

Sign as an object of social semiotics: evolution of cartographic semiosis

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The current essay attempts to view a possible distinction between social and cultural semiotics, and finally their interconnectedness via the semiotics of sign. On the basis of maps, viewed below as manifestations of culturally accepted social representations, we shall try to demonstrate the interrelated nature of the semiotics of the *code* and that of the *sign* in the manner that it is exemplified in a cultural semiotic system.

When we talk about the sign as an object for sociosemiotic analysis, then first we obviously have to explain why we use the term ‘**social** semiotics’. Ch. Peirce has *inter alia* claimed that semiotics and logic are terms with the same substance (Peirce 1985: 4). From this we could infer that, since logic is to deal with the teaching of the ‘correct way of understanding/thinking’, then it is a social science anyway. The approach represented by a successor of Peirce, Ch. Morris, is already utterly social and behavioral. A second reason for such a confusion may emerge from considering the three aspects of semiotic investigation — syntactics, semantics and pragmatics. As it is evident that these are intertwined fields and that the last one by its nature already involves the social aspect into any semiotic treatment already by nature, then again using ‘sociosemiotics’ may again seem ungrounded.

Still — terms like semiotics of art, of culture, of advertising, etc., are in use. Such notions show that we can distinguish between different disciplines of semiotics on the basis of the object of study, and find that a classification on the basis of overlapping fields can be created. Now, the two general categories would be ‘cultural semiotics’ and ‘social semiotics’ (in line with hypothetic statements e.g. ‘semiotics of literature belongs to the sphere of cultural semiotics, semiotics dealing with mass communication — to the one of social

semiotics’). What should be taken as a measure for differentiating between them? — Here arises the next problem: while we can contrast other ‘subsemiotics’ according to the object (‘semiotics of fashion’, ‘musical semiotics’), whereas in the case of these two, the objects seem to be the same. Also, we can not say that social semiotics deals with laying ‘society’ down as a fact — in this case we would face a question on differences between sociology (and alike disciplines) and social semiotics.

Therefore, a solution may lie in the statement that ‘cultural semiotics’ and ‘social semiotics’ are distinguishable only emotionally or connotatively; the difference being merely in the stress laid upon the treatment of the object. However, this may also be expressed by a conditional contrast — while cultural semiotics sets its object into the light of the context of cultural tradition, sociosemiotics looks at a cultural object within social dynamics (for the latter, see e.g. Riggins 1994: 111). We can also say that cultural semiotics deals with the object ‘as a structure’, treating relations between objects as structural, too. Hence, one can state that this point of view is ontological; *meaning* and *code* are ontological, whereas for sociosemiotics, objects and relations between them are not ontological but processual and *semiotic* as the latter (semiosis) conjoins the semiotics of the sign and the semiotics of the code. So one could even conclude that cultural semiotics focuses on *meaning*, whereas social semiotics pays attention to *signification* (in the sense of **making** something meaningful). The latter would include both the ‘composing’ of a signifier and the evaluative stating of it in the way it influences everyday (or: *habitual*) behavior¹.

¹ Cf., A. J. Greimas (1990: 5): ‘For the problem of the constitution of the signifier is already a problem of meaning’. This as a discursive process is surely also connected with the theme of isotopy, coherence of discourse, and logical problems; — ‘The setting into discourse of a structure of modalities of veridiction would constitute its rational isotopy’ (ibid.: 19). The latter is what modalises the truth value of semantic isotopy. There is no need to stress that all such categories as social conventions and agreements are treatable [only] in social dynamics. In our context, similar expanse of semantic perspective at the semiotization of geographic territory as a cultural space, arises also from the opposition ‘*reading*’ a cultural unit — *using* a cultural unit (e.g. ‘*reading*’ a city — *using* a city). Here belongs also *using the meaning of a cultural unit* and creating a ‘global imaginative referent’ (e.g. St. Petersburg — ‘the phantom-city’, Paris — ‘city of light’). For the latter and the manifestation of it as ‘secondary processing’ on e.g. postcards, etc., see Greimas 1990: 158. In

One of the most important functional oppositions by the help of which a conditional borderline between cultural and social semiotics can be drawn, is *text* — *discourse*. Hereinafter we will not go into the peculiarities of these two, but will just postulate a prearranged possibility of distinguishing, which originates from the (also an agreed) difference (*textually*) *created* — *being (discursively) created*. From this dilemma of structural and processual relations, and ‘meaningful contextuality’ we find a further old puzzle: is *meaning* comparable to what is the *signified*? This question hints at the restricted capacity of Saussure’s conception of sign in respect to the field outside linguistics. Also, the structural tradition can be taken as following Saussure’s doctrine in the sense that *meaning* emerges or emanates from **differences between intrasystemic signs**. Still — *meaning* would, in this respect, as if belong to the realm outside that of signs, since its locus is, so to speak, in-between signs; the meaning [of a message consisting of more than one sign] is directed by **relations between signs**, but not as much by the relationship between the signifier and the signified, as one could interpret from has been ascribed to Saussure. What could be taken as uniting a sign system and the *outside* of it, is Peirce’s² interpretant, because, although a fuzzy notion, it points to the inequality of ‘the signifier’, ‘the meaning’, and ‘the signified’; — the ‘Interpretant’ offers a possibility to fill the ‘gap’ where is the locus of meaning. In contrast, it seems difficult to find that ‘something’, which would determine the meaning of a sign — except quite a blurry definition of the ‘symbol’ (in connection with a ‘natural bondage’ between the signifier and the signified³).⁴

connection with that kind of symbol, see also a definition of *symbol* by A. Radugin (Радугин 1996: 17, 18): ‘The full-value *symbol* does not have only a function signifying the sense, but it also has *executive power* (*действенная сила*) (e.g. icon does not only signify God, but it also has “miracle-working power”).’

