by means of technology, has changed the environment, taken in the broad and not just human sense.

From this viewpoint, the conception of *sensorium*, which has its distant origins in Aristotle's notion of *aistheterion* and has been developed by Jacques Rancière to account for the transformations over time of the concept of sensory *milieu*, could be extended to include the physical and biological environment, as well as the human one. In this way, reflection on the “distribution

12. LEROI-GOURHAN, A., *Milieu et technique*, Paris, Albin, 1945-1973; SIMONDON, G., *Du mode d'existence des objets techniques*, Paris, Aubier, 2012; SIMONDON, G., *Sur la technique*, Paris, PUF 2014; PINOTTI, A./SOMAINI, A. (eds.), *Cultura visuale*, Torino, Einaudi, 2016, pp. 135-191; MONTANI, P., *Tecnologie della sensibilità. Estetica e immaginazione interattiva*, ed. cit.; ALLOA, E., “Metaxu. Figures de la médialité chez Aristote”, *Revue de Métaphysique et de Morale*, 62 (2009), pp. 247-262; SPITZER, L., “Milieu and Ambience. An essay in historical semantics”, *Philosophy and Phenomenological Research*, 1 (1942), pp. 1-42; COCCIA, E., *La trasparenza delle immagini. Averroè e l'averroismo*, Milano, Bruno Mondadori, 2005.

13. PETERS, J.-D., *The Marvelous clouds. Toward a Philosophy of Elemental Media*, Chicago-London, University Chicago Press, 2015; ORTOLEVA, P., *Il secolo dei media. Riti, abitudini, mitologie*, Milano, Il Saggiatore, 2009; ORTOLEVA, P., “You Tube, per esempio, o: Un approccio ecologico alla percezione del web”, in: DIODATO, R./SOMAINI, A. (eds.), *Estetica dei media e della comunicazione*, Bologna, Il Mulino, 2012, pp. 295-312; CASSETTI, F., *The Lumière Galaxy. Seven Key Words for The Cinema to Come*, New York, Columbia University Press, 2015; COCCIA, E., *La vita sensibile*, Bologna, Il Mulino, 2011.

14. McLUHAN, M./FIORE, Q., *The Medium is The Message*, New York, Penguin, 1967.

of the sensible” (*partage du sensible*) and on the related divisions and organizations of experience and its objects would concern not only the aesthetic and political but also the ethical and techno-scientific implications, thus with greater consequences going from society to the cosmos. In other words, what Rancière defines as “the system of a priori forms”<sup>15</sup> would determine “what can be experienced” and, we may add, the configuration of the forms themselves, as it would refer to a certain normativity in culture and imagery that influences techno-scientific and commercial operations.

The notion of *sensorium* in this broad sense may account for the reciprocal relationship between medium, *aisthesis* and *physis* and for the inter-retroaction existing between the media environment and the actual environment. More generally, this notion may refer to the complex dialogic where human sensibility places the ecosystem of the media and the earthly ecosystem. In other words, a wide conception of the *sensorium* would allow us to take a meta-standpoint on the exchange processes –primarily the migration of forms– between the two ecosystems, that is to observe both of them, in the bio-techno-aesthetic perspective, as if almost subsumed in a sort of cultural and natural meta-ecosystem.

As is well-known, our era witnesses unprecedented reciprocity between real and imaginary experience, between *techne* and *physis*, both because the medium is ever more immersed in the environment, as it has become a sort of built-in device (think of the great variety of wearable technology, above all Google Glass) and because it is ever more immersive (think of Leap Motion) and is presented as a “simulative environment”. This is particularly true where, even under the appearance of interactivity, it is not just a mere program for autoreferential and “anaesthetic” sensorial performances. The medium has therefore triggered an unprecedented dialogic between the “here” and the “elsewhere”, by means of which not only does the “here” reach out to the “elsewhere”, but the “elsewhere” also reaches the “here”. This is accounted for by the neologism “hypertopia”, which Casetti coined from the concept of heterotopia formulated by Foucault<sup>16</sup>. It could therefore be asserted that the medium has determined and is increasingly determining an interpenetration between “here” and “elsewhere”, thus activating a liminal experience and sensibility between the two environments. If

15. RANCIÈRE, J., *Le Partage du sensible. Esthétique et politique*, Paris, La Fabrique, 2000, pp. 13-14. Cfr. DE GAETANO R. (eds.), *Politica delle immagini. Su Jacques Rancière*, Cosenza, Pellegrini, 2011.

16. CASETTI, F., *The Lumière Galaxy*, ed. cit., pp. 224-227; FOUCAULT, M., “Des espaces autres”, *Architecture, Mouvement, Continuité*, 5 (1984) pp. 46-49; SOMAINI, A. (eds.), *Il luogo dello spettatore*, Milano, V&P, 2005.

you consider these in the just mentioned perspective of extended *sensorium*, they, in turn, generate an environmental crossbreeding or in other words a unidual environment.

In the context of such crossbreeding, bio-techno-aesthetic surveillance may be exercised on two opposing tendencies of the medium: the one that increases the autoreferentiality of the *aisthesis* and its forms and as said before, indirectly conditions the operations on the beings of the environment; and the one that interacts with the physical and biological variability and multi-faceted variety, retaining the explorative and adaptive function of sensibility to the environment itself.

This surveillance, first of all, may consist not only in cataloguing the products of the two opposing tendencies of the medium which appear as migrant forms, but rather in examining some principles underlying the morphogenetic processes. Within the technologically produced image, these may favor a creative mimesis founded on complementary man/cosmos reciprocity: the anthropomorphism of the cosmos and the cosmomorphism of man.

### 3. THE ANTHROPOS/KOSMOS TRANSFER AND MORPHOGENETIC MIMESIS

Behind the processes of morphogenesis of the technological image that are here considered is the use of some aptitudes of mimetic thought, or, in the terms proposed by Edgar Morin, of the analogical, symbolic and mythological thought that governs comprehension<sup>17</sup>.

In the present speculative framework, this refers both to the author and to the observer of the image; it is considered as a way of knowing, recalling the notions of *Verstehen* and *Einfühlung*, originally studied in the contexts of German historicism, Husserlian phenomenology and hermeneutics. The concept of comprehension used here, however, does not only concern the empathic/imaginative simulation used by human beings to obtain theoretical and practical inferences on the other –as traditionally happened and still happens in the studies carried out by Dilthey, Simmel, Wittgenstein, Collingwood onwards.

17. MORIN, E., *La Méthode 3. La Connaissance de la Connaissance*, Paris, Seuil, 2008; MORIN, E., *Le cinéma ou l'homme imaginaire*, Paris, Minit, 2013. As regards the relationship between Edgar Morin's complex thought and the aesthetic of the kinetic audiovisual medium, I may refer the reader to some of my previous works: SIMONIGH, C., *Comprendere il cinema, comprendere la complessità*, in: MORIN, E., *Il cinema o l'uomo immaginario*, Milano, Cortina, 2016, pp. IX-XXI; SIMONIGH, C., *Su alcuni principi dell'estetica complessa*, in SIMONIGH, C., (ed.), *Pensare la complessità per un umanesimo planetario*, Milano-Udine, Mimesis, 2012, pp. 155-180.

It is rather understood *in extenso* as the original epistemic modality used by man in subjectively and not objectively relating with and knowing the cosmos and its beings. Starting from the studies of Vischer or Lipps or Wölfflin on the anthropomorphically experienced perception of objects or from Worringer's reflections on empathy and abstraction (beyond specific outcomes like the various theories of "pure visibility" or "form"), some aesthetic texts are based, as is known, on the ideas of "symbolic sympathy" and "identification with the natural and abstract forms".

While interacting with the forms of the technologically produced dynamic image, the mimetic thought is continually urged to use psychological identifications and projections which, following Edgar Morin, could be defined as *polymorphous*, in that they affect not only human beings but also beings of the biological and physical environment, accomplishing a transfer between man and cosmos<sup>18</sup>. In this theoretical perspective, the dynamic audiovisual image is adopted as a complex system of iconic and sound kinetic forms, which, alone or in reciprocal relationships between each other, evolve in time and space and interact with sensibility and thought. Indeed the typical dynamism of the audiovisual medium performs the semantic-aesthetic function, as it produces an incessant metamorphosis of forms, their functions, their status and their meaning –in Walter Benjamin's words: "A different nature speaks to the camera than speaks to the eye".

The metamorphic and morphogenetic *dynamis* of the audiovisual medium makes a fluid and reciprocal translation between the physical universe and that of the imagination, as it begins to interact with the aptitude peculiar to analogical, symbolic, mythological thought to establish an uniduality between the domains of perception and thought, empirics and abstraction, phenomenal and symbolic<sup>19</sup>.

This fundamental techno-aesthetic phenomenon of interaction created by the medium between *aisthesis* and *physis* and between man and cosmos embraces one of the anthropo-socio-cosmological presuppositions of the notion of *sensorium*, which, as said before, implies the inter-retro-action and crossbreeding between the cultural and natural environment.

The transfer between man and cosmos takes place by virtue of the mimesis inherent in the identification/projection complex whether by concealing the environment and its beings and its manifestations of human qualities or instead by taking man as part of the environment through a mimetic and

18. MORIN, E. *Le cinéma ou l'homme imaginaire*, ed. cit.

19. GIBSON, J.J., *The ecological approach to visual perception*, Boston, Houghton Mifflin, 1979.

symbolic mediation between the visible and the invisible. In the audiovisual medium, this acquires innovative forms like those vast forms already identified by Erwin Panofski under the terms of “dynamization of space” and “spatialization of time”<sup>20</sup>.

In the kinetic medium even before the audiovisual, that is first with silent films and then with sound films, the *anthropos/kosmos* transfer is known to have entailed a metamorphosis of real time in subjective, interior, psychological duration. This has displayed –analogically, symbolically and mythologically– the complexity of experience and of human knowledge, as Gilles Deleuze, for example, has widely illustrated, introducing notions such as “movement-image” and “time-image” especially to designate forms of time. The temporal forms of acceleration, slowing down, suspension, iterations, simultaneity, etc. first emerged with editing –think, for example, of the contribution of Russian Formalism in this sphere– and then developed with sound. They helped to establish an aesthetic founded on the innovative anthropomorphization of time, which expressed a late-modern sensibility mainly oriented to the experience of a rapid succession of more or less unrelated present moments. Much less common was the cosmomorphization of the time of the dynamic image so as to account symbolically for the irreversible, uniform and unrepeatable nature of the real chronological flow and the constant duration and cyclicity of natural time.

The kinetic and audiovisual medium has developed the *anthropos/kosmos* transfer, especially by taking up analogically, symbolically and mythologically the space and the beings inhabiting it. The cinema, progenitor of subsequent kinetic and audiovisual media, already developed the processes of identification and projection towards the environment. From the start it introduced an original dynamic *Stimmung* of the landscape, which was considered a “symbolic form” or, in Ejzenštejn’s anti-Hegelian terms, a “nature not indifferent to man”. This made it a *dramatis personae* and therefore, according to Balász and Bazin, an agent of dramatization and dramaturgy within a type of show with a totally original aesthetic<sup>21</sup>. The relationship of identification and projection has had a more intense effect on the biological and physical beings of the environment. Thanks to the metamorphic potentiality of the kinetic and audiovisual medium, they brought about –according

20. PANOFSKY, E., *Three Essays on Style*, Cambridge-Massachusetts, Mit Press, 1997; PANOFSKY, E., *Meaning in the Visual Arts*, London, Penguin, 1996.

21. EJZENŠTEJN, S.M., *Neravnodušnaja priroda*, Moscow, Iskusstvo, 1964; BERNARDI, S., *Il paesaggio come forma simbolica*, Venezia, Marsilio, 2002; DUBBINI, R., *Geografie dello sguardo*, Torino, Einaudi, 1994.

to Edgar Morin— a sort of neo-animism, potentially capable of turning the culture of the media into a “culture of the soul”<sup>22</sup>. In effect, time and especially space are interpreted and understood by virtue of an aesthetic reworking of the hologramatic relationship between the human microcosm and the macrocosm. This happens both with the symbolic metamorphosis peculiar to fiction and with the “revelation” given by realism—to use the terminology introduced by André Bazin— as well as with the “revelatory transfiguration” deriving from the first two, which is less and less noticed across the genres, registers, styles and formats of the media environment.

The forms of the beings of the environment, subjected by the kinetic and audiovisual medium to the metamorphosis of close-up and editing, are gathered in their reciprocal similarities and differences and are prepared to the multiple manifestations of the analogical, symbolic and mythological (synecdoche, metonymy, simile, etc.), in other words to the translation from the phenomenal to abstraction, from visible to invisible, from feelable to thinkable.

The *anthropos/kosmos* transfer is activated particularly by the close-up, since it obliges the sensibility to use specific perceptive and interpretative parameters that involve both the assignment of the observer’s sense to beings of the environment and the revelation or rediscovery of their appearances and forms; their meaning and their status appear autonomous and independent of the ordinary, and more generally speaking, of the observer himself. In other words, if equilibrium is oriented towards projection in the identification/projection relationship, then a marked anthropomorphization of the cosmos and its aspects prevails, with a *mimesis* that tends more towards the attribution of human qualities, aptitudes and characteristics and is therefore less suited to stimulate the explorative and adaptive function of sensibility to the environment. If, on the other hand, the identification/projection relationship is oriented towards identification, the resulting anthropomorphization of the cosmos and its beings is related to a *mimesis* that is more open to otherness and its most unpredictable manifestations, including the variability of forms. This gives the kinetic and audiovisual medium the possibility, as already noted by Walter Benjamin, of “highlighting entirely new structural formations of matter”<sup>23</sup>.

22. MORIN E., *L’esprit du temps. Névrose. Essai sur la culture de masse*, Paris, Grasset, 2008; MORIN E., *L’esprit du temps. Névrose*, Paris, Grasset, 2008.

23. BENJAMIN, W., *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit*, in: *Gesammelte Schriften*, ed. R. Tiedemann /H. Schweppenhäuser, vol. II, Frankfurt am Main, Suhrkamp, 1955.

Naturally, the differentiation that has been referred to is neither clear-cut nor absolute, since it concerns a relationship, that of identification/projection, which has rightly been defined with the word “complex” to indicate the reciprocity and dialogic that exist between the two terms.

More or less independently from the equilibrium between identification and projection on which anthropomorphization is based, mimesis may be anthropocentric, that is directed at an observation of biological and physical beings of the environment as objects and so, as such, subordinate or functional to man; or it may be cosmocentric, that is directed at recognizing beings of the environment in their otherness and also in their subjectivity, therefore considering man as a subject among subjects. The examples of anthropocentric mimesis are very numerous in past and current media culture, in that they are the expression of the dominant cultural paradigm, through which first the West and then the whole globalized world have related and still relate to the environment to make use of it, and, even before, to get to know it, with positive and negative implications. Beyond the examples of the more immediate anthropomorphism that leads to the personification of biological and physical beings and that is found all across the genres, registers and formats of the media environment, it is useful to note how the already mentioned important notion of “not indifferent nature” is very often expressed in the artistic praxis of its originator, Ejzenštejn, through an anthropocentric mimesis. This, for example, happens in Vakulinčuk’s famous funeral scene in *Bronenosec Potëmkin*, where the symphony of the mist in the port of Odessa composes forms aimed at “clothing the sea in mourning”<sup>24</sup>. The same is also true of the symbolic forms produced by different types of editing devised by the director in the course of his aesthetic research and artistic production, where animals and natural elements are commonly used as analogies with human beings. Early 20th century research –including German Expressionism, Soviet Realism, the first formalization of genres in US cinema– gave rise to a vast range of anthropocentric symbolic forms which were one of the foundations of the aesthetics of the kinetic and audiovisual medium. Drawing on the linguistic-literary heritage, they introduced the use of the “universe as a dictionary” –to take an expression from avant garde cinema– according to a relationship marked by the *resonance* emanating from man towards the environment and its physical and biological beings. Some atmospheric, landscape, plant and animal forms have been acquired analogically and symbolically as elements of a sort of catalogue of archetypes and stereotypes designed to express in immediate audiovisual forms some more

24. EJZENŠTEJN, S.M., *Neravnodušnaja priroda*, Moscov, Iskusstvo, 1964.

easily codifiable human manifestations, such as primary emotions and some fundamental sentiments –rain and sadness, dry leaves and sense of death, puppies and tenderness, wide open spaces and freedom, etc. Thanks to their immediacy and coherence with the dominant cultural paradigm of disjunction between man and cosmos, these audiovisual forms in particular have become rooted in the processes of circulation and serial iteration within the various genres and formats of the media environment. Through variations, manifestations, quotations, etc., over time they have helped to determine the increasingly closed and autonomous uniformity regarding the environment. Anthropocentric *mimesis*, in fact, is more easily connected to the medium's misuse of technical power, which has just been indicated as a factor of autoreferential morphogenesis that tends to coincide with an autopoietic metamorphosis. In serial repetition it reduces the possibility of grasping the multiplicity of forms in the environment and man's creative potential to a standardized and standardizing praxis.

Cosmocentric *mimesis*, on the other hand, is more easily connected to a use of the medium as an agent of interaction between the different components of the *sensorium* and thus fosters the explorative and adaptive function of sensibility, resulting in a metamorphosis and morphogenesis open to the variability and multiple physical and biological varieties of the environment. Through a use of the medium characterized by *aisthesis*, the *anthropos /kosmos* transfer may create an authentic reciprocity or a symbolic exchange between the two terms, which occurs according to a relationship characterized by *consonance*. Some of the most important aesthetic contributions from this standpoint are made by many screen artists who have wanted to share with the spectators the observation of the human being as a living form among other forms of the cosmos or as a subject-form among subject-forms, especially by means of a creative *mimesis* that relates more easily to symbolic exchange and exploration of the environment through the multiple, unpredictable and variable forms of its beings. This is a perspective that has been conspicuous since the birth of documentarism –naturalistic or not– and is still developing today in explorative and experimental terms in the wider field of non-fiction and also in the fake documentary, particularly in those cases where the question arises of man/cosmos reciprocity –the work of, among others, Errol Morris, Bill Viola, Nuridsany and Pérennou. The perspective of cosmocentric *mimesis* has also concerned the development of the imaginary since the first decades of the 20th century, when the explorations of Dadaism and Surrealism found analogies between human bodily forms and those of beings of the environment. In multiple manifestations of the symbolic, they expressed a reciprocal



relationship between man and cosmos –among other examples can be included the juxtapositions in Buñuel and Dalí's *Un chien andalou* of the eye and the razor blade with the moon and the thin cirrus clouds, or the roundish dark shape of armpit hair with that of the sea urchin. Historically it is known that Italian Neorealism and the French Nouvelle Vague programmatically explored the reciprocity between man and context, with the aim of using the kinetic and audiovisual medium as a factor of “revelation”, again to use André Bazin's terminology. We may recall, for example, how in the last sequence of Rossellini's *Paisà*, the partisans are shown as forms immersed in and almost blended with the vegetation at the mouth of the Po. The same is true of Antoine Doinel, when he goes into the wood in the last sequence of Truffaut's *Les quatre cents coups*.

Moreover, where the analogy is found between dynamic forms, it may propose the thematization of reciprocity and complementarity between man and environment, fostering not only the consonance but also the *recognition* of a biological being that is first observed in its otherness as an *ego alter*, and then recognized as a similar subject and *alter ego*. This is what happens, for example, between the child and the kestrel in Ken Loach's *Kes*, through the dynamic forms drawn by the body movements of the former on the meadow and the latter in the sky; or also in Luc Jacquet's *Le renard et l'enfant* with the child's behavioral forms gradually mirroring those of the fox.

There are naturally very numerous examples to be mentioned of the different types of formal analogies implying symbolic reciprocity between man and cosmos; these can derive from a use of the kinetic medium able to stimulate the explorative and adaptive function of *aisthesis* towards the environment.

In general, it could be noted that where the overcoming of the figure/background and of the observer/picture relationships is related to the experimentation of the multiple possibilities of exploring the environment typical of kinetic and audiovisual media, there is a proportional increase in the possibility that the experience becomes authentically immersive and reveals a multiplicity of unforeseen and changeable physical and biological forms. The interaction between media environment and environment could be fostered by the aesthetic revelation of plastic (Ejzenstejn) and tactile (Benjamin) dynamic qualities of the kinetic and audiovisual media –from dolly to depth of field, from zoom to stereoscopy, from 3D to enhanced reality, to wearable technology, to simulated environments, etc. This could result in a morphogenesis and a metamorphosis that are more open to natural uncertainty, and equally in a more creative visual aesthetic and culture, more consonant with a biotechno-aesthetic perspective.

The ecological look may perhaps be opened when traveling not only along the way of rational knowledge and thought, but also the way of sensory exploration and aesthetic amazement –*aisthesis* goes back to the Homeric *aiou*, *aisthou*, meaning “I perceive”, but also “my breath is taken away, I can’t breathe”– in order to move culture towards a bioanthropological paradigm and an authentic reciprocity between man and cosmos.

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NO SE SABE LO QUE PUEDE EL DOLOR. SOBRE  
LA EXPERIENCIA DEL MIEMBRO-FANTASMA  
EN MERLEAU-PONTY<sup>1</sup>

*We never know what pain is able to do. On Merleau-Ponty's analysis  
of the phantom-limb experience*

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RESUMEN

Asumiendo como punto de partida el caso insólito del dolor fantasma que experimenta, por ejemplo, el amputado, y tomando como eje orientador para el análisis los instrumentos teóricos del horizonte fenomenológico de M. Merleau-Ponty, este artículo investiga la naturaleza o modo de ser complejos de nuestra corporeidad. En tal contexto, se argumentará que el caso de la experiencia del miembro-fantasma permite alcanzar una perspectiva precisa del modo de ser del cuerpo como estructuralmente fantasmagórico.

*Palabras clave:* Miembro-fantasma, cuerpo habitual, memoria del cuerpo, contención.

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## ABSTRACT

Beginning with the uncanny case of phantom pain, as it is experienced, for example, by the amputee, and taking in consideration M. Merleau-Ponty's phenomenological descriptions and inputs on the subject, in this paper we aim to meditate on the nature and way of being of our complex corporality. Our perspective will be developed along the phenomenological analysis of the phantom limb experience, as it allows us to sketch a precise and detailed approach to the phantasmagorical way of being of the body.

*Key words:* Phantom limb, habitual body, memory of the body, repression.

### 1. NO SE SABE LO QUE PUEDE EL DOLOR

En su proyecto de “autobiografía fenomenológica” de la experiencia del miembro-fantasma<sup>2</sup>, la fenomenóloga americana Vivian Sobchack, reflexiona atentamente sobre una extraña circunstancia que experimenta como amputada de una pierna, consecuencia de un cáncer en los tejidos blandos:

inicialmente la mayor parte de mi dolor estaba más relacionada con las sensaciones del postoperatorio de una cirugía invasiva que con la presencia disonante del “fantasma”. No obstante, ocasionalmente de hecho siento dolor como efecto posterior a mi amputación. El enigma aquí es el siguiente: no sentido ya ningún tipo de “miembro-fantasma”, no tengo ninguna idea de “dónde” se localiza el dolor [...]. El enigma es que no lo siento en mi cuerpo o como mi cuerpo – y, no obstante, lo siento [...]. Esto es, mi nueva imagen corporal (y tal vez mi nuevo mapa corporal), de nuevo completamente integrada “como un todo”, no tiene lugar para este dolor. Aunque “mío”, el dolor es completamente alienado hacia un lugar “fuera” de mi cuerpo vivido actual, hacia unas intermediaciones genéricas de mi lado izquierdo y de mi muñón izquierdo que no consigo definir. En suma, a pesar de que el dolor no está en ningún lado (de estar “por ahí”, sería, tal vez, la mejor expresión), lo siento siempre “aquí” como estando en algún lado “allí”<sup>3</sup>.

Este dolor, sentido *aquí* sin un lugar donde pueda ser localizado, sentido *ahora* cuando ya no debería estar presente, sentido “en ningún lugar” en los alrededores del cuerpo, a veces en una incierta franja de espacio, en una *tierra de nadie*... este dolor, podría decirse, tiene el “poder” de descubrir el

2. SOBCHACK, V., “Living a Phantom Limb: on the Phenomenology of Bodily Integrity”, *Body and Society*, vol. 16, n.º. 3 (2010), p. 52.

3. *Ibid.*, pp. 64-65.

fondo más polémico y bizarro de la *cronotopía* corporal. De hecho, diríase que el último enigma de un dolor vivido *aquí* pero “localizado” *por ahí*, parece obligar a un análisis renovado del “espacio infestado de dolor”<sup>4</sup>, del que habla Merleau-Ponty a propósito del dolor físico. Tal espacio, lejos de confundirse con las localizaciones explícitas y puntuales de sensaciones sobre un cuerpo físico expresamente cartografiado, es más bien cuestión de un cuerpo que, por un lado, se completa espacialmente como potencia dinámica que anexa por incorporación el espacio alrededor y, por otro lado, perdura temporalmente en cuanto disposición para dispersarse en la unidad –siempre alejada– del tiempo del mundo que puede completar su *sistema*.

Tales dolores del *cuerpo que me duele*<sup>5</sup> no se pueden concebir como una propiedad (de una lesión, por ejemplo), sino apenas como un evento: un evento que pertenece, justamente, a la naturaleza esencialmente dinámica y procesual del cuerpo. En este trabajo, intentaremos meditar sobre tal naturaleza o modo de ser del cuerpo, argumentando que el caso de la experiencia del miembro-fantasma, precisamente, nos ofrece al respecto una perspectiva de extraña sutileza. Lo que aquí interesa, entonces, es pensar un cuerpo (el “mío”) en su modo de ser estructuralmente fantasmagórico. Pero ¿qué significa esto exactamente?

## 2. EL CASO DEL MIEMBRO-FANTASMA

Debemos retornar al problema del miembro fantasma, que es simple en su formulación: se trata de saber cómo se puede tener la experiencia *en el presente* y como *real*, de una “parte” del cuerpo físicamente ausente. De acuerdo con Merleau-Ponty, podría decirse que las explicaciones tradicionales de este caso oscilan entre la tesis de una nostalgia psicológica más u menos voluntaria y la tesis según la cual el miembro-fantasma sería el simple efecto de procesos mecánicos “ciegos”<sup>6</sup>, accesibles a una cartográfica fisiológica en “tercera persona”. Según el filósofo francés, ambas respuestas son todavía inconsistentes: la primera por creer que la experiencia del miembro-fantasma es del orden del “yo pienso que...”<sup>7</sup>; la segunda porque, al trabajar con una concepción estrictamente objetiva de cuerpo, ignora la

4. MERLEAU-PONTY, M., *Phénoménologie de la perception*, París, Gallimard, 1945, p. 110.

5. SERRANO DE HARO, A., “Atención y dolor. Análisis fenomenológico”, en: AAVV, *Cuerpo Vivido*, Madrid, Encuentro, 2010, pp. 123-161.

6. MERLEAU-PONTY, M., *op. cit.*, p. 94.

7. *Ibid.*, p. 96.

dimensión vivida en función de la cual cualquier mecanismo fisiológico es siempre polarizado significativamente por una “dirección de la situación”<sup>8</sup>. No obstante, si “el miembro fantasma no es el simple efecto de una causalidad objetiva, ni de una *cogitatio*”<sup>9</sup>, no se podrá ciertamente ignorar que en él se entremezclan dados psicológicos y fisiológicos; todavía, y aquí se puede encontrar el punto central de la cuestión, hay que investigar el plano más profundo de la realidad de una experiencia tal, a la luz del cual, finalmente, puedan relacionarse de modo renovado y ya no como aporías, esas “dos series de condiciones”<sup>10</sup>. De hecho, siempre habrá que percibir, por ejemplo, en qué medida la actitud global de nuestra inherencia encarnada al mundo llega a necesitar, para concretarse, las condiciones psicofísicas específicas de un sistema muscular, de un sistema nervioso central o de un circuito sensoriomotor; y también siempre habrá que percibir cómo, al mismo tiempo, tales condiciones “materiales” solo cobran sentido –y, por tanto, se fundamentan– sobre un modo arcaico de ser-en-el-mundo ya siempre orientado (y medido) significativamente por más o menos concluyentes “polos de acción” interpelantes.

Según Merleau-Ponty, es evidente que, en relación a este fenómeno, también hay que “aprehender la humanidad ante todo como otra manera de ser cuerpo”<sup>11</sup> y aprehender el propio momento en que el cuerpo unas veces deviene propiamente corporal y mundano y otras se dirige por refracción a la existencia personal<sup>12</sup>.

En este contexto, la originalidad de Merleau-Ponty reside en señalar que el cuerpo *apropiado* íntegramente a mi estar en el mundo, el cuerpo que siento mío y distinto del cuerpo objetivo, no es sólo el espacio subjetivo de sensaciones corporales, sino también, fundamentalmente, “mi” experiencia pre-reflexiva global de ser en el mundo, en cuanto tal experiencia vivida es

8. *Ibid.*, p. 94: “En réalité les réflexes eux-mêmes ne sont jamais des processus aveugles: ils s’ajustent à un ‘sens’ de la situation, ils expriment notre orientation vers un ‘milieu de comportement’ tout autant que l’action du ‘milieu géographique’ sur nous”. Dicho de otro modo, la experiencia de la amputación no sería ni siquiera concebible fuera del cuerpo vivido, lo que obliga a reconocer que el amputado no es nunca, realmente, el juguete de una casualidad objetiva escondida en los procesos orgánicos.

