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From landscape to mindscape, from mindscape to walkscape and from milieu to infosphere

Abstract

This essay aims to show that the concept of landscape does not indicate something static or well-defined in the physical world but is rather the result of a process deriving from our being embodied in the world. Landscape is embodied cognition produced by our subjectivity, which, in turn, constantly hybridises the relationship between inside and outside. The key point, therefore, is to grasp and problematise the interaction between landscape and mindscape. However, this relationship would not be complete without also taking into account the fact that we are integrated in an environment and analysing the fact that we live in an acted environment: our actions are decisive for understanding the environment beginning from the very perception we have of it. Indeed, this perception it itself a true founding act. The specific nature of the walkscape thus allows us to take this dynamic aspect of our relationship with the environment into account before grasping the last fundamental element for achieving a complete understanding of the problem: the currently ongoing transformation that brings us to be immersed not only in natural environments, but also in new digital environments. Taken together, therefore, the concepts of landscape, mindscape and walkscape allow us to clarify the theoretical implications of our being part of an integrated system together with the environment, be it natural or digital.

Keywords
Landscape, Mindscape, Walkscape

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1. *Emotions, consciousness, and perception*

The definitions of the category of "landscape" provided by the European Landscape Convention and the Code of Cultural and Landscape Heritage converge in reaffirming that landscape functions to connect and mediate between the external world, considered in its objectivity, and the inner universe of subjects, individual but also and especially collective. We must also consider the "identity" (D'Angelo 2014: 48) of a community, therefore, understood as the set of its ideals and shared values.

These definitions thus reaffirm the idea that landscape develops in an intermediate space between outside and inside, inhabited by the balances and tensions between physical reality and the phenomenal world: a sort of interactive field in which the outside makes it way into our perceptions and imagination and these in turn infiltrate the landscape. It follows that we can draw on a useful neologism to say that landscape, which consists of environment, horizon, panorama, space, soil, and the local area, becomes mindscape, that is, the landscape of the mind (see Lingiardi 2017). The process of mutual influence and dependence between the two is such that the scenario in which we live cannot be reduced to rigid and stereotypical physical stimulation producing standardised responses; rather, it encompasses the exploration of a wide range of dynamic possibilities that may be combined in an inexhaustible series of places of the psyche. The "landscape" goes beyond what we see directly with our eyes: it is instead a visible-invisible place in which physical reality and the psychic world merge, defining a new space called precisely "landscape". Thanks to this hybrid aspect, neither strictly physical nor biological, the landscape contributes to the emergence of the individual and the community in which he or she lives (Lingiardi 2017: 48).

In light of these insights, we can mend and move beyond the traditional division between "geographical place" and "cultural" concepts of landscape. The former concept dominates in the studies of geography, town planning and, obviously, landscape history or landscape archaeology: landscape as a moldable space and the physical and anthropic configuration of a given area, often arranged according to typology (mountain landscape, urban landscape, etc.). Even when emphasising that there is no landscape, not even in this specific sense, unless it is perceived by the observer and recognised in the collective imagination, this architectural-engineering definition tends to objectivise and generalise because it ends up overlapping and blurring with the concepts of "space-environment" and therefore "geographical place". The reference to the idea of

mindscape guides us in the opposite direction: place understood not as physical space in and of itself, but as the *visual interaction* of the subject with the (individual or collective) world-environment that perceives it. This conception of visual perception applied to landscape reveals landscape to be a multi-faceted composition constantly moving and evolving[1]. Landscape, from this point of view, is therefore the transformation of images into narrative beginning from a biological aesthetic act, in that the act of seeing is a body in motion narrating to itself and to others the ongoing experience he or she is undergoing first-hand, using an implicit *reference system* contained in the body itself – understood as a perceptive system integrated with surrounding reality (Taddio 2011: 33, Taddio 2014). For this reason, our body is the basis of our perceptions. This general framework leads to the awareness that our relationship with the landscape is formed in the encounter between perception, cognition, memory and emotional resonances. Through this encounter, what is around us and what we feel inside ourselves align, as do what we have *seen*, *thought*, *felt*, *experienced* and *imagined* (Eco 1962: 32).

