

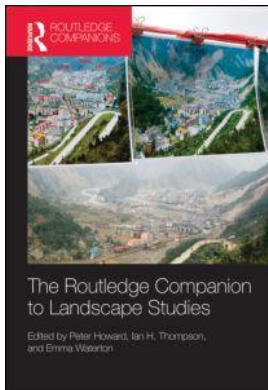
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Semiotics of landscape

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Denis Cosgrove (2003) has stated that there are two distinct discourses in landscape studies, ecological and semiotic:

A semiotic approach to landscape is sceptical of scientific claims to represent mimetically real processes shaping the world around us. It lays scholarly emphasis more on the context and processes through which cultural meanings are invested into and shape a world whose 'nature' is known only through human cognition and representation, and is thus always symbolically mediated.

(Cosgrove 2003: 15)

He explicitly calls for cooperation and mutual respect and understanding between these two discourses, maintaining that no ecologic interpretation or policy can ignore the effect of cultural meaning-making processes, whereas it must be recognized too 'that meaning is always rooted in the material processes of life' (ibid.)

A semiotic approach in landscape studies would mean the inclusion of these meaning-making mechanisms, the aspects and roles of symbolization and sign processes. In the current chapter, we give a review of existing work in the semiotics of landscape.

Further, we use a distinction between *semiotics*, defined as the general study of sign processes in the living world (which includes the temporal dimension and individuality of sign use), and *semiology* that studies sign relations mainly in their synchronic and social (structuralist) aspects. Thus semiology can be seen as a part of semiotics. The different approaches as we distinguish them below can be seen as complementary to each other.

The beginning of 'landscape semiotics' as such is difficult to pinpoint, since there has been little explicit usage of semiotic terminology in landscape studies, although a wealth of

inherently, albeit implicitly, semiotic scholarship has been produced on topics such as landscape representations and preferences, the manifestations of power relations and the embodiment of social structures and memory in landscapes. There are many works that could potentially belong to landscape semiotics but which do not identify themselves as such. Mostly it is not yet a subject that enjoys an independent status in university curricula. Most landscape scholars understand 'semiotics' much more narrowly than semiotics as a discipline sees itself, equalling it mostly to linguistics and Saussurean influenced semiology. Scholars of semiotics, on the other hand, still tend to prefer the 'social space' as their concept of choice, with a special emphasis on urban semiotics (like Lagopoulos and Boklund-Lagopoulou 1992; Gottdiener 1995; Randviir 2008). In many cases, the terms 'space', 'place' and 'landscape' are used interchangeably, without much terminological rigour or distinction (that is not rare in human geography either). Often there is an overlap with neighbouring disciplines such as the semiotics of tourism or architecture. Departing from animal communication studies, Almo Farina (2010) has actively worked on the semiotic understanding of landscape ecology, but a more comprehensive synthesis between the ecological and cultural semiotic branches in landscape research, which Cosgrove called for, is yet to be developed. Between the semiological/structuralist and ecological currents we can see a growing body of work that seeks to materialize the semiotic study of landscapes with the help of phenomenology, Peircean semiotics or the semiotics of culture, and that in future years could contribute to the new emerging synthesis.

Semiological approaches

For many scholars from a background other than semiotics, 'semiotics' is loosely equated with the analysis of meaning and signification in linguistics. Semiotics, 'semiology' and 'linguistics' often appear as near synonyms, whereas in several handbooks of geography a distinction is made, for example between the iconography and semiotics of landscapes (Crag 1998), which are both seen as integral parts of semiotics by the semioticians. Landscape semiotics grounded on the semiological and/or structuralist approaches and post-structuralist antithesis is by far the most common among the explicit attempts to develop landscape semiotics. Structuralism in all its different developments from Saussure and Barthes to Greimas (see Nöth 2000), is also the most preferred approach in applied landscape semiotics (Monnai et al. 1981–90; Haiyama 1985, Monnai 1991, 2005; Lukken and Searle 1993; Son et al. 2006) and is most popular among those scholars whose main field of research is outside semiotics, including geographers, architects and others (Lindsey et al. 1988; Nash 1997; Møhl 1997; Knox and Marston 2001; Claval 2004, 2005; Imazato 2007; Czepczyński 2008).

The methodology of semiological analysis consists mostly of applying different linguistic concepts to the study of landscape elements. Landscapes are seen as sign *systems*, that is, diverse landscape phenomena are thought to form a coherent systemic whole where each of the elements is related to each other and where individual signs can be combined into sequences according to certain codes. The semiological approaches find their inspiration in the works of Saussure, Eco, Barthes and Greimas (see Krampen et al. 1987; Nöth 2000; Copley 2010) and tend to base their discussion on the following assumptions:

- Landscapes are to a certain extent analogous to languages.
- Landscapes, like languages, consist of signs, that is, independent identifiable meaningful units.
- Landscape signs like language signs can be described by the Saussurean sign model that consists of the *signifier* and *signified*, the relation between which is *arbitrary* and unmotivated by any observed features (the relation between a horse-riding statue and the concept of

power, for example, or a big porch and wealth, is equally arbitrary as the connection between the word ‘horse’ and a big animal we refer to by this word).