9. *Ibid.*, p. 92.

10. *Ibid.*, p. 95.

11. MERLEAU-PONTY, M., *La Nature. Notes de cours du Collège de France*, Paris, Seuil, 1994, p. 269.

12. MERLEAU-PONTY, M., *Phénoménologie de la perception, op. cit.*, p. 104: “L’homme concrètement pris n’est pas un psychisme joint à un organisme, mais ce va-et-vient de l’existence qui tantôt se laisse être corporelle et tantôt se porte aux actes personnels”.



propriadamente corporeizada y caracterizada por un modo de *presencia* que es el del silencio, la desaparición, la ausencia que nos permite, sin interposiciones, *tener un mundo*. La forma de tal compromiso (motor) corresponde, arqueológicamente, a un modo de *co-rrespondencia* dinámica y orientada a un *medio de comportamiento* o *dirección interpelante de la situación*. Es decir, nunca interponiéndose entre el “yo” y las “cosas”, tal cuerpo es *vivido*; o sea, su modo de presencia no es explícito, correspondiendo a una forma de apagamiento tácito que “me” coloca siempre perceptivamente *en el mundo, enraizado en las cosas, y entendiéndome en relación con ellas*.

Hay, por tanto, un modo de ser del cuerpo (esa presencia silenciosa e integralmente *apropiada* al *ser-en-el-mundo*) que permanece –expresado en el vocabulario de los análisis precursores de Maine de Biran– *inintencionado* o fenomenológicamente escondido en cuanto objeto intencional. Ese es el sentido originario del cuerpo como mi “vehículo del ser-en-el-mundo”<sup>13</sup>: un cuerpo pre-personal, anónimo, que apenas *se* “percibe” *experienciándolo, percibiéndolo*, es decir, perteneciendo *por connivencia motora* al mundo. Lo que implica –y el apunte es importante– que, según Merleau-Ponty, el mundo nunca es, en su significado completo, la suma de estímulos desordenados, ni el dinamismo o motricidad del cuerpo son un conjunto de respuestas caóticas a estímulos más o menos aleatorios; en realidad, en una extraña e irreflexiva sincronización familiar, se establece entre el dinamismo esquemático del cuerpo y el dinamismo interpelante del mundo una especie de pacto por el que la arquitectura del cuerpo termina en una arquitectura del mundo, del mismo modo que la arquitectura del mundo se cumple en el sistema práctico (esquemático y sintetizador) del cuerpo<sup>14</sup>. El mundo “se percibe” primitivamente por pertenencia dinámica, por vocación corpórea vivida que “conoce” *praktognóticamente*<sup>15</sup> “polos de acción”, vividos como lo que completa el sistema del cuerpo. O sea, si el cuerpo, bajo el sujeto consciente, es algo como un “nudo de significaciones vivas” comparable a una obra de arte, lo es, nótese, solamente por razón de los poderes anónimos de una motricidad tácita que es, más bien, una intencionalidad originaria<sup>16</sup>. Tal “intencionalidad

13. *Ibid.*, p. 97.

14. SAINT AUBERT, E. de, “Espace et schéma corporel dans la philosophie de la chair de Merleau-Ponty”, en: A. BERTHOZ, A., ANDRIEU, B. (dir.), *Le corps en acte*, Presse Universitaire de Nancy, 2010, p. 126.

15. MERLEAU-PONTY, M., *Phénoménologie de la perception*, *op. cit.*, p. 164: “L’expérience motrice de notre corps n’est pas un cas particulier de connaissance ; elle nous fournit une manière d’accéder au monde et à l’objet, une ‘praktognosie’ qui doit être reconnue comme originale et peut-être comme originaire”.

16. *Ibid.*, p. 160.

motriz”<sup>17</sup>, de acuerdo con Merleau-Ponty, descubre el cuerpo como “otro sujeto por debajo de mí”, un “sujeto” para el que “hay un mundo antes de que yo estuviese allí y que marca en él mi lugar”<sup>18</sup>.

Ese cuerpo es ciertamente “mío”; pero no es “el cuerpo momentáneo que permanece como instrumento de mis elecciones personales y se fija sobre tal o cual mundo”<sup>19</sup>. Sus “poderes” son aquellos que derivan de un saber antiguo de mundo que se sedimenta por el hábito y se ejerce, sobre el panel de fondo de la permanencia garantizada por el “esquema corporal”<sup>20</sup>, como “sistema de ‘funciones’ anónimas que envuelven cualquier fijación particular en un proyecto general”<sup>21</sup>. Este punto es importante: si, como escribió Sobchak, “el dolor ‘mío’ es completamente alienado hacia un lugar “fuera” de mi “cuerpo vivido actual”, permanece todavía “dentro” de mi cuerpo *habitual*<sup>22</sup>.

Si son bien entendidos<sup>23</sup>, tales conceptos de hábito y esquema corporal se ordenan de un modo sorprendente: el “esquema corporal” permite pensar el cuerpo como un “horizonte latente”<sup>24</sup> de la experiencia *de mundo* que se encuentra en constante transformación tras el efecto del “hábito”. La originalidad de Merleau-Ponty se encuentra aquí en considerar que el hábito no soporta sólo el “lado subjetivo” de los esquemas y síntesis corporales –ya ampliamente estudiado por Husserl con el concepto de “habitus”–, sino igualmente un “lado objetivo” que implica y engloba todo un conjunto de “hechos habituales que van de los objetos usuales a las instituciones pasando por las costumbres”<sup>25</sup>. De este modo, el hábito del cuerpo es un hábito del espacio; es decir, el hábito es, al mismo tiempo, esquema corporal y *cotidianización* o *familiarización* del espacio (intersubjetivo) hecho por expansión (subversivo de las fronteras materiales del cuerpo), dilatación, incorporación práctica o anexión dinámica de objetos, lugares, costumbres o gestos “propuestos” por una cierta organización del mundo.

El hábito, tal como Merleau-Ponty lo entiende, es la “exigencia de un cierto espacio libre” que nos instala durablemente en los objetos, lugares y

17. *Ibid.*, p. 128.

18. *Ibid.*, p. 294.

19. *Ibid.*, p. 294.

20. *Ibid.*, p. 115 ss.

21. *Ibid.*, p. 294.

22. *Ibid.*, p. 103 : “C’est une vérité interne pour l’existence la plus intégrée de se donner un corps habituel”.

23. SAINT AUBERT, E. de, “Espace et schéma corporel dans la philosophie de la chair de Merleau-Ponty”, *op. cit.*, pp. 122-152.

24. MERLEAU-PONTY, M., *Phénoménologie de la perception*, *op. cit.*, p. 109.

25. BÉGOUT, B., *La découverte du quotidien*, Paris, Allia, 2005, p. 383.

situaciones; y todo esto a través de un movimiento extraño que los hace “participar en la voluminosidad del propio cuerpo”<sup>26</sup>. En este sentido, el hábito no está solo “en las manos”<sup>27</sup> sino también en el espacio y en los objetos manipulables. *Habituarnos* es, así, *habitar* lo que guarda y permite recuperar un aire de humanidad. No resultará, en este sentido, inoportuno avanzar que, del mismo modo que el hábito instala al conductor en su automóvil, al músico en su instrumento musical o a la *coquette en su sombrero*, el hábito ofrece al amputado, ya sea la posibilidad de dar vida al metal o a la madera de una prótesis<sup>28</sup> –como el ciego a su bastón<sup>29</sup>–, la permanencia de un miembro fantasma o, incluso, la persistencia de un dolor “aquí” sin lugar.

### 3. ¿UNA CORPOREIDAD FANTASMAGÓRICA?

El sentido del análisis merleau-pontyano del miembro-fantasma toma el camino –no cartesiano<sup>30</sup>– indicado por las posibilidades de esta extraña vocación persistente de anexión e incorporación del mundo, ejercida, por debajo del *cuerpo momentáneo que me fija en tal o tal mundo*, por el *cuerpo habitual*. Es bajo un “aspecto de generalidad y como ser impersonal”<sup>31</sup> –argumentará el filósofo francés– como puede descubrirse lo esencial de la experiencia del miembro-fantasma.

Más exactamente, tal experiencia parece esbozarse a partir de un “híbrido”<sup>32</sup> pre-personal entre lo “psicológico” y lo “fisiológico” y establecerse en una tensión o desacierto que, en el corazón de una corporeidad

26. MERLEAU-PONTY, M., *Phénoménologie de la perception*, *op. cit.*, p. 167.

27. *Ibid.*, p. 168

28. No es casualidad que Merleau-Ponty, al referirse al caso del miembro-fantasma, parezca a veces hablar de miembros protésicos. Recuérdese, por ejemplo, el momento en el que se refiere al impulso práctico del *ser-en-el-mundo* para decir que se trata de una “situación en abierto [...] que permite que los miembros sean sustituidos” y mantengan igual valor en virtud de las exigencias de una tarea motora cualquiera. MERLEAU-PONTY, M., *Phénoménologie de la perception*, *op. cit.*, p. 93. SOBCHACK, V., “Living a Phantom Limb”, *op. cit.*, p. 63.

29. MERLEAU-PONTY, M., *Phénoménologie de la perception*, *op. cit.*, p. 167.

30. *Ibid.*, p. 95: “C’est parce qu’il est une vue pré-objective que l’être au monde peut se distinguer de tout processus en troisième personne, de toute la modalité de la *res extensa*, comme de toute *cogitatio*, de toute connaissance en première personne –et qu’il pourra réaliser la jonction du ‘physique’ et du ‘physiologique’”.

31. *Ibid.*, p. 98.

32. TRIGG, D., *The Memory of Place. Phenomenology of the Uncanny*, Athens, Ohio, Ohio University Press, 2012, p. 15.

compleja, se revela entre la experiencia expresa del *cuerpo actual* y la vivencia anónima del *cuerpo habitual*. En el caso específico del miembro-fantasma, de hecho, todo indica que es decisiva la polémica entre la evidencia expresa de no poseer ya una “parte” del cuerpo (así como el acceso al mundo que le correspondía) y la certeza *vivida*, “independientemente de nuestros pensamientos voluntarios”<sup>33</sup>, de mantener en el presente, por causa del dinamismo motor del cuerpo habitual, la *misma* “consistencia de nuestro mundo”<sup>34</sup>. Todo sucede, por tanto, como si el dinamismo del cuerpo *no olvidase* nunca el repertorio (anónimamente aprendido *en un pasado vivido* y, por ello, conjugando una *memoria del cuerpo*) de los intercambios con el mundo y lo mantuviese presente para renovadas incorporaciones prácticas, incluso frente a la evidencia objetiva de la respectiva imposibilidad en el presente. O sea, el cuerpo habitual en el mismo momento que incorpora y anexa el espacio, consigue *mantener y recuperar* –como *el fiador* del cuerpo actual– el tiempo que se cree perdido.

Tal dimensión o tela cronotópica del cuerpo es soportada por el “arco intencional”<sup>35</sup> que, de acuerdo con Merleau-Ponty, nos permite describir el cuerpo como un “diafragma interior”<sup>36</sup> que retiene el pasado y lo proyecta constantemente al futuro. Es este arco intencional el que hace que “la unidad de los sentidos, la de los sentidos y la inteligencia, la de la sensibilidad y la motricidad”<sup>37</sup> se mantengan en torno a nuestro pasado, nuestro futuro, nuestro medio contextual humano, nuestra situación física, nuestra situación ideológica, nuestra situación moral o, mejor, lo que hace que estemos situados bajo esas relaciones. Aplicada a una fenomenología del miembro fantasma, tal noción es decisiva: el “sujeto normal, no necesita, para ponerse en camino, una percepción clara y articulada de su cuerpo; le basta tenerlo ‘a su disposición’ como una potencia indivisa”, pues tal “potencia” continuará proyectando *a nuestro alrededor el medio humano ya pasado* que era el nuestro antes de la amputación, haciendo así “adivinar la pierna fantasma vagamente implicada en él”<sup>38</sup>:

Tener un brazo fantasma es permanecer abierto a todas las acciones de las que apenas el brazo es capaz, es conservar el campo práctico que se tenía antes de la mutilación<sup>39</sup>.

33. MERLEAU-PONTY, M., *Phénoménologie de la perception*, op. cit., p. 95.

34. *Ibid.*, p. 95.

35. *Ibid.*, p. 158.

36. *Ibid.*, p. 95.

37. *Ibid.*, pp. 158 ; 153

38. *Ibid.*, p. 96.

39. *Ibid.*, p. 97.

El miembro-fantasma será, por tanto, una “presencia ambivalente”<sup>40</sup>, una “casi presencia” sentida ahora y no en un pasado que se recordaría representativamente. Se trata de una situación equívoca: el amputado sabe que no tiene la pierna amputada y, sin embargo, continúa contando con ella *quiera o no quiera*, ya que el cuerpo continúa siendo la misma vocación *de ese mismo mundo*<sup>41</sup> que exigía al cuerpo completo, antes de la amputación, determinados gestos, tareas o comportamientos. La fantasmagoría del miembro ausente sorprende en el momento en el que la interpelación práctica del mundo, al mismo tiempo que enmascara la amputación (porque continúa ofreciendo al cuerpo anónimo los mismos polos de acción *pre-personalmente* incorporados), la revela<sup>42</sup>, por continuar “buscando” las tareas y comportamientos que el mundo exigía del miembro que objetivamente ya no existe. Todo ocurre, por tanto, como si un mundo familiar continuase “suscitando en mí intenciones habituales” a las que ya no puedo co-rresponder “si estoy amputado”, pero a las que continúo abierto con la connivencia anónima de un cuerpo que, *por debajo del cuerpo actual*, rehúsa estar preso de la amputación.

Si el cuerpo habitual “rechaza” así la amputación, no lo hace, no obstante, en el mismo sentido en que más o menos expresamente se rechaza lo que es evidente cara al “nuevo” cuerpo objetivamente disminuido; aquel primer “rechazo” es otro modo de decir que el cuerpo habitual nunca se detiene en ningún estado definitivo, nunca se fija, nunca se cierra, pero en cada momento tiene en vista siempre un *nuevo* desafío práctico. Todo sucede como en la experiencia del luto:

En cuanto estoy abatido por un luto y sufriendo, mi vista me engaña ya delante de mí, se interesa subrepticamente por algún objeto brillante, recomienza su existencia autónoma<sup>43</sup>.

El término “fantasma” es riguroso para expresar lo que aquí se considera esencial. En el silencio o sombra de la amputación, el cuerpo habitual se agarra (y nos agarra), entonces, a un tiempo establecido en el pasado, pero igualmente proyectándose siempre en el futuro de acciones posibles y reescenificaciones prácticas. Lo hace por continuar “interesándose subrepticamente” por lo que lo envuelve y sitúa y, en ese gesto, nos obliga a vivir *como presente* lo que claramente sabemos que está ya muerto. A las limitaciones

40. *Ibid.*, p. 96.

41. *Ibid.*, p. 95. Por ejemplo, añade en este contexto Merleau-Ponty, ciertos pacientes pueden estar próximos a la ceguera sin “haber cambiado de mundo”.

42. *Ibid.*, p. 97.

43. *Ibid.*, p. 100

percibidas en el *cuerpo actual* (que, desde la “fase del espejo”<sup>44</sup>, aprendemos a nombrar al unir las palabras, lo que vemos y lo que tocamos a una espacialización circunscrita y segmentada del cuerpo), el cuerpo habitual mantiene en el presente lo que ya debería estar en el mundo de los muertos; un fantasma, algo que se vive como si fuera del *presente sin ningún* índice de *pasado*, aunque objetivamente *ya esté muerto*.

#### 4. MIEMBRO-FANTASMA, MEMORIA-FANTASMA

Ahora se entenderá mejor en qué sentido la experiencia del amputado se convierte en *ambivalente*<sup>45</sup>: por un lado, el amputado sabe explícitamente que su cuerpo ha perdido una parte; por otro, ante la sorpresa de un miembro fantasma que llega a ser capaz de describir minuciosamente como *real*, construye la experiencia de una continuidad de sí mismo, de una integridad de sí que no parece depender de sí. Todo ocurre, efectivamente, como si la profundidad temporal de la experiencia personal nos llegase del dinamismo anónimo y pre-personal de incorporación, anexión, virtualización y sedimentación del cuerpo habitual, y no de la consciencia expresa de nuestra propia historia. Y como los “productos” de tal dinamismo son *independientes de lo que podamos querer o pensar*, sólo pueden ser vividos como un singular “encantamiento”<sup>46</sup> de todo lo que, del mundo, *es necesario en el* cuerpo y de todo lo que en el cuerpo *persistentemente* continúa siendo *del* mundo. Bajo la mutilación, permanece como una especie de “operatividad espectral”<sup>47</sup>, esbozando *un término medio entre presencia y ausencia*.

En realidad, se trata aquí de reconocer, en la experiencia traumática de la amputación, un sentido básico de continuidad del “Yo” que se revela arraigado del cuerpo anónimo para impedir o *reprimir*<sup>48</sup> el paso de “un antiguo presente” definitivamente al pasado<sup>49</sup>: en el centro de la experiencia personal,

44. Cf. WALLON, H., *Les origines du caractère chez l'enfant. Les préludes du sentiment de personnalité*, Paris, PUF, coll. Quadrige, 1983. LACAN, J., *Le Stade du miroir comme formateur de la fonction du Je: telle qu'elle nous est révélée dans l'expérience psychanalytique*, Paris, P.U.F., 1949.

45. MERLEAU-PONTY, M., *Phénoménologie de la perception*, *op. cit.*, p. 96.

46. *Ibid.*, p. 161.

47. TRIGG, *The Memory of Place*, *op. cit.*, p. 16.

48. MERLEAU-PONTY, M., *Phénoménologie de la perception*, *op. cit.*, p. 98 : “Corrélativement, il faut que mon corps soit saisi non seulement dans une expérience instantanée, singulière, pleine, mais encore sous un aspect de généralité et comme un être impersonnel”.

49. *Ibid.*, p. 101.

tal contención se señala, precisamente, por la tensión o fractura temporal entre el sentido de continuidad sedimentado en el cuerpo habitual y la pérdida del mundo al que respondía el miembro que sabemos amputado; o sea, se señala por la tensión entre el tiempo impersonal y *duradero* enraizado en una “operatividad espectral”<sup>50</sup> (estructuralmente *rememorador*) del cuerpo dinámicamente comprometido con su campo práctico y el tiempo personal bloqueado por la amputación. Y este conflicto, resulta tanto más poderoso cuanto el poder del cuerpo anónimo es capaz de contradecir la evidencia reflexiva y mantener presente –por causa de una extraña y perturbadora autonomía– lo que sabemos ya muerto.

Por eso, como en el luto, el tiempo pasado “no se cierra sobre la experiencia traumática” porque el sujeto continúa forzosa y solapadamente abierto a un mismo “futuro imposible”, no por causa de sus pensamientos expresos, sino de su *ser efectivo* (y de su cuerpo habitual). Así, el “fenómeno del miembro fantasma conecta con el de la contención que lo clarificara”<sup>51</sup>; no en el sentido de la unión a un inconsciente psicoanalítico; más bien se trata de nombrar una alteración del estar en el mundo que pasa por la “caída” del poder de la existencia en primera persona, por la revelación de la impotencia del *Yo* consciente cuyo tiempo se descubre súbitamente mantenido por un cuerpo anónimo que continúa deseando su unidad como contrapartida a la unidad del mundo. La contención de la que hablamos es, pues,

el paso de la existencia en primera persona a una especie de escolastización de esta existencia que vive de una experiencia antigua, o mejor, del recuerdo de haberla tenido, posteriormente, del recuerdo de haber tenido este recuerdo, y así sucesivamente, hasta el punto de que ya no retiene de ella más que la forma típica.<sup>52</sup>

De este modo, la demora del cuerpo pre-mutilado implica un efecto extraño en el que cosas del pasado pueden aparecer súbitamente en la escala espacio-temporal del presente sin ningún índice de pasado. El miembro amputado continúa contando en el “gran esquema de las cosas” del sujeto amputado, o sea, introduce en el centro de la experiencia una vivencia equívoca del tiempo del “Yo” que, en adelante, deberá reconocerse dividido entre el sentido de continuidad del tiempo personal, bloqueado por el momento traumático, y un tiempo impersonal que continúa escurriéndose<sup>53</sup> para aplazar el “luto” del

50. TRIGG, *The Memory of Place*, op. cit., pp. 105, 299-300.

51. MERLEAU-PONTY, M., *Phénoménologie de la perception*, op. cit., p. 98.

52. *Ibid.*, p. 99.

53. *Ibid.*, p. 100.

miembro amputado. El cuerpo habitual se convierte, entonces, en una forma de agenciamiento espectral que aporta al tiempo del Yo la extrañeza inquietante de lo que sabe que ya no existe y “quiere olvidar”. Más exactamente, el cuerpo, en cuanto “complejo innato”<sup>54</sup>, opera por debajo de la existencia personal para, sobre ella, proyectar el sentimiento angustiante de un fondo inhumano y tácitamente presente, de un fondo que permanece “detrás de nuestra mirada en lugar de colocarse frente a él”<sup>55</sup> y es, finalmente, la propia estructura temporal arcaica del *ser-en el-mundo* la que, al mismo tiempo, enmascara el trauma, lo torna presente y le permite huir.

El poder de contención (*refoulement*) del cuerpo anónimo comparte, por tanto, de algún modo, un “fenómeno universal”<sup>56</sup> de contención cuyo rasgo característico es el de contribuir a mantener “alrededor de nuestra existencia personal un margen de existencia *casi* impersonal [...], un mundo en general”<sup>57</sup> que el cuerpo construye anónimamente solo porque es construido inmemorialmente por él. Se diría, así, que el fenómeno del miembro-fantasma se ordena con la experiencia vivida de una “memoria-fantasma”, que guarda todo el pasado del propio gesto de anexión, dilatación o *habitación* corporal *del* mundo y, por tanto, también todo el pasado interpelante del mundo que sitúa el cuerpo través de un repertorio salvaje de *casi presencias*, de presencias ambivalentes, de espectros, ausencias, lagunas, sombras o invisibilidades. Tal memoria no es el recuerdo explícito y personal de un pasado “momentáneo”, no es cuestión de un “*cogitatio* exigiendo otro *cogitatio*”<sup>58</sup>; si el miembro-fantasma lo ilustra es por ser, precisamente, la extraña circunstancia de “un antiguo presente que no se decide a convertirse en pasado”<sup>59</sup>, de un antiguo presente que ya debería *estar muerto* y, no obstante, se mantiene presente *aquí y ahora* sin ninguna referencia de pasado. De hecho, se mantiene con sus contornos más o menos dispersos, con su tamaño más o menos *telescópicamente* móvil<sup>60</sup>, con sus sensaciones más o menos situadas y con sus dolores más o menos (i)localizables.

54. *Ibid.*, p. 99.

55. *Ibid.*, p. 99.

56. *Ibid.*, p. 99.

57. *Ibid.*, p. 98.

58. *Ibid.*, p. 102.

59. *Ibid.*, p. 101. Lo que no significa que no se pueda evocar la memoria del miembro antes de la amputación, o que algunas palabras sobre una historia análoga no puedan motivar el recuerdo expreso, por ejemplo, de momentos anteriores a la amputación.

60. SOBCHACK, V., “Living a Phantom Limb”, *op. cit.*, p. 62: “Rather its lengthening (not longing) is a mobilization of my motor capacities to fulfil a present intention”.



## 5. CONSIDERACIONES FINALES

Llegados a este punto, lo sabemos, habría que dar todavía un paso más en el desarrollo e intentar analizar las implicaciones y las metamorfosis de esta idea de “fantasma” en el contexto más radical del proyecto ontofenomenológico de Merleau-Ponty. Así, a la referencia del cuerpo tocante-tocado, central para los desarrollos de la ontología de lo sensible, habría, por ejemplo, que añadir la referencia de un cuerpo que asombra y es asombrado por un *Ser de envolvimento* que permanece en una cohesión sin concepto o una *dimensionalidad* carnal de pertenencia<sup>61</sup>; en las relaciones de inherencia al *Umwelt*, centrales en los análisis del concepto de *Naturaleza* –que nos revelan la ontología merleau-pontyana como eto-ontología–, habría que ponderar hasta qué punto el comportamiento revela una espacialidad y una temporalidad “inminentes” que configuran nuevas formas del arco intencional, ahora sustentado por la propia *Naturaleza*<sup>62</sup>; del mismo modo, en el famoso concepto de “invisible” habría que encontrar la ocasión de preguntar si el fantasma del miembro amputado no es, al límite, fantasma de las interpelaciones de algo entendido como la estesiología *de lo Sensible*; y, quizás, lo mismo habría de tenerse en cuenta para comprender la visión misma, como posibilidad anti-anropológica *de lo visible* que me atraviesa, despertando los “simulacros errantes”<sup>63</sup> que Descartes intento exorcizar.

Pero todos estos son trabajos distintos, y hasta el mismo Hércules ejecutó los suyos uno de cada vez.

61. MERLEAU-PONTY, M., *Le visible et l'invisible*, París, Tel, Gallimard, por ejemplo, pp. 267, 306-307.

62. MERLEAU-PONTY, M., *La Nature*, *op. cit.*, p. 278. Cf. MORRIS, D., *The sense of place*, State University of New York Press, p. 76.

63. MERLEAU-PONTY, M., *L'oeil et l'esprit*, París, Gallimard, 1964, p. 40-41: “...et le problème de la vision reste entier quand on s'est donné ces simulacres errants entre les choses et nous”.



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RESUMEN

El presente estudio indaga la esencia de la filosofía según fray Tomás a partir de la distinción entre filosofía, física y teología tal como ha sido expuesta en el lib. 1, q. 1, a. 1 del Comentario a las Sentencias de Pedro Lombardo. Esa distinción busca fijar los límites que separan las diferentes disciplinas. En esta tarea de precisar los límites y las distinciones entre las ciencias se vuelve manifiesta, a su vez, la interrelación entre el pensar racional y la iluminación por la fe, a partir de lo cual parecería que la filosofía quedaría afectada por la tensión entre tales dos modos de conocer.

*Palabras claves:* Tomás de Aquino, Sentencias de Pedro Lombardo, Filosofía, Ciencia.

ABSTRACT

This study examines the essence of philosophy by Fray Tomas from the distinction between philosophy, physics and theology like has been shown in the book 1, q. 1 a. 1 of Commentary on the Peter Lombard' Sentences. That

distinction intends to define the boundaries between those different disciplines. In this task to specify the limits and distinctions between sciences, it's become manifest the interrelationship between rational thinking and lighting by faith, from which it seems that the philosophy can be affected by the tension between their two modes of knowing.

*Key words:* Thomas Aquinas, Commentary on the Peter Lombard' Sentences, Philosophy, Science.

El comentario a las Sentencias de Pedro Lombardo, escrito por Tomás de Aquino durante su primera estancia en París entre 1252 y 1254, constituye de suyo una obra de profunda originalidad teológica<sup>1</sup> donde las implicancias filosóficas también se hacen presentes. Esta primera obra de carácter sistemático, luego del bachillerato bíblico de Tomás en Colonia y antes de adquirir su título de Maestro para la enseñanza en la Facultad de Artes,<sup>2</sup> revela la profusa citación de Aristóteles y Dionisio Areopagita,<sup>3</sup> quienes, como a continuación se verá, serán relevantes para lo que aquí nos proponemos aclarar, y que es la comprensión de la noción de filosofía.<sup>4</sup>

Es por ello que el presente trabajo quiere abordar la originalidad de la comprensión de Tomás sobre la noción de filosofía a la luz del singularísimo texto de las Sentencias lombardinas libro 1, q. 1, art. 1 en razón de algunas claves. En primer lugar este breve texto revela una visión integral sobre el pensar filosófico. Seguidamente, esta cuestión no es tratada en su segundo comentario al libro primero de las Sentencias redactado diez años después,<sup>5</sup>

1. J.-P. TORRELL, *Iniciación a Tomás de Aquino: su persona y su obra*, Pamplona, Eunsa, 2002, p. 357.

2. J.-P. TORRELL, *Iniciación a Tomás...*, p. 58.

3. J.-P. TORRELL, *Iniciación a Tomás...*, p. 58.

4. Se han dedicado numerosas obras a la filosofía de Tomás de Aquino, explicando su sentido de la física, la metafísica, la lógica o la ética entre otras ciencias. Comúnmente se habla de un Tomás filósofo y otro teólogo. Tanto la manualística corriente como aquellas obras de erudición se valen de ambos adjetivos para indicar o bien el pensamiento teológico místico-dogmático, o bien para hacer lo propio con la filosofía, poniendo por caso sus comentarios a Aristóteles. En todas ellas se asume sin más una posición sobre el sentido y el alcance de la filosofía como punto de partida. Y así se entiende directamente por filosofía el pensamiento racional y natural que es simultáneamente ajeno a la fe y compatible con ella. De allí que la Escolástica del s. XIII alcance particularmente en Tomás de Aquino la cumbre de la síntesis del saber entre fe y razón, compatibilizando ambas sobre la base metafísica del *esse*.

