Semiotics, culture and space

Alexandros Ph. Lagopoulos

School of Architecture, Aristotle University of Thessaloniki
54124 Thessaloniki, Greece
e-mail: phaidon@arch.auth.gr

Karin Boklund-Lagopoulou

School of English, Aristotle University of Thessaloniki
541 24 Thessaloniki, Greece
e-mail: boklund@enl.auth.gr

Abstract. Space, in the environmental sense, holds a rather marginal position in semiotics. We shall try, however, to show in this paper that its importance is greater than thought previously, not only because it may establish one of the main sub-fields of semiotic research, but also because it has repercussions on other semiotic systems and even semiotic theory as such. We start by reviewing the main positions of the *Theses* of the Tartu-Moscow School and compare them to Lotman's concept of the semiosphere. We conclude that a *sociologically* sound framework for culture is missing and try to demonstrate that culture is not the only factor composing a society, but there also exists a concept of a material, extra-semiotic society. This framework is systematically developed in relation to geographical space in our second section.

We examine the place of space in semiotics according to two different axes of analysis. The first axis, discussed in our third section, corresponds to the semiotics of (geographical) space. We approach this field from two different perspectives. The first perspective is the direct study of urban space as a text, that is, it is focused on space-as-text. Three case studies are discussed, all drawn from pre-capitalist societies: the semiotic urban model in ancient Greece, the Ethiopian military camp and the spatial organization of the traditional Libyan oases. To the second perspective corresponds the semiotic study of the geographical spaces constructed by literary texts, that is, space-in-text. Here, we discuss two case studies: the ideal Platonic city and the medieval Arthurian courtly romances. These analyses are followed by an overview of the semiotics of space in pre-capitalist societies, to which we compare Lotman's views.

The second axis, discussed in our fourth section, concerns the importance of space for semiotic theory. We show that space can serve as a tool for the analysis of texts from other semiotic systems and focus on the use of space by different spatial metalanguages.

Keywords: semiotics of space, anthropology of space, Tartu-Moscow School, Juri Lotman, spatial metalanguage

1. The Tartu-Moscow School approach to culture

Space, in the environmental sense, holds a rather marginal position in semiotics.[1] We shall try, however, to show in this paper that its importance is greater than previously thought, not only because it establishes one of the main sub-fields of semiotic research, the semiotics of space, but also because it has repercussions on other semiotic systems and even semiotic theory as such. This position followed as a natural conclusion from the comparison of two semiotic systems occupying opposite poles of the continuum from the viewpoint of the nature of their expression substance. Each of the authors of this paper is connected to a different pole: one was trained as an architect-urban planner and deals with the semiotics of space; the other was trained in comparative literature and works in literary semiotics. Literary theory, like linguistics, deals with a semiotic system – natural language – that has an extremely "light" expression substance, so imperceptible that it gives the impression that the system is immaterial; while space, especially geographical space, has probably the "heaviest" expression substance among all semiotic systems. A reliable semiotic theory should be able to account systematically for both of these poles – something which has implications for the theory as well.

The issue of space in semiotics is inseparable from the issue of culture and thus the epistemological location of semiotics. This is why, before passing to a discussion of space in the two last sections of our paper, the first two sections address the issue of culture. Underpinning our paper is the hypothesis that all the semiotic texts of a culture can be thought of as a kind of auto-representation, or auto-communication in Lotman's sense: they show how the members of a culture conceive of their world and their possibilities for action within it.

We shall use as our initial point of reference the views expressed in the *Theses* of the Tartu-Moscow School, written in 1973 (Uspenskij et al. 2003), given that

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[1]   A shorter version of this paper was presented at the Tartu Summer School of Semiotics 2013, 'Auto-communication in Semiotic Systems'.

their aim was exactly to elaborate a semiotics of culture. This School, a descendant of Russian formalism and the Prague Linguistic Circle, will remain a central point of reference throughout our paper. The theory of the Tartu-Moscow School derives largely from the experience of its members with Slavic texts (as indicated in the title of the *Theses*) and gives special attention to the reconstruction of historical Slavic texts (*Theses* 5.2.0–5.2.3, 6.1.3, 7.0.0).

The semiotics of space is markedly underrepresented in the *Theses* (there is only one reference to it, in Thesis 1.3.3) and spatial concepts are only used metaphorically as an empirical description of culture. This is not the case, however, as concerns the work of Juri Lotman, who both exalted the importance of the semiotics of space and proposed an analytical, formal spatial metalanguage for the description of culture, as we shall see in the second half of our paper. Due to the above, we have reservations about the view of Anti Randviir, who believes that the concepts of 'culture' and 'semiotics' of the Tartu-Moscow School – and what he sees as a lack of a unified methodology – are so heterogeneous that they do not allow characterization of it as a school, and argues that what gives the School its unity is the set of spatial concepts it uses (Randviir 2007: 137, 139–141, 149, 150, 155–156; 2002: 140, 142–143; Cobley, Randviir 2009: 12, 26).[2] Randviir lumps together the empirical and the formal spatial terms used by the members of the School (while acknowledging that they belong to different levels), thus attributing to the School an excessively spatial character, as does Remm (2010: 403). However, the only kind of spatial terms encountered in the *Theses* are those of empirical description, and these are current in any scholarly bibliography as well as in literature and everyday discourse (as acknowledged by Remm 2010: 399–400), form an extremely limited set and have no operational impact on the approach, which would be exactly the same even if another, similar set of terms were used.

We believe that the main theoretical views on culture in the *Theses* are the following (cf. Winner, Winner 1976):

(1) Culture is the object of semiotics (Thesis 1.0.0).

(2) Culture is a holistic cybernetic system of systems, consisting in the storage, processing and exchange of information (we detect here the influence of cybernetics and information theory). All three of these processes are bearers of collective memory, the semiotic structure of which may be analogically assimilated into the structure of individual memory as concerns their function: the storage of information is collective 'memory', this and information pro-

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[2] Concerning his first point, we believe that no conclusion can be drawn without a minute theoretical analysis proving that the differences in conceptualization are such that they belong to epistemologically irreconcilable paradigms, even if assessed according to the author's standpoint.

cessing are also collective memory and memory may be incorporated into communication. Culture is composed of a set of semiotic systems (languages) and is a mechanism generating texts, each having its own organization. There is a functional correlation between and a hierarchical ordering of the partial systems, and the same correlation holds for texts; the composition and correlation of these systems define the type of the culture (Theses 1.0.0, 2.0.0, 3.2.4, 4.0.1, 6.0.0, 6.0.1, 6.0.2, 6.1.1, 6.1.3, 6.1.5; see also Lotman, Uspenskij 2013: Thesis 1.1).

(3)   The fundamental concept and primary element, the basic unit of culture, is the text, which, however, does not cancel the concept of 'sign'. A text is not only linguistic, but may have any kind of vehicle (Theses 3.0.0, 3.1.0).

(4)   The semiotic-typological approach is the central object of semiotics (Theses 1.1.0, 7.0.0).

(5)   There are two points of view on culture: the internal approach, the point of view of the culture itself (corresponding to the 'emic' approach of linguistics and anthropology), and the external ('etic') approach. The second is a scientific metasystem, a metalanguage, describing culture, but nevertheless does not escape cultural determination (Theses 1.1.0, 1.1.1, 3.2.1, 9.1.0).

(6)   A broad typological approach shows that synchrony may be combined with diachrony (Thesis 5.1.0). Diachrony here is not conceived in the static Lévi-Straussian structural-transformational manner, but in historical terms.

(7)   Immanent analysis must be combined with functional study, that is, the study of the relationships between semiotic structures at different levels: these relationships are due to the existence of intermediate levels and structural isomorphism (Thesis 8.0.0).[3]

(8)   Two opposite mechanisms operate in culture, one tendency towards uniformity and another towards diversity (the 'polyglotism' of culture). With the first tendency, culture attempts to interpret itself or other cultures as uniform and strictly organized. At a certain stage, metatexts are produced; these are auto-characterizations of the culture, with instructions and regulations, traversing the subsystems and levels of the culture with the purpose of creating unity; they are a systematized myth, a model that a culture produces for itself (Theses 9.0.0, 9.0.2). These metalanguages are auto-descriptions of culture (Lotman, Uspenskij 2013: Theses 1.0, 3.1).

(9)   Both for the internal and the external points of view, there is an opposition between culture and non-culture. For the external point of view, the mechanism of culture transforms outer into inner sphere. While for this point of view the

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[3]   Randviir (2007: 138–139) is right in pointing out that the general impression of the Tartu-Moscow School is "that of a synthesis of the functionalist (processual) and structuralist approach", adopting from the former the centrality of pairs of opposition.

outer sphere is simply organized differently from the culture being considered, for the internal point of view it is unorganized, chaotic. The opposition between culture and extra-cultural space is the minimal producing mechanism of culture (Theses 1.0.0, 1.2.0, 1.2.2, 1.2.4).

(10) There is a differentiation between the primary modelling system of natural language and the secondary modelling systems (including the supra-linguistic systems). Culture is based in the last instance on language, on which the secondary modelling systems are built, either directly, as in literature, or in a parallel manner, as in music and painting (Theses 6.1.3, 6.1.5 – see also the extract in Winner and Winner 1976, which was omitted from the English translation of Thesis 6.1.5).

(11) Two opposite types of signs, verbal (discrete) and iconic (non-discrete, continuous) signs, exist in culture, and the tension between them is a major cultural mechanism.[4] In the former case, the text is a sequence of signs; in the latter, it is not divisible into signs but only into distinctive features. However, these two cases are frequently combined. Given that in order for culture to function, the minimal mechanism of a pair of correlated semiotic systems is needed, these two types usually constitute that mechanism (Theses 3.2.1, 6.1.0, 6.2.0).

(12) Another differentiation of texts follows from their orientation or lack of orientation towards the position of the addressee in the communication circuit. In the first case, the texts are built on the basis of their audience, in the second they do not offer the audience accessibility or may even be totally unintelligible, creating an esoteric culture (Thesis 3.2.2).

(13) The representation of a natural language text is possible through continuous transformations by an automatic machine, rewriting rules from the highest semantic to the lowest phonemic level of the text (Theses 5.2.2, 8.0.1; see also (2) above). This is a very primitive form of Noam Chomsky's 'extended standard generative grammar'.

(14) Cultural texts conserve the memory of influences assimilated from another culture; this is the phenomenon of poly-culturality (Thesis 6.0.1; see also Lotman, Uspenskij 2013: Theses 2.0, 2.1, 2.2, 3.2).

Among all these theoretical aspects of culture, (2) gives the definition and general composition of culture. Of central importance for the understanding of the nature of

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[4] Winner and Winner (1976: 109-112, 136-137) complain about ambiguities in the *Theses* in respect to this opposition and point out there are two different views within the School. The first is the one believing in the general primacy of language, i.e. that expressed in (10) (cf. Roland Barthes's conception of *sémiologie* as a '*trans-linguistique*'), while according to the other view, for example Juri Lotman's, though the discrete and non-discrete systems are not mutually exclusive, there is a considerable divergence between the iconic systems and language. Winner and Winner locate examples even in the *Theses* showing that the former are not necessarily considered as secondary to the latter, but that the two are interrelated equivalent systems.

culture are also (1) stating the relevance of semiotics for the study of culture, (10) on the differentiation between the primary modelling system of language and the secondary modelling systems, and (11) on the differentiation between verbal and iconic signs. The nature of culture is further illuminated with empirical references to fields studied by culture, namely texts of all kinds in natural language (Thesis 3.0.0), painting, sculpture, music, dance, pantomime, architecture and the recent audio-visual texts of cinema, television and televized film (Theses 1.3.3, 3.1.0, 3.2.1).

However, in spite of this very rich information about the views of the School on theoretical, methodological and applied matters concerning culture, no clue is given to the epistemological status of culture, i.e., its position within a broader social framework.

Lotman's concept of the semiosphere was first formulated by him in 1982 (Torop 2005: 159). The main ideas constituting the concept of the semiosphere, expressed in a more or less explicit manner, are presented in Lotman 2005 and 1990 (cf. Torop 2005; Portis-Winner 1999: 36) and can be stated as follows:

(1) Culture is the object of semiotics, is the space of semiosis, explained by the act of communication, and is identical to the semiosphere [cf. (1) in the previous list] – Lotman 2005: e.g. 205, 208, 212, 218; 1990: e.g. 123, 124, 125, 143.

(2) The semiosphere as a system consists of a group of interconnected semiospheres as sub-structures (languages). The functions operating in the semiosphere are the transmission of information (exchange), the creation of new information (processing) and the preservation and reproduction of information (storage), that is, memory. The diachronic depth of the semiosphere is due to its complex memory system, which operates not only in individual sub-structures, but also in its totality – cf. (2) in the previous list. The relationships between the latter are labelled, in a metaphorical manner, 'dialogic' by Lotman, and the dialogue is considered by him to be the elementary mechanism of translation. Translation between systems, always accompanied by an element of untranslatability, appears as a concept in the *Theses* (Thesis 7.0.0), but Lotman elevates it to the 'elementary act of thinking' and the foundation of meaning, and states that the relationships between languages vary from complete translatability to complete untranslatability. There is a hierarchy between the different levels of structures and texts [cf. (2) and (13) in the previous list] – Lotman 2005: e.g. 206, 213, 214, 216, 218, 219; 1990: e.g. 2, 125, 138, 143, 151.

(3) The semiosphere is heterogeneous and includes conflicting structures, it is the totality of individual texts in interaction, and thus the sign has no priority [cf. (3) in the previous list]. Not even the text has priority. The fundamental concept and unit of semiosis is now, for Lotman, the semiosphere, because it as a whole has priority over and is the presupposition for individual languages, with which,

however, it interacts (Lotman 2005: e.g. 206, 208, 218; 1990: e.g. 123, 125, 131). We shall explain the rationale behind this view below.

(4)   There are two points of view on culture, an internal and an external one [cf. (4) in the previous list] – Lotman 2005: e.g. 213.

(5)   Texts are not only hierarchically structured (immanent analysis), but also interact functionally – see (2) and (3) above and cf. (7) in the previous list.

(6)   The semiosphere includes two different mechanisms: one tends towards its unification, while the other, which is more fundamental, tends to diversify it and multiply its languages. Thus, on the one hand it has integrity, homogeneity and individuality, and on the other it is asymmetrical and heterogeneous. A necessary reaction of the semiosphere to the threat of excessive diversity is meta-structural self-description through a dominant nuclear structure, which is the highest form of structural organization, but thus it loses flexibility and the potential for dynamic development [cf. (8) in the previous list] – Lotman 2005: e.g. 208, 213–215, 219, 220; 1990:124, 125, 128, 131; see also Lotman 1974: 303 and Shukman 1981: 319.

