

Two decades of ecosemiotics in Tartu

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This paper aims to provide an overview of ecosemiotics (or semiotic ecology) particularly as developed at the University of Tartu (Estonia) and adjacent academic communities. The first ecosemiotic publications were issued in Tartu in 1998 and thus the history of the field now reaches back two decades. The rationale of the paper is twofold: to preserve the record of the activities of Tartu's ecosemiotics and to publicize the paradigm in the context of contemporary environmental humanities. Its emergence and development being closely bound to the scholars in Tartu, ecosemiotics is now a well-established theory of its own. In the following I present the main events, where the University of Tartu was involved, which facilitated this theoretical development.

Ecosemiotics studies semiotic or sign-mediated aspects of ecology (including relations between human culture and the environment).² It has been defined as “the study of sign processes which relate organisms to their natural environment” (Nöth 2001: 71) or as the semiotic discipline investigating “human relationships to nature which have a semiotic (sign-mediated) basis” (Kull 1998: 351). This means that ecosemiotics is one of the semiotic theories that extends the scope of a central concept of semiotics – the sign (understood as a mediated relation) – from human culture to other species and, particularly, to ecological systems. More recently, we have specified ecosemiotics to be “a branch of semiotics that studies sign processes as responsible for ecological phenomena” (Maran, Kull 2014: 41). The concern of ecosemiotics may be considered to lie with the semiotic processes that relate to or address the broader context of living biological processes (Maran 2017a: 5).

The beginning of ecosemiotics in Tartu can be marked by two influential papers published in the journal *Sign Systems Studies* issued by the University of Tartu Press: “Ecosemiotics” (Nöth 1998) and “Semiotic ecology: Different natures in the semiosphere” (Kull 1998) (for a detailed overview of the history of ecosemiotic events and activities in Tartu, see Table 1). Collaboration between Kalevi Kull

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² For the overview of the history of the concept, see Maran, Kull 2015.

and Winfried Nöth led to the organization of the first international meeting on ecosemiotics in 2000, that took place in the International Semiotics Institute with several Estonian scholars participating (Nöth, Kull 2000a, 2000b), and a special issue of *Sign Systems Studies* given out jointly with Kassel University Press (Nöth, Kull 2001). In 2001 the series of Ecosemiotic Summer Seminars started. Since then, this series, organized mostly by and for the students of the University of Tartu, both in English and in Estonian, has annually taken place in various locations in Estonia (see Table 2). In 2002, these initiating events were followed by introducing ecosemiotic courses into the curricula of several degrees offered by the University of Tartu's Department of Semiotics, and by successfully applying for research grants to support research projects on ecosemiotics. The main initiator of these and many other ecosemiotic activities in Tartu has been Kalevi Kull, professor of biosemiotics. More recently, special issues of the journals *Sign Systems Studies* and *Biosemiotics* as well as edited collections on ecosemiotic topics have been published by the University of Tartu Press, the Estonian Literary Museum, and internationally by Springer and Rodopi. The fact that in the last decade five doctoral dissertations connected to ecosemiotics have been defended at the Department of Semiotics, University of Tartu testifies to the maturation of the paradigm. Also, in 2013, the first international research project on an ecosemiotic subject matter, "Animals in changing environments: Cultural mediation and semiotic analysis" was launched in collaboration between the University of Tartu and the University of Stavanger, Norway.

Ecosemiotics can be seen as a place-specific paradigm connected to the academic atmosphere and *genius loci* of Tartu. It has multiple roots and precursors that have been combined and elaborated in Tartu into distinctive conceptual syntheses. The broader theoretical bases on which ecosemiotics relies is the combination of Jakob von Uexküll's *umwelt* theory (Uexküll 2010) and Juri Lotman's semiotics of culture (Lotman 1990). Some other direct influences include the environmental semiotics of the German tradition (works of Winfried Nöth, Martin Krampen, Ronald Posner), Norwegian environmental philosophy (most notably Arne Næss, who visited Tartu in 1998³), the Russian/Soviet community ecology (Viktor Masing, Alexander Levich – on this, see Kull 2016a) and biosemiotic studies in general (especially works of Jesper Hoffmeyer, Wendy Wheeler, Andreas Weber, Almo Farina). More recently, traces of French science and technology studies (Bruno Latour, see Maran 2015) are evident, as well as topics common with phenomenology (Magnus, Kull 2012; Tønnessen

³ This connection is well exemplified by the Tartu interpretation of Næss' deep ecology platform – see Kull 2011.