5. Cfr. L. E. BOYLE, J. F. BOYLE, *Thomas Aquinas, Lectura Romana in primum Sententiarum Petri Lombardi*, Canada, Pontifical Institute of Medieval Studies, 2006.

y con ello presuponemos que no existiría un cambio de dirección en lo que a esto se refiere. Finalmente, esta primera exposición sobre el significado y los alcances de la filosofía se comporta como primera piedra angular respecto de otros desarrollos mencionados con cierto detenimiento en las demás obras,<sup>6</sup> tales como los tratados aristotélicos, el texto *De Trinitate* o la *Summa Theologiae*. En vista de todo lo cual restringimos esta primera instancia de indagación a esta sección de las sentencias lombardinas con el objeto de explorar el significado y los alcances de la noción de filosofía para fray Tomás.

## 1. DE UN PRÓLOGO TEOLÓGICO A UNA DEFINICIÓN DE FILOSOFÍA

De Tomás muchas veces se ha dicho que es principalmente teólogo antes que filósofo. Esta aseveración habitual encuentra aquí lugar en razón de la tensión entre el prólogo al libro primero y el artículo en cuestión. Esta sección perfila, en lo que nos interesa destacar, la asunción de la filosofía por la teología, y los términos de su planteamiento se manifiestan en una dialéctica de desigual alcance. La filosofía es el momento previo y necesario del espíritu para dar cumplimiento pleno a la teología. De allí que la resolución final propuesta por Tomás en el artículo 1 no deja de ser la de un teólogo respecto del quehacer filosófico.

El prólogo al libro primero de las Sentencias del maestro Lombardo trata sucintamente sobre la unidad de la Trinidad y su relación con la creación mediante la clave exegética de la sabiduría. Este es el epicentro teológico y el primer momento que encontramos en la dialéctica mencionada. Allí se dice que “la sabiduría, de un cierto modo especial, es apropiada al Hijo”<sup>7</sup> y que “mediante la sabiduría de Dios son manifestados los arcanos de la Divinidad y son producidas las obras de las creaturas, y no sólo producidas, sino también, restauradas y perfeccionadas.”<sup>8</sup> Esta obra de la creación “donde la creatura procede de Dios fuera de aquella unidad de esencia”<sup>9</sup> trinitaria señala e incluye al ser humano, quien quedó herido de muerte a raíz del pecado original.

6. Cfr. TOMÁS DE AQUINO, *Comentario a las Sentencias de Pedro Lombardo I/I*, Pamplona, Eunsá, 2002, p. 24.

7. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 pr: “sed quia sapientia quodam speciali modo filio appropriatur.”

8. TOMÁS DE AQUINO, *Super Sent.*, lib. 1pr: “Per sapientiam enim Dei manifestantur divinorum abscondita, producuntur creaturarum opera, nec tantum producuntur, sed etiam restaurantur et perficiuntur.”

9. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 pr: “ita creatura procedit a Deo extra unitatem essentiae.”

Por ello, la Sabiduría de Dios se anonadó haciéndose humano, restaurando y conduciendo al hombre y la entera creación hacia Dios uno y trino.

Tales palabras de Tomás corren por el mismo cauce que aquellas propias del Lombardo cuando dice “‘Carro’, esto es, la lengua y la pluma, con las que, como dos ruedas, la doctrina es transportada por el Maestro al discípulo.”<sup>10</sup> El único Maestro es Dios, y su Sabiduría, que es el Hijo, enseña al discípulo o la humanidad el camino de la redención. Este es el esquema general seguido por fray Tomás, quien a imitación de Cristo, se esfuerza en enseñar la doctrina de la salvación a los hombres por medio de la lengua y la pluma. Y en orden a su concreción aparece la importancia de la entera doctrina humana que es la filosofía en tanto momento previo e indispensable para la reflexión teológica. Esta es la razón por la que luego del prólogo la primera cuestión a tratar sea la noción de filosofía con vistas a recuperar y reconducir la sabiduría humana a la sabiduría divina.

Y así, si el prólogo invita, movido por la fe, a asentir sobre el misterio de la Trinidad, y la cuestión primera comienza señalando los límites de la filosofía, entonces aquí se patentiza un movimiento particular según el orden de tales disciplinas. El itinerario de Tomás es teológico y aquello que principalmente lo motiva es conducir al discípulo hacia la teología. En consecuencia la teología es primera según la intención, y luego se verá que también lo es en el orden del fundamento. Y en razón de ello entendemos que es última en el orden de la mostración. Esta peculiar circularidad donde la teología es primera *per se*, porque versa sobre Dios y la creación, y última *quoad nos* porque la alcanzamos después del estudio de la filosofía, es el marco de comprensión que circunda el artículo primero. Mas, para entender cómo lo resuelve el mismo Tomás, detengámonos directamente en la cuestión de la filosofía.

## 2. UNA DEFINICIÓN DE FILOSOFÍA: TOMÁS DE AQUINO Y DIONISIO AREOPAGITA

El título del artículo *Utrum praeter physicas disciplinas alia doctrina sit homini necessaria* pregunta sobre la posibilidad de la existencia de otra disciplina que sea necesaria para el hombre y que no sea la ciencia física. Mas, el desarrollo de la cuestión abre la posibilidad de la existencia de la teología desde la misma física y, a través de las respuestas, aparece la necesidad de enmarcar y comprender qué es propiamente la filosofía.

El art. 1 presenta tres objeciones, dos *sed contra* y la respuesta definitiva de Tomás. Atendamos a la primera objeción, que dice:

10. TOMÁS DE AQUINO, *Comentario a las Sentencias de Pedro...*, p. 79.

Parece que además de las disciplinas físicas ninguna otra doctrina es necesaria para el hombre. Pues así dice Dionisio en la epístola a Policarpo: “la filosofía es el conocimiento de las cosas existentes.” Y es cosa sabida, examinando las cosas singulares, que de cualquier género de existentes se determina en la filosofía, ya sobre el creador, ya sobre las creaturas, tanto sobre estas cosas que son por la acción de la naturaleza, como también sobre estas que son por nuestra acción. Pero ninguna doctrina puede ser sino de las cosas existentes, porque no hay ciencia de los no-entes. Luego no debe existir ninguna doctrina fuera de las disciplinas físicas.<sup>11</sup>

Esta primera argumentación recogida por Tomás hace de la ciencia física un disciplina que implica todo otro saber, toda presente y ulterior investigación científica, y por ello parecería incluir la misma filosofía. Pero veamos con detenimiento qué dice esta objeción para comprender por qué es relevante en lo que toca al saber filosófico.

En la objeción aparecen tres cuestiones combinadas que aquí separamos para comprenderla detenidamente: la finalidad, cierta ambivalencia en la utilización de la noción filosofía y la definición de Dionisio. En lo que respecta a la primera parece claro que la tónica general de la objeción es la suficiencia de la filosofía para dar cuenta de la totalidad de las cosas existentes. El fundamento y la raíz de la filosofía es toda la naturaleza, porque esta disciplina emerge y se configura como tal en la medida que entiende de todos y cada uno de los entes, ya aquellos creados, ya Dios mismo.

También notamos que la filosofía no atañe únicamente a la naturaleza y su acción, sino que incluye al ser humano tanto por su composición como por su comportamiento. De esta manera dicha disciplina parece tener un carácter universal y omniabarcante. Empero la última oración de la objeción reduce la filosofía a la física, interpretando que la filosofía es esencialmente física y que todas sus divisiones forman parte de la ciencia física. De esta manera se concluye que la noción de filosofía equivale a física. Así aparece una sola disciplina que ostenta dos nombres y que trata sobre toda la naturaleza inorgánica y orgánica, no sólo porque contiene la antropología, sino también porque lo orgánico supone los estratos previos de la zoología y la botánica, y

11. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 arg. 1: “Videtur quod praeter physicas disciplinas nulla sit homini doctrina necessaria. Sicut enim dicit Dionysius in epistola ad Polycarpum, philosophia est cognitio existentium; et constat, inducendo in singulis, quod de quolibet genere existentium in philosophia determinatur; quia de creatore et creaturis, tam de his quae sunt ab opere naturae, quam de his quae sunt ab opere nostro. Sed nulla doctrina potest esse nisi de existentibus, quia non entis non est scientia. Ergo praeter physicas disciplinas nulla doctrina debet esse.”

estos, a su vez, suponen los minerales y los elementos en general. Hasta aquí la objeción parece razonable. Ella se restringe a la vastedad de la naturaleza creada. Sin embargo, el sentido de totalidad de la física se amplía más allá de la creación e incorpora al mismo Dios.

La inclusión de Dios en la física es de suyo problemática. Solo se afirma que una parte de dicha ciencia trata sobre Dios, sin decirse de qué manera lo hace. Mas, incluir a Dios en la ciencia de la naturaleza traslada al Creador características físicas, y es legítimo pensar que cupiera hablar de un antropomorfismo divino. De esta manera se cumple en la objeción el significado pleno y extensivo de la física.

Ahora bien, la anterior división de la filosofía –y con ello explicitamos la segunda cuestión– donde la física hace las veces de disciplina totalizante, parece ser ambivalente. Si la filosofía estudia todo lo que existe por medio de divisiones en disciplinas más específicas, entonces la física no sería un género del saber respecto de la filosofía, sino el género supremo de toda doctrina al tratar de toda la realidad, y no habría una consideración de la física como parte integrante de la filosofía, sino univocidad entre física y filosofía. Y esta es la ambivalencia, porque el trasfondo que suponemos natural detrás de la ciencia física es el mismo Aristóteles y su definición de esta mentada ciencia.

En tercer lugar está la presencia de Dionisio y la ausencia de Aristóteles. Con este reemplazo efectuado por el objetor se logra persuasivamente el efecto de debilitamiento de los límites entre la física y la filosofía, ampliando, en consecuencia, el límite de la física hasta alcanzar la identificación entre ambas disciplinas. Empero, detengámonos en las palabras originales de Dionisio respecto de la disciplina llamada filosofía.

La objeción cita la carta que redactó Dionisio a Policarpo, obispo de Esmirna y discípulo de Juan<sup>12</sup> y solo a ella nos abocaremos. El contenido epistolar parece extraño en comparación con la objeción que la recoge. Es una carta breve en la que Dionisio se esfuerza por hablar claramente sobre y con la verdad, que no es otra que Jesucristo, corrigiendo el parecer del sofista Apolófanes según la perspectiva definitiva de que la verdad cristiana es la verdad absoluta. De esta manera la epístola dionisiana insinúa que solo la búsqueda paulatina de la sabiduría en la Verdad conduce finalmente a una comprensión cierta y universal del cristianismo. Y es en este contexto cuando Dionisio dice: “también Apolófanes usa no piadosamente lo divino respecto de las cosas divinas; pues con el conocimiento de los entes, bien llamado por él ‘filosofía’ e invocado por el divino Pablo como ‘sabiduría de Dios’ era preciso

12. Cfr. DIONISIO AREOPAGITA, *La jerarquía celestial y otros tratados*, Buenos Aires, Losada, 2008, p. 404.



que los verdaderos filósofos se elevaran hacia el Causante no sólo de los entes mismos sino también del conocimiento de ellos”<sup>13</sup>.

La definición de Apolófanes que aparece en la epístola dionisiana está lejos de ser exacta en comparación con la versión recogida en la objeción en boca de Dionisio. Aquella definición no coincide con la tónica general de la objeción en la que aparece inserta, pues según la letra de la epístola, la filosofía no es sustancialmente coextensiva con la física. En ella es claro que la filosofía referencia la totalidad de la creación y que debe conducir, si es entendida adecuadamente como filosofía, al mismo Dios.

Según la interpretación dionisiana, en la que se consideran la definición de Apolófanes y las palabras del apóstol Pablo como Sabiduría de Dios, la filosofía significa conocimiento de todos los entes. Y este conocimiento de los entes expresa definitivamente una iluminación que guía al hombre hacia la sabiduría increada que es Dios. Por ello la filosofía debe entenderse como sabiduría de Dios, no sólo porque el hombre se hace sabio cuando comprende que la creación mira hacia el Creador, sino también porque, finalmente, es sabio quien contempla al mismo Creador. Esta doble acepción de la filosofía como sabiduría, donde la totalidad de los entes quedan implicados, y donde dicha disciplina no es simplemente física, resuelve—ahora sí— la relación entre Dionisio y Aristóteles. La definición de Dionisio incluye al Estagirita, pues la filosofía es más amplia que la física, en tanto a la definición de la filosofía le está subordinada la ciencia física aristotélica. Y ya aquí vemos anticipada parte de la respuesta de Tomás, que dice:

Por lo tanto, a la primera [objeción] debe decirse que, aunque la filosofía determine sobre las cosas existentes y según la razón tomada desde las creaturas, conviene sin embargo que sea alguna otra [disciplina] la que considere la existencia según las razones recibidas por inspiración de la luz divina.<sup>14</sup>

La respuesta de Tomás dirige más la mirada hacia la epístola que hacia la objeción. En ningún momento la objeción se expresa en términos de “la razón tomada desde las creaturas”, y sin embargo esta respuesta sabe desarticular la comprensión de la filosofía como física para restituírle su sentido originario. Efectivamente responde la objeción, pero lo hace *in oblicuo*, porque *in recto* parece evocarse la epístola de Dionisio. La respuesta y la objeción

13. Cfr. DIONISIO AREOPAGITA, *La jerarquía celestial y otros...*, pp. 405-406.

14. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 ad 1: “Ad primum ergo dicendum, quod, quamvis philosophia determinet de existentibus et secundum rationes a creaturis sumptas, oportet tamen esse aliam quae existentia consideret secundum rationes ex inspiratione divini luminis acceptas.”

coinciden en la consideración de la filosofía como aquel saber que se pronuncia sobre la totalidad de las cosas existentes y según los géneros de cada una de ellas. Empero la respuesta fija un límite a la definición cuando dice: “según la razón tomada desde las creaturas, abriendo, de esta manera, la posibilidad de la existencia de una disciplina que tome sus razones a partir de la inspiración que proviene de la luz divina. Tales palabras de Tomás recuperan de la epístola dionisiana la interpretación superadora del apostol Pablo para la filosofía, pues dicha disciplina, según esta resignificación, buscará argumentos para elevarse desde las creaturas hacia el Creador, o desde la física hacia la teología. Así planteada la situación, ya no será la física aquella disciplina primera que incluya entre sus divisiones a la teología, sino que por el contrario, será la filosofía aquella que propiamente se dividirá en física por una parte y en teología por la otra. Veamos esto último con mayor detenimiento.

El razonamiento del Aquinate niega (i) la pretensión omniabarcante de la física, (ii) separa las disciplinas física y filosofía, (iii) coloca la física bajo la regencia de la filosofía y (iv) resuelve la noción de filosofía según la definición de la objeción en el contexto de la carta dionisiana que opera una transformación cristiana del significado de dicha noción.

Se ha visto que Dionisio añade las palabras de san Pablo para resignificar la noción de filosofía. En la epístola, según lo ya citado, se observa la radicalización de la mentada disciplina en tanto y en cuanto Dios es el creador de las sustancias y que, por lo mismo, está absolutamente presente en la creación. Y así la esencia de la filosofía expresa, en primer lugar, “conocimiento de las cosas existentes”, cuyo sentido es precisado pocas palabras más adelante como “determinación –o conocimiento exacto de las causas– de cualquier género de existentes”.

Esta comprensión de Tomás sobre la esencia de la filosofía es asumida y completada con una definición más estricta que dice “determina sobre las cosas existentes y según la razón tomada desde las creaturas”. Dicho añadido no simplemente limita la extensión de la filosofía al distinguirla de otro modo de saber, sino que profundiza cuál es ese conocimiento. Esta profundización constituye la parte de la definición añadida por Tomás, que dice: “la razón –las causas– tomada desde las creaturas”. Este es el significado definitivo de la filosofía –no simplemente un breve y segundo añadido a la primera comprensión– que señala en forma precisa su origen y sobre el cual, ahora más claramente para el pensar cristiano, queda definida como conocimiento de todos los entes y de sus causas.

El conocimiento de las causas de los entes conducirá a una comprensión de la naturaleza como creación y a una búsqueda de Dios. Y a esto también Dionisio lo llamó “sabiduría de Dios”. De esta manera se vuelve nítida la

división de la filosofía en física, y sus correspondientes partes, y en teología. Física y teología son géneros diferentes de disciplinas y esta última será estudiada de un doble modo. De uno, según el testimonio que la física pueda dar de la teología, y de otro, según la iluminación por la luz divina. Aquí entonces se anticipa la división de saberes pensada por Tomás: no existen la física, la teología y la filosofía como saberes diferentes; solo los dos primeros.

La segunda clave otorgada por Tomás sobre la comprensión de la filosofía aparece entre la objeción y la segunda respuesta.

Y también, toda doctrina es para la perfección: o en cuanto al intelecto, como lo especulativo, o en cuanto al afecto, que procede hacia la acción, como lo práctico. Pero unas y otras son completadas por medio de la filosofía, porque por las ciencias especulativas se perfecciona el intelecto, y por las morales, el afecto. Por ello no hay otra doctrina necesaria.<sup>15</sup>

En correlación con la previa definición de filosofía donde es claro que ella determina sobre todos los entes, ahora se transparenta su relación con el hombre. Si en la primera objeción se afirmaba que la filosofía incluía la antropología, por la presente objeción se especifica de qué manera la filosofía perfecciona a toda la persona.

Toda disciplina es doctrina en la medida que se enseña y se aprende. Luego la totalidad de la filosofía señala, con vistas a su completitud, un ámbito especulativo, porque perfecciona al intelecto; y uno práctico, porque perfecciona la acción. De allí que si la filosofía se divide en tales dos ámbitos, significa que bajo cierto respecto se complementan con una necesidad que no puede quebrarse. Y esto es lo que señala la objeción: “que unas y otras son completadas por medio de la filosofía”, no porque esta disciplina esté incompleta, sino porque sus partes lo estarían si no hubiera una necesaria relación entre ambas y cuya definitiva justificación es la misma unidad de la persona. Según esta comprensión la persona es el fundamento de la filosofía y de su división, tanto porque la filosofía mira hacia su perfección, cuanto porque este ejercicio vital del pensar comienza con ella. De donde nuevamente se evidencia, similar a la primera objeción, que no sería necesaria otra disciplina, porque la perfección de las potencias humanas serían completas al clausurarse sobre sí mismas y sobre su relación. Hasta aquí la objeción. Avancemos ahora sobre la respuesta.

15. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 arg. 2: “Item, omnis doctrina est ad perfectionem: vel quantum ad intellectum, sicut speculativae, vel quantum ad affectum procedentem in opus, sicut practicae. Sed utrumque completur per philosophiam; quia per demonstrativas scientias perficitur intellectus, per morales affectus. Ergo non est necessaria alia doctrina.”

Y por esto se evidencia la solución a la segunda: porque la filosofía satisface a la perfección al intelecto según el conocimiento natural, y al afecto según la virtud adquirida. Y por ello conviene que haya otra ciencia por la que el intelecto se perfeccione en cuanto al conocimiento infuso, y el afecto en cuanto al amor de dilección obsequiado.<sup>16</sup>

A semejanza de la primera objeción, aquí, en la segunda, también se asume una parte de ella. Tomás concede prácticamente toda su sustancia, aunque eso no quita que repare en algunos detalles. Se mantiene la perspectiva antropológica en cuanto doctrina perfeccionante para la inteligencia y para el afecto. Sin embargo, relativiza la perfección de ambas potencias quebrando su autosuficiencia, al establecer solo por un lado que “la filosofía satisface a la perfección”. Y esto señala suficiencia parcial en relación con la teología según sus dos tareas: exponer sobre Dios mismo y sobre la creación. Y por ello añade a continuación “según el conocimiento natural y según la virtud adquirida”. Esta precisión no simplemente perfecciona la comprensión sobre la filosofía sino que la limita al ámbito de lo natural. Y sólo aquí cabría hablar de perfección plena, mientras que el conocimiento filosófico, en tensión al conocimiento infuso y al amor de dilección –ambos dados gratuitamente por Dios–, es incompleto.

Debe notarse que los conocimientos filosófico e infuso –que no es lo mismo que filosófico y teológico: porque este último también en parte es filosófico– se relacionan como un todo donde la filosofía hace las veces de principio del saber, mientras que el conocimiento infuso se comporta como su término final. Esta tensión entre ambos saberes, natural y racional por una parte e infuso por la otra, específica que la filosofía es una disciplina tensional, perfecta según sí misma e imperfecta según la fe. Mas, dicha tensión existe con vistas al conocimiento final de la filosofía, que no es otro que el conocimiento infuso y perfecto cuando la fe ha iluminado la mente.

Asimismo la comprensión de la fe sobre la filosofía no hace de esta última un conocimiento imperfecto sin más, pues en sí mismo es perfecto y sacia completamente al hombre. Hay una tensión dialéctica que es simultáneamente necesaria y libre y que no se define desde una de sus partes, sino desde la visión del todo –o conocimiento natural y conocimiento infuso– en tanto la filosofía es radicalmente “sabiduría de Dios”, no recibida por la fe, sino

16. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 ad 2: “Et per hoc patet solutio ad secundum: quia philosophia sufficit ad perfectionem intellectus secundum cognitionem naturalem, et affectus secundum virtutem acquisitam: et ideo oportet esse aliam scientiam per quam intellectus perficiatur quantum ad cognitionem infusam, et affectus quantum ad dilectionem gratuitam.”

investigada por medio de la razón desde las sustancias. Consideremos ahora la tercera y última objeción.

Además, cualquier intelecto natural puede conocer por medio de los principios de la razón, los cuales o son tratados en la filosofía, o pueden ser descubiertos por los principios de la filosofía. Pero para la perfección del hombre basta aquel conocimiento que puede obtenerse por medio del intelecto natural. Por lo tanto, además de la filosofía no es necesaria otra doctrina.<sup>17</sup>

Esclarecido el fin que exige la noción de filosofía y la perfección que comporta sobre la persona, esta última objeción destaca la importancia de la razón en orden a la posibilidad real de nuevos descubrimientos humanos. El contexto de la objeción es decisivo, porque mira en dirección a la recepción de la fe en tanto y en cuanto no es necesaria para que la persona conozca más, en su doble significado de nuevas sustancias, y más perfectamente cada sustancia conocida. Y siendo éste el caso, es verdad que el horizonte de saber de la filosofía no necesita de la fe, porque sus límites son móviles. De donde no tendrá razón de ser un conocimiento que provenga de la fe, porque aquello que pueda comunicar a la persona o bien ya lo sabe, o bien puede llegar a descubrirlo por investigación. De esta manera no sólo se vuelve innecesaria y superficial la misma fe, sino también, nuevamente, se destaca la autosuficiencia de la razón que se clausura sobre sí misma, afirmando, al menos tácitamente, la vacuidad de la fe que conlleva un conocimiento infuso. Basta la filosofía y sus divisiones para obtener un conocimiento de toda la naturaleza. Hasta aquí la objeción. La respuesta, sin embargo, parece a primera vista desconcertante.

A la tercera debe decirse que en estas cosas que adquieren igual bondad a causa del fin, es válida la proposición inducida, a saber, más noble es aquello que por sí se alcanza que aquello que no puede. Pero, como dice el filósofo, aquello que adquiere bondad perfecta con numerosos auxilios y movimientos es más noble que aquello que adquiere por sí mismo con pocos [recursos] una bondad imperfecta. Y de este modo se encuentra el hombre respecto de las demás creaturas, el cual fue hecho para participar de la misma gloria divina.<sup>18</sup>

17. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 arg. 3: “Praeterea, quaecumque naturali intellectu possunt cognosci ex principiis rationis, vel sunt in philosophia tradita, vel per principia philosophiae inveniri possunt. Sed ad perfectionem hominis sufficit illa cognitio quae ex naturali intellectu potest haberi. Ergo praeter philosophiam non est necessaria alia doctrina.”

18. TOMÁS DE AQUINO, *Super Sent.*, q. 1 a. 1 ad 3: “Ad tertium dicendum, quod in his quae acquirunt aequalem bonitatem pro fine, tenet propositio inducta, scilicet, nobilissimus est eo quod per se consequi non potest. Sed illud quod acquirit bonitatem perfectam

Sin el texto de la objeción la respuesta es poco clara. Debemos situar la noción de filosofía al comienzo de la misma y asumir su definición para entender el argumento. Habíamos definido la filosofía como sabiduría de Dios alcanzada por medio del conocimiento de los entes y sus causas. Esta definición expresa el fin y este fin es bueno. Sin embargo, la respuesta de Tomás afirma ciertos detalles que deben ser considerados. El primero dice: “más noble es aquello que por sí se alcanza que aquello que no puede”. Luego, ¿qué es lo que se alcanza y por el hecho de serlo es más noble? El saber sobre la totalidad de la existencia y de sus causas es lo alcanzado, y por ello la filosofía es más noble, inevitablemente, que aquel saber que no lo es, o que no ha indagado adecuada y profundamente la constitución de las sustancias, y que no es sino la opinión.

El texto continúa citando a Aristóteles según la sentencia que dice “aquello que adquiere bondad perfecta con numerosos auxilios y movimientos es más noble que aquello que adquiere por sí mismo con pocos [recursos] una bondad imperfecta”. Ahora bien, si se vuelve a la definición de filosofía y recuperamos “la sabiduría de Dios” como una de sus notas constitutivas, entonces el fin de esta disciplina encuentra aquí una explicación de índole antropológica más luminosa. Este pasaje media entre la filosofía y el destino del hombre en la luz de la gloria divina. En este contexto la filosofía es indiscutiblemente inferior a aquella sabiduría de la gloria divina, y sin embargo no es comparable sin más al lugar de la opinión, pues la filosofía otorga razones fundadas en la existencia sobre lo que sea cada ente. Y estas razones tienen un fin: conducir a la persona hacia el cielo. Y por eso este fin es bueno y a la vez imperfecto. Porque la filosofía no sólo conduce a la vida en la gloria divina sino que lo hace con pocos recursos, esto es: las solas fuerzas naturales y racionales del hombre.

Tomás eleva la filosofía a un fin superior a aquel que pudiera tener en la Antigüedad. Le asigna el sentido de camino y finalidad. Y este camino es penoso según el único recurso humano que es la racionalidad del proceder filosófico. De aquí que finalmente se diga en la respuesta que la bondad es imperfecta, porque la filosofía, lejos de cerrarse sobre sí misma, es desde el comienzo apertura indigente para indagar las causas de lo real. Esta indigencia o imperfección propia de la filosofía es la característica que paulatinamente le revelará al hombre un único camino fundamental, y que es su dependencia, junto con toda la creación, de Dios mismo.

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*pluribus auxiliis et motibus, est nobilius eo quod imperfectam bonitatem acquirit paucioribus, vel per seipsum, sicut dicit philosophus; et hoc modo se habet homo respectu aliarum creaturarum, qui factus est ad ipsius divinae gloriae participationem.”*

La última oración de la respuesta complementa uno de los sentidos anticipados en el que conviene insistir. Allí se afirma “de este modo se encuentra el hombre respecto de las demás creaturas, el cual fue hecho para participar de la misma gloria divina”. El carácter y compromiso existencial de la razón, y no meramente su uso teórico, supone que el ser humano debe reflexionar filosóficamente como quien pone en juego su destino. Lo que el hombre piensa filosóficamente expresa su alma y revela lo que en definitiva es. Por eso la filosofía, camino de indagación y sentido de vida, no es autosuficiente, sino apertura hacia y recepción de la fe que adviene “con numerosos auxilios y movimientos” para iluminar la razón y conducirla más noblemente a su fin.

El advenimiento de la fe sobre la filosofía es un movimiento que experimenta el hombre en su pensar. La vida filosófica conduce hacia la fe, y si ella es obsequiada por Dios, entonces la fe acompaña e ilumina la reflexión filosófica. De esta manera el ejercicio de la filosofía, en tanto principio y apertura a la vida en la trascendencia, no implica dos sabidurías diferentes, sino una sola que es perfectible *in via*.

### 3. ALGUNOS Matices EN LA COMPRESIÓN DEL QUEHACER FILOSÓFICO: TOMÁS DE AQUINO Y ARISTÓTELES

Luego de las objeciones aparecen los *sed contra* que corresponde sean leídos como argumentos opuestos a aquellas, como complementos de las respuestas y en dirección al *corpus*. Cuando las objeciones señalan que no es necesaria otra ciencia o disciplina más que la filosofía, el primer *sed contra* recuerda la autoridad bíblica y separa dos ámbitos: a la filosofía le compete la racionalidad y la exclusión de la fe. En cambio a la otra doctrina de las Sagradas Escrituras le corresponde proceder desde los principios de la fe.<sup>19</sup> Por su parte el segundo *sed contra* es un argumento racional en el que opera casi tácitamente la fe y que es enteramente asumido por Tomás de Aquino.

