

# ANALYSIS AND MANAGEMENT OF LANDSCAPES WITH PATRIMONIAL CHARACTER IN THEIR TRIPLE FACET OF MEMORY, IMAGE AND SOCIOSYSTEM

ANDER DE LA FUENTE ARANA<sup>1</sup> & URTZI LLANO-CASTRESANA<sup>2</sup>

<sup>1</sup>Department of Architecture, University of the Basque Country UPV/EHU, Spain

<sup>2</sup>Faculty of Engineering in Bilbao, University of the Basque Country UPV/EHU, Spain

## ABSTRACT

This article proposes the dichotomy of “landscape” analysis necessarily associated with a qualifier such as “natural” or “cultural”, which implies unnecessarily limiting its concept, should be overcome. For this, some authors have proposed the definition of the landscape in three differentiated and interrelated levels; these lines analyse and propose what this three-dimensional analysis would consist of. When assuming this three-dimensional approach, it is proposed that the three facets for its analysis and management would be: memory, generating a feeling of belonging or anchoring; the image, as identity, meaning and physical structure of a perception; and the sociosystem, analyzed in terms of the characteristics of the habitat, the inhabitants and their habits. Memory can be reconstructed and enhanced through spontaneous or directed processes of recovery and reintegration. The image can also be constructed, by interpreting it and minimizing its noises and discontinuities to turn it into a vivid, differentiated and evocative perception. The sociosystem is the area of the landscape that responds less to a behavioural methodology. We must, therefore, seek the measurement of certain factors that, despite not accurately reflecting subjective characteristics or externalities, work as indicators of a comparative evolution. As a result, an identification of the elements that articulate each of the facets is obtained for subsequent documentation and assessment through social dialogue: traces and narratives of memory; nodes, milestones, paths, districts and edges of the image; and opportunity spaces of the sociosystem. Frequently, interventions on cultural landscapes are excessively focused on improving their aesthetics (image), protecting their heritage by historicizing it (memory) or obtaining profitability, especially touristic profitability from their socio-economic potential (sociosystem). Through this three-dimensional landscape analysis, we can compensate the gains achieved from each facet (memory, image and sociosystem) with the losses of the others, avoiding rejection and achieving social involvement and the essential balance with the means to make our project sustainable.

*Keywords: landscape management, memory, image, sociosystem.*

## 1 INTRODUCTION

Associating the term “landscape” with a qualifier such as “natural” or “cultural” implies an unnecessary limitation of its concept. This has happened in our field, since the mid-19th century, where the physical evolution of the anthropized landscape was conceived as an aggressive alteration of the physical environment (physical geography) produced by human action [1]. The natural environment, understood as a wild, open and undivided landscape, has been considered worthy of protection against this attack due to its inherent beauty [2], [3].

From the first third of the twentieth century, in addition, the transposition of some concepts related to ecology, to the study of the territory, or applied human ecology [4], allowed to focus this alteration process as an interaction of the human being and his physical environment (ecosystem). The Ecology of the Landscape or Geoecology [5] contrasted that biunivocal relationship human vs. nature to the traditional concept of geographical region.

For certain cultures is difficult to assume the natural/cultural dichotomy. Thus, in the words of Eric L. Edroma at the Great Zimbabwe Congress, “the traditional African finds it difficult to [...] find himself pushed out of the integrity equation for managing the natural properties and cultural landscapes” [6]. That is why it seems appropriate to banish the



Manichaeism that leads us to classify landscapes as cultural and natural and speak merely about “landscapes” without adjectives.

Then why do we study and manage our landscapes according to their labels, with an ecologist protectionism in natural landscapes, historicist in cultural ones and economic in productive ones?

2 ASPECTS OF LANDSCAPE PLANNING

Although the concept of landscape is unique, it does not seem possible to analyse it unidimensionally, because of its evocative power or its aesthetic or patrimonial value. Some authors have proposed a definition of landscape in three differentiated and interrelated levels [7]: the geosystem, which refers to environment and ecology [8]; the socio-system, which is related to production and power systems that prevail within a society [9]; and the cultural system, which concerns collective identity. Assuming this three-dimensional approach, we propose three slightly different aspects for its analysis and management: the memory attribute (which generates an identity or anchorage), the image feature (which is built from a perception) and the socio-system one (in more broad and pragmatic sense than the one defined by [9]).

