The Meaning of Landscape: A Diagram for Analysing the Relationship between Culture and Nature, based on C. S. Peirce's Semiotics

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Introduction

Ask a farmer, a tourist, a historian, a biologist or a developer to describe what they notice overlooking a coastal hill with a pasture, a forest and the sea. Most likely the farmer will stress the potentials of the soil as grazing land for cattle. The tourist will perhaps emphasise the beauty of the scenery and interpret the space as a picnic opportunity. The biologist will be fascinated by the birdlife, or explain why it has disappeared. Finally, the developer will probably consider the potentials of building on the site. Based on his or her sensations and ideas, experiences and knowledge, and means of expression, each of these subjects carries his/her specific interpretation of the setting. In that respect landscape is considered a relationship between culture and nature, i.e. a social construction.

In order to avoid chaos and to solve conflicts between such competing land use interests as those mentioned above, a comprehensive land use planning scheme was developed in Denmark in the late 1970s, the result being that today every piece of land carries with it guidelines in respect to specific land use designations. Primarily, the guidelines cover functional and quantitative problems, whereas the qualitative and symbolic aspects of the landscape are not taken into consideration. Therefore plans are often met by protests, the inhabitants of a place finding that the guidelines confine their living conditions instead of improving them. To cope with that problem the international community, by signing the Rio Convention, has exchanged former planning methodologies for bottom-up processes, such as social learning or collaborative planning (Friedmann 1987; Daniels, Walker 1996). In these, the planner serves as a facilitator and mediator for interest groups in a mutual learning process, instead of being an expert working primarily within and for a system. To act as a facilitator, it is important to be able to analyse and understand what the more or less hidden agendas of stakeholders are, i.e. their *Meanings of Landscape*.

By the concept Meaning of Landscape, Hansen-Møller (2004) refers to the self-evident imaginations of a person or a group of people about nature and all the possible ways in which it can be utilised. These meanings are rarely questioned, because they cannot be verbalised by the person or group itself. Therefore, they are fairly stable, but when confronted with people having other and very firm meanings or, when situated in a fundamentally unfamiliar physical setting, a subject may be aware of his own point of view. Moreover, the Meanings of Landscape unveil themselves in all types of relationships between people and their surroundings, practical as well as symbolic, and as such they can be studied.

In the following, the structure and content of a diagram of the Meaning of Landscape (see figure1) will be presented. It is inspired by the Phaneroscopy and semiotics of the American philosopher and semiotician Charles S. Peirce.

PHENOMENA **MODALITIES**	CULTURE	LANDSCAPE	NATURE
POTENTIALITIES	~~SENSE~~	HABITAT	~~NATURE~~
ACTUALITIES	EXPERIENCE	AREA	ENVIRONMENT
HABITS	ARGUMENT	SYMBOL	'LAWS'

Figure 1] The Meaning of Landscape. Diagram of three modalities of Culture, Landscape and Nature and their relations

At the core of the diagram is a vertical column, termed *Landscape,* representing one of many possible intermediate stations on the continuum from *Culture* to *Nature*. Horizontally, three qualitatively different modalities of these phenomena are distinguished under the labels of *Potentialities*, *Actualities* and *Habits*. The resulting rubric contains nine concepts that are not hierarchically related. Rather, each of them is *absolute,* because of the condensing that has been necessary in order to situate it in a specific field and *relative* to one another due to their topological organisation. In that respect, the diagram can be compared to a Plane of consistency as described by Deleuze and Guattari (1996).

The diagram serves two purposes. First, it provides a tentative theoretical framework for reconciling the relationships between culture and nature and the often random use of notions such as 'nature', 'landscape' or 'environment' by laymen as well as by scholars. Secondly, it offers a topology for analysing and

comparing the intentions of different stakeholders and landowners, as well as planners and politicians in relation to their surroundings, thereby improving the foundation of landscape management.

In this article the structure and content of the Meaning of Landscape is presented, referring primarily to the American semiotician Charles S. Peirce, and put into perspective by the French sociologist Henri Lefebvre. Then the use of the diagram as a tool for analysing open-ended qualitative interviews is demonstrated, and it is shown how the model can be used to compare similarities and differences in the motives of different stakeholders. Finally, the ability of the model to account for development is demonstrated.

Method

The rubric of the Meaning of Landscape can immediately be compared to a map. One of the advantages of maps is that they present snapshot overviews of the distribution and relationships of the elements in our surroundings; and another is that it can help you find your way. On ordinary maps the directional arrow, the legend and the scale are crucial elements which guarantee the credibility of the map as well as helping a reader to use it. Therefore, we will explain their content first. Thereafter we will introduce the essence of the nine concepts of the diagram.

However, it is one thing to produce a representation of the location of different phenomena and their relations, and quite another to make a potential reader comprehend what is being presented and enable him or her to use the map, considering that we are limited to explaining both in linear texts. Translation is at the core of representation, i.e. in mapping, in interpretation, and in map-reading. Translation is also semiosis (Gorlée 1994). In that respect, the following must be regarded simultaneously as a map – a presentation of the content of a methodology for analysis – and as a demonstration of how to find your way by that map, i.e. the method.

Directional arrow and compass

The magnetic pole which has constantly guided the course of the following expedition, and the subsequent drawing of the map, is C. S. Peirce. The compass has been the geometrical presentation of Peirce's semiotics by Nöth (2000).

Usually Peirce presented his 'tricotomies' in figures that he termed Furcations. According to Dinesen (1994: 57) they are comparable to the 'bifurcations' used within theories of catastrophe. However, Nöth has used a rectangular structure for his re-presentation. It holds three columns: Representamen, Object-Relation and Interpretant, read from left to right. In this presentation, figure 2, they have been laterally reversed around the middle column compared to Nöth's presentation and in order to facilitate the following comparison.

