Towards an integrated methodology of ecosemiotics: The concept of nature-text

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Abstract. The aim of the article is to elaborate ecosemiotics towards practical methodology of analysis. For that, the article first discusses the relation between meaning and context seen as a possibility for an ecological view immanent in semiotics. Then various perspectives in ecosemiotics are analyzed by describing biological and cultural ecosemiotics and critically reading the ecosemiotic works of W. Nöth and K. Kull. Emphasizes is laid on the need to integrate these approaches so that the resulting synthesis would both take into account the semioticity of nature itself as well as allow analyzing the depiction of nature in the written texts. To this end, a model of nature-text is introduced. This relates two parties intertwined by meaningrelations — the written text and the natural environment. In support of the concept of nature-text, the article discusses the Tartu-Moscow semioticians' concepts of text, which are regarded as broad enough to accommodate the semiotic activity and environment creation of other animals besides humans. In the final section the concept of nature-text is used to describe nature writing as an appreciation of an alien semiotic sphere and to elucidate the nature writing's marginality, explaining it with the need to interpret two different types of texts.

For understanding the paradigm of ecosemiotics and its methodological possibilities it would be useful to start with a wider perspective and to consider possible relations and similarities between semiotics and ecology. The development of ecology as a discipline and the proliferation of semiotics in the mid-twentieth century can both be seen as expressions of the same wave of systemic thinking in twentieth century science. Also cybernetics, general systems theory, and a large part of structuralism belong to the academic movement that draws attention to the structure and behavior of systems, and distinctions, influences, interrelations, and equilibriums in these. Ecology as a scientific discipline has remained faithful to the research objects and methodologies of natural sciences but has later itself had various ramifications for humanities, for instance for environmental psychology, ecocriticism, green studies, cultural ecology and environmental aesthetics, which have also shaped the intellectual atmosphere for semiotic studies.

Besides this general relatedness in development, some inner similarities between semiotics and ecology can also be found. Although semiotics has mostly focused on human sign activities and ecology has typically studied the life of other biological organisms, both are largely disciplines of relation, accustomed to consider their objects as relational or in relations with other objects and phenomena. They both consider such relatedness to be fundamentally important. In ecology the focus is on relations between organisms and their environment or on relations between different biological species. In semiotics the classical concept of sign itself expresses a certain type of relation: a sign "is something which stands to somebody for something in some respect or capacity" (CP 2.228). There is also intuitive resemblance between Peirce's idea of unlimited semiosis as series of successive interpretations (CP 2.228; 1.339), and recurrent processes in nature: change of generations, food chains and substance cycling as understood in ecology. A beautiful connection from ecological relations in nature to semiosic processes in language is established by W. John Coletta using Peircean notions of metaindex and metaicon (Coletta 1993). Similarly Peter Grzybek develops a semiotic view on human epistemogenesis where homologous spheres of human self (microcosm) and nature (macrocosm) become mediated and reflected by the sphere where culture and nature mingle (mesocosm) (Gryzbek 1994). Connections between semiotic and ecological processes can be elaborated quite far, as it is done for instance by Roland Posner, who introduces the concept of semiotic pollution, as noise or disturbance that interferes "with sign-processes as much as material pollution interferes with the fundamental processes of life" (Posner 2000: 290). Posner considers the factors of communicative processes (sender,

recipient, context, channel, etc.) to be "semiotic resources" (Posner 2000: 294–296).

The question about ecosemiotics as a possible semiotic paradigm was raised by Winfried Nöth and his colleagues in the journal Zeitschrift für Semiotik a little more than a decade ago. Although this initiative was followed by some discussion, there is no reason to talk about ecosemiotics as a full discipline with wide research activities and an institutional establishment.¹ Compared to the discipline of biosemiotics, which also gained ground in the 1990s, but which has led to the establishment of an international society, regular publication of a thematic journal, and to regular conferences, ecosemiotics remains quite clearly in the background. The present article is written with the understanding that the ecosemiotic paradigm has a lot of unused potential. In the following pages I examine the different paths to ecosemiotics and try thereafter to formulate some methodological grounds and tools for studying texts that represent nature. Although the primary focus is on nature writing (understood as including essays and other non-fictional texts written about the natural environment (Maran, Tüür 2001: Tüür, Maran 2005), the proposed approach should also be usable for the analysis of other cultural texts, where nature is an important topic.

Contextualism as a common ground for semiotics and ecology

An interesting semiotic concept regarding relations to ecology is *context*, which can be understood as "the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood and asserted" (Pearsall 1998: 396). In ecology, a quite similar role has been given to the concept of environment as "the surroundings or conditions in which a person, animal, or plant lives and operates" (Pearsall 1998: 617), and which also have influence upon it (Lawrence 1989: 163). The concept of context has many forms and uses in semiotics. For instance in the semiotics of communication the contextual thinking may appear as an idea that the meaning of the

¹ The largest collections of ecosemiotic studies published so far are probably thematic issues of journals *Zeitschrift für Semiotik* 15(1/2), 1993, *Zeitschrift für Semiotik* 18(1), 1996, and *Sign Systems Studies* 29(1), 2001.

message transmitted in communication is directed outside of the communicative situation and toward the context. Marks of such an approach can be found already from Karl Bühler's organon model of language communication, which distinguishes expressive function directed to the sender, appealing function directed to the receiver, and representative function that is directed to circumstances, objects or to the surrounding world (Bühler 1934: 34–37). Also the classical communication model of Roman Jakobson asserts the relation between meaning and context by claiming that the referential function of communication is directed to the context (Jakobson 1981: 21).²

The question of context and its influence on semiotic processes has in different forms been essential to many distinguished scholars who have been active in the border areas of semiotics. One of the bestknown contextualists, British language philosopher I. A. Richards stresses the relevance of context in the determination of linguistic meaning. He writes:

The effect of a word varies with the other words among which it is placed. What would be highly ambiguous by itself becomes definite in a suitable context. So it is throughout; the effect of any element depends upon the other elements present with it. (Richards 1938: 178-179)³

From another angle Eugene Nida has emphasized the importance of context in translation processes. According to his views, meanings of the words and texts can only be communicated in relation to specific culture, and in this process, context has the essential role. To describe the effect of context on the text, Nida distinguishes different types of contexts such as syntagmatic and paradigmatic context, context

² According to Jakobson, context must be either verbal or capable of being verbalized, i.e. accessible to the receiver. Although Jakobson's referential function should rather be understood through the indexicality, in the sense that communication itself distinguishes its context by referring to it, the openness of the communicative situation toward the surrounding world is still relevant regarding the possible ecological potential of semiotics.