Studies on emotional intelligence and its relationship with cognitive intelligence, research aimed at investigating the nature and function of emotions and feelings, are particularly important in shedding light on this aspect. The guiding idea is that feelings such as fear and anxiety are certainly *conscious*, and yet the conscious feeling of fear must nevertheless be separated from the stimuli provoked, for instance, by the act of seeing threatening images. In fact, experiments with people exposed to such images show that they lack a conscious feeling of fear: their amygdala, however, is activated by the threat and it triggers unconscious bodily reactions such as increased sweating, accelerated heartbeat and dilated pupils. This shows that threat detection and the associated response are independent of conscious awareness: they are *bodily manifestations* that do not entail the involvement of the mind (see LeDoux 2015).

Feelings such as fear arise when we *become aware* that our brain has *unconsciously* detected a danger. It all begins when an external stimulus, processed by the brain's sensory systems, is *unconsciously* classified as a threat. Outputs from our threat detection circuits trigger a general increase in the brain's excitement state, while the body's behavioural and physiological responses send their signals to the brain where they become part of the person's unconscious response to danger. Brain activity

[1] Umberto Eco (1962) expressed the sense of this "openness" in relation to this aspect. Regarding this point, see also Vitta 2005, Assennato 2015 and Masiero 2015.

is thus monopolised by the threat and efforts to deal with the harm it heralds. We react to the treat by becoming more alert: we monitor the environment to understand why we are excited in this specific way. Brain activity related to all other goals (eating, drinking, sex, money, self-actualisation, etc.) is suppressed. If, thanks to our memory, environmental monitoring reveals that "known" threats are present, we focus our attention on these stimuli that are *consciously* "responsible for" the state of excitement. It is memory, therefore, that allows us to know that "fear" is the name we give to such experiences. From childhood onwards, we *construct models* of what it feels like to be in one of the states we label with the word "emotions". When the different factors or ingredients are *integrated* into consciousness, we have an emotion, specifically the conscious feeling of fear. However, this can only occur if the brain in question has the cognitive means to create conscious experiences and interpret their meaning and contents in terms of their implications for its survival and well-being. Otherwise, the brain and body's responses are an *unconscious* motivational force that expresses itself in the form of automatic responses to stimuli from the external environment and directs our behaviour with the aim of staying alive; in this case, there is no real feeling of fear resulting from a secondary processing of these responses, as such a feeling is the outcome of our ability to interpret their meaning and content and to turn them into the object of thought at the level of consciousness. Only if this specific feeling is present in the overall process do humans actually resort to their conscious brain, opening the door to a strategy for trying to survive and thrive that is not limited to that specific experience and particular case but also includes the ability to predict how to behave in similar circumstances and avoid situations that expose us to already experienced risks.

What we call *emotions* are thus *cognitively assembled conscious feelings,* i.e., *psychological constructs* processed on the basis of unconscious bodily reactions, *mechanisms* and *automatic processes* for detecting and responding to threats. The brain systems that detect threatening stimuli and control the behavioural and physiological responses induced by these stimuli should therefore not be described in terms of consciously felt fear.

These research results were achieved using experiments conducted mainly on the basis of the classic Pavlovian behavioural investigation procedure known as "classical conditioning". Thanks to numerous variants of this method applied to laboratory animals and often involving surgical or pharmacological lesions of nerve areas or nuclei, scientists have been able to reconstruct in detail the neurophysiological map of brain regions

and cellular bases that mediate the acquisition, organisation and expression of fear reactions. Even more recent studies have made it possible to identify similar mechanisms in the human brain. This map has its integrative centre – for emotions, emotional behaviour and motivation – in the amygdala: an almond-shaped subcortical nucleus located under the temporal lobe that is anatomically and functionally part of the limbic system. The hippocampus and centres of the vegetative nervous system in the brain stem are also involved in learning conditioned fear responses. The limbic system (and hippocampus in particular) processes complex inputs from the environment in order to construct a configurational representation of the situation and organise effective avoidance responses to anxiogenic stimuli. As a whole, the results of this research have proved fundamental in identifying the origins of our emotions and the mechanisms that regulate them, as well as clarifying numerous aspects of neurological or psychological disorders of the emotional sphere and suggesting valuable directions for treating them, particularly in the case of anxiety disorders (an emotion very similar to fear).

