Aisthesis

Techno-aesthetic Thinking. Technicity and Symbolism in the Body[1]

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Abstract. This paper investigates the reciprocal implications between aesthetics and technics, to show how technicity, as a cultural and symbolic attitude, is constitutively rooted in the aesthetic dimension of human experience. The analysis conducted aims to bring into focus the originarity of technicity in the development of the living body, understood in its inseparable connection with the mind, as junction between the sensible and the symbolic, the organic and the cultural, the perceptive and the expressive. I address this question through a parallel analysis of Simondon's groundbreaking reflection on technics and the less explored account of technics in Merleau-Ponty's philosophy. If the latter inscribes our attitude towards technics in the motricity and symbolism inherent to the living body, the former ascribes to aesthetics a form of thinking, thus playing a fundamental role in our relationship to the technical dimension. Despite the differences in their approach to technics, I combine their theoretical perspectives to encompass their internal limits and to outline possible convergences.

Keywords. Technics, techno-aesthetics, aesthetic thinking, Merleau-Ponty, Simondon.

Technology is our culture.
Jarod Lanier

Seulement à travers l'initiation au savoir technique
et la parallèle reconnaissance de la valeur culturelle et symbolique des objets techniques,
la culture pourra parvenir à une compréhension de leur mode d'existence
et apaiser le malaise social qui hante le rapport entre l'homme et la machine.
Gilbert Simondon

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1. INTRODUCTION

Because of the increasingly pervasive presence of technology in our lives, the question of technics, and especially that of its relationship to sensibility, has become crucial under many respects. Technological devices, as well as the cultural and epistemological dispositives they produce, work as prosthesis for human sensibility and expand the capacities of the intersubjective sphere, entailing political and biopolitical issues and affecting our embodied existence.

The coupling of body and technologies has never been as evident as in the last decades, by virtue of the diffusion of portable and wearable devices as well as virtual and augmented reality technologies. As has been pointed out, such a massive exteriorisation of human capacities[2] into technologies could also entail the risk of a dematerialization of embodied experience and even engender a progressive «insensibilisation» of our perceptive, cognitive and relational functions[3]. In other words, the risk intrinsic to our contemporary technoculture would be that of disembodiment, i.e. an elision of the living body's presence, as the enhancement of bodily functions which technology provides is likely to threaten the very existence and integrity of the living body as we know it.

Yet, can we assume such a premise from a philosophical point of view? Isn't the body what ultimately enables our aesthetic and cognitive experiences, even virtual ones? And isn't the human body structured in such a way as to extend itself into organic artefacts and prosthesis, being exposed, «altered» and dispossessed of any supposed natural authenticity?[4] Indeed, although the digital revolution has brought forth unprecedented configurations, we still tend to describe the present technological condition by means of catego-ries of the past, such as subject/object, activity/passivity, nature/culture, etc. To encompass this dualism, we need a theoretical paradigm that enables us to understand our embodied experience in its essential connection – rather than in its supposed opposition – to our technoculture.

Technologies should never be considered in isolation, since they exist only in relation to the interminglings of bodies and society that they make possible or that make them possible. In his account of human technicity, Leroi-Gourhan, makes no essential distinction between the tool as technical organ and the organ as bodily element: a technical object, such as a *biface*, emerges from the sensible matter in the same way as the hand does, insofar as both are a «secretion of the body and the brain» (Leroi-Gourhan [1964]: 132; Leroi-Gourhan [1993]). Thus, technicity shall be thought of not as something that is merely added onto a «natural» core of embodied life, but rather in its mutual implication with sensibility, i.e. in its relationship with the development and historical evolution of the living body, understood, in its inseparable connection with the mind, as junction between the sensible and the symbolic, the organic and the cultural, the perceptive and the expressive. This is why a cross-examination of technology and especially of embodied technics is essential to account for the anthropological transformations that are afoot in contemporary technoculture.

In order to address such questions in a comprehensive manner, contemporary philosophical and non-philosophical studies have frequently turned to the groundbreaking observations of Gilbert Simondon, providing a wide account of technicity and of its long neglected cultural relevance (Simondon [1958]; [2014]). In this paper, I would like to challenge Simondon's fascinating perspective through a parallel analysis of both his account of technicity and the reflections Maurice Merleau-Ponty devoted to the expressivity and symbolism of the phenomenal body (Merleau-Ponty [1942]; [1945]; [1961]; [1994]; [2011]).

Certainly, Merleau-Ponty is not a «philosopher of technology» and is not known for having developed a systematic account of technics; nev-

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[2] On the notion of technics as «exteriorisation» see Leroi-Gourhan (1964); McLuhan (1964).

[3] About these questions see for example Hayles (1999); Milon (2005); Small (2008); Meirieu, Kambouchner, Stiegler (2012); Tisseron (2013), (2017).

[4] See Montani (2014).

ertheless, as some commentators have begun to show (Ihde [1990]; Guchet [2001], [2010]; Hansen [2006]; Hoel and Carusi [2015]; Slock [2016]), his philosophy allows us to sketch out, if not an organic reflection on technics, at least a set of very productive and operational concepts to think of it. And, perhaps, the apparently arbitrary operation – namely addressing a phenomenology of the body in search for the elements of a philosophy of technicity – can also be read as a cultural symptom that reveals the necessity to account for the connection between sensibility and technics in the present historical situation – whereas a different time might have possibly explored the body from the perspective of a doctrine of the passions, of a theory of beauty, or of the sacred.

In this paper I aim not only to emphasize possible connections between Merleau-Ponty's and Simondon's thoughts, but rather to shed light on the specific conception of our relationship to technology developed by the two philosophers whilst also attempting to encompass their internal limits by combining their works. This parallel analysis will allow us to investigate how technicity, as a cultural and symbolic attitude, is rooted in the aesthetic dimension of human experience, being even a constitutive part of it.