 $^{^3}$ A similar position is represented by a semiotician of the younger generation – Yair Neuman, who, based on the works of Valentin Voloshinov, describes communication as a recursive and hierarchical system that cannot be efficiently understood just by the descriptions of the syntactic forms of representation: "as far as natural language is concerned, the context of the whole utterance determines the meaning of the components and vice versa in hermeneutic circularity" (Neuman 2003: 52).

involving cultural values, context of a source text, etc. (Nida 2001: 29-41).⁴

Contextual thinking has also served as a basis for the works of interdisciplinary scholar Gregory Bateson: "all communication necessitates context, [...] without context, there is no meaning" (Bateson 1980: 18). Contextual information may introduce redundancy to the communicational system, but there may well also exist several contexts, contexts inside contexts for the given message. Bateson's understanding is also a relevant point for his Double Bind theory, which describes the condition where contexts of different levels are in contradiction for some recurrent communication thus bringing along a schizophrenic situation, where the participant does not have the possibility to give the correct response nor any way out of the situation (Bateson 2000: 206-207, 245). In relation to biological evolution Bateson has also written about the environment as context, which evolves as a response to animal activities (Bateson 2000: 155). Bateson has been rather critical toward the Darwinian understanding of a single individual or lineage as a unit of survival and has argued that the evolutionary unit should be a flexible organism-in-itsenvironment (which is comparable with the connectedness of the mind with the larger system of pathways and messages outside the body, Bateson 2000: 456-457).

The concepts of context and contextualism seem to serve as possible ground for relating semiotics with ecology. When Thomas A. Sebeok starts to establish his zoosemiotic research platform in the 1960s, he uses transmissional communication models (Shannon-Weaver, Bühler, Jakobson — see Sebeok 1972b: 13; 1972b: 65) as one of his starting-points. Probably following these, Sebeok links the semantic dimension of communication with context, understanding the latter as information related to functional status, ecological relations and external environmental conditions of animals (Sebeok

⁴ In relation to the natural environment Eugene Nida gives an example with many ecosemiotic associations — the word *run*, whose possible meanings depend on our knowledge of different animal species. For instance sentences "the boy is running" and "the horse was running" are different since the legs of quadrupeds move differently from those of the human. In the sentence "the salmon is running", the situation is much different because the physical context of moving is water and instead of legs there are fins and flippers. But in the wider context the last expression signifies the vast numbers of salmon swimming upstream to their spawning sites (Nida 2001: 31-32).

1972b: 15; Sebeok 1972b: 80). According to Sebeok, contextual information has critical importance in semiotic studies of animal communication.⁵ The meaning of the perceived message in animal communication can be completely different, depending on whether the communication takes place in the territory of the sender or receiver, whether it takes place in open or closed and safe environment, whether participants are approaching each other, withdrawing or holding a constant distance (Sebeok 1990: 112). At the same time Sebeok emphasizes that there are few studies about the use of contextual information in animals.⁶ One reason for this is the inaccessibility of the code and the meanings of messages of other living beings for the researcher of animal communication (Sebeok 1972c: 132). In the zoosemiotic works of Thomas A. Sebeok the linkage between meaning and contextual information becomes directly related with the environment in nature and the semiotic research of nature.

Different perspectives in ecosemiotics

Semiotics and ecology have come into contact with each other at several points and the origins for designing the paradigm of ecosemiotics differ accordingly. In the introduction to the thematic issue of the journal *Sign Systems Studies*, Winfried Nöth and Kalevi Kull distinguish two principally different approaches to ecosemiotics. The cultural theoretic approach proceeds from semiology and structuralism, primarily from the legacy of Ferdinand de Saussure and emerges in the writings of Claude Lévi-Strauss, Juri Lotman, Umberto Eco, and Algirdas Julien Greimas. It investigates to what extent nature is interpret the same natural phenomena differently. The second

⁵ Even more emphasis is given to the concept of context by theoretical biologist W. John Smith. He contrasts it with the notion of signal, and includes in context almost everything in communication, which remains outside of the message. Smith divides context into direct and historical context, where the first includes state of the receiver and the other messages perceived during the same communication. Historical context includes previous experiences of the receiver and its species-specific properties (Smith 1965).

⁶ A comparative overview of the use of context in human and animal communication has been given by Pietro Perconti (2002).

approach proceeds from the tradition of general semiotics of Charles S. Peirce and Charles Morris, is present in the works of Thomas A. Sebeok, and treats semiosic processes in nature as phenomena in their own right (Kull, Nöth 2001: 9). The outcomes of the latter approach are the paradigms of zoosemiotics and biosemiotics and the process in semiotics that Winfried Nöth describes as the lowering of the semiotic threshold (see Nöth 2000). These approaches can also be seen as possible answers to the epistemological question: can culture's methods be used to study relations with something that lies outside the borders of culture? Winfried Nöth has described these two alternative routes to ecosemiotics concisely as cultural ecosemiotics and biological ecosemiotics (Nöth 2001: 72–74).

In addition to these two approaches one more intellectual development should be distinguished that has considerably influenced the shaping of ecosemiotic ideas. Namely, the activities of researchers with a background in natural sciences, who include a semiotic perspective in ecological studies of organism-environment relations. This approach is applied for instance by an influential German theoretical biologist Günter Tembrock, who has conceptualized relations between an organism and its environment at different levels. Tembrock elaborates his theory of biocommunication (Tembrock 1971) towards semiotics and distinguishes semiotic types of relations between organism and environment as spatial semiosis, temporal semiosis, semiosis of metabolism, defensive semiosis, exploratory semiosis and semiosis of partners. Tembrock sees these distinctions also as basic types of semiotic relations between humans and their environment (Tembrock 1997). Another predecessor of ecosemiotic thinking is systems ecology where information processes are considered to be crucial constituents of ecosystems regulation (Patten, Odum 1981; for semiotic interpretation see Nielsen 2007). From contemporary authors who have brought semiotic methods into ecology, Almo Farina and his colleagues should be mentioned. Farina's concept of eco-field introduces Jakob von Uexküll's umwelt-theory into landscape ecology. Eco-field should be understood as:

the physical (ecological) space and the associated abiotic and biotic characters that are perceived by a species when a functional trait is active. [...] The ecofield can be considered the interference space in which the mechanisms for collecting, concentrating, stocking, preserving and manipulating energy are active. (Farina, Belgrano 2004: 108) Many other authors have used a semiotic approach in ecological research as well (see Manning *et al.* 2004; Claval 2005; Vladimirova, Mozgovoy 2003).