	Interpretant	**Object-Relation**	**Representamen**
Firstness	Rheme	Icon	Qualisign
Secondness	Dicisign	Index	Sinsign
Thirdness	Argument	Symbol	Legisign

Figure 2] C. S. Peirce's nine sign-classes horizontally reversed around the column Object-Relation compared to the presentation of Winfried Nöth's (2000: 66).

To Peirce 'A sign, or *representamen*, is something which stands to somebody for something in some respect or capacity.' (CP 2.228) i.e., Representamen, Object-relation and Interpretant. In this context these notions are associated with Nature, Landscape and Culture respectively. Peirce considered matter to be *effete* mind (CP 6.24), i.e. *mind* frozen into a 'regular routine' (CP 6.277). In Santaella's (2001) words, 'mind and matter are *termini* of a single *continuum,* and so are the organic and inorganic, the artificial and the natural, culture and nature' to Peirce. Based on that, and as people in Western culture are used to writing and reading from left to right, the first column of the diagram in figure 1 has been assigned the heading Culture*,* the last Nature.

Some might argue that we are wrong in substituting Interpretant for Culture as human mind is not a prerequisite for semiosis *à la* Peirce. What he had in mind was rather an intelligent 'quasi-mind' (Gorlée 1994: 62). But at the core of semiosis is translation, and according to Santaella (2001) to translate is a praxis we can play, not because we have learned a set of rules, but because we cannot help generalising and associating. Further, she states, association is above all the habit of understanding, i.e., *the* law of the mind.

This brings us to a consideration of the legend of the forwarded diagram, but first it is important to remember that, besides the magnetic pole, a geographi-

cal one exists as well. In this case the French sociologist Henri Lefebvre (2000) has helped us justify our translations from Peirce to landscape planning, as he is especially interested in space and its production.

The point of departure for Lefebvre's studies was the relationship between the social and the spatial in agrarian areas on the periphery of France. Later he concentrated on the crisis of the big cities. Using him in relation to considerations about landscape, we are, so to speak, 'bringing him back to his basis'. His theory is not about space as such but about the *production* of space, hence, space is neither considered a thing nor an object. Rather, it is understood as a set of relations themselves intervening in the ongoing process of space production. It is an effect of societal decisions and human behavior.

Some might find it strange to employ Lefebvre's ideas in relation to Peirce's, as he explicitly criticises semi*otics* for taking space for granted. To that it can be argued that Lefebvre obviously refers to the linguistically-based French semi*ology* of Ferdinand de Saussure, mentioning Noam Chomsky, Julia Kristeva, Jacques Derrida and Roland Barthes. These he criticises for ignoring the gap that separates linguistic mental space from social space and for understanding the mental realm as enveloping the social and physical ones (Lefebvre 2000: 5). It is generally accepted that Ferdinand de Saussure paid no attention to the materiality outside language, in contrast to Peirce, whom Lefebvre obviously was not familiar with. Anyhow, he employs a triadic distinction of space comparable to Peirce's modalities.

Further, Lefebvre as well as Peirce reacted to the Cartesian split between matter and mind. To Lefebvre, space is physical *as well as* mental, and what he finds problematic is the split between body and mind (Simonsen 1999: 12). Therefore, this author has found his ideas useful in developing relevant categories for understanding Landscape.

Legend

On cartographic maps sketched symbols and colours are changed into written words and vice versa. For example, a green colour is equated with the word 'forest'. This exchange takes place in the legend, which is the place of translation *par excellence*. At its core is the exchange of one intentionality for another (Hansen-Møller 1995: 221). However, it is rarely discussed how this is done (Hansen-Møller, Bahrenscher 2000).

In this study, Peirce's concepts and their explanation have constantly served as the 'colours' from which the content of the new concepts has been developed. This has been done through diagrammatic reasoning, i.e. abduction.

Peirce himself preferred *abduction* to deduction. He preferred it, firstly, because he considered abduction more of a sideways movement, reaching its conclusion using similarities of iconic character in contrast to deduction, which he portrayed as backwards thinking. Secondly, he found deduction insufficient in real world situations, as it was more common than not to derive more than one conclusion from one set of premises. Thirdly, abduction was seen as a methodology that suggests that something *may be,* therefore introducing new ideas and opening new grounds for intellectual inquiry (Dinesen 1991: 82; Gorlée 1994: 43). Nevertheless, Peirce also realised that the truth-value of abduction is weak, although he found it more than gratuitous guesswork. May (1999) describes it as a process of construction, manipulation and observation of parts and relations in external diagrams by a cognitive agent, the process beginning with observation in order to accumulate clues that can lead to conclusions. Moriarty (1996) finds that this type of reasoning relates especially well to processes of visual communication. That is probably the reason why this author, being a landscape architect, finds abduction comparable to her personal experiences in design, and a suitable means for this study. Its procedure Peirce describes as follows:

> …we construct an icon of our hypothetical state of things and proceed to observe it. This observation leads us to suspect that something is true, which we may or may not be able to formulate with precision, and we proceed to inquire whether it is true or not. For this purpose it is necessary to form a plan of investigation and this is the most difficult part of the whole operation. We not only have to select the features of the diagram which it will be pertinent to pay attention to, but it is also of great importance to return again and again to certain features. Otherwise, although our conclusions may be correct, they will not be the particular conclusions at which we are aiming. But the greatest point of art consists in the introduction of suitable *abstractions*. By this I mean such a transformation of our diagrams that characters of one diagram may appear in another as things. (CP 5.162.)

The 'returning again and again to certain features' has also been characteristic of the case in the development of the diagram presented here, as in any design process which from a theoretical perspective is usually termed *iterative* (Steinitz et al. 1976).