In this line of inquiry, Joseph LeDoux's studies (LeDoux 2015: 57-9) on the neural basis of conditioned fear have proved highly important. In LeDoux's view, the amygdala processes stimuli automatically and requires neither conscious awareness of the stimulus nor conscious control of the response. This belief is supported and corroborated by numerous studies showing that the amygdala is able to process threats and trigger conditioned responses without a person being aware of the actual stimulus and without he or she feeling any fear. This type of approach, effectively illustrated by the same researcher who proposed it, presupposes an indissoluble relationship between the signals our body receives and processes and the environment in which it located. Indeed, the fundamental insight that stands out from this research is that signals only take on meaning if they are *contextualised*, that is, inserted in an environment. The colour red acquires the meaning of *stop* and halt only if it is inserted in a code, that of traffic lights, that expresses and synthesises an entire environmental situation. The same colour inserted in another context takes on a completely different and possibly opposite meaning.

2. *Environment and brain: the role of the limbic system*

Our relationship with the environment is thus essential for granting meaning to our behaviours: our brain is directed towards survival and

maintaining a balanced relationship with the environment, and to do this it uses bodily reactions that are completely automatic and unconscious. If I sense danger, I run away or hide. Survival circuits, therefore, do not exist to create emotions or feelings. Instead, they must manage humans' interactions with the environment as part of our daily efforts to survive. These survival circuits are activated in situations in which our well-being is potentially threatened or enhanced. The resulting general response on the part of the brain and body is a global *organismic state*. For example, the triggering of a defensive survival circuit gives rise to a *defensive motivational state*. This type of state engages the entire organism (i.e., the body and brain) in the task of managing resources and maximising chances of survival in situations involving challenges and opportunities. The brain suddenly seems to burst into a pattern of large-scale global activity. A network of neurons that excite each other can rapidly produce a global pattern of synchronised activity. This global organismic state occurs when the level of excitement exceeds a certain threshold and begins to fuel itself, thus producing an explosion of activity in the neuronal network. The result is a phenomenon that resembles what physicists call "phase transition" and mathematicians call "bifurcation": a sudden, discontinuous change in the state of the physical system.

It is important to reiterate, therefore, that our *actions* and *behaviour*s are guided for the most part by *unconscious automatic processes* and bodily reactions that have nothing to do with consciousness or what we call feelings. Feelings belong instead to a further, higher level, and indeed this level must also be taken into account. If we perceive a danger or threat, we do not run away because we have processed a specific feeling, that of fear, but rather because we trigger threat-detection and response mechanisms that we have inherited from animals. We do not need a brain that is aware of its activities and has conscious feelings of fear and anxiety in order to set action in motion. Survival circuits generate non-conscious motivational states that contribute to, but are not the same thing as, feelings of fear and anxiety.

In this context, the results of Libet's experiments are anything but surprising and can be appreciated in their proper magnitude (see Libet 2004). Consciousness is not the immediate engine or initial driving force of our reactions to stimuli from the environment: it is instead the result of a secondary operation of processing and coordinating these reactions. Precisely because it occurs *ex post*, this activity of orchestration cannot be based on what seems to us evident and obvious: the fact that an event

and our consciousness of it occur simultaneously in our sensory experience. Rather, the mechanism at play is that principle of synchronicity referenced by Pauli by virtue of which psychic events occurring at different moments and in response to different environmental stimuli are reciprocally linked by a relationship of meaning through which each is given a new interpretation and evaluation, precisely as a result of this *ex post* triggering of thought at the level of consciousness (Tagliagambe 2020: 9). It is only when this overall secondary processing occurs that we humans actually resort to our conscious brains.