- The meanings of the arbitrary signs are understood through their *similarity* and *difference* to other signs in the sign systems.
- Each single real-life landscape element (sign) is *parole*, that is, a local manifestation of some deeper language, the *langue*, or a deep structure (a notion borrowed from the generative grammar).
- Landscape elements/signs are combined into ‘utterances’ according to some (social) codes. These utterances are normally analyzed from the point of view of the receiver’s social codes.
- Landscapes can be analyzed with the same methodological devices as language, discourse or text.

Landscape as text

The work of a landscape analyst in ‘reading’ the landscape is therefore to identify signs and meanings in a landscape environment and deduce codes according to which these meanings have been grouped. Such an approach is shared by many geographers who do not explicitly align themselves with semiotics, but nevertheless speak of landscapes as ‘texts’ that need to be ‘read’ and that act as communicative systems. Duncan (1990: 20ff), for example, indicates a whole set of textual devices, such as tropes (synecdoche, metonymy and others) that allow landscapes to convey their messages and reproduce social order. This approach frequently emphasizes the fact that these landscape signs are not as innocent as they look, being wittingly or unwittingly in the discourses of power, race, gender, or nationality (Duncan and Duncan 2004, 1988, 2010). Lagopoulos and Boklund-Lagopoulou (1992: 209–17), for example, depart from Greimas and distinguish 32 different social codes according to which our conception of regional space can be structured, divided into subsets of economic, social, functional, ecological, topographical, personal codes and codes of built environment and history.

The notion of text itself has undergone several changes in the second half of the twentieth century, allowing for a larger plurality of voices in the text and giving more power to the interpreter and less power to the author. Nevertheless, the methodological approach remains similar: to identify individual signs, codes and messages among apparently neutral physical forms. In that, the emphasis is almost always on the side of the interpreter rather than the sender. Despite the developments, the text-metaphor remains relatively rigid and hierarchic. It is characterized by very little fluidity, leaving little space for creativity and spontaneous irregular processes, unlike the notion of ‘text’ that is used in the cultural semiotics of the Tartu–Moscow school where the text is considerably more dynamic, including both creativity (that is, non-regulated future possibilities and unpredictable processes) and memory, that is individualized past (as opposed to crystallized universal codes).

Representational approach

From the 1970s, a new interest in the more subjective human landscape experience gained momentum with the works of phenomenologists such as Tuan (1974; 2005) and Relph (1976), and the so-called ‘cultural turn’ in geography brought a ‘heightened reflexivity toward the role of language, meaning, and representations in the constitution of “reality” and knowledge of reality’, attention to economic and political aspects, identity and consumption, as well as to the impact of cultural constructions of race, gender and class on landscapes (Barnett 1998: 380). The

peak of the confrontation with the quantitative physical landscape concept was probably reached in the completely ideational definitions, such as Daniels and Cosgrove's famous observation that 'landscape is a cultural image, a pictorial way of representing, structuring or symbolising surroundings' (Daniels and Cosgrove 2007: 1) that leaves the landscape idea with almost no physical reference to the external world. While this extreme definition was later modified by Daniels and Cosgrove themselves, the present mainstream definition of landscape is still very conscious of culture and its role in shaping the environment, including in its definition physical land forms, as well as its cultural image and representation and the influence of the foregoing on physical landscape processes. Developed through several hallmark publications such as Cosgrove 1984, Cosgrove and Daniels 1988, Barnes and Duncan 1992, Duncan and Ley 1993, representation of landscape, its political and practical implications has become one of the most pervasive topics in humanistic landscape research. The criticism of the representational approach is directed against the naïve conception that a representation can be entirely mimetic and landscape paintings in particular have been an on-going source of examples about the discrepancy of semiotic and physical reality. The semiotic constructedness of photographs, literary texts, maps and other geographical methodologies has also been brought to attention. This current is no doubt one of the most influential ones in late 20th-century landscape studies and enjoys continuing popularity; therefore it is no wonder that Cosgrove's understanding of 'semiotic discourse' is in fact roughly equal to representation studies and their later developments.