Scale

On cartographic maps the scale guarantees that the same yardstick has been used to represent all the elements measured that are represented on the map. On the diagram presented here, the vertical and horizontal yardsticks differ.

The vertical scale is here divided into Culture, Landscape and Nature, which share a structural analogy. To Peirce, reality is matter as well as form and structure. It exists whether it is recognised or not, or whether it can be recognised or not. But reality is *also* constituted by human acknowledgement, i.e., ideas according to Christiansen (1988: 13–14). This means that when we observe nature and try to reveal its patterns, our studies are based on recognitions of analogue patterns imbedded in human thinking (Dinesen 1994: 51–52), i.e. the nature of thinking – here Culture – resembles the thinking of nature – here Nature (Dinesen 2001 and 2004), representing the end stations on a continuum of which Landscape is but one possible intermediate category.

The horizontal scale of the diagram is divided into Potentialities, Actualities and Habits. These are considered different modalities of the phenomena on the horizontal scale. They are also considered evolutionary inspired by Peirce's semiotics and his so-called phaneroscopy – a term he used in order to distinguish his ideas from the phenomenology of G. W. F. Hegel and Edmund Husserl.

To Peirce a sign presents itself in three different modes, which he in his semiotics named Firstness, Secondness and Thirdness. In his phaneroscopy, he also employed a triadic distinction. According to Gorlée (1994: 41), Firstness is the hardest to understand. It represents 'pristine simplicity' and 'naïveté'. It involves unanalysed, instantaneous, immediate feeling: direct 'suchness' dependent on nothing else beyond itself for its comprehension. It is monadic and qualitative. Secondness involves the dynamic idea of 'otherness', of a two-sided or dyadic consciousness as action and reaction to stimulus, and refers to something that actually takes place. It is as if something is 'forcing its way to recognition as something *other* than the mind's creation'. Therefore, it is through Secondness that we face, and deal with, reality and acquire experience, i.e. an understanding of what has been done. Finally, Thirdness embodies continuity and refers to all kinds of intellectual activities such as logical thought, mental growth and communication. It is future-oriented and permits us to predict the becoming. It is the 'consciousness of synthesis'. Peirce characterises it as the 'medium' or the connecting bond between the absolute first and last. It is a 'means' (CP 1.337), which

can almost perfectly be represented by continuity. Also 'moderation' is taken to be an example of the triadic relation of Thirdness. However, asking 'What is the law of mind?' Peirce answers by stating that ideas tend to spread continuously and to affect certain others. By doing so they lose their intensity, and especially the power of affecting others, but gain generality. This tendency Santaella (2001) characterises as habit itself.

Rather late in life Peirce was inspired by Charles Darwin, Pierre-Simon Laplace and Jean Baptiste Lamarck to a set of distinctions of the evolutionary forces, understanding the idea of arbitrary sporting and chance as First, heredity and laws as Second, and the process whereby the accidental character becomes fixed, i.e. the tendency to form habits, as Third (Dinesen 2001).

Inspired by the above distinctions, the modalities of the phenomena Culture, Landscape and Nature on the vertical scale are designated as Potentialities, Actualities and Habits on the horizontal. In the following, the content of the nine resulting concepts will be explained beginning with Culture, followed by Nature and ending with Landscape.

Culture

What is meant when people use the word 'culture' varies depending on the tradition within which they speak, be it anthropology, history, cultural geography, etc. (Saltzman 2001: 48–53; Roepstorff, Bubandt 2003). To semiologists, culture is often equated with language (Gorlée 1994: 33). In this context the term culture is used as a common denominator for the ability of human beings to interpret their surroundings. Peirce (CP 1.350) uses the concepts 'feeling', 'actions or oppositions' and 'synthetic thought' to characterise its modalities. In the following we will employ ~~*Sense*~~, *Experience* and *Argument* as notions characterising the nature of thinking, i.e. 'culture'.

~~Sense~~

Imagine any qualitative possibility at all – though not necessarily positive – and you are employing a Peircean Rheme, a sign of qualitative possibility, which for its Interpretant is understood as representing such and such kind of possible object (CP 2.250). To Peirce the Firstness of interpretation is a quality of immediate consciousness (CP 1.307). He describes it as feeling or an instance of

consciousness, which is a mere possibility, not limited to any definite 'subject' (CP 1.332). It neither involves analysis, comparison or any process whatsoever nor consists, in whole or in part, of any act. It is not an event or happening, and if you ask what its content is, the answer always comes too late. It is all that it is positively, in itself, regardless of anything else (CP 1.306), and can be considered a state of consciousness in which the effect of other things or persons on us is overwhelmingly greater than our effect on those and them.

To Lefebvre (2000: 173–174) the most basic spatial indicators to any living body, first of all, are 'qualified' as when a spider orients itself in space. It existed long before an 'I' began to appear split and divided, and long before space emerged as a medium of far-off possibilities. This relationship Lefebvre characterises as 'immediate' in the sense that it does not depend on the mediation of an external force, whether natural or divine.

We employ the notion ~~Sense~~ to signify what is at stake. The term is crossed out in line with Heidegger's crossing out the term ~~*Sein*~~ (Being) to indicate that he wanted to speak about Being in a mode from before language was corrupted (Braun, Wainwright 2001). In doing so, we mean to imply that, at the level of Firstness, Culture is understood as qualitative potentials of a kind that we can neither grasp nor share, as it is embryonic and inherent. It refers to qualitative abilities, as when we say 'she has a sense of this or that', i.e. a sixth sense, as well as to the sensitivity of the five senses before they are cognised (Hansen-Møller 2004). Despite being crossed out, the term is still readable. Thereby we want to stress that it is always an outside representation of an inside familiarity. It refers to immediate feelings and perceptions of a spatial being that cannot be directly verbalised, but can only be represented by something else which sometimes can be recognised from the outside as a stumbling or hesitation of speech.