(7)   From the internal point of view, the semiosphere constructs a chaotic external space. From the external point of view, the semiosphere is composed of (sub) structures, an internal and an external space [cf. (9) in the previous list] – Lotman 2005: e.g. 212; 1990: e.g. 133.

(8)   The law of the internal organization of the semiosphere is an asymmetrical structure due to the pair of centre (core) and periphery; however, in spite of this, the semiosphere is unified. The centre of the semiosphere comprises the most developed and structured languages, the nuclear structures, with the natural language predominating [cf. (10) in the previous list] – Lotman 2005: 205, 213, 214;1990: 127, 131.

(9)   The differentiation between conventional and pictorial signs is a cultural universal, even if all signs participate to some degree in both modes, and this shows that semiotic dualism is the minimal form of organization of a semiotic system. Dualism (binarism) and asymmetry are the laws founding all semiotic systems. These two languages are not isomorphic, but each of them is on a higher level isomorphic to extra-semiotic reality [cf. (11) in the previous list] – Lotman 2005: e.g., 216; 1990: e.g., 124; see also Lotman and Uspenskij 2013: thesis 0.

(10) There is a hierarchy between the levels of a text, as we saw in point (2) – cf. (13) in the previous list.

We easily observe that almost all of the ideas associated with the semiosphere were already formulated in the *Theses*; the overlapping is even greater if we take into account the contextual thought of Lotman. To this we should add the special emphasis he lays

on his older concept of 'boundary',[5] which he uses on different levels of generality as the mediation between two opposite domains: between the semiosphere and the extra- or non-semiotic space (the boundary as a bilingual mechanism dividing 'self' and 'other'); between his pair of opposition 'centre' (nuclear structure) vs 'periphery' of the semiosphere, which he considers as the law presiding over its organization and leading to its asymmetrical structure; between semiotic spaces; between the internal and external space of the structures; as well as inside texts, each internal space having its own self (Lotman 2005: 205, 210, 213; 1990: 123–124, 127, 131, 133, 138).

Where, then, can we locate the novelty of the concept of 'semiosphere'? We believe that it consists in two main ideas. The first follows from Vladimir I. Vernadsky's concept of 'biosphere', since Lotman conceives his semiosphere by analogy with the biosphere, while he differentiates his semiosphere from Vernadsky's noosphere as a specific stage of development of the biosphere.[6] Lotman criticizes both Peircean and Saussurean semiotics on the grounds that they are founded on a minimal element, the sign in the former case, and the communicative act between addresser and addressee, extrapolated from linguistics to other semiotic objects, in the latter.[7] He states that in these cases the complex object is produced by the simple one and argues that on the contrary the biosphere, as the totality of living things, is an organic unity attributing primacy to individual organisms as a whole, whence his semiosphere as a semiotic *continuum*[8] (see (3) above) – Lotman 2005: 205–208; 1990: 123. However, as we saw when comparing the attributes of the semiosphere with the *Theses*, there is a close continuity between the two, due to which analytical structuralist logic remains of fundamental importance also in the context of the semiosphere, whence a basic epistemological contradiction in its very conception.

If this first novel idea came to Lotman from ecology, the second is due to biology (though Lotman wrote very little about the relation of biology with semiotics – Kull 1999: 117, 127) and more generally the physical sciences. Lotman considers as the foundation of communicative processes what he calls an invariant structural principle that makes them similar in spite of their differences. This principle is the

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5   We shall encounter this concept later in relation to spatial analysis.

6   According to Vernadsky, the development of the zone covering the earth's surface passed through three stages: that of the geosphere (inanimate matter), that of the biosphere (living matter) and finally of the noosphere (human thought).

7   This is a strange view of Saussurean linguistics, which starts from the analysis of the communication circuit only in order to define the sign and the system of *langue* as a function of it.

8   Amy Mandelker (1994: 385) considers the shift effected by Lotman as one from Newtonian to relativistic physics, but we do not need to understand it in developmental terms. After all, Lotman opted for a well-known epistemological paradigm akin to the holistic concept of *Gestalt*, which is opposed to the structural analytic model. The same division exists in Marxism between the Hegelian Marxism of the Frankfurt School and Althusserian structural Marxism.

Vernadskian pair symmetry-asymmetry,[9] which he explains with the metaphor of a mirror as an initial unity divided by an axis of symmetry into two parts: from one point of view, they are identical, but actually they are related as right to left, an operation that is continuously repeated. This, according to Lotman, is not a case either of identity, which makes dialogue superfluous, or of non-correlative difference, which makes it impossible, but of correlative difference. This mirror symmetry, 'enantiomorphism', combines structural similarity and structural difference, and is the foundation of dialogue and meaning. We find it as 'rightism' and 'leftism' on all levels of the semiosphere. Lotman borrowed his mirror from Vernadsky (who in turn follows Louis Pasteur and Pierre Curie), but in Vernadsky's case it reproduces life, not meaning (Mandelker 1994: 388).

The palindrome is, according to Lotman, the expression of mirror symmetry and reflects the right-left asymmetry of the brain, a view very similar to the 'logosphere' in the later works of Mikhail M. Bakhtin; there is a necessary dialogue between the two hemispheres. Lotman's "organismic turn" (Kull 1999: 116), this leap to a grand, bold and organicist synthesis of the positive sciences and cultural studies, subject to the typical and visible danger of metaphorical thinking, is based on the ambitious premise that this right-left pair is the universal basic structure, from the genetic-molecular level to the general structure of the universe to semiotic systems (see also Lotman, Uspenskij 2013: Thesis 1.2).[10] Lotman states that the right-left pair defines not only the bilateral asymmetry of the human brain, but also the mechanism of thought (not to be confused with the content of thought), and that it "is one of the basic structural principles of the internal organization of meaning-making constructions" (see also Lotman, Uspenskij 2013: Thesis 3.0). He subsumes to it pairs of opposition (which are "an invariant and stable backbone structure" – Lotman, Uspenskij 2013: Theses 3.2, 3.3; see also 3.1.1), such as *male* vs *female* and *living* vs *dead* and quotes a number of examples of it from literature: reciprocal feelings, comparable journeys in which the gender of the actors in each of the positions of the journey are reversed, doubles, parallel topicality, the magic function of the mirror and the pattern of texts within texts (on the above, see Lotman 2005: 219–225

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9   According to Lotman, his combination of symmetry and asymmetry was described for language by Ferdinand de Saussure, to whom he attributes the expression "mechanism of similarities and differences". Irrespective of the fact that we were not able to find this expression in Saussure's *Cours,* we consider it misleading, because Saussure refers to similarity in the case of his relationships of association, but his whole theory of *langue* (not communication) is founded on the principle that "*dans la langue il n' y a que des différences*" (Saussure 1971: 166).
10   This connection between brain asymmetry and semiotic oppositions predates the formulation of the concept of semiosphere (see Shukman 1981: 321–322).

and 1990: 3, 36, 124, 133; see also Mandelker 1994: 385, 388–389, 390, 393).[11] Here Lotman misinterprets the structuralist principle of opposition, which refers to elementary concepts, by transposing it to whole sub-texts, i.e., narrative patterns.

Something similar happens in his discussion of doubles, the example of which also shows that his biological interpretations have no strong empirical or theoretical support. A few years before his introduction of the semiosphere, he set himself to discover the origins of plot narrative. He initially differentiated between two types of texts. The former would be non-discrete cyclical mythological texts, dealing with laws and containing many strictly isomorphic levels and characters that are just different personifications of one and the same character (a debatable notion), while the latter, due presumably to bio-structural necessity, are linear temporal texts, dealing with chance occurrences. From the combination of these two types developed, Lotman believes, the plot narrative, in which the doubles are the product "of the linear paraphrase of the hero of a cyclical text" (Lotman 1979: 161–164, 167, 168, 182–183; almost the same account is given in Lotman 1990: 151–153).

This is a striking example of an undue extrapolation from legitimate structuralist oppositions to whole narrative genres. A year earlier, Lotman attributed the difference between the cyclical mythological texts and linear temporal texts to the structure of the brain (Shukman 1981: 322–324). Thus, the biological background for the interpretation of the appearance of the doubles was already in place before he introduced the concept of the semiosphere, where it took the form of a biological-cosmic determination. Lotman opens his 1979 paper by opting for the typological as opposed to the historical approach, but the demonstration of his typological approach is not accompanied by a comparison with findings from the historical approach, and he ends up giving an abstract account of a supposedly historical event, namely the origins of plot narrative.

Lotman's oppositional pairs are undoubtedly very important for semiotic analysis. However, we should not neglect the more complex forms due to the degrees of 'more' and 'less' that may be found between oppositional poles, a fact noted by Lotman (see Shukman 1981: 315) but without the theorization that Algirdas Julien Greimas developed with his semiotics of passions. The whole set of oppositional pairs concerns either the deepest level or the codes of a narrative, that is, its paradigmatic aspect. As to the syntagmatic aspect, there is no provision for it in the semiosphere, though it had been included in Lotman's earlier thought.

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[11]   Lotman's view on the relation of a general principle of opposition – cf. his point (9) – to the structure of the brain recalls Claude Lévi-Strauss's view on the existence of an innate universal coding system deriving from the structure of the human brain, installed in the unconscious mind and consisting of dualist pairs. Also, Lévi-Strauss relates the mind to nature, as Lotman does, by stating that it is of the same essence with nature.

In fact, in 1975 Lotman had stated that there are two types of texts (two types of 'sub-texts' of 'cultural texts'[12]). To the first type belong the texts that describe the immobile structure of the cosmos and its transformations, and more generally of any set of cultural phenomena, such as spatial, social, religious, ethical, etc. These texts present a continuum which establishes immobile elements constituting the 'hero's environment'. They can be described in topological terms, such as continuity, proximity and boundary, and also in terms of oppositions, such as 'top' vs 'bottom', 'right' vs 'left', 'inclusive' vs 'exclusive', all of them expressing an axiology.

The second type of texts, dynamic texts, presents the place and activity of the hero, the mobile element, in the above continuum – and here we come to the syntagmatic aspect. They include the plot with its episodes, which Lotman believes can be described with the use of graph theory (manifestly he is referring to topological graphs – Lotman 1975: 102, 112). This approach to the syntagmatic structure leaves open the question of its relation to Vladimir Propp's seminal analysis. Instead, it defends a mathematical representation of narration – the rendering of a trajectory with the help of graph theory as a topology of shifting points – which, though helpful visually under certain conditions, is in any case an *a posteriori* operation: it represents a statement of intention without any demonstration and disguises the need for an analytical narrative theory, such as the one developed, for example, from a linguistic starting point by Algirdas Julien Greimas.

It is not without interest to examine briefly how the semiosphere is conceived by researchers working in the field, as, for example, researched by Kalevi Kull. Kull presents seventeen such conceptions, including his own. Just above half of them are definitions, while the rest vary in nature: it may be an assumed *characteristic* of the semiosphere (it is "the region of multiple realities"); it may be an external *interpretation* of the semiosphere (a Peircean interpretation: it is "anything formed from the (endless) web of interpretations", or a bio-ecological interpretation: it is "the set of all interconnected umwelten"); it may be an *axiological* reference to the semiosphere (it is "a sphere of healing"); or it may be an *over-generalisation* (it is "the space of whole-part relations") – cf. Kull 2005: 177, 179- 181, 185. All the definitions are extremely brief and the most successful among them revolve around points (1) and (2) of our second list, of which point (1) represents an extremely condensed definition and point (2) a more analytical one. To these definitions we should add the symmetry-asymmetry pair.

From the above review of the concept of culture developed by the Tartu-Moscow School, we conclude that culture is approached in a very rich and enriching manner. In the *Theses* it is discussed directly and is not connected to some broader framework, but Lotman articulates his semiosphere with – and essentially integrates it within –

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[12] We shall clarify this concept in the last section.

a biological framework, incorporates in it a bio-ecological metaphor and extends the biological framework as far as the universe. He makes many references to non-semiotic reality, without defining it clearly, but he appears to be referring to the world external to human semiosis. It is our conviction that Lotman's epistemological answer to the grounding of culture is its anchoring in biology and ecology. As Umberto Eco reminds us in his introduction to *Universe of the Mind* (1990: x), Lotman wanted to surpass the opposition between the exact sciences and the humanities. However, we believe that this, or any comparable, epistemological attempt to unify the study of culture with the positive sciences is an obsolete ambition and a positivist dead-end. We also believe that Lotman looked in the wrong direction, the biological direction, for the identification of a wider framework for semiotics. There is a capital factor missing in his rationale, a factor that is in a position to offer a *sociologically* sound framework for culture. As we shall argue below, this factor is material, extra-semiotic *society*, which surfaces a couple of times in the *Theses* (Theses 3.2.4, 7.0.0) in the form of historical period, generation, or social group, or as technology and trade, without a clear realization of the epistemological shift effected from culture to material society.[13]

The choice to consider culture as produced by social interaction, rather than as produced by biological processes, is an epistemological position. Given the present state of our knowledge, it is probably ultimately not possible to convince adherents of the one position to exchange it for the other. However, below we will make the case for the sociological basis of culture, and will attempt to show that the study of culture as elaborated by the Tartu-Moscow School is compatible with such a theory.

2. The sociological approach to culture

Since the topic of this paper is the semiotics of space, in the following presentation of our own theoretical conception of the epistemological location of culture we shall use geographical space as our reference. We shall proceed by referring to two fields, one applied – urban and regional planning – and the other scientific – geography.

Urban planning is a process of giving form to built space, and as such can be considered as the process of production of a spatial *text*. In this respect, it is analogous to the production of texts in other kinds of semiotic systems.

Figure 1 is a schematic presentation of the position of urban planning in relation to society. This figure shows the major components of society functioning during any process of this type of planning. These components are empirically visible and

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13   To avoid possible misunderstandings, by 'material society' we do not mean a substance actually existing 'out there', but an epistemological entity, a scientific construction (as is the concept of 'culture') allowing a broader and more acute view of society.

are the material socio-economic system (for example, technology, the technical and social division of labour, social stratification), the material political system (covering all kinds of political institutions, including those responsible for planning) and the ideological-cultural system. The same components, on a theoretical level, are considered by Louis Althusser and Étienne Balibar (1968: 120–125) as the major components of the social structure. We shall call the first two components 'material society', in order to differentiate them from the ideological-cultural component (which is not of course immaterial, but of a different materiality). To prevent misunderstanding, we specify that these components are *analytical* concepts: in practice they cannot be isolated, since they function together as a system through continuous mediations and interactions, though these are not of the same intensity in every case (the continuous bold arrows indicate the fundamental production processes in society, the remaining continuous arrows major influences and the dotted arrows secondary ones). There are both theoretical and empirical reasons to believe that there is a hierarchy in the midst of this interactional dynamics and that it is grounded, if only in the last instance, in the socio-economic system.
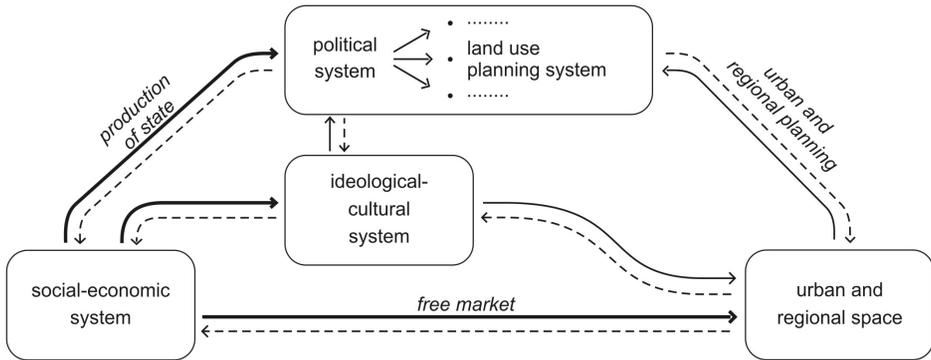

Figure 1. The dynamics of urban and regional planning as a function of the major social components.