As mentioned above, what we call "emotions" are thus psychological constructs developed on the basis of unconscious bodily reactions as well as *mechanisms* and *automatic processes* for detecting and responding to threats. The brain systems that detect threatening stimuli and control the behavioural and physiological responses induced by these stimuli should thus not be described in terms of fear or conscious feelings. These studies show that the brain is no longer to be understood as a modular organ with specific areas devoted to mind functions, but rather as a connectome. Consciousness does not have a specific location in the brain; it emerges in an as-yet-unexplained way from a broad integration between cortical and subcortical areas. The subcortical brain structures are phylogenetically older proceeding from top to bottom. The limbic system, which is in charge of affectivity, is located deep inside the hemispheres, mostly near their medial surface. It comprises the cingulate gyrus and a series of other structures such as the amygdala, hippocampus and dentate gyrus, which are complexly interconnected. The limbic system provides the anatomical and physiological basis for emotions (such as anger and fear), sexual behaviour, avoidance and reward mechanisms, and is involved in motivation and memory. In fact, the amygdala itself is part of a complex that facilitates the formation of memories in relation to how important we perceive given information to be. The limbic system is also involved in other functions such as pain, eating behaviours, chewing and licking movements, and respiratory and autonomic changes (such as changes in blood pressure and heart rate).

Until a few years ago, research focused mainly if not exclusively on the intellect and its processes, which led researchers to overlook the importance of affectivity for the human mind and existence. Emotions, passions and feelings have mainly been regarded as primitive, archaic, and murky faculties that only blur the clarity of reason; this idea is ill-founded, however, and should be carefully re-examined for a number of reasons,

partly epistemological and partly having to do with the most recent findings of neuropsychology. LeDoux seriously challenged the idea that the limbic system is the only brain system in which emotions are generated. Indeed, although we now know that the limbic system and emotional systems are related, this does not mean that other brain regions, such as various areas of the cortex, do not also produce emotions. Nor is it true that the limbic system only serves to generate emotions, since it also plays an important part in cognitive processes such as memory. Studies on emotions in animals are limited because, although we do understand reactions related to fear, the same is not true for other of their affective aspects such as feelings because we have trouble moving beyond our own human perspective. Neurobiological elements alone do not explain the wide range and nuances of human emotional life, nor is it possible to isolate one part of the brain – such as the limbic system – as if it were independent from the whole. Even the neuropsychological aspects of our emotional life are closely intertwined with our consciousness and capacity for introspective contemplation. This means that complex abilities and feelings such as empathy, compassion and resilience cannot be reduced to a form of fear response.

The limbic system should be seen as the pivotal structure in the interplay between experience, emotion, stress, pain, neurovegetative and somatic reactions: it is the link between psyche and soma, with the cingulate cortex playing a major role. Mind and body constitute an inseparable whole that cannot be separated in a dualistic Cartesian way, as did thinkers in centuries past, by *a priori* considering them two ontologically different and incompatible entities. Theorists of emotions have finally begun to take into account the role of consciousness and introspection, that is, the role on the neuropsychological level of the systems involved in cognition, in particular the lateral and medial prefrontal cortex, parietal cortex and insula. A first-order manifestation (the stimuli and initial unconscious and subcortical encodings of emotions) is associated with a second-order introspective one in which the individual becomes conscious of the emotion and the stimulus that produced it. Further processing includes both memory and mental activity that modulate our responses and more effectively manage behaviour, as in humans' behaviour is not pre-established (i.e., someone may be afraid of a painful stimulus and inclined to avoid it, and yet to a certain extent he or she may also accept enduring and cooperating with the stimulus if it is part of a therapeutic intervention).

Although the limbic and neurovegetative systems are generally described as being independent of cognition and attention has focused exclusively on the reflex mechanisms of neurovegetative responses, for over twenty years now scientists have known of the role played by the anterior cingulate cortex (ACC), insula cortex, orbitofrontal cortex (OFC) and ventromedial prefrontal cortex as cortical sites of integration with sympathetic and parasympathetic systems: these constitute the anatomical and functional basis of our inseparable mind-body unity.