Además un efecto no proporcionado a la causa conduce imperfectamente al conocimiento de su causa. Y tal efecto es toda creatura respecto del creador, entre los que hay una distancia infinita. Por lo tanto imperfectamente conduce a su conocimiento. Por ello, cuando la filosofía no procede sino por razones tomadas desde las creaturas, se vuelve insuficiente para tener un conocimiento

19. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 s.c. 1: “Contra, Hebr. 11, 6: sine fide impossibile est placere Deo. Placere autem Deo est summe necessarium. Cum igitur ad ea quae sunt fidei, philosophia non possit ascendere, oportet esse aliquam doctrinam quae ex fidei principiis procedat.”

de Dios. Por lo tanto conviene que alguna otra doctrina sea más alta, y que proceda por revelación, y supla así el defecto de la filosofía.<sup>20</sup>

Tales palabras explicitan la filosofía como camino, que es imperfecto en cuanto depende sólo de la razón; como principio, porque la fe opera mediante la razón; y como apertura, porque la razón se encuentra de suyo predispuesta a la recepción de la fe. Dios se identifica con la causa de la naturaleza –del mismo modo que la epístola de Dionisio– y la creación con lo causado, y el hombre –causado también por Dios– se dirige a su causa mediante el conocimiento de lo causado. De esta manera la indagación filosófica de la persona solo da cuenta de la causa imperfectamente. A su vez tal imperfección debe entenderse sobre todo, según dice el *sed contra*, como la distancia infinita o la desproporción radical y real entre la creación y el creador.

La filosofía, del mismo modo que la fe, está dirigida a Dios. La diferencia no es la finalidad sino el medio. El conocer y pensar la realidad, que significa las “razones tomadas desde las creaturas” –expresión también usada por Tomás en la primera respuesta–, es la tarea de la filosofía. Y en virtud de un camino indigente, por la desproporción señalada, alcanzamos imperfectamente al Causante.

Atiéndase que la desproporción, por grande que sea, nunca es tal que niegue la finalidad de la filosofía. Esta distancia infinita entre Dios y el hombre significa simultáneamente la justificación de la razón para conocer su destino inalterable, que es Dios, y la justificación de la fe. Por la razón conocemos débilmente a Dios. Y es a causa de esta debilidad que en ocasiones parecería señalarse la autosuficiencia radical de la filosofía y su clausura ante la fe. Empero, debilidad de la razón no es negación absoluta. Y esto es lo que destaca Tomás: que la razón, sin importar lo débil que sea, está dirigida fundamentalmente a Dios. Y así notamos que esta vía acentúa el conocimiento de la desproporción proporcionada de la creación respecto del creador. En cambio por la fe se acentúa la proporción desproporcionada de la creatura respecto del creador en tanto y en cuanto el camino de la filosofía, auxiliada por la fe, nos dirige velozmente al conocimiento del Causante. Sin embargo, es también claro que la fe no niega ni supera sin más la filosofía. Este

20. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 s.c. 2: “Item, effectus non proportionatus causae, imperfecte ducit in cognitionem suae causae. Talis autem effectus est omnis creatura respectu creatoris, a quo in infinitum distat. Ergo imperfecte ducit in ipsius cognitionem. Cum igitur philosophia non procedat nisi per rationes sumptas ex creaturis, insufficientis est ad Dei cognitionem faciendam. Ergo oportet aliquam aliam doctrinam esse altiore, quae per revelationem procedat, et philosophiae defectum suppleat.”



*sed contra* propicia las dos vías de acceso a Dios. No hay anulación de la filosofía en pos de una pura fe irracional. Hay un complemento, una suerte de único camino de dos partes, en el cual el rol asignado para la filosofía es la insuficiencia, mientras que la fe cumple el suyo como perfeccionante de tal insuficiencia, y no como remplazo de aquella. De allí que se diga al final “por lo tanto conviene que alguna otra doctrina sea más alta, y que proceda por revelación, y supla así el defecto de la filosofía”.

Hasta aquí se han expuesto *in extenso* los elementos en derredor del *corpus*. Ahora sí podemos adentrarnos completamente en la determinación central de la filosofía según la posición definitiva que le compete a esta respuesta.

Debe saberse, para evidenciar esta cuestión, que todos aquellos que han opinado con rectitud pusieron la contemplación de Dios como fin de la vida humana. La contemplación de Dios es de dos modos: una, por medio de las creaturas y que es imperfecta según la razón ya dicha, y en cuya contemplación el filósofo puso cierta felicidad contemplativa, y que es la felicidad en esta vida, y a la cual se ordena todo conocimiento filosófico, y que procede por razonamiento de las creaturas. Hay [también] otra contemplación de Dios, y que se [nos] evidencia de modo inmediato por medio de su esencia, y ésta es perfecta, y [ella] será en el cielo y es posible al hombre según esté puesta la fe. Por ello conviene esto: así como aquellas cosas que son al fin sean proporcionadas al fin, [así también] en qué medida el hombre se alimenta de aquella contemplación en esta vida por medio de un conocimiento no tomado desde las creaturas, sino inmediatamente inspirado por la luz divina. Y esta es la doctrina de la teología. Y según ello podemos deducir dos conclusiones. Una es que esta ciencia impera sobre todas las otras ciencias como siendo la principal; la otra es que ella misma utiliza, a modo de regente, a todas las otras ciencias como vasallas, según se evidencia en todas las artes que le están sujetas, de las cuales el fin de una está bajo el fin de otra, y así el fin del arte de la afectación de sustancias, que es la confección de medicamentos, se ordena al fin de la medicina, que es la salud. Y de allí que el médico impera sobre aquella mezcla de sustancias y lo utiliza para hacer lo suyo, para su fin. Y así, siendo el fin de toda filosofía estar bajo el fin de la teología, y ordenada a ella, la teología debe imperar sobre todas las otras ciencias y utilizarlas según lo que en ellas se trate.<sup>21</sup>

21. TOMÁS DE AQUINO, *Super Sent.*, lib. 1 q. 1 a. 1 co.: “Ad hujus evidentiam sciendum est, quod omnes qui recte senserunt posuerunt finem humanae vitae Dei contemplationem. Contemplatio autem Dei est dupliciter. Una per creaturas, quae imperfecta est, ratione jam dicta, in qua contemplatione philosophus, felicitatem contemplativam posuit, quae tamen est felicitas viae; et ad hanc ordinatur tota cognitio philosophica, quae ex rationibus creaturarum procedit. Est alia Dei contemplatio, qua videtur immediate per suam essentiam; et haec perfecta est, quae erit in patria et est homini possibilis secundum fidei suppositionem. Unde oportet ut ea quae sunt ad finem proportionentur fini,

El texto comienza afirmando una declaración incuestionable según su parecer, y según el verdadero sentido de la filosofía. Recuérdese la primera objeción donde aparece la posición dionisiana respecto de la misma. Allí la filosofía era entendida verdaderamente como sabiduría de Dios. Y aquí Tomás no deja de señalarlo al decir que “debe saberse, para evidenciar esta cuestión, que todos aquellos que han opinado con rectitud pusieron la contemplación de Dios como fin de la vida humana”. Estas palabras están sustentadas por la autoridad de Dionisio, y más noblemente aún, por aquella de san Pablo, y tras él el principio de la verdad: la Sagrada Escritura. ¿Quiénes han opinado con rectitud? Ante una visión simplemente mortal, San Pablo, Dionisio y ahora Tomás de Aquino. Y ante una visión de fe –la creencia en Dios revelada en las Sagradas Escrituras–, también corresponde afirmar que son ellos mismos y toda la tradición que es de su mismo parecer. Y ellos son los que han esclarecido el quehacer de la filosofía. De aquí se sigue que su opinión no sea como quien opina ligeramente, sino como quien sabe fundadamente sobre la experiencia que la filosofía mira hacia Dios por medio de las creaturas. Y así se cumple que la filosofía sea entendida como sabiduría de Dios en tanto camino de perfección y en cuanto fin, porque el hombre descansa en la contemplación de Dios.

Después de esta breve introducción donde el sustento del argumento proviene de la autoridad y ella de la Verdad, Tomás incorpora al Estagirita, quien parecía olvidado por la ponderación de Dionisio. Así la reflexión de Aristóteles sobre la realidad ilustra perfectamente que la búsqueda de la comprensión de las sustancias es, según Tomás, el modo de ascenso a Dios mediante las creaturas. Y éste es el camino de la filosofía, que es indigente respecto de su fin propio en razón de que le es completamente trascendente. Y ésta también es la razón por la que Aristóteles representa para el Aquinate la figura más acabada de filósofo, porque al decir “en cuya contemplación el filósofo puso cierta felicidad contemplativa, y que es la felicidad en esta vida, y a la cual se ordena todo conocimiento filosófico” se entiende la estima de

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quatenus homo manuducatur ad illam contemplationem in statu viae per cognitionem non a creaturis sumptam, sed immediate ex divino lumine inspiratam; et haec est doctrina theologiae. Ex hoc possumus habere duas conclusiones. Una est, quod ista scientia imperat omnibus aliis scientiis tamquam principalis: alia est, quod ipsa utitur in obsequium sui omnibus aliis scientiis quasi vassallis, sicut patet in omnibus artibus ordinatis, quarum finis unius est sub fine alterius, sicut finis pigmentariae artis, qui est confectio medicinarum, ordinatur ad finem medicinae, qui est sanitas: unde medicus imperat pigmentario et utitur pigmentis ab ipso factis, ad suum finem. Ita, cum finis totius philosophiae sit infra finem theologiae, et ordinatus ad ipsum, theologia debet omnibus aliis scientiis imperare et uti his quae in eis traduntur.”

Tomás sobre este hombre, quien supo contemplar a Dios en esta vida y en cuya contemplación encontró felicidad. Así la filosofía señala a los filósofos y de entre ellos parece mejor encarnada en el Estagirita. Empero Aristóteles y los demás filósofos pertenecen al orden de la razón, de la filosofía, que es natural e imperfecta al carecer de la iluminación de la fe. Ellos contemplan a Dios reconociendo lo divino más allá de la física –o doctrina metafísica–, y lo hacen imperfectamente, por medio de las creaturas o a través de la física.

El ascenso imperfecto de la filosofía hacia Dios por medio de las creaturas no es la única manera de contemplarlo. Tomás menciona un modo directo, inmediato y perfecto. Este modo es la fe y su sustancia es el conocimiento del ser divino, no contrapuesto al camino de la filosofía, sino diferente y perfeccionante respecto de aquel. Por la filosofía Dios aparece como fin; por la fe, como principio y fuente de todo cuanto es, y que es también fin. Mas, nótese que el *corpus* menciona esta doctrina de Dios –alcanzada por la iluminación dada directamente sobre la mente por la luz divina– como teología.

La disciplina teológica no se opone a la filosofía ni se reduce simplemente a la fe. No hay propiamente exclusión entre filosofía y teología. No es la primera puramente racional, y la segunda, exclusivamente de fe. Ambas tienen en común el fin, que es Dios, y se distinguen según el modo de alcanzarlo. Por la filosofía, mediante la indagación racional; y por la teología, mediante la revelación. Y esta distinción tampoco aparece sopesada de la misma manera. La filosofía hace de principio y base del conocimiento respecto de la totalidad de existentes, mientras que la disciplina teológica colabora en la comprensión de Dios a través de los entes. Y así la teología no es un puro fideísmo en torno a Dios donde la razón queda de suyo excluida, sino la co-participación desigual entre la razón filosófica y la fe teológica con vistas a la contemplación comprensiva del misterio de Dios. De esta manera Dios, en cuanto fin, sintetiza, por un lado, el esfuerzo racional humano de aprehenderlo en su ser, y por el otro, el obsequio divino de la fe para lograr traspasar este mismo esfuerzo racional que es también y simultáneamente límite. Así Dios se muestra como el cielo para el hombre, que busca morar en él, en tanto y en cuanto es recompensa y obsequio, siempre que el hombre haya hecho de la filosofía su vida y haya aceptado, por predisposición metafísica, la exigencia filosófica de la apertura a la fe.

Lo que sigue en la respuesta de Tomás es la explicitación de consecuencias inmediatas a partir de tal planteamiento. Si la filosofía tiene como fin conducir al hombre a Dios, entonces dicha disciplina está sujeta, junto con todas sus divisiones, a la teología, ya que esta última doctrina considera a Dios principalmente desde su ser, que es principio radical, y lo hace según la fe. Luego, si todo saber está sujeto a la teología, entonces esta subordinación

de ciencias refleja en el ámbito de los entes la dependencia de su ser creatural respecto de Dios. De allí que las disciplinas filosóficas y la teología traten sobre toda la naturaleza y lo realicen de una doble manera, sea en tanto hay una comprensión racional de la misma, sea en cuanto hay una iluminación advenida por la fe.

Finalmente, Tomás introduce una nota sugerente cuando señala que el gobierno de la teología es al modo de la medicina, porque expresa perfección –armonía entre las disciplinas al modo en que lo hay en la naturaleza– cuando hay salud, y expresa asistencia con vistas a la curación –corrección de los desvíos de la razón, como el caso de las objeciones, para volver al cauce originario– cuando hay enfermedad.

#### 4. CONSIDERACIONES FINALES

En torno a la noción de filosofía se ha alcanzado una primera aproximación según la *opera omnia* tomística. Este primer momento, ceñido al lib. I, q. 1, art. 1 del Comentario las Sentencias de Pedro Lombardo, destaca algunos argumentos de los interlocutores de Tomás, donde su persuasión y fuerza viene desde la dialéctica entre la filosofía y la novedad radical de la revelación cristiana. Aquella acentúa, en contra de dicha novedad, la clausura y autosuficiencia de la razón con respecto a la fe, y en lo que hace a la contemplación de Dios por medio de la sustancias, mostrando que la filosofía estudia solo la totalidad de las cosas existentes. Aquí, me parece, se abre camino y se sitúa la respuesta definitiva de Tomás. La filosofía no es meramente física y la teología no se reduce a un racionalismo de tipo físico ni a un puro fideísmo –según una inadecuada comprensión de la virtud infusa de la fe–, sino que en sí misma puede pensar reflexivamente sobre Dios, que es misterio.

El alcance de la filosofía en la teología configura este último saber de modo particular donde habría dos momentos trabados armónicamente. La teología, mediada por la fe, trataría en un primer momento sobre Dios, haciendo las veces de principio y fundamento de este saber. Su segundo momento es aquel que le corresponde a la razón. Éste, sujeto a aquél de la fe, es el principio natural por el cual buscamos comprender a Dios. Y así la fe iluminaría solo en parte el misterio de Dios aproximando la racionalidad humana al mismo Dios.

A este primer momento se lo suele mencionar como teología misteriosa, y al segundo como metafísica. Empero, según lo hasta aquí expuesto, tales momentos no son partes diferentes y separadas de suyo como si fuesen dos ciencias de géneros diversos, sino una misma ciencia que se explicita en tales

instantes, al mostrar que el saber teológico exige que la razón piense la fe. Y así la filosofía es fundamentalmente el conocimiento de las causas de todo cuanto existe, y por esta tarea suya es llamada sabiduría imperfecta e *in via* de Dios.

Según esta comprensión se observa una resignificación de la filosofía. Su límite es la libertad de la razón (natural) sobre la naturaleza. La fe incorpora, asume, atraviesa y dirige el pensar filosófico en lo que respecta a Dios y la creación, expandiendo el horizonte de comprensión racional. De esta manera la filosofía (i) no se opone a la teología, (ii) le queda sujeta interiormente (porque bajo cierto respecto le es constitutivo su pensar), (iii) no se opone a la fe y se halla pre-supuesta y en tensión hacia aquella.

Por la filosofía se contempla a Dios imperfectamente e *in via* en tanto este saber señala un conocimiento racional sin fe y expuesto a la trascendencia. En cambio por el conocimiento infuso de la fe se señala la contemplación de Dios de modo más perfecto que el filosófico por cuanto culmina en la vida sobrenatural *in patria* ante Dios.



## THE MELANCHOLIC AND THE CHOLERIC: TWO KIND OF EMOTIONAL INTELLECTUALITY

*El melancólico y el colérico: dos tipos de intelectualidad moral*

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### ABSTRACT

In this paper, we will conduct a reformulation of the means of emotional representation in intellectuals according to the principles of cognitivism, searching for the existence of an emotional archetype distinct from the classical *melancholic* and the *choleric*. In both cases, we look to explore the emotions related to the melancholic and choleric temperament and propose a link between multiple sociological theories of knowledge, before ending with a reinterpretation of the famous metaphor of the bee and the spider as representations of the characteristic features of the choleric and the melancholic intellectual respectively.

*Key words:* cognition, emotion, intellectual, history of philosophy, psychology of behaviour, sociology.

### RESUMEN

En este ensayo realizaremos una reformulación de los medios intelectuales de representación emocional en de acuerdo con los principios del cognitivismo, buscando un arquetipo emocional que es diferente de los clásicos *melancólico* y *colérico*. En ambos casos, queremos explorar las emociones que están relacionadas con los temperamentos melancólico y colérico y proponer

un vínculo entre múltiples teorías sociológicas del conocimiento y llega a terminar con una reinterpretación de la famosa metáfora de la abeja y de la araña como representaciones de los rasgos característicos del colérico y del melancólico respectivamente.

*Palabras clave:* cognición, emoción, intelectual, historia de la filosofía, psicología del comportamiento, sociología.

## 1. INTRODUCTION

In recent decades, the study of the history of emotions has been revitalized thanks to a large number of publications that have attempted to analyze the linguistic turn which has set down its roots in the early sixties. And, ultimately, according to the father of logical positivism Alfred Jules Ayer<sup>1</sup> became stifled by its insistence on the connection between knowledge and definition. In researchers' attempts to break free of this relationship, we can trace a return to the "life sciences" that has otherwise neglected to consider the relationship that intellectuals have themselves maintained with emotions as a starting point for their analysis of the discipline in question. Furthermore, in the few studies that have addressed this, including Aristotle's *Problem XXX*, *The Anatomy of Melancholy* by Robert Burton, *Great Men* [Grösse Manner] by Wilhelm Ostwald, Jung's *Psychological Types* [Psychologische Typen], *The Origin of German Tragic Drama* [Ursprung des deutschen Trauerspiels] by Benjamin, *What is a European intellectual?* [Aufstieg und Fall der Intellektuellen in Europa?], and *Melancholy and Society* [Melancholie und Gesellschaft] by Wolf Lepenies, *Saturn and Melancholy* by Kli-bansky, Panofsky and Saxl, and *Montaigne and Melancholy* by Screech, we constantly run up against the deficiencies inherent in the use of the obsolete categories associated with concepts such as temper and humor.

Stemming from Aristotle's reflections on the incipient analogy between genius and temperament in *Problem XXX*, there has emerged a long tradition that associates the *intelligentia* exclusively with a certain melancholic emotional character. Nevertheless, philosophy and psychology now offer new niches for research that allows us to address the history of emotions and the role of the intellectual from a perspective capable of overcoming such reductionism by providing a much-enriched and reliable narrative history of the phenomenon. Henceforth, we will attempt to explicate the conditions that make possible the opening up of a new conceptual terrain that might

1. AYER, A. J., *Language, Truth, and Logic*. London: Gollancz, 1946, p. 35.



facilitate an understanding of the already-existing reciprocity between intellectuals and the emotions that characterize them. This would allow for a fresh perspective from which to address a problem that remains as relevant today as it was in preceding centuries, with the proposal of a new emotional model: the choleric.

In order to approach a “choleric” form of intellectual emotionality - with the intention of avoiding the monism of the traditional connection between intellectuals and melancholy and the implicit humoral immutability that this entails - we will take a cognitive approach, with Alexander Shand, Magda Arnold, Anthony Kenny and Richard Stanley Peters as our main points of reference and complementing the rational elements of their work with a sociocultural component. The postulation to which all of them subscribe in some way lies in the link between emotion and belief based on a relationship of mutual dependence. In this context, we will analyze the key aspects of humoral theory to outline the existence of a new type of intellectual from its precepts and, thus, overcome the limitations of presenting a cognitivist definition not only of the traditional melancholic mood of the intellectual, but also of that put forward in this work: the choleric. In the case of melancholy, we will use the observations of Walter Benjamin to identify the particular belief that lies behind a melancholic state. In the case of the choleric, we limit our study to a very specific spatio-temporal framework in which Deleuze’s notion of the fold and the sources of these folds are highly representative.

Once we have established the existence of two emotionalities, we will then examine how melancholy is associated with “creation ex nihilo” and why the same cannot be said with regards to the choleric temperament, the formation of which is tied to a particular transferal of signifiers. We briefly review the properties of each in relation to properties such as mental agility, monomania and omnimania, and intellectual rigour among others. After presenting some illustrative cases of each, this project will culminate with the proposal of a unifying framework that brings together the divergent sociological theories regarding the reality of the intellectual and the emotions they experience in their relationship with the academy. On the one hand, we note that melancholic intellectuals adhere to a form of innovation that excludes any and all academic institutions: they are “outsiders” that live on the borders of cultural ecumene, conditions that turn them into eccentric philosophers who spread their influence through writing rather than through a direct impact on their contemporaries. On the other, we have the choleric, characterized by a natural competitiveness and a boldness that leads to high levels of sociability, whose cultural production takes shape inside institutions that provide individuals on whom they can impose themselves. As a final point, we conclude

our paper with the reinterpretation of a literary metaphor that will serve as a unique synthesis of all that we have discussed along the way. In doing so, not only will we make visible a gap in research into the history of emotions, but will also open a new and unexplored line of inquiry through which to open up a fresh dialogue about the role that emotions play in shaping the intellectual character.

## 2. REVIEWING HUMORAL THEORY: A NON-INITIATE EMOTIONALITY AT THE DAWN OF THE HISTORY OF THE EMOTIONS OF THE GENIUS

“Au petit matin, le roi François I<sup>er</sup> quittait le lit de sa maîtresse pour regagner incognito son château. Il passa alors devant une église juste au moment où les cloches sonnaient l’office. Emu, il s’arrêta pour assister à la messe et prier dévotement”.

LUCIEN FEBVRE

In “L’Histoire des mentalités”, then French historian Philippe Ariès transcribed his compatriot Lucien Febvre’s story about King Francis I<sup>2</sup>. This is a story which forces us to ask ourselves the following question: Did King Francis act hypocritically? The classical historian, prisoner of the conviction of moral coherence, will think that the sanctuary bell awakens the King’s regret for his sin and pushes him to pray for God’s forgiveness. The historian of emotions, however, will suspect that the King is not really aware of the contradictions to which he has fallen prey by acting so spontaneously and naïvely, as much in his devotional as in his amorous behaviour. With this reference in mind, we would like to invite readers to start thinking about the ontological character of emotions.

As suggested by D’Holbach in *Système de la nature* in the late-eighteenth century, the historical origins of genius and the study of its related emotions are foreshadowed in mythology<sup>3</sup>. Subsequently, a more plausible explanation was pursued through a dual anthropological-physiological approach, leading to a humoral proto-theory of hydraulic origins. Following Silvia Vegetti<sup>4</sup>, it is in Plato that we find the first hints of this proto-theory in an axiomatic

2. ARIÈS, P. “Historia de las mentalidades”, en LE GOFF, J.; REVEL, R. C., *La Nueva Historia*. Bilbao, Mensajero, 1980, 60-61, and “L’Histoire des mentalités”, en, LE GOFF, J., *La Nouvelle Histoire*. Brussels: Complexe, 2006, p. 167.

3. D’HOLBACH, P. H. T., *Sistema de la Naturaleza*, edition by José Manuel Bermudo, Madrid, Nacional, 1982, p. 386.

4. VEGETTI, S., *Historia de las pasiones*, Buenos Aires, Losada, 1998, 69 ff.

biologist who turned emotions into immutable categories based upon the existence of a magma of liquids that could be located inside the human body. This model that would later be taken up without any substantive changes by Greek physician Galen of Pergamum. Thus, classical studies understood the most primal emotions as physical, unshakable, hydraulic and irrational<sup>5</sup>.

Both the irrational and biological components were eventually superseded during the Hellenic period, when the emphasis in the understanding of the nature of emotions began to shift towards rational factors deduced from the analysis of emotional discourse. Nonetheless, we can trace this trend all the way from Aristotle to the present, through what is roundly considered to have been a cognitive revolution in the study of emotions<sup>6</sup>. Aristotle noted that an emotion such as anger was caused by the feeling of having been despised defining it from the perspective of the physicist “as the appetite for returning pain for pain”<sup>7</sup> and from that of the naturalist “as a boiling of the blood or warm substance surrounding the heart”<sup>8</sup>. He even considered that the emotion of fear corresponded to a mental representation of some destructive or painful future evil<sup>9</sup>. His approach was eminently rational as it implied that there is a component which responds to beliefs based on a rational judgment of any emotion. Sextus Empiricus would have agreed with Aristotle on this matter, exclaiming that “there are the unfounded opinions we have about the things [which] cause our confusion, and make us unhappy”<sup>10</sup>. However, away from the Aristotelian schema, in a magisterial essay on Hellenistic philosophy, American philosopher Martha Nussbaum demonstrates how this rational component only took hold over the study of emotions relative to the varying degrees of influence, constitution and competence of the different academies of the period. Thus, for example, the Stoics considered emotions as a certain sort of “belief or judgment”<sup>11</sup>. They were not an immutable phenomenon, but rather something susceptible to change.

5. PANKSEPP, J., “Toward a general psychobiological theory of emotions” en *The Behavioral and Brain Sciences*, 5, 1982, 407-467; EKMAN P., *Emotion in the human face*, New York, CUP, 1982; AVERILL, J. R. “A semantic atlas of emotions concepts”, *JSAS Catalog of Selected Documents in Psychology*, 5, 1975, 330.

6. FORTENBAUGH, W. W., *Aristotle on Emotion*, London, Duckworth, 1975, p. 15.

7. ARISTOTLE, *The Major Works*. Pittsburgh, Centaur, 2015, 1; 1987, p. 135.

8. ARISTOTLE, *Ibid.*, p. 135.

9. ARISTOTLE, 1999, 96, 1382a23.

10. SEXTUS EMPIRICUS, translation and edition by R. G. Bury, Cambridge, Massachusetts, Loeb Classical Library, 1987, 439.

11. NUSSBAUM, M., *The Therapy of Desire: Theory and Practice in Hellenistic Ethics*. Princeton, Oxford, Princeton University Press, 1994, p. 85; *La terapia del deseo: teoría y práctica en la ética helenística*, Barcelona, Paidós, 2012, p. 461 ff.

The consideration of emotions in terms of their rational component permeated the borders of the Ancient World, influencing the thought of some of the greatest minds of Modernity. The character perhaps most representative of this phenomenon is Spinoza, who stated that “love is just pleasure with the accompanying idea of an external cause”<sup>12</sup>. Once again we may observe that ideas and beliefs inevitably accompany the emotions.

After the great wave of behaviourism came a rebirth of cognitivism in the form of *Emotion and Personality* (1963) by Czech-American theorist Magda Arnold. Her formulation of the theory of emotions, known as “appraisal theory”, maintained that emotions were activated by a previous cognition, possibly unconscious, that could materialize itself in our consciousness through reflection. Emotions, in this sense, would include not only “an appraisal of the situation as being of a certain sort that is harmful or beneficial to the agent”<sup>13</sup>, but also “a felt tendency towards or away from an object”. These thoughts stem from the English writer and lawyer Alexander Shand’s claim that emotions are cognitive attitudes<sup>14</sup> and are subsequently reflected - after Arnold - by Leeper, who states that “emotions are perceptual processes [with a] definite cognitive content”<sup>15</sup> and by Peter who stressed the appreciatory nature that resides in every emotion which cannot be identified without a prior assessment that the experiencing subject conducts about itself<sup>16</sup>. While cognitive psychologists were contributing their own grain of sand toward the creation of a robust theory of emotions by facing up to the premises of the past, sociological theorists were making strides with their own particular focus that would, ultimately, complement the first. If cognitivism had established that emotions were a kind of model for evaluation, or a hermeneutics of the mental states of individuals, sociology noted that this evaluation was itself determined by the socio-cultural context in which it occurred. After Othello, perceptions of emotions such as jealousy began to take shape in the light of a new set of parameters; diseases associated with the emotions of Freud’s patients were studied according to Viennese cultural

12. SPINOZA, B. *Ethic: Demonstrated in Geometrical Order*, London, Trünmer & Company, 1883, p. 216; *Ética demostrada según el orden geométrico*, Madrid, Trotta, 2005, p. 131.

13. ARNOLD, 1960 ápuđ Peters, 1970, *Feelings and Emotions: The Loyola Symposium*, Chicago, Academic Press, p. 193.

14. SHAND, A. *The Foundations of Character*, London, Macmillan, 1914, p. 178.

15. LEEPER, R. W., “The Motivational and Perceptual Properties of Emotions as Indicating their Fundamental Character and Role” en ARNOLD, M.: *Feelings and Emotions: The Loyola Symposium*. Chicago, Academic Press, 1970, 1970, ápuđ ARNOLD, 1970, p. 156.

