

Simondon's Concept of the Image: At the Junction of the Technological and the Animal

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Abstract

This paper presents an approach to the concept of the image articulated through non-hierarchical modes of being which include the human and the non-human, the technical and the biological, the animate and the inanimate. This approach to the image elaborates on the ideas of French philosopher Gilbert Simondon (1924-1989) who conceives it through an understanding of technical culture that sees no dichotomy between nature and culture and dissolves the rift between the human and the technological, the animal and the machinic. For Simondon, technologies are assemblages between instruments and machines, machines and humans, animals and milieus, invention and experience which produce new hybrid modes of thought, of being, of communicating—of existence which composes through expanded, hybrid beings. These hybrid beings sustain, unite and bring together the actual and the virtual, the human and the non-human, the animate and non-animate as individuations, as machinic assemblages within a multi-phased imagistic process. Like Bergson, Simondon's ideation of the image is non-pictorial, non-visual and steers away from an anthropocentric static conception, so that we can come to express the image as a process of individuation arising at the intersection of the animal and the technological.

Introduction

In the face of the complex, hybrid, expanded reality we find ourselves in—particularly in Art and Technology—the polarised relation between human and machine is no longer tenable, we need a different approach to think the image, one which considers both the natural and the technological milieu. In this perspective, we look to elaborate a concept of the image which goes beyond the anthropocentric scheme and takes into account the process-based, mutable and systemic thinking of a hybrid and expanded world.

We advance that the image occurs within an associative concretization that integrates a hybrid actuality. Here, hybrid refers to the acknowledgement of the simultaneous co-existence of the natural and the artificial in Gilbert Simondon and Jean-Luc Nancy, of the actual and virtual in Gilles Deleuze and Felix Guattari, of the human and non-human in Bruno Latour, and of physical space and cyberspace in Roy Ascott. We bring these questions on the image to the field of Art and Technology at a moment in which we find ourselves constituted by physical and digital dimensions. How can one maintain the division between mental images and

concrete images? Between images related to the imaginary, to memory and mental constructs and images related to invention within a technological poetics at the junction of cyberspace and geographical space? How can one maintain the division within technological poetics which builds cyborgs and crosses the animal, human, the vegetal, the micro and nano-biological, and the machinic to create expanded minds and bodies? We speak of informational territories, of cybercities, of cyberspace, telematics, mixed realities, augmented realities, expanded systems, alter-organised systems, ecosystems, artificial life, nano-art, neuro-art, the semantic web, biological software, evolutive hardware, bio-art, the internet of things—notions which bring us to think our existence in a hybrid and expanded way, without invoking spatio-temporal conceptions which are exclusively physical or measurable within closed systems.

We propose a move towards an understanding of technical culture that breaks with the dichotomy of nature and culture and dissolves the rift between the human and the technological, so that what is defined as human nature is already part of a technological system. Technologies are assemblages between instruments and machines, machines and humans, humans and milieus, humans and ideas which produce new hybrid modes of thought, of being, of communicating—of existence which composes through expanded, hybrid beings.

“Thus, we can definitely overcome the traditional anthropocentric concept based on the belief that technics (or biotechnics) must only be developed as an external extension of human organs or in order to widen their physical capabilities (prostheses, tools, etc). The creation of new direct interfaces between human beings and the machinic allows a synthesis of both systems [...]. The external relation between human beings and machines becomes a deeper symbiosis between the natural and the artificial”. [1]

For Simondon, what is required is a biological and a technological evolution which does not separate nature and technology, where the natural and the artificial constitute the world in a technical culture. “It is necessary that the technical object be known in itself so that the relation of man and machine can be stable and valid: hence, the need for technical culture”. [2]