2. TECHNICIZATION OF THOUGHT AND THE THINKING OF TECHNICS

If we examine Merleau-Ponty's approach of technics, it may appear ambivalent: on the one hand, the philosopher strongly opposes a *technicization* of thought (Guchet [2001]) that proceeds from mechanistic science, but, on the other hand, he considers technology as a non-philosophical field whose symbolic and cultural significance calls for a philosophical investigation, opening up new paths for philosophy.

In *The Structure of Behaviour*, the philosopher firmly opposes scientific approaches that understand nature and the human being based on the model of the machine, resulting in a science that, as he would later argue in *Eye and Mind*,

«manipulates things and gives up dwelling in them» (Merleau-Ponty [1961]: 9; Merleau-Ponty [2007]: 368). Thus, Merleau-Ponty's goal is to criticize a theory of behaviour that leans on a causalist relationship between stimuli and reactions, as it reduces the human being to a mechanism and misses the excess of meaning that the living body and the environment always involve. On the contrary, he addresses the notion of life and behaviour as linked to the historical and embodied *situation* of living beings, that is, the reciprocal and complex relationship between the organism and the environment.

Merleau-Ponty examines multifarious examples drawn from the technical domain to support his arguments against a mechanistic conception of thought, a perspective that ultimately complies with Heideggerian critique of the instrumental conception of technology (Heidegger [1954]). At the same time, we notice that more often, Merleau-Ponty's argument relies on phenomenological descriptions of technical devices, which are understood as correlatives of the configuration of the human body and its excessive structure. The analysis of technical artefacts, especially optical devices such as the mirror – I will come back to this point later in the text – , is set forth in order to bring into focus the living body's perceptive structures. Hence, in these cases, far from being put in contrast to human perception, technology is precisely that which can reveal the functioning of sensibility, which is normally dissimulated and dwells unnoticed in our ordinary perception.

The essay *Cinema and the New Psychology* is an emblematic example of this process. In this famous conference from 1945, Merleau-Ponty takes into account the technical invention of cinema to clarify the functioning of our perception; indeed, he outlines a parallel between the structure of our ordinary perception and the technical–cinematic perception, in which the intrinsic operation of the cinematic apparatus is employed to support the thesis of *Gestalt* Psychology, against the empiricist theories of perception. Moreover, in the conference, Merleau-Ponty suggests that, once invented, any technical instrument – in this case

the machine of the cinematographer, which allows to register and project moving images – needs to be taken on and almost invented a second time by culture – so that the moving images become what we commonly refer to as «cinema» (Merleau-Ponty [1948]: 61-75; Merleau-Ponty [1964]: 48-59).

Therefore, despite arguing against a technicization of thought, in developing his main philosophical goals, Merleau-Ponty seems to pursue another direction of research, in which technology comes into play as an ally of philosophy. Let us further examine this (only apparently) contradictory aspect of his approach.

Merleau-Ponty's account of technics must be inscribed in the framework of two main concerns that occupy his philosophical research, namely the relationship between nature and culture on the one hand, and, on the other, the account and formulation of the notion of *body schema* or *body image*[5], which serves as a theoretical basis for Merleau-Ponty's understanding of technicity and its relationship to sensibility.

From his initial works, Merleau-Ponty refuses the nature/culture opposition and the idea of nature as a separate entity. He aims to show that «what we call nature is already consciousness of nature» (Merleau-Ponty [1942]: 199; Merleau-Ponty [1964]: 212). The whole research developed in *Phenomenology of Perception* can be read as the effort to inscribe the problem of nature in the historicity and symbolism that is inherent to the living body. Nature is not behind us as an unreachable dimension that we might eventually access if we managed to get «beyond» culture. Rather, nature is the background on which human beings live and it is the source of an excess of sense. As

Merleau-Ponty puts it, what characterizes human beings is «not the capacity to create a second nature – economic, social, cultural – beyond their biological nature, but rather the possibility to overcome their given structures for creating new ones» (Merleau-Ponty [1942]: 199; Merleau-Ponty [1964]: 184). Such possibility relies on the capacity of the human body that becomes particularly remarkable if we observe the movement of *dilatation of perception* (Merleau-Ponty [1964]: 262; Merleau-Ponty [1968]: 212), which is afoot in our embodied relationship to instruments and technologies.

Merleau-Ponty describes the operational organisation of the phenomenal body through the notion of body image, to be understood as a mental design, supporting the living body's memory, spatiality and motility, which is experienced proprioceptively and dynamically and through which my body is geared onto the world. This is to say that, even before being involved in action and movement, the body is already engaged in their virtual projection. Like, for instance, in the experience of vision, in which we do not only perceive the objects and the landscape in their respective features, but we also seize the potentialities and relationships which are woven into the parts of the landscape, or between the landscape and me as embodied subject.

Hence, in their intentional relationship with human sensibility, things cease to be mere objects and become instead «quasi-organs» (Saint Aubert [2015]: 107), contributing to our being open to the world and realizing an «extension of existence» (Merleau-Ponty [1945]: 178; Merleau-Ponty [2005]: 135). This process can otherwise be described as «habit», expressing the power of our body of «dilating our being-in-the-world» and «changing our existence by appropriating instruments» (Merleau-Ponty [1945]: 168; Merleau-Ponty [2005]: 127).