The whole of these three components, acting together, are the general cause of the emergence of built urban space, through the articulation of their interacting processes with geographical space (empty or already built). Specifically, the planning of urban space is activated by the political component. Empirical geographical space can be seen as the result of the interaction between the products of these processes (which are only analytically and not empirically detectable): material

socio-economic space, material political space[14], and cultural space, respectively. Urban (and regional) space is part of a wider ecological system, from which society is inseparable empirically, but not analytically. The ideological-cultural system is the source of culture and it thus becomes clear from Figure 1 that culture is not the only part, not even the regulatory part, of the social world.

Figure 1 (which is limited to the *production* of built space, without reference to the *consumption* of it) is adjusted to capitalism, whence the role of the free market, but it is generalizable *mutatis mutandis* to all societies. Thus, according to Maurice Godelier, ideological systems that seem determinant in the different types of pre-capitalist societies never function independently. These systems, systems of cultural relations, which represent and interpret reality, organize the relations among people and between people and the world, and legitimize or contest the *status quo*, are not independent from material relations; they are not a later component added to them, but an internal component of them from the very beginning. Depending on the type of society, one of these systems becomes dominant and as such assumes the function of regulating the relations of production, that is, the economic structure of society (Godelier 1978: 156, 157, 160, 162, 168, 171–173).

The production of culture as such was investigated by Pavel N. Medvedev and Mikhail Bakhtin. Culture is seen by them as the product of ideology and all cultural products, as 'semiotic material', are considered to be both meaningful and material things; one such material vehicle is words. Medvedev and Bakhtin add manners, actions and religious rites, which we can understand with reference to Figure 1 as products of ideology: they represent the articulation of the ideological-cultural component, not with space this time, but with practices, which thus produces cultural practices. Medvedev and Bakhtin also make reference to the arts, i.e., artistic culture, to the organization of people and objects (cf. the semiotics of space), and to clothes – all of which could occupy the position of space in our figure – in which case the articulation with the ideological-cultural component produces what we call material culture. According to the authors, the world of meaning is constituted in social communication and the "objects-signs", in which ideology is incorporated and which are the externalized and materialized social consciousness of a collectivity, form the "ideological environment" of this collectivity. Each ideological sphere is determined by, but also determines, this ideological environment, "while only obliquely reflecting and refracting socioeconomic and natural existence". The mediation of specific forms of communication between this socio-economic reality and the different ideological spheres explains their different relations to that reality and the differences

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[14]   Material space rarely appears in semiotic analyses and when it does it is usually subsumed under the semiotic view. Randviir turns to material social space in order to locate culture and makes some allusions to material urban space (Randviir 2002: 144–148).

between them, and thus the different laws for the refraction of reality that underpin each sphere. We see that there is a double mediation between the socio-economic system and each ideological sphere, namely social communication and its products, the ideological environment (Medvedev, Bakhtin 1978: 7–15).

Medvedev and Bakhtin refer this general theoretical approach specifically to literature. The ideological environment is a complex system of interactions between different spheres, which expresses the ideological horizon of a given collectivity. For these authors, this domain is not auto-constituted, but, like each of the partial spheres it contains, is a refracted reflection of socio-economic reality. One of these spheres is literature, which, although it has its own specificity like all the ideological spheres, also acquires specificity through interaction with the other spheres. Literature is a refracted reflection of the ideological environment and its spheres, but also and fundamentally of the "generating socioeconomic reality" common to all spheres (Medvedev, Bakhtin 1978: 16–18, 27, 28).

Needless to say, the components of Figure 1 and their products do not float in the air, but render a schematic model for any particular case, which would be a phantom if not anchored in a specific (geographical) space and a defined (historical) time. This is then by definition the case with both intellectual and material culture, the spatial anchoring of which is also supported by Randviir (2002: 140, 143, 149, 152).

Figure 1 also offers a starting point for the epistemological location of culture with the help of the field of geography. Geography studies three different aspects of space: on the one hand, material society in space, mainly as the articulation of the socio-economic system with space (for example, economic geography, urban geography), and culture as manifested in space, that is, the articulation of the ideological-cultural system with space (cultural geography; together these two constitute human geography); and on the other hand, the physical characteristics of the surface of the earth, that is, space not as socialized in Figure 1, but from a perspective akin to ecology; in this case we are dealing with physical geography. There have been attempts by geographers to find a theoretical perspective that would allow the unification of human and physical geography, that is, the unification of a social and a positive science, but they have all been unsuccessful, for reasons which will become clear below.

We argue that in geography, material social space, cultural space and natural space are the objects of epistemologically different *perspectives* on space. In the same way, the general scientific perspectives on material social, cultural, and natural phenomena are different perspectives. Of course these perspectives represent very broad scientific approaches and each of them is subdivided into large sets of more specific perspectives, but broad or specific, a perspective is the necessary precondition for the epistemological definition of any scientific field. It follows the "law of relevance" *(loi de la pertinence)*. We encounter this rationale in Saussure, when he states that no

single science is in a position to exhaust the theoretical description of any empirical object – for example, the empirical object 'society', 'man' or 'city'. As Saussure argues, each science has to limit itself to *only one* of the possible perspectives through which an empirical object can be approached. The importance of the adoption of such an epistemological perspective may be shown by Saussure's view that, in the case of linguistics, the empirical object of research does not even exist prior to the development of the perspective, but is constituted by the perspective itself (Saussure 1971: 23).

Louis Hjelmslev similarly points out that a theory must be founded on the presuppositions that are necessary for its object and poses three conditions ruling scientific description. Within the framework of a typology of the different semiotics, he defines the epistemological object of Saussure's *sémiologie* (Hjelmslev 1961: 10–11, 106–120). Based on Hjelmslev, Algirdas Julien Greimas and Joseph Courtés also define the rule for scientific description. It implies that of the numerous possible features of an object only those necessary and sufficient to exhaust its description are selected, that is, that the object must be described from only one specific perspective (Greimas, Courtés 1979: Définition, Description, Opération, Pertinence, Procédure). The same rule is applied by Umberto Eco to define the domain of semiotics. According to Eco, all phenomena in society can and must be studied from a semiotic viewpoint and thus semiotics is a general theory of culture and ultimately a substitute for cultural anthropology. He considers that it is of central importance to approach social phenomena semiotically, *sub specie communicationis*. However, he clearly states that social phenomena as a whole are *not* reducible to communication and to study them in this manner does not imply that material life can be reduced to spirit and pure mental facts, since such an implication would lead to idealism (Eco 1968: 25–30; 1976: 6–7, 26–27, 158).

Given the above, it is evident that semiotics, as any other scientific field, could not be constituted without the definition of a specific epistemological object. This definition delimits what belongs legitimately to the field and what lies outside it. The delimitation, however, necessary as it is, should not be interpreted as isolation. Given the understandable tendency to extrapolate from the particular to the general, the isolation of a scientific field in the best case results in partiality and, in the not infrequent worst case, in misleading extrapolations. No epistemological object is completely autonomous, and the hierarchical *emboîtement* of epistemological objects allows a progressively deeper understanding of the progressively lower-level epistemological objects. On this basis, the *immediately* more general epistemological level above semiotics offers the framework for the deeper understanding of semiotics itself, and this corresponds to social theory, which oddly seems to have escaped the attention of most semioticians.

It is on the basis of the law of relevance that Hjelmslev defines epistemologically the perspective of Saussure's *sémiologie.* He observes that any structure comparable

to language is a 'semiotic', i.e., a structure founded on signs, a view quite close to Peirce's position that signs account for any kind of knowledge, representation and experience – and to Marx's account of the function of ideology. Hjelmslev proceeds to a basic typology of semiotic systems and defines three major types: denotative semiotic, 'connotative' semiotic and 'metasemiotic' (metalanguage) – Figure 2.
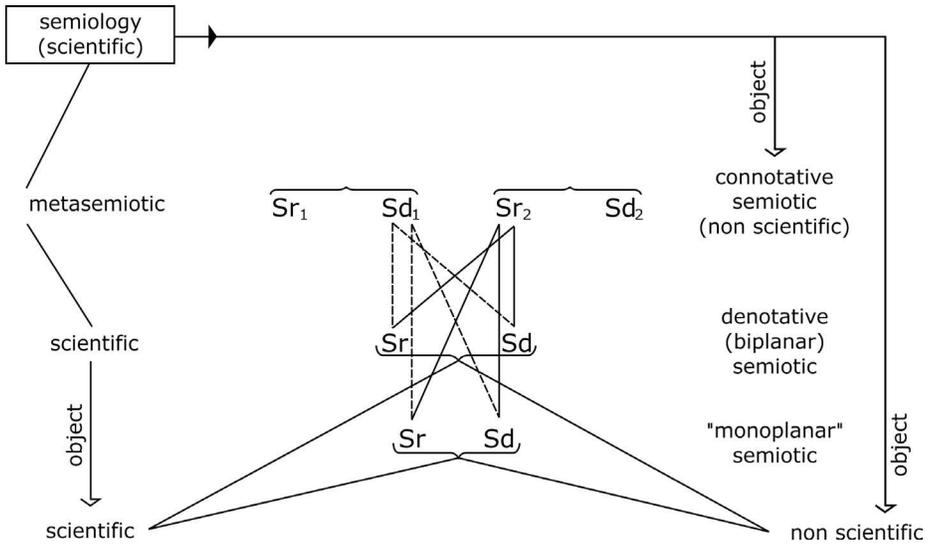

Figure 2. The classification of semiotic systems according to Hjelmslev and also Greimas and Courtés.

Thus, on the right side of Figure 2 are represented the spontaneous, non-scientific semiotic systems and to the left the metalinguistic, scientific semiotic systems. This division is analytically useful, but it should not be interpreted as exclusive, because there can be non-scientific metalanguages, scientific metalanguages cannot avoid an element of spontaneous determinations, and there are systems mixing the scientific and the non-scientific. Following Hjelmslev, Greimas and Courtés among metasemiotics distinguish between scientific 'metasemiotics', the object of which is a scientific semiotics, and '*sémiologies*', having non-scientific semiotics as the object (Hjelmslev 1961: 106–120; Greimas, Courtés 1979: Sémiotique).

Hjelmslev defines the perspective of semiology, of the study of signs, as concerned with the objects on the right side of Figure 2: his non-scientific 'monoplanar' semiotics (for example, chess), the non-scientific denotative biplanar semiotics, and connotative semiotics. We would like to add to these objects the *texts* – not the objects – of scientific semiotics, when they are approached not from the scientific

perspective that produced them, but from the semiotic perspective, in order to analyse their semiotic structuring and the intrusion of spontaneous signification in them. It is clear that this definition of semiotics as semiology refers to human society and is what Peircean scholars call 'anthroposemiotics'. Saussurean and Hjelmslevian semiotics formulate a theory for the ideological-cultural system of Figure 1, parallel to and independent from Peircean theory. This Saussurean-Hjelmslevian paradigm, which is close to the cultural theory of the Tartu-Moscow School, is the paradigm supporting the present paper.

Let us now come back to geography. Semiotics as Saussurean semiology is a sound cultural theory for the study of cultural space in geography and also for its related sub-field of the semiotics of space. However, the global object of geography is, as we saw, much wider, namely geographical space in general. There is no doubt that socialized space and physical space, society and nature, constitute an indissoluble whole, but this whole is an empirical, not an epistemological, object and must be decomposed according to different epistemological perspectives. One of the two broad perspectives on this object is the physical *environmental* perspective, close to the ecological perspective, for which society is *part* of the physical ecosystems of nature and social processes disappear behind ecosystemic mechanisms.

The second perspective is the *social*, and for the social perspective nature is seen as simply the environment of society, an environment which may set limits and offer choices to society, but mainly an environment *on which* society acts and which is, in a sense, its extension. Nature is viewed through society and, when there is reference to ecological processes, they are considered as a function of social practices. Thus, the use of the law of relevance in geography shows that these two perspectives – the physical environmental ones, oriented towards ecological geographical space, natural space, and the social ones, oriented towards material social and cultural space – are two radically different and incompatible epistemological perspectives on geographical space, and thus that physical geography and human geography cannot be reduced the one to the other and cannot be subsumed under a common perspective. This is not necessarily the case for the relation between material social and cultural space, the two epistemological sub-fields of the social perspective, provided that we develop a more general social theory allowing their articulation, and such a theory is sketched in Figure 1. We shall return to this argument at the end of this section.

There is a certain similarity between the views expressed here and Kull's general typology of sciences, based on their object, its general quality according to the opposition *semiotic* vs *non-semiotic* and the kind of approach they adopt to the object (Kull 2005: 175–176, 179–184). Table 1 gives our own account of his views, based on his text and tables.

Table 1. Typology of sciences according to Kalevi Kull.

Object of study	Quality of the object	Approach to the object
physical environment/ space	non-living, non-semiotic, non-textual	non-semiotic: natural sciences (physics)
living matter	non-semiotic	non-semiotic: biology (biophysics) and physical ecology
semiosphere	semiotic	biosemiotics and semiotic ecology
Humans	non-semiotic	sociology: natural scientific study of society
semiosphere	semiotic (linguistic)	semiotics of culture

As we can see from Table 1, Kull differentiates between five different epistemological domains: on the one hand, three non-semiotic domains, namely the domains of the physical environment, of biology and physical ecology, and of sociology (which he rather oddly calls the "natural" study of society), and on the other hand two semiotic domains, the domain of biosemiotics and semiotic ecology and that of the semiotics of culture. He considers that the two latter domains constitute the semiosphere and, following Thomas Sebeok, he identifies it with the biosphere as ecosphere. In this context, Kull defines as separate compartments of knowledge the bio-physical environment, material society, and the domain of semiotics, the three perspectives we have been discussing as the main components of geography.

