

Ecologies of digital image

From representation to performativity; from interaction to intra-action*

Sergio Martínez Luna

The National Distance Education University / sermarti@fsf.uned.es

Translated by Sergio Martínez Luna

Abstract

The article proposes to date, turning to the Abertinian metaphor of the winged human eye, the beginning of the Anthropocene in the Renaissance. The invention of the linear perspective places "man" as the center of the world and subject of the gaze. The perspectivist paradigm survives in the context of digitalization but, at the same time, the centrality of the human as well as the dualisms of subject and object, human and non-human, culture and nature on which it is based enter into crisis. Digital images are configured on the basis of algorithmic operations that weaken their representative dimensions in favour of performativity and communicative efficacy. Current developments in digital materialism and specially in Media Ecology address digital transformations and the ecological crisis as part of the same global dynamics. In this line, the concept of intra-action, coined by Karen Barad, is used to explore the continuities between individuals, artefacts, materials and environments, thus questioning the discourses of representation as a reflection and the relationship of human beings with images as a form of interactivity.

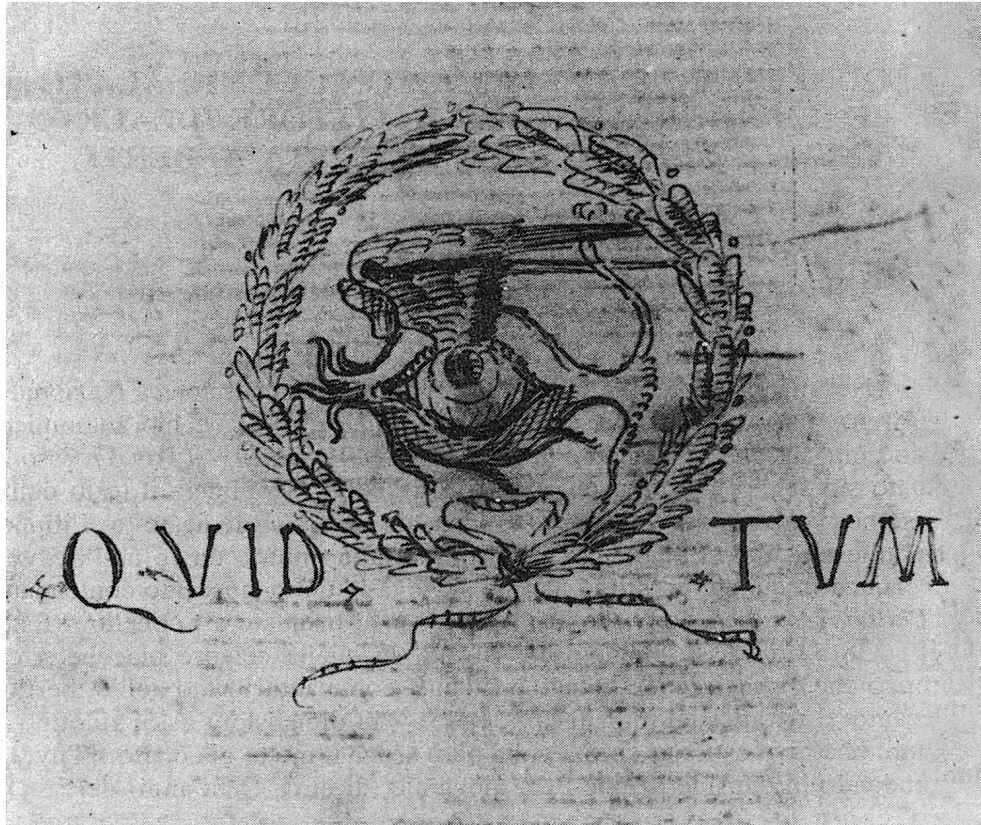
Keywords

Perspective; Performative image; Media Ecology; Intra-action.

The winged eye and the system of perspective

In the Renaissance the representation of an isolated eye did not refer to the visual organ. The exercise of the gaze is identified with an eye detached from the perceptual body (Belting, 2012). Until then this way of looking was the privilege of God. With the transformations of the Renaissance, man went from being the object of the gaze to occupying a central place that allowed him to look at the world in the godlike way. Perspective is, according to Leon Battista Alberti, the most refined symbol of the gaze. Just as god occupied a sovereign position in the world, the new viewer is sovereign over the images of the world projected by the system of perspective. Linear perspective gives the human eye the ability to see

everything from nowhere (Haraway, 1995). As a symbolic form, according to Erwin Panofsky's expression, it reserves a privileged position for a spectator who, thanks to technical and scientific advances, has control over the world as an image.



Leon Battista Alberti, winged eye with the inscription *QUID TUM*, XV Century.