Image and Milieu

Invariably, we like easily cognised ideas as concepts — such as ‘field’, for example—because we have an intuitive grasp of them based on a certain familiarity that is based on experience. We can look at a farmer’s field or a football field, and understand it as a territorial expanse and an activity that takes place on it. Immediately, we see the obvious, implicit division between the surface of the happening and the happening itself. But if we change the scale of our perception, we see that the surface of happening is a changing, mutating site of passage, of synthesis, of being-doing that is difficult to separate from the participants as activities taking place and which are themselves also metamorphosing entities. We no longer speak of the activity as differentiated from the field as location nor from the occupation of the participants. There’s no longer a hierarchical distinction of value between the farmer or the players, the plow or the ball, the crops or the grass and consider them equally as participant bodies. More abstractly, the unfolding of the event incorporates actual and virtual participants. It involves forces, intensities and their potentials into an intuitive becoming where the event is guided by an immanent intelligence which orients the creative process and its advance into novelty as invention. The movement of these forces, intensities and potentials does not subscribe to a neatly definable line of causality but is more akin to a turbulent flow of energies, to an unresolvable infinitely complex give and take, to a multiplicity of action and reaction on infinite fronts as imagistic process, whose sum total manifests a resultant direction as becoming.

So that we come to understand the field as a territorialization of forces and intensities constitutive of meta-stable bodies and not one of objects—yet, this field of activity does not happen in space as a temporal unfolding but arises immanently in space-time: it is not space plus time but space-time. The individuated event as an emergent amalgam of territorialities and bodies acquires and expresses its own spacetime within which participants become associated as one in the experiential ecology that involves them. And instead of expressing the processual unfolding of the event as a field, as a flat surface, we consider it as a “more-than-a planar surface” which fuses time, space and participants into what Simondon will call in his book, *The Mode of Existence of the Technical Object*, a milieu, an associated milieu.

In French, the term milieu does not only refer to a physical environment or setting, it means “surroundings,” or a “medium” as in biology, or “middle” as amidst. The milieu is normally understood as the ensemble of external conditions within which a living being lives and develops or as the assemblage of material objects and physical circumstances which surround and influence an organism. “Milieu” can also be seen as an environment in the widest ecological sense of the term, i.e. as the locus of the dynamic interaction of all the factors and mechanisms that participate in the sustenance of an ecosystem.

The concept of the associated milieu is a useful model to analyze the reciprocal and recurrent co-arising causal relationships that take place between the individual participants and territorialities and the image. The descriptive term “associated” when applied to describe milieu refers to a specific mapping of an ensemble made up of constitutive elements and conditioning environmental modalities which come together to create a concretized individuation through the ongoing exchanges of energy that take place within that specific milieu.

The associated milieu sustains, unites and brings together the actual and the virtual, the human and the non-human, animate and non-animate individuations: it is not a stage upon which a scene unfolds, or a play where only the actors perform, or a canvas upon which the pigments run into each other, or a manuscript where the words follow each other in sequence.

“The milieu is the setting and environment of concretion, of aggregation, where things condition each other in order to form something which in turn, simultaneously, allows these very same things to take form themselves. In other words, the milieu allows for a non-static, dynamic form as an event of images taking-form as experience”. [3] This is demonstrated in the artwork *Entremeios* (Between/Milieus), 2014 (Fig. 1). In this interactive video installation produced by LabInter/UFSM the work explores the acts of inhabiting a variety of mediated images/milieus and the movement from one to the other. Generated imagery from various spaces and temporalities hybridise themselves in a singular space and in real time, enabling interactivity between the work and the public.



Fig. 1: *Entremeios* (Between/Milieus), 2014, LabInter, interactive installation. Source: LabInter.