Landscapes are linked to a collective memory built by the society that inhabits them, and of which they are trace and symbol, stage and narrative, for its inhabitants (and for certain visitors who identify externally with them) (Fig. 1).

They are also the perceived image shared by the citizens through social dialogue or in tacit consensus. Florence’s landscape definition speaks of “any part of the territory as it is perceived by the population” [10].

Studying a landscape as a socio-system (socio-economic system) involves the analysis of the exchanges and relationships that take place in it. Bearing in mind that the impact of these relationships is determinant in their modelling (because human beings are undoubtedly the most active biotic factor that influences landscapes), we are interested in focusing on this social ecosystem or “sociocenosis” [11] and in the organizational structure of the social group that inhabits it.



Figure 1: Facets of sustainable landscape planning and its determining factors.

## 2.1 Landscape planning as memory

### 2.1.1 Traces of memory

The collective memory is constructed spatially by the anchoring of the landscape in certain material places [12] that determine in a decisive way the characteristics and behaviour of it.

Geography, which analyses the physical and social environment and its influence in the territory, has developed a field of research, for the study of the spatial dimensions of memory, that some authors call “Geography of Memory” [13]. This approach was born in the context of Noras publication, in which he defines the lieux de memoire as “every meaningful unity, of material or ideal nature, that has become a symbolic element of the heritage of memory of a community due to the will of men or the course of time” [14]. The Geography of Memory has an interest in those physical traces that time leaves and “Locates history and its representations in space and landscape. It answers the question of ‘where is the memory’ in terms of places that empty a certain vision of history in the shape of memorial permanence” [15, pp. 125–144].

As a social construct, memory traces will be identified according to subjective variables of collective perception influenced by the individuals that inhabit or visit a landscape. “These traces of collective perception of the past are not reliable records of what actually happened, but the traces that events have left in the matter (alive or inert), to be interpreted and used later, are” [15, p. 170].

### 2.1.2 Narratives of memory

The collective memory, from the here and now and its circumstances, can influence the evolution of a social group that makes that memory their own by glorifying or even rejecting it [16]. A memory that generates feelings of belonging, attachment and desires to inhabit, which translate into externalities that cannot be directly evaluated by classical economics. Taking advantage of this potential presents the complexity of identifying and defining it, since “memory is always transitory, notoriously unreliable and haunted by the ghost of oblivion, in a few words: human and social” [17]. Although the volatility that characterises memory makes it difficult to determine its value, it also grants memory the ductility of a “social construction of the memory” [18]. Collective memory is never an overlap of various individualities, since memory has always had a collective nature and it is generated in “social frameworks” [19].

Memory can be reconstructed and enhanced through spontaneous or directed processes of recovery and reintegration. The means needed for this reinterpretation should be sought in “the triple shift of the social disciplines towards the subjectivity, narrative and hermeneutics” [20, p. 178], and not so much in “the political instrumentalization of the past in the present, the memory of the past that is socially constructed from the present, and of which history (in the same way as knowledge) would only be a specific discipline” [20, p. 180]. It is perhaps this instrumentalization the one that has led to a “crisis of the conception of history as a tool that can be used for social transformation” [21], elicited by the loss of allure and authenticity of historical metanarratives, perceived by certain social collectives that do not identify with that “dead memory” [22].

The medium term strengthening of the identification the social group has with its memory happens by turning it into a close narrative, in time and space, lived first or second-handily. This narrative must be shared, agreed and revived by the citizens “periodically through ceremonies and public rites”, as a means to be shown and shared, and to become “a kind of common heritage the individual has since the day he was born and that links with its own individual memories” [22, p. 177].