This project casts a shadow that resists being reduced in such terms. It is significant that Alberti used as his personal emblem, applied by extension to the whole of that new regime, the flying eye, endowed with eagle's wings. This image heralds an anthropocentric order by usurping the emblem of the disembodied eye from the divinity. The gaze detached from the body is active. It wants to unfold a certain relationship with the world, to travel through it and appropriate it. The eye has not only wings. Kind of torn tendons hang from it. By representing the disembodied quality of the eye the wings embody the disorder and demands of desire (Bredekamp, 2017). Alberti's eye is not limited to flying over the world. It also takes on the task of maintaining a vigilant attitude, concerned with analysing and expanding the limits of knowledge (Rovira, 2006). The intellectual commitment is achieved by establishing a new order for the world from his virtue and reason. However, at the heart of this effort also grows, as its implicit root, the threat of the ungovernability of instincts, fate and madness.

The winged eye has no right to settle. Perhaps if it did its eyelids would close and it would be captivated by the monsters that lurk in sleep. It must remain open because critical thinking is a kind of wakefulness. The dialectic on which he is embarked never reaches its ultimate goal, any conclusive result. Hence the emblem is accompanied by the Latin inscription 'quid Tum', (What now?), a question that prompts thought so that any conclusion is the beginning of a new question. The eye has not only a personal value but also prefigures in the field of cultural history the contradictions of reason and the ideology of progress. This is because the 'quid Tum' also points to the techno-instrumental and reifying tendencies of Western modernity that appear for the first time with the crisis of the Renaissance ideal. And what happens now, when man occupies the central place in the cosmological order? The Renaissance enunciates a conscious self-affirmation by which anthropocentrism outlines man as an *alter deus*, a deified being who is master of the gaze and no longer an object of it. The symbolic figuration of the gaze is represented by an open, mobile and examining eye. But the harmonious order that this eye had hoped to achieve from its reflective vigil is faced with a conflicting reality that will clash with the desires sedimented in the limited framework of artistic ideality. The effective realisation of this harmonic model will mutate into the melancholic theme of its impossibility, a crisis that emerges in the Baroque.

With the linear perspective an alliance is established between vision and representation. The perspectivist system is a technology of vision that becomes part of a discourse of identification between an image and its referent, that is, the part of reality that it reproduces. The disorder of reality is pacified when it is represented in the symbolic order. The Albertinian eye points out the contradictions that assail this distribution of identifications and capacities. It is a reminder of the instrumental shifts to which this system of representation is directed when it retreats over the distances enabled by the new machines of vision in which it is materialised.

Western modernity is a culture of language, discourse and logic, but it is also, at the same time, a culture of image that has raised vision as the most objective and noble of the senses. Albertinian logic favours sight because it can emancipate itself from the body, from desires, from the rest of the sensorium. At the same time the eye remains a sensory organ which, by combining the faculties of sight and touch, the visual and the haptic, is capable of looking and touching. The eye explores and appropriates a world that appears to it as an image that is available, inciting, and open to be explored. If this project is recognised in the objectification, scientific rationality and centrality of the human being, it will also legitimise the planetary exploitation of resources, the physical and symbolic violence against the colonised and the new territories.

Locating the First Industrial Revolution at the beginning of the Anthropocene, the geological era caused by human intervention and the massive use of fossil fuels, hinders the recognition that such a process, beyond the geological records, had begun earlier (Lepenies, 2018).¹ In view of the changes in the regimes of view and representation, it would be more accurate to situate the moment when terrestrial ecosystems began to be altered by human action during the Renaissance. It is then that the anthropocentric logics of dominance over nature are enabled, which will end up upsetting the ecological balance of the planet. These processes are latent in the shift from the role of vision in science, the theory of knowledge or social organisation, towards a dissociative and separating function. It sanctions a regime in which vision connects us with truth, insofar as it distances us from the corporeal (Catalá Domenech, 2017). The winged eye reminds us that it is not possible to renounce either of the two functions of vision, one distancing, mental, objectifying, and the other bodily, intertwined with the materiality of the world. To consider this split between the eye of the mind and the eye of the body as being fulfilled in favour of the former elevates vision as an epistemological paradigm.

The alliance between vision and knowledge production relates the modern project to an ocular-centric epistemology that normatively favours visual perception and representation over other forms of knowledge. It is part of a discourse on vision and knowledge that composes a certain visuality adjusted by the former to surveillance, spectacle and the separation between the active subject of the gaze and the object alienated by it. This discourse is based on an essentialism of vision. It prevents attention to other forms of visual relationship that are not objectifying because it does not leave room for any other that is not a de-objectification of the perceived-known-represented. The tendencies towards distancing, instrumentalisation and spectacle only emerge from a historically situated and contingent alliance between increased visualisation capacities and increasingly refined control technologies. This opens up a space for teleological self-reproduction. The model of knowledge based on the idea of representation in terms of rationality, identity and correspondence presupposes a subject constituted prior to its encounter with the known, so that an unequal relationship is postulated. The subject-object distance is a space of omnipotent dominance of the former, distant personification of cultural and technological progress, over the latter, passively anchored in irrationality and nature, a situation from which man (strongly connoted, white, masculine, Western, etc.) must emancipate him.

