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The cultural landscape sign from the horizons of semiotic anthropology

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ABSTRACT
The work seeks to build theoretical and logical links based on the triadic theory of Charles Sanders Peirce (1839-1914) within the categories of *cultural landscape* and *territory*. The article tries to demonstrate how cultural landscapes and territory, as contrastable expressions in the empirical reality, constitute mental models that express complex rich and complicated social nuances and meanings in terms of scientific readings for anthropology. The work expresses how the spheres of semiotics significance allow for a logical, metalogical and dialogical adjustment of the models of environmental interpretation, that exist in the field of environmental thought and in its readings of territory and culture.

KEY WORDS
Cultural landscape, environment, environmental thought, territory, Charles Sanders Peirce, Semiotic Anthropology.

Introduction

Through an epistemological theoretical approach, and therefore political, given the possibilities that are displayed for the revitalization of the *territory/territoriality* understood for its triadic relations, the article seeks to link the idea of *cultural landscape*, with an environmental origin, with Charles Sanders Peirce's (1839-1914) Theory of Reality, which he essentially invites throughout all of his work and particularly in *A Man, a sign* to the determination of the nature of reality, mainly related to signs where the individual and the community cannot conceive nor be understood outside the linguistic and cognitive system (1988: 118-121). Pierce's work, for its logical rigor, is essential for every science interested in building links and communication relationships with other sciences and in organizing its principles of discovery (1996). The article aspires to supplement, based on semiotic anchors, the profound theoretical developments which are related to the categories of *cultural landscape* and *territory* from the perspective of environmental anthropology and ecology (Abel & Stepp, 2003; Álvarez, 2012; Cárdenas, 2007; Ingold 2005).

The analysis will be developed based on the analytical deployment of the sign-object-interpretant triadic relations and of signs as icons, indexes and symbols. Peirce's Sign Theory can be understood as an integrative model of the different approaches and schools of symbolic anthropology (Singer, 1985: 549). From the semiotic approach one seeks to point out the importance of a relational analysis that establishes and recognizes the unique complexities of the mind and human conscience in its ability to interpret reality as mainly mediated by function signs and action signs (Peirce, 1977: 190-193; Singer, 1980: 498; Singer 1978: 213-218). From the semiotic perspective that is addressed, it is expected to open channels of communication that allow to reason and articulate the diverse heterogeneous experiences that are deployed with the *cultural landscape sign code*.

The analytical framework that will be developed establishes some guidelines that originate from the acknowledgement of the hyper-complexity of scientific objects and humans that are observed in a reality previously defined as nature (Brier, 2008); these approaches, like José Palacios Ramírez has pointed out (2007: 72-90), explore theoretical positions of transgression, anthropological creation process that has large sources in great figures of anthropology, many of them readers of Peirce's semiotics (Bateson, 1992 and 1993; Geertz, 1984, 1996 and 1997; Rappaport, 2001).

The work intends to present the approach of a theoretical model that provides bases to overcome the biocentric naturalism and the humanist anthropocentrism, that can be understood as two of the most recurrent expressions in the field of contemporary environmental movements (Ferry, 1994; Tobasura, 1998). The first tendency, the biocentric naturalism, denies all relational reference to the special place of men in the order of reality. The second tendency, denies all reference of mankind with Earth, considering it as the center of the universe and thereby justifying the planetary looting of natural resources and cultural annihilation of other cultural configurations to the logic of profit embedded in neoliberal democracies or in the bureaucratic and technocratic models of regional planning (Ther Ríos, 2012).

Peirce's semiotic theory, as Milton Singer points out, does not establish a separation between signs and its objects, nor in between meaning and communication (1985: 550). Peirce's triadic definition, referring to the function and the action of symbols, implies in his model the human subjects as producers and dialogic interpretants of the symbols.

1. Some trajectories of semiotic anthropology of the cultural landscape

The cognitive model that is presented here, beyond extensive philosophical reflections that allude to Peirce's genius, has been scarcely used by Pan-Hispanic anthropology. There are no references to semiotic anthropology in *Revista Colombiana de Antropología* published since 1953. In *Revista Española de Antropología Americana* published since 1952, there is not a single direct reference to the topic of semiotics in its various volumes and articles. To date, *AIBR. Revista de Antropología Iberoamericana*, does not have a representative number of articles that are directly related to semiotics. Of course, there are works that explore notions like narrativity, speeches or hermeneutical approaches, works with the category of *cultural landscape* and certain semiotic aspects (Álvarez, 2012; Cárdenas and Montes 2009); one can consider, anyway, that the thematic is hardly considered in Ibero-American anthropological literature. However, Luís Álvarez Munárriz notes that the use of the *cultural landscape* category comes from the onset of environmental awareness that promotes «*the creation of a new territory culture*» (2012: 59). In *AIBR. Revista de Antropología Iberoamericana*, Begoña Leyra (2005) published a very brief reference to the magazine, *Potlatch. Cuaderno de Antropología y Semiótica*, a journal that to date seems to have already disappeared from