## 2.2 Planning the landscape as an image

Regarding perception, it is possible to obtain enough data to construct an image of a lived landscape, through a behavioural process. Data will then be interpreted for a posterior use in the global planning of the territory, and to minimize its noise and discontinuities, enhancing its capacity to become a solid, coherent, vivid, differentiated and evocative perception.

The appearance, in 1960, of Lynch's study of the image of the city, which defined the concept of image as a set of "points of coincidence that can be expected to appear in the interaction of a unique physical reality, a common culture and a basic physiological nature" [23] served as a major milestone in the post-life analysis of landscapes, which is based on the systematic arrangement of experiences.

Geography, whose object of study is the physical and social territory and the interactions that take place in it, has developed, to be used for the analysis of the spatial dimensions of the image, the theoretical corpus of the "Geography of Perception" [24]. The Geography of Perception is in charge of identifying the elements that characterize the image, analysing the relationships between them and the mental maps that the observer constructs of the environment, as a result of learning and as defining features of human behaviour [25], [26].

Half way between the perceptive analysis of tactical urbanism and the 19th century planning, "this line of research can be considered as an opposite reaction to the normative models, so used by quantitative geographers, supported by the concepts of business and by the characteristics of 'homo economicus'" [27].

When defining the image of a landscape, there are three strands of characteristics [23, p. 17]:

- The "'identity' of each of its components, such as "the identification of the object, [...] distinction, [...] recognition of it as a separable entity".
- The "practical or emotional meaning, for the observer" that the object possesses.
- The "physical structure of the spatial relationship the object has with the observer and with other objects".

### 2.2.1 Identity: living space vs. lived space

A singular form of "identity" is precisely the one we operate with the day to day places of our lived space, which are filled with subjectivity and memories that mix with what is perceived in the present. But, in all that space of life, where we develop our daily activities on a human scale, the perception of "identity" is conditioned by a "common culture", so that "there is a series of public images, each of which is shared and maintained by a considerable number of citizens" [23, p. 61].

"The structure built upon the foundations of materiality and its practices (the living space) is enriched by social exchanges (the social space), emotional burdens, images and individual concepts which forge the representation of our sensitive world and contribute to confer it a meaning (lived space), even if they always are of social nature" [28, p. 127].

### 2.2.2 Meaning: potential image transformer

Acting on the "meaning" of the image of those elements that give structure to the landscape involves valuing the systems that shape it, as it modifies the interrelationships that are established between them. That image also identifies with the group and its ecosystem and creates a desire to inhabit the place [29], which translates into two things, externalities that cannot be directly evaluated by classical economics, and in the basis of a sustainable development.

This image, as a social construct, can be strengthened and reinterpreted from knowledge, in the same way as memory, to reinforce the identification of the social collective. “It is possible to strengthen the image through symbolic artifices, through the reeducation of the people who perceive it or by remodeling the images outline” [23, p. 19].

The intervention on the image involves the modification of the landscape it represents and, therefore, it affects the level of attachment of those who inhabit and interact with it. Once the images weaknesses and strengths are identified and located, we can establish priorities for its protection and intervention, enhance the reference elements and solve its discontinuities.

### 2.2.3 Physical structure of the image and territorial structure

The planning of the landscape as “lived space” implies the idea of the place as a medium that has been “dominated by man”, or even created by him [30, p. 230].

Nowadays, in our close administrative reality, every landscape is known as “territory” [31] it is anthropized and domesticated to a greater or lesser extent.

The structure of the image of one of the landscapes in our environment can be analysed as the perception of an urban structure made up from networks, communication, interrelations, functional spaces and population activities.

If we aim for a sustainable planning, trying to modify the location of certain social activities when they are already rooted in collective imagination needs some previous didactic work and it also requires society to assume the new image, after a careful process of citizen participation. To ignore the previously mentioned often leads to a non-acceptance that doesn't let citizens assimilate the landscapes perceived structure as their own.