New materialism and media ecologies

This cognitive model of mental representation assisted by visual technologies is reaffirmed. However, at the same time, it enters into crisis due to the mutations that those same technologies undergo in the context of digital capitalism. The computational apparatus produces traces and material records; it needs infrastructures that enable the circulation and storage of data. All this conform the material strata on which the functionality of the digital depends. This approach has brought about a material turn in the field of Media Digital Studies (Casemajor, 2015). Since the early developments of digitalisation, objections have been raised to the digital as equivalent to the immaterial and the incorporeal. In contrast, that approach understands the processes of computing, automation and algorithmisation as material practices, taking into account the physical substrates of programming, processing and archiving languages, operating systems, hardware and software, platforms, applications or access protocols. Digital materialism draws attention to the fact that there is no such thing as pure information, because information is always inscribed, presenting dependencies and material effects. The processes of digitalisation are based on limited energy and technical resources that condition the capacities of connectivity, circulation and storage of data. And which have consequences on the environment: from the enormous waste of energy of the communications infrastructures to the toxicity of the components of discarded electronic devices. Different approaches to these questions share the interest in studying the material substrate of digital culture, the ways in which information stored on hard disks and media is physically inscribed, how electrical impulses and electromagnetic waves travel through physical media such as air, optical fiber or cable systems, which conditions costs, resolution and access.

The interest in the materiality of the digital does not limit a unified field of study. Among the different approaches to these questions, I would like to focus on the one that articulates Media Studies with new materialism. From a variety of approaches neo-materialisms coincide in questioning the exceptionality of human agency (Coole and Frost, 2010; Dolphijn and van der Tuin, 2012). Instead of insisting on the privileged position of the human being as the only one endowed with agency, it must be understood that humanity is intertwined with material contexts from which it cannot be clearly separated. The material networks form a context in which the human and the non-human, the organic and the non-organic layers, give rise to, condition and articulate each other. The human subject cannot be characterized as a sovereign and universal political agent, outlined from its centrality in front of the rest of the things in the world. That self is shaped by the food it eats, the water it drinks, the air it breathes, the rubbish it

produces, and by the media artefacts and technologies with which it interacts (Parikka, 2011).

The ecological crisis has effects not only on that abstract and universal 'us' driven by the rhetoric of neoliberal globalization. It affects all those humans and non-humans who are relegated to the invisibility of the global economic peripheries. It is not just a matter of pointing to globalization as a fiction — now in crisis— of cross-border interconnectivity, only fulfilled in the deregulated circulation of capital. The dualism between the active self, capable of intervening in and on the world, and the objects perceived as available for it to expand its rationality, supports an anthropocentric reason.

The assumptions of the exceptionality of the human are self-affirmed by the very rational practices that make it possible. The psychic, epistemological, moral and political (self-)awareness of the transcendental subject leads to acting together with other agents that we imagine as rational because they share our identity, duties and rights. The Kantian categorical imperative is only applicable to those who assume it reflexively as a duty, and not to those entities, such as things and animals, that are not capable of assuming it in this way. Therefore, they are not subjects in their own right.

Maintaining this exclusivity of agency prevents an approach to matter as self-poetic and expressive. The separation between rational agents and the entities that are the object of their actions and observations is inoperative when agency capacities previously reserved only for the former are recognised to the later. The subjectivity reaffirmed by their actions on a world that appears to them to be exploitable is destabilized. The subject is now included in a reality that previously imagined being able to fly over, in the manner of the flying eye, from a position of superiority. In the face of this, to consider as endowed with agency that which from that position was approached as an exploitable non-human object, extends the range of criticism and action beyond the human.

Media ecology, in the 1970s, did not refer to environmental issues but rather to the study of the media environments generated by the interaction between techno-media systems and their users. This is how media ecology was defined by authors close to the Toronto School of Media and North American Cultural Studies (Blondheim and Watson, 2007; Casemajor, 2015). However, since the beginning of the century, its meaning has changed to become a methodology for studying the relations between technology and nature, the non-dualistic entanglements between human and non-human entities and the digital media as an active part of the planet's deterioration processes (Casemajor, 2015; Cubitt, 2005; Goddard and Parikka 2011). The destruction of "nature" and the expansion of digitalisation must be thought of as a whole because they are part of the same global political, cultural and economic dynamic (Speranza, 2020).

The new ecologies of matter are fueled by what Jean Bennett (2010) calls the vitality of things. The world is a continuum of living matter in which the ontological differences between life and material things dissolve into immanence and becoming. This monism sets limits both to the idea that the things of the world and their meanings are the fruit of a social construction and to the idea that they are inert and determined only once human agency comes into play. The power of things indicates the capacity of non-human entities to self-organise, to create new assemblages and hybrids and to act upon human beings. From similar approaches, media theory can learn to build a political-ecological analysis of electronic media. Jussi Parikka (2011) warns that the media generate weird, relational, processual, resistant and vibrant materialities that, insofar as they are neither anthropocentric nor biocentric, have an effect both on weakening the position of centrality imagined by their viewer-users and on generating polluting dirty matter. Electronic mediations, as part of these vital-material flows, re-articulate culture and nature, or, rather, media and nature, mediatures (Parikka, 2011). Coltan, oil, silicon, arsenic, lithium, are components that make electronic mediations possible. But both in the phase of their extraction and in that of their use and disposal they have destructive effects on populations and territories. These materials circulate by becoming entangled in the neo-colonial geopolitical orders of exploitation and accumulation of resources. That is why the study of digital media requires an understanding of the ways in which perception, action, politics, meaning and non-significance are embedded not only in human and animal bodies but also in things. In many of their states these weird materialities can be unperceived by human sight, hearing or touch, because they materialise ephemerally as modulations of light, electric or magnetic energies. In any case, also in these inflections the capitalist logics of surplus value production and total visualisation are at work (Parikka, 2011).