Also Winfried Nöth's own approach, when he outlines in 1996 the possible paradigm of ecosemiotics, seems to originate rather from the themes that ecology has dealt with under the name of autecology for many decades. For Nöth, ecosemiotics is first of all semiotics of habitat, the aim of which "is the study of the *semiotic* interrelations between organisms and their environment" (Nöth 1998: 333). The important research questions for Winfried Nöth concern the relationship between organism and the environment:

Is it always of a semiotic nature, or is there at least always a semiotic aspect in this relationship, or do we have to distinguish between semiotic and non-semiotic environmental relationships? (Nöth 1998: 333)

In a later article, Winfried Nöth specifies the position of ecosemiotics in relation to biosemiotics and zoosemiotics by writing that, in contrast to these, ecosemiotics should focus on the process of signification (as a sign process without the participation of the sender, in contrast to communication), i.e., semiotic relations between an organism and its nonliving environment (Nöth 2001: 72). Thus Nöth's ecosemiotic views lead towards the autecology that has been described as "the biological relations between a single species and its environment; the ecology of a single organism" (Lawrence 1989: 45).⁷

Another author who has written in more depth about ecosemiotics — Kalevi Kull — seems, according to Nöth's distinction, to belong rather to the tradition of cultural ecosemiotics. Kull's inspirational article "Semiotic ecology: different natures in the semiosphere" published in 1998 can be regarded as expressing a cultural semiotic view because of the following statements.

(1) Differently from the comprehension of Winfried Nöth, ecosemiotics does not deal with all living organisms in their relation to the nonliving environment, but solely with humans, their culture and relation with the natural environment (Kull 1998: 348).

⁷ Ecology has been classically divided into branches of autecology (corresponds to the level of organisms) and synecology (corresponds to the level of communities of species). Sometimes also the concept of demecology (corresponds to the level of population or species) has been used.

(2) Kull defines ecosemiotics explicitly "as a part of the semiotics of culture, which investigates human relationships to nature which have a semiosic (sign-mediated) basis" (Kull 1998: 351).

(3) Man cannot perceive nature without it having first been mediated or filtered by language. Nature in itself (0 nature) and nature that is categorized by language (1 nature) form clearly distinguished types (Kull 1998: 355, 356).

(4) Culture that comes into contact with nature cannot avoid changing nature by describing it and acting upon it (Kull 1998: 347, 359). This change is in principle uni-directional; the development of human umwelt leads unavoidably to the diminishing and degradation of 0 and 1 type natures at the expense of humanized nature (Kull 1998: 347, 356).⁸

Kalevi Kull's distinction of four types of nature, which has been derived from Jakob von Uexküll's model of the functional cycle, has a potential to become a grounding principle for ecosemiotic theory.⁹ In practical research such typology can be used as a methodological tool for analyzing different forms of mediating nature in culture, or different degrees of nature's culturization, which for instance in landscapes lead to the development of natural, semi-natural and cultural plant communities (see Kull 1998: 359). At least in one study, Kull's typology has been used in practice as the research method for analyzing Estonian folk medicine and the different ways in which

⁸ Similarly to Kalevi Kull also Alf Hornborg emphasizes the ability of the human sign system to influence and change ecological processes. In his overview of the environmental relations of Amazonian native people he distinguishes three subsequent types of sign systems regarding the transformation of nature as sensory, linguistic and economic (Hornborg 2001).

⁹ Kalevi Kull explains the distinction of four types of nature as follows: "Zero nature, at least when living, is changing via ontological semiosis, or via physiosemiosis if applying J. Deely's term. The first nature is nature as filtered via human semiosis, through the interpretations in our social and personal knowledge. This is categorised nature. The second nature is changing as a result of 'material processes' again, this is a 'material translation' in the form of true semiotic translation, since it interconnects the zero and the first (or third), controlling the zero nature on the basis of the imaginary nature. The third nature is entirely theoretical or artistic, non-natural nature-like nature, built on the basis of the first (or third itself) with the help of the second" (Kull 1998: 355). In later conversations Kalevi Kull has stressed that the distinction between four natures should rather be understood processually as different strategies by which nature is generated.

herbs are used in it (Sõukand 2005). At the same time it seems that Kull's approach is more corresponding to *passive* nature (although he uses also several examples involving animals) and is applicable foremost for analyzing relations between humans and inanimate nature, plants or landscapes. This becomes more apparent when we compare Kull's typology with some typology of bilateral relationships such as the one developed by Thomas A. Sebeok to describe possible relations between humans and animals. Thomas A. Sebeok distinguishes situations where human is destructor of the animal, human is the victim of the animal, human is the parasite of animal or vice-versa, animal accepts human as its species-mate and so on (Sebeok 1986: 107). Compared to Sebeok's typology, Kull's approach seems to focus more on the human counterpart and to describe one direction of transmission of messages in communication.

According to Kull the goal of ecosemiotics is the

research on the semiotic aspects of the place and role of *nature for humans*, i.e. what is and what has been the *meaning of nature for us, humans*, how and in what extent we communicate with nature" (Kull 1998: 350) [my emphasis — T. M.]

The other participant of this relation, nature, does not have any active role in this process. For instance, describing nature and dealing with it makes nature, according to Kull, become more human-like, but involvement with nature cannot make culture become more nature-like. Likewise, nature that has once been described and changed has few possibilities to revert back to its original state (as such possibilities, Kull mentions the ability to forget, and cultures that do not rely on long-term memory techniques (Kull 1998: 364–365), but even this possibility arises from the peculiarity of culture rather than from the active involvement of nature). In short it seems that applying Uexküll's concept of functional cycle to culture-nature relations may lead to the attributing of the status of "subject" to human culture and the status of "object" to nature, where for the latter there does not remain any voice or right for expression outside mediations by the human sign system.

Both biological and cultural ecosemiotics have their theoretical strengths and weaknesses and research topics in which their use is appropriate. For the formation of a viable ecosemiotic tradition we would need, however, the synthesis of the two. Both approaches in themselves are limited in their ability to describe culture-nature relations. Biological ecosemiotics leans toward the tradition of natural sciences or, in the better case, towards biosemiotics and becomes mostly interested in theoretical descriptions of sign relations between living organisms and their environment. Cultural ecosemiotics is on the contrary grounded in cultural semiotics, and is therefore bounded by language centrism or by culture centrism and is not capable of shifting the researcher's point of view beyond the limits of human language and cultural system.