² Of course, we should remember theories of the sign in classical antiquity in which Peirce’s theory has its ‘deep structures’. Interpretant as a constituent of the semiotic triangle, has at times implicitly, at times more explicitly, been present in most of them, having sometimes been called e.g. ‘the essence of a thing’ (*ousí a tou̓ prágmato*s) — Socrates, sometimes e.g. the *dicible* — Augustine. (See Manetti 1993: 61, 158).

³ See Saussure 1982: 101. Cf. J. C. Hoffbauer’s definition of the *natural sign* which may be taken as preceding one for that by Saussure, although he does not use the ‘signifier’ and the ‘signified’, but the ‘sign’ and the ‘sig-

Next let us survey how the above mentioned oppositions and questions appear in the ‘textual discourse’ of representing a phenomenon that can be labeled as cultural space; what has the development of mapping as a cultural semiopraxis (or semiotic praxis of culture) been like, and what has the diachrony of such a signification system been like. Hence — what are characteristics of a **developing** structure of social reflective semiosis, and how are different levels of meaning of signs used in cartographic practice manifested in that development? What is the overall role of space in culture, and what is the heuristic value of the semiotic description of it?

Space as a substrate of a ‘natural semiotic system’

While a major mechanism for the functioning of culture is semiosis, then space, in turn, can be viewed as a most important substrate for semiosis. Charles Peirce, talking about the ‘infinite semiosis’, considered *Habit* to be the Final Interpretant of such an unlimited process of sign generation: ‘[...] the final interpretant interrupts, so to speak, the semiotic chain by producing a *habit* [...]’ (see Eco and Bierwisch 1986: 386). Reversely, it ought also to be possible to describe rules governing humane and cultural semiosis, departing from *Habit*. Therefore those fields, where that habit would manifest itself most *naturally*⁵, must be sought. This takes us to a milestone that joins the domains of study of the semiotics of the sign and the

nified’: ‘The nexus between the sign and the signified is casual, constituted by nature itself’ (Hoffbauer 1991: 7). In the case of arbitrary (or artificial) signs, this ‘nexus is effected by human intention’ (ibid.).

⁴ Cf. also Peirce’s treatment of *Firstness*, *Secondness*, and *Thirdness*. The foremost is distinguishable as a concept of the existence of something independently from the rest. The second level refers to the relatedness of something to something else, this is ‘reaction to something’. The last one is a concept of mediation by which the first and the second are set into a relation (see Peirce 1868). For a recent rendering see e.g. Sheriff (1989: ch. 6.32). Cf. also Morris (Morris 1970: 34): ‘The interpretant of a sign is the habit in virtue of which the sign vehicle can be said to designate certain kinds of objects or situations; as the method of determining the set of objects the sign in question designates, it is not itself a member of that set.’

⁵ ‘Natural’ referring here to the concept of *naturalization*, and so to speak, to the indisputable sphere of the ‘cultural’.

semiotics of culture as disciplines examining ‘secondary modeling systems’. At the same time, when setting the specification of the ‘natural regularities’ of semiogenesis as a goal of study, it becomes necessary to find ‘the most natural semiotic system’.

In the current paper space is proposed as such a ‘natural semiotic system’. Space is a matter where socium’s general principles of code usage, therefore also ‘regularities of modeling’, are laid open. At the same time, space is a wholly ordinary environment of everyday life and a *naturally* signified dimension. It is commonplace that the cultural behavior of an individual is largely dependent on how his/her mental map has developed and has been made to develop. Such a map — regarding both the territorial and the conceptual types of it — has several tension situations as principles of its formation (e.g. *high — low, here — there, close — outlying*), the grounding and solution of which progress via semiosis. Thus, it is exactly the territorial map in which the ‘rules’⁶ of both individual and socium’s semiogenesis are manifest; regularities and even norms of semiosis, both as *semiogenesis* and *interpretive behavior*, are explicated as concrete empirical material for study.⁷ At this point one can distinguish between so to speak *primary* (or *initial*) and *secondary* semiosis, the first of which is related firsthand to *signgenesis* and the latter to interpretation. Of course, we are dealing with interpretation as an inherent component of any semiotic activity in both cases — it is present both at the emergence of a sign-situation, when a sign-vehicle is created and triggered off, and also at the sign-situation that emerges at the reception of a sign; — the difference lies in a more implicit nature of the first mode of interpretive activity, and a more explicit one of the latter. In another expression — the first case is concerned with the interpretation of a sign-situation with the goal of generating a sign, and the second one with interpretation of a sign with the intent of evoking a sign-situation. Successively, in connection with stressing these two different types of semioses, two detached semiotic traditions, mentioned above, can be distinguished: the so-called semiotics of the sign which is concentrated primarily on the first aspect (maybe the tradition of biosemiotics can be an example here), and cultural semiotics which has focused on systems modeling via interpretation.

⁶ The ‘rules’ can of course be approached via the mediation of ‘average’ and ‘common’.

⁷ One may also define semiosis as *poiesis* (Aristotle: ‘production’) plus *praxis* (Aristotle: ‘social interaction’) (see Merrell 1991: 264, 265).