## 2.3 Landscape planning as a sustainable socio-system

### 2.3.1 Fields of study: habitat, inhabitants, habits

The ideological rejection of the considering the landscape as a source of socioeconomic resources (a logical consequence proven by recent situations of abuse due to capitalism) should not lead us to outlaw any optimization of its economic aspect, which is being included in sustainable management models of landscapes and has been reconsidered in the current periods of crisis. We then may talk about landscape as a product of a social ecosystem, socio-system or socio-ecological system [9] that can be analysed in a given space [32]. The relational framework of this social ecosystem is basically what Pierre Bordieu, in his sociological theory [33], defines as “field and product of physical, social, cultural and economic inheritance”.

The social ecosystem sets up the area of the landscape that responds the least to a behavioral methodology. To study the perception society has of their own interrelations and their socio-economic dimension is of little help, in this case, to quantify them. Hence, we intend to look for a way of measuring certain factors that, although they do not exactly mirror some subjective characteristics or externalities (most of which define the social ecosystem), can function as indicators of a comparative evolution.

We are inevitably loading our scope of planning with productive connotations inherent in a vision of the territory as a “set of material conditions of working (the city, the countryside, etc.)” [34, pp. 74–75], criticized by those who see in this approach a “consideration of space as nature-to-exploit” [35]. However, the intervention of socioeconomic factors in the evolution of the physical environment should not be perceived as a problem, but as part of a desirable balance with the system (sustainability).



The results that we hope to obtain will help the three main objectives that Berque [36] defined for every landscape analysis: to investigate the historical and ecological tendency of the environment: the habitat; to investigate the feelings experienced by the society that inhabits that environment: its inhabitants; and to investigate the meaning and value given by society to that medium: their habits.

### 2.3.2 Habitat

Every community interacts with the physical environment producing an exchange of energy, a structure, diversity and some material cycles [37]. Transposing this basic idea of classical ecology to human ecosystems, it is obvious that our species' habitat, the natural space that meets the conditions so that human beings can reside and reproduce (even when it has been radically anthropized, as in cities), conserves some characteristics (orography, hydrography) that affect the settlement.

The human habitat (Fig. 2), the physical environment in which a landscape is settled, must be studied and identified even for landscapes so detached from nature as urban ones. This is considered, for example, in the analysis that the Tecnológico de Monterrey proposes for the cities of knowledge (KC or Knowledge Cities) [38].

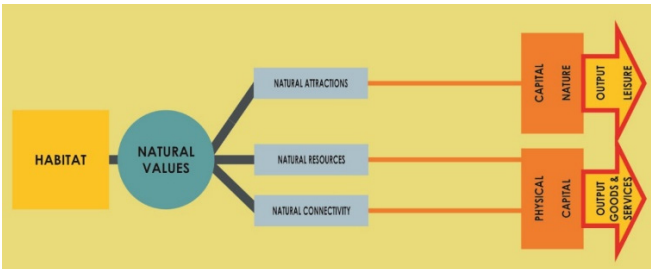


Figure 2: Determining factors of landscape habitats as a sociosystem.

### 2.3.3 Inhabitants

As we have already done for the habitat, but now related to the inhabitants (Fig. 3) of a landscape (considered as ecosystem or socio-system), we will focus on the human species as the main biotic architect of the modelling of most landscapes. We could use the term human biocenosis or even the imaginative name of “sociocenosis” [39, p. 26] to refer to the differentiated social group, permeable and which changes in its endogenous and exogenous relationships (with other groups, with other species and with the environment).

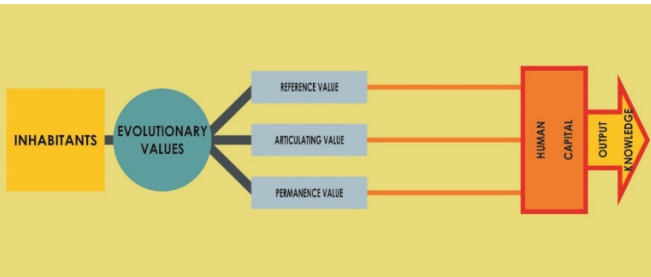


Figure 3: Conditioning factors for landscape inhabitants as a sociosystem.