Thus, as Don Ihde has pointed out, in Merleau-Ponty's account of body image there is an implicit «latent phenomenology of instrumentation» (Ihde [1990]: 40), that is, a theory of the process by which the body operates both a techni-

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[5] For a discussion of the notion of «body image» in Merleau-Ponty's philosophy and its sources, see Saint Aubert (2015); Saint Aubert (2006); Weiss (1999); Mazzù (2001). In Merleau-Ponty's writings no theoretical distinction can be tracked between «body image» and «body schema». As Saint Aubert discusses in detail, the philosopher takes on this notion from *Gestalt* psychology and especially the work of psychiatrist Paul Schilder (Schilder [1923]; [1935]) and creatively reinterprets it in the perspective of his own philosophical reflection.

cal exteriorisation of its functions and an incorporation of the technical tools. The way we get used to technical objects and artefacts is to be transplanted into them, or conversely, to incorporate them into the bulk of our own body.

Furthermore, for Merleau-Ponty, the relationship to instruments can better clarify the very nature of body image, for it shows that the image that we have of our body does not just delimit its edges and position into space, defining a static position of our body as *res extensa*. On the contrary, the body image operates as a virtual system, open to possibility and always ready to be transformed, as it creatively integrates in and realigns itself to it. The philosopher provides different examples to explain how the body image behaves and adapts plastically, incorporating technical objects in its actions. Thanks to its virtual power, the body can both *integrate* objects in its own spatiality and *extend* itself through artefacts[6], as we observe the way in which «a woman may, without any calculation, keep a safe distance between the feather in her hat and things which might break it off» for «she feels where the feather is just as we feel where our hand is» (Merleau-Ponty [1945]: 167; Merleau-Ponty [2005]: 126). The same can be said if one notices that, when I am driving a car, I am able to «enter a narrow opening and see that I can "get through" without comparing the width of the opening with that of the wings, just as I go through a doorway without checking the width of the doorway against that of my body» (Merleau-Ponty [1945]: 167; Merleau-Ponty [2005]: 128).

An even more evident example is the way a blind person no longer perceives their white cane for itself, as it has progressively become for them an area of sensitivity in their exploration of the world, as it extends through its range of action «the scope and active radius of touch and providing a parallel to sight» – or rather what can

be transposed by sighted persons as a parallel to sight[7].

Human beings are characterized by a virtual relationship with their environment, by their capacity of «orienting oneself in relation to the possible, to the mediate» (Merleau-Ponty [1942]: 190; Merleau-Ponty [1964]: 176), of projecting themselves into the future and the past, constantly transcending their goals. This capacity of the body to systematically overcome its merely «biological» possibilities and its tendency to virtually project itself, which we might also call *imagination*[8], is for Merleau-Ponty what distinguishes human behaviour from that of other animals in the relation towards technical objects.

Thus, technics is understood as a symbolic and cultural projection or as the excess of sense within our «natural» embodied and adaptive actions, precisely in this perspective, technical objects are for Merleau-Ponty an *expression* – just as, according to him, perception is in itself expressive (Merleau-Ponty [2011]: 48 ss.) – insofar as they express the human being by expressing things[9]. In other

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[6] Merleau-Ponty makes no essential distinction between the process of incorporation and extension that characterise our use of technology, and rather considers them as two complementary movements. For a discussion of the distinction between body-extension and body-incorporation see De Preester & Tsakiris (2009); Parisi (2019).

[7] «The blind man's stick has ceased to be an object for him and is no longer perceived for itself; its point has become an area of sensitivity, extending the scope and active radius of touch and providing a parallel to sight. In the exploration of things, the length of the stick does not enter expressly as a middle term: the blind man is rather aware of it through the position of objects than of the position of objects through it. The position of things is immediately given through the extent of the reach which carries him to it, which comprises, besides the arm's reach, the stick's range of action» (Merleau-Ponty [1945]: 167; Merleau-Ponty [2005]: 127).
The example of the so-called «blind man's stick» has been discussed in literature: see Polanyi (1966) and Bateson (1973). For more recent contributions see: Malafouris (2008) and (2013); De Preester & Tsakiris (2009). In particular, Malafouris has discussed the implications of the philosophical problem of the blind man's stick for archaeology of mind, in the attempt of redrawing the boundaries between brains, bodies and things, which has become particularly timely due to recent advances in the study of brain plasticity.
[8] See Montani (2014): 33 ss.
[9] About the notion of expression see Slatman (2003), Kristensen (2010), Fóti (2013).

words, human artefacts involve a certain experience of the world, and thereby they incorporate an anthropological and historical significance. What the philosopher seeks to describe through the notion of *expression* is the reciprocal, two-way movement between culture and the sensible-aesthetic dimension, as they constitutively overlap each other, the aesthetic conducts being informed – even if not determined – by the social and cultural sphere, and the cultural systems being inflected and constantly reconfigured by the symbolic, which is not simply potentially present, but already *expressed* within the aesthetic contact with the world.

The meaning of actions, objects of use, and more generally all human products, never coincides for Merleau-Ponty with the simple results and functions connected to them, but it is always entangled with a cultural significance that goes beyond them. Thus, for human beings the act of dressing, originated to defend oneself from the cold or atmospheric agents, entails «the act of adornment or also of modesty and thus reveals a new attitude toward oneself» (Merleau-Ponty [1942]: 188; Merleau-Ponty [1964]: 174). The same can be observed with regard to houses, in which human beings project and realize their tastes and values. And language itself can be understood as being but a further articulation of this movement of symbolic projection of adaptive actions.

3. AESTHETIC THINKING AND THE CULTURE OF TECHNOLOGY

As we have seen, although technicization of thought appears to be an obstacle, for Merleau-Ponty technics in itself is not «extraphilosophical», on the contrary, it appears to be «full of philosophy» (Guchet [2001]). Techniques and instruments are anthropological phenomena revealing a whole universe of significations that must be investigated by philosophy. As Merleau-Ponty repeatedly claims in his writings and especially in his late *Collège de France* course notes, the advancement of technology and the development

of modern physics are just as in art, literature or cinema, a permanent call to philosophy and to its renewal (Guchet [2001]; Merleau-Ponty [1996]).