Imagine what two types of farmers, a pre-modern peasant and a modern productive full-time farmer, for example, will perceive on their respective land. The former inhabits the space of which he is part and parcel and will imagine that leaving it will cause his death. He therefore enjoys watching wildlife as well as domestic animals when walking through his fields. The latter resides in a position he has developed to the state that it is in and, driving his tractor, he will enjoy or regret the level of his interest when perceiving his crops (Hansen-Møller et al. 2004).

Experience

At the level of Secondness, Peirce termed the semiotic Interpretant Dicising. It is factual and energetic; a sign which, for its Interpretant, is a sign of actual existence coming into being through the assertion or denial of the emotional and intentional qualities of the Rheme and the laws of the Argument (CP 2.251). Causation is predominant at this level (CP 1.325) as is the idea of reality.

Peirce makes a distinction between perception and action. To him the effect of perception is such a prominent part of life that it makes us conceive that other things also exist by virtue of their relationships with each other (CP 1.325 and 1.336). While perceiving our surroundings, certain things will shock us. We find them attractive or repellent and they make us think or act otherwise than usual. Reality insists upon forcing its way into our recognition as something other than mind's creation and makes us aware of our selves and 'not-selves'. The surroundings 'urge' us to act upon them or modify them. Effort and resistance are therefore crucial within experience and action, as well as causation.

Likewise Lefebvre (2000: 185) stresses a difference between the perceived and the conceived. To him this difference is caused by a mirror-effect, which turns the 'I' into the *sign* of 'what I am' within an imaginary area, which is yet quite real, the picture of the 'I' thereby becoming comparable to that of an 'other'.

In this context, the term Experience is used to refer to all conscious and reflexive explanations of respondents for particular actions, in relation to the space in which they are living, based on knowledge or former experience, as exemplified at the beginning of this article in reference to the farmer, the tourist and the politician reading the same space differently.

For example the peasant referred to above will make decisions based on what he has learned about farming from his father and what he has experienced himself during his years cultivating the same fields over and over again. To him that is a form of life of which the well-being of his family and his animals has priority. In contrast, the full-time farmer will refer to his education, what he has learned from college, agricultural advisers, etc., as his basis for decisions. What counts for him is the economic outcome of his style of life or what he considers an occupation (Hansen-Møller et al. 2004).

Argument

As Interpretant at the level of Thirdness, the sign is a sign of the truth of its 'conclusion' or of a rational interpretation according to Peirce (CP Endnotes of book 5), a sign without which there would be no Symbols. He terms it Argument and finds that it is here that the reasons for good and bad are veiled, and that an interpreter has to take note of the actual effect of the sign (CP 4.536).

The notion Argument will also be used here to embrace the habit of questioning the statements and effects of actions of others, according to generally acknowledged regularities, i.e., what is here termed 'Law' (see below). Furthermore, in correspondence with what are considered the Laws of Nature, an Argument is the necessary condition for a sign to become a Symbol.

Besides the perceived and the conceived, Lefebvre (2000: 33-40) considers lived experiences both highly complex and peculiar because culture intervenes at his level. It works through associated images and non-verbal symbols, which are sometimes coded, sometimes not, and which are linked to the clandestine or underground side of social life, as also to art.

In line with that, the above-mentioned full-time farmer will take his education and knowledge as the point of departure when establishing what he considers a 'Law' of nature, whereas the peasant will base his arguments on the knowledge acquired from being the fifth generation on the farm (Hansen-Møller et al. 2004).

Earlier we made a distinction between the three modalities of culture: ~~Sense~~, Experience and Argument, of which the first can be characterised as personal, the second as social and the third as cultural. In the following we will describe the analogies of Nature.

Nature

The concept 'nature', if you look it up in a dictionary, has a variety of meanings. In 'critical geography', Castree (2001) discusses the consequences of a triadic distinction of nature: nature external to and different from society; intrinsic nature, i.e. an inherent and essential quality of something, and nature as something generally encompassing everything that is, humans included. The problem of this characterisation seems to be that it maintains a dyadic difference between culture and nature. In contrast, Peirce offers a scheme of triadic analogies, of which the modalities of nature are chance, law and habit. In accordance with this, we sug-

gest Environment and 'Law' as terms characterising the thinking of Nature.

~~Nature~~

The term ~~Nature~~, at the level of Firstness of Nature, is crossed out in correspondence with the notion ~~Sense~~. It alludes to all possible qualities, of which our sensory organs, technology and theories only give access to some, as there will always remain some that we cannot grasp.

In his semiotics Peirce designated the first sign of the Representamen Qualisign, to express the possibilities of sign-giving before they are embodied (CP 2.244). His idea of the thinking *of* nature, at the level of Firstness in his phaneroscopy, he owes to Darwin's Theory of Evolution, as it is encouraged through natural coincidental selection. To Darwin, variations are not understood as mere deviations, but as the source for development of new species, due to local conditions that either encourage or restrain development (Dinesen 1994: 45). At this level, free, spontaneous variations of monadic, chaotic qualities not yet realised (i.e. potential) can be studied.

Here ~~Nature~~ refers to the complete but chaotic potentials of perceptions and activities possible in relation to our surroundings. In other words, ~~Nature~~ is the stuff that gives rise to human dreams and desires.

The peasant we are using as an example will instinctively sense differences in light, smell, temperature, wind and so on, whereas for the farmer the qualities of ~~Nature~~ will be affected by the potentials of the resource for further development (Hansen-Møller et al. 2004).

