THE CINEMATIC PERFORMANCE OF THE REAL AESTHETICS, NEW REALISM AND CINEMA

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Abstract

The return of realism that followed the Postmodern years, marks an ontological "turn" which is not free of consequences also in relation to theories on cinema. This essay aims at analysing the existing relationship between the aesthetic-perceptive experience – through the notion of "immediate experience" – and the notion of "reality" in the cinematographic image. The link image-reality is considered here as a "phenomenon" in itself. If the phenomenal experience could be intended as such, without a subject, the cinematographic image too could be intended as a look without subjectivity. Cinema takes us beyond phenomenology, or rather, inside a "heretic" phenomenological perspective.

The temporal presence of cinema

In *Philosophical Remarks* we find the following passage by Wittgenstein, that captures very well the characteristic of the phenomenal experience in relation to the so-called "underlying physical reality." This passage captures specifically that particular experience of the world which we call "cinematographic" and that can only be mistakenly seen as a "subjective" experience, according to the analogy between "mental representation" and "screen:"

The present we are talking about here is not the picture on the filmstrip that is in front of the lantern's lens right now, as opposed to the picture before and after it, which have already been there or are yet to come; but the picture on the screen, which would illegitimately be called present, since 'present' would not be used here to distinguish it from past and future. And so it is a meaningless epithet (§ 54).

As a matter of fact the "present" inscribes in itself a bit of past and future. The appearance *hic et nunc* of what is directly observed on the screen happens during a time which we call "presence-time," and is identified by James as "specious present." All of our perceptions develop in the *present*, in the moment of the current now. This "now" does not correspond to the mathematical instant which is free of time, rather it implies a specific duration. The phenomenal present belongs to the direct experience and has a "duration" (*durée*), as Bergson would put it, that captures the reality of the temporal extension of the event. The "presence-time" is the time in which we describe

what is happening in the "now" moment of the film, and which corresponds approximately to the time it takes to pronounce the word "now."

The "presence-time," before becoming a concept, is the essential experience that stands at the base of every experience of the real and of the imaginary, by considering the act rather than the content. This event is not describable instant by instant, or according to the "single frame," since in the immediate of this lived presence, we remember many others. We couldn't say that we see images: we see a complex reality, a unit of movements, sounds and perceptions. The scene that we observe includes what Husserl indicates with the terms "protention" towards the future and "retention" in the past.4 The cinematographic show is not made of frames: the sense of the event cannot be reduced nor it can be ascribed to the sequence of frames that make up the film. The system of reference which makes up the reality of the encountered world is established only inside this degree of complexity offered by direct experience. The reality of the event is therefore given in the immediate experience. If the temporal presence would really only last a short "instant," or less than one twenty-fourth of a second, then we could say that we are actually seeing an image. Can we indicate the direct experience of the film as "apparent" in respect to an underlying "reality?" And with what right, since we never escape from what we observe directly? When we see the film and its single frames, we are always in the immediate experience: the "beta movement" that creates the "illusion" of movement is in fact an aspect of the real, that is of a world with its own laws of phenomenal appearance. The images that make up the instant of presence which belongs to the perception of a moving unity, that is what is happening in the narrative present of the film, are all equally present. It is not possible to say which of these are more present than others. We know that these happen one after the other, nevertheless we experience them as a whole. If we wanted to express the reality of what lays under the "absolute threshold," we should be aware that what we now call "reality" is no longer perceived directly. It becomes a representation of what we observe and it is made of mathematical relationships and imagined entities. A reality which belongs to the fields of language and concepts used to explain each fact, instead of grasping them directly. We should notice how our common use of language is often as effective as it is approximate, sometimes leading to various errors when applied to the technical languages of philosophy and sciences. Indeed, an accurate phenomenological description of a fact, sometimes reveals to be logically paradoxical. Let's take for example the Euclidean definition of point as "that which has no part."

It is defined as a "punctual object" in space and time, just as the "tic" sound of the tip of a pencil falling on the table. Although we perceive it distinctly, it is impossible to separate the perception of the beginning of the sound from the end of it. This is what we call the paradox of a fact that while it is happening, it has already past. It is a "punctual event" that we distinguish from "factual events," or those events that we perceive through the memory of their beginning and the awaiting of their end. We perceive those in their "central part" and in this case we can give meaning to the expression "presence-time," which includes all of the punctual objects that extend beyond the experience of the single "tic." One should notice that time does not belong to the factual event, rather to the immediate experience in which they are contained. The presence-time therefore is the fundamental condition of every experience and it is precisely for this reason that it is so difficult to become aware of its existence. During this precise time the object of experience manifests all its observable features according to its own principles, independently from the system of reference determined by the perceiving subject.