However, our views diverge from this typology on two major issues. We just referred to the first issue, by observing that the two kinds of social space, material and cultural, may be articulated in the context of political economy, as a sub-case of the more general articulation of the material social and the cultural components allowed by this approach. These two domains remain independent in Kull's proposal, although he quite correctly brings to the surface the social dimension forgotten by the Tartu-Moscow School.[15]

The second divergence is also major and concerns the legitimacy of extending semiotics beyond human society to the rest of the living world. The discussion of this issue lies outside the scope of this paper.[16] On the other hand, what is relevant to our

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[15]   The social dimension is also ignored by postmodern idealism – which simultaneously contradicts itself by insisting on the existence of a very material capitalism (Lagopoulos 2012: 249–250, n. 27).

[16]   We shall limit ourselves to the comment that, in our view, biosemiotics could be a legitimate semiotic approach provided three conditions were fulfilled: if it were the case that any philosophy, in this case Peirce's, could be applied directly to an empirical scientific field without the elaboration of an intermediate level of theory; if it could be established, in an actual and not metaphorical sense, that there exist signs in the world 'out there' that are signs for themselves, independently of the mediation of human thought; and if in this case their study would contribute new knowledge to either biology or semiotic theory.

paper is not the *extension* of semiotics to biology, but the location of semiotics *within* biology, the explanation of semiotic phenomena by recourse to biological factors. On the articulation of culture with biology, four theoretical positions are possible: (a) culture is regulated by biological universals; (b) culture is regulated by spiritual universals, something like the Hegelian manifestation of the progress of the Spirit towards Self-knowledge; (c) culture is auto-constituted; or (d) culture is produced and regulated within the concrete material existence of a society, which in its turn is related to biological and ecosystemic factors. Thesis (a) cannot account for the differentiation between cultures in a satisfactory manner – we recall that for Lotman, for example, at least theoretically, the structure of the brain as a cultural universal does not define the content of thought. Thesis (b) may attract theologians but not scientists. Thesis (c) is not convincing, on the grounds that it cannot explain cultural change in a satisfactory manner.

Thesis (d) remains as the only satisfactory answer. This position, evidently, does *not* allow for a direct articulation between biology and semiotics. We can proceed further in this direction. Marxist political economy formulates a fundamental model of the circulation of capital and commodities. It distinguishes three stages: a circulation process before production; a production process; and a new circulation process, during which the produced commodities reach the market and are consumed. For urban and regional space, the production part of this material circuit is shown in Figure 1. For this approach, commodities in capitalism have an economic exchange value, but also a use value due to their correspondence to social habits. This model is generalizable even to societies without a monetary system, in which case there is no economic exchange value, commodities are simply goods and the market is replaced by reciprocal exchanges. However, commodities and goods have an additional value, namely a cultural, semiotic, symbolic value, as shown in Figure 1 for the production of space. This value, signification, is part of a circuit of communication, according to which a text is produced by an addresser to circulate through a channel and reach the addressee as its consumer.[17] A similar circuit is activated when the product-to-be is initially produced as a set of ideas.

This isomorphy between the cultural, semiotic model of the circulation (communication) of signification and the socio-economic model of the circulation of products points to the existence of a deep structural similarity between the circulation of all kind of products, whether non-commodified, commodities, or messages, in all

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17   The conception that the users of space have of it, their 'image' of space, is manifestly situated on the addressee side of the circuit. On the same side we would place views on the physical environment, corresponding to Kull's "semiotic study of the environment", which together with the semiotics of culture and biosemiotics constitutes what he calls "semiotics *senso strictu*", the domain of semiotic studies (Kull 2005: 180).

societies. The two circuits co-function, continuously interacting and indissolubly in-terrelated, but, on the basis of the grounding of culture in social life, there is a hierar-chy in this dialectics, the material circuit having primacy. This is what Medvedev and Bakhtin argue for. The same double circuit produces space, both as material construct and as semiotic phenomenon. It is thus impossible to explain spatial organization sole-ly in semiotic terms, ignoring the fact of its material co-production.

Thus, not only does biology seem to us to be unhelpful as an extension of culture, but it is also misleading if considered as the source of culture. Behind culture there is material social life and *this* is the explanatory substratum of culture. The fact of the articulation of culture with material society enriches semiotics. It is true that the law of relevance defines a specific domain of immanent semiotic analysis, and the articu-lation with society to create what we have called '*social semiotics*', that is, the politi-cal economy of semiosis, exceeds this domain, making it an interdisciplinary project. However, while immanent analysis is limited to the internal analysis and interpreta-tion, essentially *description,* of semiotic texts and systems, their articulation with the material social dynamics allows for their socio-historical *explanation.*[18]

We find the earliest complete statement of social semiotics in Medvedev and Bakhtin's approach. Cultural history is not treated as a continuum from culture to culture, just as, for example, the history of art or philosophy is not mainly created and developed by a series of voluntaristic decisions internal to these fields, but each culture is immersed in its concrete historical preconditions of material existence. Thus, cultural change is not to be found on a kind of isolated "horizontal" chain of cultures and their relationships, as in the perspective of Lotman (see, for example, Shukman 1981: 313–315) and generally the Tartu-Moscow School, but through see-ing the cultural wholes as emerging from the "vertical" connection of each one with its material social foundation. Only in this way can we understand and explain the nature of culture and cultural history.

The sociological framework we discussed above defines, for us, the epistemological position of culture and consequently of its different fields, including the semiotic space.

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[18]   'Social semiotics' is thus not limited to the study of connotative signification as ideology (a term which reminds us that formal systems are not autonomous but embedded in society), nor does it conceptualize 'context' in pragmatic terms, because such a context is defined *sub specie communicationis*, while the 'context' we propose here is material society (to answer the critical observations by Cobley and Randviir 2009: 2). "The specific epistemological position we propose asserts that the socio-semiotic approach should not be limited within the universe of signs, as Greimas believes, but involves as well the material, social processes accounting for systems of communication" (Gottdiener, Lagopoulos 1986:5).

3. The semiotics of space

We shall deal with the issue of the relation of space to semiotics following two different axes. The first, which will be discussed in the present section, concerns the semiotic – as differentiated from the socio-economic or the political or the physical – approach to urban and regional space. Given that the reference of our paper is the Tartu-Moscow School, we thought it best to discuss this subject not from a theoretical point of view, but with the use of a small corpus of concrete examples. The reason is that the School has not formulated any integral theory for the semiotics of space, but offers only some brief and isolated theoretical insights; however, it does provide a number of brief case studies. We shall limit our own examples to pre-capitalist societies, both because in this way certain generalizations are possible and because on that basis we can find some points of connection with the School, whose ideas correspond to these kinds of societies.

The second axis refers to the importance of space for semiotics and will be discussed in the last section.

The semiotics of space can be approached in two manners. The first and most important is the direct study of actually existing space, i.e., the direct study of built space, the study of space-as-text. The second is the indirect study of space, that is, its study through the mediation of some other semiotic system, such as the conception of space shown by everyday individual users of it, or space as presented in religion, mythology, philosophy, literature, the press, painting or cinema. In these cases, the space referred to may be a model for actual space, a conception of an actually existing space, which would thus belong on the addressee side of the spatial communication circuit, or it may be an imaginary space. Such studies concern, not space-as-text, as in the first case, but space-in-text. Lotman (1990: 191) maintains that "city symbolism" consists of two different "main areas: the city as symbolic space and the city as symbolic name", but this classification is not satisfactory, because the first area levels out our two categories above and the second area is a marginal case of our second category.

In respect to space-in-text, with the exception of the users' conception of space, in all other cases the analysis of space by a semiotician of space encounters the possibility of a comparable analysis on the part of the semiotician specializing in one of the other semiotic systems, the texts of which happen to make reference to space. The matter of whether the semiotic analysis of such a space should be theoretically attributed to the semiotics of space or to the other field of semiotics in which space appears is of no relevance, because each field integrates spatial analysis within its own and different problematic.

Given the academic backgrounds of the present writers, we shall approach the semiotics of space from both perspectives, that of space-as-text and space-in-text. We shall start with three case studies belonging to the first perspective, namely ancient Greek urban planning, the Ethiopian military camp and spatial organization in traditional Libya, and continue with two case studies from the second perspective, the ideal Platonic city and space in the courtly romance. All cases demonstrate that built space articulates the whole of culture.

3.1. The semiotics of space-as-text

3.1.1. The ancient Greek grid system

The urban planning system used in all ancient Greek colonies was the grid system, which includes a street network consisting of a set of parallel streets intersected by another set of parallel streets perpendicular to the first set. Due to this geometry, the city was composed of a set of square or rectangular blocks (cf. *insulae*), not necessarily equal, i.e., with different ratios of length to width, throughout the whole city. The blocks were divided into equal lots and in all lots were built uniform houses. This system had been used since the mid-eighth century BC, but in the fifth century BC it received a Pythagorean interpretation by Hippodamos. Thus, in order to understand the new meaning of the grid system, it is necessary to start with a brief account of Pythagorean philosophy.

According to Pythagoras and the Pythagoreans, numbers are the source of all existence. Numbers are not simply abstract intellectual entities, but also really existing substances. Proportion, the relationship between numbers, presides over all things and over the universe as a whole. It is because of this universal harmony that the universe, conceived as a sphere, was called by these philosophers "cosmos", which means something ordered, harmoniously arranged, decorated. Each of the ten first numbers corresponds to a dualist pair of concepts; the perfect number is 10, the *tetraktys*, which is the sum of the four first integers; the proportions of these first four integers determine the basic intervals of the musical scale, which were also considered as governing the heavens (Pollitt 1974: 15–18, 167; Raven 1951: 147–148). Forms such as the circle and the sphere were considered perfect due to their order, regularity and simplicity (Schlikker 1940: 67).

From the Pythagorean philosophical notion of world order was derived the notion of *symmetria*. *Symmetria* indicates the commensurability, that is, the proportional relationship, between the various parts of an artefact and between the parts and the whole; thus, *symmetria* is linked to the definition of a basic unit of measurement, i.e., a module. This concept was the nucleus of a set of concepts referring to mathematics and beauty (Pollitt 1974: 14–23, 26, 88, 126, 162, 167–169, 182, 187).
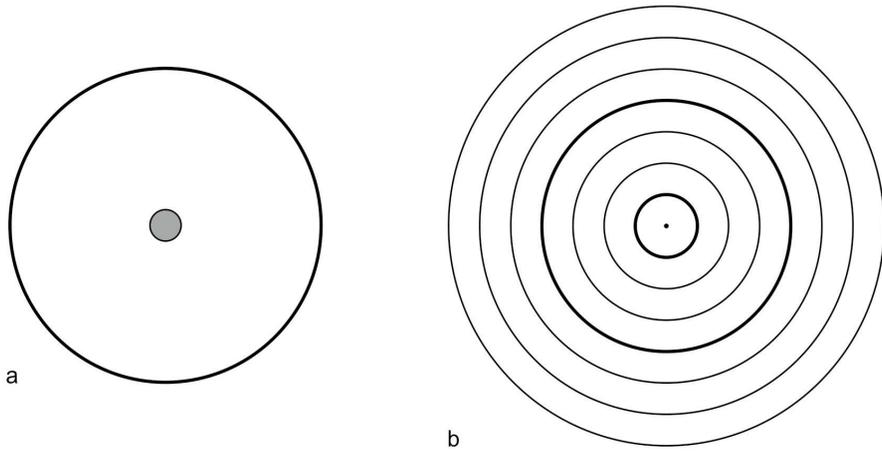
Figure 3a. The ancient Greek semiotic model of the city.
Figure 3b. The concentric model of geographical scales and celestial orbits (internal bold periphery: the limits of the city; intermediary bold periphery: the confines of earth).

Symmetria was the foundation of the abstract and theoretical semiotic model of urban space from the end of the sixth century BC. The Greek city was conceptualized denotatively as a circle (its limits) with a centre (the agora) and invested with five main connotative codes: a cosmic, a political and a social, an aesthetic, and an anthropomorphic code. In the context of the first code, the figure of the circle and its centre connotes a cosmogram, the circle being equal to the confines of the cosmos and the earth and the centre connoting the centre of the earth, through which passes the cosmic axis. For the political and social codes, the centre denotes the agora and the circle alludes to the equidistance of all citizens from that centre, connoting the principle of *isonomia*, that is, the equality of political rights among citizens, and thus the reciprocity of the relationships between citizens and ultimately social equilibrium (Vernant 1974: 179–180, 183–186, 204, 206, 209–211); *isonomia* is the social and political derivative of *symmetria*. The ideal form of the circle, the ratio 1:1 between its radii, and equilibrium, referring to *symmetria*, are all expressions of beauty. The fifth code ruling the ideological model of the city is the anthropomorphic code, because the centre is an *omphalos*, a navel. But in fact, the whole of the city is permeated by this code, because *isonomia* is also related to bodily health and expresses the right proportion and equilibrium of the four elements of the body, hot and cold, dry and wet, thus operating as a *symmetria* of the inside of the body (Raven 1951: 150; Rolley 1999: 28). Beyond the limits of the city, the semiotic construction of space

continued as a series of concentric circles, covering different geographical scales and integrating a mythical geography, to the limits of the earth and continuing with the orbits of the celestial bodies (Fig. 3a, 3b). Thus all major urban codes, which by no chance are also the main codes ruling Greek thought in general, converge in an upper and in a lower level: the upper level is that of their derivation from the cosmic order, whence the concept of *symmetria*, and the lower level is their coincidence in the same expression form.

This general spatial semiotic model found expression in the widely diffused urban form of the grid pattern, the main urban achievement of Greek antiquity. Although the grid pattern at first glance would appear to be incompatible with a model based on a circle with a centre, a relation between the two is established through Pythagorean principles. The ideal Hippodamian city is *myriandros*, that is, has 10,000 citizens, a number derived from the Pythagorean perfect number, the *tetraktys*, which thus imbues the city with its perfection. Hippodamus uses a tripartite classification system and on this basis organizes the citizens into three classes, soldiers, craftsmen, and farmers, and divides the city with its surrounding area into three kinds of lots, where three for the Pythagoreans is a cosmic number (Aristotle, *Politics*: II.v: 1267b 30–40, 1268a 10–15; Vernant 1974: 219–226; Lévêque, Vidal-Naquet 1964: 124–128, 132).

It is not only numbers that govern the city of Hippodamus. We may also assume that he used the very strict geometrical organization of the grid pattern as a vehicle of meaning (Fig. 4).

