POST-CINEMA

THE KEY DEBATES

Mutations and Appropriations in **European Film Studies**

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Dominique Chateau
and José Moure (eds.)

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The Key Debates

Mutations and Appropriations in European Film Studies

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Post-cinema

Cinema in the Post-art Era

Edited by
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and José Moure

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Francesco Casetti and Andrea Pinotti

Abstract

Instead of developing the general theme of the immersive experience, Francesco Casetti and Andrea Pinotti exemplify it by focusing specifically on Alejandro G. Iñárritu's Carne y arena, an interactive virtual reality installation presented at the 2017 Cannes Film Festival, insofar as it testifies to the formal and spectatorial transformations that are rightly referred to as post-cinema. More generally, emphasizing the characteristics of "unframedness, presentness, and immediateness," this kind of work draws our attention to the phenomenology of the film experience. Casetti and Pinotti propose going beyond phenomenology (and ontology) with the project of an iconic ecology based on the concept of *phaneron*, the appearance as it is perceived for itself.

Keywords: Ecology, interaction, phaneron

Film studies no longer blame digital post-cinema for losing contact with physical reality and for replacing it with a purely artificial world. A new theoretical framework is emerging, as Lisa Åkerwall (2018) has noticed,[1] in which post-cinema's modes of working are questioned from a wider perspective. This text wants to move farther in this direction. Relying on Vilém Flusser's concept of "technical image" – a category that at once includes and exceeds the idea of digital – focusing on Alejandro G. Iñárritu's post-cinematic installation Carne y arena – a piece of interactive filmmaking that premiered at the 2017 Cannes Film Festival – and re-reading Adolfo Bioy Casares's *La invención de Morel* – a

* This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No. [834033 AN-ICON]).

1 The references are in particular to Denson and Leyda 2016; De Rosa and Hediger 2016; Hagener, Hediger and Strohmeier 2016.

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futuristic novel published in 1940 – this text explores some characteristics of post-cinema, in particular its attraction for unframedness, presentness, and immediateness. The attempt to display a world in its fullness, proximity, and abruptness, on behalf of an "immersive" experience, not only recalls some of the crucial stylistic changes in post-cinema, like the break in the story's continuity, the progressive remodulation of images, and the misalignment of spectators' perception. This attempt, performed by sophisticated dispositives, also uncovers the fact that post-cinematic images are neither a testimony nor a reminder of a reality that is absent, but a calculated aggregate of data. This aggregate, that displays the world in its mere appearances, invites spectators to raise some hypotheses about reality, be they simply perceptual, or sensory-motor, or abductive hypotheses. In our media landscape, these hypotheses are often "sterilized," when spectators and users either surrender to a certain passivity or are by-passed by images that circulate from a machine to another machine, without human intervention. Yet, when these hypotheses surface, they can corroborate reality's appearances and make them an element of mediation with the world. Post-cinema holds this possibility open: it does not harness appearances within a gaze, as the classical cinema used to do; it offers appearances that involve spectators' sensibility without implying any appropriation or privilege; and yet, in doing so, it elicits a mutual engagement with reality. We will say: post-cinema overlaps a phanerology and a phenomenology, but not forcedly, nor even necessarily, and yet often productively. It is precisely this complex playground – a terrain in which techno-capitalism often considers subjects' entrance neither necessary nor allowed – that defines the aesthetic and political assets of post-cinema. The ultimate reasons for post-cinema lie in its ecology.

Technical Images

Thirty-five years ago, Vilém Flusser (2011) envisioned the advent of a new kind of image, which he called the *technical image*. Rather than embody actual observations of the world, technical images assemble the data to which our universe is now reduced[2] and elaborate what ultimately is a reality's potential

2 "The world in which [men] find themselves can no longer be counted and explained: it has disintegrated into particles – photons, quanta, electromagnetic particles. It has become intangible, inconceivable, incomprehensible, a mass that can be calculated. Even their own consciousness, their thoughts, desires, and values, have disintegrated into particles, into bits of information, a mass that can be calculated" (Flusser 2011, 31).

configuration.[3] With technical images, we no longer deal with depictions of precise states of things, but with "mosaics assembled from particles" (Flusser 2011, 31),[4] mostly operated by "blind" machines, that nevertheless make visible "bits of information" that are arranged and rearranged according to different possibilities.[5] The paradoxical effect of this process is to create worlds that are self-evident and self-sufficient. These worlds no longer stand in for an absent reality that they are expected to remember or to recover – in this way, they do not respond to the sense of loss and the desire of repossession that this absence elicits.[6] On the contrary, these worlds come to the fore in their fullness. They literally display a reality that we experience as actual and present, despite its artificial nature; in doing so, they epitomize an act of exhibition. Images cease to be a trace or a pointer of what is no longer at-hand; they become mere pictures, and consequently, with respect to the tradition, they negate their very nature of re-presentation. Self-negating images – in some ways, "an-icons"[7] – technical images nevertheless construct the world through the multiple visualization of both its actual and possible aspects, and that consequently echo the *multiverse* in which we now live.

The accomplishment of the digital revolution, as well as the emergence of a new generation of optical devices, fulfil Flusser's prophecy. Today, virtual, augmented, and mixed reality, 3D movies, immersive videogames, flight or driving simulators, navigation systems like GPS, artificial interactive environments, and so on, bear witness to the advent of new practices of imaging and consequently to new forms of visuality, which do not necessary rely on an eye that tries to fill the gap between reality and its representation.

In this new visual landscape, pervasive digitalization plays a crucial role. As Flusser underscored, pixels are exemplary of the "particles" in which our universe is fragmented; and in technical images, the assemblage of visual data obeys certain forms of algorithms.[8] Nevertheless, digitalization's role is not exclusive. An "ontological" approach to technical images that pays all

3 "The production of technical images occurs in a field of possibilities: in and of themselves, the particles are nothing but possibilities from which something accidentally emerges" (*ibid.*, 6).