The immediate experience

Let's go through the perception of the cinematographic spectacle by clarifying the notion of "immediate experience" by drawing a diagram on the board.⁶ The diagram is the following: we draw a member of the audience sitting in a cinema to the right, while he perceives an object that appears on the screen to his left. Therefore to the left we represent the source of the stimulus: the "distal stimulus" (the physical object). As this is a visual object, to the right there will be sets of electromagnetic waves of a certain type of frequency. The structure determines the "proximal stimulus" that, by reaching the retina, provokes its stimulation through the luminous beam that generates from the object, whose surfaces are capable of reflecting the light due to their physical-chemical nature. By following this traced path, we encounter the eye of the viewer. The images of the eye and the brain can be more or less detailed, according to the type of critical discussion. To the right of the retina we find the optic chiasm, the lateral geniculate nucleus, the visual cortex-area 17 (or BA 17). In this representation of perception, where do we position our immediate experience of the thing? By convention we symbolise the phenomenal perception of the thing to the extreme right over the drawing of the brain, by indicating it with "phi." Phi represents the phenomenal perception of the thing *directly* perceived on the screen: the movie. The psycho-physic scheme traced on the board is the representation of every possible causal explanation of perception. This does not match the direct experience as lived in first-person; rather, it represents the situation in which one looks at another person while he is observing something. By proceeding from the thing on the left, in the direction of the head of the observer on the right, through the various steps that make up the scheme, we never encounter the direct experience of the perceiving subject as such. Each part of the scheme is the internal, external or indirect representation of perception. Every single segment of the scheme can be object of further more or less detailed scientific research, in the field of physics, chemistry, physiology, etc. The "causal description" of the perception of the thing is an image, an explanation of the perceived reality. It aims at explaining the perception by analysing the situation as described above – typically found in the laboratory – where the experimenter analyses and verifies the direct observations of the subject. This situation should be distinct from the phenomenological description in which, on the other hand, the experience is perceived in first-person. The descriptions of what is perceived hic et nunc lay on a different level, that of the real, rather than the causal description of their representation. To confuse what we know of the thing perceived, interpreted as scientific and physical object (typical of a causal explanation), with what is perceived directly, means, in Köhler's words, to make a "stimulus error."⁷

For instance, if we assert to be observing a sequence of photograms as the result of the direct observation of the thing on the screen, then we would fall into the "stimulus error," since we would have indirectly integrated the knowledge of the thing to the direct experience of it. The correct phenomenological descriptions exclude all propositions that describe a knowledge which is not directly perceivable or cannot be intersubjectively shared. Our entire understanding of the film is guided by what appears on the screen, with all its observable properties. The scientific study aims at explaining the phenomenal appearance of the immediate experience: as deep as it can be, it should in the end explain why we perceive "phi" according to our schema "as such" – as Köhler would say. Every new discovery operated on the level of direct experience reduces the logical space of all logically possible theories and, at the same time, falsifies existent theories. If the discovery of a new fact can

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destroy the theories that aim at explaining perception through a "causal model," this cannot happen the other way around, since no new scientific discovery, internal to the psycho-physical scheme, can in any way falsify the immediate experience. Science and the "truths" that it pursues were conceived to determine what is not possible to grasp through direct observation: the observed thing in itself is neither false nor true. The "truth," according to a well known philosophical tradition, belongs to the sphere of judgment and to the thought, not to the phenomenologically explicit fact. To better understand the meaning of phenomenology of perception as the description of an immediate experience that is, in Koffka's words, "as a naive and full a description of direct experience as possible" we can take as an example Leibniz's analogy as found in *Monadology* (§17):

Moreover, it must be confessed that perception and that which depends on it are inexplicable in mechanical terms, that is, in terms of figures and motions. And supposing there were a machine, so constructed as to think, feel, and have perception, one could imagine it increased in size, while keeping the same proportions, so that one could go into it as into a mill. In that case, we should, on examining its interior, find only parts that work upon one another, and never anything by which to explain a perception. Thus, perception must be sought in a simple substance, and not in a composite or machine. Further, nothing but this (namely, perceptions and their changes) can be found in a simple substance. It is in this alone also that all the internal actions of simple substances can consist.