If we consider the animal-milieu relation, the animal constitutes itself in a dynamic geography according to its specific being-doing as movements and forms, thus composing an associated milieu. The animal is not only a subject that acts in the milieu, but the milieu provokes and arouses the subject as a being-doing and which in turn becomes modified by the occupation of the animal; the milieu incites the body into action while the animal is

being simultaneously, reciprocally composed by the milieu—the bee seeks out the flower just as much as the flower rouses and attracts the bee in a simultaneous, reciprocal, interdependent co-arising. These are the qualities of the milieu, of the intensities of beings which seduce and affect sensitive becomings as localised be-doings. As modes of relation, of association, between the qualities of bodies and of milieus, they are states of being, of consciousness, of awareness as a continuum of being. The milieu as constitutive of this continuum of relation allows for the reciprocal conditioning that is non-human or not even not-yet-human, but animate and cognitively different as expressive of its being and of what it can do. Michel Serres poses a very relevant and contemporary question, “How can we forget the elementary, animal relation with the world?” [4] To learn with the animal, to become-animal as Deleuze would say, is to learn through experiences of a non-human body, a body produced in different forms—through the animal, the vegetal, the technological—in a life which affirms itself through the milieu through which it transits and the relations that are woven.

The milieu crosses through individuals, simultaneously existing within them and outside of them like the air which one breathes, or the water that permeates our body, or the earth that nurtures and nourishes us. To think of the milieu is to think of individuation, of the production of the individual proper, its modes of functioning and perceiving, and its pre-established connections and relations. In this way, the milieu is active and defines itself as a source of energies, perceptions and actions. According to Deleuze and Guatarri [5], the notion of the milieu is not unitary: not only does the living thing continually pass from one milieu to another; they are essentially communicating and (in)forming. And here it should be emphasized that milieus communicate not only in the sense of being connected mechanically as a matter-forming, but in the sense of exchanging information through the action-reaction dynamic which is constitutive of the production of images. And it is in the way that information is communicated that the different modalities of imagistic process is articulated.

Image: Animal and Technological

Like Bergson, Simondon's ideation of the image is non-pictorial, non-visual and also steers away from an anthropocentric static conception. It is understood as emergent within the associated milieu through a transductive, 4-phased, cyclic process which includes: the motor-image, the perception-image, the mental-image, and the invention-image. [6]

Through these phases, one can modulate the relation between the human, non-human and the milieu and thus eliminate any polarising hierarchical importance between participating elements in the genesis of the image. The image is thus understood as a transient, intermediate processual reality between individual individuations and milieus existing within an evolutive technological

multiplicity. Echoing Bergson, Deleuze [7] points out that we don't perceive things in our mind, we perceive things where they are, in the world. Jean-Luc Nancy [8] points out along the same lines that the image is that which we can distinguish from the background. Thus, within the speculative approach, image is not restricted to the usual visual perception of objects, but is directly related to systems of relationship within the milieu—to experience itself.

Things exist as a polymorphic, evolutive and temporal diversity in a transductive relationship between the co-existent memory-image of the past, the perception-image of the present and the invention-image of the future. The image appears in the directed interaction between participants and the environment they are in: it is not just produced by a subject. Rather, the image produces and develops the subject and allows it to manifest itself as an immanent function of creation while being relatively independent from it. We live in a world of images: they inhabit us while creating our worlds; they actualize us and virtualize us according to different realities.

We understand the image not as an individualized given to be analysed, but as a process of individuation. The genesis of the image is conceived within a systemic, cyclic and processual approach where the cycle is made up of four co-existing phases (Fig. 2):

- 1) the motor-image
- 2) the perception-image
- 3) the mental-image
- 4) the invention-image

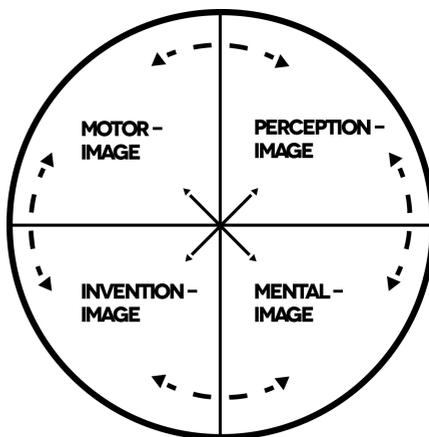


Fig. 2: *The four co-existing phases of the image in Simondon.* Source: Andreia Machado Oliveira.