4 Flusser insists on the "technical images'" very nature as a calculated assemblage of data: "The mass [of particles] must be computed to make the world tangible, conceivable, comprehensible again, and to make consciousness aware of itself once more. That is to say, the whirring particles around us and in us must be gathered onto surfaces; they must be envisioned" (*ibid.*, 31).

5 "That is what a technical image is: a blindly realized possibility, something invisible that has blindly become visible" (*ibid.*, 16).

6 On this idea of image as memory and recovery, see, among others, Bettini 1999.

7 The idea of "an-icon" has been recently elaborated by Pinotti 2020.

8 "The difference between traditional and technical images, then, would be this: the first are observations of objects, the second computations of concepts" (Flusser 2011, 10).

its attention to the passage from analog to digital, ignores the reasons that underpin the advent of technical images. At stake there is the reconstruction of a world that follows automatic procedures – something that film and photography had already begun, and that the digital pushes to the limit. To this core, other elements are added. One is the *ubiquity* of these images. Technical images play crucial roles in several and apparently contradictory cases: from social encounters with others via visual dispositives (video-conferences, Skype, webcams, etc.)[9] to ways of simulating real situations or intertwining the real and the virtual (interactive training videos, virtual tours, or augmented reality games). Another element is their *support*. Today, most images are screened – and interconnected: the networked screen exponentially increases their retrievability, mobility, and workability. Technical images arise not only because of their digital form of codification but also because of their expansive and flexible mode of existence.

The outcome of technical images' pervasive presence is a mutation of *visuality*. While watching a technical image, the beholder is not asked to remember or to recognize anything. Images cease to be re-constructions of an actual or assumed-as-actual world, or the trace of a reality that engendered their representation, or a sort of finger pointing to an individual or an object. Images are just constructs that automatically assemble bits of information.[10] This does not mean that technical images cease to have an impact on reality, or worse, that they lack any truth. Bound to the situation in which they live, technical images speak of this situation. Quite paradoxically, both a video game console and a plane cockpit host images that ultimately respond to, sustain, and adjust to the purposes and context in which they surface. In this sense the truth of technical images is contingent not on their content, but on their own conditions of existence.

If the technical image is a construct, then this construct is based on, and opens to, a set of *operations*. Among the operations that buttress the technical image's life are the aggregation and the calculation of data according to different algorithms, their visualization in different formats, sizes, and degrees of definition, and their circulation in different circuits. Technical images do not reflect a natural view of the world, but rather a process of manipulation performed by an agency. On the other hand, technical images also ask us to do something: they are agents on their own. Indeed, they provide "instructions about the way society should experience, perceive,

9 See the concept of *synthetic situation* in Knorr-Cetina 2009.

10 Mark Hansen (2015) underscores the passage from data record to data elaboration and re-elaboration.

evaluate, and behave."[11] Technical images literally "design" our sensibility and our action.[12] In this sense, they do not simply address our eyes: they involve our hands, legs, behavior, orientation – our full mind and body.

The limited role of our eyes is redoubled by the fact that technical images are often captured from points of view that are non-human: they are "phantom images," as Harun Farocki (2004) has termed them. Moreover, the operations underpinning technical images are often performed by machines whose processes and logic do not conform to or are inaccessible to users: human eyes become "anachronistic," as Trevor Paglen (2014) has suggested. Finally, there is an increasing number of images that are made by machines for other machines, without the involvement of human scrutiny. Consequently, they become literally invisible (Paglen 2016). Think of drones: they fill these three conditions – they go beyond our mode of looking, they process images according to their own algorithms, and they are in dialogue with other machines, not immediately with an operator (Chamaillou 2015). Nevertheless, they prompt human assessments and actions that are fraught with consequences.

While eliciting such a radical break in the history of visuality, technical images do not necessarily represent a turn in the history of *visual notation*. On the contrary, the need to make visual data consistent, transferable, comparable, and combinable in order to grant intellectual, political, and economic possession of the world – what Bruno Latour calls the creation of "immutable mobiles" (Latour 1986, 7) – finds in the operations that support technical images a further step. Technical images enhance the process of *inscription* that flattens the act of seeing on the presence of visual data. They support the "datization" of the gaze.

What Is Post-cinema?

Film Studies' first reaction to the "digital revolution" was alarm. Movies need some physical reality in front of the camera; a shooting is a direct record

11 The operational nature of technical images was already emphasized by Flusser, when he defined them as "instructional programs" (2011, 50). This characteristic has been further highlighted and radicalized by Harun Farocki in his renowned essay "Phantom Images" (2004), and later by Trevor Paglen in his contribution "Operational Images," 2014. See also Pantenburg 2017.

12 "Technical images are not mirrors but projectors. They draw up plans on deceptive surfaces, and these plans are meant to become life plans for their recipients. People are supposed to arrange their lives in accordance with these designs" (Flusser 2011, 51). In this context, it is worth remembering the idea of media as "design experience" in Eugeni 2004.

of this reality, and consequently a preservation of its presence even in its absence.[13] Technical images do not need reality: they rely on an algorithm, not on the actual presence of the objects that they depict. In this sense, they do not imply any tension between presence and absence, and consequently they strip cinema of its very essence. Paraphrasing Serge Daney, they belong to the visual, not to the visible (1991, 163). Such an "essentialist" approach, which in the 2010s was still dominant (see Rodowick 2007), has now lost its grip; its persistent legacy is an implicit definition of post-cinema as a deviation from a correct lineage – as a bastard son of the true cinema.