According to this image, the visual perception corresponds to what we observe directly and does not include the mechanisms underlying direct experience, which fail to explain the sense of perception. In fact, perception is not perceived nor are we normally conscious of our conscience: one perceives directly the things of the external world. We can observe that they appear in their objectivity, or as it can sometimes happen, welcome them in their "subjective" character – as in the case of "afterimages" (also call "ghost images") or others – without leaving the immediate observation and without referring to the underlying brain activity. The case described by Leibniz shows how direct perception is different from the underlying transphenomenic mechanisms: the physiology of the brain corresponds to the mechanisms of the mill that does not justify the immediate experience of things, which is the object of study of experimental phenomenology. In an extract from *Remarks on the Philosophy of Psychology* (I, §11) by Wittgenstein we find a symmetrical idea to Liebniz's, or the non-reducibility of the immediate experience to the underlying processes of perception:

Let us assume that someone makes the following discovery. He investigates the processes in the retina of human beings who are seeing the figure now as a glass cube, now as a wire frame etc., and he finds out that these processes are like the ones that he observes when the subject sees now a glass cube, now a wire frame etc... One would be inclined to regard such a discovery as a proof that we actually see the figure differently each time. But with what right? How can the experiment make any pronouncement upon the nature of the immediate experience? – It puts it in a particular class of phenomena.

Here Wittgenstein underlines that it is the "immediate" properties of the perceptive experience that allow to "interpret" the optical apparat and not vice-versa.

The encountered reality: The independence of "phi"

Certainly, the interpretation of a movie forms our experience, nevertheless it does not complete it: our interpretations go beyond what can be directly observed. The interpretative level of experience does not eliminate the facts in order to reduce them to a single interpretative dimension as it happens in Postmodern culture. In some of his movies Hitchcock reveals the identity of the murderer since the beginning. Nevertheless this does not free the narrative plot from interpretations, just as the facts ascribed to the direct experience do not eliminate, but guide the interpretative space, often made of the union between visible and partly not directly visible elements. The independence of the encountered is characterised by: the independence of its materiality, its correspondence to the sense organs, the perceiving subject, the past experience and the activity of the thought. The encountered shares the characteristic of "unemendability" with the visual perception. This is the unchangeability of the perception or the impossibility to correct the experience. 10 The phenomenal appearance possesses its own and autonomous organisation. This feature must not be assimilated to the perfectible description of the immediate experience. The difference we encounter does not belong to the world of things, but to that of language, with the categories we use to refer to the world. The fact that we cannot correct the "encountered" means that we can use one reality only, the one directly and intersubjectively experienced. To evaluate conceptually what we encounter does not imply its modification.¹¹

In the external world we can come across things that do not have a corresponding "distal stimulation." Taking into consideration the case of "Kanizsa's Triangle," what we see is a white equilateral triangle placed at the centre of a figure, which appears slightly lighter than the remaining surface. In order for it to be perceived it is necessary for the triangle's colour to be different from that of the surface. The "distal stimulus" of the triangle does not subsist, since on the paper we can only effectively see three circular sectors and three angles. Kanizsa's triangle is an example of anomalous surface that is realised in the visual field without the need of any difference of luminance or reflectance between different regions of the stimulus. In this figure it is necessary to distinguish between its phenomenal description, that is what we encounter and its physical-causal description. The latter explains the visual perception through our knowledge of it, through the psycho-physical schema, by referring to aspects concerning Physics, Chemistry, Neurology and Physiology. A physical-causal description of this figure would lead to the conclusion that the triangle does not exist in reality in the external world; therefore the only things we can affirm ontologically are just the black signs on the paper. In this case the triangle although phenomenally evident is considered as something subjective. The phenomenal triangle is "corrected" from a kind of "knowledge" consisting in a physical description of what we observed. A "correction" that should be operated on a presumed "objective reality" that coincides with the physical one. 12