An important place in the centre of the plan is occupied by the agora. Thus, the city may not be literally circular, as the general model prescribes, but it revolves in a circle-like manner around the agora. The uniformity of urban blocks, lots and even houses projects onto space the principle of *isonomia,* expressed in the general model by the equidistance from the centre of all points on the circumference of the circle. Simultaneously, the city is generated by (is a multiple of) the twofold module of city block and house lot, where the larger module is already a multiple of the smaller, and thus it is founded upon *symmetria,* commensurality, the use of a common measure (see also Hoepfner, Schwandner 1994: 302, 306, 308, 312). In spite of its differentiation – a social one into classes and a legal one according to ownership – the city with its area constitutes a social whole and the city itself a rule-governed and harmonious totality. *Symmetria* and a desire to orient the city to the cardinal points integrate it into the cosmic order.
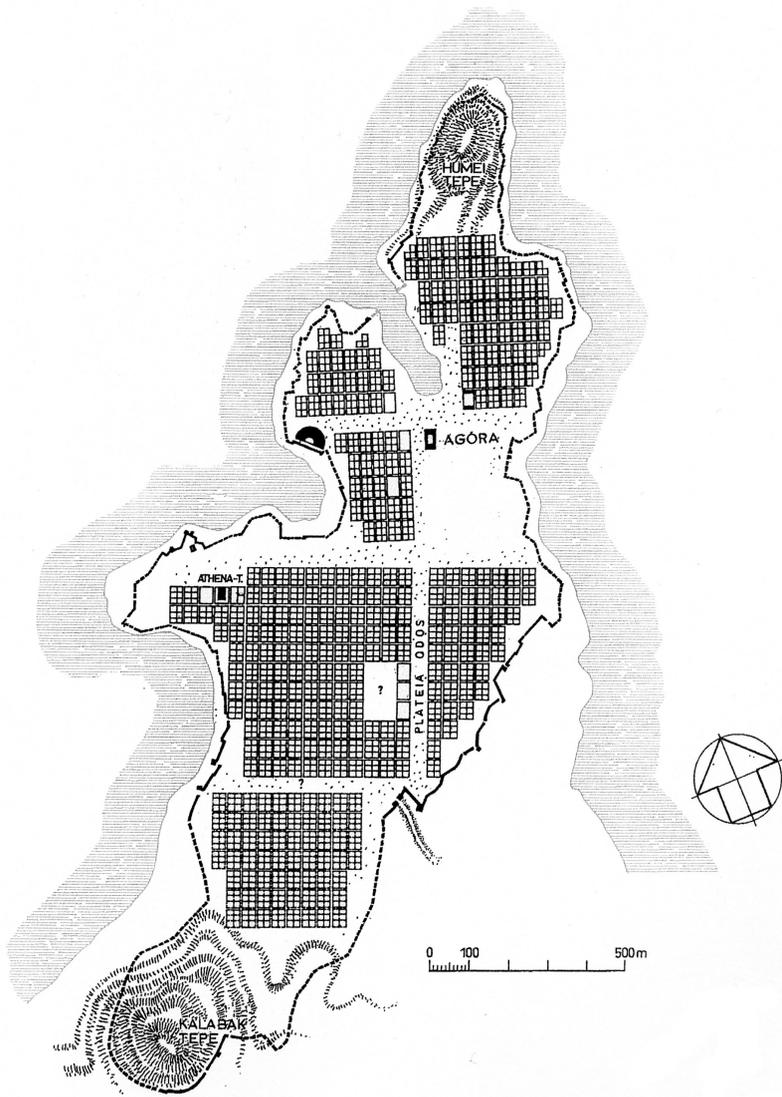
Figure 4. Reconstruction of the grid pattern of Miletus, 478 BC (Hœpfner and Schwander 1994).

3.1.2. The Ethiopian military camp

Towards the end of the thirteenth century, the Amhara ethnic group gained control over a large area of the Abyssinian plateau and founded the kingdom of Shoa. A main contributor to the establishment of the power of the Amhara was Emperor Amda Sion, from whose reign (the first half of the fourteenth century) dates the *Serʾata Mangest*, or *The Order of the Kingdom,* a document which has been called the oldest Ethiopian constitution. This text, to a large extent a protocol of ceremonies of state and church and of the administration of justice, also legitimizes the dynasty and the divinity of the emperor, connecting them to a myth of origin referring to King Solomon and the Queen of Sheba; the emperor, as a descendant of the line of Solomon, became affiliated to the line of David and hence to Jesus Christ.

In *Serʾata Mangest*, the strict organization of the huge royal military camp, which was not stationary but moved from place to place, is described in a condensed manner. Figure 5 is a graphic reconstruction of the camp according to this text (Lagopoulos, Stylianoudi 2004: 20–22), which displays its structure. The use of this model and our analysis of it are corroborated by later sources that extend as far as the nineteenth century. The model is found in a written source, but it is not a textual invention, just an account in words of traditional spatial practices. The model was also strictly replicated in the courts of major dignitaries and in military camps of all scales.

The major structural elements of the camp, according to *Serʾata Mangest*, are the following:

(a) A *central* element identified with the royal (the king's) palace (P), having as centre the king – (1) in Figure 5.

(b) An *opposition* between *in front* – the king and *behind* – the queen (2). This queen is the senior queen, the Queen Mother.

(c) An *opposition* between two halves, the one *left* – *gerra*, see (a) in Figure 5 – and the other *right* – *kegne,* see (b) in Figure 5 (cf. point (f) below).

(d) A *main axis* (XX in Figure 5) separating these two halves. This axis is materialize on the ground as a wide road located behind the king and continues in front of him by his line of sight, which defines the location of the principal gate of the compound (e) – cf. point (g) below.

(e) A *notional* axis (YY) perpendicular to the main axis, following from the division between front and rear. This axis seems to be *secondary* and together with the main axis forms a *cross*, that is, the camp is notionally quadripartite.

(f) A *tripartite* concentric organization of the camp, composed of the central royal compound (I); an inner zone around it (II) delimited on its left by an enclosure, *Gerra-Feres Deharawi* (a), and on its right by the symmetrical *Kegne-Feres Deharawi* (b); and an outer zone (III) ending in front with the enclosure of the

camp named *Darhinda Feres* (c) and in the rear with the symmetrical *Fit Feres* (d). This concentric form is further emphasize by the narrative sequence of the description of the camp.

(g) One *principal gate* in front of the king and on the limit of his compound (e). Mention is made of two secondary gates to his rear, *Gerra Kulf* to his left (f) and *Kegne Kulf* to his right (g), which were situated between the inner and the outer zone and were probably symmetrical; manifestly, there were also other gates. The three gates may have formed an almost equilateral triangle and were perhaps located on the bisectors of the two perpendicular axes, on which were also stationed dignitaries, servants and troops. The radii passing through these gates, in combination with the axis XX, display a radial pattern, which together with the concentric pattern characterize the general pattern of the camp as radial-concentric.
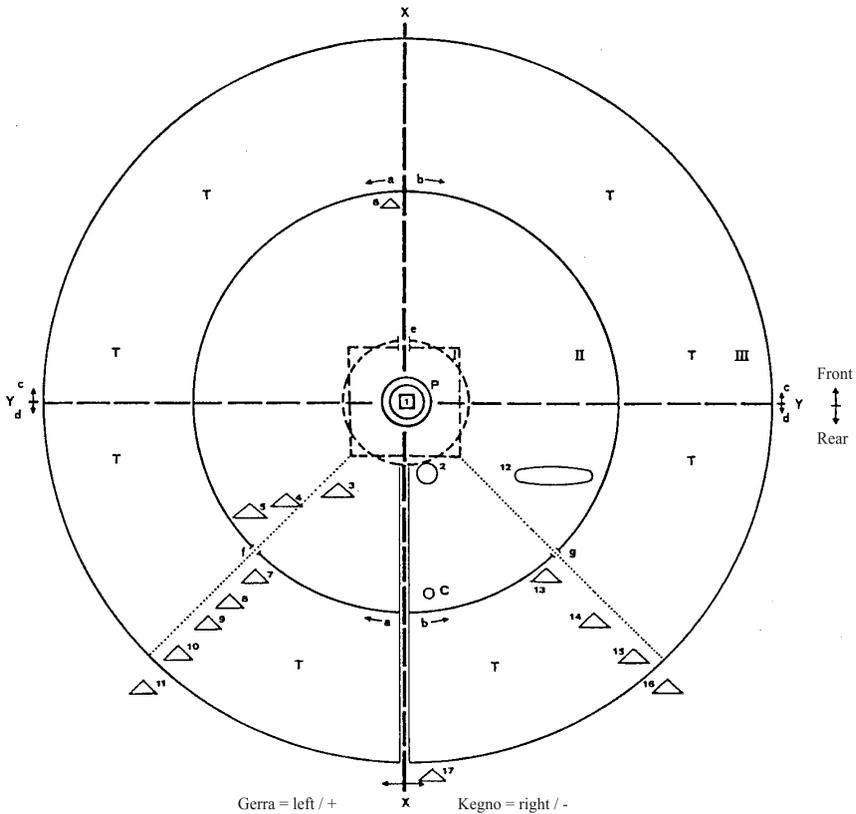

Figure 5. Reconstruction of the Amhara military camp based on *Serʾata Mangest*.

The division of the camp into left and right parts is the spatial instance of the *left* vs *right* opposition that regulates the structural classification matrix of Amhara culture. This opposition is accompanied by an axiological structure in which *left* has a positive value and *right* a negative one. The whole of Amhara culture is founded on dualist thinking, a fact also striking in the *Serʾata Mangest,* which classifies all institutions, dignitaries and other kind of phenomena into dualist pairs: there is a queen of the left and a queen of the right; the dignitaries of state, court, church and law (represented in the case of law by the most important judges) are divided into those of the left and those of the right, etc. The spatial combination of two dualist pairs produced, as we saw, the quadripartite camp of *Serʾata Mangest*, a model presiding also over regional organization, since the country was composed of four provinces, each with its own governor. The same general concentric model presided over any kind of spatial organization, such as the palace and the church.

The king's palace was installed on the highest spot of the area (when it was not flat) and was marked by the royal standard. The standard was the point of reference for the measurements of the surveyors, whose function was to locate the sites of the tents. This fact also emphasizes the semiotic centrality of the king. On the other hand, centrality was also attributed to the queen, because she was used as the point of reference for the left-right division of the camp, a major spatial and cultural division. King and queen are both sacred, but the unified centre of the king has primacy over and is the source of the left-right division; the queen's centre is a "shadow" image of the king's centre. The queen's centre is earthly, but the king's centre is of a different nature, to which we shall now turn.

In older times, the king was protected from profane sight and was seen only by high state officials and pages. During council meetings, he would sit in darkness in a special room, which communicated with the council room through two large windows with folding shutters. During audiences he was also hidden and his subjects would address him with eyes lowered and through an intermediary. The king's chamber occupied the centre of the palace, thus being the centre of the centre. A homology was established between the king's chamber and the sanctuary of the church, a sanctuary that was a metaphor for 'Jerusalem'. The curtains of the chamber stand metaphorically for the curtains of the sanctuary hiding a tablet on the altar, on which the Covenant was written; the tablet stands metaphorically for Christ and the Holy Trinity (see Griaule 1932: 8–17). The carpets of the chamber stand metaphorically for those of the sanctuary and for the fine carpets laid out for Solomon's coronation. They prevented the king's feet from touching the ground, as they should never do this.

Information found in *Serʾata Mangest*, beyond the description of the royal camp, reveals the nuclear semiotics of the text, shows it as a condensation of the dominant Ethiopian ideology and allows the understanding of the semiotic nature of the camp. Based on the data discussed above concerning the nature of the king, we conclude that

he is on earth but not earthly; he belongs to heaven. His centre (a) as the zero point of earthly measurements is the centre on earth and thus of earth and (b), thus, it is the immobile earthly point of a cosmic axis uniting earth with heaven. Consequently, the centre of the camp is the royal cosmic axis. The spatial data offered by the *Serʾata Mangest* integrate this centre within a wider context. First, the daily rising of the king at the centre is assimilated to the rising of the sun, a zero moment in time. The centre of the king is unified, it precedes and causes the left-right dualism. The text suggests a dynamic movement from the king-centre, through intermediary stages, to the appearance of this dualism, which manifestly alludes to a concentric cosmogony initiated by the cosmic centre. Its product, the camp, is the resulting cosmology, a cosmogram; with it, the whole nucleus of culture is projected in and on space. The same cosmology is displayed in the narrative sequence in *Serʾata Mangest* for setting up the camp, transforming the text into an archetypal force. The model of the camp is indigenous, but it was probably also connected to the heavenly Jerusalem.

Our analysis so far of the Ethiopian military camp has remained within the limits imposed by the semiotic relevance, which is of course entirely legitimate. This kind of analysis is quite satisfactory for its object and does not necessarily need to be further advanced, in which case, as we observed above and in spite of possible internal semiotic interpretations, it remains descriptive, without any possibility of producing a sociological interpretation answering the question of the origin of this semiotic system. Let us now make a brief reference to the articulation of our semiotic analysis with material society, that is, turn to social semiotics.

Amhara society was composite and strongly hierarchical. It was composed of three socially and religiously distinct groups: the Christian Amhara, the Muslim Arabs and Persians, and the Black African Jews, the Falasha. These groups were clearly stratified and this stratification followed from a division of labour according to ethnicity. The Amhara were soldiers, administrators, and cultivators, and held the political power. Below them in the hierarchy were the Arabs and Persians, who were mainly merchants and textile workers, and at the bottom of the social hierarchy were the Falasha, who did not possess any land rights and were metal forgers and jewellery makers. The Amhara are thus the dominant ethnic group, socially and politically, and their worldview forms the basis of the dominant culture.

One of the nuclear codes of the Amhara cultural universe was the royal code. It was, as we saw, integrated with the religious and the cosmic codes, but *ideologically* subordinate to them. On the other hand, in *actual use* the whole system was manipulated and in the last instance regulated by the king himself. He and his court are an image of God and the heavens and mirror the celestial order on earth, an order that was actually the symbolic reinterpretation of the material social structure. His powerful, socially central position was culturally projected into cosmic space as the possession of the centre of the universe and the vertical world axis, and on time

as the occupation of the zero moment of time. His installation in the centre was a legitimization strategy by which he attempted to secure his actual social centrality and power through his symbolic power. It is through these strategies that the supposed mediator of the Invisible legitimized his position as the material Master (on the above data concerning the Amhara, see Lagopoulos, Stylianoudi 2004).

3.1.3. The Libyan oasis

In our last example, we will look at the traditional semiotics of space in the oasis settlements of Libya.