Environment

The Representamen, at the level of Secondness, Peirce has named Sinsign (CP 2.245). By that he understands an actually existent thing or event, which is a sign ('sin' meaning 'being only once' as in single, simple). It can only be so through its quantitative relationship to its 'Dynamic Object' – the factual combination of form, texture and so on – and it only serves as a sign through its actual embodiment.

In describing the thinking of nature in its aspect of Secondness, Peirce was inspired by the principles of forces of attraction and repulsion developed by the French mathematician and physicist Pierre-Simon Laplace. Such forces work mechanically everywhere and are measurable or quantitative. However, what is

especially interesting is that these phenomena are predictable by necessity, because they do not change over time within the framework of a known universe. At this level, evolution is considered to be based on the conditions necessary for stabilising processes in the thinking *in* nature (Dinesen 1994: 45 and 2001).

Lefebvre (2000: 174–176) characterises the whole history of life as an incessant diversification and intensification of the interaction between inside and outside. As with human groups, the spider referred to above is capable of demarcating space and orienting itself. It creates networks and links, symmetries and asymmetries, and is able to project, beyond its own body, these dualities, which helps it to constitute its body and its relationship to itself. What is important here is that the spatial indicators are, first of all, qualified by the body. When the spider becomes aware of another – a fly, for example – the other is interpreted as an object of expenditures of energies such as 'aggression' and 'desire'. To this author, this description seems to correspond to Peirce's idea of 'attraction and repulsion'. Further, the feelings of the spider, according to Lefebvre, are expressed through 'gestures', 'traces' or 'marks', not consciously but 'just as if'. In other words, they are not considered intentional in a human sense and can therefore be considered analogous to the Peircean Sinsigns, actual existing things or events. In terms of mapping and planning, Hansen-Møller (2003: 18) has translated the concept Sinsign to 'Mark', comparing marks to tests of pens, colours and the like.

Here we suggest the term Environment as a label for existing physical entities, forces and structures not yet interpreted or categorised. They are the qualities subsisting by necessity at a certain point in time, whether noticed or not by any living being, i.e. the differences that make a difference.

To our peasant, the farm includes fields as well as ponds, hedgerows and forests. Of course floods will influence his acreage of arable land, but they are a part of the conditions of his form of life. The farmer, on the other hand, makes a distinction between arable and non-arable land, based on the fertility and dryness of the soil, for example, as he primarily experiences his Environment as different means for production (Hansen-Møller et al. 2004).

'Law'

Peirce was, in his description of the level of Thirdness of Nature, inspired by the theory of a tendency within nature to create habits or stable patterns, within matter as well as within mind, over time, a theory developed by the French biologist

Jean Baptiste Lamarck. He uses the growth of a seedling into a plant that flourishes and withers as an example of the combination of the qualities of Firstness and the quantities of Secondness to the triadic relations of Thirdness.

Within his semiotics Peirce regarded all conventional signs to be what he called Legisigns (CP 2.246), but not conversely. They were usually thought of as being general types established by men. As an example he used the term 'the'.

Referring to Hermann Weyl Lefebvre (2000: 171) claims that S*ymmetries* are found all over in nature be it organic or inorganic. This thesis Lefebvre founds so persuasive that he wanted to extend it to *social* space. But as the concept of *Symmetry* seemed to imply a circumscribed or *finite* space he also introduced Weyl's idea of *a Mirror-effect* – the most unifying but also the most disjunctive relationship between form and content. These concepts can be seen as examples of laws of nature (Hansen-Møller, Saltzman, Svensson 2005).

Here the term 'Law' signifies what is at stake on the level of Thirdness of Nature, the quotation marks indicating the apparent obviousness of the content of the field. To some, natural species were created by God in seven days. To others, they have developed over time since the Big Bang (Hansen-Møller 2004).

To the peasant, the 'Law' of Nature will probably be that everything is cyclical. Like the seasons change, one generation follows another on his land. To the farmer, what counts as the 'Law' of distinctions, to which he refers his Arguments, will probably be growth and the economy. As crops and domestic animals grow and produce so does man, thriftiness being his hallmark.

Earlier, we designated the three modalities of Nature – ~~Nature~~, Environment and Argument – as Potentialities, Actualities and Habits respectively. Next we will describe the analogue relations between Culture and Nature under the heading Landscape.

Landscape

Landscape is at least as complex a concept as Culture and Nature. Here it alludes to one of several possible stations on a continuum of comparable categories between Culture and Nature.

To Lefebvre (2000: 189), the power of landscape does not derive from the fact that it offers itself as a spectacle. Rather, it originates from the fact that it, 'as mirror and mirage, … presents any susceptible viewer with an image at once true and false of a creative capacity which the subject (or Ego) is able, during a

moment of marvellous self-deception, to claim as his own.'

Icon, Index and Symbol are the concepts known to most people who have a slight acquaintance with Peirce. They are used to describe the three modalities of the Object-relation of the sign. In line with this, we distinguish Landscape as *Habitat*, *Area* and *Symbol*.

Habitat

The relationship between ~~Sense~~ and ~~Nature~~ we designate as Habitat. This word is not crossed out like the others because it refers to a phenomenon considered manifest and as such perceivable to others, but only describable from the outside, i.e., at the level of Secondness. Nevertheless it can be cognised as an example of the practices of Culture and Nature being two sides of the same coin.

To Peirce an Icon is a sign which refers to the Object that it denotes merely by virtue of characteristics of its own, and which it possesses just the same, whether any such object actually exists or not (CP 2.247). Further, it has no dynamic connection with the object it represents; it simply happens that its qualities resemble those of that object, and excite analogous sensations in the mind, for which it is a likeness (CP 2.299). A diagram is one of the examples Peirce gives of an Icon.