In this case we would appoint the right to correct the "imperfections" gathered by the experience. Instead of describing the concretely measurable facts we would end up by representing them at a different level of reality that we would tend to privilege. This is how the ontological contrast is born between real facts and the descriptive levels of reality. The missing distinction between the two descriptive levels, the causal one and the descriptive one, leads to the stimulus error. The phenomenal description is the real description of the ontological level, or what *is there*: the encountered phenomenal world. During the same event two types of non-assimilable descriptions

are overlaid: as they are actually defined on two different orders of property. Kaniza's triangle exemplifies the inappropriateness of the kinds of speculations that bring us to define reality or non-reality of things on the basis of a match with the physical object; the distal stimulation. Can we consider cinema an illusion? In order to define an illusion we should first find an object of comparison. A rainbow for example is not considered an illusion but a natural phenomenon, different from the perception of a bended pencil in the water since it can also be seen unaltered in an empty glass. The mechanisms that regulate the perception stand at the base of our comprehension of the surrounding ecological environment: sometimes one sees what is not there, as in Kaniza's triangle, and one can sometimes not see what is actually there, as in the cases of "masking phenomena." In our behavioural phenomenal environment we can see also what cannot exist. Let's take the case of an "impossible object" like Penrose's triangle. Anything similar would be impossible to build since each of their single parts are not conceivable in our three-dimensional Euclidean space: as a consequence the physical existence of objects is not a necessary condition for their phenomenal existence. Moreover it is a false idea that we see things because we have learned to see them. As a matter of fact we could not have seen an object as the mentioned above, nor will we ever see it in the physical world, and less-so could we see it now, although this stands against the evidence of the facts. ¹⁴ We see things differently from how we think them – this is for example the case of the optical-geometrical illusion of Müller-Lyer, where even after having measured the two segments we continue to see them as we used to. The subject and the world are inscribed inside the same reality science intends to bring to light. The independence of the phenomenon as immediate experience of reality can be understood in different ways: let's think about the theoretical implications of virtual prosthesis, as we see in *The Matrix* (Andy Wachowski, Lana Wachowski, 1999). A colour is not solely visible in the presence of coloured surfaces, but also, for example, through a weak electrical discharge on the eyeball; or with a mechanical or chemical stimulation (with small drops of acids). It is possible to observe a colour as long as the eye is being stimulated by an input which is capable of giving out a low discharge of electric impulses along the filaments that are born from the macular blind spot. Any kind of stimulation allows us to see a colour: it is sufficient to receive the necessary impulses from the optical nerve, while the reason why this happens is irrelevant. If we were to ask the member of an audience why he sees what he sees on the screen, he could perhaps refer to the chemical substance that forms the projected images, capable of absorbing the entire range of light except the wavelength that we call "red." We could at this point object that it is not about a certain chemical substance, since any other useful substance capable of isolating the colour red would lead to the same effect. We know for example that the same properties are also found in different materials. In this case the audience will have to admit that, in this particular case, the chemical component is a sufficient condition but not a necessary one to perceive the colour red, that could derive from different materials with similar characteristics. 15

The problem seems to be about the property of the radiation, rather than that of the materials: this way we can shift the problem more to the right, in the psycho-physical schema. It is not the action of the electromagnetic waves on the retina alone to create the perception of colour; we obtain the same effect also through mechanical, chemical and electrical stimulations of the eye. In optics, in order to see a colour, it is therefore necessary to intervene on the electric impulses of the optical nerve. The photochemical process of the receivers is an element that produces these electrical impulses, but not the only one. One can hypothesise the case of applying similar electric

stimulations to the optical nerve, perfectly capable of inducing the perception of a colour. The virtual is a prosthesis of reality. Virtual worlds express a coherence that originates from the rules of phenomenal givenness. In brief, if one could apply an ideal prosthesis to every single part of the psycho-physical schema, such prosthesis would have certain material characteristics perfectly defined and capable of reproducing the same qualities of the phenomenal appearance of the thing or, more generally, of the immediate experience. Such idea lies at the basis of the "special effects" that we see in cinemas where the sound of burning fire can be substituted with crumpling paper. We can therefore imagine different causal processes, different levels beneath the same phenomenal reality whose sense is expressed independently from the causes underneath their surface: a science of the observable (experimental phenomenology) can go beyond explanation on the subworld that "causes" it. The corporeal schema determines our first perceptive reference frame, or that which characterises our life form and is functional to the environment of the external world as a result of adaptation.