16. LEEPER, *Ibíd.*.

patterns whilst the same thing occurred with Bowlby and Winnicott's analysis of emotional life in Britain<sup>17</sup>.

The social dimension of emotions, as with the cognitivist perspective, also finds its roots in Modernity with Sir Francis Bacon. Bacon had already noticed that "men in company are more open to affections and impressions than when alone"<sup>18</sup>. Thus, melancholy, for instance, could affect a particular social group at a given moment - as with the German bourgeoisie - whilst leaving the rest of society intact<sup>19</sup>. Similarly, social changes that accompanied the transition from "noblesse d'épée" to 'noblesse de robe" would have an impact not only on the experience of emotions, but also on their understanding and comprehension. In short, research into social contexts and their relationships to the emotions of the past and present have led to the formation of a new science of "emotionology", spearheaded by authors such as Peter Stearns, Professor of History at Harvard University, who addressed "the attitudes or standards that a society, or a definable group within a society, maintains toward basic emotions and their appropriate expression"<sup>20</sup>. In sum, the idea that we should take away from this brief summary of Humoral Theory is that the complexity of emotion lies in its multi-faceted cognitive, sociocultural and biological constitution. Therefore, the keys to an accurate interpretation of emotions lie in the evaluation of each of these parts in relation to the whole. However, in this paper, as warned at the beginning, we do not address them all. Instead, we limit ourselves to signposting some areas that still require examination, with an emphasis on the cognitive and sociological aspects in order that we may use them to address the very nature of intellectual emotionality.

### 3. INTELLECTUAL EMOTIONALITY

A hermeneutics which is capable of forming a holistic theory of emotions, should be able to overcome the descriptive and systematic gap in the analysis

17. NUSSBAUM, M., *Paisajes del pensamiento: la inteligencia de las emociones*, Barcelona, Paidós, 2008, p. 171.

18. BLOOM, H., *The Anxiety of Influence: A Theory of Poetry*. Oxford: Oxford University Press, 1997, xxxvi; *La ansiedad de la influencia. Una teoría de la poesía*. Translation by Javier Alcoriza and Antonio Lastra. Madrid, Trotta, 2009, p. 38.

19. LEPENIES, W., ¿Qué es un Intelectual Europeo? *Los intelectuales y la política del espíritu en la historia europea*, Barcelona, Galaxia Gutenberg, 2007, pp. 55-75.

20. STEARNS, P. N.; STEARNS, C. Z., "Emotionology: Clarifying the History of Emotions and Emotional Standards", in *American Historical Review*, 90, 1985, p. 113.

of the relationship between the intellectuals who take up a particular position in relation to emotions and the emotions by which they themselves are characterized. At this point, it is important to briefly present an outline of the many definitions of the character of the intellectual that have been presented throughout history and will serve as our framework.

The emergence of the figure of the intellectual is traditionally ascribed to Modernity. In early modern times, the concept of the intellectual was one of a form of secular clergy<sup>21</sup>, and as part of the process of self-affirmation of man<sup>22</sup>. The modern intellectual represented the Promethean incarnation that overcame the Divine Order, reaffirming their autonomy through the rational control of the natural world<sup>23</sup> and producing a disenchantment that would then be accentuated during the Reformation<sup>24</sup>. Although we have inherited this image of the intellectual and it has, until now, retained its primacy, many contest the idea that the intellectual appeared as a figure during this period. French historian and epistemologist François Dosse, for example, indicates that St. Louis had already used the adjective “intellectualis” by the early-Middle Ages in reference to those who maintained some sort of relationship or attitude towards the mental faculty of intelligence<sup>25</sup>. Similarly, French historian Jacques Le Goff, again dates the appearance of the intellectual to the Middle Ages in the context of the dispute between nominalists and realists<sup>26</sup>. Even more ambitious are the proposals that enacted a breaking down of the spatiotemporal constitution of the intellectual, extending them across all of time and space<sup>27</sup>.

### 3.1. *The melancholic intellectual*

In this regard, the need to define what the *intelligentia* and the intellectual are, may always have been present in man. Pseudo-Aristotle was the first to

21. BENDA, J., *La traición de los intelectuales*, Barcelona, Galaxia Gutenberg, 2007, p. 23

22. BLUMENBERG, H. *La legitimación de la Edad Moderna*. Translation by Pedro Madrigal, Valencia, Pretextos, 2008, p. 145.

23. BLUMENBERG., H., *Trabajo sobre el mito*, Barcelona, Paidós, 2003, p. 603.

24. WEBER, M., *La ética protestante y el espíritu del capitalismo*, Barcelona, Península, 1997, 147.

25. DOSSE, F., *La marcha de las ideas: historia de los intelectuales, historia intelectual*, Valencia, Universidad de Valencia, 2007, p. 21.

26. Le Goff 1996, p. 33.

27. ARON, R., *L'Opium des intellectuels*. Paris, Calmann-Lévy, 1955, p. 213.

deal with these issues. He was pioneering in his relating of them to the emotions. In his view, intellectual or heroic exceptionality could not be separated from melancholic suffering: “Why is it that all those men who have become extraordinary in philosophy, politics, poetry, or the arts are obviously melancholic, and some to such an extent that they are seized by the illnesses that come from black bile, as is said in connection with the stories about Heracles among heroes?”<sup>28</sup>. In ancient times, Saturn was the celestial body that induced melancholy; it guided men to the contemplation of supreme realities and produced unusual philosophers strongly attracted to the transcendent. Melancholy would be the consequent emotion of an intellectual reflection on reality, resulting in the assertion of a world devoid of meaning. Few definitions of this feeling of meaninglessness are as astute as Pascal’s: “The soul finds in herself nothing which satisfies; she finds nothing but what grieves her when she thinks of it. This compels her to look abroad, and to seek, by a devotion to external things, to drown the consciousness of her real condition. Her joy consists in this oblivion; and to compel her to look within, and to be her own companion, is enough to make her wretched”<sup>29</sup>.

German-Canadian philosopher Raymond Klibansky might be deemed to have come close in his portrayal of a young Italian philosophy student, Carlo Michelstaedter. Michelstaedter described this impossible-to-explain feeling, in kierkegaardian terms, as the source of the melancholy suffered by the intellectual: “Melancholy is a slow, regular rainfall, because she expresses to man the infinite monotony, the immutability, the absence of finality in all things (a.trans.)” [“La mélancolie est une pluie lente, régulière, parce qu’elle dit à l’homme l’infinie monotonie, l’immuabilité, le manque de but des choses”<sup>30</sup>].

The intellectual is melancholic because he suffers a painful blow that causes a change in his relation of signifiers; it is the dramatic affirmation of a truth which leads to an emotional state of affliction, causing him retreat from the social sphere. Melancholy is not exclusively the fruit of the intellectual relationship with reality in an absolute sense, as German philosopher Hans Blumenberg states<sup>31</sup>. It also occurs in those who experience the most mundane pains. Thus, for example, Heraclitus, the dark philosopher of Ephesus, fell pray to misanthropy and went to live to the mountains where he ate herbs

28. PSEUDO-ARISTOTLE, 2011, p. 277; 2004, p. 382.

29. PASCAL, *Thoughts of Blaise Pascal*, Boston, Gould, Kendall and Lincoln, 1849; *Pensamientos*. Madrid, Alianza, 1981, p. 60.

30. KLIBANSKY, R.; PANOFSKY, E.; SAXL, F., *Saturno y la melancolía*, Madrid, Alianza, 1991, 1998, p. 164; 1999, p. 105.

31. BLUMENBERG, H., 2008, p. 12.

and plants to avoid suffering the consequences of the inept political structures of the state<sup>32</sup>. In a similar vein, Hamlet, who was exceedingly hot-heat-ed<sup>33</sup>, became melancholic when he found himself overcome with passion<sup>34</sup>; Robert Burton, author of one of the finest essays on melancholy to date (see 1998), became melancholic after suffering the torments of an unloved childhood before being bullied as a student, after which he became a disorganized student and dissatisfied bachelor<sup>35</sup>; Auguste Comte fell into a period of melancholy<sup>36</sup> as a result of the Clotilde's death; and, finally, John Stuart Mill wistfully accepted that all his knowledge and skills were useless<sup>37</sup>. The most striking case is probably that of Spinoza. Through his experience, it becomes clear that melancholy is inherent in the experience of life. His story is that of a man who discovers that "all the usual occurrences of social life are vain and futile" ["tout ce qui arrive communément dans la vie ordinaire est vain et futile"<sup>38</sup>] and decides, in the summer of 1661, to confine himself to a room on the outskirts of Rijnsburg in a village located about 10 kilometers west of the university town of Leiden<sup>39</sup> (cf. Stewart, 2006: 59). With the exception of Heraclitus, these are all victims of the melancholic feeling that emerges from Lutheranism and, as Walter Benjamin's posits<sup>40</sup>, carries with

32. EGGERS LAN, C.; JULIÁ, V. E., *Los filósofos presocráticos*. Madrid, Gredos, 1986, p. 319.

33. CAMPBELL, L. B., *Shakespeare's Tragic heroes: Slaves of Passion*, London, Matheun, 1978, p. 112.

34. SHAKESPEARE, W. *Obras completas*, Madrid, Aguilar, 1967, p. 1359.

35. MESNARD, P., "Robert Burton, théoricien et clinicien de l'humeur mélancolique". *La Vie médicale, special number Humeur et agnoisse*, 1962, p. 69.

36. COMTE, A., *Correspondance*, Paris, Mouton, 1977, p. 374.

37. MILL, J. S., "Autobiography and Literary Essays", en ROBSON, J. M.; STILLINGER, J.: *Collected Works of John Stuart Mill*. Toronto, University of Toronto Press, 1981, pág 139.

38. MILL, J. S., *On the Improvement of the Understanding. The Ethics. Correspondence*. Translation and introduction by R. H. M. Elwes. New York, Dover, 2012, p. 3; *Traité de la Réforme de L'Entendement et de la meilleure voie a suivre pour parvenir a la vraie connaissance des choses*, Translation and notes by A. Koyré, Paris, Librairie Philosophique J. Vrin, 1994, p. 4. *Traité de la Réforme de L'Entendement*, Translation by A. Koyré, Paris, Librairie Philosophique J. Vrin, 1974, p. 5.

39. STEWART, M., *The Courtier and the Heretic. Leibniz, Spinoza and the fate of God in the Modern World*, New York, London, W. W. Norton & Company, 2006, 59.

40. BENJAMIN, W., *El origen del Trauerspiel alemán*. Edition by Rolf Tiedemann and Hermann Schweppenhäuser. Translation by Alfredo Brotons Muñoz. Madrid: Abada, 2012, p. 136.



it a certain disenchantment with reality.<sup>41</sup> Benjamin was himself considered by friends as a sad person<sup>42</sup> and once stated that “the characteristic of the sad man is primarily his intellectual depth” (a.trans).

As we noted earlier, one of the main symptoms of the melancholic intellectual is a detachment from earthly things and the present that manifests itself in an intense fixation on the past. The melancholic intellectual is a nostalgic. Too often they tend to monomania, to exaggerated passion over misconceptions so intense that it robs them of their freedom<sup>43</sup>. Therefore, they are able to specialize in certain subjects on which they may work for years. Their need to always appear free from error in the eyes of the world and to pursue perfection at all costs means that their works are rare and oft-delayed, as with the Spinoza’s *Tractatus theologico-politicus* and Comte’s *Course in Positive Philosophy*. At the same time, these individuals are characterized by their aesthetic carelessness, as was the case with Spinoza<sup>44</sup>. Marsilio Ficino justified this carelessness on the basis that melancholic intellectuals conceived of the psyche as detached from the earthly body and without an afterlife, much like the children of Saturn children after being devoured by their father<sup>45</sup>.

The experience of the futility of all things that accompanies such saturnine leanings towards the disdain of creation shines through in the search for utopia<sup>46</sup>; in trying to “form a social order such as is most conducive to the attainment of this character by the greatest number with the least difficulty and danger” [“former une société, telle qu’elle doit être afin que le plus grand nombre [d’hommes] arrivent, aussi facilement et aussi sûrement qu’il se peut, à ce but”] (1994: 12; 2012: 6-7; 1974: 80). However, this utopianism is hypothetical. It does

41. Benjamin explains that, by rendering the works of man as manifestations of vanity, a corollary of Lutheranism would be to make life insipid (cf. 2012: 136) and leave man with “an empty world” (1998: 139 BENJAMIN, W., *El origen del Trauerspiel alemán*. Edition by Rolf Tiedemann and Hermann Schweppenhäuser. Translation by Alfredo Brotons Muñoz. Madrid: Abada, 2012, 136). Moreover, Luther himself noticed that many of his followers began to suffer from melancholy: “Nothing but anxiety can be gained from forever tormenting oneself with the question of election” (apud Midelfort, 1999: 106). The consequence is the death of the relationship between meanings, as these have been modified to generate the self-stimulation necessary to initiate certain responses (KRISTEVA, J., *Sol negro. Depresión y melancolía*, Caracas, Monte Ávila, 1991. p. 15).

42. SCHOLEM, G., *Walter Benjamin. Historia de una amistad*, Barcelona, Península, 1987, p. 38.

43. DURKHEIM, E., *El suicidio*. Madrid, Akal, 2008, 22-23.

44. DOMÍNGUEZ, A., *Biografías de Spinoza*. Madrid, Alianza, 1995, p. 112.

45. FICINO, M., *Tres libros sobre la vida*, Madrid, Asociación Española de Neuropsicología, 2006, 27.

46. Lepenies., 2007, p. 40 ff.

not look for a translation into reality, but is a purely intellectual exercise. Those pursuing utopia do not try to convince others, so they exert little influence on their contemporaries. Spinoza puts this beautifully in a famous letter to German theologian and philosopher Henry Oldenburgen in which he states that he let everyone live according to their own values and judgements, whereas he lived according to the truth<sup>47</sup>. At other times, this desire to escape reality has drastic consequences, thus Jousset and Moreau de Tours warn in their *Dictionnaire de médecine et de chirurgie pratique* that melancholy may result in suicide<sup>48</sup>.

French writer Maurice Barrès stated that all intellectuals are melancholic (cf. 1889: 64). In our view, this widely-held preconception needs to be revised in order to avoid the bias of a diagnosis that obviates any meaningful characterization of the intelligentsia. Is it fair to say that the omnimaniacal Leibniz, the ardent Voltaire or the imposing Rousseau were melancholic? These and many others demonstrate a different kind of emotional intellectuality that has clearly been neglected. It was Nobel Prize winner in Chemistry (1909) Wilhelm Ostwald who in his studies - which were certainly very inspiring to Swiss doctor Carl Gustav Jung - proposed the existence of two kinds of intellectuals, the classic sort and the romantic sort (cf. 1910: 44). If we compare the four ancient temperaments and, taken as a demarcation criterion, the mental reaction-rate proposed by Ostwald<sup>49</sup>, the result is clear and definitive: the classic intellectual would be he who reacts slowly, linking him to the phlegmatic and melancholic temperament; on the opposite side, the romantic intellectual, who reacts quickly, would be identified with the sanguine and choleric temperament (cf. Ostwald, 1910: 372). Although Ostwald's observations represent an obvious starting point, we wish to distance ourselves from them because they lead to a temperamental fatum that we intend to refute. We instead recognize two non-temperamental emotional types, the melancholic and the choleric, which are in a way debtors of the classic and romantic, but transcend the immutability of those categories and render themselves dependent on a cognitive framework that attributes a value judgment to emotional states.

47. SPINOZA, *Correspondencia*, Madrid, Alianza, 1988, p. 231.

48. DURKHEIM, E. *El suicidio*. Madrid: Akal, 2008, p. 27.

49. OSTWALD, W. *Grösse Manner*, Leipzig, Akademische Verlagsgesellschaft, 1910, p. 44 ff. Jung found this classification superficial as if focussed too much on external impressions of the subjects. He stated that the fact that a certain reaction was not externalized quickly does not imply that the reaction itself did not occur (JÜNG, C. G., *Tipos psicológicos*. Translation by Ramón de la Serna, Buenos Aires, Sudamericana Buenos Aires, 1964, p. 431). He also found the Kantian distinction between "slow minds" and "fast minds" to be superficial (see KANT, I., *Antropología*, Madrid, Alianza, 1991, p. 46).

### 3.2. *The choleric intellectual*

We now look back to the France of the “Grand Siècle” that, as historian Jules Michelet explains, Voltaire himself called “THE Century of Louis XIV”. During the Baroque period, the notion of the intellectual was refined and the majority of kingdoms in it were transformed into absolute monarchies. There was also a centralization of power which resulted in an increasingly efficient bureaucratic machine. In an ever-more sophisticated State, a predominantly uneducated warrior nobility (“noblesse d’*épée*”) emerged as a problem. Thus, it had to be incorporated into the “noblesse de robe” formed of members of the lower nobility and country-dwellers with administrative and legal posts. However, the problem, far from being solved, was exacerbated further by the formation of military groups such as the Fronde. There also appeared the threat of mass suicide as a result of what Louis XIV himself called “la fureur des duels” (1860: 377; 1988: 17). The idea, according to Jewish-German sociologist Norbert Elias<sup>50</sup> was to disable the nobility through the creation of an exhaustive formal system and the formation of a court society which would guarantee the stability of the Kingdom and, at the same time, control the constant tussle for prestige and noble status. Still, the situation of the “noblesse d’*épée*” was nonetheless dramatic. It was consecrated as a reflection of what was, in the words of French historian Jean-Hippolyte Mariéjol, the sorriest state ever known: burdened by poverty; wracked by idleness; oppressed to the point of despair (cf. 1905: 390). The final outcome, against all the odds, would entail a drastic change of direction.

The Baroque, as it was understood by Gilles Deleuze, represented more than merely an essence, pointing us towards the operational function of the fold<sup>51</sup>. In these terms, the nobility can be seen to bow to the Republic of Letters, with the conversion of the militarist into the philosopher<sup>52</sup>. In this context, we cannot talk of a sublimation as would be deduced from Schopenhauer’s hydraulic design, since the fold does not neutralize strength; it rather, in the nietzschean sense, allows this force to manifest itself in the turning of heated debate into a matter of two wills to power looking impose themselves on one another. Although the nobility would not cease to fight, they would no longer do so with the sword but with pen: warriors’ attacks were replaced by literary battles. It was precisely at this point that the Hall and

50. ELÍAS, N., *La sociedad Cortesana*, Madrid, FCE, 1982, 107 ff.

51. DELEUZE, G., *El Pliegue: Leibniz y el Barroco*, Barcelona, Paidós, 1989, p. 111.

52. *Ibid.* 2009: 119.

the Royal Academies, as spaces or “battlefield”, were created.<sup>53</sup> These spaces allowed for the emergence of very tight emotional communities in which emotional bonds were established and through which attempts were made to define and assess the emotions that were brewing in other environments, whilst simultaneously proposing their own means of emotional expression in opposition to these<sup>54</sup>.

The emotional code par excellence of such close-knit groups was choleric in nature. Whereas Evagrius Pontic condemned melancholy for its sinfulness<sup>55</sup>, these communities rejected melancholy as it was an emotion that refused the struggle for the cultural capital that flourished in the aforementioned Republic of Letters. The “noblesse d’épée”, heirs to the medieval “bellatores”, accepted choleric emotion by dint of its own virtue; only in servants was it seen as a “disease of the soul”<sup>56</sup>.

Much as the melancholic, as discussed above, is identifiable with a particular belief, the choleric may be discussed in the same terms. The origin of the choleric temperament was rooted in the belief that one had been underestimated<sup>57</sup>. Furthermore, it first involved a desire for revenge and, secondly, the belief that those who had committed the offense should be punished. These new *choleric intellectuals* believed that a redressing of the balance was in order.<sup>58</sup> In these terms, as a primary emotion, the choleric temperament necessarily preceded the enactment of a desire to impose dominance over others; to compete and to win.

Choleric intellectuals might be described as restless<sup>59</sup>; they feel a very powerful force that moves them violently towards action<sup>60</sup>. They have what

53. It would be applied to the political sphere as a public space of action, following Hannah Arendt’s *Human Condition* (ARENDE, H. *La condición humana*. Barcelona: Paidós, 1993, p. 56).

54. ROSENWEIN, B. H., “Worrying about emotions in history”, in *American Historical Review*, 107, 3, 2002, 821-845.

55. PONTICUS, E., *Obras espirituales*, Madrid, Ciudad Nueva, 1995, p. 138.

56. PLATO, *Timaeus* Translation with introduction by Donald J. Zeyl, Indianapolis, Cambridge, Hackett, 2000, p. 84; *Timeo* Translation and edition by Ramón Serrano y Cantarín and Mercedes Díaz de Cerio Díez. Madrid, CSIC, 2012 30187a.

57. ARISTOTLE, *Retórica* Translation and edition by Antonio Tovar, Madrid, Centro de Estudios Políticos y Constitucionales, 1999, p. 97, 1378a31-33.

58. ARISTOTLE, 1999, p. 96, 1378b1, ff.

59. PROUST, 1987, p. 305.

60. VON ARNIM, H., *Stoicorum veterum fragmenta*, 3 vols. Leipzig, Teubner (1903-1905), p. 390.

Kant termed a “cancer of pure practical reason”<sup>61</sup>. Borrowing Seneca’s beautiful expression, the choleric rides a wave, and nobody know where it will break<sup>62</sup>. In accordance with Ortega y Gasset, the lives of choleric intellectuals find meaning in the doing of great deeds and in producing works of high caliber: “for certain men, the supreme delight is the frantic effort to create things - for the painter, painting; for the writer, writing; for the politician, organizing the state” (a. trans.) [“para ciertos hombres la delicia suprema es el esfuerzo frenético de crear cosas –para el pintor, pintar; para el escritor, escribir; para el político organizar el Estado”<sup>63</sup>] Again, unlike the melancholic, the choleric exerts a strong and direct influence over his contemporaries. His omnimania is unmistakable: he is more concerned with creating a vast multiplicity of original works than with the refinement of each individual work.

A considerable portion of the Enlightenment philosophers that belonged to the “noblesse de robe” rather than the “noblesse d’épée” ended up incorporating the beliefs of the latter. Leibniz himself admitted, using traditional medical categories, that “the choleric tendencies, however, seem to have the ascendancy”<sup>64</sup>. His 150,000-page manuscript, full of bright ideas on just about every subject imaginable, gives a good account of his omnimania<sup>65</sup>. Whilst the melancholic feels a fixation with the time, the choleric is obsessed with space; the place where he might take action, his battlefield. Perhaps that is why the author of *Theodicy* attempted, by any means possible, to enter the prestigious Royal Society with his famous calculating machine<sup>66</sup> and, shortly afterwards, tried his luck at the Royal Academy of Sciences in Paris<sup>67</sup>. D’Alambert, who belonged to the latter from the age of 25 - an early genius of history and, together with Diderot, father of *L’Encyclopédie*<sup>68</sup> - developed his research - as a good choleric should - in prestigious scientific institutions like the Royal Society of London and the Academy of Sciences in Berlin. With the help of Voltaire, he found his way into philosophical

61. KANT, I., *Anthropology from a Pragmatic Point of View*. Cup, 116 y Antropología, Madrid: Alianza, 1991, 204.

62. SENECA, *Tragedias: Hércules loco, Las Troyanas, Las Fenicias, Medea*, Madrid: Gredos, 1979, p. 392.

63. ORTEGA Y GASSET, J., *Obras Completas*, Madrid, Alianza-Revista de Occidente, 1983.

64. ÁPUD STEWART, M., *The Courtier and the Heretic. Leibniz, Spinoza and the fate of God in the Modern World*. New York, London, W. W. Norton & Company, 2006, p. 46.

65. STEWART, 2006, p. 147.

66. ECHEVARRÍA, J., *El autor y su Obra: Leibniz*, Barcelona, Barcanova, 1981, p. 23.

67. ECHEVARRÍA, J., *Ibid.* 24.

68. PAGDEN, A., *La Ilustración y por qué sigue siendo importante para nosotros*, Madrid, Alianza, 2015, p. 54.

circles through Madame Geoffrin's Hall<sup>69</sup>. All this helped to foster his sense of belonging to the *Republic of Letters*<sup>70</sup>, turning him together with Lagrange, into one of the great patriarchs of the European salons<sup>71</sup>; a common desire of the choleric intellectual. The encyclopaedic Louis Jaucourt also fits the profile of this sort of intellectual, contributing more than seventeen thousand of the seventy thousand entries that made up the *Encyclopaedia*. Even Diderot once even told Sophie Volland, referring to Jaucourt, that he was not bored of his papers because God had made him for that this very task<sup>72</sup>. Rousseau, despite his plebeian origins, promptly incorporated the noble beliefs that articulated choleric emotionality in service of his desire to stand out. Readily evident as early as his first work, *Discourse on the Sciences and Arts*, is a violent emotion and a passion that remains apparent in every word. Later, in *Confessions*, he related how his own passion sometimes clouded his understanding and prevented him from writing a single word, forcing him to make a huge effort to gather his thoughts<sup>73</sup>. His choleric character is extremely pronounced and he himself recognizes it in a letter to his mother dated 27 January, 1749: "The black bile gives me strength, and even wit and science. My choleric temperament is enough and is worth the same as an Apollo [...] Everyone has their weapons; rather than write songs for my enemies, I write them entries in the dictionary" (a.trans.) ["la bilis me da fuerzas e incluso ingenio y ciencia. La cólera basta y vale lo que un Apolo [...] Cada cual tiene sus armas; en vez de hacer canciones a mis enemigos, les hago artículos de diccionario"]<sup>74</sup>. He yearned to shine in society and to enter in the grand Salons. However, he would instead be condemned to poverty by his vile temper and his incredible insolence<sup>75</sup>. His eyes attracted wide attention for their brightness, revealing a sharp wit. This also happened to Voltaire, who represents a paradigmatic and extreme case: "Thin, curmudgeonly, bile-con-

69. MOSCOSO, J., *Ciencia y técnica en la Enciclopedia Diderot y D'Alembert*. Madrid, Nivola, 2005, p. 112.

70. *Ibid.*, 12.

71. FERRONE, V., "El científico", en VOVELLE, M.; ARASSE, D.; BERGUERON, L. *El hombre de la Ilustración*. Madrid, Alianza, 1992, p. 217.

72. TROUSSON, R., *Diderot. Una biografía intelectual*. Barcelona, Acantilado, 2011, p. 75.

73. ROUSSEAU, J.-J., *Oeuvres complètes*. Edition by Bernard Gagnebin and Marcel Raymond, Paris, Gallimard, 1995, pp. 113-114.

74. ÁPUD GUÉHENNO, J., *Jean-Jacques. Histoire d'une conscience*, Paris, Gallimard, 1952, 172.

75. CROCKER, G. K., *Jean-Jacques Rousseau: The Quest, 1712-1758*, New York, MacMillan, 1974, p. 263.

sumed, gaunt, an expression between spiritual and caustic, with brilliant, cunning, malignant eyes” (a.trans.) [“Delgado, de temperamento seco, la bilis consumida, el rostro descarnado, la expresión entre espiritual y cáustica, los ojos brillantes, astutos y malignos”<sup>76</sup>], he put the ardor of his works into his actions. Nervous and exalted, possessive of an explosive temper, so alive as to be bewildering, he is the choleric intellectual par excellence, capable of fighting battles left and right<sup>77</sup>.

Within this emotional schema, we cannot avoid reference to some choleric literary figures. In Jonathan Swift’s famous novel, *Gulliver’s Travels*, we find clear references to both the melancholic and the choleric temperaments. The Lilliputians were melancholic beings, lovers of the abstract and unaware of their own bodies<sup>78</sup>. However, inhabitants of Balnibarbis<sup>79</sup> walked quickly along the streets, with fierce aspect and a fixed-gaze; they are clearly choleric. In *Fathers and Sons* by Russian novelist Iván Turguénev, the main character, Bazarov, is challenging and scathing. His omnimania is evident when he is asked about his employment and replies that he employs himself in “natural sciences in general”<sup>80</sup>. His lover, Anna Sergeevna, lives terrified by him and senses an unfettered intellectual energy so anarchic that it suggests in her the deepest chaos explaining that living with him is like “walking on the edge of a precipice”<sup>81</sup>. Returning to *Gulliver’s Travels*, in the context of this article we will soon note the appearance of our own “Academy of Projectors”: the critics of the Royal Society, from whom we can observe an attack on institutionalized knowledge.

#### 4. SOCIOLOGY OF KNOWLEDGE AND EMOTIONS

In recent times, sociology has been to some degree responsible for reinforcing a belief in the existence of two forms of intellectual emotionality, yielding

76. MOSCOSO, J., *Ciencia y técnica en la Enciclopedia Diderot y D’Alembert*. Madrid, Nivola, 2005, p. 81.

77. GOULEMOT, J. M.; LAUNAY, M. *El siglo de las Luces*, Madrid, Guadarrama, 196, p. 105.

78. SWIFT, J., *Los viajes de Gulliver*, Edition by Pilar Aena. Madrid, Cátedra, 1992, p. 384 ff.

79. SWIFT, J., *Ibid.* 413.

80. TURGUÉNIEV, I. S. *Padres e Hijos*. Translation and notes by Rafael Cansinos Assens. Barcelona, Planeta 1987, p. 27; *Fathers and Sons*. Translation by Richard Hare. United States, RHYW, 2008.