circulation. In other areas, the work of Carlos Reynoso titled: *Corrientes en antropología contemporánea*, presents 11 references to the concept of semiotics in combination with anthropology. (Reynoso, 1998). None of those references is linked to a Pan-Hispanic anthropological production. Consequently, semiotics in the Pan-Hispanic area has been an explicitly undeveloped disciplinary perspective in the field of anthropology. The semiotic uses in the hands of Pan-Hispanic philosophers have not been oriented for concerns that are strictly anthropological or environmental, although the intellectual production of environmental order derived from philosophy is extensive (Ángel, 1995; Noguera, 2009). Even so, there is abundant anthropological material coming from anthropology that expresses major semiotic concerns in the sense of studying the discursive corpus concerning the naturalistic conception of western cosmology or the subject of symbolism in its various manifestations. These types of approaches can be considered semiotic and identify transcendental regimes of enunciation that denature many of the western assumptions about what is understood as «natural», «nature», «human», «non-human», «progress» and «development» (Descola, 1987; Descola & Pálsson, 1996; Escobar, 1996, Ingold, 2007; Viveiros, 2010). Regarding the practical construction of an environmental anthropology interested in the development of the ecosystemic approach, the available material is extensive and of interdisciplinary nature (Andrade, 2007; Andrade, Herrera & Cazzolla, 2010). The notion of *landscape* has also been understood as cultural heritage. In fact, Margarita do Amaral points out, in reference to the Brazilian experience, the importance of integrating the complex connections of the landscape as a symbolic and cultural heritage production (2012: 22-38).

As mentioned before, one notes a body of works that project the foundations to continue introducing semiotic perspectives, whether it is in the field of geography, biogeography or anthropology, and that consequently can contribute to the institutionalization of an environmental semiotic anthropology. This goal is yet to be defined and has interesting conceptual developments derived mainly from North American anthropology that warn about the presence of different perspectives, including «*the description of the impact of social processes on ecosystems, the historic transformation of the social processes and the relation between social conflicts and environmental processes*» (Serje, 1999: 5).

Despite the given conditions, semiotic anthropology, formally nonexistent in the Pan-Hispanic realm, comes to age with the work of anthropologist Milton Singer, who in 1974 made an explicit reference to semiotic anthropology (Mertz, 2007: 337). A seminal text by Singer and

inspired by many of Peirce's premises is *Man's Glassy Essence* (1984). Since then, the connections of anthropology with Peirce's semiotics are becoming more and more evident.

The semiotic explorations were analyzed in the structuralist work by Claude Lévi-Strauss, who anchored his thought in Ferdinand de Saussure's dyadic semiology. He also emphasizes the book by anthropologist Richard Parmentier *Signs in Society. Studies in Semiotic Anthropology* (1984), where he summarizes the fundamentals of a Peircean semiotic, applied to anthropology, etnography and to the study of comparative perspectives in reference to the study of complex semiotic processes, geared towards the study of cultures and societies. Clifford Geertz's research strategy was called by him, «symbolic anthropology», «interpretive», «hermeneutic», «semiotic», «anthropology of symbols and meanings» (Geertz, 1984, 1986, 1996, and 1997).

Therefore, even though the semiotic anthropology of North American origin has had moments of important academic production, in the Pan-Hispanic environment, its use and dissemination has been scarce. To this day, these types of approaches are occasional in the anthropological literature that relates to environmental aspects. It can be noticed that publications in the field of linguistic landscapes have grown in number in recent years; in them space and image are recognized as important categories for language. From these studies, it is concluded that all landscape is semiotic (Gorter, Jaworski & Adam, 2013: 130-133). Thus, landscapes should be seen as structures of meaning, constituted in its possibilities of brain and neurobiological imaging (at the level of the species and the sentient individual), as universes of meaning (at the cultural level), marked by arbitrary relationships between the signifier and the signified and dependent on symbolic processes that give them the structure of their syntagmatic and paradigmatic relations (level of the sign) (Castaingts, 2008: 136-137). Finally, in historical geography, recent studies take up a semiotic perspective that examines the combinations between landscape and the narratives of social actors including peasants and environmentalists. In these studies, the stories of the actors have been understood as moral expressions, as well as the presence of discursive materials referred to the foresight of the landscapes that have been seriously degraded and that are in the process of restoration. From this conceptual horizon, that is also assumed in this article, the following has been argued: first, landscapes are both materials and symbolic; they are spheres of meaning that require both mental and physical labor. Second, an ontology of nature should take the work of nature seriously and should acknowledge that people give value and meaning to the work made with it. The ontology

planned in these studies is from a materialistic position (Mercer, 2002: 35-67).

Regarding the category of *cultural landscape*, in Colombia there are previous works where critical approximations have been carried out to conceptual models focused on space and territory analysis, whose applied referents were programs, plans and projects referred to the territorial analysis and to regional development. Likewise, alternative readings have been formulated, centered on the social category as a suggestion for improvement of exclusively multisensory readings in the hands of experts (Cárdenas, 2005: 427-461). In these works, it became clear that the landscape and territory readings have been oriented by geographic-functional models that make a unique emphasis on delimitation of landscape units (landscape ecology) and identification of objects of conservation without reflexive appropriation on the category of *cultural landscape*. In the field mentioned, one of the dominant models of territory reading is landscape ecology (Zonneveld, in Cárdenas, 2005: 450). Its descriptive potential is high and is based on the use of geo-computerized systems, which allow, given its derivation from the Anglo-Saxon, Dutch and Australian physiographic school, to do territory readings, that in its deepest ontology comes from the history of the colonialist processes driven by these nations in their contact with the territory of the *wild other*, *barbaric or primitive*.