Merleau-Ponty believes that «modes of thought correspond to technical methods» (Merleau-Ponty [1948]: 75; Merleau-Ponty [1964]: 59). This is why philosophy needs to investigate technologies and more in general technical objects as anthropological facts able to revive and question philosophical reflection. Thus, for example, modern technologies and science urge philosophical thinking to reckon with the cultural meaning that is *expressed* by them, although in an indirect and non-conceptual way. This is why *a philosophical investigation of the cultural meaning of technology is complementary to the project of formulating a new ontology*, whereas most of the science and culture of the time, at the dawn of the Sixties, tended to rely upon the ontological premises of Cartesian representationalism (see Merleau-Ponty [1948]; Merleau-Ponty [1964], Merleau-Ponty [1968]).

Merleau-Ponty elicits a sort of «unthought» in the manifestations of modern technology, and he prompts philosophy to reckon with it (Merleau-Ponty [1996]: 391 ss). This line of research has since been pursued by Gilbert Simondon, in particular by his account of the mode of existence of technical objects, to which he devoted his *thèse complémentaire* (Simondon [1958]). Indeed, Simondon seems to have taken on Merleau-Ponty's suggestion to investigate the *spiritual* – i.e. the invisible – characters of technologies. The goal of Simondon's extensive analysis is precisely to shed light on the cultural significance of technics and to raise awareness of the cultural meaning of technical objects, which Modern Western thought seems to have denied by refusing or neglecting technical realities as essentially human (Simondon [1958]: 9).

Simondon constantly points out the existence of a gap, of a dramatic divergence between the advances in techno-sciences and the actual state of culture: by neglecting the meaning and human genesis of technical objects, established theory has ended up drawing an opposition between human

beings and machines. This has prevented considering technical objects as «mediators between man and nature», or, according to Merleau-Ponty's view mentioned above, as «expressions»; that is, embodied phenomena, able to reveal anthropological significance (Merleau-Ponty [2011]: 48). For Simondon, the rushing search for supremacy, that leads technical progress, stems from an idealisation of technics, resulting in a mythical and purely imaginary conception of the machine as a threat that needs to be questioned and undone by philosophy.

Moreover, besides the fact that technical objects always include an anthropological significance – insofar as they are the product of human creativity – they also maintain «a certain margin of indetermination» (Simondon [1958]), a notion which represents one of the most original and decisive aspects of Simondon's reflection on technical objects. Indeed, in the process of their production, technical objects incorporate part of the natural world, which works as a condition of its functioning and, at the same time, provides them with a certain degree of independence, so that they are always open to contingency and to the unexpected[10].

A technical invention or creation is never concluded in itself. Indeed, once the technical object has reached a certain configuration, in the process that Simondon defines as *concretisation*, it still maintains an open structure likely to assume new assemblages and organisations. Similarly, we have seen that, with regard to the cinematic apparatus, Merleau-Ponty argued that «after the technical instrument has been invented, it must be taken up

by an artistic will, as it were, re-invented» (Merleau-Ponty [1948]: 75; Merleau-Ponty [1964]: 59).

Now, what is particularly noteworthy is that for Simondon the virtual possibilities of technics hinge precisely on the aesthetic dimension, which has to be understood as the common ground of both artistic expressions and the developments of technology and modern science. As I will argue, under Simondon's pen, the notion of aesthetics ranges different definitions: from an understanding of aesthetics as theory or philosophy of art, to a more comprehensive perspective that – following Baumgarten (1750) – entails the whole spectrum of sensibility and extends the definition of aesthetics to the exchanges between nature and human beings, that are also enabled by technical objects.

In the third part of his book *On the Mode of Existence of Technical Objects*, entitled «The Essence of Technicity»[11], Simondon develops a symbolic history of the three different modes of being-in-the-world proper of humans – *magical phase*, *religious phase*, *technical phase* –, to be thought of as successive individuations of a metastable system that describes the relationship of human beings to the environment (Simondon [2005]). In the first mode of existence, the relation of human beings to the world comes about in an elementary structuration, corresponding to the emergence of the «distinction between figure and ground in the universe» (Simondon [1958]: 156), which precedes the separation between subject and object. The human being experiences a primitive unity with the world; yet, this environment or *milieu* is not continuous nor undifferentiated, since a «reticulation» of points emerges which institutes salient moments and places as «key-points» (Simondon [1958]: 229) and polarities, having a sort of magical pregnancy, in which the capacity of the world to influence human beings is concentrated (Simondon [1958]: 164). This is the

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[10] For Simondon, the level of development of technical objects depends entirely on this margin of indetermination: «En fait, l'automatisme est un assez bas degré de perfection […]. Le véritable perfectionnement des machines, celui dont on peut dire qu'il élève le degré de technicité, correspond non pas à un accroissement de l'automatisme, mais au contraire, au fait que le fonctionnement d'une machine recèle une certaine marge d'indétermination. C'est celle-ci qui permet à la machine d'être sensible à une information extérieure» (Simondon [1958]: 12).

[11] About Simondon's account of technics see Barthélémy (2005); Guchet (2010); Carozzini (2011); "Critique" (2015); "Cahiers Simondon" (2015). About Simondon's conception of aesthetics see Michaud (2012).

case with geographical sites – such as mountains, summits, promontories, gorges, the heart of the forest – and points in time – such as beginnings, inaugurations, strong transitions and passages –, which are able to give rhythm to becoming and regulate exchanges between the human being and the world.

The constitution of the *technical phase* and of the *religious phase* proceeds from the rupture of this initial structure (Simondon [1958]: 233), in which the key-points distinguish themselves from the structure. The primitive unity of the living being and the *milieu* are split apart, resulting in a phase-shift [*déphasage*] of the primitive magical mode of existence. Structure and ground are undone and a certain distance is introduced between human beings and the world. Such emerging distance is *mediatised* by technics, on the one hand, and by religion on the other, which are to be understood as two interdependent poles.