Mutations of the algorithmic image

If we think of the digital image as a binary language (ones and zeros) it certainly appears to us as immaterial. But our experience of the digital universe is also crossed by digital objects and devices, their components and materials. The digital image points out the insufficiency of the clear distinction between new and old images, between the analogue and the digital. The digital technologies that announced the erosion of the link between image, realism and truth, however, produce increasingly realistic images and vision machines that are committed to expanding and surpassing human perceptive capacities. It is rather the transition from a representational to a performative model that signals a change in contemporary image and visual culture (Fernández Polanco, 2012).² It is

less a question of asking what an image means or the reality it conceals than of understanding how the image is effective, and what technical processes it is based on. Effective in the sense that images must know how to link the economic exploitation of human perceptive capacities with its management as a source of statistical information on a population, in terms of control and governmentality (Celis Bueno, 2017).

The logic of modern image was shaped according to the principles of geometric projection and management of reality on human scales. In the digital visual culture the convergence between vision and representation has been refined to the point of blurring the difference between the perceived world and the technical image, whose paradigm extends to the developments of augmented reality and immersive virtual environments. However, the digital image cannot be explained by its abstract transformation into binary language. What is significant is its treatment in terms of algorithmisation, its management through automated protocols of comprehension and decompression, according to the technical criteria of bandwidth, resolution, speed or archiving capacity (Hoelz and Marie, 2016). Euclidean geometry gives way to the algorithm. What the digital image shows on the screen is a set of navigable data that demands to be updated, clicked, interacted in real time, as happens for example with geolocalisation applications.

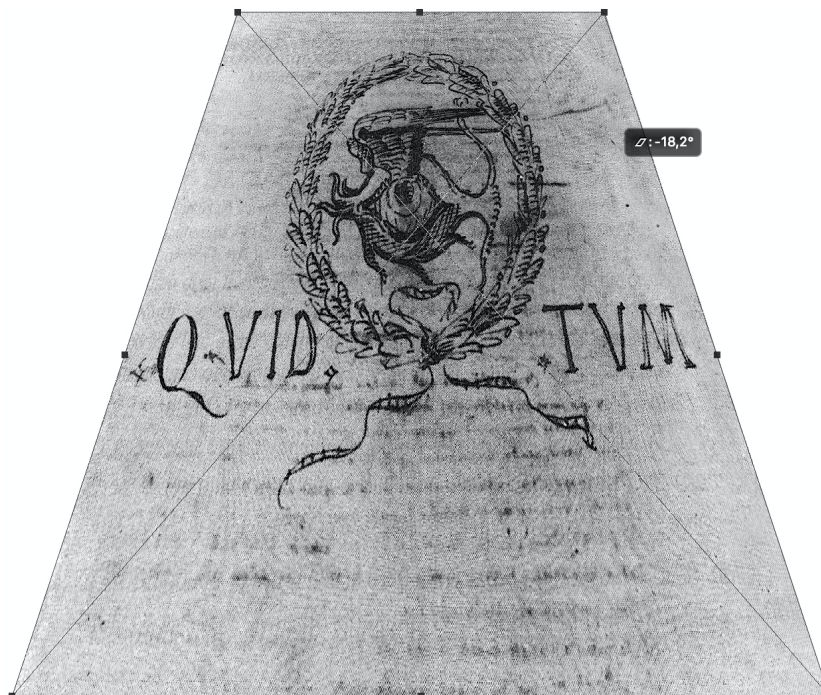
The dynamic relationship between data configures the algorithmic image paradigm. The geometric perspective builds an architecture of the visible, offering a finished image to the viewer, to guarantee him the stability of the position from which he projects his gaze. What breaks with the previous paradigms is that this image begins to abandon the obligations it has traditionally performed as mediation in human communication. The images are automatized to become vehicles of communication between humans and machines, and even —do they need today the images of a human observer?— between machines.

Digital materialism shows that the practices of viewer-users, the production and consumption of digital images are involved in the new materialities. Images are part of the *medianatures* and flows of living matter. The question of the materiality of the image is linked to the fact that it is not a passive element that supports the processes of representation. Algorithmic images are computer programs with a less representative than performative and pragmatic character. Their syntax is composed of sets of instructions for their effective execution and their values are replaced by variables (Hoelz and Marie, 2016). The image must respond to the obligations of communicative and economic efficiency. The criterion applicable to image is that of its success or failure in performing in that sense.