### 2.3.4 Habits

The processes and protocols of exchange between inhabitants (human species) and their habitat are not measurable in strictly objective terms. We cannot allow the conceptual decrease of putting production and its desirable growth at the centre of the study of these relations between society and the environment that inhabits, as the physiocrats postulated in the economy of nature, forgetting the previous approach of the market as an equilibrium game whose transactions add up to zero, in which the amount one gains is the same as the one the other loses [40]. The culture of material a society has does not depend exclusively on the availability and exploitation of resources from its environment: it also depends on the skills that said collective acquires or possesses in the fields of technology and art. It is conditioned, to a great extent, by the Aristotelian hexis (character acquired by individuals or its way of being) and the diathesis (disposition or potentiality of individuals) [41].

We can establish a nature, a way of being, consuming, producing and creating, for each social group that inhabits a landscape, “in the shape of mental and bodily outlines of perception, appreciation and action” [42, p. 23]. We have taken the freedom to name as “habit” (Fig. 4) the construct of skills, knowledge and inheritance that have emerged from the relationship of human beings with its habitat through landscape, derived from mental schemes, which are conditioned by tradition and social class.

Therefore, it will be possible for us to plan according to a material, changing culture, constantly mutating, in search of a balance with the environment or exploitation of it, in the citizenship of a cultural landscape. This cultural landscape is capable of evolving because of the contribution of the society that populates it and that preserves the traces of its ways of production, such as the transformation of matter through energy.

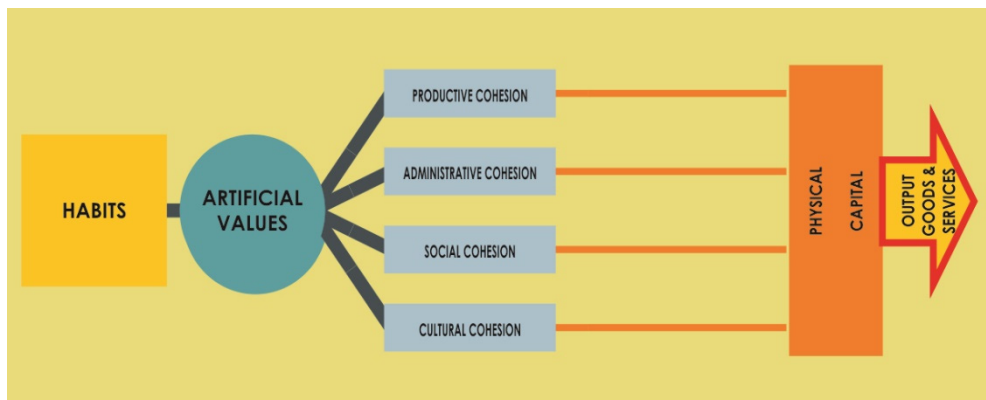


Figure 4: Factors that characterize the social habits of the landscape as sociosystem.

## 3 CONCLUSIONS

On the one hand, the Integrated Landscape Analysis methods proposed by Bertrand at the end of the 1960s [43] represent a serious and coherent examination for landscapes, useful to identify “landscape units” in them with homogeneous characteristics and evolutions, defined in a taxonomic chorological process (classification of chorotypes of animals and plants). But on the other hand, Bertrand’s point of view represents, in the field of Geography, some consolidation of the concept of landscape as a natural habitat, relegating both, the society it contains and their interrelations [44, pp. 74, 86–87]. A definition that, at the time, made the

New Geography deny the term landscape [45] due to its low accuracy and its lack of use to clarify social relationships in space.

The prevailing technocratic planning is based on the positivist classification of territory in “units”, forgetting that landscapes function as “systems”, that are, mostly, non-objectivable. This leads to a progressive detachment between the citizenship and the guidelines set by the landscape to sort their territory, and, consequently, to a lack of medium-term sustainability of the designed policies. This detachment from the up to down planning has caused a movement of spontaneous social construction of the territory, in specific micro-actions that society, eventually, tries to connect in a network, aiming to define a tactical urbanism.