As the primitive unity of the living and its environment is divided, it becomes *objectivated* by technics and *subjectivated* by religion. While technics (objective pole), with an analytic attitude, extracts fragments and isolates objects from the world to act upon it, allowing human beings to relate efficaciously to it, conversely, religion (subjective) represents the quest for totality and transcendence, trying to restore an absolute unity.

Simondon tries to avoid too dialectical a structure, which risks reducing and theoretically weakening the heuristic power of his description of the phase-shift. In a way, the anti-dialectical and metastable structure of the three modes of existence is provided by the aesthetic dimension. With respect to the results of this phase-shift, the *aesthetic thought* or *aesthetic thinking* [*pensée esthétique*][12] acts as «a permanent reminder of the rupture of the unity of the magical mode of existence and the striving for future unity» (Simondon [1958]:

160), and presents itself as the possibility to reconstitute the totality of the reticular universe, where humans experience the world directly without separation between subject and object. By building analogical relations, aesthetic thinking aims to recompose unity, since it creates continuity and universality, preventing the isolation of thought from itself (Simondon [1958]: 248).

Thus, aesthetic thinking allows us to establish continuities between the human being and the *milieu*, since every aesthetic action ultimately consists in constituting noteworthy and salient points. Those are no longer inserted in a primitive magical unity, but in the universe that has resulted from the differentiation of the magical world, into technical world and religious world. In Simondon's perspective, then, aesthetic thinking is not simply related to works of art and artistic practice, given that every act, thing, or moment «can become a noteworthy point of this sort, all can therefore be "aestheticized"» (Michaud [2012]: 124). Inversely, we should rather understand the very existence of artistic products as resting upon the ability of human beings «to feel the aesthetic impression with regard to real and vital situations» (Simondon [1958]: 248). The ultimate function of art is to preserve and develop this decisive human capacity.

Before bringing into focus Simondon's account of aesthetic thinking, we need to point out that, in the first place, the aesthetic dimension does not pertain to the properties of aesthetic objects or aspects of reality, nor does it define a subjective judgment or point of view, but rather stays somewhere at the intersection between them, as that which lays the basis for the sensible and symbolic encounter between human beings and the world. Secondly, as long as the notion of «aesthetic thinking» situates aesthetics in the domain of thought and Simondon connects it to the «aesthetic impression», this does not subordinate aesthetics to linguistic practices nor to the formulation of an aesthetic judgment. In fact, as Simondon argues, an aesthetic impression is independent from the real presence of an aesthetic – or artistic – object and *can embrace every human experience* (Simondon [1958]: 249). Hence, for instance, technical

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[12] I prefer this second translation to express the dynamic and inchoative nature of what Simondon calls «pensée esthétique», that should not be confused with the aesthetic reflection, but embraces a dimension which precedes any aesthetic jugment or aesthetic discourse.

objects can have aesthetic value and can be said to be beautiful (Simondon [1958]: 254), not because of their ornament and decoration, such as when the external case or the shape of the object aims at concealing its technical features (*cryptotechnic tendency*)[13], but precisely by virtue of their technicality (*phanerotechnic tendency*), and of their *insertion* in the *milieu*:

> the technical object is not beautiful in just any circumstances; it is beautiful when it encounters a singular and notable place of the world. The high-tension lines when they are crossing valleys, the car when is steering, the train when it leaves or comes out of the tunnel [...]. The technical object is beautiful when it encounters a ground that agrees with it, of which it can be the proper figure, that is, when it completes and expresses the world (Simondon [1958]: 185).

By virtue of the aesthetic impression that it can evoke, technics comes to creatively reintegrate into nature the objects that it had separated from it and therefore objectified. Through the aesthetic dimension, technics surpasses itself by creating new noteworthy points, able to re-signify and amplify the feeling of the coupling between the human being and the environment, or between nature and human artefacts. Simondon's reflection on technics provides a theoretical framework to undo too narrow a separation between the technical environment and the natural world, the process of insertion providing and implying the possibility of a permanent reactivation of the critical and symbolic functions in what he calls the «associated milieu». Still, in his first account of technicity the relationship between sensibility and technology is not developed further by the philosopher.

4. *TECHNO-AESTHETICS* IS SAID IN MANY WAYS

As we have seen, according to Simondon, the «aesthetic impression», or the sentiment of beauty that is connected to it, depends on the gesture of inserting an object in a *milieu*, such as to disclose unexpressed potentialities and to produce new individuations. The aesthetic impression is the result of an operation of cutting and editing or of assemblage that, in Merleau-Ponty's terms, proceeds from the generative gap [*écart*] that is at work in the sensible[14]. In this perspective, aesthetic thinking and technical thinking cannot be separated; on the contrary, they combine in the process that allows the emergence of the different articulations of the relationship between the human being and the world. Aesthetic thinking is precisely what makes the activation of a *margin of virtual action* possible, specific to every technical artefact; such margin ensures that the technical object can be put into circulation within the cultural dimension, thus mediatising the production of sense – in Merleau-Ponty's terms the operation of «expression» – which is always afoot in technology.

Simondon's theoretical gesture seeks to define what we might call an *aesthetic performativity* inherent to technics, in order to describe the creative effects of aesthetic thinking, to be understood, as I suggested above, as an intrinsic property of the objects as much as a capacity of the embodied subject. Thereby, as a further step, let us now focus more in detail on the *connection between technics and sensibility*, to bring into focus the convergence between Merleau-Ponty's and Simondon's reflections.