The need to overcome this dichotomy between the cultural and biological approach in ecosemiotics has been vigorously expressed by Riste Keskpaik:

In the tradition of cultural ecosemiotics 'nature enters the semiotic scene only as a *referent* (or content substance) of language [...]' (Nöth 2001, 73). Biological ecosemiotics relies on the assumption that semiosis occurs in nature irrespective of the knowledge of it. In my opinion the ecosemiotic view only emerges at the crossing of the two perspectives; irreducible to either of them it transcends the linear, dichotomous logic. (Keskpaik 2004: 53)

Only then can ecosemiotics aspire to fulfill its most significant task: "to help to diminish communication problems between human and nature, because from that viewpoint it becomes possible to speak about nature, as it seems to us in culture, and to speak with nature, because its ability of speech has been restored" (Keskpaik 2003: 50).¹⁰ The role of ecosemiotics understood in such a way would be to connect, mediate and translate different sign systems and structural levels of semiotic systems in culture-nature relations, to recognize and explicate possibilities for categorization, textuality and meanings in animate nature, and to bring forth natural, animal and nonverbal aspects of human culture and its texts. For the practical research methodology such an approach would bring along the need to take into consideration changing viewpoints between culture and nonculture and different levels of semiotic description, to combine research methods of texts with those of natural science; but also to introduce a phenomenological perspective that allows the researcher to combine his/her participation as an intelligent being in the world of

¹⁰ "Aidata vähendada kommunikatsiooniprobleeme inimese ja looduse vahel, sest sellelt vaatekohalt osutub võimalikuks kõnelda nii loodusest, kuidas ta meile kultuuris paistab, kui ka loodusega, kuna talle antakse tagasi tema kõnevõime".

text and culture with his/her participation as a living being in the world of nature and its immediate perceptions and meanings.

Nature-text as a methodological concept for ecosemiotics

On the level of practical analysis the necessity to integrate two branches of ecosemiotics should result in the formation of research methodology that allows both the representations of nature in culture and nature in its own semiosic activity to be covered. The perfect model object for such a twofold framework of analysis is nature writing. A nature essay includes the author's imaginations, social, ideological and cultural meaning relations and tensions, but it also embraces organisms, natural communities and landscapes with their special properties and abilities to grow, communicate, learn and multiply. The understanding of nature writing does not depend solely on interpretation of the written text, but also on structures of outer nature, which have their own memory, dynamics and history, and if those outer structures change, then the field of possible interpretations for the written text will also change. The object of ecosemiotic research should therefore also be considered to be twofold: in addition to the written text that speaks about nature and points to nature, it should also include the depicted part of the natural environment itself, which must be, for the relation to be functional, to at least some extent textual or at least textualizable.¹¹ I will call the unit that is formed through meaning relations from those two counterparts nature-text (Figure 1).

The relations between the written text and natural environment operate similarly to the relation between two interconnected texts or a text and its context, where the interaction significantly shapes the possible interpretations of the text. The relation here is complementary in the sense that the text does not need to convey all meanings, as they are present in the environment and familiar to the reader. Pointing to them is often enough. Correspondences between the written text and textual nature can also be structural (e.g. a sequence of a text

¹¹ Compared to the written text, the structure of the natural environment and its perception is multimodal. Therefore natural environment and written text do not relate as two equal counterparts, but the relation corresponds rather to a one-to-many relationship.

following a nature trail), but there is hardly one-to-one correspondence between the two entities. Rather, the written text is contrasted with a space of possible structures and meanings that could exist in the depicted natural environment. In nature there is simultaneously taking place a multitude of parallel events or stories that do not form a linear sequence, but occur in various media and sign systems.

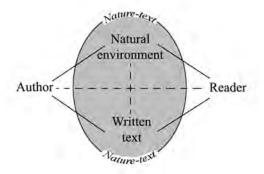


Figure 1. Nature writing conceptualized as nature-text: components and interrelations. $^{\rm 12}$

In order to appear and become related with nature writing, the meanings of nature need mediation by human semiotic processes. Therefore the author of the written text and the reader should also be included in the model of analysis, which in that case becomes quadripartite: (1) textual natural environment; (2) written text; (3) author of the text; (4) reader. Every participant is characterized by its own semiosic activity, and relations between participants are not fixed but form a specific pattern in each and every case. The reading experience of a nature essay may become the cause for the reader to visit the depicted natural environment, but it may also well be the other way round — the reader is first familiar with the natural environment and then becomes interested in nature writing. The reading experience of a nature essay can differ according to the reader's familiarity with the depicted region: whether the reader lives

¹² Following Mikhail B. Yampolsky's terminology (see below) nature-text can be understood as a set of physically justified meaning connections between text written in a conventional language and the natural environment.

in the region or does not have any personal experience with the place. Also, if nature writing is usually associated with the inspiration acquired from the natural environment and with the attempt to share appreciation toward nature, then this is not so in all cases. In the tradition of Estonian nature writing an incident is known where the environment became endangered because of a written text. A story was written about a mineral island in Muraka raised bog, praising its quietude and beauty, and the story became so popular and provoked such intense interest in the readers that their increased visits eventually damaged the place (see Kask 1995: 50–53).

Meaning relations between a written text and natural environment may also have different intensity. Written text may be open and include descriptions of the author's experiences of different places as well as various cultural and literary references. But a nature essay can also be a closed text that relates to some specific place in such a way that it is not possible to understand it fully without knowing the depicted place. Because of the specific relationship with the local environment, nature-text is characterized by *locality*, understood as "the characteristic of semiotic structures by which they merge into their surroundings in such a way that they cannot be separated from their environment without significantly altering their structure or information contained in this structure" (Maran 2002: 70). This property of nature essays may become noticeable for instance during the process of translation, where references in the text to the local natural environment may show remarkable resistance to the translator's efforts

Arguments for including natural environment in the analysis

Such a theoretical approach to nature writing may raise questions as to what is the essence of this other part that remains outside of the written text, and on what grounds can this natural structure be taken as a part of an object for semiotic research. These questions are connected with our capabilities to become related to and to interpret nature, both as humans in our everyday practices and as researchers on a meta-level. Some answers to these questions can be found from the tradition of Tartu semiotics. In general, in the Tartu–Moscow semiotic school not much attention was paid to the natural environment. Semiotics in Tartu developed as a part of the European semiological tradition and thus considered literature and culture to be its primary research object. Also the distinction between culture and things outside it, which became one of the central constructs of the Tartu-Moscow semiotic school, probably impeded a constructive approach to the physical environment. In some interpretations of Tartu-Moscow semiotics this distinction has also been expressed as the opposition of culture and nature (Sonesson 2000). At the same time, another central concept of the Tartu-Moscow semiotic school, the notion of text, was understood so generally that in certain conditions it could also include some parts of the natural environment. Juri Lotman and his colleagues understood the notion of text ambivalently and broadly, defining it not by written form or linear structure, but rather on the basis of operating and functioning in culture. Text is something that has specific meaning from the point of view of the carrier of culture and has integral function from the point of view of the investigator of culture (and it is thus simultaneously the concept of the object level and metalevel; see Ivanov et al. 1998: 65). Such view allows national costumes, pieces of music and paintings to be considered as texts, given that these are used, understood and valued in culture. Also parts of the natural environment can act as texts if there is a custom in the given culture to interact with nature's structures in a way that they become distinctly meaningful in culture.¹³