Now, considering the (geographico-cultural) space to be one of the primary culturo-artifactual semiotic systems [whilst language (in the linguistic sense) would be a *natural system*⁸], then when searching for the regularities of shaping it, one should remain on as similar as possible a level likewise when choosing the ‘object language’. This is to say that the discourse of representation analyzed, should also be chosen to be iconic-mimetic, so that the semiotic re-arranging with the function of modeling (or: intersemiotic transformation) would still remain as *natural* as possible. Hence, when space is a substrate for our investigation, then maps, as immediate material for analysis, provide us with such a language for object representation that is correspondingly spatial, at least on the level of form. Furthermore, one can maintain that from the viewpoint of contemporary culturology, maps with the original pragmatic function of geographic databases, can be analyzed as *information* with the reflective function of a societal scale. In other words — this is material which is a result of *social reflective semiosis*, and can therefore be regarded as *semiotic* in the sense of having been cognized. Indeed, this has already been hinted at by Ptolemy, who has said that geography is *representation of the whole known world* together with all that exists in it (see Brown 1949: 61).

The perspective of the current paper on the map as a culturo-historical phenomenon helps to see the quite ambivalent inner nature of this kind of issue: on the one hand we are dealing with a scientific trial to describe a geographic territory as accurately as possible (with the aim of transmitting it as *information* and mainly with pragmatic purposes, though often we must also include ideological purposes in this category). On the other hand, the methods of representation reviewed here have essentially intertwined with cultural history, and what is more important — with the *artistic*⁹. This definitely causes us to meet cultural ideals which also influence products of a practical nature, which brings us to the question of the *proper* interpretation of *cultural units*. The following will try rather to center on the course of the motivational evolution of sign generation (semiosis) in this

⁸ On questions on the *primary* nature of natural language, and its connection with ‘secondary languages’, see Sebeok 1988.

⁹ Quite often the ‘artistic effect’ may also be a compensation of lack of knowledge. Also, purely practical considerations have to be taken into account (e.g. saleability of map). Cf. also A. A. Radugin (Радугин 1996: 251): ‘A characteristic feature of renaissance art was a close connection of science and art.’

complex fusion of different realms. In other words: what is the nature of signs, specifically the *scientific* — *artistic* relation on the level of signs in the maps inspected below? What is to be taken as intentionally *informative* signs in cartographic representations, and how to ascertain the respective boundary of the *context*?

From the textual level to the level of signs

The opposition *scientific* — *artistic* (it does not necessarily have to mean an opposition, but also just a distinction) is one of the main sets of semiotic¹⁰ compositional polarities of the metalingual analytic axis. At the same time it also leads from such a culturosemiotic level to an analytic opposition *index* — *symbol* pertaining to the semiotics of the sign. Of course, the latter can not be considered as a binary opposition, but as polarization with the aim of distinguishing; this helps to analyze the fundamental regularities of semiogenesis, and to create a metalingual typology of signs. This is not the aim of this paper, but we need to touch upon these issues, if we want to treat the **evolution** of cartographic semiosis. In fact, these binaries can be related to a next synthetic axis conjoining the semiotics of the sign and cultural semiotics via its mechanism and regularities of functioning; this is *intuitive meaning* — *discursive meaning*. This may be rendered as an opposition concerning the level of the *text*, but, at the same time it points out that in the description of semiotic systems, the entire system as a modeling mechanism can be reached only after the analysis of functioning on the level of the sign of an examined system. Thus, the *intuitive* — *discursive* binary helps us to determine the peculiarities of a particular semiotic system, in order to ascertain its mode of modeling. It is precisely on the basis of the type of modeling that we can judge the semiotic potential of those systems (i.e. ‘the limits of modeling’), their semiogenetic structure, their predictability and prospects for their diachrony, their limits of interpretation, etc., etc.¹¹.

¹⁰ Just as well as e.g. psychological ones — see e.g. Tulviste 1984. On the theme of a possible connection between change in the dominant type of thought in society and in the nature of signifiers used in social representations, see also Wertsch 1991, ch. 5.

¹¹ On features of signs, especially those of images as hypoicons, and semiosis as a modeling process, see e.g. Anderson and Merrell 1991: 4. Cf. also N. Houser’s inverse comparison of the model to an icon (Houser 1991: 432).

To illustrate the oppositions outlined, we may consider a classical question of the relation between work and its context: is the non-topographic part of a map to be considered as part of the work or not?



Figure 1. The upper-right corner of the *Map of Estonian Cultural History* (1975) by Olev Soans.

For example: is the insignia of Soviet Estonia the work or its context? (See Fig. 1) Or are we dealing here with *context switched into the work*? — It is interesting that the map has not been entitled *Map of Cultural History of Soviet Estonia...* Solutions to these problems at interpretation are definitely dependent on culturally specific knowledge, so for attempts to describe the relevant interpretive processes, we have to take into account also the so-called culturally specific abductions.

In this light, keeping in mind also the *intuitive — discursive* relation, and regarding the problems of individual perception and spatial

cognition, (culturo-historical) maps analysed in the current paper are semiotically especially condensed social representations. This stems from the fact that, for a scholar, these already exist as meta-information concerning culture-specific communication, and the intentional tradition of the latter. In addition, these are examples of the development of the *langage* of art, specific to a given culture. Such a process can be described as a kind of intracultural ‘dialogue between the author and the audience’ in which the makers and users of maps are representatives of the two parties of communication i.e., of ‘the process of sharing’. The cartographic examples observed will help to give an overview both of the culturosemiotic evolution of modeling, and of the semiotic sign-generation¹² that conjoins the two fields. So, describing the sign-semiotic structure of culturo-historical maps, we shall progress from the *index* — *symbol* polarity. Let us start with an example that touches upon the *index*. We should be reminded that the *index*, from a standpoint of cartography, has been a major means of any mapping. A vivid example here is old marine cartography where, for navigational purposes, the coastline was depicted by the most visible littoral buildings and cityscapes (rarely by comparatively less persistent natural objects); so that the *cultural* objects on maps could indicate to a mariner the conditions of nature (see also Ehrensvärd et al. 1997: 108–109).