One important aspect to keep in mind is that the milieu is not a single, homogeneous image. Although the associated milieu can be seen as a unitary subjective imagistic process, the milieu is composed of a

multiplicity of simultaneous subsidiary imagistic processes at different stages of phasic becoming interacting imagistically with each other. The associated milieu is not a pure, singular, homogeneous imagistic phasing but a multiplicity of co-temporal phases interacting with each other. Each type of image is productive of specific results which serve as objective imagistic raw material towards the production of new images. Depending on what they do and how they relate to the type of image being produced, these intermediate imagistic hybrids go by different names: objects, motricity of nervous excitation, signs, symbols... And as will be seen later, these intermediate hybrid images are the hinges that allow the transition from one phase to the next—from one level of informing animation to the next.

With the motor-image, the conditions are created for the adaptation of the living and the non-living elements to the milieu. Through a constant effect of motor activity, the image creates an a priori situation for the future perceptive identification of the object. Motor movement precedes sensory perception so that for the stimulus/response to occur, a high level of organisation is required for the reception of the signs within the milieu. Hence, it is the image that makes the object emerge for the subject, and precedes the object itself. It is the very genetic programming of an organism over its milieu and what determines its animality. [9]

In order to provide examples of the motor-image, we offer situations which refer to adaptations to the milieu—attunements which directly link motricity to instinct. We know that when babies are born, they initially do not recognise the figure of their mothers—instead, there's an indefinite form which satisfies its motor need for suction and food. Only later the infant will have the capacity to recognise the mother figure, the breast object, the nipple, etc.

Activities carried out automatically and unconsciously, that is, without the intermission of conscious thought, go through the various senses—the gustatory, the ocular, the tactile, the olfactory, the synesthetic—to satisfy motor needs brought on by instinct as stimulus, as expressive of our animal nature. Jean-Luc Nancy points out in agreement with Simondon that “the image is not only visual: it is also musical, poetic, even tactile, olfactory or gustatory, kinesthetic and so on”. [10] Imagistic process is not only visual but is a motricity produced automatically through the senses functioning together in a pre-human animal response to the reciprocal co-conditioning of the milieu.

In complexifying the motor-image, we can involve issues related to art and technology. We bring forth propositions which put in question the relation between the natural and the artificial, the human and the non-human, the structure of bodies and their actions and connections.

As Latour writes, “Art and nature have merged, folding into one another and forming a continuous sensorium”. [11] In the interaction with new technologies, the body expands its motor structures and its physical and mental functions. It acquires others

means of feeling, of perceiving, of acting, and of thinking. For Gianetti, from a post-biological perspective, what currently “makes sense is no longer the freedom of ideas, but the freedom of forms: the freedom to modify and change the body. People assembled by fragments are post-evolutionary experiments”. [12]

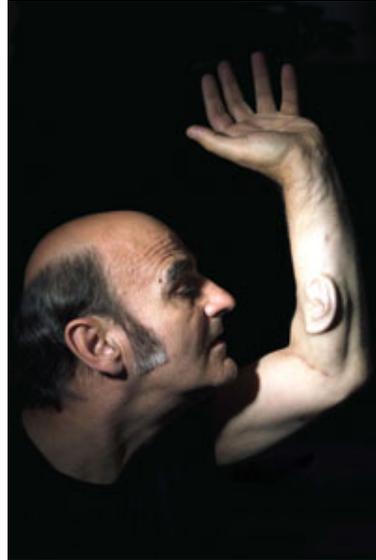


Fig. 3: *Ear on Arm*, 2006, Stelarc, organic material. Source: https://commons.wikimedia.org/wiki/File:Stelarc_Extra_Ear_Ear_on_Arm.jpg

For example, when Stelarc (Fig. 3) implants an ear on his arm, he intends to augment the speed of his body by linking it to the web, thus producing an-other analogic/digital body, a self-imposed evolutionary adaptation. It would be senseless to assert that the digital milieu would reject the body—so that for Simondon, there is a biological and technological evolution, without separating nature and technology. He seeks to attach an artificial extension or prosthesis to the human body to posit that