By outlining this general framework, we can see that landscape is the result of a broad spectrum of alternative possibilities not only in terms of fruition, of course, but also of perception and emotional reaction. This does not mean, however, that the freedom to see and conceive is unconditional, i.e., that it has no limits. In this case as well, in fact, what must come into play is that same dialectic according to which laws and regularity are not necessary, defined or timeless forms but rather constraints that arise within historical processes that create new forms. They should not be interpreted as limits on the possible but, much more significantly, as conditions for new possibilities (Ceruti 2018: 117).

Landscape, of course, cannot be whatever we imagine or delude ourselves into seeing. The "constraints resulting from a history" that creates new forms, i.e., opens up new opportunities, must lie at the basis of our perception and knowledge. However, this spectrum of opportunities is defined by constraints that constitute the grounds, the scope of possibility in which to locate the definition of landscape. These constraints therefore constitute the *clarification of a typology* without which we would not be able to grasp the concept of landscape and would lose the reference to a class of various meanings and values. This means, concretely, that the exploration of alternative possibilities offered by our vision and knowledge of the landscape, along with the imagination this stimulates, must necessarily take place within the scope and boundary established by a typology, namely the typology that specifies what can be considered landscape and what cannot. This is the essential premise if we are to remain within a classification that meets the need to make landscape recognisable as a specific object of discourse and knowledge.

The brains of primates, including humans, map space in various ways. One specific way of mapping space is by outlining different regions of it. It turns out that the first region – what we designate as *peripersonal space* – is the space of our pragmatic interaction with the world, that is, the space that can be reached by extending an arm. Whatever lies beyond

that reachable point in space is designated as extrapersonal space. Peripersonal space is mapped by the motor system. Scientists have discovered the neurons that guide our reaching and orientation movements in three-dimensional space; however, these same neurons also respond to tactile stimuli applied to the same part of the body – including movement under their control – and that we use to respond to visual stimuli occurring around the same part of the body, or to events producing sounds in the same portion of space surrounding the part of the body controlled by this motor neuron (see Rizzolati, Sinigaglia 2006). This receptive "visual field" is not anchored to the direction in which I cast my gaze, therefore; it is not tied to the position of my eyes and is therefore not retinocentric but *body-centred*. In fact, it moves along with the body part in question: as long as I move, my receptive visual field moves as well. In fact, the behavioural field is not located in front of us, but rather surrounds the person who is perceiving the environment. According to Gibson, the "visual field" is the expression of a system because the eyes are part of the head, which is connected to the neck and is an integral part of the body immersed in the environment. It is precisely for this reason that Gibson refers to the visual field using the concept of "eyes-in-the-head-on-the-body-resting-on-the-ground" (Gibson 1986: 205). Landscape as a space created by human beings, and architecture itself, cannot be considered purely visual phenomena, that is the domain of the eye, because movement and action govern perception thus generating the meaning and cognition of landscape. The body lies at the origin of our ability to experience the force of gravity and, therefore, to experience the six sides of the world: above, below, right, left, forward, and backward. Those experiences would simply not be possible if not enacted from the body. Our knowledge of the world is thus first and foremost embodied cognition (see Gallese 2005). The very notion of contact is mapped onto our somatosensory system.

These findings necessarily affect our conception of landscape as well. For a long time, we thought that it originated from the transition from observation to action (see Meschiari 2010). We considered this conception to be intuitive and plausible, and indeed it still appears so today. And yet we know that *action* comes first, and that action is at the same time perception (see Noë 2004). We live in the landscape by acting on it. We are not observers who grasp the landscape as a viewpoint from which to objectively aggregate salient features (Jullien 2017: 159). By mapping out a parallel history of gardens and wisdom, we obtain a history of experience and *practices*. Landscape is not something that *is*, it is something

that *happens*, that is, it is a continuously evolving *event*, not a form or structure. It is reality in action, developing over time and evolving as time redefines its meanings. In fact, we continually remake the meaning of places and space, even in the infinitesimal variations through which the *geography* of the environment and that of our mind co-evolve.