The index as a sign can in turn be divided into at least two: (a) index as a semantic unit, and (b) index as a pragmatic unit. In the first case we are dealing with a ‘plenipotent sign’ where index has been switched into the sign situation i.e., where the index is semiotically strongly relevant. At the same time index as (merely) a pragmatic unit is just an ‘assistant-sign’ that simply has a directive function with

¹² Of course, the question here is not simply in taking one or another specific type of sign to be the basis for a typology, but in a fundamental distinction between a *motivated* and a *conventional* sign. Still, in the current context we will not use the notion *motivated* (like e.g. F. de Saussure or J. Piaget), since this would inevitably leave us simply into the limits of culture-generated artifacts. Instead, we shall progress from the distinction *natural* — *conventional*, where the foremost refers both to naturalness (hinting at the *inherent*), and in connection with that, also to a certain bondage with nature (hinting at the *instinctive*). The latter, the *conventional*, points at the culture-genetic, at the symbolic, at the sanctioned. Of course, all this ‘is coded into the process of coding’. Thus, we shall take for the basic opposition *index* — *symbol*. Cf. A. M. Pjatigorskij’s distinction between the *sign* and the *signal* according to the observer (Пятигорский 1996: 37).

respect to semiosis. In other words, in the case of a sign of this type, semiosis is dependent on **two** main aspects — one of them concerning the message, and the other one concerning the situation of communication. Of course, it is not possible to differentiate between them, but just to outline them as distinct and complementary aspects; conclusively and illustratively this can be called the ‘title-effect’¹³ (see Fig. 1). In this way such an index is always a **part** of a message and its switching into semiosis depends on the actual situation of communication: whether or not it will be recognized at all, whether it will be rendered *important* or not, or whether it has any importance for the process of message decoding at all. In contrast, the first type of index is a unit that itself constitutes the message; if the latter is semantised, then the relevant index **has** to switch into semiosis (e.g. a classic example ‘smoke → fire’)¹⁴. In clue, we can maintain the consequential nature of the index.

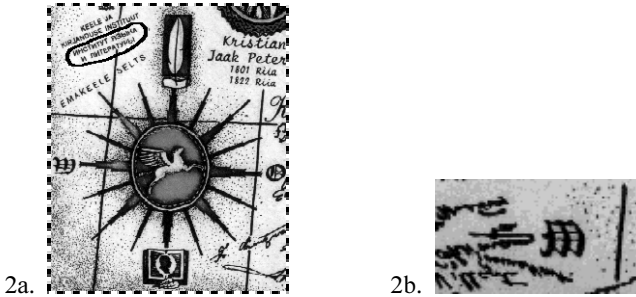


Figure 2. a — The the upper left corner of the *Map of Estonian Literary History* (1978) by Olev Soans; b — An element from the right-hand side of the same map.

An intermingled example can again be drawn from O. Soans’s work (see Fig. 2a). This is a wind rose adapted for the literary context and is to provide a co-ordinative frame so to speak, for literary-spatial orientation, being therefore an ‘appropriately’ re-semantized unit of cartographic signification. This is the spot where the wind rose with the

¹³ For an example see Tannenbaum’s clear example of a picture of an emotional meeting at the railway station; the result of interpretation depends on its title — either it depicts departure (‘a sad picture’) or meeting, reunion (‘a happy picture’) (Tannenbaum 1966: 483).

¹⁴ A separate question is, if a given sign is interpreted as indexical, or not.

cardinal points is usually located (see also the *Map of Estonian Cultural History* by O. Soans). Therefore, as we are dealing with a similar manner of mapping, we could equalize the discursive logic, too. Still, on the other hand — as the whole map has been composed using outstanding personalities, etc., we can infer that a badge of distinction is involved. This is indicated by the labels of five literary societies and literary trademarks; in this connection it is remarkable here that the pictogram pointing to the West, is not indexical — at least a matching one has been situated to the East — on Lake Peipsi (Fig. 2b). A similar ideologization of devices definable as belonging to the field of sciences can be found in French maps in which, after the French Revolution, there emerged a custom of replacing the cartographically traditional north-indicating top of the wind rose — the lily — with a red cap (see Ehrensverd et al. 1997: 146). This is definitely a worthy example of the intrusion of units pertaining to cultural and ideological signification systems, into the semiotic system of an exact science, the latter being in fact an ‘objective’ basis for physical and conceptual orientation in the world that, according to such logic, should **precede** ideological discourse.

The development of cartographic praxis and the evolution of semiosis

As mentioned above, the type of sign used by the composer of a map depends, besides his (one can hardly find any female cartographer in the period of our interest) knowledge, also on the aim with which a cartographic representation has been created. When looking at older maps interesting for our context, quite often the evident intentionality with which the map has been created can be discerned. This means that we are not dealing with a mere coding of geographic territory, but with coding that is proceeding with a certain bent and through a certain filter of intentionality, which has been influenced also by the cultural context of a given epoch in the sense of the socialization and internalization of the signs used.