The gap between representation and what is represented, and the territory of conflict in the political struggle for images and the meanings it opened up, begins to blur when the ambivalences of the image are replaced by the image as information, program and algorithm. It becomes necessary to think of images not from what they mean or could mean, but from attention to the operations by which they deploy a capacity for agency and provoke a transformation of worldly relations. Machinic vision enables objects and images to perceive us and the electronic eye to use the computer to delegate to the machine, and not to the spectator, the capacity to analyse and interpret the meaning of reality, which is automated and whose rules are unknown to the spectator (Virilio, 1998). If the algorithmic image operates on its viewer-users, challenging them to manipulate it, new conjugations of machinic servitude are outlined, through which the image articulates us as components of complex communicative, informational and media assemblies. How can we re-elaborate a critical imagination to dis-identify with this scenario in which images and gazes are trapped? Iconic agency can end up underpinning human subjectivity. Images would only have agency in reference to human perceptions, desires, and reactions. The 'I' finally is reinforced by the experience of decentralisation that the image as an active entity provides (Nail, 2019). It is worth asking whether celebrating the agency of the image as the decentralisation of the subject and its openness to other non-human-centric ontologies is not replicating the logics of software programs, the Internet of things or Artificial Intelligence, on which contemporary capitalist political economy is based (Galloway, 2013). The algorithmic image would be reproducing a set of rules and automated techno-social programs, from whose definition and implementation processes the spectators and users are excluded, enabling new subjectivities that are more productive and better adjusted to the new demands for attention, control and network connectivity.

What is a winged eye metaphor for today? It points to the persistence of the dichotomy between the immaterial and the corporeal that crossed the perspectivist system and the Cartesian model of knowledge that it promoted, but inscribed and modified in the context of the electronic media and devices. The flying eye is no longer an ideal for the order of humanist representation, but is now technically materialised in cultural artefacts such as the drone or the satellite that now embody visualisation capacities that challenge human perceptive capacities. In the Renaissance, perspective was not only articulated on the basis of an imagined visual cone or, as Alberti would say, a visual pyramid, whose vavex disappears within the representation. It is also based on another inverse pyramid intersected with the previous one, whose apex is in the eye of the spectator. In this way, the existence of a multiplicity of points of view from which, in the logic of medieval painting, a scene could be represented converges in a single sovereign eye. This also implies the replacement of the two eyes that

function in human vision with a fixed, monocular one, an operation in which the bodies of the spectators are abstracted. The dependencies of the physical perceptive body on temporality and materiality are overcome by an immutable eye that, while ensuring the centrality of the spectator, does so at the cost of preventing him from becoming involved with what he sees, separated from it by the window in which the representation is generated (Jay, 1994). It could then be considered that digital visual devices only reinforce and perfect those tendencies towards de-embodiment, immateriality and individualism. In fact, the paradigm of the linear perspective does not disappear in digital visual culture. On that paradigm overlap those of photography, image-movement and digital signal (Hoelz and Marie, 2016). It is still present in data visualisation, in many video games or in devices such as GoPro cameras. However, the distance these devices establish does not belong to the conscious space of the humanist subject. The game of separations that for him was assured in the linear perspective is curved and we are no longer sure that we are being propelled or thrown into the void, of being subjects or objects, observers or observed (Steyerl, 2014).



Digital editing of the winged eye image with *perspective* tool, Antonio Ferreira, 2020.

The new vision machines and the images they generate are not suitable for measuring and managing that distance, because they ignore the limitations of human perception in their programs. In order to access the perceptive order imposed by the subject, he must deterritorialise himself and look at a set of instructions that externalise, exploit and re-program it (Ulm, 2018). The mobilised gaze breaks down into a multitude of perspectives and folds of the space of representation that lead to the collapse of the subject's

perceptive and bodily coherence. The subject, faced with images taken by electronic devices that exceed human perceptive capacities (satellite perspective, infrared vision, automatic vision systems or augmented reality) is caught between the fantasy of an exclusive position of power recovered over what is seen and its exposure in digital networks as an object of location and statistical calculation. A distorted model of socialisation is composed in which democratic participation and relations with others, with the territory and things of the world, are subsumed under the norms of consumption, surplus value and visual control. In accordance with the mandates of electronic interactivity, the links between the aesthetic and the social are unraveled in an artificial environment of active isolation that blocks any form of collective enunciation, commitment or intelligence (Munster, 2013). The ever-open eye that embodied a critical and rational attitude now mutates into an insomniac and reddened one, subjected to the endless vigil of the media experience, which is more reminiscent of the hardened visual organs of an animal without eyelids, an insect or a crustacean, condemned to never stop looking (Martin Prada, 2012).

The political status of the image changes as its representative and semantic dimensions shift towards the intensification of new socio-technical capacities of intervention. Along with this, the concepts, categories and strategies that make possible the political critique of, and with, the image also change. It would not be the last of these to recover the illusory power of the image in the face of the claim to achieve an absolute image fulfilled in the developments of virtual reality, 3D or high definition. Illusion —the aesthetic category of the Greek *apate*— sets a trap for us, a deception that appears as an invitation to invent and act against what is imposed on us as the real (Claramonte, forthcoming). The image, in order to play against the alliance between communicative efficiency and economic performance in which it is trapped, must subtract and dislocate elements of that reality that is given to us, once the illusory powers of the image have been instrumentalised, as complimentary and unquestionable. What is diminished is the relational and distributed character of the agency that emerges from the assemblages, from the open, non-totalisable and horizontal collectivities formed by images, spectators, users, materials, things, media and environments.