In the Colombian experience, these readings have been basically of static order (little or no modeling) and with few considerations regarding the understanding of the cultural interpretant and the real participation of human groups and involved societies. The degree of community involvement does not go beyond the community participation workshops, mentioned as participatory research areas. In the voices of the unofficial discourse of some conservationists, the indigenous, peasants and blacks can be considered as elements that hinder and harm the conservation or restoration of the so-called «landscape units». The mindset of its promoters operates under the logic of «unifying concepts», whose basis is the deployment of their operational and methodological logic, and it generates strong intra-scholarly conflicts because of the avoidance of any reference to the level of the symbol, and of the social as a human fundamental expression. Thus, the level of communication with other disciplines operates based on the principle of power and authority without a mediation of the scientific argument. Consequently, its discursive semiosis, whose context of origin are the types of European cultural landscapes linked to the Industrial Revolution, is very poor in terms of its capacity to link with the cultural meaning. Their understandings of reality of landscape units

have originated in all the projects a strong divorce and antagonism from landscape ecology specialists, the communities and the professionals in the field. These professionals perceive territory from assessments that do not consider the conceptual references of landscape ecology, given its biological emphasis and focused on multisensory determinations, mainly interested in capturing the emergent attributes of the territory, that lead it, in its syntactic and grammatical logical structure, to exclude and underestimate the symbolic-cultural and political dimensions that structure a landscape.

Unlike landscape ecology, other models of environmental interpretation determine their work structure by defining criteria *a priori* of conversation, as the basic guidelines of the demarcation frameworks of conservation objects. This is the way by which the powerful American non-governmental organization *The Nature Conservancy* (2013), establishes the relation of the cultural landscapes as «objects of conservation», denoting with its model a strong pragmatic orientation, which might have limitations in the sense of hiding the recognition of nomadic, peasants, urbans, indigenous, and sacred landscapes, which runs the risk of ending up imposing a vision of nature represented in American models of conservation, that arrange the «objects» of conservation as if they were static and foreign territories to human population dynamics.

Like an antitype, to the mentioned categories, social-mapping, whose maps are called talking maps, has been a methodology also used by the previously mentioned models; this complements the systemic readings (landscape ecology-objects of conservation), establishing important connection patterns with wisdom, knowledge and cultural landscapes belonging to the territorial order. Its level of institutional governmental and non-governmental ownership has spread quickly and accelerated in the last 15 years in Colombia, guiding plans for municipal development, land development plans and plans of living from peasant and indigenous communities (Cárdenas, Correa and Mesa, 2005).

2. Origin of the concept of cultural landscape and its problems

The concept of *landscape* has been gradually developing in the field of science, although its main developments are found in the field of geography. European landscape traditions from the 15th century contributed to the construction of a landscape image that exalted nature and its basic characteristics (Pannel, 2006). The word «landscape» in itself, combines

«land» with a verb of Germanic origin, «*scapjan/schaffen*», which means, literally, «shaped lands.» Lands were conceived as modelled by natural forces, and its shapes(s) in turn formed object(s) to be represented by «landscape» paintings (James and Martin, 1981).

German geographer Otto Schlüter is credited for the first-time academic use of the concept of *cultural landscape* in the 20th century (James & Martin, 1981). In 1908, Schlüter argued that by defining geography as *Landschaftskunde* (landscape science) geography would be given a thematic logic that does not exist in any other discipline (Elkins, 1989; James & Martin, 1981). Schlüter defines two forms of landscape: i) the *Urlandschaft (original landscape)*, the landscape that existed before the main changes provoked by humans, ii) and the *Kulturlandschaft* (*cultural landscape*), the landscape created by human culture. Therefore, the main task of geography would be to track the changes in these two landscapes. It was geologist Carl O. Sauer who, in a more dedicated and influential manner, will promote and develop the idea of *cultural landscapes* (James & Martin 1981). Sauer emphasized the importance of the cultural forces on the configuration of morphological patterns. In his definition, the physical environment conserves a central importance, as the medium through which human cultures act (Sauer, 1925). His classic definition of a «cultural landscape» is the following: «*Cultural landscape forms starting with a natural landscape in the context of the action of a cultural group. Culture is the agent, the natural area is the medium, the cultural landscape is the result.*»