As the process of elaborating conventional cartographic signs is a long-term process, and in its nature an utmostly ideological and conceptual one, it is natural that the first signs to be used were the pictographic ones, which in semiotic terms had the origin and function of an index. Frequently the issue was about depicting visual trajectory of specific itineraries, e.g. of pilgrimages, marine routes, etc., whereby

the signs used were closely tied with the actual context both environmentally and also thematically, so — essentially different sequences of objects were chosen for maps of specific purposes. Thus, due to (a) the original function of the map, and (b) privation of conventional signs (of the legend), largely pictographic sign-sketches of settlements' dominant buildings with the 'most representative power' were used for guidance. This points to an interesting fusion of, or at least interaction with the actual map, individual cognitive map, and [orientational] schema originating from socioculturally traditional use of the environment.

The first world maps had a similar nature, i.e. — *familiar* objects were used to represent the world-view transmitted by a relevant work; thereby — those objects belonged usually to the sphere of *cultural units* (or: *cultural facts*). Naturally, these kinds of objects were dependent on the ideology and religion currently at power — this can be explained by two reasons. On the one hand this was due to purely pragmatic considerations (e.g. mere problems of censorship connected with publishing a map), and on the other — such a map needed to be *understandable* i.e., it had to be socially accepted (or at least acceptable), *readable* in its contemporary sociocultural context. Hence, one can also call *mappa mundis* of this kind projections of *socium's* ideologized *Umwelt*. Society's world-view was mirrored in the constituents of a (world) map. The *world* was represented through the most concentrated objects i.e., through the most well-known objects of *known* settlements; so the signs used can also be called iconic-indexic (representing a settlement by means of a building and also indicating its location).

However, the set of signifiers of similar maps was already in tandem with ideological motivation (e.g. construing the *world* concentrically), so that when considering indexicality to be the primary function of such an iconic sign, it already had at the same time a strong connotative flavor¹⁵. On the level of the sign, the composing of maps becomes from here on more and more abstract and tied up with connotations. Correspondingly at interpretation, a map demands more and more knowledge, as well as being well informed about the relevant ideology. Figure 3. can be drawn as an example for that 'transition period'. The level of socialization of signs brought along a

¹⁵ On paradigmatic and symbolic connection of the index and *imago mundi*, see e.g. M. Singer 1991: 103–106.

change towards greater abstraction in their nature¹⁶. From the given map we can see that the area depicted still has a definite dominant city [Jerusalem (in circled area)], but we can already note hierarchization in their description. The development of the latter process leads to the use of conventional cartographic signs, according to the importance of a relevant settlement. This of course required **knowledge** at interpretation, just as well as anticipation of the ideological conception of the composer of a map by its user (as there was no legend for reading a map yet).



Figure 3. An extract from *Palestine* (from *Theatrum Orbis Terrarum*) by Abraham Ortelius (1570).

¹⁶ On a similar process in everyday life, see M. Krampen’s treatment of traffic signs (Krampen 1983).

From this period onward, the set of cartographic devices changed continuously towards abstraction in the direction of conventional signs in the form of a map legend. Figure 4. demonstrates that for signifying the ‘culturo-spatial’ contents of a represented territory, textual code was used more and more for the purpose of commenting upon cartographic signification; the latter developed further towards ‘signification’ condensed into iconicity (in the form of a cartographic legend). For instance, this excerpt from *Carta Gothica* (later *Carta Marina*) by Olaus Magnus (1539) depicts an area to the North of Finland, and has a comment for an image of a boat: ‘Many boats are built here and they are fastened with reindeer sinew’ (see Ehrensvärd et al. 1997: 156). One may also evaluate such a tendency as inclined to mercantile world view — “Western Europe viewed the rest of the world in terms of Newfoundland fish, Canadian furs, Spanish-American gold and silver, African slaves, Chinese silk and porcelain, Asian spices, and so on” (Campbell 1981: 8). This also means a change in maps toward the less representational and less representative in the aspect of depicting cultural history (in an explicit manner); therefore, we will not proceed to examine this further.



Figure 4. An excerpt from *Carta Gothica* (later *Carta Marina*) by Olaus Magnus (1539).

Semiotic status and function of the sign on culturo-historical maps

The above briefly sketched evolution of the sign may be described on two axes: *index* — *symbol*, and *mimesis* — *significational representation*. Semiotically, these two oppositions are of course interconnected: the second one characterizes the level and the type of modeling, depending in turn on the solution of the first opposition. As also mentioned above, we are not dealing here with a binary alternative, but with poles of an axis of characterization of the sign type. These two oppositions also hint at a possible solution to an illusive difference between semiotics of culture and semiotics of sign. In connection with the symbol as a means of construing a model, we have to refer to a treatment of model by E. T. Hall, who asserts the function of the model for an artist (the authors of the maps viewed here were definitely artists, too) to be an instrument for filling gaps in visual memory. For this reason a model is a pseudoreality (compare with Merrell's treatment of 'semiotic reality', see e.g. Merrell 1992: 39–40, 44–45) created in the course of communication (see Hall 1981: 12). For Hall this is connected with the 'screening function of culture' which lies in socium's self-defense against informational overload (Hall 1981: 85). Taking this treatment into account, symbol, as an information carrier, has hence quite an ambivalent constitution, comprising of informational condensation on the one hand, and on the other 'postponing' the decoding of information (as a 'minus device'). This kind of possible mutation of information contained in messages, or even shelving or exclusion of it from a message, is avoided by 'internal contexting' (Hall 1981: 117) on the level of the individual. Such possible deviations are **automatically** corrected according to a situational frame. The creation of the frame is, in turn, no doubt relative to differences in sign situations, primarily of course with so to speak, limits of the sign.