Other semiological approaches

Semiotics in its narrowest sense of decoding written linguistic signs is prevalent in linguistically oriented notions of geosemiotics and linguascape. Scollon and Wong Scollon (2003) used the term *geosemiotics* to describe 'the study of the social meaning of the material placement of signs and discourses and of our action in the material world' (p. 2) and argued that there are three main systems in geosemiotics: the interaction order, visual semiotics, and 'place' semiotics. Geosemiotics, in their approach, is largely dedicated to the study of road signs, product logos etc. in their relation to the spatial. Baker (1999), in a paper titled *Geosemiosis*, called geologists to benefit 'from a branch of philosophy called semiotics'. In his argument, 'signs are not mere objects of thought or language, but rather are vital entities comprising a web of signification that is continuous from outcrops to reasoning about outcrops'. For Baker, geosemiotics is a study of signs as a part of a system of thought that is continuous with aspects of Earth's so-called 'material world' (Baker 2009). This is parallel to the sociolinguist's concept of 'linguascape' or 'the linguistic landscape' (especially the works of Adam Jaworski) which deals with the most narrow and material sense of the word 'sign' in the framework of a classical Marxist economic understanding of landscape as the locus of power struggles and consumption. For example, a recent book in sociolinguistics edited by Jaworski and Thurlow (2010) with a promising title *Semiotic Landscapes* is a study very well informed on landscape studies in art and geography, but the 'semiotic landscape' here refers solely to linguistic landscapes and the role of texts (in a narrower sense of written linguistic representations) in landscapes and their creation.

From the semiotic side, a call for developing the field of landscape semiotics can be found in the book *Existential Semiotics*, by Eero Tarasti, who envisions landscape semiotics as a 'study [of] the landscape as a kind of sign language' (Tarasti 2000: 154). The departure point of Tarasti is landscape aesthetics, on the basis of which he then strives to develop a vision of Greimasian landscape semiotics. His book is by no means a systematic development of landscape semiotics,

but rather a conceptual paper envisioning possible approaches and his definition of landscape remains anthropocentric, heavily oriented towards the study of representations.

Massimo Leone (2009) is another semiotician who has made an explicit mention of semiotic landscapes, in proposing the notion of ‘semio-geography’, which is a neologism for ‘a sub-discipline that studies patterns and processes that shape human interaction with various environments, within the theoretical framework of semiotics’ (Leone 2009: 217). In the course of his analysis, he adopts the term ‘semiotic landscapes’ to mean ‘a pattern of perceptible elements that individuals come across in public space’ (ibid.), aligning himself very clearly with the semiological tradition that seeks to identify individual units of meaning in landscapes.

Monnai Teruyuki and his colleagues (Monnai et al. 1981–90, Moriyama and Monnai 2010; Monnai 1991, 2005; Moriyama et al. 2006–10 among others) have developed a complex landscape semiotics for practical analysis and planning purposes in architecture. Unlike the textual research paradigm that is implicitly or explicitly semiological, the foundations of Monnai’s approach are Peircean. He uses a variety of Peircean notions, notably semiosis and Peirce’s triadic sign concept, but then combines it with several other rather binary notions like frames, and carries out a formalized analysis of buildings and the built environment which (probably due to the nature of building structures as a subject matter and the analysing software) is more reminiscent of structural linguistics and generative grammar. For example, in the first of his article series on Japanese traditional townscapes, he differentiates between the syntactic, semantic and pragmatic dimensions of semiosis, but then goes on to analyze only the first two in a constituent analysis that resembles Saussurean approaches (Monnai et al. 1981–90: 1). They also use extensively Saussurean ideas of similarity and difference between the signs as the clue to their meaning. Despite the methodological mixture, Monnai and his colleagues have unarguably managed to create a functional framework for a semiotic analysis of the built environment that serves not only intellectual purposes but also for real-life planning. However, this landscape semiotics includes landscape only in its narrowest sense, that is, landscape as a built environment. There are other semiotic applications on architecture in Japan that are classical structuralist and analyze landscape structures according to binary features, mostly because it is the easiest way to quantify the analysis (see, for example, Haiyama 1985).

Semiotic approaches: towards processualization

Phenomenological landscapes

Phenomenological approaches to landscape deal with a very fundamental aspect of semiotics, that is, how the meanings are generated in the phenomenal world and in respect to the corporeality of the person who dwells in a landscape. This is in stark contrast with the ‘arbitrary sign’ understanding of semiological interpretations, where landscape meanings were necessarily inscribed on them from outside and had no experiential motivation to them other than dictated by external social codes (especially power structures). Ingold (2009: 153) has stated that ‘the world continually comes into being around the inhabitant, and its manifold constituents take on significance through their incorporation into regular pattern of life activity’.

This stance has been expressed in the works of phenomenological authors such as Relph (1976), Tuan (1974, 2005), Tilley (1994), Ingold (2000) and Abram (1996), to mention some outstanding works. Inspired by classics of phenomenology (Merleau-Ponty, Heidegger, Husserl – see, e.g., Wylie 2007; Macann 1993), landscape is seen more as a holistic phenomenon perceived with all senses and the whole body (hearing, smells, etc.). Perceptive processes and intellectual mechanisms (i.e. mind and body) are not separated; we are our body who lives

the landscape, taking in its cues and being in inter-action with all its semiotic processes (*semiotic* means 'related to semiosis' or sign process). Meaningful units in landscapes are created through interaction with other entities (both organic and inorganic) in the landscape and through one's everyday bodily action, through routines and practices (e.g. 'taskscape' – see Ingold 2000: 189–208).