Scientific use of the term has been incorporated in academic and governmental practices, as well as for important international organization purposes. Since 1992, The United Nations Educational, Scientific and Cultural Organization (Unesco), considers the concept of *landscape* as a category to be protected (Unesco, 2013). In connection with the concept of *environment*, fundamental to understand the notion of *landscape*, the work of biologist Jakob von Uexküll (1864-1994) is essential for the architectural definition of environmental science (Buchanan, 2008). Uexküll conceptualizes animal life from a dynamic perspective, and his vision on the role of animals in the configuration of reality should be axial to any theory of ecosystem-cultural relationship. The work of Uexküll seeks to express, in a scientific way, the important place that forms of life and inorganic matter occupy in the constitution of an environment or cultural landscape (1926). Every animal or form of life is the owner of its dynamic and relational world-environment that talks about its own story and whose articulation is based on the perceptions and actions that constitute the subjectivity of animals, in a disciplinary field

which today is one of the axes that structure reflections in ethology and biosemiotics. This is why one cannot understand an animal as one thing (Buchanan, 2008). Animals are subjects that perceive and act according to their own body frame structures and the relations that their environments create and make. What the subject perceives is configured as its perceptual world or *Umwelt*. The category of *environment*, as it is handled by Uexkull, ends up boosting the structure of reality of the cultural landscapes. In these horizons of meaning, cognition and communication are self-organizing phenomena on three levels: biological, psychological and sociocultural. These levels produce meaningful information by forming an *Umwelt* (environment). The significant environment is connected to specific life practices, such as reproduction, hunting, nurturing and defense of young ones. The forces and regularities of nature influence and constrain our perceptions and trigger evolutionary processes linked to teleological design, which share, with its differences, all peoples, cultures and societies that have shaped the entire universe of human discourse and its social practices in the past, present and future.

The environmental dimension in contemporary interpretations has been recognized as complex (Carrizosa, 2014), but not often as immeasurable. In this way, the organic body of knowledge that we have as repertoire to face crisis and environmental issues, becoming very rigorous and diverse in its social manifestations (Gudynas, 1992: 104-105), runs the risk, concerning the world of academia, of continuing being anchored in logical-deductive principles incapable of reading the «multiplicity of multiplicities» themes that unfold in processes of signification of categories such as nature, ecosystems and environment-development articulation.

«Our» disciplinary approaches operate from fragmentary logics on the state of the planet; in this sense, it is observed, the predominance of monological discursive structures that exclude the integration of relational planes. The expression of environmental thought, in its worldview, can be reproducing channels of Western colonization thought that are even reproduced as projects of self-colonialization in our own universe of social and scientific discourse (Latour, 1993; Mignolo, 2008: 243-281; Viveiros, 2010: 14; Wallerstein, 1995). The dominant conceptual and operative models, institutionally embedded in powerful governmental and non-governmental organizations, represent reality from functional and neo-functional patterns, poorly adjusted to the possibility of understanding the complex cultural and social frames referring to human dynamics that occur in territories and ecosystems. Recent studies in the field of the anthropology of territory point out how neoliberal dominant political

logics and regional planning lack an overview of the multiple spatial and temporal complexities that occur in territories (Ther Ríos, 2012).

From what is mentioned above, the refinement of the notion of *landscape*, from the anchors of semiotic anthropology, would allow refining the models of scientific interpretation by emphasizing, in cultural landscapes, states marked by forms of content and forms of expression (Deleuze and Guttari, 2012). The flows of life that occur in territories unfold multiple channels, codes and emergent and unconscious semiotic representations that the interpreter-interpretant has to be able to recognize as an expression of the diverse logics of life.

3. Semiotics of cultural landscape

The works of man, subject to their complex cognitive structures, connected to binocular vision, the preconceptual and conceptual processes that operate in the brain, structure chains of signs made up of mental and physical nuances that are related to the conventions that are established in cultural configurations (Wagner, 1986: ix). This way of perceiving the world requires the understanding of social, cultural and territorial fields as central mediations to any process of political or environmental design. In this context, the notion of cultural landscape should be understood as a cognitive expression that is sign-representational, and as a subordinate material object in its full understanding of the science of semiology or semiotics, that should be understood as the science of signs, its classification, and whose most important axiomatic postulate affirms that the human being thinks only in signs.

The life of signs, and the autonomy of these, is expressed through complex codes that exist so much in the outside world (the exterior reality), that in the mindsets of living creatures and the affectation of these, given the social interactions that occur. Therefore, the concept of landscape is an object of denotation, connotation and significance, in rich imaginative and conceptual dynamics that are constitutive of cultural configurations. Therefore, the notion of *cultural landscape* is inseparable from the human mind, as are the facts that live in other living creatures that occupy space and are marked by the temporality of life in their biotic and abiotic flows. These processual dimensions refer to states of reality marked by hyper-complexity, given the multiple logics and implied meanings in semiosis of the so-called *cultural landscapes*, which as a sign regime, contain in their enunciation generative elements marked by cultural diversity and the presence of logics of mixed and varied lives. These generative components, in turn, have the possibility of becoming and

transforming; which means that the interpretant univocity does not exist, the sign turns into other meanings, even if we think that the signifier, in this case the landscapes or natural ecosystems, are understood as marked by relative conditions of equilibrium.

From a pragmatic perspective, cultural landscape is a «sphere of meaning» linked to modes of existence and knowledge that involve realities of the mind, signifiers, as planes of matter and that in their human articulation generate experiences of order (political level) marked by the force of history, the dynamics of the sociocultural configurations and their political products, in its articulation with territory; as well as their own logics inserted in the human organism and the flows of life that occur in ecosystemic processes, of which the human is part of. In that sense, the notion of *landscape* implies physical-ecosystemic processes, social practices and mindsets that are discursive and metadiscursive (music, meditation, poetry), and that have to be considered as elements of the interpretive model.