Diffraction and intra-action

Representational assumptions that point to the subject of knowledge as constant and pre-existing, and to its object as passive and in need of a definition outside of it, give way to implicit and situated cognitive articulations in which both are mutually constituted. But it is this open territory of possible relationships that digital capitalism parasitizes from its

calls for interactivity and participation. Since it is the algorithmic image that serves as an instrument to sustain that discourse, the critique of the image can end up identified with a condemnation of visuality as always alienating, subject to the servitudes of power and its spectacle (Mitchell, 2017). By freeing ourselves from images, denouncing their falseness, we gain access to the reality they conceal. This overlooks the role played by the technologies of vision and images, not in concealing what Felix Guattari called the global existential, social and ecological crisis, but in shaping the frameworks of the relationship between subjectivity, culture and nature, and of the visualisation of the Anthropocene and the capitalist world-ecology. Images have the capacity to perform these frameworks. Then a territory of political struggle opens up. A struggle not for meanings but for a conscious appropriation of the techno-social modes and processes through which we are given to see the world, what images make us do and what we could do with them, as parts of the complex assemblages between humans and non-humans, between culture, media and nature.

The imposition of capitalist signifiers and imaginaries are incompatible with the elaboration of a sense of the common. We would no longer be within a model of Kantian cosmopolitanism, which, in overcoming particular interests and inclinations, allows access to an egalitarian public sphere. It is rather the case that the reasons for dispute are not the definitions, perspectives or representations of things. These facts are redefined in the immanence of what Bruno Latour calls the matters of concern, according to which it is decided which questions are relevant to address different specific situations, materialities and techno-social processes. Humans establish their commitments, project their actions and unleash their conflicts together with the things that condition them and lead to seeking solutions or intensifying disagreements (Latour, 2014; Stengers, 2014). This does not rule out issues such as gender, identity, memory, oppression or economic exploitation, but reconnects them in the framework of a new political ecology with those of automatization, science, the media, feminism or anti-colonialism.³

The coherence of the mirror of nature is destabilized when entities are placed in spatial-temporal frameworks of relationship in which those are not ontologically separable. In contrast to the discourses of individualistic participation and interaction, the feminist theorist Karen Barad (2007) has proposed the term intra-action to explain the mutual constitution of interwoven agencies. Different agencies do not precede interaction but emerge through their material and discursive intra-action. They do not exist as individual elements, but as phenomena constituted by ontological interweaving.⁴ Phenomena are produced through intra-actions. There is no room for distinction between the observer and the observed, between apparatuses, vision machines, representations and reality. It is the intra-

actions that punctually determine the limits and properties of the phenomena. It is because of these productive practices that the particular material articulations of the world make sense. The object of research is interwoven with other aspects and elements that make it impossible to clearly and definitively delimit their contours. The different intra-actions shape different materializations of the world. There are no individual elements pre-existing to the combinations of which they become part, because they are already the result of previous dynamics: the intra-active world constantly acts on itself. The relationships between environments, bodies, artefacts, things, change when none of them is previous to their intra-active constitution. If, in the context of digitalization, the representative paradigms of the iconic and of the ways of seeing are giving way to the performative, then the relations with the image also point to a similar mutation. Image establishes a punctual order (an agential cut) of the limits and aspects of the phenomena within the inherent ontological and semantic indetermination of the world (Arlander, 2014; Barad, 2007). It is generated in the intra-action between the elements and environments represented in it. But also in reference to those with which the image is related in its materialization and visualization processes, its material components and inscriptions, the ecological footprint left by its production and consumption, visual technologies, other images and forms of reception, framing, resolution, movement, time, subjectivities and the bodies of those who make it, perceive it and manipulate it (Arlander, 2014). Legitimized by the mandates of participation and network interactivity, the alliance between the 'perfect' image and visualization technologies represses the possibility of attending to this relational character of the agency, which draws other forms of gaze, coexistence and creation, not separated from the environments and distributed among spectator-users, communities, images, things, materials, media and environments.

In the logic of the representational model, the image of a natural or social reality is reflected, as an object or a given fact, as in a mirror. But knowledge and its procedures always open up critical and political potentialities that did not exist before and that question the reality of the given and its passive reproduction. The materiality of the ray of light is opposed to the reflection, and when it hits the surface it diffracts and produces differences (García Selgas, 2008; Haraway, 1995). Diffraction problematizes the dualisms between the organic and the inorganic, between the animate and the inanimate, which are sustained and sustained by the metaphor of the mirror (Barad, 2014; Revelles-Benavente, 2018). If interaction is maintained within the representation and metaphysics of individualism, it is in diffraction that intra-action is best recognised. Diffraction is a political technology that does not belong to a representative order of homologues but to intra-active engagements between objects and subjects, artefacts, environments, narratives and practices. The digital

transformations of the image present a paradoxical nature in which lines of rupture and escape can be outlined. On the one hand, they seem to reinforce the perspectivist position of authority over what is seen. On the other hand, they refine the modes of abstract domination, undermining the centrality of that position and multiplying bodily, cognitive and perceptual disorientation. In them, the desire for reciprocity, the distant visualization, the fear and the search for meaning, the calls for cooperation, the statistical management of life and total control all conflict with each other. There is a correspondence between these contradictions and those that run through the Anthropocene, the era of the centrality of the human being and, at the same time, the crisis of its survival as a species. What now?