This question is explicitly addressed by Simondon in his later thought, in a short text of 1982, where he lays the basis for the foundation or «axiomatisation» of what he proposes to define as «aesthetico-technics or techno-aesthetics» (Simondon [1982]: 379-396; [2012]). In this unfinished manuscript, Simondon takes on some of the ques-

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[13] «S'opposant au mouvement phanérotechnique de manifestation de la technicité, relève d'une tentative de déguisement finalisée à faire pénétrer l'objet technique, à le faire accepter, au sein de la «citadelle de la culture», en l'obligeant pour ainsi dire à porter un "voile"», (Simondon [2014] "Psychosociologie de la technicité [1960-1961]": 37).

[14] On the notion of gap in Merleau-Ponty see Saint Aubert (2015).

tions already outlined in his previous research, to articulate further the theoretical core of the mutual relationship between technics and aesthetics. In Simondon's notes, the notion of techno-aesthetics is addressed under different angles, as if the philosopher's argument were following – to use a mechanical image – the oscillations of a pendulum, every movement revealing a different way to understand the co-implication of technics and aesthetics in our relationship to the world.

The term «techno-aesthetics» is first employed to describe the way in which works of art or aesthetic objects incorporate technology, as in the creations of Filippo Tommaso Marinetti, Fernand Léger, Alexander Calder, but also Gustave Eiffel and Le Corbusier, among others. These works combine technical efficiency and beauty, functionality and «aesthetic power» (Simondon [1982]: 382; Simondon [2012]). Here, the term techno-aesthetics expresses the specific fashion in which these creations tie together art and technological avant-garde, so that the «technicized landscape also takes on the meaning of a work of art» (Simondon [1982]: 390; Simondon [2012]).

Yet, this bond between aesthetics and technics does not just concern artistic creations: even a water tower or a viaduct, the engine of an automobile or the specific arrangement of a clamp, a shear, a stepped key, can raise an aesthetic or techno-aesthetic impression. The first ones, being engineering works, do so by virtue of their insertion in the geographic environment, with which they re-establish a unity, while machines or instruments elicit an aesthetic feeling which derives *from the action* that is connected to their manipulations and functioning. Their use triggers a «sensorimotoric pleasure» or «pleasure of action» (Simondon [2014]: 383; Simondon [2012]), «something orgasmic», which becomes the «tactile means and motor of stimulation» when «a certain instrumentalized joy» is «mediated by the tool» (Simondon [1982]: 383; Simondon [2012]).

In developing such an insight, Simondon introduces another angle of analysis, since he outlines a consideration, in quasi-phenomenological terms, of our sensible contact with the technical object and of the ease produced by its functioning and even of the pleasure that is elicited by its form, while we enjoy the contemplation of the structure and shape of an instrument, revealing through its simple visual form the balance between its proportions and the forces it is supposed to encounter.

Thanks to this texture of virtual potentialities, the tool *mediatizes* the relationship with the object on which it operates, and, conversely, the body of the user finds itself in the middle of a dynamic exchange, as it is called to perform a perceptive and motor response by meeting the sensory structure offered by the object. The «pleasure of action» produced derives from the user's aesthetic capacity, and the word «aesthetic» here is to be understood in a wider sense as referring to the human sensorium.

Later in the text, Simondon points out another aspect which is complementary to this function of *mediation* assured by the technical object, one that consists in eliciting the presence of physical forces that cannot possibly be noticed by human perception. There is an «aesthetics of nature» which can only be perceived through technical tools or devices, just as electricity can only be detected by means of a galvanometer or by an oscilloscope. This shows how our relationship to the world is inseparable from its techno-aesthetic manifestations in the perspective of what Gaston Bachelard would define a *phenomeno-technics* (Bachelard [1931]).

After developing this argument, Simondon considers once more the productions of art, to address not only the aesthetic feeling, but also the technical aspects that concern the practice of artistic creation and the contact with the «matter that is being transformed through work» (Simondon [1982]: 384; Simondon [2012]). These elements are even more essentially aesthetic than the experience of the beholder or spectator in contemplation of a work of art. Indeed, artists in their practice experience deeply the «pleasure of action» that Simondon describes in the notes as part and parcel of the process of creation. A wide range of

sensorial articulations – with endless variations depending on the subjective response of the artist – arises from the encounter with artistic instruments: a musician enjoys the vibration of the strings or the tactile feedback of fingering the keys of a piano, as a painter is stimulated by the viscosity and stickiness of the paint they mix or spread on canvas, and so on.

Art cannot really be separated from its status of *techné*: «art», explains Simondon, «is not only the object of contemplation; for those who practice it, it's a form of action that is a little like practicing sports» (Simondon [1982]: 384; [2012]). The production of artistic objects is then associated with a techno-aesthetic pleasure and with an «aesthetic affection» (Simondon [1982]: 384; [2012]). Such a technical tenor of art also concerns and can serve to describe the structure of certain artworks, likely to be analysed in a technical perspective. Thus, for instance, a techno-aesthetic analysis can shed new light on the interest of Leonardo da Vinci's *Monalisa*. The aesthetic pleasure raised by this famous work depends on the fact that the painting is «essentially plural», since it exists as a «superimposition of itself», insofar as it merges on the same canvas the beginning and the end of a smile, without representing its complete unfolding. Since the smile is not manifest, but only evoked by its two extreme terms, the beholder experiences the inchoative process linking the two moments. The painting conveys the superimposition of two techniques, explains Simondon, such as when in palimpsests one needs two messages in order to infer the source-message, which remains absent in itself.