A collection of articles *Symbolic Landscapes* edited by Backhaus and Murungi (2009) seeks to overcome the Saussurean/structuralist understanding of symbol as something purely ideational and replenish the theory of symbolic landscapes with Merleau-Ponty's philosophy, seeing symbol as something that 'arises between the lived-body and its milieu in gesture that freely enters virtual space' (p. 26) and rejecting the division line between perception and conception.

On the other hand, a radical step into understanding the participation of the corporeality in the meaning generation and design of landscapes is represented by the British non-representational and mobility studies. Animal geography with its emphasis on other living beings and their meaningful landscapes is a transfer zone between classical landscape studies, phenomenological approach and ecosemiotic understanding of landscapes as developed by Almo Farina and his colleagues.

Peircean approaches

Recent years have seen the influence of Peircean semiotics growing internationally and quite expectedly this semiotic paradigm has also started to appear in landscape semiotics. According to Metro-Roland, Peirce's understanding of sign processes (that is, semiosis) offers a good theoretical model about how mind and world, or thoughts and objects relate to each other (Metro-Roland 2009, 2010), since Peircean sign relation consists not only of arbitrarily combined signifier and signified, but includes a relation to non-semiotic (and semiotic) reality.

Another attempt to write Peircean landscape semiotics was published by Tor Arnesen (1998, 2011). He concludes that landscape as a whole is a sign that stands in triadic relations with the object (physical land) and the interpretant (the community). Arnesen makes an attempt to apply a Peircean sign concept that is most famously represented in a triangular diagram as a relation between (1) *representamen* or a *sign vehicle*, that is, 'the concrete subject that represents' (CP 1.540: see Peirce 1931–58 in the References); (2) the object or 'the thing for which it stands' (CP 1.564), and (3) the interpretant. The least intuitive of the terms is interpretant, that is, 'the idea to which it [the sign vehicle] gives rise' (CP 1.339). However, Arnesen's application is based on a very principal deviation from the Peircean and post-Peircean definition of the terms 'object' and 'interpretant' (cf. also CP 1. 542; 1.564).

Arnesen's idiosyncratic interpretation of the main Peircean concepts does not curb the validity of his main argument that surges from the Peircean definition of sign: 'a sign is something, A, which denotes some fact or object, B, to some interpretant thought, C' (CP 1.346). Differently from the text- or discourse-based approaches to landscapes as a semiotic reality, the physical area is always included in Arnesen's landscapes as one of the consistent factors. In short, the Peircean approach allows for an analysis of the interrelations between the consistent physical and mental elements in respect to the sign user and contextual information.

The Peircean sign model allows for a separation of mental (or symbolic) landscapes and material ones and permits one to follow separately the dynamic changes of a landscape as a symbolic resource and as a material resource. Both of these dimensions can change together, but they can also change separately and changes in material landscapes do not necessarily imply changes in the perceived landscapes that have been 'processed' through the symbolic thinking.

Depending on the community's perceptions of these changes ('conceivable practical effect' – Arnesen 2011: 366; 1998: 42) we can speak of landscapes that are lost in battle (material change is the result of a dispute), faded out (material change remains unnoticed in the dominant symbolic discourse), but also gained (Abrahamsson 1999), since a new material landscape opens up new symbolic possibilities and will sooner or later be 'appropriated'.

Similar concerns are reflected in the works of what has been called 'material semiotics' (Latour, Haraway – see Hinchliffe 2002: 217ff), which has taken to restore materiality to the meaning, emphasizing that 'landscapes are socio-material processes that, due to the action of both people and nature, continuously undergo morphological change (in the most material change) and revision (in the sense that landscapes are viewed by people). Landscapes are the contested networks of material-semiotic relationships, provisional alliances between people and things, and contested representations viewed from a necessarily situated perspective' (Mercer 2002: 42). Although several authors in this tradition resort to Greimasian rather than Peircean models, the important theoretical implication of the re-materialization of semiotic landscapes is the understanding that there are always several contesting semiotic realities concerning one physical area and that planning and management necessarily has to accommodate several different and often conflicting semiotic realities and visions of future and past.

Tartu–Moscow school: semiotics of culture

The Tartu–Moscow school of semiotics and especially the works of Juri Lotman have provided a set of concepts that have a high potential for integrative landscape studies, ranging from the analysis of representation, to a novel understanding of communication (esp. auto-communication), text, semiotic space and models of change. Only some of these seminal ideas have been fully developed in respect to landscape studies (for example, St Petersburg's 'text' or autocommunication – see Lotman 1990) in their original context, while some have been developed later by younger colleagues in Tartu, and some still wait for their potential to be fully realized.