In Estonian culture the existence of many semi-natural plant communities such as wooded meadows and coastal meadows (that persist only with the mild but continuous influence of human culture, see Kull 2001), strong tradition of nature writing and nature films, and rich folklore about natural phenomena give evidence about the culture's practice to be meaningfully related to the natural environment (for overview, see Maran, Tüür 2005). Such valuation of nature

¹³ Anti Randviir distinguishes in his article "Loodus ja tekst: tähendus*likkus*e tekitamine" between speaking about nature as text metaphorically and texts that exist in nature. Into the latter category, Randviir puts phenomena that can be read: "read in the sense that because of our (cultural) experience we can set some limits of interpretation to them and can very probably evaluate their semiotic nature (and origin) [lugeda selles mõttes, et me oskame tänu oma (kultuurilisele) kogemusele neile seada mingisugused tõlgenduspiirid ning oletada küllaltki suure tõe-näosusega nende märgilist päritolu (ja märgilist loomust)]" (Randviir 2000: 141).

could also be the best proof that, at least in Estonian culture, it is reasonable to consider the natural environment as a textual entity.

A representative of younger generation of the Tartu–Moscow semiotic school, Mikhail B. Yampolsky has written about natural or physiognomic text that is expressed as relations between the part of culture that is fixed into conventional language and the real world. Such text is created according to Yampolsky in the language of physically justified connections. He notes that interpretation of natural or physiognomic text is problematic, because of the absence of an effective code for reading (Yampolsky 1989: 62–63). At the same time it seems that for the semioticians of the Tartu–Moscow school, a phenomenon in culture does not need to be decoded or even decodable in order to acquire the status of text:

utterances circulating in a collective but not understood by it are attributed textual meaning, as occurs with fragments of phrases and texts brought from another culture, inscriptions left by a population that has already disappeared from a region, ruins of buildings of unknown purpose, or statements introduced from another closed social group, for instance, the discourse of doctors as perceived by patient. (Lotman, Pjatigorskij 1977: 129)

Natural environment is similar to foreign cultural texts, which are imported or carried over from another culture, or to historical texts, which have been long forgotten and then retrieved. In the case of foreign cultural texts a specific addresser may be unknown, their code is often unfamiliar and as such they tend to bring along cultural polyglotism (see Ivanov *et al.* 1998: 44); the same seems to apply to nature as text. Meaningful relations with the natural environment often take place in the form of a communicational situation where the specific addresser is unknown or is absent altogether, or where addresser and addressee are principally different by belonging to different species.¹⁴

Here it is relevant to introduce the argumentation by British education theorist and semiotician Andrew Stables according to which, in

¹⁴ Similarly to the endeavor of the present article to use the concept of text for studying culture–nature relations, Kalevi Kull has also recognized the need to widen the notion of text proceeding from the Tartu–Moscow semiotic school. In biosemiotic paradigm he has proposed the term *biotext*, understood as an organism's ability to interpret sign processes taking place inside itself (Kull 2002: 329–332).

modern literary theory the position of author is anyhow blurred and that makes it possible to open the concept of text up also to natural phenomena. Writings by Roland Barthes, Hans-Georg Gadamer and others have engendered the view that instead of personal authorship the meanings of texts are socially or culturally constructed. Stables notes, that in landscapes the network of shared meanings extends beyond human sphere and that it is difficult to make a distinction between the creative activities of humans, other life forms and natural forces (Stables 1997). From such a viewpoint, natural environment can be understood to be a result of common creative activity, "written" by individuals of many different species, each proceeding from their own sign system, umwelt, and life activities. Some of those authors, such as beavers and ants shape landscape to a remarkable degree and make changes that influence the habitats of many other species, humans included. Also tracks of wild animals in the landscape, which connect drinking places, feeding areas, and resting places, are part of environmental scripture. Although the descriptions of such changes in the environment and the names of animals that have caused these are attributed by human culture, one must admit that ant nests and beaver dams in themselves are the creation and selfexpression of animal authors.

In many cases the living activities of different organisms merge in the environment in a way that makes it very difficult to distinguish the contributions of different species in it. As such, nature becomes a medium or *interface*, which different living beings read and where they write into. The example of such collective creation of environment is forest. Life cycles of different organisms in forests combine in complicated ways; some species form habitats for others, the decay of some organisms becomes food and source material for others, and so on. Forest is full of information and communicative relationships, which, related to the topic of this article, brings up the question of how people read forests, what aspects of it they are able to interpret and how.

To understand the specific interpretation and communication practices that humans use for communicating to and relating with nature, the concept of zoosemiotic modeling by Thomas A. Sebeok may turn out to be useful. Sebeok presented this model as a criticism of the distinction of semiotic modeling systems made in the Tartu– Moscow semiotic school. As is well known, the Tartu–Moscow school has considered natural language to be the primary modeling system. Complex cultural phenomena (literature, art, music, film, myth, religion) are regarded as secondary modeling systems, because these are derived from and built upon natural language (e.g., Lotman 2000: 47-48). Thomas A. Sebeok has argued against such categorization, claiming that natural language is both ontogenetically and phylogenetically preceded by yet another modeling system - theworld-as-perceived, where signs are distinguished by the organism's species-specific sensory apparatus and nervous system and aligned with its behavioral resources and motor events (Sebeok 1988: 73-74). According to Sebeok, humans possess two mutually sustaining modeling systems — the anthroposemiotic verbal, which is unique to the human species, and the zoosemiotic nonverbal, which unites us with the world of nonhuman animals. The existence of a primary zoosemiotic modeling system is hard to notice for humans, because we are born into it (which makes it self-evident) and also because it is later to a large extent overwritten by the system of conventional meanings. The existence and properties of the-world-as-perceived become, however, more apparent if the perceptual possibilities and communication systems of different species are studied. Direct and spatial perceptions, tactile and olfactory sensations as well as many occurrences of nonverbal communication between humans belong to the sphere of nonverbal modeling. Language resources are often insufficient for describing these kinds of phenomena, but it is certainly possible (and this is often done) to express these kinds of sensations by textual means.