If the hostility against digital images ceased, it is also because cinema increasingly incorporated technical images into movies, and in doing so it expanded the range of its action. We are thinking of CGI (Computer Generated Images), whose elaboration is entirely based on algorithms. But we are also thinking of images from surveillance cameras, drones, satellites, and so on, whose primary task is to capture data more than provide a representation in the traditional sense. Or stereoscopic images, whose task, like virtual reality, is to create an immersive vision. The progressive incorporation of this kind of image in current movies, be they installations of popular franchises or more experimental films, elicits a totally different perception of post-cinema: no longer a bastard son, post-cinema is instead a new territory where the filmic experience can be relocated, but also where the filmic experience can face new challenges and new paradigms.[14]

In this theoretical framework, it is worth asking what technical images convey to post-cinema. What kinds of trends, conflicts, negotiations do they imply? Do they give rise to new forms of sensibility, or even new epistemes? And to what extent do they characterize current cinematic forms?

On the one hand, when hosted by post-cinema, technical images bring to the fore a sort of vacillation in the depiction of the world. Analyzing Corporate Cannibal (2008), a Nick Hooker video with Grace Jones that

13 Let's recall the renowned metaphor of the holy shroud by André Bazin: according to Bazin, more than a testimony, cinema is a relic of something that is no longer with us, but still matters to us (Bazin 2004, 14).

14 Introducing their collection, Shane Denson and Julia Leyda offer an insightful characterization of post-cinema: "Post-cinema is not just *after* cinema, and it is not in every respect 'new,' at least not in the sense that new media is sometimes equated with digital media; instead, it is the collection of media, and the mediation of life forms, that 'follows' the broadly cinematic regime of the twentieth century – where 'following' can mean either to succeed something as an alternative or to 'follow suit' as a development or a response in kind. Accordingly, post-cinema would mark not a caesura but a transformation that alternately abjures, emulates, prolongs, mourns, or pays homage to cinema" (2016, 2). On the idea of a "relocatio" of cinema in new geographical and technical environments, see Casetti 2015.

can be rightly seen as exemplary of post-cinema, Steven Shaviro notes that every image undergoes an ongoing manipulation that ceaselessly transforms its configuration (2010, 11ff). As an effect, every image looks like a variation of previous images. It is not a traditional process of metamorphosis, which "gives us the sense that anything can happen, because form is indefinitely malleable." Rather, it is a process of *modulation* – in Deleuze's and Guattari's sense – which "impl[ies] that no matter what happens, it can always be contained in advance within a predetermined set of possibilities. Everything is drawn into the same fatality, the same narrowing funnel, the same black hole" (Shaviro 2010, 13). In this sense, the vacillation of images reveals a flexibility within a pre-established pattern which mirrors the conditions of post-Fordist capitalism: in our world, "the only fixed requirement is precisely to maintain an underlying flexibility: an ability to take on any shape as needed, a capacity to adapt quickly and smoothly to the demands of any form, or any procedure, whatsoever" (14). Consequently, on the screen we see a protean reality in which the actual and the possible merge and coexist. "There is no proliferation of meanings, but rather a capture of all meanings" (13).

On the other hand, technical images overwhelm and often defeat spectators' sensibilities. Shane Denson speaks of a *discorrelation* of moving pictures on-screen from the norms of human perception. "Digital cameras and algorithmic image-processing technologies confront us with images that are no longer calibrated to our embodied senses, and that therefore must partially elude or remain invisible to the human" (2018, 1). If classical cinema was based on a structural homology between spectators' embodied perceptual capacities and film's perceptions as embodied by its apparatus, in the "post-perceptual media regime," as Denson calls it (2016, 194), this homology goes astray. Film images are increasingly ambiguous, split as they are between a purported realism and an ostensible artificiality. Consequently, spectators are put in a state of uncertainty from which they cannot find a way out (see Denson 2016, 197ff). Film images are also increasingly rich, to the point of displaying much more than what a spectator can see. This is the case of franchises like Marvel's Avengers, with its frantic action and its overabundant worlds: hence the ongoing effort by fans to fill in the gaps via a public discussion about the movies. These images are often cryptic. Especially when they are produced by devices that go beyond what the human eye can see, but nevertheless are implied in an act of visualization – I am thinking of satellites, drones, infrared cameras, and so on – these images put spectators in distress, revealing their weakness. Finally, these images are also often hidden: taken by a machine, they are read by machines. The

discorrelation of technical images from the human eye elicits a look that is unable to grasp the whole scene on the screen – when it is not completely out of play. Spectators must "scan" the filmic image in a ceaseless effort to "appropriate" what is shown and to "locate" themselves in front of it.[15] The process of "suture" gives way to a sense of dispersion and disconnection.

The images' modulation and the discorrelation of images from the spectator's perception deeply change traditional film's propensity and performance. If, in its overall aspects, filmic experience is preserved – as we mentioned, in many cases, cinema just "relocates" to new physical or technological spaces, be they a home theater, a tablet or smartphone, or a public square (see Casetti 2015) – film's sensibility explores new paths. This does not mean a loss of contact with reality. Speaking of post-continuity – a mode of editing of which modulation is an example – Steven Shaviro notes that "we enter into the spacetime of modern physics; or better, into the 'space of flows,' and the time of microintervals and speed-of-light transformations, that are characteristic of globalized, high-tech financial capital" (2012, n.p.). Thanks to technical images, post-cinema engages in reality – the flows of money, data, humans, and power – that classical cinema was able to capture only symbolically. And Shane Denson, commenting on the disconnection of images from human perception, resolutely speaks of "affect without feeling" (2016, 208): post-cinema bypasses the human component, and reaches an affectivity that has not been shaped and negotiated by a subjective mediation. Denson concludes that "beyond the visual or even the perceptual, the images of post-cinematic media operate and impinge upon us at what might be called a 'metabolic' level" (194). Post-cinema elicits a new kind of relationship with images and reality – a relationship that can be described as a form of "tuning" more than an intellectual awareness.