Bibliography

- Arlander, A. (2014), "De la interacción a la intra-acción en la performance del paisaje", *Artnodes*, nº 14, Web: <https://core.ac.uk/download/pdf/39043734.pdf> [consulted: 02.05.2020]
- Barad, K. (2007), *Meeting the Universe Halfway. Quantum Physics and the Entanglement of Matter and Meaning*, Durham (NC), Duke University Press.
- Barad, K. (2014), "Diffracting diffraction: Cutting together-apart", *Parallax*, Vol, 20, no 3.
- Belting, H. (2012), *Florenia y Bagdad: Una historia de la mirada entre Oriente y Occidente*, Madrid, Akal.
- Bennet, J. (2010), *Vibrant Matter: A Political Ecology of Things*, Durham (NC), Duke University Press.
- Blondheim, M. y Wilson, R. (Ed.) (2007), *The Toronto School of Communication Theory: Interpretations, Extensions, Applications*, Toronto, University of Toronto Press.
- Casemajor, N. (2015), "Digital Materialisms: Framework for Digital Media Studies", *Westminster Papers in Culture and Communication*, Vol. 10, no 1, Web: <https://www.westminsterpapers.org/articles/10.16997/wpsc.209/> [consulted: 23.04.2020]
- Catalá Domenech, J. M. (2017), *Viaje al centro de las imágenes. Una introducción al pensamiento esférico*, Santander, Shangrila.
- Celis Bueno, C. (2017), "Economía de la atención y visión maquínica: hacia una semiótica asignificante de la imagen", *Hipertextos*, Vol. 5, no 7, Web: <http://revistahipertextos.org/wp-content/uploads/2015/12/Bueno-C.-2017.pdf> [consulted: 29.04.2020]
- Claramonte, J. (forthcoming), *Estética Modal II*, Madrid, Tecnos.

Coole, D. y Frost, S. (Ed.) (2010), *New Materialisms: Ontology, Agency, and Politics*, Durham (NC), Duke University Press.

Cubitt, S. (2005). *Ecomedia*, Amsterdam, Rodopi.

Dolphijn, R. y van der Tuin, I. (Ed.) (2012), *New Materialism: Interviews & Cartographies*, Ann Arbor, Open Humanities Press.

Escobar, A. (2014), *Sentipensar con la tierra: nuevas lecturas sobre desarrollo, territorio y diferencia*, Medellín, UNAULA.

Fernández Polanco, A. (2012), "Usos performativos de las imágenes", *Re-visiones*, no 2, Web: <http://www.re-visiones.net/index.php/RE-VISIONES/article/view/141/153> [consulted: 02.04.2020]

Goddard, M. y Parikka, J. (Ed.) (2011), *Unnatural Ecologies, The Fibreculture Journal*, no 17, Web: <http://seventeen.fibreculturejournal.org/> [consulted: 11.08.2020]

Haraway, D. (1995), *Ciencia, Cyborgs y mujeres: la reinención de la naturaleza*, Barcelona, Cátedra.

Haraway, D. (2019). *Seguir con el problema. Generar parientes en el Chthuluceno*, Bilbao, Consonni.

Hoelz, I. y Marie, R. (2016), "The Status of the Image in Digital Culture", Web: https://www.fotomuseum.ch/en/explore/stillsearching/series/27044_the_status_of_the_image_in_digital_culture [consulted: 18.04.2020]

García Selgas, F. J. (2008), "Epistemología cyborg: de la representación a la articulación", en I. Sábada y A. Gordo, (Ed.), *Cultura digital y movimientos sociales*, Madrid, Libros de la Catarata.

Galloway, A. (2013), "The Poverty of Philosophy: Realism and Post-Fordism", *Critical Inquiry*, Vol. 39, nº 2.

Latour, B. (2014), "¿El cosmos de quién?, ¿qué cosmopolítica? Comentarios sobre los términos de paz de Ulrich Beck", *Revista Pléyade*, no 14, Web: <https://www.revistapleyade.cl/pleyade/ediciones/numero-14/> [consulted: 02.04.2020]

Leppenies, P. (2018), "The Anthropocene: The Invention of Linear Perspective as Decisive Moment in the Emergence of a Geological Age of Mankind", *European Review*, Vol. 26, nº 4.