For us humans, places are the surplus image emerging from our movement and action in a given context: this means that a place is neither a representation (because this would imply that there is a landscape in itself that we represent), nor a place "in itself" in which we find ourselves without any mediation. However, neither can we reduce landscape to the simple narration we provide of it, as if the landscape derived from the narration. In reality, all these aspects merge into one, since the place is always the site of an action. Thus, the *walkscape* makes its way through *landscap*e and *mindscape*. Crossing the landscape with our steps or stories is what constitutes it. At the same time, the landscapes we cross constitute an exploration of ourselves. Walking the landscape, in Careri's essay on walkscape, constitutes the performative core of nomadic thinking (Lingiardi 2017: 48).[2] The photography by Richard Long, *A line made by walking* (1967), powerfully highlighted the concept of the observer's indispensable presence in defining and representing the landscape.The trajectory of the path created by the photographer's repeated passage becomes a constitutive aspect of the meadow at the edge of the wood he photographed, joining, in a *hendiadys* consisting of the inextricable reference to seeing and walking, the definition and expression of the concept of landscape, which is thus linked to an action and in fact also becomes the result of this action.

3. *Towards new digital landscapes*

The landscape of our lives is increasingly extending from the *milieu* to the infosphere, with this latter constituting the new frame of our self-perception and new boundary of our possibilities (see Floridi 2017, Mulgan 2018). If the landscape is the semiotic structure that we create and which contains us by creating us, the site of psychic and collective individuation, the frame of this structure has changed: in the larger scope our landscape is planetary, while at the same time it stems from our relationship with the place in which we move and act by living. We come to terms with this

[2] We refer to Careri's essays *Walkscapes* (Careri 2006).

transformation of frame and context, and in that frame, we also set up our forms of resistance or, rather, our difficulty in changing our views and breaking with the enduring elements we have internalised over time (Levari *et al.* 2018: 1465-7). We cannot conceive and experience a landscape unless we extend its meaning and praxis. The infosphere is perhaps the first entity to affect the ongoing transformation and relocation of ourselves in the sense and meaning of our being, as well as influencing the contexts of our lives. It is an unprecedented landscape that reshapes every other aspect of hitherto known landscapes, both material and immaterial.

The web has accustomed us to respond to stimuli immediately and redefined our existential and mental landscape. We are now oriented to thinking only about what might happen in the next few moments, hours, or days, overlooking the years and the medium to long term, while our cosmology and mental landscapes have extended to encompass the whole planet. So-called "real time" overwhelms our minds and the time we might otherwise have to think about hyper-fast change. The augmented reality of the net or infosphere has not, so far, been accompanied by research or concrete interventions to enhance our minds; confined in narrow places, are minds are dispersed in the landscape-world. Our neuroplasticity has enormous potential, much more than we take advantage of in the use we still make of our brain-mind system, or mind-brain as Jaak Panksepp rightly defines it; however, it has not yet been trained to develop increased capacities to inhabit the infosphere by governing it rather than by being subjected to it. Yet the infosphere is the new landscape of our lives.

During his studies at Stanford, Peter Thiel, one of the initial 2004 funders of Facebook, became interested in the ideas of René Girard. One of Girard's publications was an essay that had an enormous influence on various fields, *Of things hidden since the foundation of the world* (see Girard 1996). Girard's entire system of thought revolves around the concept of "mimetic desire". Once humans have satisfied their needs for food and shelter, he suggests, they begin to look at what others do and want and to imitate them. Thiel went on to summarise Girard's thought by arguing that imitation is at the root of all human behaviour. The *homo mimeticus* does not know his/her own desire and makes his/her decisions by imitating the desires of others. Thiel supported Facebook because it is a business founded on the profound need to copy others. Facebook thrives on imitative word of mouth because it is based on word of mouth.