In an enlightening comment on the pixel's processual logic – so different from the logic of the shot and sequence that dominated classical cinema – Mark Hansen notes that post-cinema offers "perceptive hypotheses" through which we can be in contact with Peirce's "firstness" – the quality of real before it is shaped and named. This happens through a mediation which is neither intellectual nor immediate. "The categorically invisible operation of computation impacts sensory experience *unconsciously, imperceptibly – in*

15 "Classical cinematography and editing techniques directed our attention, literally showed us where to look, but postcinematic images often require us to view them differently, to attend to the full frame and all of the elements it contains as potentially equal in significance (or insignificance). Such images elicit not so much the investment of a gaze but a more fleeting, dispersed, and scanning form of regard" (Denson 2018, 4).

short, at a level beneath the threshold of attention and awareness" (2016, 70). Technical images address us silently and operationally. They do not openly address us, as cinema did for a long time; they just build a meeting ground – which is also a practice field – to which we are often, but not always, invited.[16]

Unframedness, Presentness, Immediateness

We can further explore this framework through an example: the post-cinematic VR installation presented by Alejandro G. Iñárritu (with the collaboration of Emmanuel "Chivo" Lubezki) Carne y arena at the 70th edition of the 2017 Cannes Film Festival, and subsequently featured at the Fondazione Prada in Milan,[17] the Tlatelolco University Cultural Center in Mexico City, the Los Angeles County Museum of Art (LACMA) and in other venues. Convinced that the traditional filmic medium would not have been effective enough to present the odyssey of the Mexican people striving to cross the US border, Iñárritu chose to realize a solo virtual experience which eschews the "dictatorship of the frame" and aims to elicit in the user a powerful feeling of empathy toward the migrants, bringing her to put herself in their shoes:

> My intention was to experiment with VR technology to explore the human condition in an attempt to break the dictatorship of the frame, within which things are just observed, and claim the space to allow the visitor to go through a direct experience walking in the immigrants' feet, under their skin, and into their hearts.[18]

The installation is only six-and-a-half-minutes long. Though a short piece in itself, it is nevertheless part of a more complex structure that articulates this experience in different chronotopic stages: the web reservation of your personal allotted time slot; the leaving of cell phones and other devices at the cloakroom; the signature of a waiver exonerating the institution from any responsibility for damages caused by the experience;[19] the passage through

16 On the corporal implication of the observer in front of technical images, see Alac 2008.

17 The authors of this text both experienced this virtual installation at its 2017 run at the Fondazione Prada in Milan.

18 A.G. Iñárritu, as quoted in the Fondazione Prada press release: http://www.fondazioneprada.org/wp-content/uploads/1-Carne-y-Arena_Fondazione-Prada_press-release.pdf.

19 "Carne y arena." Waiver and Release of Liability, http://www.fondazioneprada.org/wp-content/uploads/here.pdf.

a first room, displaying texts with Iñárritu's explanations of his method in building this work; the wait in a preparatory anteroom, a cold chamber (evoking *las hieleras*, the "cool boxes," as they call the cells in which captured migrants are held), where shoes and sandals are scattered on the floor, and visitors are invited to take off their shoes and socks and sit barefoot on standby; the actual VR projection via an Oculus Rift head-mounted display (HMD) in a room whose floor is covered with sand; a room in which one can put back on her socks and shoes; a corridor delimitated by a metal barrier (a section of the actual border fence between US and Mexico); and finally, the last dark room, where nine small screens display the protagonists of Iñárritu's installation, whose faces are alternated with texts narrating what happened to them after the events occurred in the desert.[20] Eventually, the visitor gets out in the open.

This sequence of heterogeneous environments forms a complex assemblage that could only simplistically be called a mere virtual immersive environment. The last room, in which videos of migrants are displayed, especially evokes the indexical power of photographic and filmic recording as a documentary testimony released by witnesses of a historical event.

Nevertheless, if we focus on what has been celebrated as (and what Iñárritu himself believes constitutes) the novel core of this installation, namely the HMD-accessed virtual immersive section, we find ourselves deeply challenged in our traditional spectatorship.

What are the main characteristics of an immersive experience such as the one implemented by Carne y arena? Three main axes appear crucial: unframedness, presentness, immediateness. *Unframedness* refers to a very basic, and at the same time very decisive, modification of our traditional image experience: once I have put on a helmet, I enter in a 360° visual field where I cannot see anything but images. I turn my eyes and my head together with my torso, and even walk if the system allows for the user's mobility, and the iconic landscape keeps unfolding in a seamless continuity around me. This experience constitutes a novel horizon compared to pre-virtual modalities of iconic reception: when contemplating a painting or a photograph, when watching a movie at the cinema theater or on the screen of my laptop or smartphone, I always have the possibility to direct my gaze "off-image" beyond the borders of the image, toward a portion of the visual field which is occupied by non-images, by actual reality. This extra-iconic

20 For an analysis of this complex multi-stage structure see: D'Aloia 2018; Dalmasso 2019. The former is inspired to the embodied cognition approach, the latter to the phenomenological tradition.

orientation is typically adopted when, for instance, I become too intensely absorbed in the narrative of a horror film, and I want to be reassured that it is after all "just a movie": so, I take a look at the person sitting beside me, or at the restroom or exit signs.