A model that might help in studying landscape change has been proposed by J. Lotman (2009) in his book *Culture and Explosion*. While most other semioticians focus on studying translation between (usually two) separate sign systems, Lotman pays attention to borders within one system, and the translation possibilities that the border creates, that is, the continuity or persistence and the change of the system. One of the central aspects of landscape, from the semiotic point of view, is the existence of boundaries, communicative borders, within the landscape, which can be seen as the main factor and mechanism of the internal diversity of landscape and the main mechanism in generating new landscapes. Changes in systems are not always gradual: Lotman distinguishes between gradual and explosive changes. During the former, the transition from periphery to centre and *vice versa* takes place in a gradual way and existing hegemonic structures are replaced in a slow transition. During epochs of explosive changes, all the existing semiotic structures get shattered and there follows an explosive growth of semiotic processes. Many competing new scenarios of development emerge at this point of disruption, only one of which finally consolidates and achieves the central position. In the same way, we can distinguish periods of gradual and explosive changes in landscapes, where in the epochs of explosive change a disruption with previous landscapes is produced. In such a way, the semiotic model of change allows for a description of dynamic non-equilibrium change processes, the outcome of which is not always dependent on ecological necessity or practical needs, but can be a result of religious, irrational, aesthetic semiotic values that hard science models cannot normally take into account (see also Palang et al. 2011).

Ecosemiotic approach

An author who has contributed most significantly to a systematic study of landscape processes from an ecosemiotic perspective, is Almo Farina (2006, 2010; Farina and Napoletano 2010). Taking a broader definition of ecosemiotics and broader definition of landscape that goes beyond the anthropocentric approach of human geography, and exceeds the narrow landscape ecological definition of landscape as a mosaic or organized space, he aspires to create a new framework that would take into account the multiplicity of agencies of different species in a living environment and would reduce the gap between human values and ecological processes. Relating landscape to the notion of *umwelt* by Jakob von Uexküll (2010), he emphasizes the fact that landscapes are individually perceived and later puts forth the notion of a ‘private landscape’ (Farina and Napoletano 2010; ‘eco-field’ in Farina 2006): ‘the configuration of objects around an organism that are perceived in the context of space, time, and history (including memory, experience, culture, etc.)’ (Farina and Napoletano 2010: 181). Thus, his semiotics of landscape is subject-centred, taking into account the species-specific lifeworld and the cognitive capacities of the species, but also the experiential context (memory, and also history – if the species has a long-term memory) and even aesthetics. Farina’s ‘private landscape’ is essentially a concept that belongs to the field of ecosemiotics (Kull 1998; Nöth 1998, 2001; Kull and Nöth 2001).

Future perspectives

No doubt the studies of representation of and through landscapes and the issues of discourse and power connected to representation will be a source of continuous inspiration for landscape scholars for many years to come. Nevertheless, in the light of general tendencies of ‘rematerialization’ and ‘corporealization’ of human geography and semiotics, it is unlikely that these studies would remain confined to a Saussurean paradigm of arbitrary sign relations and ideational worlds of discourse. Instead, we will probably see attempts to tackle the intricate mutuality of material and mental processes, both in signification, communication and interpretative bodily action, as well as their consequences for the material and life processes of other living organisms. As Metro-Roland (2009: 271) points out, the Peircean model is ‘more fruitful for the interpretation of signs outside of texts and language’, since his semiotics ‘treats explicitly the relation between the world and our understanding of it’ by way of including in his sign relation the object, our understanding of it and the physical sign vehicle, and offering a thorough typology of their mutual interrelations, of which the Saussurean model covers only one, the symbolic sign use (Lindström 2011).

Some advantages of the semiotic study of landscapes are the following:

- Landscape is a holistic phenomenon that does not make unnecessary divisions into culture/nature, human/non-human, individual/collective, perceived/physical and so on beforehand. Such divisions can be used as analytical tools in each particular case at hand but are not projected onto the ontological state of the material through terminological preconceptions. Therefore ‘landscape’ is a suitable concept for overcoming rigid dualities of modernist discourse.
- Landscape is an inherently dialogical phenomenon and communication lies at the core of semiotic processes in landscapes. Thus, semiotics can provide adequate tools for analyzing processes of landscape formation, because they are always a result of multi-party communication. The potential for the semiotic ideas of Mikhail Bakhtin (1982, 1986) and Juri Lotman (1990, 2009) cannot be underestimated in this respect.