For the farmers of Fezzan,[19] one of Libya's three regions up to 1963, the ram was the most important sacrificial animal. In the sacrifice, the animal's throat was slit and its body placed on the ground along a N-S orientation. Then its trunk was cut, first lengthwise and then perpendicularly, into four parts, which were considered as corresponding to – i.e. had as connotation – the four regions of the cosmos. Each fourth was then divided into two parts (making a total of eight parts), each eighth into three parts (24 parts) and finally each twenty-fourth part into two, giving a total of 48 parts. Beyond the use of the number 2, which traverses these divisions, the numbers 4 (also associated with the colour white) and 3 (the colour red) are an integral part of the process. 4, whose importance is displayed by its cosmic affiliation, also connotes 'male' and 3 'female'. According to a variant of the sacrificial myth, due to the brotherhood of the Black Slaves, the sacrifice of the ram corresponds to the sacrifice of the primordial star, the one we know as Canopus, which gave birth to the cosmos through its division into four constellations, each comprising six stars (24 stars in total).

This set of cosmic and anthropomorphic codes belongs to the nucleus of mythical thought in Fezzan, and it is the projection of this nucleus on space that we shall visit below.

The numbers 3 and 4 were the foundation of the spatial organization of the oasis settlement. Each principal oasis was composed, if not in practice, at least theoretically, of three partial oases, one female oasis 'head', divided into three neighbourhoods, one male 'belly', divided into four, and one intermediary oasis (Figure 6a). The anthropomorphic symbolism of the whole is repeated in the parts. Thus for example, the settlement of Ghat had a 'head' neighbourhood, which in turn had three building complexes. In the centre of its 'belly' neighbourhood there was a rectangular complex of fortified buildings, oriented to the cardinal points, the connotation of which was 'head'. Around this fortified complex were grouped four neighbourhoods, the hands and feet of the settlement. This symbolically quadripartite oasis (in reality it is composed of five neighbourhoods) was surrounded by a square wall with three gates of a serpentine form, connoting three subterranean serpents (Figure 6b).

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[19]   The account that follows is based on anthropological data collected in the 1950s (Pâques 1964a, 1964b).
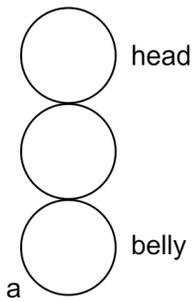
Figure 6a. Model of the principal oasis composed by three oases.
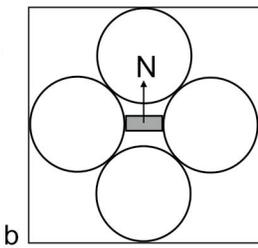

Figure 6b. Quadripartite model of the oasis 'belly'.

The tripartite 'head' oases also had at their centre a fortress and in front of it a main road oriented N-S or E-W, an axis between two moities of the oasis. This was the case, for example, with Ghudames (Ghadames), which was enclosed by a circular enclosure with four gates (Figure 6c). Initially, the main roads had a serpentine form, connoting the projection on earth of the primordial whirlwind that pulled the cosmos into its cosmic movement. Tripartite and quadripartite models could be combined in an oasis. In all cases, the major urban elements are the mosques – among which there was a principal mosque, the 'head' – and the markets.
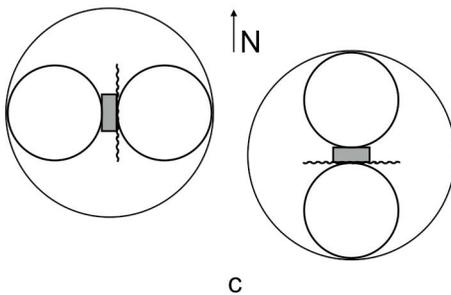

Figure 6c. Tripartite model of the oasis 'head'.

The ritual of the sacrificial division of the ram was reflected in a strictly isomorphic manner during the creation of a garden. This started from a complex surrounding a well (*saniat*), the water from which was transported along a N-S axis through the hollowed-out trunks of two palm trees (*fawwag*) to the two sections of the garden. Thus, the garden as a whole followed the tripartite model. Each section was then divided through irrigation channels, connoting serpents, into four parts and each part theoretically into 48 rectangles (*jedwel*). The set of the well and the two sections connoted a mythical triad and the rectangle connoted the farmer with his arms stretched out at shoulder height. The act of cultivating the rectangle was considered to be equivalent to the cultivation of the body of a primordial sacrificed person. When, instead of a well, there was a spring in the middle of the garden, two basins were constructed around it: one circular basin to the north, the 'head' of the spring, and another to the south, its 'belly' from which three irrigation channels departed: the one in the middle was 'male' and oriented N-S, the two others on both sides of it were 'female' and oriented E-W; the three together connoted the genitals of the garden.

The same set of spatial models, the tripartite and the quadripartite, also dictated all the levels of the regional organization and administration and the settlement network in Libya. The regions of the country were in older times two: Tripolitania to the north, the dominating 'head', and Fezzan to the south, the dominated 'belly'. Fezzan included three sub-regions. The administrative and social organizations were tripartite in the northern sub-region, while they were quadripartite in the south, Murzuq, which was organized into four districts more or less oriented to the cardinal points. The district where the capital Murzuq was located was divided into four sectors, each with its own capital, and included 24 main oases, and the district with as capital Traghen included twelve main oases, grouped by four into three groups, to the east, to the south and to the west. In Murzuq was the seat of the Murzuq sub-region council, composed of four members; the principal member was considered to have a direct connection with the cosmic system. Each district was governed by four officials, assisted by a council of three members; equally, each sector was headed by the same number of officials, and at the communal level one person in charge was helped by four assistants.

The set of the tripartite and the quadripartite spatial models is a derivative of the explanation of the cosmos and the organization and movement of the heavenly bodies. As we saw, they are projected on all scales and kinds of geographical space, but the projection of the cosmos was not limited to space; instead, it permeated the whole of material culture. Thus, weaving was assimilated to the cultivation of gardens and even hairstyle was an image of the cosmos (on the above, see Pâques 1964a: 23–41; 1964b: 74–75).

3.2. The semiotics of space-in-text

3.2.1. The ideal Platonic city

A prominent theoretical realization of the ancient Greek general spatial semiotic model that we presented above is the ideal Platonic city. We believe that the understanding of Plato's proposal is illuminated by his fundamental text on the composition of the nature of humans and its relation to the cosmos, the *Timaeus*. The account of the creation of the world in the *Timaeus* is as follows.

God created a mixture composed of three substances, and this mixture was the soul. Then he began by extracting from this mixture seven basic fixed quantities and continued with a host of other quantities, all with fixed numerical relations to each other, until the mixture was exhausted. With these quantities, God formed a band which he divided lengthwise down the middle. He then placed the one part on the other in the form of a cross (a Greek X, according to Plato), so that their middles coincided, and bent each part into a circular form. In the sphere thus created, the external circle remained undivided and became the celestial equator and the internal was given an inclination, forming the ecliptic of the sun, and split into seven unequal concentric circles, the orbits of the planets (Plato, *Timaeus*: 34B-36E, 39A).

Having created the soul, God then made the body. He made their two middles coincide and from this centre the soul expanded to the extremities of the sky, encircling it. We may assume that the spherical form of the sky is transposed to the head of the body (the earth also was considered a sphere). Plato thus gives a sophisticated account of an intimate relation between man and the cosmos, showing the cosmos as a macro-man and simultaneously man as a microcosm. This doctrine had a profound influence on both the Middle Ages and the Renaissance.

The fundamental geometrical figures incorporated into the Platonic cosmogony and cosmology are thus the X, the resulting centre, the circle, the concentric circles and the sphere. We encounter this set again in the ideal city of Plato's *Laws*. According to this text, the lawgiver must build the ideal city in the middle of its territory. He will divide the ground both of the city and the territory into twelve unequal sectors, starting from the circular wall of a central acropolis which should include the temples of Hestia, Zeus, and Athena; in the middle of the acropolis he should place the *agora*. Immediately outside the acropolis will be the dwellings of the high functionaries, and the courts which are sacred places; outside this circle he should place one of the thirteen groups of craftsmen. Twelve villages, each located in the middle of a sector, should surround the city, and these should be inhabited by the remaining twelve sub-groups of craftsmen and by farmers. The socio-geographical organization of the villages repeats the concentric organization of the city.

We may easily observe that any geometrical division into twelve parts leads to the tracing of two central axes, which form a kind of X when the sectors are unequal, as

Plato advises that they should be (and an orthogonal cross if they are equal). Thus, the urban geometry of the ideal Platonic city-state is founded on the same geometrical figures that found his cosmogony and cosmology: the cross-like X, the circle and the concentric circles. Hence, we may conclude indirectly that his city is a cosmic city. Indeed, Plato confirms this conclusion, stating that each sector of the city must be seen as a divine gift – each sector is assigned to a god – and the sectors are related to the months and the rotation of the cosmos. Also, the Pythagorean fixation on numbers permeates the city. The lawgiver divides the citizens into twelve tribes; the number of citizens is 5,040, a number divisible by 12; the quotient of this division is also divisible by 12, and the same number has further 'symmetrical' arithmetical qualities (Plato, *The Laws*, vol. I: V: 737E-738B, 745B-E, VI: 771A-C – see also vol. II, VIII: 848C-E). Through its geometry and the incorporation of numbers, the Platonic city becomes a cosmic city and constitutes a specialized variant of the general ancient Greek model.

The codes presiding over this general spatial semiotic model belong to the nucleus of the hegemonic ancient Greek ideology and reveal its deep structure. Its quintessence is cosmic order, constituted by numbers, their relations, and the geometry attached to them, and manifested as the image of the cosmos. From this core of the nucleus emanate directly, as its reflection, *symmetria* on the aesthetic level, *isonomia* as the manifestation of *symmetria* on the socio-political level, and internal *isonomia* on the level of health. This cultural complex was a product of the newly developed philosophical thought, itself a product of a new form of logic, rationalism, which appeared just after the advent of a monetary economy in Greece. *Symmetria* was not only projected on urban space, but also on the whole domain of artefacts: different systems of *symmetria* account for the differences between architectural orders; the Pythagorean sculptor Polyclitos invented a *symmetria* system for the production of perfect sculptural forms, the 'Canon', which he applied in his statue the *Doryphoros*; and the austere four-colour school departed from four colours corresponding to the primeval elements, the mixture of which in different proportions was able to produce an infinite number of hues.

The argument connecting the essence of ancient Greek ideology with the logic of the monetary economy is provided by none other than Aristotle. He observes that the term for coinage, '*nomisma*', is derived from '*nomos*', tradition, something that legitimates coinage and shows the importance attached to it by Aristotle. He argues that the reciprocity of social groups is based on the exchange of products and this latter presupposes the reciprocity of the products, which in turn is achieved when they are 'equated', in which case quantitative proportions between them are established. According to Aristotle, money is the common measure of all products and everything must be measured, 'for such a standard makes all things commensurable (σύμμετρα)' (Aristotle, *Nicomachean Ethics*: V.v:10–16). Thus, the need for social cohesion led to the discovery of coinage. The semiotic interpretation of the structure of the monetary

economy that Aristotle proposes here is *symmetria*, the very same *symmetria* that also regulated the cosmos. Behind rationalism and the concepts of world order and *symmetria*, regulating ancient Greek intellectual and material culture, lies the new historical phenomenon of the monetary economy.

3.2.2. Space in the courtly romance

Our second example of space-in-text comes from a society closer to our own, namely the medieval society of Western Europe. In the twelfth century, the feudal aristocracy of Western Europe developed a new literary genre, the courtly romance. The plot of the courtly romance (we refer here to the first Arthurian romances by Chrétien de Troyes; see Boklund 1977) begins with a description of a royal court, typically the court of King Arthur, where chivalrous knights and beautiful ladies are feasting and engaging in various courtly and aristocratic activities. The order and harmony of the court is disturbed, however, by the intrusion of a mysterious, uncourtly villain, who does something violent and insulting such as striking one of the queen's ladies. The hero of the romance must then leave the court to pursue this villain in the dangerous and chaotic territory outside the court, the land of *avanture* – adventure, in the sense of chance and unpredictable events. Here the hero faces and defeats various opponents until he finally confronts the villain, conquers him in battle and demands to know his identity.

At this point something odd happens: the villain – but only *after* he has been defeated – turns out to be a fellow aristocrat and knight, and his violent and insulting behaviour is given a 'logical' explanation (for example, he had made a rash promise to the lady that he loves). Now that he has been defeated, he is released from that promise, and hero and villain return together to King Arthur's court, where the villain will become another chivalrous knight of the Round Table. The challenge to the court has been defeated.
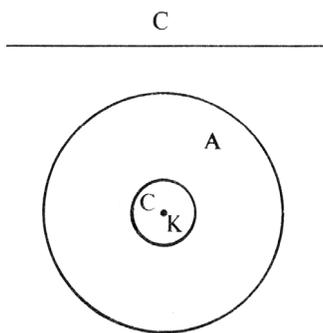

Figure 7a. Topological model of the space of courtly romance. C: courtly space is single and unified. Within the model, C: space of the court. K: the king. A: space of adventure.

If, following the suggestions of Lotman (1975), we plot the development of this narrative on a kind of topological map (Fig. 7a), we see at once that it has a clear spatial organization. The text, in this case the *Erec* by Chrétien, organizes the space of the narrative as two concentric circles. The inner circle is the dominant boundary in Lotman's sense and contains the space of the court; it is centred on the king (which is one reason why the king, in courtly romance, tends to remain motionless and takes no part in the dramatic action). The space of the court is the space of order, harmony, luxury and the civilized arts of living; it is also an exclusively aristocratic space, which only men and women of noble birth have access to. The space outside the court, the space of adventure, is the space of chaos, violence and monstrous creatures, including what the romance calls *vilains*, commoners, who are ugly and uncourtly. The job of the hero is to preserve intact the space of the court, and that means upholding the superiority of the values of the court. In other words, the world view that we find in the courtly romance is the world view of a particular *social class*, the feudal aristocracy.

The romance genre developed a series of variations of this spatial model. In one variation, the text proposes another centre as a rival to the royal court. The clearest example of this is provided by the thirteenth-century romance of *Tristan and Isold* by the German poet Gottfried von Strassburg. At one point in the narrative, the two illicit lovers are banished from the court of Isold's husband (and Tristan's uncle and liege lord), King Mark. What then happens is that they establish a kind of courtly space of their own in the forest, in what is supposedly the space of adventure (Figure 7b).
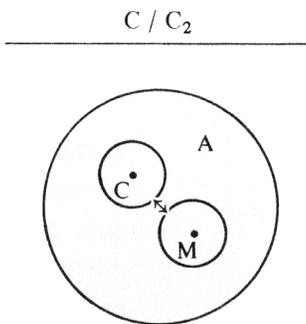

Figure 7b. The appearance of a rival C/C_2: rival centres. M: space of courtly love, *Minne*.