81. *Ibid.* 329; 1987: p. 187.

results that allow both to become inter-linked through two of the most representative theories in the field: one that looks at the social networks operating between intellectuals and another that focuses on intellectual innovation.

Hungarian sociologist Karl Mannheim and the Viscount of Tocqueville, Alexis Henri Charles de Clérel, are key representatives of the sociological debate surrounding the link between the intellectual and society, be that as a whole or in relation to a particular group or social class. In the work of the first, we immediately recognize a rendering of the melancholic intellectual figure who has transcended subjectivity to reach the level of objectivity<sup>82</sup>. The melancholic intellectual (“freischwebende Intelligenz”)<sup>83</sup> is, in his view, socially disembodied; he lives lost in thought, abstracted, in exile. Set apart from the core of society – the emotional cauldron in which conflicts and debates take place – he has access to a more reliable understanding of reality. By contrast, the choleric intellectual does not subscribe to the tocquevillian thesis that links intellectuals to social class<sup>84</sup>. The choleric establishes an ambiguous relationship with society: he is influenced by it, but exerts influence upon it. Turning to Jewish philosopher Norbert Elias, he is both “die and coin”<sup>85</sup>.

With regard to theories of intellectual innovation – those which attempt to highlight the ways in which the intellectual produces knowledge – we encounter two crucial proposals: the first from American sociologist Thorstein Veblen and the second from Frenchman Pierre Bourdieu. The proposals of each have been synthesized by Elias into the traditional and the innovative respectively<sup>86</sup>. Firstly, in Veblen’s work we find reference to the figure of the sniper – or, as Italian sociologist Vilfredo Pareto would have it, the intellectual speculator<sup>87</sup> – readily associable with the profile of the melancholic intellectual. According to Karl Jaspers’ definition<sup>88</sup>, they experience a “marginality in suffering that crushes but does not destroy the existence [and] offers the chance to experience the limits that remain hidden to those living sheltered lives and to achieve maximum awareness of the reality of existence” (a.trans.) [“la

82. KLIBANSKY, R.; PANOFKY, E.; SAXL, F.: *Saturno y la melancolía*, Madrid, Alianza, 1991.

83. Mannheim takes this expression from Alfred Weber en 1987, *Ideología y Utopía*. Mexico, FCE, 1987, p. 137.

84. LEFEBVRE, G., *El nacimiento de la historiografía moderna*, Barcelona, Martínez Roca, 1974, p. 219.

85. 2001: 60; 1991: 97.

86. ELIAS, N., *Conocimiento y poder*, Madrid, Piqueta, 1994, p. 102.

87. 1935 ápuð BURKE, P., *Historia social del conocimiento: De Gutenberg a Diderot*. Barcelona, Paidós, 2002.

88. JASPERS, K., *Los Grandes Filósofos I: Los hombres decisivos*. Buenos Aires, Sur, 1966, 87.



marginalidad en el sufrimiento que aplasta pero no llega a destruir la existencia [y que] ofrece la posibilidad de experimentar los límites que permanecen ocultos a los que viven amparados y así lograr la máxima conciencia de la realidad total de la existencia”]. Here we are undoubtedly confronted with the painful reality of the melancholic. Veblen linked this form of intellectual production to the Jews, who rejected their own cultural heritage without fully assimilating heritage of the gentile; their idols destroyed without others coming to occupy their place. Their position on the frontier between two cultural worlds made possible the emergence of truly original approaches and it is for this reason that the ethics of Hasidic Jews are rooted in the recognition of themselves as “different and elsewhere” (a.trans.) [“diferente y en otra parte”]<sup>89</sup>. Furthermore, through work with a patient named Azariah, Doctor Joao Rodrigues de Castelo Branco –also known as Amato Lusitano– came to believe that almost all the Jews are, by nature, sufferers of black bile<sup>90</sup>. Similarly, Américo Castro stated that Jews were characterized by sadness: “The contradiction experienced by these souls - of feeling like both citizens and outlaws who had to walk in the shadows of the roofs - is latent and patent in the gloomy flowers of the ascetic and picaresque style” (a.trans.) [“La contradicción vivida por estas almas –de sentirse a la vez ciudadanos y forajidos que habían de andar a sombra de tejados–, está latente y patente en las flores lúgubres del estilo ascético y picaresco”]<sup>91</sup>. It is no accident that the picaresque novel is a style far-removed from the conventionalism of institutionalized knowledge. The condition of the melancholic relegates him to the outskirts of the habermasian city; or, as Thucydides would have put it, makes him a man ill-adapted to the needs of his city (cf. 1992: 457). They are the exiles of Edward Said<sup>92</sup>, those who do not feel themselves of the world because it has lost its charm. In the present, such a refusal might be likened, in Eco’s terms, to the segregatory attitude in mass culture of those of apocalyptic sensibilities<sup>93</sup>. Here, as Piedmontese says, pessimism is symptomatic, seeking to comfort the reader with the existence of a community of supermen “capable of rising up, if only through rejection,

89. ECO, U. *Apocalípticos e integrados*, translation by Andrés Boglar, Buenos Aires, Lumen, 1977, p. 13.

90. LUSITANUS, A., *Curationum medicinalium centuriae quatuor*. Venice: Balthesarem Constantium, 1557, p. 397; BARTRA, R. *Cultura y melancolía: Las enfermedades del alma en la España del siglo de Oro*. Barcelona, Anagrama, 2001, p. 103.

91. CASTRO, A., *España en su historia. Cristianos, moros y judíos*. Barcelona, Crítica, 1984, p. 578.

92. SAID, E., *Representaciones del Intelectual*. Barcelona, Paidós Studio, 1996, p. 59.

93. ECO, U. *Apocalípticos e integrados*, translation by Andrés Boglar, Buenos Aires, Lumen, 1977, *Ibid.*, p. 13.

above banality” (a.trans.) [“capaces de elevarse, aunque sólo sea mediante el rechazo, por encima de la banalidad media”]<sup>94</sup>.

Bourdieu offers the most plausible sociological model with regards to the intellectual counterpoint to the melancholic, the choleric. Choleric intellectuals are very comfortable forming part of the flow of institutionalized knowledge in all its forms: salons, clubs, universities and academies. Their high level of sociability pushes them to seek environments in which to exhibit themselves and compete, as they find a way to measure the will to power through dialectical struggles and the fight for symbolic capital<sup>95</sup>. They enjoy defeating their rivals and want to excel in the constant struggle through which their life is transformed. Choleric intellectuals are those who, as Pareto points out<sup>96</sup>, work within a tradition and fight to achieve a certain reputation<sup>97</sup>. The reality of *The Republic of Letters* is that choleric intellectuals were divided into literary factions within which, according to Adam Smith, “each cabal [was] often avowedly, and almost secretly, the mortal enemy of the reputation of every other, and [employed] all the mean arts of intrigue”<sup>98</sup>. It is no coincidence that Bourdieu, in relation to the assumption we raised about the emergence of this emotional type, described the award of diplomas like the act of knighting that gave rise to a “noblesse de robe”<sup>99</sup>.

This social dimension generates exclusory dynamics, inculcating a very competitive emotional community which expels all those not governed by the same emotional patterns and those who do not hold the necessary levels of cultural capital: the melancholic. Particularly remarkable among the many exclusory acts is what Florian Znaniecki calls “neofobia”, which describes how existing institutional pressures govern which new ideas are accepted or rejected. This institutional logic leads to a conformist intellectual output that neglects to alter the statu quo in the interest of its own survival. Melancholic intellectuals, often as a result of their philosophical radicalism, generate

94. ECO, U., *Ibid.* p. 13.

95. BOURDIEU, *La nobleza del estado: educación de élite y espíritu de cuerpo*, Argentina, Siglo veintiuno, 2013, p. 123.

96. PARETO, V., *The Mind and Society*. New York, Harcourt, Brace, 1935, apud BURKE, P. *Historia social del conocimiento: De Gutenberg a Diderot*, Barcelona: Paidós, 2002, p. 52.

97. BOURDIEU, *Sobre el Estado: Cursos en el Collège de France (1989-1992)*, Barcelona, Anagrama, 2014, p. 265.

98. SMITH, A., *The Theory of Moral Sentiments*, Edition by Knud Haakonssen, Cambridge, CUP, 2002, p. 145; 2009, pp. 240-241.

99. BOURDIEU, *Ibid.*, p. 112.

instability and are marginalized. Following the Eco's simplification, the choleric are integrated as they are those who agree. It is here that the dichotomy between the dominant and the dominated appears. The choleric reproduces social stratifications because he had adopted the beliefs of the nobility, one way or another. He requires the dominated for his continued existence, generating a hierarchical system. These assumptions help us to understand just why, in terms of the emotions, the cultural field is so embedded in the field of power, contributing to the perpetuation of power structures.

## 5. THE METAPHOR OF THE BEE AND THE SPIDER

As a postscript to this paper, we would like to present a reinterpretation of the well-known metaphor of the bee and the spider, as a result of the parallels that it demonstrates with our thesis of the two models of intellectual emotionality; an allegory that finds its earliest precedent in Francis Bacon, but might even be traced back as far as Ancient Greece. In its original formulation, it was an epistemic simile that aided understanding of the different forms of existing knowledge: the rational, represented by spiders, and the empirical, embodied in ants. Later, the aforementioned Jonathan Swift revisited the premise, replacing the figure of the ant with the bee in order to add clarity to what French writer Charles Perrault described as the quarrel between the ancients and moderns. His version of metaphor takes place in a library, specifically in oncorner of the library where the spider lives. The spider meets a curious bee that has mistakenly entered his home, leading to a heated discussion between the two. The spider calls the bee a "freebooter over fields and gardens"<sup>100</sup> who would just as soon steal a nettle as a violet. The symbolism of the bee is highly suggestive given the neatness of the parallels it holds with the choleric intellectual. Virgilio warns us about its character: "There's no end to the wrath of bees - vexed, they'll inflame their stings with poison and, fastening to a vein, deposit darts that you can't see - inflicting harm, they'll forfeit their own lives"<sup>101</sup>.

100. SWIFT, J. A., *Tale of a Tub. Written for the Universal Improvement of Mankind. To which is Added, An Account of a Battel, Between the Antient and Modern Books in St. James's Library*. 5.<sup>a</sup> ed. With the author's apology and explanatory notes by William Wotton, B. D. London, John Nutt, near Stationers-Hall, 1710, 2004, 266; *Historia de una barrica*, Barcelona, Labor, 1976, 204.

101. VIRGIL, *Georgics*. Translation by Peter Fallon. Introduction and notes by Elaine Fantham. Oxford, OUP, 2004, p. 82; *Bucólicas, Geórgicas, Apéndice Virgiliano*. Madrid, Gredos, 1990, p. 235.

One intellectual who would fit the profile of the bee is Montaigne; he had a method of borrowing ideas from his library, as if he were a bee extracting pollen to produce honey (cf.).<sup>102</sup> We also recognize in the bee the monomaniac whose wisdom includes a real diversity of knowledge. The bee, “by an universal range, with long search, much study, true judgment, and distinction of things, brings home honey and wax”<sup>103</sup>. The spider, meanwhile, lived in the highest corner, an expression of his detachment from the world. It undoubtedly symbolizes the melancholic intellectual who lives in exile on the existential margins. The spider denies any external inspiration, extracting everything from its own insides to weave its thread. As with melancholic intellectuals, it stores within itself “a good plentiful store of dirt and poison”<sup>104</sup>: black bile. The spider is monomaniacal and its lazy contemplation takes it no further than four inches outside of itself<sup>105</sup>.

## 6. PROBLEMS AND NEW LINES OF RESEARCH

To conclude, we would like to make a value judgment on the issues we have addressed here, and also to give exposure to new lines of research currently in development that are pending further work. As regards the methodology used throughout these pages, we have employed a cognitivist framework that emphasizes the rationality of emotions, leaving aside issues related to the social or cultural components of emotions which remains to some degree unresolved. This approach is not without its critics, as can be seen from the premises of “Beyond Ontology: Ideation, Phenomenology and Cross Cultural Study of Emotions” by Professor of Continental Philosophy Robert Solomon<sup>106</sup> and a paper entitled “The Not Altogether Social Construction of Emotions: a Critique of Harré and Gillet”<sup>107</sup> by psychology Professors Maury Silver (John

102. “The bees plunder the flowers here and there, but afterward they make of them honey, which is all theirs; it is no longer thyme or marjoram. Even so with the pieces borrowed from others; he will transform and blend them to make a work that is all his own, to wit, his judgment”, en MONTAIGNE, M., *The Complete Essays of Montaigne*. Translated by Donald. M. Frame, Stanford, California, SUP, 1958, 111. *Ensayos*. Buenos Aires: Aguilar, 1962, 177.

103. SWIFT, 2004, *cf.* 268; *Historia de una barrica*, Barcelona, Labor, 1976, pp. 205-206.

104. SWIFT, 2004: 167; *Historia de una barrica*, Barcelona, Labor, 1976, 205.

105. SWIFT, *Ibid.* p. 205.

106. SOLOMON, R. C. “Emotions”, *Journal for the Theory of Social Behaviour*, 27, 2-3 (1997), 296-297.

107. 1998: pp. 223-235.

Hopkins University) and John Sabini (University of Pennsylvania). Moreover, we have only provided two explanations for the formation of two emotions around two beliefs. The reasoning presented for the concept of the choleric intellectual relies on the particularly circumspect spatiotemporal framework of the seventeenth century, it remains to be seen how a different belief system from another time would have articulated choleric emotions. Much the same should be said for the connection between belief and melancholy. The possibilities are vast and we have not sought to offer a totalizing explanation, merely to present a consistent and enlightening hypothesis. It was not our wish to talk in terms of pure categories. The word “emotion” is not without ambiguity, since its emergence, which dates back to the eighteenth century, to the present, when behaviorism came to prophesise the disappearance of the term. There are of course other similar expressions, not discussed here, which would provide further nuances, such as “affect” or “sensitivity”. Nor have we begun to consider language and the variations in the representation of emotions over time. Another factor worthy of consideration when looking towards the future is that if we suppose all emotion is uniquely linked to cognition, other attractive approaches emerge. For example, the possibility of different forms of “knowing” in choleric and melancholic intellectuals. The return to narrative history, the clearest echoes of which are found in biographies, involves its consideration as a form of epistemological approach to an approximation of the individual’s character. This presupposes a limitation since biographies, whilst so useful for medicine and, of course, for psychology, are sometimes hamstrung by a very pronounced hagiographic and apologetic bias. This seriously restricts access for the researcher, who somehow has to overcome these mystifications to arrive somewhere close the reality of the character in question.

Ultimately, we would like to emphasize the idea that, when compared to traditional literature that has approached intellectuals and emotions from positions well outside of the most up-to-date philosophical traditions, we have purposely looked to the the intimate union between belief and emotion: i.e., cognitivism. From this starting point, we hoped to elucidate the sort of beliefs that are directly related to the emotions and the ways in which they play a role in the development of intellectual activity. The Saturnian, like the spider, refuses to engage in institutions of any kind, maintaining his precarious livelihood on the existential boundaries where he is able to observe human activity with greater clarity and perspective. This figure, perhaps because of its romantic nature, eclipsed the existence of another intellectual archetype, the choleric, which we have looked to bring to light through this work. The lives and the development of these bee-like intellectuals was born out of the far-from-insignificant context of the seventeenth and eighteenth centuries, in

which a number of noble beliefs persisted - furtively and in other forms, but with the same intensity - and acted as the springboard for an emotionality on the offensive. Finally, we looked to connect two intellectuals that offer perhaps the most unique case studies in the field of the sociology of knowledge, in an attempt to construct an all-encompassing framework around a seemingly incongruous plurality.

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## IMAGINATION, PERCEPTION AND MEMORY. MAKING (SOME) SENSE OF WALTON'S VIEW ON PHOTOGRAPHS AND DEPICTION

*Imaginación, Percepción y Memoria. Dando Sentido a las Ideas de Walton sobre Fotografía y Representación Pictórica*

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### ABSTRACT

Walton has controversially claimed that all pictures (including photographs) are fiction and that in seeing a photograph one *literally* –although indirectly– *sees* the photographed object. Philosophers have found these claims implausible and I agree with them. However, I try to give some plausibility to Walton's view. I try to clarify (but not defend) Walton's view of depiction by contrasting pictorial experience with perceptual experience more generally. I focus on the case of photographs and I claim that, although *seeing* objects *in* photographs is not a case of literally perceiving objects, photographs share an important feature with perceptual experience: the content of photographs, like the content of pictorial experience, is particular in character. This explains their peculiar phenomenology. Photographs, however, are more similar to memory experiences than to perceptual experiences.

*Palabras clave:* Walton, transparency, particular content, perception, imagination, depiction, photography.

## RESUMEN

Walton sostiene que todas las representaciones pictóricas (incluidas las fotografías) son ficciones y que, al ver una fotografía uno literalmente –aunque indirectamente– *ve* el objeto fotografiado. Los filósofos han considerado estas afirmaciones implausibles y yo estoy de acuerdo con ellos. No obstante, intentaré dar una lectura razonable de estas ideas waltonianas. Intentaré clarificar (que no defender) la visión waltoniana de la representación pictórica y para ello contrastaré la experiencia pictórica con la experiencia perceptual en general. Me centraré en el caso concreto de la fotografía y sostendré que, a pesar de que *ver* objetos en una fotografía no constituye un ejemplo de percepción *literal* de un objeto, las fotografías comparten un rasgo fundamental con la experiencia perceptual: el contenido de las fotografías, como el de la experiencia pictórica, es un contenido particular. Esto explica su fenomenología. Las fotografías, sin embargo, son más cercanas a las experiencias de la memoria que la experiencia perceptual.

*Palabras clave:* Walton, transparencia, contenido particular, percepción, imaginación, representación, fotografía.

## 1. INTRODUCTION

As is well known, Kendall Walton claims that photographs ground perceptual experiences of the objects they are of; he maintains that photographs are *transparent*, so we literally –but indirectly– see through them. However, he also holds, photographs, like other pictorial representations, are fiction, because in seeing them we imagine ourselves seeing *directly* the objects they are of. Walton's view on photographs, as his view on depiction more generally, has been widely rejected. It is not the case, critics have claimed, that photographs literally ground perceptual experiences of their objects<sup>1</sup> (. Furthermore, it is not the case that imagination explains depiction (Lopes 1996, Hopkins 1998, Currie 2002, Wollheim 2003, Stock 2008, Matravers 2010); and it is certainly implausible that all pictures, let alone photographs, are fiction (Lopes 1996, Currie 1995, 2002).

My aim in this paper is not to defend Walton's view – I basically agree with his critics in the three points mentioned: (1) clearly not all pictures are fiction; (2) imagination does not explain depiction and (3) photographs don't support perceptual experiences of the objects they are of. However, I think that, by looking at the possible motivations behind Walton's view, we can

1. CURRIE 1995, CARROLL 1996, COHEN and MESKIN 2004, NANAY 2004.

extract some grain of truth. I suggest that behind Walton's view there is an underlying contrast between perceptual experiences and pictorial experiences, on the one hand, and a similarity between perceptual experiences and photographic (pictorial) experiences, on the other, that not only can help us make sense of some of Walton's obscure and confusing claims, but also may point us in the right direction to understand an important aspect of photographic (pictorial) experiences.

My strategy will be the following: firstly, I will review Walton's view on depiction and I will claim that it is not correct to attribute to Walton the view that all pictures are fiction *in the ordinary sense*, although this is a misunderstanding partly caused by his ambiguous use of the term "fiction". Secondly, I will suggest that Walton's views on depiction are better understood when we contrast pictorial experience with perceptual experiences on the one hand, and compare them with imaginative experiences on the other. And finally, I will contend that although Walton is wrong in saying that photographs ground perceptual experiences of the objects they are of, they nevertheless share something important with perceptual experiences; both photographic experiences and perceptual experiences have particular content. This, I suggest, explains the peculiar phenomenology of photographs and, to that extent, Walton's intuition was on the right track. However, despite this similarity with perception, I will claim, photographs should not be modelled on perceptual experiences but on memory experiences.

## 2. WALTON ON DEPICTION. FICTION, IMAGINATION AND PERCEPTION

Kendall Walton maintains that all pictures –moving and still, including photographs– are fiction. This controversial statement is a direct consequence of two claims that lie at the core of his theory of representation. On the one hand, for Walton something qualifies as fiction if it has the function of prescribing imaginings in certain games of make-believe. No matter how minor or peripheral the mandate to imagine in a work is, if it has that function, then it is fiction (WF). On the other hand, Walton contends that understanding pictorial representation –or understanding what pictures depict– always demands an imaginative experience (WD). In particular, Walton contends that seeing-in, or the foundational twofold experience characteristic of the way we perceive pictures as pictures, is best explained as being partially imaginative. The idea is that, in perceiving the picture's surface, one imagines of one's seeing that it is one's seeing the depicted object face-to-face. So, when I see Edward Hopper's *Self-Portrait*, I imagine of my act of looking

at the marks on the canvas that it is my act of looking at Edward Hopper in the flesh. It is therefore fictional of my seeing Hopper's picture that it is my seeing Hopper face-to-face. Hopper's picture functions as a prop in a rich or vivid visual game of make-believe. This is also applicable to photographs. Although for Walton, photographs are transparent and so we can literally see the photographed objects through them, this seeing is indirect seeing – as when we see through a telescope or a microscope; so in (literally but indirectly) seeing, say, a soldier in Robert Capa's photograph, I imagine myself seeing the soldier directly or face-to-face<sup>2</sup>. All pictures, then, are props in visual games of make believe and this is precisely what distinguishes them from descriptions or linguistic representations. Yet, in the light of WF, this also has the consequence that all depictive works are fictional by definition.

Read at face value, and with the ordinary distinction between fiction and nonfiction in mind, this claim is straightforwardly implausible. Clearly there are not only nonfictional pictures in general but there certainly are nonfictional photographs and films. To say the contrary would be to deny a long-standing tradition of documentary photography and film. This alone should lead us to suspect that Walton's notion of fiction may be an idiosyncratic one; after all, he cannot be denying such blatant evidence. In fact, and criticisms of his view notwithstanding, Walton does not do so. He admits that there are some pictures that aim to inform, instruct, or illustrate, but he claims that this "serious" –nonfictional– use of pictures is parasitic on their use as make-believe<sup>3</sup>. From this line of reasoning it seems to follow that, for Walton, there are a set of pictorial works whose categorization will be something like fictional-fictions while others would be nonfictional-fictions. Walton's notion of fiction, we may think, is broader than the ordinary one, since it covers both fictional and nonfictional pictures (in the ordinary sense<sup>4</sup>). If this is so, he would not be accounting for what it is that distinguishes both categories, and that is tantamount to saying that Walton does not account for our ordinary distinction between fictional and nonfictional pictorial works. But of course, as I suggested before, that may have not been part of his plan.

Be this as it may, Walton's ambiguity has led many to misunderstand his claims, and many theorists have tried to block Walton's misleading conclusion that all pictures are fiction by denying that an imaginative engagement explains depiction – given that most critics accept that imagination is indeed the mark of fiction. Now, although I think that it is not legitimate to attribute

2. WALTON 1984; WALTON 1990; WALTON 2008.

3. WALTON 1990, 85.

4. FRIEND 2008.



to Walton the claim that all pictures are fiction *in the ordinary sense*, there are independent reasons to agree with critics in that depiction is not adequately explained by appeal to an imaginative experience. I will not discuss these reasons here – I will take for granted that they succeed; what I want to do instead is explore what could be the motivations behind a view, such as Walton's, that claims that pictures are fictions and that depiction should be explained in terms of imaginings.<sup>5</sup> These motivations have rarely been discussed and I think they shed light not only on Walton's own view but on the character of pictorial experience more generally. I will develop these in what follows.

### 2.1. *Pictorial and Perceptual Experience*

The fact that Walton frequently contrasts his view of pictorial representation with linguistic representation very often obscures many of the claims he makes, and the motivations that lie behind his view on pictures. But I think that Walton's proposal that pictures are fiction –and that imagination is involved in pictorial experience– gains more plausibility –or at least becomes more intelligible– if we compare pictorial experience with perceptual experience more generally.

We can start with some basic or naïve observations. Experiencing pictures or seeing objects in pictures is a peculiar phenomenon. In some important respects, pictorial experience *is* a perceptual experience: we certainly use our sight and perceptual capacities to see the physical object that is in front of us (i.e. the canvas, the frame, the marks, etc.) and to identify in the patterned surface of the picture a recognisable object (i.e. a man, three women, a sunny landscape, etc.) However, the phenomenology of seeing an object face-to-face and that of seeing an object in a picture differ substantially: in the latter case, unlike in the former, we experience the object as being absent from our immediate environment, although somehow present in experience. This could lead one to think that, although seeing an object in a picture is not equivalent to seeing an object in the flesh, it is nevertheless *as if* we were seeing such object. Moreover, given that it is not, contra Gombrich, a case of illusory experience, it might be tempting to think of that “as if” as

5. I do not suggest that these motivations are Walton's own or that the proposal I will develop in what follows is one that Walton himself had in mind when he put forward his view or one which he would endorse. The ideas I will develop are intended to make sense to a view, such as Walton, which may seem, in principle, counterintuitive.

suggesting a sort of imaginative experience. After all, in (visually) imagining something, one perceives the object “before the mind, yet absent from one’s surroundings”; that is precisely why imagination is sometimes conceived of as thought-in-absence. Pictorial experience, following this reasoning, would be something like *as if*, make-believe (or fictional) seeing or, in some ways similar to an imaginative experience.

It seems plausible to think that this contrast between pictorial and perceptual experience—or between fictional and ordinary or real seeing—could be behind Walton’s claims. This assumption, at least, would help to make sense of, and give some plausibility to, two rather obscure claims Walton makes about pictures: that (real) objects are inessential to pictures<sup>6</sup> and that the use of pictures in make-believe is prior to their possession of semantic content<sup>7</sup>. Here is why. Perceptual experience, one could think, always puts us in direct contact with real existing objects (unless, of course, one is hallucinating; but in that case, according to some theories, it would not be a case of perception).<sup>8</sup> Moreover, the possibility of doing so seems essential to our concept of perception (even when hallucinations are possible).<sup>9</sup> In fact, the intuitive conception of perception tells us that the content of perceptual experience is partly determined by the objects and events the experience “picks out”, namely, the objects that are present or *given* to the subject in experience. For instance, when I have a visual experience of an apple that is in front of me, the nature of my experience is partly determined by the object—the apple—and the way it actually is.<sup>10</sup> This is why the content of perceptual experiences is frequently conceived of as being *object involving*; that is, one could not have been in that token perceptual state, had *that* apple not been present. By contrast, one could think, pictorial experience does not guarantee a connection with reality. When we see objects in pictures, those objects are not *really* present to us; moreover, they might have not even been present in the moment the artist made the picture. Pictures always depict things and events *as if* they existed, and thereby, *as if* they could be

6. WALTON 1990, 122.

7. WALTON 1990, 351.

8. Hallucination, according to disjunctivist theories, is *not* a case of perception. See, for instance (Hinton 1973; Snowdon 1980; McDowell 1986; Martin 2002).

9. Not all theories of perception agree with the claim that perceptual experience put us in direct contact with objects. The sense-datum theory and some intentionalists deny that this is so. See (Crane 2005).

10. Not all theorists of perception think that (real) objects determine the content of perceptual experiences see (McGinn 1982; Davies 1992). However, it seems part of our concept of perception that they do so.

seen;<sup>11</sup> but this is so regardless of whether they exist or not. In fact, it seems possible for someone to have a pictorial experience of a non-existent object, which is subjectively indistinguishable from a pictorial experience of a real mind-independent object. Now if this is so, one could further claim, the essence of the pictorial experience cannot depend on real objects, since essentially the same kind of experience can occur in the absence of (real) objects—<sup>12</sup> I could have two indistinguishable pictures of, say, a dog, even if the dogs in one of the pictures dogs never existed. Moreover, it *does* seem possible to conceive of pictorial representation without the possibility of depicting real objects. Objects, then—following this line of thought—are inessential to pictures. And, likewise, real objects cannot determine the (semantic) content of pictorial experience, because, again, one could have the same experience in the absence of real objects. The content of pictures, therefore, cannot be determined by the objects and events we *see-in* them – that seeing is *make-believe seeing*: we cannot literally “pick out” the objects in experience since they are not *really* present to us as they are in “ordinary” perception; moreover, these objects might not even exist! In the case of pictorial experience then, the argument seems to go, what determines the (semantic) content are not the (real) objects that we see depicted in the picture, but the objects or events that we *make-believe we see in* them.

Support for this interpretation, and another reason to think that pictorial experience calls for an imaginative engagement, could be the kind of demonstrative remarks people make when looking at depictions. For example, when Stephen utters “That is a ship”, while pointing toward a ship-depiction, his utterance seems to be appropriate<sup>13</sup>. However, one could claim that we cannot take his claim literally, for it is not *literally* true that *that*—which we point—is a ship: Stephen is *really* demonstrating the object that is in front of him, namely the picture, not a real ship. However, Stephen’s claim seems appropriate because, since he is *make-believe seeing* a ship, it is also *make-believe* that he is demonstrating a ship.<sup>14</sup>

11. Depicting something *as* non-existent would require to depict something that cannot be seen, but that does not seem possible. See (Hopkins 1998, 28–30; Stock 2008, 370).