Another, perhaps somewhat indirect, possibility for the current theme to clarify the characteristics of signs via their taxonomy may be based on an opposition of the nature of general semiotics. Here the unit of information transmission making *natural* semiogenesis possible is the *signal* or the *natural* sign as a transmitter of data with an *informative* structure. Thereupon the other pole of the relevant axis of description would be the sign as a transmitter of *meaning*. In such a case a criterion of differentiation is **information**, its enrollment into

semiogenetic and interpretive activity, index can be called a ‘lump’. Symbol, on the other hand, is rather a ‘descriptive’ signifier. A respective dispositional axis of the sign-*function* would thus be:

Deictic — Nominative — Significative,

‘This is the facade
of the Tartu University’ — ‘Tartu University’ — ‘Alma Mater’

On the basis of this, we can create the following branching range of the sign:

→ Signal — Index – Icon — Symbol Sign.

Here *sign* appears as an individual synthetic category. As we saw above, in contemporary semiotics, one should avoid using the expression ‘sign’ for designating a certain type of sign, since often the respective definitions are wholly contradictory (e.g. in the case of the ‘symbol’). This way, pointing at the conventionality and context-specific nature of such a mode of signification, we can regard the ‘sign’ as a category of generalization. At the same time we can not form such a generalization, if we remind ourselves of Peirce’s ‘semiotic potential’ (in other words — the level of connection between the sign and the referent object) determining the type of a sign. Thus we come to the theme of intersemiotic fusion for which deixis serves as a ‘fulcrum’. As Larsen (1994: 262) has put it, “[So] if a sign system does not contain sufficient deictical elements, equivalents will always be produced, either in the same sign system [...] or in an another sign system [...]. Thus, the deictical function will always open for an intersemiotic activity.”

Evolution of iconicity toward intersemiotic discourse

Let us now come back to the ‘background object’ of the current paper. Above, we viewed maps that can be considered as representing cultural history both in the aspect of their direct and indirect purpose. Their first type could be illustrated by the works of the Estonian artist Olev Soans. The second case concerns maps that may be considered culturo-historic in their subintentional aspect — basically geographic maps liberally up to the present century. The semiotic basis on the

level of signs is very expressive in the case of similar maps, especially when examining those by O. Soans, which are quite unique specimens illustrating the evolution of cartographic significative habitude. For an example, in order to continue the discussion started above on the basis of these samples, we can refer to the signification of cities (but also of other settlements and regions). At this practice, such symbolic signs are used which have a general feature of expressing certain connotations that have been socialized in the course of cultural tradition. In our case, these symbolic signs, which condensely reflect cultural history, have been concentrated into iconic signs. Following Ch. Peirce, F. Merrell associates icon with 'pure consciousness' i.e.,

'the icon is most deeply rooted in pure consciousness, that is, in immediate awareness before there is awareness *of* something as such-and-such. It is a representamen to what it represents, and an immediate image for the mind mediately to interpret. Moreover, an icon can also belong to past experience. It exists in memory as a *might possibly be*, as part of one's background knowledge lying in a state of readiness to be conjured up in the mind (though this is not always an intentional act, for memory is often a dictatorial censor)' (Merrell 1991: 249–250).

Let us add here also a C. W. Spinks' citation of Peirce on the communicative status of the icon:

'The icon is 'the only way of directly communicating an idea...; and every indirect method of communicating and idea must depend for its establishment on an icon or set of icons, or else must contain signs whose meaning is only explicable by icons' (*CP*: 2.278). The Icon is the initial complexus of the Semiotic, and it is the basis of hypothesis, discovery, and all deductive reasoning' (Spinks 1991: 445).

From here we can see that the icon is not so much definable as an object, but more as a *model* that has been *construed to present* an object. Comparatively, the icon, in respect to its boundness with referent (in the aspect of chronological and spatial contiguity) is observable as a sign pertaining to the present; the symbol is called into being i.e. *something* is cognized, if a certain set of presuppositions is actualized in a certain context. Thus, in its general features the icon is intensional, the index extensional, and the symbol binds extensionality with immediate consciousness (see Merrell 1991: 249). Therefore, we are not dealing with the sign as a 'representamen' which would allow isolated treatment, but with a most eloquent example of the sign as a

key constituent of a secondary modeling system.¹⁷ Consequently, we can consider the alike signs as elementary constituents (e.g. the ‘geometrical archetypes’) of *Habit*, which acquire their functionality through *Thirdness*. Spinks has noted:

‘The semiotic punctuation of Pure *Firstness* <italics mine — A. R.> is a digital approximation of an analog continuum, but at the same time the regularities of icons are the beginnings of periodicity. The correspondence may be of the sign to its object, but the calculation of the sequences of event into the regularities and repetition of periodicity is the breaking of Chance by Habit, for Habit is a periodicity!’ (Spinks 1991: 451).

So, we can summarize the course of the process of cartographic signification sketched above, both from the aspect of cultural semiotics and in respect to the semiotics of the sign, in the form of the following range: (a) semiotization of a unit of ‘physical reality’, and its transformation into a cultural unit → (b) conventionalization of interpretation of a cultural unit → (c) transformation into an icon → (d) conventionalization of the icon → (e) schematization of the interpretation of the icon. This semiotic development can be related to general structures of culture as the latter is opposed to its source, the ‘non-cultural’ (Fig. 6).