López, K. (2017), "Arturo Escobar, Sentipensar con la tierra: nuevas lecturas sobre desarrollo, territorio y diferencia", *Amerika, Mémoires, identités, territoires*, no 16, Web: <https://journals.openedition.org/amerika/7918> [consulted: 06.05.2020]

Martín Prada, J. (2012), *Otro tiempo para el arte. Cuestiones y comentarios sobre el arte actual*, Valencia, Sendemá.

Mitchell, WJT (2017), *¿Qué quieren las imágenes? Una crítica de la cultura visual*, Vitoria-Gasteiz, Sans Soleil.

Moore, J. W. (2015), *Capitalism in the Web of Life. Ecology and the Accumulation of Capital*, Londres y Nueva York, Verso.

Munster, A. (2013), *An Aesthesis of Networks: Conjunctive Experience in Art and Technology*, Cambridge (MA), Londres, The MIT Press.

Nail, T. (2019), *Theory of the Image*, Oxford, Oxford University Press.

Parikka, J. (2011), *Medianatures: The Materiality of Information Technology and Electronic Waste*, Londres, Open Humanities Press.

Revelles-Benavente, B. (2018), "Material Knowledges. Intra-acting van der Tuin's new materialism with Barad's agential realism", *Enrahonar*, no 60, Web: <https://revistes.uab.cat/enrahonar/article/view/v60-revelles-benavente> [consulted: 13.04.2020]

Rovira, J. M. (2006), "Quid Tum", *DC. Revista de Crítica Arquitectónica*, no 15-16.

Speranza, G. (2020), *Futuro presente*, Buenos Aires, Siglo XXI.

Stengers, I. (2014), "La propuesta cosmopolita", *Revista Pléyade*, no 14, Web: <https://www.revistapleyade.cl/pleyade/ediciones/numero-14/> [consulted: 02.04.2020]

Steyerl, H. (2014), *Los condenados de la pantalla*, Buenos Aires, Caja Negra.

Ulm, H. (2018), "La distancia y el instante. Técnica, estética y política en el devenir digital", *Ponencia Congreso Internacional Imágenes y Medialidad*, Santiago de Chile, Universidad Alberto Hurtado.

Virilio, P. (1998), *La máquina de visión*, Madrid, Cátedra.

Notes

* This article is part of the research project funded by the Ministry of Economy and Competitiveness (Spain) *Imágenes, Acción y Poder. Agencia icónica y prácticas de la imagen contemporánea* (FF12017-84944-P).

¹ Anthropocene is the name given to the new geological era caused by human intervention, particularly as an effect of the massive use of fossil fuels. It usually starts about two hundred and fifty years ago, with the beginning of the Industrial Revolution. Lepennies' observation is a reminder that the ideological, technical and cultural changes that have generated this new era were already being forged before that time. On the other hand, if the term Anthropocene refers to the human modification of geological

processes, then it is a denomination that still depends on logics that are too anthropocentric. Using Chthulucene as an alternative term, Donna Haraway (2019) has emphasized that the scope of these transformations cannot be limited and abstracted just in reference to the human, since their consequences, which affect all species and all the planet's environments, overflow and decentralize them. For his part, Jason W. Moore (2015) notes that calling the history of the modern world "the age of man" dilutes the fact that the world's problems have not been caused indiscriminately by all human beings but by capital. This is why Moore proposes the more accurate term of Capitalocene.

² This does not mean that these representative dimensions simply disappear. What changes is the relationship between the representative and performative aspects of the image, because the former no longer adhere to the model of the representational theory of knowledge.

³ It is a path opened by thinkers like Donna Haraway, Sadie Plant, Rosi Braidotti or Elizabeth Grosz.

⁴ This lively ontology has parallels with relational ontology, as opposed to the dual ontology, typical of Western rationalism (Escobar, 2014). This translates into practices of separation between mind, body, individual, community, nature and culture. Relational ontology no longer focuses on the observation and analysis of an object, person, animal or situation cut off from its environment. Neither this nor those are discrete entities, existing by themselves, but part of a whole world that is acted upon through a variety of practices linked to the multiplicities between humans and non-humans (López, 2017). Arturo Escobar analyses the photograph of a man and a girl rowing a *potrillo* —a canoe, in the Colombian South Pacific— to explain relational ontology. The scene is not the punctual transmission of a skill from a father to his daughter. It is about the transmission of the non-human world that has participated in the composition of that knowledge. The *potrillo* is made of a mangrove tree thanks to knowledge transmitted by the ancestors. The mangrove has been travelled by the local inhabitants; it is connected to the rhythm of the tides, the sea, and the moon. It is a complex ecosystem of relationships between organisms, minerals, air, aquatic, amphibian and even supernatural life. It is this network of interrelations and materiality that Escobar calls relational ontology. Now, what about the photographic image? Aren't it and the apparatus that has recorded the scene also woven into that network? Where did Ulrich Oslender, the anthropologist who took the photo, take it from? Why such a frame, that composition, that resolution? How did the materials that make up the camera and that make it possible to capture that instant travel from, let's say, a Central African mine to the Colombian Pacific? How am I related to that photo when I see it on the computer screen? According to what technologies, knowledge and ecological, economic and social dynamics?