More generally, for the philosopher, «no object is indifferent to our aesthetic *need*» (Simondon [1982]: 384-385, [2012]). Rather, aesthetics, understood as *aisthesis*, affects and determines the whole spectrum of our behaviour. At this point, the philosopher introduces a «more primitive, more fully physical sense» of techno-aesthetics (Simondon [1982]: 386, [2012]). Simondon argues that between aesthetics and technics there is «intercategorial fusion»: «[t]he techno-aesthetic feeling seems to be a category that is more primi-

tive than the aesthetic feeling alone, or than the technical aspect considered from the angle of functionality alone (which is an impoverishing perspective)» (Simondon [1982]: 391-392, [2012]).

Thus, if in the first part of his notes «On techno-aesthetics», Simondon seems to fluctuate between a Baumgartian sense of aesthetics and one that understands aesthetics as theory of art or beauty, in this passage, he articulates a much more radical conception, overcoming the previous definitions of aesthetics, to embrace the cultural and historically rooted nature of *aisthesis* as the dimension of our sensible contact with the world.

In order to explain how techno-aesthetics deeply affects our practices and existence, Simondon evokes a striking example, by referring to the research carried out in India by the *Food Research Institute*, an organisation aiming to develop a «basic food», which could be produced easily and in high quantities to be distributed to the population in case of famine. Despite the food's formula having been finalised, researchers still needed to find the most suitable shape for the food, so as to engender the adapted conditioning and allow the different ethnic and cultural groups in India to accept the product without obstacles. Indeed, in a region where common food is based on wheat, the population will not easily welcome rice-shaped food, even if it is distributed freely during a famine, for it will not meet the aesthetic habits of a certain culture rooted in their sensible relationship to the world.

This example demonstrates the importance of the affective tenor and the «value of presentation» of objects, all of which is highly conditioning in guiding our behaviour, being notoriously exploited by commercial strategies, packaging, product design and so on. Thus, techno-aesthetics is also what inflects our practices and our choices, operating at a very deep level: «The *aisthesis*, the fundamental perceptive intuition, is part of a culture. It acts like a pre-selector, separating the acceptable from the unacceptable, and determining whether one will accept or refuse» (Simondon [1982]: 387, Simondon [2012]). Through this analysis, Simondon comes to shed light on the «milieu of tools,

instruments, institutions that mould my way of thinking», whose importance had already been emphasized by Merleau-Ponty in his 1949-1952 Courses at the Sorbonne to point out their philosophical value (Merleau-Ponty [1988]).

5. EMBODIED TECHNICS AND THE «TECHNIQUES OF THE BODY»

As we have seen, techno-aesthetics *is said in many ways*, which should be interpreted in connection to the different meanings that the notion of aesthetics can assume[15]. In the articulation of this concept defining the co-implication of technicity and sensibility, Simondon seems to converge with some of Merleau-Ponty's reflections about human perception and its historicity, since they both urge us to think of the human body as already inserted in an environment filled by virtual actions and potentialities. As I argued above, for Merleau-Ponty technicity expresses the virtuality of the human body, its capacity to extend and project itself into embodied significations; something which concerns both human techniques and works of art, Merleau-Ponty having mainly devoted his research to the latter, so as to show the reciprocal relationship between sense and sensibility.

In a way, we could argue that, if the author of *Phenomenology of Perception* did not devote a specific study to the nature of technics, it is because, for him, technicity as such is always latently inscribed in the *flesh* as an amplification and emanation of the structure of human *aisthesis*, and specifically of the constitutive gap in the sensible of the flesh as a texture of differentiations[16].

This is particularly striking if we consider the mirror example that Merleau-Ponty evokes in a passage from *Eye and Mind*, where we find one

of his most significant arguments about technics. The philosopher addresses the dispositive of the mirror[17] and its reflective surface, which, in Simondon's terms, we may define as the ultimate techno-aesthetic object, since it emerges at the intersection of the natural and the human. Indeed, on the one hand, the mirror incorporates a «natural» technicity, as performed by the water's surface, and on the other it enacts the perceptive and imaginative capacity of human beings by virtue of a repetition of the natural world.

It is only in connection with the reflexivity of the sensible that we understand the reflexivity of the mirror (Merleau-Ponty [1961]: 33; Merleau-Ponty [2007]: 359). The mirror can be read as the emblem of technics in its radical exteriorisation, as a projection of the human into the inorganic–prosthesis, instruments, dispositives, etc.–but, equally characterizing the organic, from the pseudopodium developed by the amoeba to the most complex biological structures: «More completely than lights, shadows, and reflections, the specular image sketches, within things, the work of vision. Like all other technical objects, such as tools and signs, the mirror has sprung up along the open circuit running from the seeing body to the visible body» (Merleau-Ponty [1961]: 33; Merleau-Ponty [2007]: 359).

It is this techno-aesthetic mystery of the body that the gestures of the artist explores:

> *The painter is there, strong or frail in life, but sovereign incontestably in his rumination on the world, sovereign without any other «technique» than the one that his eyes and hands are given by means of seeing, by means of painting; he is there relentless to pull from this world, in which the scandals and achievements of history resound, canvases which will hardly add to the angers or the hopes of humanity; and no one matters (Merleau-Ponty [1961]: 15; Merleau-Ponty [2007]: 353).*

At the same time, the mirror can be said to perform a techno-aesthetic function, insofar as it

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[15] For an account of aesthetics as anthropological constant and for a discussion of the theoretical definition of aesthetics in the contemporary philosophical debate see Desideri (2011), Desideri (2015) and Bartalesi (2017).

[16] About this interpretation of Merleau-Ponty's notion of flesh see Carbone [2011]: 42 ss.