- Semiotic studies of landscape can be very useful for practical planning and management policies, as they help to understand the dialogicity and generation of meaning in everyday landscapes, and comprehend how value is created in non-material terms. Peircean sign models also give a good methodological basis for discussing the different relations that the symbolic and material aspects of landscapes may have for different communities. It also provides a solid descriptive framework for understanding how different communities (and organisms of different *umwelten*) may live in different landscapes on the same physical grounds. Semiotics of culture, and especially the notions of ‘explosion’ and ‘future histories’ could prove to be very useful in mapping the dynamics of landscape change, understanding the becoming of past landscapes as a realization of one of the many possible futures, and consequently in improving planning and management capacities.

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References

- Abrahamsson, Kurt Viking (1999) ‘Landscapes lost and gained: On changes in semiotic resources’. *Human Ecology Review* 6(2): 51–61
- Abram, David (1996) *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*. New York: Pantheon Books
- Arnesen, Tor (1998) ‘Landscapes lost’. *Landscape Research* 23(1): 39–50
- (2011) ‘Landscape as a sign: Semiotics and methodological issues in landscape studies’. In: Roca, Z., Claval, P. and Agnew, J. (eds), *Landscapes, Identities and Development*. Farnham: Ashgate, pp. 363–76
- Baker, Victor R. (1999) ‘Geosemiosis’. *Geological Society of America Bulletin* 111: 633–45
- (2009) ‘Geosemiosis: Scientific Conversation with the Earth’. Presentation at the 3rd Nordic Geographers Meeting in Turku, available at <http://congress.utu.fi/ngm09/Baker.pdf> (accessed 10 May 2012)
- Bakhtin, Mikhail (1982) *The Dialogic Imagination: Four Essays*. (University of Texas Press Slavic Series.) Holquist, Michael (ed.). Austin, TX: University of Texas Press
- (1986) *Speech Genres and Other Late Essays*. (University of Texas Press Slavic Series.) Holquist, Michael and Emerson, Caryl (eds). Austin, TX: University of Texas Press
- Backhaus, Gary and Murungi, John (eds) (2009) *Symbolic Landscape*. London: Springer
- Barnes, Trevor and Duncan, James (1992) *Writing Worlds: Discourse, Text, and Metaphor in the Representation of Landscape*. London: Routledge
- Barnett, Clive (1998) ‘Reflections, the cultural turn: Fashion or progress in human geography’. *Antipode* 30 (4): 379–94
- Claval, Paul (2004) ‘The languages of rural landscapes’. In: Palang, Hannes, Sooväli, Helen, Antrop, Marc and Setten, Gunhild (eds) *European Rural Landscapes: Persistence and Change in a Globalising Environment*. Dordrecht: Kluwer Academic Publishers, pp. 11–40
- (2005) ‘Reading the rural landscape’. *Landscape and Urban Planning* 70: 9–19
- Cobley, Paul (ed.) (2010) *The Routledge Companion to Semiotics*. London: Routledge
- Cosgrove, Denis (1984) *Social Formation and Symbolic Landscape*. London: Croom Helm
- Cosgrove, Denis E. (2003) ‘Landscape: ecology and semiosis’. In: Palang, Hannes and Fry, G. (eds) *Landscape Interfaces: Cultural Heritage in Changing Landscapes*. Dordrecht: Kluwer Academic Publishers, pp. 15–21
- and Daniels, Stephen (eds) (1988) *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments*. Cambridge: Cambridge University Press
- Crag, Mike (1998) *Cultural Geography*. London: Routledge
- Czepczyński, Mariusz (2008) *Cultural Landscapes of Post-Socialist Cities: Representation of Powers and Needs: Re-materialising Cultural Geography*. Aldershot: Ashgate