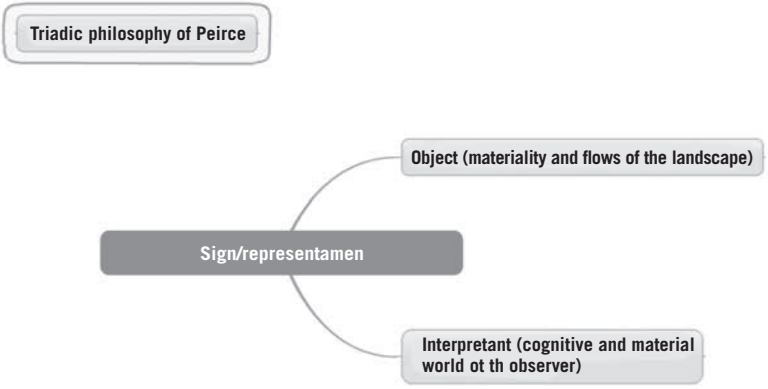

Figure 1. Triadic philosophy of Peirce.

Cultural landscapes and/or cultural environments are existing verifiable expressions in empirical reality and are made up of mental models that express nuances and rich meanings that should be captured from the use of powerful theoretical approaches. This makes it possible to overcome fragmented or disjointed readings of reality which, as suggested, can lead to an inaccurate conceptual understanding of the semiotic models that serve as channels of representation and communication of the sensory objects that make up the reality-notion-interpretation of what cultural landscapes are (See Figure 1). The reading, explanation and in-

terpretation of these qualified signs, called *cultural landscapes*, are an exciting field for displaying many academic models, as proposals of political and societal construction, from an environmental inspiration, that is to say, with the ability to integrate many logics of life: cultural, ecosystemic, scientific.

As fields of study, the categories of *cultural, environmental, and landscape of territory*, are configured as epistemological elements that allow, following the philosophy of the science of Thomas Kuhn (1970), unit planes of reality or modes of existence such as nature and the human mind. It states that Peirce's Theory of Signs has a great potential and can even enrich the scientific postulates of very prestigious contemporary authors such as Gregory Bateson (1992 and 1993) and Claude Lévi-Strauss (1962), authors with the ability to capture and rigorously construct explanatory and interpretive processes related to the ecology of life and of the mind. Both Peirce's semiotics and Bateson's ecology of mind and Lévi-Strauss's structuralist anthropology, express conceptual frameworks that dismantle the traditional distinction that has been maintained in relation to the dualist relationship between mind and nature. Tim Ingold states that for Lévi-Strauss, the mind receives information from the world through a process of decoding; whereas for Bateson, the mind is open to the world in a process of revelation (Ingold, 2008: 9). The discoveries of these authors are transcendent, since they represent a group of authors whom two or three decades ago have been reconsidering the role of life and the cognition of animals and the human being on reality. As Ingold points out, psychology, until only two decades ago, assumed that people perceived the surrounding environment by constructing representations of the world in cognitive processes that happened within their heads. It was supposed that the mind got to work on rudimentary matter of experience that consisted of sensations, light, sound, pressure on the skin, etc., which was organized in an internal model, which in turn can be used as a guide for further actions. In such a way that the mind was conceived as a type of data processing device, similar to a digital computer, and the problem for the psychologist was to figure out how it worked. Such approaches are no longer accepted by neurosciences (Castaingts, 2008). For Ingold, who extensively quotes the work by James Gibson, *The ecological approach to visual perception* (1979), the mind is constituted, for its information processing abilities, in a field that goes beyond the strictly organic, as what was understood in the Cartesian model that strongly separates body-mind and nature-society. Perception, for Gibson (1986) is not the attainment of the mind in the body, but an organism as a whole in its environment, and is equivalent to the organism's own exploratory

movement in the world. From Gibson's observations, Ingold stresses the following: «*If the mind is everywhere, then, it is not 'inside the head,' rather it is out in the world*» (Ingold, 2008: 3). That is to say, the notions of *culture landscape* and *territory* derive from their social insertion and their material expression as objects of cognitive representation, whose referents exist both in the mind of the observer and in the reality outside their mind.

It is essential to situate the analysis in the horizon of study of a complex scientific category with a high interpretive potential of reality. It is more than a precept with exclusively poetic and evocative power. Based on the postulates of Gibson (1986) and the developments of an Environment Perception Theory by Ingold (2008), the research process must consider the following: first, the environment must be described, if one wants to speak and explain the relation between the natural and cultural environment and human perception about that environment. Second, since environmental sciences and anthropology refer to the processes of observation of reality, it becomes the basic description of information available in an illuminated medium. Third, the perceptive process, as an inherent element in the descriptive and explanatory construction of cultural landscapes, has to be described.