The very etymology of "contemplation" (from "temple," Latin *templum*, Greek *temenos*) implies a cut (evoked by the Indo-Germanic root *tem-*) instituting the separation of the sacred from the profane space.[21] If we transpose such argument onto the iconic domain, we will find the *dispositif* of the frame in all its historical and formal variants: from the pedestal of the statue, through the frame of the painting, to the edges of an electronic screen. Looking at the intense conceptualization of the frame that has occurred all along the twentieth century – from Georg Simmel to Victor Stoichita, and including Ortega y Gasset, Meyer Schapiro, Jacques Derrida, Rudolf Arnheim, the Groupe μ, Louis Marin among others[22] – we can easily understand that, beyond the individual nuances of these conceptual articulations, a tripartite cluster of issues is at stake here: *formal*, *phenomenological*, *ontological*. *Formal*, because the shape of the framing device (a rectangle, mostly, which is not a "natural" form but has become a second nature for our image experience) governs and pre-formats our gaze (see Schapiro 1994; a situation that is all the more true if we think of the cinematographic framing, the selective cutting of a portion of the visual and experiential field operated by the director's or the apparatus' gaze). *Phenomenological*, because the frame structures our attentional disposition toward the image, and at the same time allows us to switch from the directly perceptual state of consciousness to a quasi-perceptual state of image consciousness (see Husserl 2005a). *Ontological*, because the frame "brackets" the actual existence of the framed picture, underlining its special iconic status in comparison to the other objects of the environment: a painting hangs from the wall just "like a hunting weapon or a hat" (Heidegger 2002, 2-3). It possesses a "thingish" character. And nevertheless, while I can say that I am one meter away from the frame or from the canvas, saying that I am the same distance away from the face depicted in the portrait is nonsense. The spatial and temporal relations instituted within the picture are radically resected from the actual chronotopic connections which entangle me in my real existence. The frame assures the "island-like" nature of the image, and no bridge should be allowed to permit the trespassing of the threshold separating it from reality (see Simmel 1994).

21 On the "templum," see Arasse 2004.

22 See the anthology edited by Ferrari and Pinotti 2018.

Such framedness tends to be obliterated in the experience of the virtual immersive environments accessed via HMD. Of course, one could argue that the framing is only shifted: from the material edges of the image to a sort of temporal frame (I decide to wear the helmet, I have to take it off when the virtual experience is finished) and even to a material one (I constantly feel the weight of the helmet on my head while enjoying the virtual display). But once I have put on the visor, I find myself in an iconic environment which does not allow me to glance beyond its borders. Should we complain about this loss of liberty (a liberty we were not even aware of, before losing it)? McLuhan has taught us to look at any medium as an oxymoron of empowerment and impotence, of prosthetic implementation and narcotic blunting (1994, 41-47). In this case, as well, the tyranny of the iconic all-over is mitigated by the fact that the user is emancipated from the dictatorship of a heteronomous framing (the director's or the apparatus's gaze) and can autonomously choose her own visual organization and narrative paths via sensorimotor operations that constitute a material and bodily anchorage.[23]

Intimately linked to the property of unframedness, the character of *presentness* is a second and equally relevant axis structuring our image experience in virtual immersive environments. Presentness should be understood in a double sense: of the user feeling present in the environment (a condition frequently referred to through the formula "being there"), and of the digital objects perceived as actually present in the space-time of the user. This feature implies a complex transformation of the status both of the image and of the subjects relating to it: the image ceases to be a re-presentation of a reality it refers to (be it actual or imaginary) and tends to erase the tension between the two poles of the represent*ing* and the represent*ed*, presenting itself directly as reality in the flesh. It is a "presentification" rather than a representation. In this respect, this contemporary modulation of the iconic experience appears to evoke archaic modalities of the relationship between the sign and the signification, based precisely on the identification of the two terms.

As clearly shown by Jean-Pierre Vernant in his brilliant essays on iconic practices in archaic Greece,[24] what we have traditionally understood as the beginning of our Western visual culture, namely Plato's theory of mimesis as the conceptualization of the image as an ontologically and gnoseologically

23 "Far from tools for dematerialization, these applications of virtual reality rematerialize representation by anchoring it not only to users' bodies as they interact with virtual environments but also to the users' physical environment" (Rogers 2019, 150).

24 See Vernant 2006.

inferior representational imitation of a prototype, is actually a late stage of a complex development, preceded by a phase in which the image *was* the represented, as its direct presentification, as in the case of the *kolossos* or the *xoanon*. In his prophetic analysis of modernity in the *Arcades* project, Walter Benjamin remarked that highly advanced urban cultures are characterized by the resurfacing of archaic and even prehistoric traits; for instance, the entrance of the Parisian subways can be seen as the modern variant of the ancient descent into Hades.[25] Moreover, his characterization of photographs and stereoscopic images as tactile, haptic, manipulable objects (prefiguring our contemporary digital pictures to be grasped with our fingers on the touch screens) reminds us of a time in which religious icons were not just looked at, but rather touched and kissed. Analogously, we might conceive of contemporary virtual environments as the resurfacing of an archaic condition of presence.

Again, contemplation in the traditional (we could say Kantian, disinterested) sense gives way to operation: in virtual immersive environments the iconic space-time is experienced by the user in a relationship of continuity with her own space-time (it appears precisely as an environment, as an *Umwelt*, a surrounding world in Uexküllian terms, 2006), and as a rich source both of perceptual and motor events, of affordances and agencies: engaging in inter-avatarial interactions, touching and moving digital objects through VR gloves, transforming yourself into a bird flying over New York or into a pterosaur soaring in a Jurassic sky,[26] intervening as a remote operator in VR telesurgery (Choi et al. 2018). In this regard, an entire range of possibilities is to be considered, according to the level of interactivity allowed by the system. The user loses the privilege traditionally accorded to sight as the highest and noblest aesthetic sense, in favor of a progressively more and more multisensory integration of sensible stimuli. The history of 3D cinema, incessantly (albeit intermittently) moving toward further numeration (4D, 5D … nD) is a telling symptom of this process (see Elsaesser 2013).