2011), aesthetics (Kull 2016b), translation studies (Kull, Torop 2003) and cultural geography (Lindström *et al.* 2011) can be noticed. These influences suggest that Tartu-originating ecosemiotics belongs to the continental tradition. Ecosemiotics is more analytical and theory-related than many critically oriented (especially Anglo-American) schools of environmental humanities.

Describing the history and the development of this vivid academic paradigm is a challenge, as it might easily become the author's attempt to display its heritage or to shape its future. What can be safely achieved, however, is presenting the paradigm through some of the concepts proposed by scholars active in Tartu's ecosemiotics. As in semiotics in general, well-organized systems of concepts can be seen as a main methodological tool to approach specific research objects. A few of such ecosemiotic concepts are: distinction of 0/1/2/3 natures (Kalevi Kull), umwelt transition (Morten Tønnessen), biotranslation (Kalevi Kull, Peeter Torop), nature-text (Timo Maran, Kadri Tüür), herbal landscape (Renata Sõukand), consortium (Kalevi Kull), ecological code (Kalevi Kull, Timo Maran), environmental meta-sign (Jamie L. Kruis, Timo Maran), semiocide (Ivar Puura) – for definitions and sources, see Table 3. What appears to be specific about these concepts is that they all describe distinctions, similarities, intermediate stages, contentions or entanglements of nature-cultures. Further, all these concepts are dynamical and processual.

Employing these concepts, the theoretical core of Tartu-originating ecosemiotics appears to be the analysis of both semiotic bonds in ecosystems and sign-based representations of nature in human culture(s) within the same disciplinary framework. Semiotic processes in nature and culture are seen as interconnected, while at the same time the difference in the level of complexity between cultural symbolic and pre-linguistic sign processes is acknowledged. In this framework, both human and non-human living beings are viewed as active subjects, each perceiving and acting through their own species-specific umwelts (Magnus, Kull 2012). The main focus of such analysis appears to be located in sign-based influences, that is, effects and transmissions between different complexity levels in nature-cultures. These connections are often revealed in specific case studies concerning, e.g., urban vegetation (Magnus, Remm 2018), zoological gardens (Mäekivi 2017, 2018), novel species (Maran 2015).

Tartu's ecosemiotics has been a relatively loosely organized network of institutions and people. The Department of Semiotics at the University of Tartu has been acting as a central hub of research and publishing, while the Estonian Naturalists' Society, with its branch, the Jakob von Uexküll Centre, has been playing an important role in organizing public seminars. There has also been cooperation with other institutions, such as the Estonian Literary Museum; the

Centre for Landscape and Culture, and the Centre for Environmental History at Tallinn University; the University of Stavanger (Norway); and the International Semiotics Institute (Imatra, Kaunas). Notably, the involvement and activities of students (e.g. Riste Keskpaiik, Kaie Kotov, Nelly Mäekivi) has been influential in shaping Tartu's ecosemiotics. Over the years, several former students (e.g. Renata Sõukand, Morten Tønnessen, Riin Magnus, Kadri Tüür, Kati Lindström) have become established researchers who continue to carry on and elaborate the ecosemiotic tradition.

Due to its strong scholarly tradition, robust methodological apparatus and systemic approach to nature-culture, ecosemiotics has a good potential to be a part of and to contribute to the building of the contemporary environmental humanities⁴.