He seeks the extension of the human body by artificial means, thus positing that our body has become obsolete in face of contemporary technology. In his work *Ear on Arm* (Figure 3) he had a left ear implanted in his left arm to be enhanced in future surgeries with a microphone connected to the internet; this makes the implanted ear an organ with possible public access to other locations, not only to listen but to transmit sounds so that, for example, a person living in New York City can listen in on Stelarc's locale. Even more audaciously, the project can be extended by combining a receiver with

a loudspeaker inside of the mouth; the artist could then answer calls by speaking into the ear on his arm while listening to the received call inside his head. If he keeps his mouth shut he can listen internally, whereas if he opens his mouth, the sound becomes amplified and others can listen in. In this way, the *Ear on Arm* and the amplifier mouth become organs of the internet.

From the motor-images produced by motricity, bodies are able to develop sensorialities in relation to the milieu, which gives rise to the perception-image. As Massumi writes in *Parables of the Virtual* (2002) perception is "real movement, because something has happened: the body has been capacitated. It's been relationally activated". [13]

Imagistic process is not passive or static when it goes by unperceived by the subject; it is differential activity that is constantly emerging and productive. The perception-image enables the interaction of a subject with the world, and the object emerges from the experience as the beginning of a new phasing. But because the milieu is a multiplicity of subordinate individuations at various stages and phasings of becoming, the process is not so linearly straightforward: intermediary images are produced from the imagistic interaction of images in different phases. From the action of signs on the living and the non-living within the associated milieu, a number of responses will result; the images will organise themselves progressively as an effect of difference and repetition within experience. The perception-image evokes an action with the object, based on the perception of the milieu's signs. The object appears through the perception-image of the signs of the milieu which in turn become objects. Perception is not an action of the subject outside and above a milieu which contains objects, but an effect of non-hierarchical systemic relations which include subjects, subsidiary images, objects and milieus, "perception exists between that which perceives and what is perceived" [14]

The perception arises from this relational process between things, making explicit that they are always becoming something in the action of living. A creature's perceptions, whether animal, vegetal, human or technological, "are its actions in their latent states. Perceptions are possible actions". [15] And just as an animal's evolutionary adjustments to ecological imperatives modify their perceptual being, technological devices are evermore altering our perceptions of the milieu, influencing the signs contained within themselves, transforming them, mixing them, incorporating them through the construction of digital milieus and hybrid images in interactive installations, of augmented reality with goggles, tablets, smart phones, etc. As such, the everyday images that we perceive are essentially technological images (analog and digital) which hybridize our experience through imagistic process.

With experience in telematics, Roy Ascott [16] speaks about the faculty of post-biological cyber-perception. Through cyber-perception, we can perceive our capacity to be outside of our bodies or act out a

mental symbiosis with others in fields which can articulate our multiple natures, or a new understanding of non-linear or non-categorical patterns in rhizomatic assemblages. It proposes a multiplicity of points of view and the impermanence of all perception. An intelligent milieu which responds to our gaze, which sees, hears and reacts to the same extent that we do. It is an art aimed at ridding itself of representation in order to become self-expression and to celebrate the creativity of a distributed consciousness. While inhabiting cyberspace and virtual milieus, the artist becomes concerned with the revelation, with the manifestation of that which until now had never been seen, heard or lived.

Virtual reality artworks such as *Osmose* (1995) by Canadian artist Char Davies, can provide an experience without contiguity with the referent and with other spatio-temporal situations. "Whereas early virtual environments utilised portals that rendered transitions abrupt, in the image world of *Osmose* the observer experiences osmotic transitions from one sphere to the next, seeing one slowly fade before it amalgamates into the next". [17] The viewer enters a state of immersion within the transformations of the digital landscape and experiences sensations of lightness, a lack of gravity, and multidirectional movements. In *Osmose* a virtual reality helmet (in those early days), features of 3D computer graphics and audio that are exploited synesthetically.