Interestingly, such integration (at least in the present stage of technological development) appears to go hand in hand with a *dis*-integration: the feeling of "being there" elicited by virtual immersive environments, especially when the user is embodied in her avatar (a digital proxy through which it is possible to interact with other avatars and artificial objects in the

25 See Benjamin, *The Arcades Project* (1999), the convolute C ("Ancient Paris, Catacombs, Demolitions, Decline of Paris"), and in particular the annotation (C1a, 2).

26 See the flight simulator *Birdly* in the two versions: "New York Experience" (https://vimeo.com/316890451) and "Jurassic Flight" (https://vimeo.com/268133291).

virtual world),[27] institutes a perception of proximity which conflicts with the distance produced by the *dispositif*; while wearing a HDM I cannot see my hands, feet, body, I am close to the virtual environment and somehow far away from myself. Moreover, conflicting information transmitted to the brain by different systems (the vestibular and proprioceptive centers inform me that I am comfortably sitting in my armchair, yet the visual center indicates that I am riding wildly on a roller coaster) can induce what is called cybersickness (Gavgani 2018). This dialectical polarization confirms that the conceptual couple of farness/nearness, already identified by Simmel and Benjamin as the key to understanding the metamorphosis of *aisthesis* in modern times, retains its heuristic validity for the comprehension of our contemporary iconoscape, as well.

By evoking reality in the flesh, the second axis of *presentness* consequently leads us to the third axis, *immediateness*. This is probably the most paradoxical feature of virtual immersive environments, considering that non-mediateness, transparency, is an effect obtained through a massive employment of highly sophisticated technological media. Traditional image theories have underlined in different ways the double possibility of focusing either on the represented entity or on the material conditions that make representation possible. For example, while contemplating an icon, I can concentrate my attention either on Christ or on the *craquelures* of the wooden panel. While watching a movie on my laptop, I need to adjust the angle of the screen in order to be able to focus on the picture and not on my face reflected on the glass surface, which is revealed as such exactly because of the reflection, of the mirroring.

The level of the material support – variously designated as "pre-iconographic" or "primary" (Panofsky 1972, 5), "image-thing" (Husserl 2005a, 21), "medium" (Wollheim 2015, 140) – is precisely what is perceptually negated when I am immersed in a virtual environment: once I have put on my HMD, I lose the possibility to direct my gaze on the material features of the medial support. The effect of the unframed presence of reality in the flesh prevents me from developing an adequate awareness of its being artificially constructed. Again, as above discussed with reference to unframedness, the very perception of the device weighing on my head, the fact that it is "head mounted," constantly reminds me that I am being absorbed within an artificial world. But the tendency to reduce and ideally suppress these limitations is very clear, and very powerful. If we consider the rapid pace of technological progress in this field, and the combination of biotechnologies

27 On the avatarial condition see Amato and Perény 2013.

and nanotechnologies, we might expect that in a few years what Marx and Benjamin would call the "innervation" of such devices will mean less and less wearable and more and more implantable (and therefore "transparent") machines. Actually, at Elon Musk's *Neuralink* brain VR implants are already being tested on rats; first tests on humans are expected by the end of 2020.[28]

If the experience of the image implies the appreciation of both the represent*ed* object and the represent*ing* medium, can we still speak here of an image experience at all?

In spite of the fact that writing imposes the successive disposition of one element after the other (and in this sense we have enumerated the three axes one after the other), we should think of them as intimately intertwined and in a relationship of co-determination and reciprocal conditioning. As such they also frequently appear referred to in the state-of-the-art literature, when for instance presence is defined by the absence of a framing device and awareness of a medial support or, vice versa, unframedness or immediateness are explained on the basis of the feeling of being there or of the triggering of interactivity. Such mutual co-determination is confirmed by the experience of Carne y arena, whose subtitle – "Virtually Present, Physically Invisible" – is particularly telling for the illustration of the three axes above described.

"Virtually Present": you feel that you are there, in the middle of the desert, among the migrants. They surround you, in a 360° unframed visual and experiential field which keeps unfolding while you turn your head and move in the room. A menacing helicopter hovering above the scene nails you to the ground. As yelling border agents point their shotguns at your face, you become one of the migrants who are routinely approached in this way. The "dictatorship of the frame" that Iñárritu wanted to overcome is resolved in favor of a framing which ends up coinciding with your own gaze.

"Physically Invisible": you are there, present in the dramatic scene, but the migrants cannot see you. If you try to approach them physically, they explode in a pulsing red heart. Interaction is banned, and the user is confined to a helpless passivity.[29] The only recognition allowed seems to be the tracking system that detects your position in the scene and orients the direction of the policemen's shotguns. But "physically invisible" is to be understood

28 Elon Musk's Neuralink implant will "merge" humans with AI, see Hitti 2019.

29 According to Pietro Montani, this is a fundamental feature of this installation: "That passivity is a structural element of the whole spectacular machine and is eventually the only really meaningful way to participate in the real experience of the small group of migrants and, perhaps, more generally in the experience of being a refugee as an existential condition. It is a condition that you have to feel in your own flesh" (2017, 135; our translation).

in a reflexive way as well. The closeness elicited by the virtual presence is counterbalanced by an uncanny farness: your body, so near to them, becomes distant to itself, you cannot perceive your hands or your feet, because the screen of the HMD cuts them off. The living body becomes the new frontier of the "off-image" in virtual immersive environments, calling for an adequate account of the dissociative implications produced by this peculiar "variety of presence."[30] Eventually, we might add that the medium itself is also physically invisible: no reflection on the surface of the HMD screen can reflect my own eyes, as in the case of a smartphone or computer screen. No border (other than the limits imposed by my visual field, varying according to the orientation of my gaze) can allow me to focus beyond the iconoscape offered by the installation.