Lefebvre (2000: 33) introduces *Spatial practice* as a concept referring to production and reproduction of particular locations and spatial settings characteristic of specific social formations such as burial mounds and holy groves. Spatial practices presuppose the use of the body (i.e. the use of hands, gestures and the sensory organs) and ensure continuity and some degree of cohesion, which implies a guaranteed level of competence and a specific level of performance.

Inspired by the above and by biology, we will employ the concept Habitat to refer, from the outside, to the interdependence between a living species and its places of living, meaning that leaving such a place might cause the death of the subject in question. Further, it refers to the innumerable qualitatively different combinations of the potentialities of ~~Sense~~ and ~~Nature~~, i.e. of all forms of human spatial relations that have ever existed and will ever come into being.

A genuine peasant is probably so attached to his fields that his body is marked by the hard work of cultivating the soil. Moreover, he would rather lose an arm than give up part of a field for a new road, because 'you just don't sell your ancestors'. A suitable Icon of his rooted-ness could be the old oak tree in his courtyard. On the other hand, the spatial practice of a genuine farmer could be represented by

a huge manure storage shed, signifying his dreams of combining the fertility of the land and his own qualifications in developing the best cattle farm within sight.

Area

At the level of Secondness, Peirce assigns the notion Index to the sign. It is determined by its Dynamic Object, by virtue of being in a real relation to it, as a matter of fact (CP 4.447 and 8.335). It serves to identify its object and assure us of its existence and presence (CP 4.447) to the extent that it would lose its character as a sign if its object were removed, but not lose that character if there were no Interpretant (CP 2.283). While Icons stress likeness, Indicies stress differences.

In 1860–1890 Peirce worked for the Coast and Geodetic Survey and developed what he labelled a *Quincuncial Projection* of the earth (Eisele 1979: 153). Despite that, he used a photo instead of a map as an example of an Index (CP 4.447).

Lefebvre (2000: 33–42) employs the notion *Representations of space* to refer to the spaces of scientists, planners, urbanists, sub-dividers and social engineers, all of whom identify what is 'lived' and what is 'perceived' with what is 'conceived'. These people have a practical impact on spaces, in the sense that they modify spatial 'textures', informing them by knowledge and ideology; interventions occur by way of construction, not in a physical sense as roads or buildings, but as reproductions of social practices. Lefebvre also identifies the ongoing exchange between the members of society as taking place in space, where people relate and situate themselves, causing them to assume different roles and positions in society.

Here we employ the term Area, thereby indicating that what we have in mind are the quantitative differences in size and content of sections of land such as properties, regions or countries, the shapes and contents of which are defined by different types of knowledge, i.e. Experiences such as landscape ecology, anthropology, sociology, cultural history, geography, etc. As mentioned, a map might serve as an example of an Area, meaning that it stands in a real relationship to the Environment, in the sense that if, for example, a lake is drained or a hill used as gravel, the Object-relation is changed and the representation has to be re-represented in order for the causal relation to be true by necessity. Likewise, changes caused by natural forces such as the increase of the concentration of CO_2 in the atmosphere might cause a scientist to look for and develop explanations for what results, such as pollution from cars, a hole in the ozone layer or sunspot activity.

In sum, Landscape as Area here refers to the ongoing mutual exchange be-

tween Experience and Environment. To the peasant, the specific property marked by boundary stakes is an Area, whereas to the farmer it is rather represented by the land register map, not only of the fields he owns, but including the ones he leases (Hansen-Møller et al. 2004).

Symbol

To Peirce (CP 2.292) all conventional signs are Symbols. Further, a Symbol is a sign, which refers to the Object that it denotes by virtue of a law, usually an association of general ideas, which operates to cause the Symbol to be interpreted as referring to that Object (CP 2.249). In other words, the value of a Symbol is that it serves to make thought and conduct rational, and enables us to predict the future (CP 4.448). Symbols grow and come into being out of other signs, particularly Icons, here Habitats, and they can deceive or lie, since the association between a Symbol and its object is arbitrary. It does not denote a particular thing, but a *kind* of thing (Buchler 1955: 114). Consequently its interpretation can be changed at will, or overruled by new agreements (Gorlée 1994: 56).

Lefebvre introduces the notion *Representational spaces*, which to some extent can be compared to a Peircean Symbol. Representational spaces are 'lived' through their associated images and symbols (Lefebvre 2000: 33–42). Sometimes they are coded, sometimes not. They are the spaces of 'inhabitants' and 'users', as well as of artists or philosophers, who aspire to 'describe' them and no more. Space at this level is not subject to practical changes. Rather it is passively experienced through imagination, which seeks to change and appropriate it (Lefebvre 2000: 39). Representational space is concrete and subjective and it is here that the 'private' realm asserts itself often against the public one (Lefebvre 2000: 362). It is also highly complex, because culture intervenes here. Products of Representational spaces are symbolic works, often unique and sometimes able to set in motion 'aesthetic' trends that, after having provoked for a time, run out of steam.

A painting of the above-mentioned oak tree in the middle of the yard can serve as an example of a Symbol of the place where a peasant lives, whereas a bankbook would serve the same function for the farmer.

Above we made a distinction between the three modalities of Landscape: Habitat, Area and Symbol as Potentialities, Actualities and Habits respectively. Next we will illustrate how the rubric is used as an analytical tool.

How to use the rubric

In order to understand how the model is used to analyse interview transcripts, it is important to know that Peirce did not restrict himself to the nine signs mentioned above, but found ten sign-classes when combining them (Buchler 1955: 115–118). Here the sign-classes are located in the developed diagram as illustrated in figure 3.