Concerning nature writing such view regards writers and readers as two-sided creatures: as cultural beings, we are capable of cognition, language and literary expression but on the other hand as biological organisms, we are capable of immediate perception of natural phenomena through our senses and of participation in the nature's web of relations and meanings. As embodied sensual creatures we humans communicate with other living beings and natural environments by means of sounds, sights, scents and touches, bodily movements and all corresponding perceptions. As intellectual beings we are able to discern and describe these sensations, to convey and valuate these in writing. The distinction between two modeling systems has also an inner dimension in the form of understanding our own bodily processes and verbalizing these. Mental states with biological background, such as anxiety, fear, affection and fury are also important motives for literary imagination. The questions about one's own inner feelings, desires and phobias, that can be summarized as a quest to understand one's inner nature has been a backbone for many classical novels.

Nature writing that relates to immediate environmental experiences is probably the most suitable material for studying traces of such zoosemiotic modeling. The attention of the researcher can turn here to the perceptual properties of humans as biological species, to the ways how one can relate perceptually and bodily with the environment and to the possibilities to express these experiences. Zoosemiotic nonverbal modeling enables communicative relations between humans and animals, as it relies on biological foundations that are common to humans and many animals (Sebeok 1990). Similarities, which make the occurrence of meaningful relations between humans and animals possible, lie in morphology (bilateral symmetry, positions of limbs, body and face), perception (concordance in sense organs, communication channels and diapasons), basic needs and dispositions (need for food, water, shelter, avoidance of accidents, pain and death), being subjected to the same physical forces (gravity), inhabiting the same environment and relating with it. etc.

Nature writing as regarded through the concept of nature-text: some ethical implications

If we agree with the arguments given above that it is reasonable to consider natural environment as being textual and related to written texts, then this may lead to some questions about the effects that this new type of relation may have on nature writing and its research. These implications apply to some degree also to other texts of culture that develop close contact with natural environment such as nature documentaries, folk knowledge about the nature, environmental art and others. First, it seems that understanding nature writing in the framework of natural environment, written text, author and reader opens up new possibilities to define nature writing. This is so because of the changed position of nature writing — a written text that is related through meaning relations to a part of natural environment, carries out two processes: it communicates nature and at the same time it values nature through that communication.

During each writing act choices are made among alternative experiences, reflections, imaginations, and ideas and the results of those choices are fixed in the linear sequences of words. This is especially so because of a multitude of events, stories, perceptions and sign systems present in nature compared to the relatively constrained scope of a nature essay. As these choices made determine what will and what will not be communicated in human culture, writing activity inevitably becomes decision making concerning the values in culture. At a higher cultural level also, nature writing as a phenomenon can be seen as a possible value decision of culture. By changing individual experiences of the author to become a part of wider experience of culture, nature writing becomes a strategy for regarding and valuing nature. Writing about nature is simultaneously a recognition that nature as such is worth writing and talking about. If nature is understood as being composed of various umwelten and semiotic spheres, which are foreign and partly inaccessible to humans, then every nature essay turns out to be an attempt to raise these natural foreign semiotic spheres above the interpretation threshold of human culture. Therefore, according to the concept of nature-text, nature writing could be understood as an aesthetical expression of the appreciation of the foreign semiotic spheres of nature.

Another conclusion that can be derived from regarding nature writing as nature-text relates to the position of nature writing in culture. This thought can be expressed as the combination of generality and specificity (also as a combination of intelligibility and unintelligibility) of nature essays. Existence of intense meaning connections between the written text and the natural environment determines significantly the possibilities for interpreting nature essays. On one hand the strong relationship with the processes and phenomena of the natural environment makes the structure of the nature essay more predictable than it is in belletristic writings. Movement in nature, encounters with different animals, names and descriptions of various organisms, their life and behavior, climate conditions, seasonal changes and personal recollections of experiences in nature are the most common elements for compiling nature essays.

On the other hand the adequate interpretation of the nature essay is only possible if the reader has a nature experience that is at least to some extent similar to that of the author. If the nature experience of the reader is very different from that of the author or is absent altogether, then many meaning connections that point in the written text to the natural environment remain inaccessible to the reader. The marginal position of nature writing in contemporary culture (as is the case in Estonian culture) seems to derive from that peculiarity of nature writing. For the modern day urbanized reader access to the natural environment is inhibited both physically and semiotically through negligence and lack of knowledge about nature's forms of being, various signs, and communication processes within it. In such a situation the nature writing that presupposes competence of interpreting and relating two types of text — written text and textual natural environment — remains feasible to few readers. Works of nature writing become closed texts and common consciousness of culture ignores them as unimportant or nonexistent. At the same time the writers and readers of nature writing form a small but quite well established and homogeneous group (for instance in the Estonian tradition there are a few authors, who, besides nature essays, also write belles-lettres). In addition to attachment to nature, also the mutually supporting effect of the two types of text may contribute to the formation of such a group — nature writing leads readers to experience nature directly without any literary mediation, and personal nature experiences of individuals direct them back to nature writing to find out about similar experiences of other people.

Conclusions

An important background and support for developing ecosemiotic views is the understanding that the ecological approach itself is not alien to semiotics, but is in fact present in the foundations of semiotics. Besides explicitly ecosemiotic writings, the communication models by Roman Jakobson and Thomas A. Sebeok, the contextual thinking of Gregory Bateson and works of authors of language philosophy and translation studies can also turn out to be useful for enriching semiotics with the ecological perspective.

Ecosemiotic itself has several roots and interpretations. The most important of these are biological and cultural ecosemiotics that follow the dividing line between American pragmatist semiotics and European semiology. As ecosemiotics endeavors to study both semiosic activity in nature and its cultural representations, this divide becomes particularly distressing. Riste Keskpaik has described the main goal of ecosemiotics as solving communication problems between humans and nature. This essential task can only be fulfilled if ecosemiotics studies nature's representations in culture, semiosic activities as they take place in nature itself, and what may be most important, pays attention to the ways how these two are interrelated. The present article discusses the possibilities for using the legacy of Tartu–Moscow semiotic school for developing ecosemiotics. The concept of nature-text is introduced as a methodological possibility to overcome the gap between cultural and biological ecosemiotics. Describing the ways in which nature is represented in culture in the same framework with semiosic activities of nature itself may help us to pinpoint the problems in our communicative relations with it, and maybe even explicate possibilities for the restoration of concordance.¹⁵