For the previous reasons, a landscape is a semiotic category that expresses itself fundamentally as a system of discursive production, made up by an infinite relational semiosis linked to the ecosystem-culture-interpretant triad. With this, a cultural landscape should be qualified through arguments linked to rigorous processes of knowledge generation, subject to the powerful observation lenses that experimental verification sciences provide (landscape ecology, social mapping, digital geoinformatics, landscape semiotics). Landscapes are embedded in worlds of (non)sense and significance, that in the field of anthropology refer to mythical processes, rituals and anchors in a complex kinship system. As such, sign-object-interpretant landscapes can be seen as a cultural expression marked by human perception and its ability to project and interpret signs, read them and give meanings to the world and reality.

Human perception, the choice of categorical concepts and metaphors for the understanding of a sign (landscape, natural environment), are driven by a combination of our body frames of perception and by cultural classifications, since living systems settle in spheres of meaning and communication. The significant appropriation of these spheres of meaning, in the case of humans, has a base adjusted to the preconceptual experience, that allows to affirm that the human mind has a complex ecological structure, whose forms of semiotic content present complex

and diverse codifying and overcoding characteristics (brain mapping), that territorialize and deterritorialize reality, both conceptually and politically. *Ecological structure* should be understood as a system with a structure where the part affects the whole and the whole affects the part. As signs, landscapes convey multi-situated and multi-contextualized knowledge. They represent things in the mind that are originated from the objects. As for those mental target signs that we call landscapes, Peirce calls them the *interpretant* of the sign (2012: 1275). Given the huge variety of languages and cultural configurations, one can think of and say *landscape* sign in many ways (see Figure 1), but as Deleuze & Guattari (2012: 142) show, the regime of signs and its degrees of grammaticality are fundamentally a political matter. Consequently, the analytical and synthetic proposal in its scientific reading of the reality of cultural landscapes becomes practical science of the organization of space and time in environmental key. That categorical truth, based on the results of anthropology, biology, geography and semiotics, illustrates that human nature can think about the same fact and be situated in similar ecosystems, but nevertheless, the same object is and can be thought about in a different way, which requires the importance of logic, semiotics, geography, anthropology, biology and psychology to unravel the sign-landscape problem.

The semiotic connotation of landscape that is noted here leads to pay great attention to the social, political, and academic discourses that are constructed in reference to how one perceives space and the place that occupies space in discourse. Thus, landscape is iconic, as analogous to a relational object that expresses deep and complex meanings and signifiers of environments whose logics communicate many spheres of meaning: environments are perceived and generate ideas that can be assumed to be natural in relation with objects that are grasped and interpreted cognitively and culturally (Peirce, 2012). When one speaks of *nature, landscape or territory*, those signs are real objects that exist on the physical level and in the relation between the physical and the mental. These are polysemic words that express relations that structure and reflect social and mental processes that occur in territory, in the field of human and non-human.

While it is true that the clear distinction between culture and nature is not as radical in many cultures in the world, landscapes as iconic gestures indicate the type of mental and cultural connections that one has with those «objects.» Therefore, the scientific community has the challenge of capturing, understanding and comprehending a new set of relationships that *«forces the mind to tend to that object»* (Peirce, 2012).

Landscape, as a sign, indicates probable connections referring to the flows of life that occur in environments. The semiotic constitution of cultural landscapes has to be linked to the field of discursive modalities and to the means that the human being uses to communicate: images, languages, speeches, built environments, architectural spaces, roads, ruins, fences, forests… According to this, landscapes are symbols, that is to say complex arguments, whose logics are not only human, since they denote things both evident and non-evident from the human world as of the non-human; and connote a class of things that are not necessarily captured in explicit ways.

As communicative expressions, landscapes are mediated by acts of sociocultural interpretation, both by their agents-actors-residents, and by the community of scientists that constructs interpretations of these physical objects, that are also representational objects in the mind of scientists. As symbols, cultural landscapes cannot escape from cultural norms; therefore, they are circumscribed to conventions or rules that establish the sense and/or meaning of what the interpreters or interpretants think of them, or they can invent-say-affirm about them. The notion of *landscape*, in addition to containing biological, ecological and physical attributes, contains symbolic expressions that structure a conceptual order. Far from this notion being fixed, given the human ability to create new argumentative spaces that are created through the use of concepts, new meanings are given to landscapes that can be modified or altered as its own meaning changes.

Landscape semiosis, in an interpretation, is not a mechanical process: the symbol *landscape* can be developed from symbols (Peirce, 2012). Symbols have power of diffusion among peoples: «*Their meaning is developed with use and experience.*» It is well understood that landscapes and environments, while signs, are interpreted, given the cultural diversity, in many forms and ways, in what one can call the display of symbolic imagination (Durand, 1968). This is also understood as a dimension of the art of reasoning and the presence of diverse ontologies and logics, that do not only belong to the universe differentiated from scientific communities anchored in their multiple conflicts of representation on nature or reality.