Brazilian artist André Parente, in his interactive installation *Figuras na Paisagem* (Figures in a Landscape) (2005), an immersive dispositif called *Visorama* that simulates binoculars, except that it shows digital images of scanned panoramic photographic landscapes as video and audio. Several images and soundscapes are activated simultaneously allowing for the coexistence of various temporalities and spaces.

The mental-image arises in an analogous manner in relation to the world. Afterwards, the motor images and perceptual images are mentally organized and systematized according to an affective-emotional attunement with the external milieu as memorial process. As Simondon states, memories consist of images that have been retained when the situation and the experience no longer exist. [18] To think memory as imagistic process with digital technologies requires that we expand its conception to hybrid or collective memories. We see this hybridity of collective memories at work in the *Selfiecity* project (2014) by Lev Manovich. Together with Dominikus Baur, Jay Chow, Daniel Goddemeyer, Nadav Hochman, Moritz Stefaner, Alise Tifentale, and Mehrdad Yazdani, they have created an interactive web app for discussing the construction of popular photographic self-representation in digital visual culture, for exploring a dataset of 3200 Instagram selfie photos from five global cities: Bangkok, Berlin, Moscow, New York, and Sao Paulo, and for proposing other way of data visualizations. [19]

With the Internet we are faced with collective memory which is fed continuously from data produced in various media and shared by certain modes of data visualizations. And when we speak of nutrition, of

keeping the beast alive by feeding it, are we not harkening back to Aristotle's first divisions of what constitutes animal life? We make this point in passing in that these linguistic constructs are also constitutive of bodies and animate forms, of machinic assemblages which have a life of their own and which produce their own ecologies of thought, of being, of existence which are as animate and full of life as any flesh and blood animal.

Mental images produce collective symbols which when saturated generate invention-images. Symbols are pseudo-objects between the living and the milieu, so that the symbols is an instrument and medium for invention, but not an invention in itself. Language can be understood as an image that is produced in the mental phase, transducted between the motor-image and the invention-image. As Serres writes, "That forgotten, unknown man became a man by speaking, and the word has moulded his flesh, not only his collective flesh of exchanges or perception, use or domination, but also and especially his corporeal flesh". [20] The invention-image produces a spatio-temporal imagistic shift within the environment.

In the video-installation *The House* (2002), Finnish video artist Eija-Liisa Ahtila unfolds the symbol of the house. She fabulates the histories contained in the imagery of the house as if the doors and windows float within our unconscious without a boundary between fiction and reality. The house, the artist, the surrounding landscape, the objects, the wind, the animals invent other realities. We are just as fragmented as the house and we come to perceive that there is not only one subjective, historical house, but on the contrary we live within these heterogeneous differences. The image is saturated by a technological montage that plays with the house as a symbol which opens onto other narratives, to other meta-stable triggerings which produce invention.

The invention-image is directly related to the technical and aesthetic invention, where the creative imagination is the ability to invent technical and aesthetic objects from the capacity for symbolization and communication. As Simondon writes, in the very production of the image, "all objects produced by man are image-objects which the imagination concretises". [21] The aesthetic object is an effect of the activity of invention, but mainly it is an opening to unforeseen primitive realities in the sense of an aesthetics of the senses and the return to the primary phases of the image. Thus, the invention-image modifies the conditions of its natural existence. [22] We understand invention as a mode of human and non-human existence which activate fluxes of fields through the action of the future on the present as opening up being to new regimes of images. The installations developed by the SCIArts group were based from the start on the idea of the system: for example, in their *MetaCampo* project (2010) (Fig. 4), the system of the artwork-human-milieu interconnects with what happens inside and outside the gallery. Politics, the economy, traffic in big cities—any smart system including humans can be described as a system that

shares similar behaviors or dynamics, and, despite the particularities and scales, maintain similarities in their compositions. The artwork-human-milieu system is inserted into other macro and micro systems, connecting through transductive links.