References

- Bateson, Gregory 1980 (1979). *Mind and Nature. A Necessary Unity.* Toronto, New York: Bantam Books.
- 2000 (1972). Steps to an Ecology of Mind. Chicago, London: The University of Chicago Press.
- Bühler, Karl 1990. Theory of Language. The Representational Function of Language. (Foundations of Semiotics 25.) Goodwin, Donald Fraser (trans.). Amsterdam: John Benjamins Publishing Company.
- Claval, Paul 2005. Reading the rural landscapes. *Landscape and Urban Planning* 70(1–2): 9–19.
- Coletta, W. John 1993. The semiosis of nature: Towards an ecology of metaphor and a biology of mathematics. *The American Journal of Semiotics* 10(3/4): 223–244.
- Grzybek, Peter 1994. The culture of nature: The semiotic dimension of microcosm, mesocosm, and macrocosm. In: Nöth, Winfried (ed.), Origins of Semiosis: Sign Evolution in Nature and Culture. Berlin, New York: Mouton de Gruyter, 121–137.
- Farina, Almo; Belgrano, Andrea 2004. Eco-field paradigm for landscape ecology. *Ecological Research* 19: 107–110.

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- Hornborg, Alf 2001. Vital signs: An ecosemiotic perspective on the human ecology of Amazonia. *Sign Systems Studies* 29(1): 121–152.
- Ivanov, Vyacheslav V.; Lotman, Juri M.; Pjatigorskij, Alexander M.; Toporov, Vladimir N.; Uspenskij, Boris A. 1998. Тезисы к семиотическому изучению культур / Theses on the Semiotic Study of Cultures / Kultuurisemiootika teesid. (Tartu Semiotics Library 1.) Salupere, Silvi (trans.); Pärli, Ülle (ed.). Tartu: Tartu University Press.
- Jakobson, Roman 1981. Linguistics and poetics. In: Jakobson, Roman. Selected Writings III. Poetry of Grammar and Grammar of Poetry. Rudy, Stephen (ed.). The Hague: Mouton Publishers, 18–51.
- Kask, Edgar 1995. Kuuvikerkaar. Tallinn: Olion.
- Keskpaik, Riste. 2003. Loodus kui sõnum: mis on ökosemiootiline vaade loodusele? In: *Looduskaitsealaseid töid* VII. Tartu: Tartu Üliõpilaste Looduskaitsering, 45–50.
- 2004. Semiotics of Trash: Towards an Ecosemiotic Paradigm. (Master's thesis. University of Tartu, Faculty of Social Sciences, Department of Semiotics.) Tartu: University of Tartu.
- Kull, Kalevi 1998. Semiotic ecology: Different natures in the semiosphere. *Sign Systems Studies* 26: 344–371.
- 2001. The proxemics of ecosystems, and three types of attitudes toward the community of other species: An attempt at ecosemiotic analysis. In: Tarasti, Eero (ed.), *ISI Congress Papers IV: Ecosemiotics* [ISI Congress Papers (Nordic-Baltic Summer Institute for Semiotic and Structural Studies, Part IV, June 12–21, 2000 in Imatra, Finland), Ecosemiotics: Studies in Environmental Semiosis, Semiotics of the Biocybernetic Bodies, Human/ Too Human/ Post-Human]. Imatra: The International Semiotics Institute, 70–77.
- 2002. A sign is not alive a text is. Sign Systems Studies 30(1): 327-336.
- Kull, Kalevi; Nöth, Winfried 2001. Introduction: Special issue on semiotics of nature. Sign Systems Studies 29(1): 9–11.
- Lawrence, Eleanor (ed.) 1989. *Henderson's Dictionary of Biological Terms*. 10th ed. New York: John Wiley & Sons.
- Lotman, Juri M. 2000. Universe of the Mind: A Semiotic Theory of Culture. Shukman, Ann (trans.). Bloomington, Indianapolis: Indiana University Press.
- Lotman, Juri M.; Pjatigorskij Alexander M. 1977. Text and function. In: Lucid, Daniel P. (ed., trans.), *Soviet Semiotics: An Anthology*. Baltimore, London: The Johns Hopkins University Press, 125–135.
- Manning, Adrian D.; Lindenmayer, David B.; Nix, Henry A. 2004. Continua and Umwelt: Novel perspectives on viewing landscapes. *Oikos* 104(3): 621–628.
- Maran, Timo 2002. Ecosemiotic basis of locality / Lokaalsuse ökosemiootilised alused. In: Sarapik, Virve; Tüür, Kadri; Laanemets, Mari (eds.). Koht ja paik / Place and Location II. (Eesti Kunstiakadeemia Toimetised 10.) Tallinn: Eesti Kunstiakadeemia, 68–80, 81–92.
- Maran, Timo; Tüür, Kadri 2001. On Estonian nature writing. *Estonian Literary Magazine* 13: 4–10.
- Maran, Timo; Tüür, Kadri (ed.) 2005. *Eesti looduskultuur*. Tartu: Eesti Kultuuriloo ja Folkloristika Keskus, Eesti Kirjandusmuuseum.

- Neuman, Yair 2003. Co-generic logic as a theoretical framework for the analysis of communication in living systems. *Semiotica* 144(1/4): 49–65.
- Nida, Eugene 2001. Contexts in Translating. Amsterdam, Philadelphia: Benjamins.
- Nielsen, Soeren Nors 2007. Towards an ecosystem semiotics: Some basic aspects for a new research programme. *Ecological Complexity* 4(3): 93–101.
- Nöth, Winfried 1998. Ecosemiotics. Sign Systems Studies 26: 332-343.
- 2000. Umberto Eco's semiotic threshold. Sign Systems Studies 28: 49-61.
- 2001. Ecosemiotics and the semiotics of nature. Sign Systems Studies 29.1: 71–82.
- Patten, Bernard C.; Odum, Eugene P. 1981. The cybernetic nature of ecosystems. *The American Naturalist* 118(6): 886–895.
- Pearsall, Judy, (ed.) 1998. *The New Oxford Dictionary of English*. Oxford: Oxford University Press.
- Peirce, Charles Sanders 1994. The Collected Papers of Charles Sanders Peirce. Electronic version (Folio Bound Views), vols. 1–6, ed. Hartshorne, Charles; Weiss, Paul, vols. 7–8, ed. Burks, Arthur W. Cambridge: Harvard University Press. [referred as CP]
- Perconti, Pietro 2002. Context-dependence in human and animal communication. *Foundations of Science* 7(3): 341–362.
- Posner, Roland 2000. Semiotic pollution: Deliberations towards an ecology of signs. Sign Systems Studies 28: 290–308.
- Randviir, Anti 2000. Loodus ja tekst: tähenduslikkuse tekitamine. In: Maran, Timo; Tüür, Kadri (ed), *Tekst ja loodus*. Tartu: Eesti Kirjanduse Selts, 135– 147.
- Richards, Ivor Armstrong 1938. *The Principles of Literary Criticism*. London: Kegan Paul, Trench, Trubner & Co.
- Sebeok, Thomas A. 1972a. Animal communication. In: Sebeok, Thomas A., *Perspectives in Zoosemiotics*. (Janua Linguarum, Series Minor 122.) The Hague, Paris: Mouton, 63–83.
- 1972b. Coding in the evolution of signalling behavior. In: Sebeok, Thomas A., *Perspectives in Zoosemiotics*. (Janua Linguarum, Series Minor 122.) The Hague, Paris: Mouton, 7–33.
- 1972c. Semiotics and Ethology. In: Sebeok, Thomas A., *Perspectives in Zoo-semiotics*. (Janua Linguarum, Series Minor 122.) The Hague, Paris: Mouton, 122–161.
- 1988. In what sense is language a "primary modeling system?" In: Broms, Henri; Kaufmann, Rebecca (eds.). Semiotics of Culture. Proceedings of the 25th Symposium of the Tartu–Moscow School of Semiotics, Imatra, Finland, 27th-29th July, 1987. Helsinki: Arator Inc, 67–80.
- 1990. "Talking" with animals: Zoosemiotics explained. In: Sebeok, Thomas A., *Essays in Zoosemiotics* (Monograph Series of the TSC 5.) Toronto: Toronto Semiotic Circle; Victoria College in the University of Toronto, 105– 113.
- Smith, W. John 1965. Message, meaning and context in ethology. American Naturalist 99(908): 405–409.