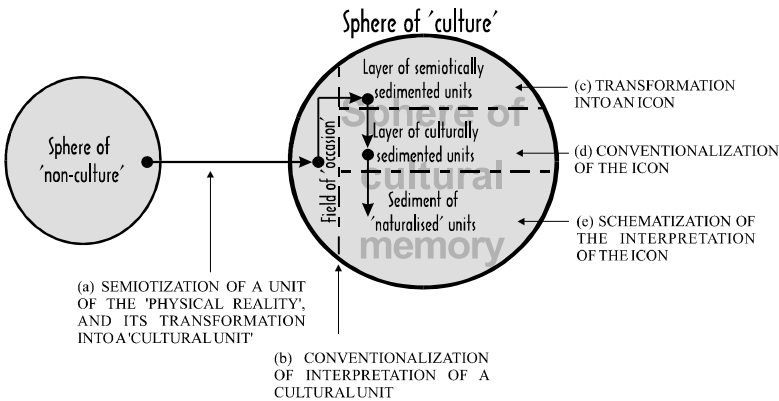


Figure 6. The course of evolution of cartographic semiosis as an example of interrelated semiotic processes on the level of the sign and of culture.

¹⁷ Let us refer once again to Spinks who, following Peirce, says: ‘The effect of icons upon consciousness is the production of concept’ (Spinks 1991: 446).

In the current figure, the sphere of culture has been split into two: (a) field of *occasion*, and (b) sphere of cultural memory. The first is the zone making cultural development possible both via intracultural circulation processes ('cultural units' that diachronically pass the zone of activation and re-semantization, contacting thereby with the zone of 'occasion') and via culture's collisions with that which, from an 'insider's' viewpoint, remains outside it. We can demark the borderline between the field of occasion and the sphere of cultural memory by conventionalization of a cultural unit, i.e., by sociocultural registration of a unit as belonging to cultural discourse proper. In turn, the sphere of cultural memory is divided into three layers: in the first one semiotic tensions are settled and brought together into a sign (it does not seem to be proper to equalise 'cultural units' with purely semiotic phenomena). The second layer is concerned with cultural adjustment of the results of the previous level with cultural tradition. This is connected with 'legislation' of the interpretation of the sign according to cultural context, and its settling into the deep structures of cultural memory where, via the naturalization process, its use becomes automatic. In fact, one can also interpret such a development as a change from the iconic level of the sign to the level of the symbol — via the schematization of the interpretation through the icon — and reach the notion *hypoicon* (Peirce), but in our context the example rather serves as an instance of the complementary nature of social and cultural semiotics, and of the semiotics of sign.

Such a course of development of a unit from the outside of the cultural discourse into and inside the latter, can be illustrated for example by the semiotic schematization of the facade of the main building of the Tartu University to a reduced image. This kind of process is definitely also influenced by social and other factors (trade, tourism). Consequently, we have to admit the interconnected nature of 'reality' and semiotic reality, and the intertwined nature of semiosis on the textual level and on the level of the sign. Interpretation of representations of the physical realm is influenced by the 'semiotic luggage' of cultural memory, subjecting in turn those very representations to social reflective semiosis. Therefore it does not seem to be correct to view products of humane semiosis as meaningful through their [internal] textual structure, but to analyze them as manifestations of society's understanding of the *meaningful world* i.e., to analyze them not as 'semiotic phenomena', but as 'semiotic phenomena', the latter hinting at sociocultural meaning-making, and involving also

thereby analysis of the semiotic status of signs as it has developed in the course of social semiosis¹⁸. So, when we picked up maps as [spatial] illustrations of the conceptualization of space, we met the intersemiotic nature of different relations: *text* — *signs composing that text*, intersemiosis on the very level of signs, on the level of relations between signs as units representing physical reality and the latter. Also, it is important to note that the contrasting of the *text* and the *image* — the former taken as a representation of the latter (e.g. map as a text representing ‘image of the world’) —, and relating them respectively to structural analysis (assigned to cultural semiotics) and sign-semiotic examination, ought to be replaced by an understanding of their complementary nature.¹⁹

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¹⁸ See also P. Thibault: ‘The dynamics of social meaning making practices cannot adequately be separated from the analysis of the textual products and records that are made and used in and through those practices’ (Thibault 1991: 11).

¹⁹ The author would like to thank Professor Peeter Torop and Professor Kalevi Kull for helpful advice and instruction.

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Знак как социо семиотический объект: эволюция картографического семиозиса

Автор исходит из положения, что социо семиотика представляет собой сферу пересечения семиотики знака и семиотики культуры. Этим общим подходом обоснован анализ конкретного объекта — географических карт.

Отмечается, что значение текстуального объекта изучения зависит от характера тех знаков, посредством которых *текст* построен. Знаки не являются “текстуально данными”, они должны рассматриваться как проявление функционирующего на общественном уровне семиозиса. Таким образом, семиотика должна подходить к своему объекту изучения как результату семиозисного **процесса**, который свое значение приобретает соответственно тому, как происходили означивание того или иного некультурного элемента и перенос его в сферу семиотической реальности.

Самой ‘естественной’ семиотической системой является для человека пространство. Здесь проявляется наиболее явно и ‘система правил’ семиозиса. Но исследователь не может судить о значении пространства на основе своих представлений о характере и наполненности последнего (используя, напр., статистические данные), он должен опираться на то, как само общество описывает свое жизненное (или *культурное*) пространство. Т.е. исходить следует из пред-

посылки, что объект изучения имеет значение до семиотического анализа и не зависит в своем значении от точки зрения исследователя. Мы можем рассмотреть оппозицию *неозначенный* — *означенный мир* лишь предположив, что *означенный мир* является общественным конструктом. *Общественный конструкт* как производное коммуникативных процессов можно изучать в его конкретных проявлениях — последние позволяют понять и сущностную связь индивидуального и коллективного, зависимость представлений индивида об окружающем его культурном тексте от господствующего в соответствующем социуме понимания соотношений знак/знаковое сообщение/ знаковая система — “реальность”.