Fig. 4: *Metacampo*, 2010, SCIArts group. Source: Carlos Donaduzzi/SCIArts group

To emphasize the difference between human and non-human becomes pointless, now that active objects are increasingly taking the place that was once occupied by humans. When we speak about the Internet of Things, Generative or Artificial Intelligence, we need to shift our anthropocentric understanding and make room for objects as animate bodies, as living forms of a different nature.

Thus, Simondon refers to the genesis of the image as a cycle which does not close on a specific phase or on itself. The invention-image is not the end of the cycle but only a phase that is related to the others. "After invention, which is the fourth phase of the becoming of images, the cycle starts anew with a fresh anticipation of the encounter with the object, which in fact can be its production". [23] Yet, we need to keep in mind that individuation is still a complex multiplicity of subsidiary individuations where even if one phase is dominant, all four aspects, i.e. the motor-image, the perception-image, the mental-image and the invention-image, together co-exist as a meta-stable, simultaneous, co-conditioning, and inter-dependant ecology of images. Thus, each individuation has its own singular expression of being, of perception, of thought which is vehicled through the temporality implicit in each phase.

Simondon presents concepts of the image that leave the image open to a process to its own individuation. Understanding the process of individuation directs us towards an ontogenesis of being, of individuals and milieus, of the human and the non-human—towards a genesis of the image concerned with how things become rather than what they are or what their final configuration will be. Thinking in this way can support art research that adjusts itself over time and comes into existence just in the process of construction taking shape. This is a mode of thought which can sustain art research which modifies over time and enters into the raw process of matter taking form.

It is a way to understand experience as a way of individuation and not as personal experience. Parts of the spectator, of the artist which remain in the work, of the work, of the technology enter into the individuation as full participants in the composition of the associated milieu. When it comes to experience, these are not the experiences of individuals but of a process of individuation that does not focus on what "is", but on its emergent becoming. We can refer to this as an ontogenesis that goes beyond the artwork or the human. Thus, we consider that the work, the artist, the spectator and the milieu are a compounded mixt. They compose a multiplicity of individuations within the habitat as they actively incorporate parts of the world in an autopoietic assemblage as an animate becoming-world. We become contaminated by these images and are entrained and drawn into the creative milieu of images by the constant flux, by the rhythm of the milieus, by the mixture of human and non-human elements.

In these hybrid works, we realize that the images never cease being analog so as to become digital—since there is no such dichotomy, since any experience is first analog before becoming digital. One knows, perceives and feels analogically with the body. Even with digital mediation, the body is analog in its manner of responding to life. One does not react or respond to possibility through a binarism of 1's and 0's, but through the multiplicity of analog variations for as Massumi writes, "The analog is process, self-referenced to its own variations". [24] It's not a matter of reducing the digital to a mere tool, but of potential of the digital milieu to find itself in the admission that the analog process is always present. It needs contact with matter—whether it is light, word, sound, so it can roam around the world. "Digital technologies have a connection to the potential and the virtual only through the analog". [25] When images appear on the screen, they are recognized through an analog process, in the same way that we recognize them on a sheet of paper; we tentatively feel for configurations, we invoke the imagination, we back-grid it analogically because "the processing may be digital—but the analog is the process". [26] Even if they are different, the digital requires that it be seen jointly with the analog. It is a mistake to think that the hands were amputated by digital experience. On the contrary, they were expanded by the experience of the entire body.

Within the analog process, the digital expands its possibilities and "the challenge is to think (and act and feel and realize) the co-operation of the digital and the analog, in self-varying continuity". [27] Thus, we can detect in various works the challenge of translating analog experience into the digital, so that one feels more, hears more, and the possibility of exploring haptic and synaesthetic sensations is heightened.

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25. Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation*, 138.
26. Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation*, 142.
27. Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation*, 143.