These initial important findings about the extension of physical space to the immaterial space of networks, a space that already significantly impact our lived experience, have pointed to new connections that continually develop and enrich the category of landscape. In this development one key contribution has been the work of Arjun Appadurai, the globalisation scholar who as early as 1990 (see Appadurai 1990)[3] proposed the new concepts of *ethnoscapes*: migrations and human "diaspora", *mediascapes*: the con-fusion of symbols or sets of media messages that envelop individuals and communities, *technoscapes:* flows of technologies, and *financescapes*: flows of currencies. These concepts may constitute the new frontier to explore for the next chapter of landscape studies and research.

Bibliography

Appadurai, A., *Disjuncture and difference in the global cultural economy*, "Theory Culture Society", n. 7 (1990), pp. 295-310.

Appadurai, A., *Il futuro come fatto culturale. Saggi sulla globalizzazione*, Milano, Raffaello Cortina, 2017.

Assennato, M., *Paesaggi politici: vedere e inventare in comune*, in *Paesaggio paesaggi*, ed. by R. Masiero, Melfi, Libria, 2015, pp. 201-38.

Careri, F., *Walkscapes*. *Camminare come pratica estetica*, Torino, Einaudi, 2006.

Ceruti, M., *Il tempo della complessità*, prefazione di E. Morin, Milano, Raffaello Cortina, 2018.

D'Angelo, P., *Filosofia del paesaggio*, Milano, Quodlibet, 2014.

Eco, U., *Opera aperta*, Milano, Bompiani, 1962.

Floridi, L., *La quarta rivoluzione. Come l'infosfera sta trasformando il mondo*, Milano, Raffaello Cortina, 2017.

Gallese, V., *Embodied simulation. From neurons to phenomenal experience*, "Phenomenology and the Cognitive Sciences", n. 4 (2005), pp. 23-48.

Girard, R., *Delle cose nascoste fin dalla fondazione del mondo*, Adelphi, Milano 1996.

Gibson, J.J., *The ecological approach to visual perception*, Boston, Houghton Mifflin, 1986.

LeDoux, J., *Anxious. Using the brain to understand and treat fear and anxiety*, London, Penguin, 2015.

[3] The online version of his article is available at http://tcs.sagepub.com. The article was republished in the volume *The future as a cultural fact* (Appadurai 2017).

Levari, D., Gilbert, D., Wilson, T., Sievers, B., Amodio, D., Wheatley, T., *Prevalence-induced concept change in human Judgment*, "Science", n. 360 (2018), pp. 1465-7.

Libet, B., *Mind time. The temporal factor in consciousness*, Boston, Harvard University Press, 2004.

Lingiardi, V., *Mindscapes*. *Psiche nel paesaggio,* Milano, Raffaello Cortina, 2017.

Jullien, F., *Vivere di paesaggio o l'impensato della ragione*, Milano-Udine, Mimesis, 2017.

Masiero, R., *Paesaggio paesaggi*, in *Paesaggio paesaggi*, ed. by R. Masiero, Melfi, Libria 2015, pp. 15-179.

Meschiari, M., *Terra sapiens. Antropologie del paesaggio*, Palermo, Sellerio, 2010.

Mulgan, G., *Big mind. L'intelligenza collettiva che può cambiare il mondo*, Torino, Codice, 2018.

Noë, A., *Action in perception*, London, Mitt Press, 2004.

Rizzolatti, G., Sinigaglia, C., *So quel che fai*, Milano, Raffaello Cortina, 2006.

Taddio, L., *Fenomenologia eretica*, Milano-Udine, Mimesis, 2011.

Taddio, L., *Un realismo relativistico. In risposta ad Emanuele Severino*, "Filosofia Futura", n. 3 (2014), pp. 115-21.

Tagliagambe, S., *Il paesaggio che siamo e che viviamo*, Roma, Castelvecchi, 2018.

Vitta, M., *Il paesaggio*, Torino, Einaudi, 2005.