Paraphrasing Bateson, one can say that based on an ecology of life, landscapes, whose expression is semiotic, reveal meanings about the human mind, as representation schemes, whose correlates are the practices of sociocultural interventions in spaces. Again, landscape as a sign becomes a mental process, that breaks with dualisms and monisms, in theoretical postulates that dichotomically reproduce the categories *ecosys-*

tem/culture and/or *society/nature*. It follows that the triadic relation, originated in the logical reading of Peirce, is relational thinking par excellence. Its basis is language and meaningful communication. Therefore, the importance of science is recognized, but also its limits in recognizing in the real and the reality that a full and absolute knowledge of the cosmos is impossible, given the limitations of a human mental world that operates through notions of reality (Lorite, 1982).

Knowledge of the world depends on a theory of meaning and of the signifier in which the world is understood both as a meaning and signifier; that is to say, it is both a complex object, a complex sign, and a complex interpretant. Knowledge has a phenomenological dimension related to aspects of communication and significance. Likewise, one has to relate knowledge with biological, sociological, logical and physical aspects. The patterns of human and non-human significance become relevant, and when considering them in their possibilities of interpretants, it breaks, at least in the formal field of the discourse, with the society-nature dichotomy.

In this sense, territorial processes require a metatheory that unites the phenomenological and design dimensions with a pragmatic and non-reductionist evolutionary vision referred to the self-organization of signs and processes of signification. A landscape denotes the body of actions embodied in territory. This way, the design of the mind as an organism is expressed. Landscape is, on one hand, a body of the human mind. On the other hand, an expression of life, the history and even the strength of the State apparatus and its war machines. The mind is expressed in a landscape. Landscape is the mind, as it is also an expression of our own cultural body, and therefore, of our own bonds.

Historical and archaeological evidence show that, in similar ecosystems, human adaptive strategies could be designed as a cluster of different beliefs, with distinctive cultural practices (Urteaga, 1993). Geographic determinism is not a right way of thinking about the ecosystem-culture relationship as all human societies and cultures are recognized through their beliefs and practices that are unleashed, which always leave some type of mark on the landscape and territory. Furthermore, the so-called cultural landscape is an expression of the beliefs and practices of a society. These beliefs and practices are complex and do not operate through a unilinear conditioning mechanism. There are behavior alternatives to the ones dictated by dominant and customary signs in every culture. Alternative signs exist in every human culture; the sign can mutate, or be subject to conditions of semiotic opposition, implication, complementarity and inversion, as well as stay in time without undergoing changes.

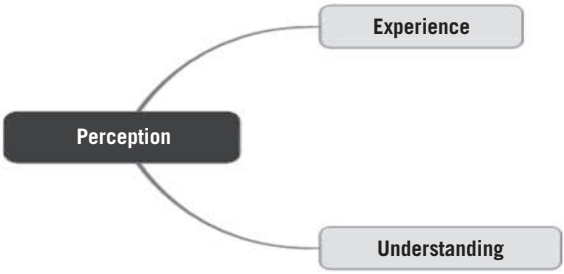

Figure 2. The landscape as theoretic and pragmatist vision.

The role of the observer becomes crucial as the generator of meaningful explanatory contexts that trigger informational processes and differences. Bateson stated that information is a difference that makes a difference (1992 and 1993). Maturana and Varela clarified in this respect that the structured autopoiesis is necessary for cognition to be unleashed (1973 and 1974). Following Peirce, it is affirmed that an interpretant, and therefore a sign process, must be established to generate meaning, which differs from objective information given its content of signification. Every individual interpreter sees differences in their world that, as information, make the difference. The world would be understood from Heidegger's notion of *Dasein*: being-in-the-world is for an observer to be situated in a world, previously constructed as an object of signification. The experience linked to the action should consider the practical effects and repercussions deployed as a consequence of our world view. The understanding is linked to the idea of meaning, whose semantics reveals purposes which in turn are expressed through arguments. The objects and facts that we perceive in landscapes and territories must be explained in their causes and effects. Explanation is a scientific rationalization that adopts a probable model through a hypothesis that accounts for the facts. The explanatory process on the actual condition and the reality of cultural landscapes assumes the refinement of the explanatory models that account for those facts that we call *cultural landscapes*. The mentioned readings, given the scientific nature of them, may be unfounded and equivocal, but it is axiomatic that all of them imply their provisional character and that they have to be tested in the light of a field of «notions of reality», that from the Aristotelian and Platonic *logos* is intended to be noetic knowledge. This requires a soteriological display inscribed as convention-conversion, a process that privileges the field of the human person, the life and the act, as a movement of being in harmony with the cosmos, to which we recognize rights in the connotations derived from environmental thought.

Self-referential and autopoietic systems produce signs as part of their life forms (Luhmann, 2006). Consequently, landscape is in turn an interpretant. The strength of this statement is that it goes beyond Saussure's vision, focused exclusively on the signifier and the signified, which really continued favoring the mental image of the concept as a signifier, made by the observer that happened to be a human being. Peirce's triadic model would grant interpretant conditions to a landscape. As an argument and symbol, landscape, through the collaboration of the human interpretant, is the object of legal and normative rights that even have to recognize the excluded cultural landscapes (societies and cultures). Those are the ones outside or beyond the borders of the dominant interpretive discourses of the logic of profitability, whose landscape is the monoculture of hot industrial societies that have become societies from the emergence of the State and its war machinery.