From our point of view, however, a sustainable planning does not only consist in adjusting the scale of the designed actions, with the aim of bringing them closer to citizens. We may also reach a sustainable planning by diversifying the diagnosis that leads to the determination of guidelines, incorporating a behavioural, subjective and identarian approach to assessment and management criteria.

#### REFERENCES

- [1] Marsh, G.P., *Man and Nature or Physical Geography as Modified by Human Action*, ed. C. Scribner, University of Michigan, 1864.
- [2] Hildenbrand, A., *Paisaje y política de ordenación del territorio. Análisis de la experiencia internacional comparada*, 3 volumes, Junta de Andalucía: Seville, 1993.
- [3] Prieur, M., *Le droit applicable aux paysages en droit comparé et en droit international*, European Council: Strasbourg, 1995.
- [4] Mackaye, B., Regional planning and ecology. *Ecological Monographs*, **10**(3), 1940.
- [5] Troll, C., Landscape ecology (geoecology) and biogeocoenology: A terminology study. *Geoforum*, **2**(4), pp. 43–46, 1971.
- [6] UNESCO, *Authenticity and Integrity in an African Context*, Galia Saouma-Forero, 2001.
- [7] Rodríguez, J., La ciencia del Paisaje a la luz del paradigma ambiental, *Revista trimestral Geonotas*, **2**(1), Departamento de Geografía-Universidad Estatal de Maringá, Brasil, 1998.
- [8] Rougerie, G. & Berouchachvili, N., Géosystèmes et paysages. *Bilan et Méthodes*, ed. A. Colin, Paris, 1991.
- [9] Berkes, F. & Folke, C., Linking social and ecological systems for resilience and sustainability. *Linking Social and Ecological Systems: Management Practices and Social Mechanisms for Building Resilience*, eds F. Burkes & C. Folke, Cambridge University Press: Cambridge, pp. 1–26, 1998.
- [10] Council of Europe, Convenio Europeo del Paisaje, Ediciones del Ministerio de Cultura, Madrid, 2008, Ministerio de Medio Ambiente, Madrid, 2007 [2000].
- [11] Prada, R., Devenir y dinámicas moleculares. Apuntes para una teoría de la sociedad alterativa. Dinámicas sociales alternativas. [www.rebellion.org/docs/173557.pdf](http://www.rebellion.org/docs/173557.pdf). Accessed on: 11 Feb. 2014.
- [12] Halbwachs, M., La mémoire collective. *Presses Universitaires de France*, Paris, p. 106, 1950 [2ème éd. Paris: Presses Universitaires de France, 1967].
- [13] Lévy, J. & Lussault, M., *Dictionnaire de la géographie et de l'espace des Sociétés*, Paris, Berlin, pp. 443–444; 448–449, 602–604, 2003.
- [14] Nora, P., *Les lieux de mémoire*, 3 volumes, Gallimard: Paris, p. II: 2.226, 1997, [1984–1992].