- Daniels, Stephen and Cosgrove, Denis (2007 [1988]) 'Introduction: Iconography and landscape'. In: Cosgrove, D. and Daniels, S. (eds), *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments*. Cambridge: Cambridge University Press, pp. 1–10
- Duncan, James S. (1990) *The City as Text: The Politics of Landscape Interpretation in the Kandyan Kingdom*. Cambridge: Cambridge University Press
- Duncan, James S. and Duncan, Nancy (1988) '(Re)reading the landscape'. *Environment and Planning D: Society and Space* 6(2): 117–26
- (2004) *Landscapes of Privilege*. London: Routledge
- and Ley, David (1993) *Place/Culture/Representation*. London: Routledge
- Duncan, Nancy and Duncan, James S. (2010) 'Doing landscape interpretation'. In: DeLysér, Dydia, Herbert, Steve, Aitkin, Stuart, Crang, Mike A. and McDowell, Linda (eds), *The SAGE Handbook of Qualitative Geography*. Los Angeles, CA: SAGE Publications, pp. 225–47
- Farina, Almo (2006) *Principles and Methods in Landscape Ecology: Towards a Science of Landscape*. Landscape Series. Dordrecht: Springer
- (2010) *Ecology, Cognition and Landscape: Linking Natural and Social Systems*. Dordrecht: Springer
- Farina, Almo and Napoletano, Brian (2010) 'Rethinking the landscape: New theoretical perspectives for a powerful agency'. *Biosemiotics* 3(2): 177–87
- Gottdiener, Mark (1995) *Postmodern Semiotics: Material Culture and the Forms of Postmodern Life*. Oxford: Blackwell
- Haiyama, Akiyoshi (1985) 'A semiotic analysis of expressiveness at the home landscape'. *Japanese Society of Architects. Papers on Architectural Planning and Design* 355: 32–40
- Hinchliffe, Steve (2002) 'Inhabiting: Landscapes and natures'. In: Anderson, Kay, Domosh, Mona, Pile, Steve and Thrift, Nigel (eds), *The Handbook of Cultural Geography*. London: Sage, pp. 207–26
- Imazato, Satoshi (2007) 'Semiotic structure of traditional Japanese rural space: Hagikura village, Suwa basin'. *Public Journal of Semiotics* 1(1): 2–14
- Ingold, Tim (2000) *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge
- (2009) 'Against space: Place, movement, knowledge'. In: Kirby, Peter W. (ed.) *Boundless Worlds: An Anthropological Approach to Movement*. New York: Berghahn Books, pp. 29–44
- Jaworski, Adam and Thurlow, Crispin (eds) (2010) *Semiotic Landscapes: Language, Image, Space*. (Advances in Sociolinguistics.) London: Continuum
- Knox, Paul L. and Marston, Sallie A. (2001) *Places and Regions in Global Context: Human Geography*. Englewood Cliffs, NJ: Prentice-Hall
- Krampen, Martin, Oehler, Klaus, Posner, Roland, Sebeok, Thomas A. and von Uexküll, Thure (eds) (1987) *Classics of Semiotics*. New York: Plenum
- Kull, Kalevi (1998) 'Semiotic ecology: Different natures in the semiosphere'. *Sign Systems Studies* 26: 344–71
- Kull, Kalevi and Nöth, Winfried (2001) 'Introduction: Special issue on semiotics of nature'. *Sign Systems Studies* 29(1): 9–11
- Lagopoulos, A. Ph. and Boklund-Lagopoulou, Karin (1992) *Meaning and Geography: The Social Conception of the Region in Northern Greece*. Berlin: Mouton de Gruyter
- Leone, Massimo (2009) 'Legal controversies about the establishment of new places of worship in multi-cultural cities: A semiogeographic analysis'. In: Wagner, Anne and Broekman, Ian (eds), *Prospects in Legal Semiotics*. Berlin: Springer, 217–37
- Lindsey, Shelagh, Buchan, Robert and Duncan, James S. (1988) 'The residential landscape as a system of communication: Semiotic approach'. In: Herzfeld, Michael and Melazzo, Lucio (eds) *Semiotic Theory and Practice: Proceedings of the Third International Congress of the IASS, Palermo 1984*. Vol. 1. Berlin: Mouton de Gruyter
- Lindström, Kati (2011) *Delineating Landscape Semiotics: Towards the Semiotic Study of Landscape Processes*. Tartu: Tartu University Press
- Lotman, Juri (1990) *Universe of the Mind: A Semiotic Theory of Culture*. London: I.B. Tauris
- (2009) *Culture and Explosion*. Berlin and New York: Mouton de Gruyter
- Lukken, Gerard and Searle, Mark (1993) *Semiotics and Church Architecture: Applying the Semiotics of A.J. Greimas and the Paris School to the Analysis of Church Buildings*. Den Haag: Kok Pharos Publishing House
- Macann, Christopher (1993) *Four Phenomenological Philosophers: Husserl, Heidegger, Sartre, Merleau-Ponty*. London: Routledge