12. Notice that this argument mirrors the “argument from hallucination” that is normally put forward to challenge the intuitive fact that when we have a perceptual experience we see real mind-independent objects and that real objects actually determine the content of perceptual experiences (Crane 2011).

13. WALTON 1990, 217.

14. This view of the use of demonstratives with pictures has been challenged by Dominic Lopes (Lopes 2010).

One way to summarise and interpret the spirit behind these claims could be this. Pictorial experience, in Walton's view, is *make-believe, as if*, or *fictional seeing* because, unlike *real* seeing, it does not guarantee a connection with reality. In pictorial experience, it is *make-believe* that things are present to us in experience, while they are *really* absent from our surroundings; we perceive *copies* of objects (or props) and not the objects themselves, but we *make-believe* that we see the *real* things<sup>15</sup>. Similarly, in pictorial experience, it is *make-believe* that some objects exist and can be seen, while they *really* do not exist and cannot be seen. In fact, nothing in the nature of pictorial experience prevents that all the things we see-in pictures could actually be non-existent: (real) objects are inessential to pictures. Moreover, the phenomenology of pictorial experience would be the same regardless of whether the depicted object exists or not.

Surely none of this makes Walton's view of depiction, as an explanation of *seeing-in*, more defensible. However, the contrast with perceptual experiences at least helps us see what could be the motivations for putting forward what is otherwise a rather unintuitive view. Moreover, I think it captures some grain of truth about the nature of pictorial experiences in general.

## 2.2. *An alternative account: Kathleen Stock's*

As a matter of fact, Kathleen Stock has suggested a view regarding the thoughts that (figurative) pictures generate that seems in some ways similar to this alternative reading of Walton's view. Although Stock does not talk about the nature of *experiences*, according to her, pictures typically prompt propositional thoughts that are non-committal with respect to the existence of the objects that the viewers see in them. Moreover, she says that these thoughts should be conceived of as imaginings. In fact she claims, imagining –understood in this way- is the “default position when it comes to seeing-in<sup>16</sup>”. Briefly stated, Stock's position is the following: when we grasp the content of a (figurative) picture we generate a propositional thought with the existential content “there is an object O with appearance x” –or as she puts it “an O with appearance x, exists.”<sup>17</sup> This thought is typically, although not always, an unasserted

15. The exception, for Walton, would be the case of photographs. But in this case the contact with objects would be indirect and, as in the case of pictures more generally, there is no guarantee that all that we see depicted in the photograph are *real* objects.

16. STOCK 2008, 373.

17. Even if the picture depicts a non-existent object or situation, Stock claims, I think correctly, that pictures present them as existing, that is why we can *see* them in the pictures. (Stock 2008, 370)

proposition (a state that represents things as being a certain way which is not a belief). And the proposition is unasserted because typically, pictures *on their own* do not put viewers in a position to believe that the content displayed by pictures is actually the case or exists in the real world as depicted.<sup>18</sup> Unasserted thoughts of this kind, she further claims, should be construed as imaginings. This, Stock contends, is the default position for pictures. However, there are certain pictures that do indeed put the viewer in a position to assert their contents; that is, to believe that *it is in fact the case* that “an object with appearance x, exists.” Examples of this kind of pictures, she claims, are *trompe l’oeil* pictures, documentary photographs and some hand-made pictures— provided that, in the latter two cases, *the viewer’s knowledge of its circumstances of production, gives her reason to think it is an “accurate guide to the visual appearance of what is depicted”*<sup>19</sup>. In sum, for Stock, there are two types of pictures: those that prompt the viewer to (merely) imagine—as opposed to assert or believe—that the depicted content exists as it appears, and others that prompt the viewer to believe so. The majority of pictures, however, fall into the former category. Prompting imaginative thoughts in the way she describes it is, then, the default position for pictures in general.

### 2.3. *Similarities and Differences between Stock’s view and the proposed reading of Walton’s*

Stock’s view, I think, is similar in spirit to the reading of Walton’s view I proposed before for the following reason: I suggested that the motivation behind Walton’s view — the view that having a pictorial experience is different from having a perceptual experience (and perhaps similar to having an imaginative experience) — could be that pictorial experiences (like imaginative experiences and) unlike perceptual experiences are non-committal with respect to the existence of their objects, and pictorial experiences need not pick out any particular object. Now, although Stock does not talk about experiences, or the contents thereof, she claims that pictures typically give rise to mental states — propositional thoughts — that are equally non-committal with respect to the existence of their objects.

18. The viewer can have independent reasons to believe that such content is indeed the case; in fact, she can believe that “O with appearance x, actually exists” based on other sources. But that does not change the status of the thought *derived from the picture*; that thought remains unasserted because the picture *on its own grounds* does not motivate the viewer to believe that such content is the case.

19. STOCK 2008, 373.

And, as in the reading of Walton I proposed, Stock's view could be traced back to a contrast between pictorial and ordinary perceptual experiences – although she does not say so explicitly. If I see, say, an apple in front of me that looks red and round, it is likely that my perceptual experience *alone* puts me in a position to think that the apple actually exists and that it is round and red as it seems to me in experience. Of course, I can be hallucinating, but the phenomenology of my experience presents it as if it were the case that there is *in fact* a round and red apple right in front of me; moreover, my experience presents it as if *that* apple and not any other with that look existed. Also, unless I have reason to doubt my experience, I would naturally come to believe that things are as they appear to me in experience.<sup>20</sup> The case of pictures, one may think, is different, and this may be what Stock is suggesting. The experience of pictures alone, and independently of other background information, does not normally prompt the viewer to believe that what she sees actually exists. The picture presents an object or situation as being thus and so, and so the viewer represents it in that way in her thought; but her experience alone does not put her in a position to think that an object as the one she sees in the picture is actually out there in the world in the way it is depicted. The experience of the picture alone does not motivate the viewer to assert the existence of what is depicted, that is why the viewer just *imagines* that it exists.<sup>21</sup> This way of understanding Stock's claims also fits nicely with the case of the *trompe l'oeil* picture that Stock mentions as an example of pictures that *do* ground assertive thought. Since the experience of a *trompe l'oeil* may seem to the viewer qualitatively identical to a perceptual experience with similar content, it makes sense to claim that, the experience of *trompe l'oeil* pictures leads her to form a belief.

Now there is an important difference between Stock's view and Walton's. Whereas –according to my reading of Walton– his view on pictorial experience in general is similar in spirit to Stock's, Walton's view on photographs in particular is different from Stock's. For Walton, photographic pictorial experiences are a special kind of pictorial experience which is closer –or actually equivalent– to perceptual experiences. For Stock, by contrast, photo-

20. This claim is independent of whether perceptual experience actually justifies beliefs. This other claim (that perceptual experience justifies beliefs) might be more controversial see (Davidson 1986).

21. As Stock presents it, the claim does not seem to be that pictures do not provide sufficient grounds to *justify* the belief that an object O with appearance x actually exists. Rather, it seems to be that pictures do not *lead naturally* to form beliefs, independently of whether they are justified or not. In other words, Stock's claim does not seem to be normative.

graphic experiences are on the same level as other pictorial representations regarding the thoughts they generate. Here, I disagree with Stock and, as it will become clearer later on, I partly agree with Walton. But let me state my disagreement with Stock first.

According to Stock, photographs (in general) are like other pictures in that they trigger unasserted thoughts or imaginings by *default*; she admits that certain photographs, like *documentary photographs* are indeed “assertive pictures” –or pictures that motivate the viewers to assert that their content actually exists; however, this is so *only* if viewers have knowledge about the history of production of the picture and this gives them reason to think it is an “*accurate guide to the visual appearance of what is depicted.*” So one way to put this idea is to say that perceiving photographs does not typically prompt the viewer to think that *it is the case* that a thing such as what she sees in the photograph actually exists *unless* she has background knowledge about the circumstances of production of the photograph, and this gives her reason to think the picture has been reliably produced.

I think this is not so in the case of photographs –documentary or otherwise. It may be correct to say that viewers *should not* so easily believe the content of some photographs, given that they can be faked or doctored; but this is different from saying that photographs *as a matter of fact* do not typically put the viewer in a position to think that what she sees actually exists. I take it that what Stock is suggesting is the latter –if it were a normative rather than a descriptive claim, it would not make much sense to say that *trompe l’oeils* fall in the category of “asserted pictures.” But, if this is so, I do not think Stock’s claim is correct. It seems to me that photographs, in virtue of their peculiar phenomenology, do indeed prompt viewers to think *by default* that what they see actually exists. That this is so, I think, explains why photographs are very good at misleading people and, in all likelihood, also why theorists have claimed that photographs lead us to identify the objects (of the world) they are of<sup>22</sup>. Moreover, it does not seem to be the case that in order to undergo the peculiar experience that photographs afford the viewer needs to have any background knowledge about the circumstances of production of the photograph. Of course, it may well be that if the viewer has reason to suspect that the circumstances of production of the photograph are not reliable, she would then not come to think that what she sees is actually the case. But this suggests something different from what Stock is claiming. It suggests that photographs typically generate “asserted thoughts” –as Stock calls them– *unless* one has reason to think otherwise, and not the opposite,

22. SAVEDOFF 2008.

as Stock seems to be suggesting. This, again, is compatible with the view that we should not always *trust* our experience of photographs because they are frequently misleading. But one should not confuse the claim that beliefs prompted by photographs may *not* be *justified* by default –this, I think, is an open question –with the claim that the default reaction of viewers when they see photographs is to think that what they see in them actually exists.<sup>23</sup> Similarly, the peculiar phenomenology of photographs, I think, naturally –and normally– puts us in a position to think that what we see actually exists. In fact, our experience of photographs seems to put us in a position not only to make the general existential claim that *there is some object that looks a certain way* but also, the singular claim that *that object* is thus and so. In this respect, I think, photographs –or photographic experiences– are more similar to the case of perceptual experiences.

This aspect, I think, is better captured by Walton's view on photographs, so let me go back to his view.

### 3. PHOTOGRAPHS, PERCEPTION AND MEMORY

Photographs are for Walton a special kind of pictures, and thereby support a special kind of (pictorial) experience. In trying to account for their peculiar phenomenology, he introduced the idea that photographs actually ground perceptual experiences of the objects they are of. Photographs, according to Walton, are *transparent*: when I see my grandfather in the photograph, I literally –although indirectly– see my grandfather. Now, as I said before, this view has been widely criticised. Theorists have claimed that photographs fail to instantiate some necessary conditions for seeing. Carroll<sup>24</sup> and Currie<sup>25</sup> maintain that in order to see an object, it is necessary that one's visual experience grounds a non-inferential belief about the object's location in egocentric space, and photographs cannot ground such belief. Similarly Cohen and Meskin (2004) suggest that photographic experiences, unlike perceptual experiences, fail to covary with respect to changes and movements in the egocentric location of the depicted object: "as I move around the world with the photograph, the egocentric location of the depictum changes, but the photographic image does not"<sup>26</sup>.

23. Compare with the following case: many theorists claim that beliefs grounded in testimony are not justified by default, however our natural tendency is to believe *by default* what others tell us, *unless* we have reason to think otherwise.

24. CARROLL 1996.

25. CURRIE 1995.

26. COHEN and MESKIN 2004, p.201.



Finally, but in a similar spirit, Bence Nanay claimed that photographs, unlike perceptual experiences, do not support sensorimotor counterfactuals: “what is necessary for seeing is that there is at least one way for me to move such that, if I were to move this way, my view of the perceived object would change continuously as I move<sup>27</sup>.”

I think all these criticisms are sound and I do not think Walton is correct in claiming that photographs literally ground perceptual experiences of the objects and situations they are of. However, I do think that photographic pictorial experiences share with perceptual experiences something important that accounts for the peculiar phenomenology of both experiences. Photographs, and the experiences thereof, like perceptual experiences are particular or singular in character: the content of both experiences is not merely qualitative or existential but object-involving; the object or situation they are of is itself a constituent of the experience. So when I look at the photograph of my grandfather, as when I perceive my grandfather, I am aware of *my grandfather* and not merely that there exists or there is a person of a certain sort. I do not have the experience of seeing merely an image of some man or other who matches certain look or the qualitative properties displayed by the image; my experience is not merely an experience of likeness; my experience *picks out* a particular object – in this case, my *grandfather*. This is not only the case with familiar people or objects; if I open the newspaper and see a photograph of a man whom I have never met before, I assume that the image presents me with a particular man, *that* man whoever he happens to be. So in the same way that one could not be having that token perceptual experience in the absence of the particular object it is of, one could not have the same photographic experience in the absence of the particular object it is of. Moreover, in the same way that, according to some theories of perception, one could not be in a perceptual experience *type* in the absence of objects, one could not have a photographic experience in the absence of objects.

Notice, however, that this implies not only that (real) mind-independent objects are essential for the *production* of photographs but also that these objects are constituents of their contents and the experiences thereof. To say that the production of photographs always presupposes the existence of an object, which the photograph is causally and counterfactually related to, does not thereby imply that the content of photographs or the experiences thereof is necessarily singular. Surely, the latter presupposes the former, but the fact that a certain intentional state or representation has been caused by an object does not entail that the content of that state or representation

27. NANAY 2010, p. 468.

is thereby *singular* – not even if the content preserves visual similarity. A causal connection is compatible with purely general or existential content. I cannot develop this here in detail, but maybe two examples would suffice. (1) Katie's desire to buy a Chanel little black jacket may have been caused by seeing Jackie's little black jacket (moreover, she might not be having such desire if she hadn't seen Jackie's little black jacket), but the content of her desire is not necessarily *Jackie's particular little black jacket*, but any little black jacket *looking exactly like Jackie's* that can be found at a Chanel store. (2) A rubber duck is produced in a factory as a result of an automatic process that uses moulds that are shaped like ducks using a duck maquette. The resulting rubber duck may have been caused and look exactly like the mould and the maquette, but it does not represent in any relevant way the particular duck-shaped maquette, it represents *a generic* duck.

It is true that Walton tries to justify his claim that photographs are transparent by appealing to causation and the preservation of visual similarities and, as critics have correctly pointed out, these are neither necessary nor sufficient conditions for something to ground a perceptual experience. However, I think that even if Walton's explanation is incorrect, his claim that photographs ground perceptual experiences suggests something else apart from the causal explanation. If photographs were really transparent, then they would have, as perceptual experiences do, particular content; and, as I said before, I think this is true of photographs as well as of perceptual experiences. So when I experience a photograph of a given object, as when I have a perceptual experience of that object, my experience puts me in a position not only to make the general existential claim that *there is some woman that looks a certain way* but also, the singular claim that *that woman* is thus and so. It is *that* object/person I have *in mind* – and not merely a qualitative profile of it that could be satisfied by various objects with the same look.

Now, of course, in photographic experiences, unlike in perceptual experiences – and this is where Walton's view goes astray – the particulars are not present in our surroundings. But this does not mean that we cannot still be in cognitive or experiential contact with particular objects. Think of the case of episodic memories. When I recall some previous experience I had at some point in my life, I bring to my mind a particular event or object that is not present anymore in my immediate environment. However, I am still in direct experiential contact with it. Moreover, the content of my episodic memory, as the content of the perceptual experience from which it derived, is particular in character. That is, when I have an episodic memory of a previous experience I had, the content of my memory is not merely existential content, rather, it presents me with particular situations or objects. As it has

been claimed, episodic memories are *retained acquaintance* (Martin 2001), they preserve or inherit the particularity of the original perceptual experience not merely their qualitative character.

I suggest that we can tell a similar story in the case of photographs. There are many good reasons to reject the idea that we can literally see through photographs. But it makes sense to claim that the moment when the camera is in front of the object, the moment where the photograph was first taken, that event can indeed be assimilated to what could have been a perceptual experience. Certainly, it cannot be literally a perceptual experience because the camera is not the kind of thing that can undergo conscious experiential states. But the camera and the photosensitive material (the film) are in a similar relation to the object that the subject of a perceptual experience would be. If the camera were, say, a sophisticated robot with consciousness (imagine that this could be possible), it would arguably undergo a perceptual-like episode of the object in front of it.

So rather than support perceptual experiences of the objects they depict, I suggest that photographs preserve the content (or part of the content) of a perceptual-like event. Hence, in the same way as memories not only preserve the qualitative aspect of the scenes, since their phenomenological content also preserves their particular character<sup>28</sup>, photographs not only preserve the *likeness* of the scenes and objects, they also preserve the *particularity* of the original perception-like episodes. In this sense, I suggest, instead of claiming that photographs ground perceptual experiences of the objects they are of, it may be more accurate to say that photographs, like episodic memories, preserve the particular content of past perceptual-like episodes. In this way, in having a photographic pictorial experience we are in direct cognitive contact with particulars, even though they are not present in our surroundings. Similarly, in the same way that episodic memories fail to co-vary with respect to changes and movements in the egocentric location of the depicted object, photographs and the experiences thereof fail to co-vary with changes and movements in the egocentric location of the depicted object as well.

If this is sound, this could be a way to make more sense to Walton's intuitions. On the one hand, instead of saying that photographs are *transparent* and we literally see through them, we can say that they literally put us in direct cognitive contact with particulars; and, on the other hand, instead of saying that photographs ground *indirect* seeing, we can say that they are images that preserve a particular content that is not present in our surroundings.

28. EVANS 1982.

## 4. PHOTOGRAPHIC CONTENT AND DEPICTIVE CONTENT

Now, to say that photographs and the experiences thereof, like memories or perceptual experiences have particular content does not entail that photographs can *only* represent the particular objects that constitute their content. A Photograph of a particular object  $o_1$ —which is constitutive of the photographic content and the experience thereof— can also depict another object  $o_2$  as well, either by *stipulation* or by visually reminding us of—or *making it somehow visible*. A photograph of Charles Chaplin, for instance, may be used to represent Charlot, *by stipulation*— by adding, say, a proper name as its title. Similarly, a photograph of a pipe—where the particular pipe is the constitutive element of the content— can depict a saxophone by making it somehow naturally visible. In this case, although the photographic content and the experience thereof would be picking out a particular pipe, we would not be interpreting them correctly if we only *saw* a pipe with holes *in* the photograph.

Likewise, to say that photographs and the experiences thereof have particular content does not entail that photographs can *just* represent particulars and not, for instance, general types. Even if photographic content and the experiences thereof are always particular, photographs can be used to represent something general, as when a photograph of a particular telephone is used in a catalogue to represent *all the telephones of that type*, or a photograph of a particular dog is used in an encyclopaedia to represent how *dogs* look. The content of the photograph and the ensuing experience will still be particular, it will still pick out only one object, but in certain contexts the use it is given may just put emphasis on what that particular has in common with other things of its kind, namely, its visual aspect.

This, I think, is partly why Walton claims that even though photographs are transparent, they are also *fiction* or representational in his sense. In as much as photographs have particular content, they put us in cognitive or experiential contact with particular objects, however, in as much as they are pictorial representations more generally, the objects that are present in our experience are absent from our environment. And, what they (primarily) represent, need not be determined by the objects they are of, or the objects that are constitutive of their content and the experiences thereof. Clearly, in the case of photographs, since our experience of them always includes particular real objects, they always represent them in some way—and the experience of photographs always put us in contact with those objects— but this may not be the primary object of representation; what determines what the picture ultimately aims to represent is not limited—not even in the case of photographs—to the real objects that are a constitutive part of their content.

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GARCÍA GÓMEZ-HERAS, J. M. y MARTÍN GÓMEZ, M., *Comprender e interpretar. La recepción de la filosofía hermenéutica en la España democrática (1960-2010)*, Madrid, Ed. CSED/Instituto de Humanidades de la Universidad Rey Juan Carlos, 2015, 437 pp.

Durante la segunda mitad del siglo XX, con el régimen franquista aún en plena vigencia, la sociedad española inicia un largo camino de integración en la Europa reconstruida después de la segunda guerra mundial. Un periodo de intenso tráfico de personas, ideas, bienes y servicios entre una España que, en contexto adverso, cicatrizaba las profundas heridas socioculturales de la guerra civil y en la que nuevas generaciones trataban de superar el arcaizante dualismo de las “Dos Españas” y, a la vez, configurar una sociedad cuyos valores e ideas fueran homologables a los vigentes en el resto de los países europeos. Ello dio origen a una palabra exitosa: *Transición*.

Entre los múltiples caminos que los españoles de la segunda mitad del siglo XX tuvieron que transitar en política, economía, cultura... se encontraba también el de *las ideas*. Porque, a pesar de que ya en la etiquetada como *Edad de Plata* de nuestra cultura existió un esfuerzo notable en de la modernización de España, no es menos cierto que con la instauración de Régimen franquista, se produce un giro conservador aquende los Pirineos que bloquea durante décadas la renovación del pensamiento español que habían iniciado figuras como Ortega y Gasset, Unamuno, G. Morente, Zubiri, M. Zambrano... y otros protagonistas de aquella “Edad de Plata”. El panorama filosófico en la década de

los 60 del siglo XX venía marcado por una generación de pensadores adscritos a la Neoescolástica cercana al régimen y por una leva de jóvenes filósofos que, fuertemente influenciados por las corrientes de pensamiento al uso allende los Pirineos, se esforzaban por asumir el protagonismo cultural. Tal situación ha sido etiquetada como pugna entre “herederos” y “pretendientes”.

En la Europa de la segunda mitad del siglo XX se había instaurado un pluralismo ideológico no menos sólido que el pluralismo político. Coexistían dialogando, y a menudo a la greña, neomarxistas de diferente laya, existencialistas apesadumbrados, neopositivistas recalitrantes, personalistas comprometidos, neoescolásticos residuales... entre otros muchos grupos, con los que el estudiante o docente español que cruzaba los Pirineos aspiraba a reconstruir su mundo mental. Aunque no solo se cruzaban los Pirineos para escuchar lo que por allí se decía sino que toda una avalancha de ideas se hizo presente en la cultura española a través de traducciones, congresos, etc. que diseñaba un nuevo panorama del pensamiento hispano.

De entre las corrientes de pensamiento que a partir de la década de 60 coexisten en Centroeuropa se encuentra la *Hermenéutica*. Una veta de pensamiento con raíces profundas en la Fenomenología y en el Historicismo y que en época de predominio tecnocientífico reivindicaba ser el método apropiado de las bautizadas por Dilthey como *ciencias del espíritu* y centraba su interés en aquellas experiencias del sujeto humano a las que no tienen acceso las llamadas *ciencias de la naturaleza*. Experiencias que constituyen lo que unos denominan

*cultura*, otros valores y otros humanidades y de las que se ocupa la estética, la filología, la teología... y también buena parte de la filosofía.

Pues bien: efectuar un seguimiento de la recepción de la *Hermenéutica* en la España de la *Transición* constituye el argumento del libro que reseñamos. Qué autores tales como Schleiermacher, Dilthey, Heidegger, Gadamer o Ricoeur han estimulado la reflexión de pensadores en la filosofía española contemporánea, qué ideas de los mismos se debaten y resuenan entre nosotros. A este propósito, y efectuando un recorrido detallado por las universidades españolas, desfilan personas y grupos que hicieron de la hermenéutica su punto de apoyo para repensar problemas y efectuar aplicaciones de la misma a la metafísica, epistemología, ética, filología derecho...

El texto corre a cargo de una veintena de colaboradores que, pertenecientes a otras tantas universidades españolas, dan cuenta de cual ha sido la recepción del bagaje hermenéutico en los grupos de los que forman parte. Una amplia introducción a cargo del Profesor salmantino José María García Gómez-Heras permite transitar sin despiste por el enmarañado paisaje descrito.

El cuadro pictórico resultante se asemeja a una suerte de sociología descriptiva de un segmento del pensamiento español del periodo 1960-2010 y posee cualidades valiosas: objetividad en la información, estilo académico, documentación rica y abundante, fiel, aunque no siempre, a un guión en el tratamiento de personas e ideas, recuento generoso de pensadores y exposición y análisis de ideas. Todo un mosaico bien organizado que, en época de balance de nuestra

situación cultural, arroja claridad en medio de aquella *Transición* a que nos referíamos y que sin duda se convierte en obra de consulta ineludible para los estudiosos de nuestra historia presente. Por todo ello, nuestra más cordial enhorabuena a los coordinadores del volumen Profesores Gómez-Heras y María Martín Gómez y no menor a los autores de los textos, por el servicio prestado. Sin olvidar agradecimientos a la Ed. CSED y al Instituto de Humanidades de la Universidad Rey Juan Carlos por publicar un libro de estas características.

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BAUMAN, Zygmunt y DONSKIS, Leonidas: *Ceguera moral. La pérdida de sensibilidad en la modernidad líquida*, Editorial Paidós, Barcelona, 2015.

La obra ante la que nos encontramos consiste en una revisión de la sociedad actual escrita desde el punto de vista de Leonidas Donskis (profesor de Política en la Universidad de Vytautas Magnus, Lituania) y el reconocido sociólogo, filósofo y ensayista polaco Zygmunt Bauman, defensor de la idea de “vida líquida” para referirse al estilo de vida sujeto a continuo cambio y transitoriedad, característico de la época profundamente capitalista y veneradora del consumo en la que nos hallamos inmersos e inmersas<sup>1</sup>.

1. En adelante se empleará únicamente el lenguaje masculino con la intención de reducir las expresiones, para dotar al texto de una mejor legibilidad. No obstante, se tiene presente la necesidad de la inclusión de género en el lenguaje.

El ensayo está estructurado en una Introducción (“Hacia una teoría del secreto humano y la inconmensurabilidad, o exponer formas elusivas del mal”) y cinco capítulos (1. “De los demonios a las personas terriblemente normales y cuerdas”; 2. “La crisis de la política y la búsqueda de un lenguaje de la sensibilidad”; 3. “Entre el miedo y la indiferencia: la pérdida de la sensibilidad”; 4. “Arrasar la universidad: el nuevo sentido del sinsentido y la pérdida de criterios”; 5. “Repensar *La decadencia de Occidente*”). Partiendo del concepto de “adiaforización”, esto es, la pérdida de sensibilidad y la indiferencia moral hacia determinados actos, se tratan diversos temas. Entre ellos destaca la cuestión de qué es el mal y dónde se encuentra: su reflexión concluye que el “nuevo mal” se manifiesta en la insensibilidad hacia el sufrimiento humano, propiciado entre otras cosas por la aceptada falta de intimidad y privacidad.

Bauman y Donskis aseguran que existe una especie de “diablo” en la política y en la tecnología, dos ámbitos íntimamente relacionados. Hoy en día no podemos escapar de la informatización, llegando a un punto en el que el “yo puedo” se transforma en el “yo debo”: el individuo actual ha de estar presente en las redes sociales, e incluso está obligado a gestionar su dinero y sus cuentas bancarias a través de internet si no se quiere convertir en un excluido social. De este modo los ciudadanos están continuamente vigilados, algo que está resultando mucho más fácil gracias a la cooperación de sus víctimas.

El tema de las redes sociales recibe especial atención en la obra, ya que gracias a ellas se expone la vida propia y la ajena al público. El *cogito* actualizado

de Descartes se ha transformado en “me ven, luego existo”. De esta manera, podría decirse que el nuevo dios es la mirada ajena que nos hace públicos a través de Internet (Internet es la nueva Iglesia). Actualmente los seres humanos sienten la necesidad de crearse a ellos mismos un perfil irreal que se adecúe con las características que la sociedad demanda, preocupados cada vez más por el mundo virtual y menos por aquellos que les rodean.

Este individualismo y disminución de contacto humano en las relaciones sociales favorece la indiferencia hacia el sufrimiento del otro, la falta de empatía. Dicho de otro modo, el cerrar los ojos ante la destrucción de la vida de un extraño se convierte en un deber. Se ha “cosificado” a las personas de tal manera que los individuos no son capaces de reaccionar ante las injusticias, pues los seres humanos ya no se entienden como seres sintientes, sino como objetos insignificantes. Sin embargo, el monstruo del capitalismo crea una ciudadanía conforme con este modo de vida, que lo asume y lo perpetúa.

Por todo ello, actualmente es imposible ver los límites del bien y del mal. La ceguera moral y la adiaforización nos impiden saber qué es el mal y dónde está: ya no hay culpables concretos. “Qué seguro, cómodo, acogedor y amistoso parecería el mundo si los monstruos y solo los monstruos perpetraran actos monstruosos”, dirá Bauman.

Otro tema que analiza, unido al del mal, es el de la memoria. Tomando como continua referencia novelas como *1984*, de G. Orwell; *Un mundo feliz*, de A. Huxley o *Nosotros*, de I. Zamiatin, los autores afirman que la memoria pue-

de ser manipulada, pero no aniquilada. Hasta el momento nadie ha conseguido despojar al ser humano de su capacidad crítica, aunque sí se ha podido, en ocasiones, redirigir dicha capacidad a efectos alternativos.