Nature provides them with a beautiful and luxurious environment, the birds make music for them, and their love is the source of courtly joy, which normally only the court itself can provide. Eventually, the whole court ends up following the lovers into the forest. The space of the lovers thus becomes the source of the courtly values in the text, and its boundary is the dominant boundary organizing topological space (Figure 7c).
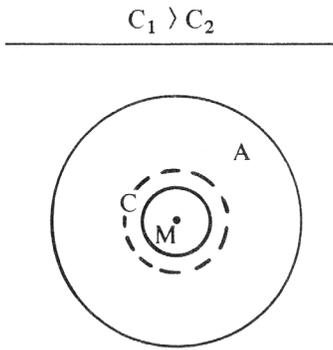
$$C_1 \rangle C_2$$

Figure 7c. Courtly love (*Minne*, M) as source of the courtly values. $C_1 > C_2$: courtly space is centred on courtly love; the space of courtly love is dominant.

This development of an alternative source of courtly values in an individual erotic relationship is not a model that the text can sustain, and the solution that the narrative proposes is to have the lovers die: once they are dead, they can be reintegrated into the court (Figure 7d).
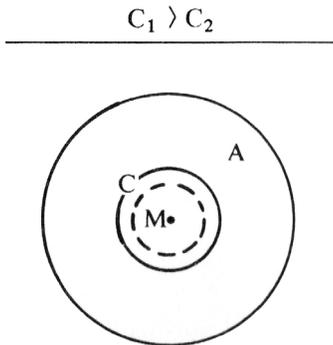
$$C_1 \rangle C_2$$

Figure 7d. The space of *Minne* integrated into courtly space. $C_1 > C_2$: the boundary of the court is the dominant boundary.

A similar solution, this time explicitly metaphysical, is developed in the romances about the Grail. In the earliest version of a Grail romance, Chrétien's *Perceval*, the hero, who is of noble birth but an orphan and has never been taught proper chivalrous behaviour, sets out to find the court of King Arthur and become a knight. On his way he finds a mysterious castle, where he is invited to spend the night. Here he witnesses an odd procession: a kind of bowl or plate, called a *graal*, being carried through the room, but he does not ask for any explanation. If he had asked – not what the grail is, but who is being served from it – he would have discovered that it was his own maternal uncle; in other words, he would have found a link to his family, with his maternal uncle acting as a substitute for his dead father. This link along a vertical axis to his noble ancestors in what is essentially the world of the dead (Figure 7e)

allows Perceval to find his own true identity and enter into his aristocratic heritage (we note that the graphic rendering of this event demands the extension of Lotman's two-dimensional to a three-dimensional topological mapping).
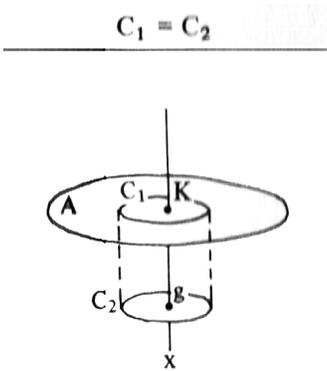
$$C_1 = C_2$$

Figure 7e. The (dead) noble ancestors as guardians of the dominant boundary of the court. $C_1=C_2$: a second courtly space reinforces the first. C_1: space of the court. C_2: space of the noble ancestors. g: the *graal* or grail. x: vertical axis of communication between the space of the living and the space of the dead.

Since Perceval did not ask, he has to go through a whole series of adventures before he manages to find the grail castle again, ask the crucial question and finally be admitted to the court as a proper noble knight.

From this story of the recovery of identity through a link to family and noble birth there developed, in the course of three centuries, the later Grail story, in which the Grail gradually becomes a Christian relic, the cup used by Christ during the Last Supper. An intermediate but crucial stage is found in the German version by Wolfram von Eschenbach. Here the hero, Parzifal, eventually becomes king of the Grail castle and the leader of something that looks very much like the Knights Templar, the crusader military order. By the end of the story, the Grail castle has replaced the court of King Arthur as the centre of narrative space: Christian chivalry has replaced the Round Table as the source of courtly values, and the dominant boundary in the topological organization of the text is the boundary between sacred and profane forms of chivalry (Figure 7f).

The medieval courtly romance is a particularly interesting example of how a fictional spatial organization is used to articulate a worldview, because it is addressed to a specific social class. The Middle Ages undoubtedly had a dominant worldview, that of the Christian religion, which saw the cosmos as a sacred space organized by God himself. If we examine the actual urban space of medieval Europe, we discover that the settlement tends to be grouped around a central church and market square, not around a court or a king. If we study medieval maps of the world, we find that they organize space around the centre of the cosmos, the sacred city of Jerusalem, not the court of King Arthur; one thirteenth-century map, from the monastery of

Ebstorf in Germany,[20] even shows the world as the body of Christ, with the head, hands and feet of Christ showing around the edges of the world. There are many medieval texts – most famously Dante's *Divine Comedy* – that represent the medieval organization of the cosmos as a set of concentric spheres of specific numerical proportions, so that their movement around a central axis creates music: the harmony of the spheres. The courtly romance, however, does not directly express this dominant worldview. Perhaps because it was considered a secondary form of writing (in the vernacular languages, not in Latin like theology or philosophy), it could to a limited extent express a spatial organization that differed from that of the dominant culture and instead represented the worldview of a particular (politically dominant) social class, the feudal nobility. However, even in this case of a secondary text, designed for entertainment and composed in 'vulgar' language, the pressure of the dominant worldview is such that, in time, the spatial organization of the Grail romances in fact comes to resemble that of the dominant religious worldview.
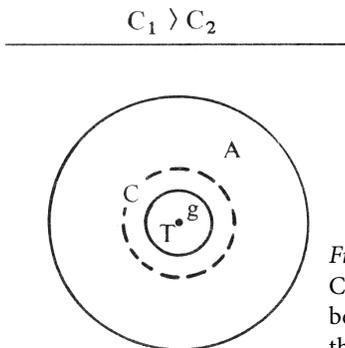
$$C_1 \rangle C_2$$

Figure 7f. Christian chivalry as source of the courtly values. $C_1>C_2$: courtly space is centred on sacred space; the boundary between sacred and profane chivalry is dominant. T: space of the Grail castle.

3.3. An overview of the semiotics of space in precapitalist societies

The five case studies discussed above can be considered as a representative sample of the logic underpinning the semiotics of space in precapitalist societies. Settlement space, and in general geographical space, is not regulated semiotically by denotative meanings. The space of the settlement, especially, is sacred. It is integrated symbolically within the workings of the cosmos by being an image of the cosmos. Generally, this cosmic code is integrated with an anthropomorphic code, referring to the parts of the body, its internal elements or the genders of male and female. Certain other codes are also of major importance, such as the temporal and the arithmetical codes.

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[20]   Reproduced in Harvey 1991, Fig. 21, 28.

In the *Theses,* there is just a hint of the cosmic code in Thesis 1.3.3, but it only concerns architecture and indeed a very specific kind of building. The thesis starts with the opposition between the inner and the outer space of a building. Then, it is observed that the relation between inner space and outer is not unambiguous, because elements of outer space penetrate into inner space and vice versa. The church is given as example of this second case and the argument is that its quality as image of the cosmos is a transference from the inner to the outer. However, this quality is strictly limited to the church.

Lotman advances further in this direction. He observes that humans create around them an organized cultural spatial sphere – here Lotman encounters Medvedev and Bakhtin's ideological environment – and space, such as architectural and agricultural space, correlates with semiotic models. Lotman also writes that "architectural buildings copy the spatial image of the universe", thus generalizing (and also rightly reversing) Thesis 1.3.3, but he also advances further in geographical scale. He compares the relation of a city to its surroundings to that of a church to the city around it and considers that the city has the same symbolism as the church, that is, it is an image of the cosmos and the heavenly city and is located in the centre of the cosmos. He refers to Jerusalem, Rome and Moscow as such cosmic centres. He also observes that the centrality of the city is generally associated with the existence of a hill or hills, as is the case with Rome, in which case the city is displayed as the mediator between earth and heaven (that is, as located on a cosmic axis). Lotman agrees with the view that an isomorphism exists between settlements – from the archaic period to the Renaissance ideal cities – and ideas about the structure of the cosmos (Lotman 1990: 140, 191–192, 203).

Our case studies corroborate this view and indicate that it is a universal feature of precapitalist (but only precapitalist) societies. It is not only buildings or settlements that incorporate the image of the cosmos, but any scale of geographical space organized by a society. In each case, the same cosmic model is projected onto space and adapted to its geographical peculiarities. This model is formulated in intellectual culture (general ideology, mythology, religion, philosophy), and is not limited to space, but also animates cultural practices and non-geographical material culture, that is, every kind of cultural object and every embellishment of the human body (cf. Lotman 1990: 203). The models found in precapitalist societies vary, but they are quite comparable and may be grouped into very few general categories. In all cases, the geometrical patterns revolve around a marked centre (Lagopoulos 1995).

For Lotman, the concept of boundary is his central concept and he relies heavily on it for the metalinguistic description of culture (which we shall discuss in our last section), but he also makes reference to it in respect to the semiotics of geographical space. After giving brief examples (Richelieu's vision for a common boundary of a purified French language and an absolutist France, the mythical maps of Madame

de Rambouillet's *salon*, the utopian geography of the Renaissance that aimed both to formulate the image of the ideal city and realize it in space), he states that the boundary both separates and unites and emphasizes that "the boundary is a necessary part of the semiosphere" and indeed "the hottest spots for semioticising processes are the boundaries of the semiosphere". The boundary separates the reproduction of the world inside it from its outside, which is inevitably seen as an unstructured chaos. With its internal 'us', culture not only creates the model of its internal organization, but also that of external disorganization. Due to this internal quality, the centre is reserved for buildings of major importance (Lotman 1990: 136–137, 140, 142).

There is no doubt that all boundaries imply a special kind of internal organization which the boundary delimits and protects. For that reason, the boundary undoubtedly has an important semiotic function. However, in precapitalist societies the boundary is a secondary effect, because it represents the outer limit of a dynamics taking place inside it and initiated by a centre, which determines the organization of space inside the boundary: the boundary exists because of the centre, and the centre is in reality the "hottest spot" of a spatial semiotic system. In cosmic space it is the creative centre from which creation started, the centre through which the axis of the cosmos passes, uniting the levels of the cosmos and taking various forms in different cultures: that of an abstract axis, of the primeval mountain, of a world tree (referred to in Theses 3.2.1 and 5.2.2). In geographical space, the centre receives the most important objects, buildings, functions and persons. Lotman could deduce the importance of the centre from his own examples of the cosmic symbolism of the city.

Caution is needed when considering the semantic stability of the boundary. As we saw, the same semiotic model is projected on different geographical scales. This is also true for the example given by Lotman: the church is an image of the cosmos, but the same holds true for the city. This means that, when the boundary of the church defines an outside chaos, this outside is the city, but the city is a cosmos with respect to the space outside *its* boundary; that is, the actualization of the radical meaning of the boundary depends on the geographical scale adopted. For wider scales, previous boundaries are neutralized, something also noted by Lotman, as we shall see in the next section. The only boundary with true semantic stability is the outer territorial limit of a society.

Our case studies show that it is not only the cosmic code that is articulated with geographical space. The cosmic code is the crucial and regulatory code of culture in precapitalist societies, but no culture is mono-codal. Culture is a complex of interrelated codes and its major codes, composing its nucleus, animate all its semiotic systems. Thus, the semiotic deciphering of geographical space is able to deliver the dominant worldview of a culture. From this point of view, and with reference to precapitalist societies and material culture, the semiotics of space is of equal, but not greater or lesser, importance with the analysis of any other semiotic system.

However, two reasons make the semiotics of space of major importance. The first is that, due to the size of even a limited space, the semiotics of space lends itself to a greater development of cultural codes. The second reason is vividly illustrated by Lotman himself, when he writes that "the semiotics of space has an exceptionally important, perhaps even overriding significance in a culture's world-picture" and the model of the cosmos is linked with actual space; not surprisingly, he considers this kind of model as iconic and thus non-discrete (Lotman 1990: 150, 203). Of course, the semiotics of space cannot take for its object the semiotic analysis of a whole cultural worldview. But what Lotman wants to emphasize is that a culture creates a spatial model of the cosmos, whence the importance he gives to the semiotics of space. Thus he also reminds us that the semiotics of space deals not only with geographical space but also cosmic space. Our social semiotics extends the possibilities of this field further. In the last section of our paper, we focus on the special importance of space for semiotics.

4. Space in semiotic theory

The analysis of space is of special significance for semiotics in two ways. The first is that the semiotic analysis of space can serve as a tool for the analysis of texts from other semiotic fields. To give an example from visual semiotics, we may recall Boris Uspenskij's analysis of the old Russian and Byzantine icons. According to Uspenskij, such an analysis should proceed on four levels, the most general and important of which is the level of the general geometrical system of representation. This level is independent from that of the semantics of the specific objects represented in the icon, which is integrated within the former level and constitutes a second level of analysis; this semantics also influences the representational mode. The geometrical system is not that of our familiar 'direct perspective', but is the system of 'inverted perspective' and is based on an observer situated within and in the central area of the icon. It imposes an abstract geometrical syntax, which allows for a dynamic multiplicity of visual positions, brought together in a unified visual impression.

For Uspenskij the icon, as a sign but also as a set of signs, consists of a number of relatively independent microcosms, with specific spatio-temporal relationships to each other. Space has a self-enclosed character and has primacy over the objects it includes, and what is important about the latter is their position in space, not that they are a copy of the corresponding real object. The dominant internal point of view implies a central source of illumination, a position of 'right' to which corresponds the 'left' of the viewer as in a mirror, concave forms, figures at a greater scale – which may also be due to their semantics – and a decrease of the size of the objects represented starting from the centre and advancing towards the viewer. To this point of view, an external point of view is opposed, linked to the viewer and covering both the frame of

the icon and its periphery. Here, the perspective system is different, the area shadowed; the forms are convex and mirror images of the central forms, they are cut-off forms and include natural elements and structures. The functional opposition between the internal and external points of view is the fundamental structural characteristic of the icon (Uspensky 1976: 7, 12–13, 31–41, 42 n.10, 44 n. 25, 45 n. 35, 37, 49, 59).

The same theoretical concept of the point of view is examined by the literary semiotician Jacques Fontanille (1999: 49–61), since point of view is a major concept in literary theory. Fontanille is interested in exactly the same issues as Uspensky, namely the syntax and meaning of the point of view, as well as the confrontation between points of view. It is also especially interesting that he appeals to space for this analysis, based on two paragraphs from a literary text. The attempt of the hero of the narrative to acquire a global understanding of a town initially encounters the resistance of the town, which appears to him as amorphous and thus acts as an anti-hero, whence two contradictory points of view. The hero then adopts new strategies, by choosing landmarks and stabilizing spatial relations, which allow him to acquire a global point of view that he controls himself. Here Fontanille's analysis makes use of a literary semiotics of space, overlapping in certain areas with, but different from, the semiotics of space practiced by a spatial semiotician, demonstrating the possibilities space may offer for literary analysis, though without pretending that it is to be privileged among other major objects.