- Mercer, Doug (2002) 'Future-histories of Hanford: The material and semiotic production of a landscape'. *Cultural Geographies* 9: 35–67
- Metro-Roland, Michelle (2009) 'Interpreting meaning: An application of Peircean semiotics to tourism'. *Tourism Geographies* 11:2, 270–9
- (2010) *Culture in Place: Tourists Signs and the City*. Aldershot: Ashgate Publishing
- Möhl, Perle (1997) *Countryside Semiotics: Village voices; coexistence and communication in a rural community in Central France*. Copenhagen: Museum Tusulanum Press
- Monnai, Teruyuki (1991) 'Semiosis in architecture – A systemic analysis of the traditional town textures in Japan'. In: Ikegami, Yoshihiko (ed.) *The Empire of the Signs: Semiotic Essays on Japanese Culture* (Foundation of Semiotics, Vol. 8), Amsterdam: John Benjamins B.V., pp. 101–37
- (2005) 'Landscape descriptions as signs'. *New Frontiers in Architecture*. In Japanese
- Monnai, Teruyuki et al. (1981–90) 'The semiotic analysis of traditional town textures in Japan 1–20'. *Summaries of Technical Papers of Annual Meeting Architectural Institute of Japan*. Architectural Planning and Design Rural Planning, (1) 56: 755–756; (2) 56: 757–758; (3) 56: 759–760; (4) 56: 761–762; (5) 57: 1363–1364; (6) 57: 1365–1366; (7) 57: 1367–1368; (8) 57: 1369–1370; (9) 58: 987–988; (10) 58: 989–990; (11) 58: 991–992; (12) 58: 993–994; (13) 59: 1481–1482; (14) 59: 1483–1484; (15) 60: 167–168; (16) 60: 169–170; (17) 61: 641–642; (18) 62: 559–560; (19) 1988: 625–626; (20) 1990: 875–876 in Japanese. Frequent co-authors include Hara, Hiroshi, Sakiyama, Shigeru, Noguchi, Hideyo, Kariya, Tetsuro, Oikawa, Kiyooki and Kojima, Kazuhiro
- Moriyama, Motoki and Monnai, Teruyuki (2010) 'Description of systemic code and sign network of townscapes in Kyoto'. *Journal of Architecture and Planning* (Transactions of AIJ), 75(652): 1507–16
- Moriyama, Motoki, Monnai, Teruyuki and et al. (2006–10) 'Description of the relation design in townscapes and its simulation'. *Summaries of Technical Papers of Annual Meeting Architectural Institute of Japan*. *Architectural Planning and Design Rural Planning*, (1) 2006: 373–374 (2) 2006: 375–376; (3) 2006: 377–378; (4) 2007: 479–480; (5) 2007: 481–482; (6) 2007: 483–484; (7) 2008: 809–810; (8) 2008: 811–812; (9) 2009: 609–610; (10) 2009: 611–612; (11) 2010: 773–774; (12) 2010: 775–776 in Japanese (co-authors include Son Kyungjung, Ota Takuya, Takano, Hitomi)
- Nash, George (ed.) (1997) *Semiotics of Landscape: Archaeology of Mind*. BAR international series
- Nöth, Winfried (1998) 'Ecossemiotics'. *Sign Systems Studies* 26: 332–43
- (2000) *Handbuch der Semiotik*. 2nd edn. Stuttgart: J.B. Metzler
- (2001) 'Ecossemiotics and the semiotics of nature'. *Sign Systems Studies* 29(1): 71–82
- Palang, H., Spek, Th. and Stenseke, M. (2011) 'Digging in the past: New conceptual models in landscape history and their relevance in peri-urban landscapes'. *Landscape and Urban Planning* 100(4): 344–6
- Peirce, Charles S. (1931–58) *Collected Papers of Charles Sanders Peirce*, Hartshorne, Charles and Weiss, Paul (eds) (1931–5, vols. 7–8), and Burks, A. W. (ed.) (1958) Cambridge, MA: Harvard University Press. (In-text references are to CP, followed by volume and paragraph numbers)
- Randviir, Anti (2008) *Mapping the World: Towards a Sociosemiotic Approach to Culture*. Köln: Lambert Academic Publishing
- Relph, Edward (1976) *Place and Placelessness*. London: Pion
- Scollon, Ron, and Wong Scollon, Suzie (2003) *Discourses in Place: Language in the Material World*. London: Routledge
- Son Kyungjung, Monnai Teruyuki, Moriyama Motoki and Ota Takuya (2006) 'Townscape simulation as the operation of semiosis', *Summaries of Technical Papers of Annual Meeting Architectural Institute of Japan*. *Architectural Planning and Design Rural Planning* 2006: 377–8. In Japanese
- Tarasti, Eero (2000) 'Semiotics of landscapes'. In: Tarasti, E. (ed.) *Existential Semiotics*. Bloomington, IN: Indiana University Press, pp. 154–63
- Tilley, Christopher (1994) *A Phenomenology of Landscape: Places, Paths, and Monuments*. Oxford and Providence: Berg
- Tuan, Yi-Fu (1974) *Topophilia*. Englewood Cliffs, NJ: Prentice-Hall
- (2005 [1977]) *Space and Place: The Perspective of Experience*. Minneapolis, MN, and London: University of Minnesota Press
- von Uexküll, Jakob (2010 [1934]) *A Foray into the Worlds of Animals and Humans: With a Theory of Meaning*. (O'Neil, Joseph D., trans., Sagan, Dorion, introduction, Winthrop-Young, Geoffrey, afterword. Series Posthumanities, vol. 12.) Minneapolis, MN: University of Minnesota Press
- Wylie, John (2007) 'Landscape phenomenology'. In: Wylie, John (ed.) *Landscape* (Key Ideas in Geography). New York: Routledge, pp. 139–86