- [15] Foote, K. & Azaryahu, M., Toward a geography of memory: geographical dimensions of public memory and commemoration. *Journal of Political and Military Sociology*, **35**(1), pp. 125–144, 2007.
- [16] Aguilar, P., Aproximaciones teóricas y analíticas al concepto de memoria histórica, Instituto Universitario José Ortega y Gasset, Madrid, 1996.
- [17] Huyssen, A., En busca del tiempo futuro. *Revista Puentes*, año 1, **2**, diciembre 2000, Comisión Provincial por la Memoria: Buenos Aires, 2000.
- [18] Cuesta, J., Memoria e Historia. *Un estado de la cuestión*, *Ayer*, **32**, pp. 203–246, 1998.
- [19] Halbwachs, M., *Les Cadres Sociales de la Mémoire*, ed. A. Michel, Paris, 1994.
- [20] García, J., Lugares, paisajes y políticas de memoria: una lectura geográfica. *Boletín de la A.G.E.*, **51**, 2009.
- [21] Juliá, S., Bajo el imperio de la memoria. *Revista de Occidente*, **302/303**, pp. 7–19, 2009.
- [22] Erice, F., Memoria histórica y deber de memoria: las dimensiones mundanas de un debate académico. *Entelequia*, **7**, pp. 77–96, 2008.
- [23] Lynch, K., *La imagen de la ciudad*, Gustavo Gili, Barcelona, 1984, 1998, MIT Press: Cambridge, MA, 1960.
- [24] Downs, R.M., Geographic space perception: Past approaches and future prospects, *Progress in Geography*, No. 2, eds C. Board et al., Arnold: London, pp. 65–108, 1970.
- [25] Lewin, K.A., *Dynamic Theory of Personality*, McGraw-Hill, 1935.
- [26] Tolman, E.C., Cognitive maps in rats and men. *Psychology Review*, **55**, pp. 189–208, 1948.
- [27] Estébanez, J., Consideraciones sobre la Geografía de la Percepción. *Paralelo*, **37**(3), pp. 5–22, 1979.
- [28] Di Meo, G., *L'Homme, la société, l'espace*, Anthropos: Paris, 1991.
- [29] Smith, M. & Moorehouse, J., The market for residential architecture: 19th century row houses in Boston's South End. *Journal of Urban Economics*, **35**, pp. 267–277, 1994.
- [30] Chorley, R.J., La geografía como ecología humana. *Nuevas tendencias en Geografía*, Instituto de Estudios de Administración Local: Madrid, 1975, original ed. *Directions in Geography*, Methuen: London, 1973.
- [31] Ingold, T., *Hunters Pastoralist and Ranchers: Reindeer Economies and their Transformation*, Cambridge University Press: Cambridge, 1980.
- [32] Alessa, L., Kliskey, A. & Brown, G., Social-ecological hotspots mapping: A special approach for identifying coupled social-ecological space. *Landscape and Urban Planning*, **85**(1), pp. 27–39, 2008.
- [33] Bordieu, P., *La distinción. Criterio y bases sociales del gusto*, Taurus Pensamiento: Madrid, 2012.
- [34] Quaini, M., *La construcción de la Geografía Humana*, Oikos Tau, S.A., Barcelona, 1979.
- [35] Criado, F., Límites y posibilidades de la Arqueología del Paisaje. *SPAL, Revista de Prehistoria y Arqueología*, **2**, pp. 9–55, Universidad de Sevilla, Secretariado de publicaciones: Sevilla, 1993.
- [36] Berque, A., *Cinq propositions pour une théorie du paysage*, Seyssel: Champ Vallon, 1994.
- [37] Odum, E., *Fundamentals of Ecology*, 3rd ed., Saunders: New York, 1971.
- [38] Carrillo, F.J., Ciudades del conocimiento: el estado del arte y el espacio de posibilidades. *La innovación en la sociedad del conocimiento: retos y oportunidades para los países iberoamericanos*. Medellín: Colombia, 2004.



- [39] Prada, R., Devenir y dinámicas moleculares. Apuntes para una teoría de la sociedad alterativa. Dinámicas sociales alterativas. [www.rebelion.org/docs/173557.pdf](http://www.rebelion.org/docs/173557.pdf). Accessed on: 11 Feb. 2014.
- [40] Naredo, J.M., *La economía en evolución. Historia y perspectivas de las categorías básicas de la ciencia económica, Siglo XXI*, 3rd ed., Madrid, 2003.
- [41] Sachs, J., Introduction, *Aristotle's Metaphysics: A New Translation by Joe Sachs*, Green Lion Books: Santa Fe, 1999.
- [42] Bordieu, P. & Wacquant Loïc, J.D., *Respuestas, por una antropología reflexiva*, México, 1995.
- [43] Bertrand, G., Paysage et géographie physic globale; Esquisse methodologique. *Revue Géographique du les Pyrénées et de Sud-ouest*, **39**, pp. 249–271, 1968.
- [44] Santos, M., *A natureza do espaço*, Hucitec: São Paulo, 1996.
- [45] Cole, J.B. & King Cuchlaine, A.M., *Quantitative Geography. Techniques and Theories in Geography*, John Wiley: London, 1968.