The triadic model of landscapes refers to the fact that all thought is mediated by tradition, whose base is given by the representation of external facts. Living systems have semantic capability. The ability to assign meanings to the differences that disrupt the self-organization of systems is understood through the semantic ability. The triadic dimension of knowledge surpasses the conception referred to seeing the cognitive process as expressed through objective and subjective relations. What is expressed is a knowledge that does not necessarily have to be objective or subjective.

Agapism, the theory of love as an expression of creative evolution, necessarily has a place in knowledge and signifies levels of meaning that surpass the series linked to the opposition or to the utilitarian readings, which may be at t he base of vulgar or mechanical pragmaticism (Peirce, 2010). Peirce's logical system, in its pragmatist stamp, is capable of recognizing fields of meaning in its reading of reality that are extremely important to establish channels of dialog and recognition of the different «arguments» that the human being has developed in the appropriation of space and territory. Peirce's logical rigor allows one to incorporate dynamic valuations in its system, such as love. For example, Peirce states: *«Now what is this way of life? Again I appeal to the universal Christian conscience to testify that it is simply love. As far as it is contracted to a rule of ethics, it is: Love God, and love your neighbor; 'on these two commandments hang all the law and the prophets.' It may be regarded in a higher point of view with St. John as the universal evolutionary formula* (Peirce, 2010).

The outside world, which is our own world and the world of the mind of nature, relates to the substrates and depths of our own mind. The laws of the inner world and reasoning that depend on the laws of the outer world have their own dynamics and autonomies (Peirce, 2012), and

yet there are affinities between the human mind and nature (ecology of the mind); and so, we cannot assume that our predictions and inferences are correct or accurate. The outer world, captured by observation, is dominated by phenomena that may be captured from the regularity of movements. That scientific appropriation of reality is fragile and uncertain, but from Modernity, it may be thought of as one of the best ways of beginning to generate new knowledge. This may be given from intuition and introspection; and advances in the knowledge about the structure of reality, as a design and purpose and not simply as a function and/or object of conservation.

Final Tropes

The analytic-synthetic perspective that has been put forward is based on elements of geography, anthropology, semiotics, information theory and adaptation. Environmental ontology, to which several authors contribute, has important implications for science and the humanities. This environmental ontology should be understood as a work subject to the world of order and chaos, with inter and transdisciplinary connotations. Many disciplines can contribute to the explanation and understanding of cultural landscapes; given the complexity of relations that are established, as demonstrated in this text, the expression of knowledge is of a transdisciplinary order. The relations of cultural landscapes, following Peirce's triadic thinking, must go beyond a fragmented and uncritical common sense, anchored in the use of mechanistic concepts, that do not take into account patterns that recognize the complexity and the multiple spheres of reality that are indispensable to achieve the design and qualification of cultural landscapes, understanding them as signs full of meanings and messages. The information and knowledge that denote and connote cultural landscapes are based on meanings and symptoms-news signs that reveal valuable contents and forms of expression from history, daily events and future designs of cultural landscapes.

Peirce's triadic reading enriches the analysis by formulating categories and by forcing us to think logically about theoretical abstractions that are seldom practiced in the Pan-Hispanic field of anthropology. These categories establish the foundations for a theory of cognition and meaning, which corrects many of the scientific conceptions that have taken place on the reality and behavior of phenomena linked to the study of cultural configurations. The scientific universe of anthropology is enriched by including the concept of *cultural landscape*, as one of the fundamental fields to contribute to the search and alternative solution to the

environmental crisis. Semiotic anchoring can help anthropology overcome the series of monographs that are thematically unrelated without political relevance, and incapable of overcoming legal anthropocentrism, which in its Western version assumes the problems without reference to the theory of chaos, or the possibility of understanding that the human being leaves marks in a territory, and does it through experiences of order. Peirce's Triadic Theory allows, in this way, to reconceptualize categories such as *order, chaos, signification, environment, life and metaphysical constitution of reality*. The Triadic Theory is fundamental in overcoming the insurmountable dichotomies between person and organism, society and nature.

A research program on cultural landscapes has to account, from complexity theories, the relations between the ecosystem, the sociocultural ecosystem, and the human mind. Meaningful thought and abstract reasoning about human and non-human entities are transcendental, in the sense that an organism is not necessarily required to condition the sphere of rational thinking. That is to say, reflection on life transcends the physical limitations of any organism. Meaningful concepts and abstract reasoning may be put in human beings, in machines or in organisms, but they exist abstractly, independently or in any corporeality process. Sense is a matter of being meaningful to thought and functional beings. The nature of the thinking organism and the forms of functioning/design in its environment are of main interest in anthropology, being one of the disciplines that can better capture the similarities of the human experience on territory, giving society the possibility of having deep readings of the environmental and territorial dimensions of the so-called cultural landscapes. Needless to say, the rich, diverse and complex approaches to the categories of *landscape and territory* that have been glimpsed in this article are laying the foundations for the unfolding of a whole new environmental and anthropological narrative that will overflow those frameworks that are exclusively cognitive or materialistic. These new narratives are laying the foundations for human and vital projects that will surpass environmental or cultural modes of certain anthropological trends.

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