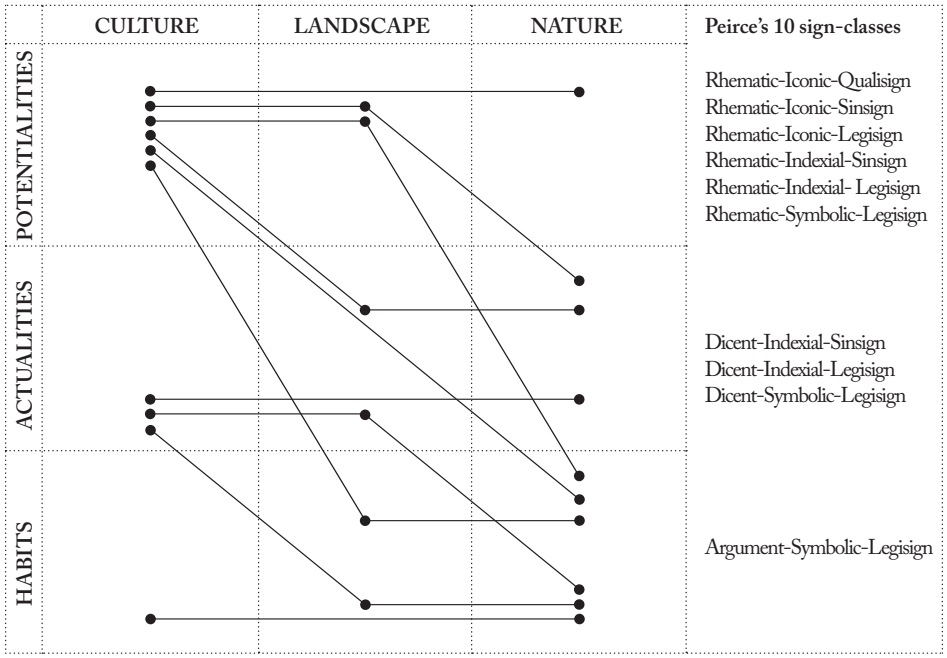

Figure 3] Illustration of the ten sign-classes of Peirce's implemented on the diagram of The Meaning of Landscape.

In analysing an interview, the narrative of the semiosis is 'unravelled'. First, what is immediately taken to be the content and relations at the three horizontal levels, Firstness, Secondness and Thirdness, and under the three vertical headings, Culture, Nature and Landscape, are extracted. When the different statements are distributed in what can be argued to be their relevant fields, their relations are tested once again beginning with the conclusion, i.e. the Argument, making sure that all the statements about the same subject are in line with it.

For example, the statement of the person used as an illustration in figure 4 – 'in some cases I prefer having first-class things, in others it does not matter that much' – seems fundamental to his way of living. He does not care much about

the house in which he lives. It is just a rented room at a former farm, a stepping stone to something better in the area. In contrast, his bike is more expensive than those of most people. Furthermore, it is important to him that the landscape offers a high number of varied bicycle routes, as he will be bored on a monotonous route and feels claustrophobic in a suburb. The potential of nature to him is the unknown that he perceives when riding his bike where he has not been before. Doing so brings him mental pleasure and makes him feel at home in his Habitat as a Muslim in Mecca.

Biking …is something in itself. I like to go for long bike rides by myself, but I also bike with others. It is a very mental process to bike. It is pure pleasure [to bike where I have not been before].	I have arrived where I belong. I like the area. … it is like a Mecca for biking.	There are incredible many aspects of bicycling…the quietness I especially favour. Outside the sealing is up high.
This place looked good immediately and can be a stepstone to something else in the area. That there live others [in the other buildings] is ok. It [one of my bikes] costs a couple of twenty thousand…you can really tell the difference.	This morning…I experienced a new road through the forest. Then I rode it. This is how I use the area. This location is central. I can cross the whole area within one and a half to two hours.	This place has been a farm. Now the farmhouse is rented out. The terrain here is fine, and the area is nice. Then it is not that far away from the city [Copenhagen].
I always wanted to live in the countryside. That is where I feel best. In some cases I prefer having first-class things, in others it doesn't matter that much.	What I wish for is that everything [place of living and the surroundings] forms a synthesis…to find a place where you feel good…with rolling hills and ideally forest and water …at a suitable distance from the main road …something not old and not new…like a log house	Bornholm [the island where he lived as a child] …is too small …the bike rides are always the same…in Brøndby Strand [a Copenhagen suburb] I feel claustrophobic. …an expensive bike…is a necessity of life. But it is also a means of transport. And then it is cheap. A bike is loaded with many kilometres.

Figure 4] Illustration of The Meaning of Landscape to an incarnated bike-rider who has recently moved to the countryside.

Wanting to compare different Meanings of landscape, a process such as the one described above must be carried out with all the interviews. Afterwards the dia-

grams can be compared and ideal types of different styles of life can be extracted, as illustrated in figure 5.