Morel Revived and Revised

If we collect together the three axes succinctly described above – unframedness, presentness, and immediateness – we obtain a picture which is very close to Morel's invention as imagined by Adolfo Bioy Casares in his famous 1940 novel. The machine designed by Morel was not only able to record reality in all its multisensory aspects but also to indefinitely reproduce it. And so he, using a group of friends gathered in a villa on a desert island, made a week of elegant parties and witty conversations immortal. When the protagonist of the first-person narration – a castaway, a fugitive escaped from a prison – is shipwrecked on the island, he does not realize at first that what he sees are images, he simply and immediately takes those projections to be reality in the flesh. Only the lack of reciprocity – he sees and hears the friends, but they do not see and hear him – allows him to develop a state of image-consciousness. Bioy Casares did not include interactivity in Morel's *Umwelt*; otherwise, all the aforementioned properties are there: unframedness, presentness, immediateness.

It would be easy to number Bioy Casares among the advocates of illusionism. After all, only a few years later, in 1944, the French theorist René Barjavel introduced the notion of "total cinema" in order to refer to a moving picture capable of rendering reality in its perfect totality. According to Barjavel, "every progress achieved by the seventh art [...] allows to come progressively closer to the real, up to the perfect illusion" (1944, 53; our translation).[31] Two

30 A variety unfortunately only touched by Noë in his study *Varieties of Presence* (2012, 44).

31 On Barjavel's ideas see Leotta 2018.

years later, though in a different tone and for a different purpose, André Bazin speaks of "the reconstruction of a perfect illusion of the outside world in sound, color, and relief" (2004a, 20). Around the same time, Sergei Eisenstein enthusiastically reacted to Soviet experiments in stereocinematography as an effective response to the "need for a thorough recreation of reality" and as an effort to achieve "a complete illusion of reality, in all its minutest detail," striving for "the near identity of reality and its representation" (2013, 35, 37). But in reconstructing the genealogy of such a powerful drive we could go back much earlier than the forties of the last century. We could actually convene the entire tradition of the *trompe l'œil* in all its secular variations and all the inventive attempts made in each epoch (according to the available techniques) to blur the threshold separating representation and reality, namely to *environmentalize* the image: from Pompei's villas through Baroque ceilings and panoramas to cave environments.[32]

However, it would be profoundly misleading to reduce Morel's invention within the media-archaeological frame of the ancient dream of perfect illusion, as it were of the most perfect *trompe l'œil* becoming *trompe l'expérience tout court*. In fact, when we refer to the notion of illusion, we always – explicitly or implicitly – imply a subject who is deceived by a false perception, an observer who takes one thing for another, misjudging the match between the subjective percept and the objective thing perceived. One could say that this is precisely what happens to the fugitive after his shipwreck: at first, he falls victim to an illusion, mistaking the projections provided by Morel's machine as an actual reality happening in front of his eyes; only subsequently he realizes that this reality is just an illusion, the playback of a previously-recorded sequence of events. This way of reading Bioy Casares's novel is encouraged by the first-person narration from the point of view of the castaway. But the occurrence that a human being could land on the desert island is not only contingent and fortuitous but also violated Morel's original plan, which was scrupulously designed to keep visitors out (hence the exclusion of interactivity). As we find out thanks to a letter in which he exposed his intentions to his friends (the letter that he read out loud in front of them during their stay on the island), the choice of that particular island had been determined by three very specific reasons:

> Three factors recommended it to me: (1) the tides, (2) the reefs, (3) the light. The regularity of the lunar tides and the frequency of the meteorological tides assure an almost constant supply of motive power. The reefs are a

32 For an overview see Grau 2003; Griffiths 2008.

> vast system to wall out trespassers, – the only man who knows them is our captain, McGregor, – I have seen to it that he will not have to risk these dangers again. The light is clear but not dazzling – and makes it possible to preserve the images with little or no waste. (2003, 75)

Morel had thus deliberately excluded a future human addressee of the reproduction of his recordings, that had to be indefinitely iterated through the immortal persistence of the medial iconic support and the motor power eternally supplied by the tides.

For this reason, while on the one hand it is historically and culturally justifiable to put Morel in the same line with other conceptualizations that in the same years (as we have seen above) strived toward a "total" cinema (Barjavel, Bazin, Eisenstein), it is on the other hand necessary to emphasize what radically distinguishes Bioy Casares's idea from theirs: while Barjavel, Bazin, and Eisenstein still linger over the concept of illusion, which is constitutively anchored to a receptive human subject (and the same could be said of many contemporary conceptualizations of immersive virtual environments, which prolong this "illusionary" line of thoughts), Morel dramatically undermines this approach, bypassing the human addressee and linking together in a non-human iconoscape nature (light, tides) and technique (the projectors), thus realizing a techno-natural environment.

And yet, the investigation of the very ontological status of such virtual immersive images cannot neglect the simple fact that they are electronic entities, technical images. Their mode of existence, as Trevor Paglen (2016) has convincingly pointed out, is dominated by the regime of invisibility much more than by that of visibility. Only, when they are invisible, they are not so in the way statues and paintings are hidden in the stock room of a museum, or in the way old photos are closed in a family album. In these cases, statues, paintings, photos keep being images even when they are not actually perceived by a human gaze. Electronic images cease being "images" in the moment in which they cease to be displayed for a human eye on a screen, and start interacting in a machine-machine communication (the domain of surveillance is a major example) which excludes the participation of humans for most of their existence. A machine-machine communication which is only improperly (and way too anthropomorphically) designated as "machine *vision*."