[17] About the mirror in Merleau-Ponty see Dufourcq (2011): 63 ss.; Saint Aubert (2015): 165-200.

institutes a salient and noteworthy point, which allows the unification between nature and human beings as well as between my proprioceptive sensibility and the visual surface of my own body. Let us examine the way Merleau-Ponty outlines what can be described as a «techno-aesthetic» analysis of the mirror, as *mediator* (Simondon [1982], Simondon [2012]) of our relationship with the environment:

> *Through it, my outside becomes complete. Everything that is most secret about me passes into that face, that flat, closed being of which I was already dimly aware, from having seen my reflection mirrored in water. Schilder observes that, smoking a pipe before a mirror, I feel the sleek, burning surface of the wood not only where my fingers are but also in those glorious fingers, those merely visible ones inside the mirror. The mirror's phantom draws my flesh outside, and at the same time the invisible of my body can invest the other bodies that I see. Hence my body can include segments drawn from the body of others, just as my substance passes into them; man is a mirror for man. Mirrors are instruments of a universal magic that changes things into spectacles and spectacles into things, me into another and another into me. (Merleau-Ponty [1961]: 33; Merleau-Ponty [2007]: 359)[18].*

The experience of seeing our own image in the mirror and, in particular, the gesture of seeing our body manipulating objects, described by Schilder, condenses the tactile and «sensorimotoric» pleasure described by Simondon, a pleasure that in the mirror arises from the redoubling of the world operated by the reflective surface, working as a technical and prosthetic element, able to extend and multiply human sensibility, and, in so doing, to realize an exchange between the inside and the outside, between the human being and others. «Every technique», writes Merleau-Ponty, «is a "technique of the body". It figures and amplifies the metaphysical structure of our flesh» (Merleau-Ponty [1961]: 33; Merleau-Ponty [2007]: 359).

The specific technicity of the mirror is inscribed in the flesh as much as it «draws my flesh outside», so that even the human body–the body of the other–can itself become a mirror. This is why the mirror is a timeless pole of attraction for painters of different ages. In this ancient tool, just as in the dispositive of perspective, takes place the metamorphosis of the viewer and the viewed, «that defines both our flesh and the painter's vocation» (Merleau-Ponty [1961]: 33; Merleau-Ponty [2007]: 359).

Therefore, on the basis of the analysis conducted, if we read Simondon in the prism of Merleau-Ponty's account of technics, we may even push his conception of techno-aesthetics further by extending it to the very structure of the human body, of technics *in the flesh*. Merleau-Ponty speaks of the body as the fundamental medium of our being open to the world, as a «machine for living the world», of our eyes and our hands as a «technique» (Merleau-Ponty [1961]: 15; Merleau-Ponty [2007]: 353), not in the sense of an objectified instrument, but as the virtual power that is inscribed in human sensibility, of which the eye is one of the most significant examples: «The eye is an instrument that moves itself, a means which invents its own ends; it is that which has been moved by some impact of the world, which it then restores to the visible through the traces of a hand» (Merleau-Ponty [1961]: 25; Merleau-Ponty [2007]: 356).

Thus, in this perspective, the question of technics is always implicated by Merleau-Ponty's constant interrogation of the body as both sensible and symbolic matter, as shown by his clear reference, even if implicit,[19] to Marcel Mauss's work. For the French anthropologist, to whom Merleau-Ponty devoted a famous essay (Merleau-Ponty [1960]: 143-157; Merleau-Ponty [1964]:144-125), technicity is primarily concerned with the «techniques of the body» or «bodily technique», that is,

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[18] The reference is to Schilder (1935). On the subject of mirror and mirror stage see also Lacan (1949); Lacan (1973); Merleau-Ponty (1988).

[19] Although no reference is indicated in footnotes, the expression «techniques of the body», probably extremely familiar at the time to the philosopher's audience and circles, is indicated in quotation marks by Merleau-Ponty.

with all those actions which are *effective* and *traditional*, i.e. culturally transmissed (Mauss [1936]: 374; [2006]: 75), independently of the technological instruments with which human beings have endowed themselves. Hence, an account of technical behaviour shall not be limited to the relationship with technical objects, but rather take into account that human beings' «first and most natural technical object» is the body itself (Mauss [1936]: 375; [2006]: 75).

Indeed, there is nothing *natural* in the way we live and use our body. It would be completely inaccurate to describe the acts of walking, running, swimming, eating and even going to sleep as something natural, since all these gestures and movements require and rest upon specific techniques that need to be learnt in the development of the organism and in life, and whose set of parameters vary – actually rather quickly – over the generations, being deeply influenced by the slightest cultural changes. The technical gesture is but an extension of a *bodily* gesture, an emanation of the body – or «bodily technique» in Mauss' words – and, conversely, a bodily gesture is, in itself, the product of a certain technicity of the body, being brought about by biological functions, postural and motor possibilities and specific organs.

As we have seen, Simondon articulates the question of technicity not as an isolated anthropological or transcendental characteristic, but as inseparable from the structure of human sensibility, posing the question of an «originarity» of the techno-aesthetic feeling. Merleau-Ponty's reflection converges with Simondon's in an effort of thinking the aesthetic and the symbolic dimension of technics together, and not as opposite paradigms; however, in a more radical way he situates technicity in the fundamental structure of the flesh, embedding technics as a constitutive part of our carnal being.

Hence, in this perspective what is «original» is not human enhancement by technology or the act of delegating functions to technical objects or machines, but rather the ontological gap and internal alteration inscribed within human sensibility or flesh, with regard to which technicity is but an amplification, a further articulation, both natural and cultural. In other words, what is «original» is the power of the body to project itself in the world, to exceed itself as symbolic expression – not *despite of* but *through* the thickness of sensibility.

Merleau-Ponty's and Simondon's reflections set out the basis on which to think of technics not as the product of culture over nature, but rather as the expression of an aesthetic structure of the human mind-body system, that is, of a permanent interference or *mediation* between the sensible and the symbolic operated in carnal existence, insofar as aesthetics, to be considered as a synonym of techno-aesthetics, names the form itself of our embodied thinking.

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