In this section, however, our interest is oriented not towards the repercussions of space on other semiotic systems, but towards its importance for semiotic theory as such.

It is typical in traditional literary theory to analyse narrative in terms of three necessary factors: character, space and time. These three factors acquired a theoretical framework with the general narrative theory of A. J. Greimas. According to Greimas, there are three levels of signification in any narrative text. These three levels are the three instances of a 'generative process', moving from the simpler and more abstract towards the complex and more concrete and thus producing a text. The first level is the deepest one and includes a fundamental syntax and a fundamental semantics. The foundation of the fundamental syntax is the well-known model of the semiotic square, the elementary structure of signification, following from the logical elaboration of a semantic category, i.e., a logical opposition (such as *being* vs *appearing*, *consanguinity* vs *alliance*, *horisontality* vs *verticality*). This level corresponds to langue (and to an enlarged definition of the Chomskian concept of 'competence').[21]

The second level includes a narrative syntax and a narrative semantics. The elementary structure of the narrative syntax is the narrative programme, consisting

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[21]   We see that the concept of *langue* is here extended from the collectivity (the language community) to the individual text (as idiolect).

of an elementary enunciate of 'doing' ruling an elementary enunciate of 'state'. The syntactic unit of this level is the actant of narration, acting according to a defined matrix of modalities. The overall syntagmatic organization of the narrative syntax follows a 'canonic narrative scheme'. The two components together compose the 'semio-narrative structure'.

The third level, closest to the surface structure of the text, is that of discursive structures. The discursive structures are the transformation of the previous deeper structures into discourse and accomplish 'textualization', that is, the construction of a discursive continuum, bearing the manifested text but preceding its manifestation. This level also includes a syntax and a semantics, the discursive syntax covering 'actorialization', that is, the constitution of the actors of a text (the 'characters' of literature), 'temporalization' and 'spatialization'. Spatialization implies two procedures. The first is spatial location, the creation of a more or less autonomous spatial organization which serves as a framework for the inscription of the narrative programmes and their linking; this is the paradigmatic aspect of textual space. The second procedure is spatial programming, the linear connection of the spaces included in the above spatial organization, corresponding to the temporal programming of the narrative programmes; this is the syntagmatic aspect of space (Greimas, Courtés 1979: e.g. Actant, Spatialisation, Temporalisation, Textualisation).

A further step, showing the importance of space in an abstract sense, is found in Lotman's views in the 1975 paper already referred to. Lotman observes that spatial modelling is not only important for the study of the image of the cosmos, but spatial models can be built for any set of elements having a common quality, for example that of ethics or colour. He bases this proposal on topology and argues that abstract topological spaces can be used as a metalanguage for non-spatial ideas. Lotman's aim is to formulate a scientific metalanguage for cultural typology, independent from the internal cultural point of view. He considers that texts belonging to different semiotic systems are in their topological form variants of an abstract and invariable, topologically expressed 'cultural text', which is the 'spatial' prototype of all the texts of a specific cultural type. The cultural text is a more abstract prototype of reality, a structured view of the world of a given culture, and is modelled by spatial models as an external descriptive metalanguage. Lotman connects the above general metalinguistic model with the conceptual spatial structure of the cosmos by considering them as isomorphic (Lotman 1975: 100–101, 103), but this holds true only for precapitalist societies.

Lotman gives examples of the simplest divisions of static cultural space. The first example is an internal organized space of limited size, surrounded by a boundary of the circular type, beyond which there is an unlimited external unorganized space. The opposition of the two areas of the model is of the kind *we* vs *them*, expressed, according to the cultural model, by such oppositions as *cosmos* vs *chaos*, *culture* vs *barbarism*,

intelligentsia vs *masses*, where the first term of the opposition is valued positively and the second negatively. Lotman offers different variants of this model depending on the type of relation between internal and external space (isomorphic, non-isomorphic, part to whole, the external as extension of an internal symbolic relation). He considers the concept of boundary as essential to the spatial metalanguage and clarifies that the boundary can only be part of one of the two spaces and is not necessarily spatial, for example, it may separate the members of *cold* vs *warm* or *slave* vs *free*. The boundary unites Lotman's two types of texts, the immobile structure of the cosmos and the dynamic text of the mobility of the hero, because while he states that the boundary is impenetrable, movement across the boundary (the struggle of the hero against – or his struggle to restore – the structure of the cosmos) is in fact one of the most typical forms of plot construction.

A more complex model results when both members of the opposition are considered as earthly and are opposed to a surrounding unearthly world, a case in which either the internal or the external boundary dominates. A further model follows from attributing to the external world a division into two zones with opposed values, expressed in terms of spatial pairs of opposition. Finally, Lotman discusses the model of the medieval worldview, composed of a series of concentric circles, in which each circle when selected as boundary becomes the fundamental one, dividing a positive internal 'us' from a negative external 'them'. He observes than there may be a series of boundaries that the hero must overcome beyond the fundamental boundary, a concept we also used in 3.3 above.

The boundary of a cultural model may be found as invariant in actual texts, whether or not they concern space, but it is often manifested as an actual spatial feature. Lotman refers to a text in which the walls of a city separate it from the elements of nature, and observes that in the same text, the conception of space beyond the limits of Russia becomes a fantastic-mythical geography (for the above see Lotman 1975: 100–111, 115–120; see also Remm 2010: 403–406).

Thus, Lotman's proposal for the construction of a double semiotic model of culture was founded upon topology and its abstract topological spaces (cf. section 1.1); it is an abstract general cultural model, covering by its nature also the semiotics of space. The static sub-model represents *a posteriori* graphically and in a simple manner not only spatial structure but any kind of structures, by using concepts corresponding to actual cultural meanings. It is certainly useful, because it allows us to form an instant global conception of the structuring of a field of cultural phenomena. However, it can be formulated only when the complexity of the phenomena does not exceed easily readable graphic means. Things are different with the dynamic sub-model, because spatial movement exteriorizes narrative programmes, which give action its meaning, and this meaning, which is the actual object of analysis, cannot be bypassed in the

name of abstract topological concepts; the same movements may have different meanings and vice versa. Thus, contrary to the static sub-model, this dynamic model, which was not further elaborated by Lotman, should not be considered as reliable.

We shall close our paper with Franco Moretti's (1998) views on literary theory, which attribute to space, actual geographical space this time, a dominant position in theory and extend to social semiotics. The corpus he uses is the nineteenth-century European novel. The integration of space with literature is conceived according to two perspectives, constituting his 'literary geography': the one of (geographical) space in literature and the other of literature in (geographical) space. We shall start with the first perspective.

The main instrument of Moretti's analysis is the actual topographical map (not an abstract topological diagram, nor unfortunately the semiotic mapping of space in the text) which becomes, for him, a 'literary map'. Moretti understands that mapping implies decisions depending on characters, narrative episodes and narrative spaces. He believes in the unity of narrative and geographical space and identifies this unity in Propp's work. He believes that Propp's narratology has a spatial foundation and using this criterion groups Propp's narrative functions into four categories, observing that these sets, though deformed by the new narrative logic, still exist in the nineteenth-century novel. The Proppian model and the traditional dualism of narrative, without being abandoned, are overcome in the novel in respect to space through a triadic ('triangular') structure, a fact Moretti explains by urbanization. In this manner Moretti's analysis is extended to social semiotics in order to find its sociological explanation.

The same articulation is used by Moretti for the explanation of the colonial novel. He finds in it a linear geography, which he attributes to geopolitical reality. Moretti generalizes his theoretical conclusions to all nineteenth-century novels and goes as far as to state that the type of a narrative depends on the type of its geography. The historical novel, for example, develops far from the capital (the centre) and near internal or external borders. Here, Moretti makes reference to Propp and Lotman, arguing that for both the crossing of a spatial border is generally decisive for a plot; for him, specific characters are attached to the borders (cf. Lotman 1979: 167). In the historical novel, semantic intensity and metaphors increase at the borders and the same is the case with other literary genres, in which however this phenomenon is linked to small-scale spatial elements.

Moretti's second perspective, literature in space, has as its object the 'narrative markets', which according to him is the new field of the history of reading, previously called sociology of literature. He argues that historians of the book have studied the division of this market according to the differentiation between social groups, but his own interest is its geographical differentiation, an object belonging to cultural

geography. He uses for his analysis quantitative data, mainly percentages, and he relates them (unfortunately without any use of statistical cross-tabulations) with material variables, such as different time periods and population size. The mapping of this second perspective is totally different from that of the first. It is no longer an intra-textual mapping but an extra-textual geographical one, showing, for example, the geographical diffusion of an author or a literary genre. Moretti identifies regional inequalities and concludes that geography (we add: geography in its socio-economic aspect) limits the literary market. So far, this is not an articulation of the geographical with the semiotic relevance.

However, this is not the only conclusion that Moretti draws from this second perspective. He passes to a social semiotic analysis by stating that, due to regional inequalities, literary plots are diffused from the centre of the market to the periphery, where the characters are given a local form, just as for Propp the *dramatis personae* are invariant, but the specific characters vary. When the central model clashes with another culture, literary compromises, instabilities and failures arise, but in the opposite case peripheral literature may offer great innovations.

In sum, according to Moretti literary form follows from the crossing of his two perspectives: semiotic literary geography, anchored in material geography, and the material geography of literary markets. However, his literary geography is limited to syntagmatic analysis, which only partly reflects the world of a text. Also, literary geography has the advantage of displaying the importance of space in literature, but this overemphasis on space is in conflict with the more complex Greimasian approach we saw above, for which, in the context of the two procedures of spatialization, spatial programming is the product of the *narrative* programme. Thus, Moretti's literary geography ends up, to paraphrase the Greimasian terminology, eliminating 'literary temporalization' and undervaluing 'literary actorialization'.

Moretti's literary geography has several theoretical insights to offer literary theory, especially as concerns the geographical aspects of the nineteenth-century literary market; though in his discussion of literary production he goes too far in attributing such a dominant position to geography while marginalizing the immanent dynamics of narrative. Literary geography is too poor to account for the whole of literary theory. We should probably attribute Moretti's enthusiasm for space to the general climate of the 'spatial turn', which emerged in the 1980s as a result of French influences on human geography and had a direct and general impact on the social sciences and the humanities. Whence the division: time (history) is modern, space (geography) is postmodern. This division between two factors that are indissolubly linked in theory and experience is meaningless, but the postmodern turn to space had the advantage of revealing new aspects of it.

As we saw, literary theory is now seriously interrogating space, while the same is true by definition for visual semiotics. Hardly any semiotic system can escape the

incorporation of space. If semiotic texts are a form of cultural auto-representation, then space is a particularly useful focus for the study of culture. In other words, if semiotics matters for culture, space matters for semiotics.

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Семиотика, культура, пространство

Пространство как окружающая среда обычно не становится предметом изучения семиотики. В настоящей статье мы пытаемся показать, что понимание пространства важно не только потому, что именно с его помощью можно очертить одну из важнейших областей семиотических исследований, но и потому, что пространство влияет на другие семиотические системы и даже на общую теорию семиотики. Начнем с обзора основных положений тартуско-московской школы, изложенных в «Тезисах», и сравним их с понятием семиосферы у Лотмана. В итоге мы делаем вывод, что в описаниях культуры не хватает социологического компонента. По нашему мнению, понятие «общество» не исчерпывается понятием «культура», в него входит и компонент материального, внесемиотического общества. Во второй части статьи эти тезисы последовательно развиваются в отношении геграфического пространства.

Место пространства в семиотике анализируется на двух разных уровнях. Первый соответствует семиотике (географического) пространства, которая рассматривается с двух точек зрения. Во-первых, изучение существующего городского пространства как текста на примерах из докапиталистических обществ: семиотическая модель города в Древней Греции, пространственная организация военного лагеря древней Эфиопии и традиционного ливийского оазиса. Вторая точка зрения рассматривает два случая конструирования географического пространства в литературных текстах: «идеальный город Платона» и «двор короля Артура». Анализы текстов сопровождает обзор семиотики пространства в докапиталистических обществах.

В четвертой части статьи показано значение понятия «пространство» для семиотической теории в целом. Приведены примеры, каким образом пространство может служить инструментом для анализа текстов других семиотических систем и как используют пространство разные пространственные метаязыки.

Semiootika, kultuur ja ruum

Ruum keskkonnast lähtuvas tähenduses on semiootikas üsna marginaalses positsioonis. Siiski püüame käesolevas artiklis näidata, et see on tähtsam, kui seni arvatud, mitte üksnes seetõttu, et selle abil võib määratleda üht semiootikauuringute peamistest alavaldkondadest, vaid ka seetõttu, et see mõjutab teisi semiootilisi süsteeme ja isegi semiootikateooriat kui sellist. Alustme sellest, et vaatame üle Tartu-Moskva koolkonna "Teeside" põhiseisukohad ning kõrvutame neid Lotmani semiosfääri mõistega. Teeme järelduse, et puudu jääb kultuuri sotsioloogiliselt pädevast raamistusest ning püüame näidata, et kultuur ei ole ainuke tegur, millest ühiskond kooneb, vaid et on olemas ka materiaalse, semiootikavälise ühiskonna mõiste. Teises osas arendatakse seda raamistikku süstemaatiliselt seoses geograafilise ruumiga.

Käsitleme ruumi kohta semiootikas, lähtudes kahest analüüsiteljest. Esimene telg, millega tegeleme kolmandas osas, vastab (geograafilisele) ruumisemiootikale. Läheneme sellele vald-konnale kahest erinevast perspektiivist. Esimene perspektiiv on linnaruumi kui teksti otsene uurimine, see tähendab, keskendutakse ruumile kui tekstile. Vaadeldakse kolme juhtumit, mis kõik pärinevad eelkapitalistlikest ühiskondadest: Vana-Kreeka semiootilist linnamudelit, Etioopia sõjaleeri ja traditsioonilise Liibüa oaasi ruumilist korrastatust. Teine perspektiiv vastab kirjanduslikes tekstides konstrueeritud geograafiliste ruumide, seega tekstis esinevate ruumide, semiootilisele uurimisele. Käsitleme kaht juhtumit: Platoni ideaalset linna ning kuningas Arthuri õukonnaga seotud keskaegseid rüütliromaane. Analüüsidele järgneb üle-vaade ruumisemiootikast eelkapitalistlikes ühiskondades, mida me kõrvutame Lotmani vaadetega.

Teine telg, mida käsitletakse neljandas osas, puudutab ruumi olulisust semiootikateooria jaoks. Näitame, et ruum võib toimida tööriistana teistest semiootilistest süsteemidest pärinevate tekstide analüüsimisel, ja keskendume sellele, kuidas erinevad ruumilised metakeeled ruumi kasutavad.