Так как любое значение является в культуре результатом определенного соглашения, его можно рассмотреть не столько как явление структурное, как процессуальное. Наш анализ конкретного объекта — географических карт — опирается именно на такое понимание значения. Картографический семиозис или эволюция означивания, как она отражена в истории изменения карт, может через симбиоз знакового и культурносемиотического аспектов быть описан следующим образом: (а) означивание физической единицы и ее трансформация в единицу культуры → (b) конвенционализация интерпретации единицы культуры → (c) превращение ее в иконический знак → (d) конвенционализация иконического знака → (e) схематизация интерпретации иконического знака. Эта цепочка представляет создание значения как “Привычную” (Пирс) интерпретацию как при создании, так и восприятии сообщения, что, в свою очередь, связывает проблематику семиотики знака с изучением знаковых систем. Т.е. развитие семиозиса на уровне знака связана с развитием семиотической макросистемы в сфере общей семиотической реальности культуры. Оно охватывает изменения в культурной памяти, — сперва на уровне семиотически отстоявшихся элементов, затем на уровне культурно отстоявшихся элементов, — и, в итоге определяет пласт культурно “опривыченных” единиц.

Märk sotsiosemiotika objektina: kartograafilise semioosise evolutsioon

Artiklil on kolm peamist käsitlusobjekti: (a) püüe vaadelda sotsiosemiotikat kultuuri- ja märgisemiootika puutevaldkonnana, (b) teha seda inimkultuurse semioosise ühe valdkonna arengukulgu jälgides, (c) võttes selle valdkonna analüüsimaterjaliks kaardid.

Arutletakse tekstuaalse uurimisobjekti tähenduse sõltuvusest nende märkide iseloomust, milles vastav *tekst* on koostatud; need märgid aga ei ole vaadeldavad kui 'tekstuaalselt antu', vaid kui ühiskonnalisel tasandil toimiva semioosise avaldumisenähe. Seega peaks semiootika lähenema oma objektile kui niisuguse semioosiselise **protsessi** tulemile, mis on oma tähenduse omandanud vastavalt viisile, kuidas mingisugust mittekultuurilist ühikut on tähendustatud ning kultuurilisse sfääri ehk semiootilisse reaalsusesse üle kantud.

'Kõige loomulikumaks' semiootiliseks süsteemiks, mille keskel inimene elab ja mida ta teiselt poolt tähenduslikuna kujundab ning milles seetõttu semioosise tavad ja 'reeglistik' enim avatuna esile peaks tulema, peetakse antud kontekstis ruumi. Uuriija ei saa aga ruumi tähenduse üle otsustada pelgalt selle põhjal, mida ta ise arvab seal sisalduvat (ka nt statistiliste andmete vms järgi), vaid selle põhjal, kuidas antud ühiskond oma eluruumi (või *kultuuriruumi*) kirjeldab. See tähendab, et semiootilisele analüüsile eelnevalt **on** vastav objekt juba tähendustatud ega sõltu oma tähenduses üksnes sellest, mida peab õigeks uuriija. Nõnda saame läheneda vastandusele *tähenduseta* — *tähenduslik maailm* ehk *tähendus-tamata* — *tähendustatud maailm* üksnes eelduse kaudu, et *tähenduslik maailm* on ühiskondlik konstrukt. *Ühiskondlik konstrukt* kui suhtlusprotsessi tulem on analüüsiv oma produktide kaudu, viimased näitavad ka individuaalse ja kollektiivse tähendusmaailma olemuslikku seotust ning indiviidi arusaama sõltuvust end ümbritsevaist kultuuritekstidest vastavalt sootsiumis domineerivast arusaamast märgi/märgilise teate/märgisüsteemi/ suhtest "reaalsusse".

Kuna igasugune tähendus on kultuurilisel tasandil mingil viisil kokkuleppe resultaat, siis saab seda vaadelda mitte niivõrd strukturalistliku kui protsessuaalsena. Käesolevas töös on konkreetseks analüüsimaterjaliks kaardid kui kirjeldused. Kartograafilise semioosise ehk tähendustamise areng — nii nagu see kaartide muutumisel ajaloos peegeldub — osutus märgilise ja kultuurisemiootilise aspekti sümbioosis järgmiseks: (a) füüsilise reaalia ühiku tähendustamine ja selle transformatsioon kultuuriühikuks → (b) kultuuriühiku tõlgenduse konventsionaliseerumine → (c) muutumine ikooniliseks märgiks → (d) ikoonilise märgi konventsionaliseerumine → (e) ikoonilise märgi tõlgenduse skematiseerumine. See ahel peegeldab ka tähenduse loomist kui 'Harjumuslikku' (Peirce) interpretatsiooni nii teate loomisel kui saamisel, mis nõnda seob märgisemiootilise problemaatika semiootiliste süsteemide uurimisega. See tähendab, et semioosise areng märgilisel tasandil haakub semiootilis(t)e makrosüsteemi(de) arenguga kultuuri üldise semiootilise reaalsuse sfääris. See kaasab muutused kultuurimälu (a) semiootiliselt ladestunud elementide kihistuses, seejärel (b) kultuurilisel ladestunud elementide kihistuses ning määrab viimaks kultuurimälu (c) 'loomulikustatud' ühikute ladet.