Image and reality

We can observe how a movie camera can trace the movements of our body system. This determines a specific empathy between our eye (visual field) and the cinema. For this reason it is not correct to define cinema as "motion pictures," rather it would be more appropriate to call it "progressive picture." It is the exact opposite to an arrested picture as it continuously transforms the structure of the optic array. Therefore in cinema the progression approaches considerably towards the natural visual perception, to a greater degree than we would find in painting and photography. The optical asset corresponds to the temporary visual field of an observer in any natural environment. In order to consider the distinct types of technical modification of the cinematographic image (zoom, panning, tracking, etc.) it could be useful to use an ecological approach with a realist origin such as Gibson's. 16 Cinema therefore is an image that was modified such as to project shadows on its surface, even without leaving traces of colour on it. This way an optical asset of limited amplitude can be obtained, containing information about other things which are not simply relative to the surface. The difference with other types of pictures is that the optical asset is not blocked but can encounter modifications and transformations. This is the fundamental characteristic: we think that if it is true that the images are sent from the eye to the brain, therefore it is just as possible to send a series of images through. Coming back to Wittgenstein's quote, this is where the idea that the film is nothing but the sequence of frames kept together coherently by the persistence of vision originates. This basic physiologic description brings us astray. In order to produce an optical asset that changes it is not necessary to make use of a projector, as the inventors of the nineteenth century – experimenting with different systems – knew very well: what counts is the information that the image sends out to vision. The visual system captures exactly the perturbations of the structure of the asset of a continuous progression. It is precisely the single image frames (paintings, photographs, drawings) that are artificial, which constitute an arrested optic array. The cinematographic is distinct from other forms of representation because it produces in the spectator the experience of a chain of structured events. The fact that they are virtual events does not constitute an objection to what has been stated. When the cinematographic image takes shape on the screen, we no longer see its surface, but we perceive the filmic space as part of a world, just as we see a world in a painting or in a photograph. Worlds that possess a degree of independent reality from the basic material substrata. Although the images are flat surfaces, they are treated in a way to represent the three-dimensional space we live in. When we see the image of something, what is the relationship occurring between the "thing" and its image and more generally between itself and the external world? The modes of appearance are always controllable factors on the level of the observation.

Every factor can be determined phenomenally: as the relationship figure-background, the principles of unification, depth and transparency have all been studied through spotting the visual variables that make up the structure of the event. If the appearance of the thing is a fact that needs to be accounted solely in its modes of appearance, it should be just as clear that the phenomenal level is the only level of visibility where all the qualities of the thing (primary, secondary and tertiary) stand together.¹⁷ It is on this level that we find the sense of the movie and this cannot be reduced to the brain activity below the immediate experience. Through the images-events we can represent things as well as recreate them: cinema produces images through rules of phenomenological giveness iuxta propria principia. The image-movement becomes familiar whenever the artist discovers the same phenomenological giveness of the thing, grasping the same phenomenal invariables. As much as we can create things in all possible worlds to our liking, in order for the phenomenon to appear as it does, it needs to respect the principles of appearance brought to light by experimental phenomenology. We can have experience of a virtual world: we can also choose the virtual world to be the real one in its place. Moreover, the phenomena of the real world are identical to the so-called virtual ones: the same discoveries of phenomenology of perception would happen just as much in both worlds. Gibson, through the ecological approach, defines images as "invariant structures;" on the other hand we prefer to speak of phenomenal invariants, meaning the complex of dependent and independent variables that "experimental phenomenology" has discovered as conditions for the appearance of the phenomenon. Such conditions stand always on the same plane as that of direct observation. We therefore indicate with the name "phenomenal invariants" that which is shared between the image and the thing; this is how the structure of the real is at play. The image that appears on the screen therefore consists in a game between the intrinsic modalities of perception. What we mean by modality are all the factors that are brought to light by experimental phenomenology, as for example the "law of organisation," the "figure-background relation" and the "amodal completion." Every factor is visible and ostensible in the image and it is determined by specific conditions also belonging to the plane of direct observation. With more or less awareness the artist discovers and uses these factors: during the artistic production the director always judges the phenomenally explicit result of his own work. This is structured by perceptive factors; but the artist, on his side, can also choose to ignore the rules that determine the phenomenal appearance of the thing. We could say that the artist discovers as he goes: it is in his own production that he *does things with phenomena*. The modes of perception that the director brings about are what allows that specific perceptive-expressive output, whether he uses digital images or oil on canvas. This way it is possible to supply a description of the conditions of the images that complies to the phenomenal characters of the image itself just as it appears to us, identifying them with the same criteria of visibility that regulate ordinary perception. The "monocular clues of depth" (perspective, occlusion, weaving gradients, elevation from the horizon, relative size, shading) allow to perceive the space of natural scenes; at the same time these clues can generate a spatial impression efficiently also in the cinematographic images. We are therefore able to have a common world in which, by exercising vision we discover the invariables that define the possibility of phenomena to take place. The image is tied to visibility both in its aspect of production and in its fruition; and the possibility itself to produce and see the images abides by the rules of visibility. There is a "system of equivalence" between reality and the world as perceived on the screen. To the condition of appearance of the phenomenon we inscribe both the external world and its image in equal size, for this reason it is considered to be similar to the real by degrees of reality. The cinematographic phenomenon substitutes the external world, or it is a surrogate of it. The definition of the condition of representation follows the fact that the director experiments and discovers phenomenal worlds whose possibility is already intrinsically contained in the visual perception of the phenomenological givenness. Through the movie camera the director uses the same phenomenal invariables that regulate ordinary perception, and therefore operates with the possibility of the visible. The image always keeps the intersubjective and ostensible character of any ordinary phenomenal datum of perception, also inside the new semantic frame. To be an image is the exemplification of a conjunction of perceptive invariants, and seeing and producing images abides by the same laws that regulate ordinary vision. In the first case, we could ask up to what point is it possible to play with invariables, if they are such and not just a simple possibility belonging to certain events of perception. This will depend on the result that one wants to achieve on the level of perceptive output efficiency and on the recognizability of the thing. Every phenomenal aspect comes out of the factors that determine it. The image is constructed through a technical apparatus for the optimisation of a specific phenomenal outcome, which is tied by a set of expressive factors that phenomenally determine the "result." Photography, cinema and painting allow the phenomenon of the "thing" to emerge starting from the same conditions of appearance of the phenomenal giveness iuxta propria principia. The physical object "embodies" the nature of the same conditions of appearance. The relationship between image and perception is regulated by the conditions of possibility of appearance of the thing, that are tied to the immediate experience and perhaps to an "eretico" way to intend phenomenology.