At first sight, this extra-human interrelation might be traced back to the concept of "interpassivity," put forward by Robert Pfaller (2017) and Slavoj Žižek, and clearly exemplified by the case of the VCR addicted:[33]

33 On this topic see also: Žižek 2008, 33. See also Pfaller 2014 (chap. 1: "Interpassivity"), 2017.

> Almost every VCR aficionado who compulsively records movies (myself among them) is well aware that the immediate effect of owning a VCR is that one effectively watches fewer films than in the good old days of a simple TV set. One never has time for TV, so, instead of losing a precious evening, one simply tapes the film and stores it for future viewing (for which, of course, there is almost never time). Although I do not actually watch the films, the very awareness that the films I love are stored in my video library gives me a profound satisfaction, and occasionally enables me to simply relax and indulge in the exquisite art of *far niente* – as if the VCR is in a way *watching them for me, in my place*. VCR stands here for the big Other, the medium of symbolic registration. (Žižek 2007, 24)

The VCR recorder interacts with the recorded video: the former becomes the "viewer," the latter the "viewed." And yet in Žižek's and Pfaller's argumentation the emphasis is not so much on the machine, but rather on the "delegated enjoyment" of the human subject, who gives up her personal direct pleasure and accepts a vicarious satisfaction via a technical device (like in analogous cases, as for the so-called "canned laughter" in TV shows or the Tibetan prayer wheel which can pray for me).

The situation described by Paglen is definitely more radically machinic, stressing the fact that the human pole can be part of the picture, but not necessarily must. In this perspective, are "ontology" and "phenomenology" still valid notions and useful conceptual frames to understand our contemporary post-cinematic iconoscape? A parallel drawn between technique and nature can help here understand the *eco*logical implications of this post-cinematic condition. Zoologist Adolf Portmann had remarked upon an apparently inexplicable paradox concerning some species living in the depth of the ocean where light cannot penetrate or which are not equipped with visual organs able to form a coherent perceptual image (like the opisthobranchs). Regardless of this objective invisibility or subjective blindness, their bodily surfaces are beautifully colored, so they keep sending visual messages with no addressee able to receive them: "We have to do with innumerable optical transmissions aimlessly sent into the ether, with self-presentation [*Selbstdarstellung*] which is not destined to any receptive sense, but simply 'appears'" (Portmann 1958, 170; our translation). Their ontology seems to be dissociated from their phenomenology (if we stick to the key concept of phenomenology as a description of the correlation object-subject and of the experiential structures). In other words, phenomenology gives way to *phanerology* (from *phaneron*, the manifest), the study of mere appearance, auto-presentation, not appearance as perceived by others, "the doctrine – as

Portmann puts it – of the genuine manifestations [*Lehre von den eigentlichen Erscheinungen*]" (1958, 161; our translation):[34] "Whether this appearance is actually seen, that is, whether it appears to the eyes of higher organisms, is perhaps beside the point in this context; we are not yet within the realm of 'visual' structures which are, it is generally assumed, meant to camouflage the organism or make it strikingly noticeable" (Portmann 1955, 25).[35] A similar recourse to the *phaneron*, derived not from biology but rather from Peirce's phaneroscopy, has been recently proposed by Mark Hansen, precisely with reference to the post-cinematic iconoscape of digital images, which "operate *without being phenomenally apprehended*" (Hansen 2016, 806).[36]

Of course, phanerology does not exclude phenomenology. We can imagine a deep-sea diver equipped with technical devices allowing immersion in the oceanic depths and visual perception of their remote inhabitants. Only her actual presence and perceptual activity in the abysses would be inherently contingent, not necessary; precisely as the castaway shipwrecked on Morel's island. Morel's invention attains an iconic condition quite similar to the one described by Portmann with his animals displaying their beautifully colored liveries to no eye at all: a self-presentation, an absolute manifestation (in the etymological sense of absolute: *ab-solutus*, loose, freed, detached), which represents a radical challenge to traditional accounts of both phenomenological intentionality as subject-object correlation and of ontology as an investigation of the properties of beings per se regardless of their relation to us. Morel's recording machine represents the technical pole, Portmann's ocean animals the natural pole of an iconic ecology which obliges us to reframe the very connection of ontology and phenomenology in new terms, namely conceiving an ontology which is structurally phenomenological, but not in exclusively human terms; an ontology which makes itself manifest in the *phaneron*.

34 On the limits of a phenomenological interpretation of Portmann's biological theory of animal phenomena see Prévost 2009.

35 On the notion of *Selbstdarstellung* (translated as "self-expression") see also Portmann 1964 (chap. VI: "The Realm of Images").

36 As Hansen argues, "the continued relevance of, indeed necessity for, a philosophy of the movement-image in our world today hangs upon a certain coupling of the analysis of the image with a certain phenomenology, specifically with a logical or objective phenomenology that – following Peirce's governing insight – decouples appearance from any avatar of the subject, consciousness included. With the advent of digital imaging procedures, the image has attained a certain autonomy from synthetic operations that necessarily involve human forms of perception and sensation; in a world where images self-propagate, at the level of the pixel, following purely machinic protocols, what is needed is a theory of the movement-image that detaches the intensity of the image's content from the activity of its being perceived" (2016, 785-786).

We eventually face here two major implications of what we have previously called "an-icons": on the one side, the images that we have described aim to negate themselves as images as re-presentational entities supported by a material medium and separated from reality. Their unframedness, presentness, immediateness institute a tension between their being images (*icons*) and their appearing not (*an-*) as images offered to a visual beholder, but as actual operational environments offered to a user. On the other side, these entities are an-icons in the sense of their being technical images that lead for most of the time a non-iconic existence, an inter-machinic electronic life, and that can, but must not necessarily, entail a human experience. Phanerology as the study of manifestation in the broadest sense of the term accounts for both these implications. A human subject can eventually come into the picture (even in a literal sense, given the immersive nature of these iconic environments), though not to regain possession of her subjective mastery over the iconoscape, but rather to ecologically resonate with it. The post-cinematic iconoscape embraces the possibility of a human spectator, but does not necessarily need her.

In this sense, phanerology appears to constitute the future horizon of post-cinema.

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