Por otra parte, un concepto al que se recurre repetidamente en la obra es el de “precariado”, es decir, el estatus de la clase social media obligada a vivir en la rueda del cambio continuo. El modo de vida del precariado conlleva una fuerte incertidumbre existencial que en estos últimos años se ha transformado en indignación. Tras haber comprobado el poco compromiso de la clase política y la desconfianza que transmite, el precariado ha comprobado que nadie le salvará del abismo del sistema sino él mismo. Por ello, nos hemos encontrado con varios intentos de tomar las calles y abandonar la ignorancia, que han supuesto un importante avance en la conquista de derechos de la sociedad civil.

No obstante, en opinión de Bauman y Donskis, a la ciudadanía aún le falta demostrar si además de “derribar el edificio” del sistema, es capaz de construir responsablemente uno nuevo con estructuras útiles. Para ello, el primer paso que ha de dar el precariado es el de reorganizarse constantemente, con el objetivo de evitar la atomización y la desmemoria.

Es muy difícil no caer en la tentación de la atomización, más aún cuando la ideología política dominante se ve reforzada por el poder de la prensa: actualmente los medios de comunicación están orientados para comercializar con el temor, que para Donskis habla el lenguaje de la incertidumbre, la inseguridad y la inquietud de nuestra época. Este es otro

tema que se analiza en la obra: el miedo, hermano gemelo de la sociedad líquida. Los individuos se sienten ignorados, humillados, impotentes, y sufren por ello.

Por otra parte, la universidad está cada vez más burocratizada e institucionalizada: sigue una lógica empresarial que responde obligatoriamente a las fluctuaciones de mercado y a los cambios en la opinión pública. De esta forma, para adaptar el sistema educativo a la sociedad de consumo, se está reduciendo la libertad académica. La educación tal y como se entiende actualmente está basada en la competencia, y su contenido alimenta el funcionamiento del sistema. Así pues, Bauman pone el ejemplo de la demolición progresiva de las humanidades como una eficaz forma de control social. En una sociedad de productores, los saberes “inútiles” son absurdos y peligrosos. Los estudiantes no han de ser críticos, sino meras mercancías al servicio de la sociedad de consumo que se adapten al panorama laboral sin cuestionarlo. Cuando se termina la universidad, los estudiantes asumen que cambiarán de trabajo continuamente y han de estar preparados para ello. Por este cambio continuo también pasa hoy el intelectual, que se ha convertido en un “erudito itinerante”.

La ausencia casi completa de ilusiones relacionadas con el trabajo, cuyas características implican un compromiso breve, también afecta indudablemente a las relaciones personales. Trasladamos esa cosificación del mundo a las personas y las convertimos en objetos, por lo que las relaciones duran solamente mientras no se hayan satisfecho los deseos por los cuales el individuo mantiene a las personas a su lado. Dirá Donskis

que usar a los demás se convierte en una única estrategia vital. Todos tenemos un principio y un fin, así que usémosnos unos a otros antes de que expire nuestra validez. La historia de las relaciones humanas siempre es cíclica: nace, crece, se desarrolla durante cierto tiempo y en cuanto pierde el interés de alguno de los implicados, se muere y desaparece.

No obstante, los autores nos recuerdan que el mundo adquiere significado gracias a aquellas personas que se resisten a pensar que no hay nada sólido, además de que aún hoy el amor, la creatividad o la amistad pueden y deben conquistarse.

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RIECHMANN, Jorge, *Ética extramuros*, Madrid, Universidad Autónoma de Madrid Ediciones, 2016.

El móvil de esta obra es fundamentar una ética *extramuros* ampliando la premisa del sociólogo Z. Bauman según la cual el núcleo de la moral es el compromiso con el otro a lo largo del tiempo (y el espacio). El intento de crear una ética de larga distancia, que va más allá de las relaciones humanas y de un momento histórico concreto, y que tiene en cuenta los vínculos sociedad-naturaleza, es uno de los mayores desafíos (por no decir el más importante debido a la trascendencia global) a los que nos enfrentamos en *El Siglo de la Gran Prueba* (Riechmann, 2013). Este libro es el resultado de la segunda edición revisada y actualizada de *Interdependientes y*

*ecodependientes. Ensayos desde la ética ecológica (y hacia ella)*, y tiene como objetivo promover un movimiento de autolimitación o autocontención por parte de los seres humanos. El choque de las sociedades industriales con los límites biofísicos del planeta ha dado lugar al momento más crítico para la Tierra desde que existimos los seres humanos. Evitar el colapso a estas alturas es muy difícil, pero hay que seguir trabajando en superar el “narcisismo de especie” y esforzarnos en ampliar las consideraciones morales a la naturaleza en general. La obra ofrece un amplio marco desde el que reflexionar acerca de los grandes desafíos del siglo XXI a propósito del calentamiento global y la crisis mundial (ecosocial) de carácter irreversible a la que nos enfrentamos.

Estas reflexiones vienen de la mano de un experto en el tema: Jorge Riechman, profesor de Filosofía moral y política en la Universidad Autónoma de Madrid, ensayista, escritor de poesía y coordinador del Grupo de Investigación Transdisciplinar sobre Transiciones Socioecológicas (ginTRANS2). Ha realizado importantes aportaciones en ética y pensamiento ecológico, además de ser un ciudadano activo en cuestiones de ecología social. Entre sus obras más importantes destacan la “Pentalogía de la autocontención” compuesta por: *Un mundo vulnerable*, *Biomimesis*, *Gente que no quiere viajar a Marte*, *La habitación de Pascal* y *Todos los animales son hermanos*, y la “Trilogía de la autoconstrucción”, compuesta por: *El socialismo puede llegar sólo en bicicleta*, *Autoconstrucción* y *¿Vivir como buenos huérfanos?* Estos son solo algunos títulos de la prolífica obra filosófica de este autor en cuestiones de ética ecológica.

El libro está dividido en diez capítulos que van de lo más general (las grandes preguntas de la ética y las tareas pendientes de la misma) a lo más concreto (el papel del ser humano en esta crisis ecosocial y las principales vías de acción para empezar a cambiar). Además, cada capítulo incluye cuadros de texto con la intención de ampliar ciertas cuestiones que no pueden ser tratadas con profundidad en la obra. La inclusión de estos textos (de filósofos, antropólogos, economistas, etc.) es una prueba de la complejidad de analizar desde la ética el problema del calentamiento global, ya que entran muchas variables en juego, y pone de manifiesto que debe ser abordado desde un enfoque multidisciplinar.

En el primer capítulo, “Introducción: la ética y sus tres preguntas”, Riechmann expone dos premisas que han de estar a la base de la nueva ética: somos seres interdependientes y ecodependientes, y no somos la única especie con valor. Las dos preguntas fundamentales de la filosofía práctica que atañen a *la vida buena* –bienes y valores– y a las *reglas correctas de comportamiento, derechos y obligaciones* para con los demás –justicia, libertad, igualdad...– son reformuladas a partir de una tercera cuestión incluida por la ética contemporánea: ¿Cómo habitar la Tierra, para sobrevivir, y vivir bien en la era de la crisis socioecológica mundial? de la siguiente manera: ¿En qué consiste la vida buena, para un ser finito y vulnerable y dependiente y mortal como el ser humano, bajo las restricciones ecológicas?, y sabiendo que las consecuencias de nuestras acciones se extienden a inimaginables lejanías en el tiempo y en el espacio ¿cómo concebimos el deber y la obligación? ¿Cómo construir la justicia global y la justicia

ecológica? (p. 45).

El segundo capítulo, “Frente al abismo”, destaca la importancia y la necesidad de aplicar soluciones basadas en la cooperación y en la priorización de los intereses colectivos (no sólo de los seres humanos ni de las generaciones hoy vivas) para hacer frente a esta “situación de *emergencia planetaria*” (p. 57) que ha entrado en la cuenta atrás. El tercer capítulo, “Moral e igualdad”, recoge cuál es el punto de vista moral que desarrolla en el libro: se trata de una moral situada (somos seres concretos viviendo en un determinado contexto sociopolítico) cuya base es la igualdad y la imparcialidad (incluye a todos los seres naturales y sus intereses), y, su núcleo, el vínculo con los otros y la convivencia en un planeta finito.

El cuarto capítulo incluye reflexiones antropológicas, éticas y sociales “Acerca de la condición humana”. Pone de manifiesto lo controvertida, compleja y ambivalente que es la naturaleza humana (la cual no se niega que exista, pues hay ciertos intereses y tendencias anclados en nuestra biología que influyen en nuestra conducta). Defiende que la plasticidad de nuestro cerebro pone de manifiesto que somos seres híbridos entre la biología y la cultura. Somos seres históricos, simbólicos, técnicos, pero también nos caracteriza la animalidad, la vulnerabilidad, etc. El capítulo cinco, “El fundamento: no dañar a los seres que pueden ser dañados” plantea uno de los grandes retos de la ética ecológica: ampliar la comunidad moral para incluir a todos los seres susceptibles de consideración moral (es decir, no como agentes morales). Los seres que pueden ser dañados son tanto animales como vegetales (aunque no sufran, pueden ser dañados por nuestras prácticas). Se trata de extender el

valor intrínseco atribuido a los humanos al resto de seres naturales siguiendo en este punto la “reverencia por la vida” que propone A. Schweitzer. El capítulo sexto, “De una moral de proximidad a una moral de larga distancia”, analiza las principales dificultades de este gran salto de una moral en la que sólo nos preocupa el prójimo a otra donde se tienen en consideración todos los seres. Partiendo de la premisa “nada humano me es ajeno” (p. 212) expone cuales son las principales tareas morales (acabar con la dominación, romper la ilusión de normalidad...) y propone nueve vías para avanzar hacia esa moral ampliada.

El capítulo séptimo, “Diversidad biológica. La sexta gran extinción” pone de manifiesto le importancia de conservar la máxima biodiversidad posible para asegurar la vida en el planeta. En el capítulo octavo, “Cambio climático: ¿Seguiremos mirando hacia otro lado?”, apuesta por la autocontención y no por la innovación tecnológica para frenar y estabilizar el cambio climático. Cada vez tenemos menos tiempo y para aplicar soluciones hay que atender previamente a cuestiones de justicia climática: las amenazas que trae consigo el calentamiento global no afectaran igual a todas las partes del planeta, hay zonas que son más vulnerables y, sin embargo, han contribuido menos a la hora de generar la situación dramática en la que nos encontramos. En este sentido, se habla de responsabilidades comunes pero diferenciadas. El capítulo noveno “Sobre civilización, descivilización y barbarie” analiza las diferentes acepciones que se les han dado a estas nociones. Habla de civilización en sentido descriptivo, como el estado que hemos de alcanzar basado en el aprendizaje de

formas de vida menos mercantilizadas. Acusa al modelo liberal y neoconservador de obstaculizar el camino hacia una transición razonable hacia la sustentabilidad con el lema “interioriza tu impotencia” (desconfía de lo público y la efectividad de la acción colectiva, apuesta por la indiferencia). El último capítulo habla de un “Tiempo de resistencia” que nos invita a hacer frente a la terrible situación en la que nos encontramos, a no autoengañarnos sobre lo que está ocurriendo, a autoconstruirnos como seres humanos y autolimitarnos para dejar vivir al otro.

A pesar de lo trágico que suena, y de la tentación de rendirnos antes tales expectativas, la ética ecológica se presenta como “el esfuerzo práctico por construir sociedades que hagan las paces con la naturaleza y la reflexión teórica sobre este esfuerzo.” (p. 431) La obra es interesante porque desmonta las principales críticas que se han hecho al ecologismo desde posturas negacionistas y tradiciones políticas conservadoras, demostrando que el desafío de crear una ética ecológica (*extramuros*) es algo que incumbe a todos y cada uno de nosotros, y en lo que debemos esforzarnos independientemente de la ideología que defendamos. No obstante, el sistema capitalista actual es incompatible con esta ética *extramuros*, de manera que todo apunta a que vamos hacia el colapso. En definitiva, la obra ofrece, de manera clara y sencilla, con una argumentación precisa y directa, el camino que hay que seguir para construir una sociedad sostenible basada en la igualdad y en la justicia, no solo social, sino medioambiental.

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ALISEDA, A., *La Lógica como Herramienta de la Razón. Razonamiento Ampliativo en la Creatividad, la Cognición y la Inferencia*. Reino Unido, Colledge Publications, Colección Cuadernos de lógica, epistemología y lenguaje, vol. 6., 2014, 90 pp.

Ante la perspectiva tradicional que entiende la lógica como instrumento fundamentado en la deducción que sirve de base para el estudio de otras disciplinas, Atocha Aliseda nos ofrece en esta obra una concepción distinta y considerablemente más amplia de lo que es la Lógica. La autora, investigadora en el Instituto de Investigaciones Filosóficas de la UNAM, recoge aquí sus principales tesis, que habiendo sido previamente reflejadas en una serie artículos publicados en español, componen este libro donde se presenta de manera divulgativa su visión conjunta de la Lógica.

El título del libro, *La Lógica como Herramienta de la Razón. Razonamiento Ampliativo en la Creatividad, la Cognición y la Inferencia*, encierra ya el propósito del mismo: presentar la Lógica como una herramienta de la razón que pone a nuestra disposición mecanismos de ampliación del conocimiento. Se trata entonces de expandir el concepto clásico de Lógica a una perspectiva de las inferencias que permita incluir también a la inducción y, esencialmente, a la abducción como tipos de razonamiento lógico. Gracias a esta clase de razonamientos se desarrollan inferencias ampliativas, lo que se traduce finalmente en la posibilidad de generar nuevos conocimientos. Como el lector podrá fácilmente intuir, el trasfondo filosófico del libro incorpora ideas provenientes

de diferentes disciplinas como son la Lógica, la Epistemología y la Filosofía de la ciencia. La clave para comprender el objetivo esencial de la obra es justamente entender la importancia que esta intersección de áreas filosóficas suscita: la pretensión final es dar cuenta de la adquisición de nuevos conocimientos (científicos) mediante el análisis lógico de los razonamientos que intervienen en dichos procesos. Tal análisis lógico está posibilitado por el papel de la inferencia abductiva, concepto que la autora hereda de Peirce y que será clave a lo largo de todo el libro. Una de las tesis principales consiste, en palabras de Aliseda, en “proponer a la abducción como un proceso epistémico de adquisición de conocimiento” (p. 54). En su visión de la abducción como inferencia ampliativa, Aliseda está fuertemente influenciada por las ideas de Peirce, sobre todo en lo que refiere a la distinción de los tres tipos de razonamientos básicos: deductivo, inductivo y abductivo. Los dos últimos se diferencian del primero en que sus conclusiones son solo probables y plausibles, respectivamente, pero nunca necesarias, como ocurre en el caso de la deducción. Aliseda defiende que los tres tipos de inferencias son susceptibles de ser consideradas como lógicas. Por otro lado, considerar el papel de las inferencias plausibles, en lugar de las necesarias, es coherente con la tradición falibilista, presente como trasfondo epistémico de toda la investigación. Aquí queda claramente reflejada la relación entre Lógica y Epistemología que es característica de la obra, ya que una cuestión fundamental estriba en entender la lógica abductiva como modo de ampliación del conocimiento.



Esto lleva, paralelamente, a enunciar otra cuestión fundamental: *¿existe una lógica del razonamiento científico?* Este interrogante expresa claramente la relación entre la Lógica y la Filosofía de la ciencia que Aliseda se propone enfatizar y que motiva, además, todo su proyecto de investigación.

El subtítulo del libro, *Razonamiento Ampliativo en la Creatividad, la Cognición y la Inferencia*, nos revela la manera en que la autora estructura el contenido de la obra, dividida esta en tres partes: *Creatividad, Cognición e Inferencia*. La pregunta anteriormente mencionada, *¿existe una lógica del descubrimiento científico?*, es el eje alrededor del cual se organiza la primera sección del libro, dedicada a la *Creatividad* inherente a todo descubrimiento científico. Partiendo de la clásica distinción de contextos en Filosofía de la ciencia, Aliseda se centra en el contexto de descubrimiento con el objetivo de proporcionar una aproximación parcial al proceso racional que tiene lugar en toda invención científica. Tomando por base las concepciones filosóficas que Popper y Simon tienen al respecto, concluye que no existe un método lógico que dé cuenta del momento “eureka” implícito en el descubrimiento. No obstante, siguiendo a Simon, admite la posibilidad de intervención de la lógica en la selección de hipótesis. La herramienta clave en dicha selección de hipótesis y el concepto sobre el cual se configurará la segunda parte de esta primera sección es la heurística, entendida como “una guía en el descubrimiento científico que no es ni racional –en sentido estricto– ni absolutamente ciega” (p.27).

Si, a nivel global, la primera parte analiza la posibilidad de inferencias

ampliativas en ciencia; la segunda parte, *Cognición*, relaciona las inferencias ampliativas con las teorías de cambio epistémico, exponiendo como ejemplo esencial el funcionamiento de la abducción en inteligencia artificial. El proceso de cambio epistémico se inicia con un hecho sorprendente, fruto de una experiencia anómala, a partir del cual se genera una duda que se resolverá mediante un razonamiento abductivo y, tras una corroboración empírica del razonamiento, se incorporará al cuerpo de creencias. El razonamiento abductivo nos permitiría así realizar tanto una expansión como una revisión de la teoría. Las leyes que componen dicha teoría, como resolverá Aliseda ya en la segunda sección de esta parte, se habrán originado previamente en base a un razonamiento inductivo. No obstante, cuando un suceso no acontece de acuerdo con nuestras expectativas, las inferencias abductivas serán las encargadas de modificar la teoría de base.

La cuestión de la demarcación lógica –esto es, la búsqueda de un criterio que identifique, entre los sistemas formales, aquellos que merecen llevar el calificativo de Lógica– está presente en toda la obra, pero se aborda con especial profundidad en la última parte del libro, denominada *Inferencia*. Aliseda considera como criterio fundamental de demarcación lógica a las reglas estructurales básicas de la lógica clásica (reflexividad, monotonía y corte) o, en su defecto, a alguna versión de las mismas adaptada a la lógica en cuestión. Basando, como es frecuente, el criterio de demarcación lógica en estas reglas estructurales, Aliseda nos presenta la abducción como una nueva forma de Lógica al dotarla de una

versión de las mismas. Además, estudia también la posibilidad de proporcionar una semántica y una sintaxis a la lógica abductiva así caracterizada, remitiendo entonces al lector especializado a su libro *Abductive Reasoning* (2006), obra principal en la trayectoria de la autora donde se abordan todas las cuestiones formales con mayor profundidad.

Por último, llama la atención el interés que la autora tiene por fomentar la expansión del conocimiento en lengua española, motivo por el cual elabora la obra en español, como ella misma enuncia en la introducción del libro. Además, su claridad expositiva, así como la actualidad de los temas que se presentan, hacen del libro una obra tanto accesible para los estudiantes como de interés para los especialistas.

En conclusión, estamos ante un libro que, contando con un amplio trasfondo filosófico, imbuido de ideas de grandes lógicos y filósofos (Peirce, Popper, Simon, Lakatos, Hintikka, van Benthem...), redefine y amplía el concepto de Lógica, entendiéndola como una herramienta que nos permite expandir nuestros conocimientos por medio de inferencias ampliativas, materializadas en la abducción.

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GARCÍA BARRIENTOS, José Luis. *Cómo se analiza una obra de teatro. Ensayo de método*. Madrid: Síntesis, 2017, 392 págs. - ISBN: 978-84-9077-448-9

El análisis de las obras de arte plantea problemas específicos que difieren entre

ellas. Se pueden detectar algunas similitudes entre las artes temporales tanto por ese carácter de fluidez que les es propio como por el hecho de que requieran de una actualización a través de diferentes formas de ejecución o interpretación. Al mismo tiempo hay aspectos textuales clásicos que no pueden ser desestimados y que en el caso de las Artes Escénicas –y en especial en el del teatro–, guardan relación con la literatura. Es importante, por lo tanto, encontrar un buen sistema de acceso al núcleo de las obras teatrales.

En este sentido, una de las novedades editoriales recientes más interesantes en relación con los estudios sobre Artes Escénicas ha sido la de este ensayo de método que propone José Luis García Barrientos. Investigador en el Consejo Superior de Investigaciones Científicas especializado en Teoría del Teatro y con una producción muy abundante sobre diferentes aspectos teóricos del teatro, este no es un tema nuevo para él. En gran medida, nos encontramos con una revisión y considerable ampliación de otras obras publicadas anteriormente por él y que han conseguido imponerse entre el público especializado por su profundidad, su rigor y su utilidad a la hora de abordar los textos teatrales. Aunque está dirigida a todos los profesionales de las artes escénicas, consideramos que es muy pertinente en especial para la investigación en el ámbito de la estética teatral y la filosofía del teatro. El análisis es el primer paso para el conocimiento profundo de una obra o de un texto teatral y solo a partir de los datos concretos que nos encontramos en la disección analítica de los elementos que están presentes en el texto se pueden establecer conclusiones –siempre tentativas– sobre

el propio texto, sobre la persona que lo haya escrito o sobre las posibilidades de su actualización escénica o esquemáticamente dramatizada.

Los ejes que propone García Barrientos no son radicalmente nuevos, aunque sí lo es la forma en que él los trata y cómo establece las relaciones entre ellos. La escritura; la dicción y ficción; el tiempo y el espacio; el personaje; lo que él denomina como visión –que tal vez se podría haber llamado perspectiva, aunque las resonancias orteguianas no se confirmen en los contenidos–; y la revisión de los modelos clásicos en torno a la poética y la retórica. Cada uno de estos ejes es abordado desde un conocimiento exhaustivo de las últimas tendencias tanto escénicas como teóricas. Previamente, claro, García Barrientos establece en la introducción una clarificación conceptual y terminológica en torno a los dos elementos clave: el propio concepto de análisis y el de obra de teatro.

Aunque toda la obra está trufada de fragmentos de análisis o de análisis fragmentarios, hay dos capítulos, para mí entre los más interesantes de su propuesta, en los que García Barrientos propone dos análisis extensos como ejemplo y puesta en práctica de su método: uno analizando *Luces de Bohemia* y otro *Himmelweg*, dos textos teatrales muy lejanos en muchos sentidos pero que aportan mucho al teatro no solo español. Valle Inclán y Mayorga, cada uno a su manera, parece que hubieran escrito pensando en ser analizados y, ciertamente, el ensayo de método parece confirmar toda su potencialidad al confrontarse con estos textos.

Un elemento muy útil presente también en esta edición, y en otras obras

similares del mismo autor, es la breve antología de análisis que añade, veinte en total, en los que se pueden escuchar las voces de autores dispares pero que pueden servir como modelos más o menos aproximados a la propuesta de García Garrido. Desde Azorín a Carlos Marx, desde Mariano José de Larra a Bertolt Brecht o, entre otros, Mihura y Peter Szondi, muchos de los textos clásicos de la historia del teatro aparecen iluminados por el comentario analítico de esos autores: *Edipo*, *Medea*, *La Celestina*, *El rey Lear*, *Macbeth*, *Fuente Ovejuna*, *La vida es sueño*, *Fedra*, *Rodogune* y *Los bandidos* aparecen en la antología mencionada.

Todos los elementos mencionados hacen de esta monografía un instrumento imprescindible para la investigación teatral y para la de la estética teatral en particular, sin que esto permita obviar la necesaria discusión sobre las diversas posibilidades de afrontar el análisis de textos tan complejos como son los teatrales. Complejidad que aumenta por el hecho de que su actualización a través de la interpretación añade una apertura que hace de la obras teatrales, como de las musicales, permanentes *obras abiertas*.

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VERCELLONE, F., *Il futuro dell'immagine*, Bologna, Il Mulino, 2017.

Difícilmente podía sospechar Benjamin, en la década de 1940, hasta qué cotas llegaría el narcisismo imaginero vigente en la actualidad al referirse no sólo

a la posibilidad sino también al “derecho a ser filmado”. La inquietante expansión social de medios tecnológicos que captan, registran, reproducen y distribuyen imágenes ha desembocado justamente en la situación contraria a la ocasión pronosticada por el filósofo alemán: el hecho de que la frontera entre productores y espectadores se haya convertido en algo poroso no ha dotado de potencial emancipador a las nuevas conductas ligadas a la técnica, sino que estos comportamientos se han vuelto a situar en un espacio de distracción. Además de que ahora lo que se reivindica, más bien, es el “derecho a *no* ser filmado” por las hordas de objetivos móviles que ansían registrar la particularidad de miles de pseudoacontecimientos.

Es en esta tesitura donde arranca el último libro de Federico Vercellone: un momento en el que las imágenes, más que nunca, han sido vaciadas de su intrínseca reflexividad. Como suele ser habitual en este autor, docto conocedor de la historia de la Estética y la Filosofía, Vercellone plantea el diagnóstico sin ningún tipo de catastrofismo presentista con el objetivo de demostrar no sólo cuáles han sido las condiciones y desarrollos temporales que nos han conducido hasta la situación actual, sino también la complejidad de esos otros momentos donde las imágenes también corrieron el peligro de morir de éxito.

Así, el filósofo italiano, partiendo de lo que en varias ocasiones denomina una auténtica crisis cultural —fruto de la reinante “sociedad del espectáculo” (en el sentido más netamente debordiano de no participación)—, articula de un modo crítico un amplísimo panorama en torno a la recurrente, y acaso artificial,

pugna entre dos formas de logos: la de la palabra y la de la imagen. Y, sí, esto debe quedar claro desde el comienzo, para Vercellone, como para muchos otros de los autores que él mismo convoca en su ensayo, la imagen también es productora y portadora de pensamiento. Nos encontramos, por tanto, no sólo con un recorrido por las principales concepciones y pugnas sobre el estatuto ontológico de la imagen, sino también con una restauración de su ser discursivo.

Para ello, Vercellone comienza por los orígenes de ese enfrentamiento, es decir, por la condena platónica de las imágenes al reino de la ilusión y la apariencia. La estrategia del filósofo ateniense para imponer su modo discursivo pasa, como bien mostró Havelock, por denostar cualquier otra forma de logos, bien sea el de la imagen o bien la de la poesía. Se trata de una sentencia que, como se encarga de presentar este libro, irá cogiendo fuerza a lo largo de los siglos (con Plotino, los Capadocios, etc.) y que sólo con el primer Romanticismo alemán será fuertemente combatida. Así, con Novalis, por ejemplo, comienza a restituirse la “razón de la imagen” que, en palabras de Vercellone, podría definirse como “la capacidad reflexiva de acoger lo otro en el propio reflejo para volver sobre sí misma. [...] un modelo de racionalidad tendencialmente hospitalaria gracias a su capacidad autorreflexiva para englobar a lo otro en su logos, haciéndolo propio”<sup>2</sup>.

2. “capacità riflessiva di accogliere l’altro nel proprio riflesso per tornare su di sé [...] un modello di razionalità tendenzialmente ospitale grazie alla sua capacità autoriflessiva di inglobare l’altro nel suo logos facendolo proprio”, cfr., p. 21. *La traducción es nuestra*.

Pero esta rehabilitación tendrá que enfrentarse, primero, a uno de los momentos más importantes en el conflicto entre el logos discursivo y el logos de la imagen: el nacimiento de la Estética como disciplina. A este episodio y sus múltiples consecuencias está dedicado el segundo capítulo de *El futuro de la imagen*. El conocimiento sensible, nuevo objeto de la nueva “ciencia” descrita por Baumgarten, es el conocimiento de la forma, una aprehensión simultánea de la realidad, en contraste con el conocimiento analítico y secuencial de la razón. De este modo, y muy especialmente gracias a Kant, la imagen y el arte quedarán ligados al sentimiento, por muy universal que éste sea. Pero, al mismo tiempo, y aquí entra en juego la excelente tesis defendida por Vercellone, esto nos conduce a la fragmentación de la percepción y, en último término, a un esteticismo sin ninguna capacidad de intervención sobre la realidad.

Y con esta base, se nos prepara para analizar en los capítulos restantes dos de los problemas que más sustancialmente comprometen el futuro de la imagen.

Uno sería el de la homologación (y homogeneización) de la mirada, que en este libro es magistralmente rastreado desde los escritos de Wöllfin hasta la actualidad, para desembocar en un espacio de inclusión y exclusión visual que llega a determinar la propia pertenencia de los individuos a una u otra identidad social. De este modo, nos enfrentamos a la segunda cuestión, esa que el filósofo italiano engloba bajo el rótulo de una nueva iconoclastia en la que, prescindiendo de aquella capacidad hospitalaria del logos de la imagen, se engloba a los fanatismos, cierto multiculturalismo y los usos de la tecnología, o, en detrimento de todo ello, a la cocina de Ferrán Adriá.

La agencia de la imagen, su capacidad de hacer y no sólo de servir como medio a otro fin, es el futuro que Vercellone reclama para el discurso visual. Por este motivo, el filósofo italiano termina apostando por una ética de la imagen que contribuya al “reencantamiento del mundo”.

Rosa Benítez Andrés.



PRÓXIMOS NÚMEROS

NÚMERO 20: Pensadores y pensadoras en Salamanca:  
a propósito del 8.º Centenario de la Universidad (2018).





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