- 1 Ludwig Wittgenstein, *Philosophical Remarks*, Barnes & Noble, New York 1975, p. 3.
- 2 See William James, *The Principles of Psychology*, Holt, New York 1890.
- 3 See the classic work by Alexius Meinong: On Objects of Higher Order and the Relationship to Internal Perception (1899); see also the work by L. William Stern, Mental Presence-Time (1897) and the classic book by Henri Bergson: Time and Free Will: An Essay on the Immediate Data of Consciousness (1910).
- 4 See Edmund Husserl, *Zur Phänomenologie des inneren Zeitbewusstseins (1893-1917)*, Martinus Nijhoff, Haag 1966 (Eng. ed. *On the Phenomenology of the Consciousness of Internal Time [1893–1917]*, Kluwer, Dordrecht-Boston-London 1990).
- 5 See Paolo Bozzi, *Un mondo sotto osservazione*, Mimesis, Milano-Udine 2008, p. 50.
- 6 See Paolo Bozzi's definition of "Schema psico-fisico S-D." For a detailed analysis of the concept of "immediate experience," see: Luca Taddio, *Fenomenologia eretica*, Mimesis, Milano-Udine 2011.
- 7 See Wolfgang Köhler, Gestalt Psychology: An Introduction to New Concepts in Modern Psychology, Liveright, New York 1947.
- 8 Kurt Koffka, Principles of Gestalt Psychology, Harcourt, Brace & World, New York 1935, p. 73.

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- 9 See Paolo Bozzi, Fenomenologia sperimentale, Il Mulino, Bologna 1989.
- 10 See Maurizio Ferraris's definition of "unemendability" or the leading feature of the real. Maurizio Ferraris, *Documentalità*, Laterza, Roma-Bari 2009.
- 11 See: Wolfgang Metzger, *Psychologie. Die Entwicklung ihrer Grundannahmen seit der Einführung des Experiments*, Steinkopff, Darmstadt 1941; Maurizio Ferraris, *Il mondo esterno*, Bompiani, Milano 2001, p. 32.
- 12 See Wolfgang Metzger, Psychologie. Die Entwicklung ihrer Grundannahmen seit der Einführung des Experiments cit., chapter 1.
- 13 See Ugo Savardi, Ivana Bianchi, *I luoghi della contrarietà*, Upsel, Torino 1997, p. 101.
- 14 See Giovanni B. Vicario, *Psicologia generale*, Laterza, Roma-Bari 2001, p. 222.
- 15 This is Paolo Bozzi's thesis.
- 16 See James J. Gibson, *The Ecological Approach to Visual Perception*, Lea, Hillsdale (NJ)-London 1986, chapter 16. As an introduction to the topic of cinema and perception, see Jacques Aumont, *L'Image*, Armand Colin, Paris 2005, chapters 1-2.
- 17 See Paolo Bozzi, Fisica ingenua, Garzanti, Milano 1990, p. 97.