- Stables, Andrew 1997. The landscape and the "death of the author". *Canadian Journal of Environmental Education* 2(1): 104–113.
- Sonesson, Göran 2000. Bridging nature and culture in cultural semiotics. In: Gimate Welsh, Adrián (ed.), Ensayos Semióticos, Dominios, modelos y miradas desde el cruce de la naturaleza y la cultura. Proceedings of the 6th International Congress of the IASS, Guadalajara, Mexico, July 13 to 19. México: Pourrua, 1005–1016.
- Sõukand, Renata 2005. Loodus eesti rahvameditsiinis. In: Maran, Timo; Tüür, Kadri (eds.), *Eesti looduskultuur*. Tartu: Eesti Kultuuriloo ja Folkloristika Keskus, Eesti Kirjandusmuuseum, 54–79.
- Tembrock, Günter 1971. Biokommunikation. Informationsübertragung im Biologischen Bereich 1, 2. Berlin: Akademie-Verlag; Oxford: Pergamon Press; Braunschweig: Vieweg+Sohn.
- 1997. Ökosemiose. In: Posner, Roland; Robering, Klaus; Sebeok, Thomas A. (eds.), Semiotik. Ein Handbuch zu den zeichenteoritischen Grundlagen von Natur und Kultur / Semiotics. A Handbook on the Sign-Theoretic Foundations of Nature and Culture, 1. Berlin, New York: Walter de Gruyter, 571–590.
- Tüür, Kadri; Maran, Timo 2005. Eesti looduskirjanduse lugu. In: Maran, Timo; Tüür, Kadri (eds.), *Eesti looduskultuur*. Tartu: Eesti Kultuuriloo ja Folkloristika Keskus, Eesti Kirjandusmuuseum, 237–270.
- Vladimirova, Elina; Mozgovoy, John 2003. Sign field theory and tracking techniques used in studies of small carnivorous mammals. *Evolution and Cognition* 9(1): 1–17.
- Yampolsky, Mikhail B. 1989 = М.Б. Ямпольский. Зоофизиогномика в системе культуры. Sign Systems Studies (Труды по знаковым системам) 23: 63–79.

К проблеме синтеза методологии экосемиотики: понятие текста природы

Цель статьи — разработка экосемиотики в плане практического метода анализа. Для этого сначала рассматривается связь значения и контекста как имманентно содержащаяся в семиотике возможность экосемиотического подхода,. Затем анализируются разные перспективы в экосемиотике с помощью описания биологической и культурной экосемиотики и критического перечитывания трудов Винфрида Нёта и Калеви Кулля. Автор подчеркивает необходимость комбинирования этих экосемиотических подходов таким образом, чтобы возникающий синтез как учитывал семиотичность самой природы, так и умел анализировать изображение природы в написанных текстах. Для этого создается модель текста природы, которая объединяет написанный текст и природное окружение, связанные между собой механизмом означивания. Для поддержки концепции текста природы приводятся описания текста семиотиками Тартуско-Московской школы, которые достаточно широки, чтобы охватить семиотическую активность и созидание среды не только человека, но и других живых существ. В конце статьи концепция текста природы используется для определения понятия «литературы, описывающей природу» в качестве признания человеком чуждой ему семиотической сферы и для объяснения маргинальности литературы о природе, обосновывая это необходимостью интерпретации двух разных типов текстов.

Ökosemiootika metodoloogia sünteesi poole: loodusteksti mõiste

Artikli eesmärgiks on ökosemiootika edendamine praktilise analüüsimeetodi suunas. Selleks tutvustatakse esmalt tähenduse ja konteksti seost kui semiootikas immanentselt sisalduvat võimalust ökoloogiliseks vaateks. Seejärel analüüsitakse erinevaid perspektiive ökosemiootikas, kirjeldades bioloogilist ja kultuurilist ökosemiootikat ning lugedes kriitiliselt W. Nöthi ja K. Kulli käsitlusi. Autor rõhutab vajadust kombineerida neid ökosemiootilisi lähenemisi viisil, et tekkiv süntees arvestaks ühtaegu nii looduse enda semiootilisust kui suudaks ka analüüsida looduse kujutamist kirjutatud tekstides. Selle eesmärgi täitmiseks tutvustatakse loodusteksti mudelit, mis ühendab kahte tähendusseoste läbi seotud osapoolt --kirjutatud teksti ja looduskeskkonda. Loodusteksti kontseptsiooni toetuseks tutvustatakse Tartu-Moskva koolkonna semiootikute tekstikäsitlusi, mis on piisavalt avarad hõlmamaks peale inimeste ka teiste elusolendite semiootilist aktiivsust ja keskkonnaloomet. Artikli lõpus kasutatakse loodusteksti kontseptsiooni, et määratleda looduskirjandust kui inimese jaoks võõrsemiootilise sfääri tunnustust ning selgitada looduskirjanduse marginaalsust, põhjendades seda kahe eri tekstitüübi interpretatsioonivajadusega.