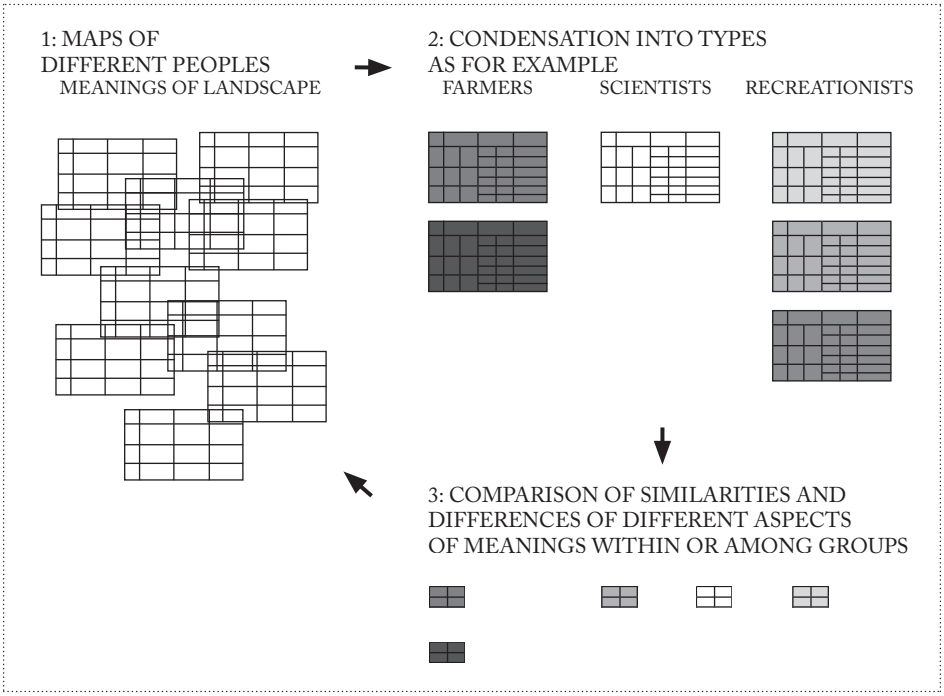

Figure 5] Illustration of comparisons of different types of Meanings of landscapes and identification of possible conflicts.

In relation to the interests in using the countryside for different purposes, the outcome of an analysis might be the identification of, for example, three characteristic perspectives of the possibilities for outdoor recreation: one related to nature protection and two perspectives of farmers. In order to solve the probable conflicts between these stakeholders, their respective Arguments and/or Experiences and so on are compared. For example, you will be able to detect if the resistance of a farmer to public access to his property is best compensated by paying him off once and for all or by offering him either publicly guaranteed insurance or another piece of property.

Development

Some might find the rubric now being illustrated and described fairly rigid and unable to account for development or change, and see it as maintaining the Car-

tesian split. In the following we will explain why we do not consider that to be the case.

As mentioned, Peirce was an evolutionary thinker, who understood culture and nature neither as a dialectical contrast nor as prerequisites for one another, but rather as phenomena on a continuum. He also insisted that a philosophical system must be able to account for growth and the development of complexity and variety, besides accounting for regularity, etc. (CP 6.613).

Darwin's theory of the development of species might serve as an example of how to understand development using the rubric. Most people of his time understood nature as created by God once and for all in seven days. It was an unquestionable given, i.e. a 'Law' of Nature. Then Darwin, studying the Galapagos Islands, got the idea of the relation of the species, humans having ape-like creatures as their ancestors. After many hesitations he finally dared to put forward the idea, presenting its causes and effects. And of course it was met with suspicion and resistance, but gradually his arguments gained common recognition and his distinctions between species afterwards inspired the work of his followers.

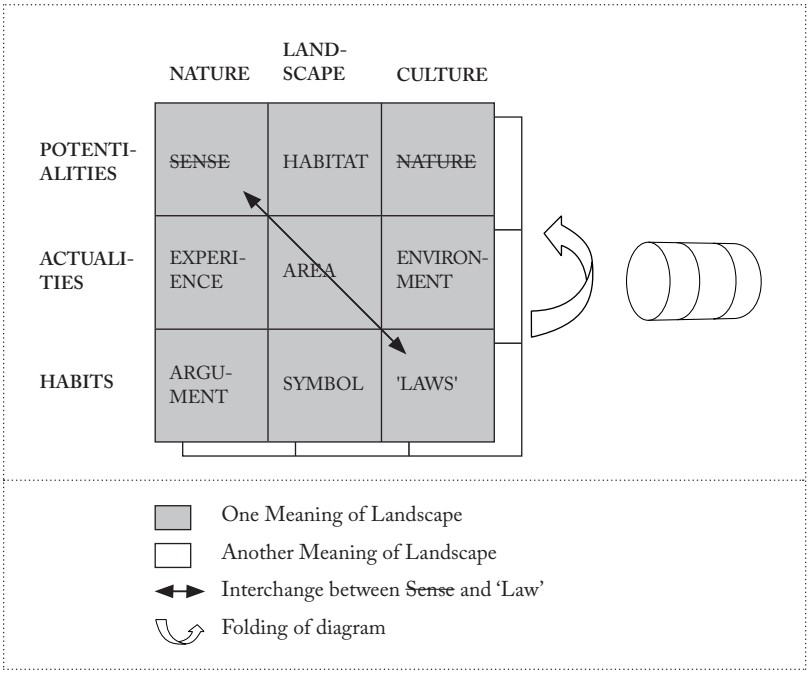

Figure 6] Three causes of development in Meaning of Landscape: An idea challenges the 'Law'; confrontation with another Meaning challenges the obvious of one's own; manmade or natural change in the environment demands a new interpretation and gives a new Experience.

Today his ideas have gained common recognition and replaced the Creationist idea for most people in western cultures except for the ones forwarding ideas about Intelligent Design (Behe, Dembski, Meyer 2000). What has happened is a movement from Firstness to Thirdness and back again, one paradigm being exchanged for another, as illustrated by the arrow in figure 6. The story can also be explained as a confrontation between persons carrying completely different Meanings of Landscape, Darwin's meaning challenging the meaning of the clerics and the supporters of the Intelligent Design idea now provoking the scientific establishment.

The continuation of semiosis in this way can also be demonstrated by rolling the diagram into a cylinder, the consequence being that Firstness follows Thirdness. This is simultaneously the strength and the weakness of the rubric: a strength because it demonstrates an openness to development of new ideas, and a weakness as it complicates the distinguishing of Habitat from Symbol and vice versa.

Finally, development can also be an effect of changes from the outside, as when natural or man-made changes in the Environment force the interpreter, for example the scientific establishment, to develop new explanations of what is at stake in order to make their maps trustworthy.

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