Table 1. Events and activities in Tartu's ecosemiotics

1998	<ul style="list-style-type: none"> - Papers "Ecosemiotics" (Winfried Nöth) and "Semiotic ecology: Different natures in the semiosphere" (Kalevi Kull) published in <i>Sign Systems Studies</i> (vol. 28). - Workshop "Uses of Nature: Towards an Anthropology of the Environment" (Tartu, 10–14 May 1998; Tim Ingold visits Tartu). - Arne Næss visits Tartu (8–10 October 1998).
1999	<ul style="list-style-type: none"> - Seminar "Kultuur ja loodus" [Culture and Nature] (Palmse, 7–8 August 1999; Sigmund Kvaløy Setreng takes part in the event).
2000	<ul style="list-style-type: none"> - Edited collection <i>Tekst ja loodus</i> [Text and Nature] (Maran, Timo; Tüür, Kadri, eds.; Eesti Kirjanduse Selts 2000).
2001	<ul style="list-style-type: none"> - First Ecosemiotics Summer Seminar "Eesti loodus mõt(t)e viisid" ["Modes of Estonian Nature Thought"] (Lõetsa, Muhu, 29 June – 1 July 2001; the series has been organized annually ever since, see Table 2). - A special issue of <i>Sign Systems Studies</i> on semiotics of nature (vol. 29.1 Nöth, Winfried; Kull, Kalevi, eds.).
2002	<ul style="list-style-type: none"> - First research grant on ecosemiotics awarded by the Estonian Science Foundation "The outlines of the ecological dimension of semiotics and the analysis of Estonian examples" (2002–2005; Principal Investigator Kalevi Kull, Department of Semiotics, University of Tartu). - The course "Ecosemiotics" is taught at the Department of Semiotics, University of Tartu, for the first time (the course has been a part of the BA curriculum of Semiotics and Culture Studies up to today).

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2003	- Monthly seminar series “Personal Natures” [Isiklikud loodused] at the Estonian Naturalists’ Society (Tartu).
2004	- Conference “Culture, Nature, Semiotics: Locations IV” (Tartu-Tallinn, 23–26 August 2004 organized jointly by the Department of Semiotics at the University of Tartu, the Estonian Literary Museum, and the Estonian Academy of Arts). - “The Tartu ecosemiotic principles of deep ecology” inspired by works of Arne Naess formulated by Kalevi Kull, Riste Keskspaik, Kaie Kotov (see Kull 2011).
2005	- Edited volume <i>Eesti looduskultuur [Estonian Nature-Culture]</i> (Maran, Timo; Tüür, Kadri, eds.; Estonian Literary Museum 2005).
2008	- Seminar “What’s Wrong with Nature? An Interdisciplinary Seminar Investigating Human Perceptions of Nature and Environmental Change” (Tartu, 25–26 January 2008).
2009	- Workshop “The Semiotics/Phenomenology of Perception” (Tartu, 6–7 February 2009, David Abram participates in the event). - Conference “Spatiality, Memory and Visualization of Culture/Nature Relationships: Theoretical Aspects” (Tallinn, 22–24 November 2009, organized by the Centre of Excellence in Cultural Theory, CECT, where Department of Semiotics, University of Tartu is a project partner). - The course “Landscape Semiotics” taught at the Department of Semiotics for the first time (was part of the MA curriculum in Semiotics, University of Tartu up to 2016). - The course “Ecosemiotics: Cultural Interpretations of Nature” taught at the Department of Semiotics for the first time (the course has been a part of the MA curriculum of Semiotics and Culture Studies up to today).
2010	- The special issue of <i>Biosemiotics</i> “Semiotics of Perception” (vol. 3; Tønnessen, Morten; Lindström, Kati, eds.). - PhD thesis related to ecosemiotics <i>Herbal Landscape</i> (Renata Sõukand) defended at the Department of Semiotics, University of Tartu.
2011	- Edited collection <i>The Space of Culture – The Place of Nature in Estonia and Beyond</i> (Peil, Tiina, ed.; University of Tartu Press 2011) - PhD theses related to ecosemiotics defended at the Department of Semiotics, University of Tartu: <i>Delineating Landscape Semiotics. Towards the Semiotic Study of Landscape Processes</i> (Kati Lindström) and <i>Umwelt Transition and Uexküllian Phenomenology: An Ecosemiotic Analysis of Norwegian Wolf Management</i> (Morten Tønnessen).
2013	- Research grant “Animals in changing environments: Cultural mediation and semiotic analysis” (2013–2016, Principal Investigator Timo Maran, Department of Semiotics, University of Tartu, in collaboration with Morten Tønnessen, University of Stavanger, Norway). - Seminar “Methodology of Ecosemiotics” (Tartu, 28–29 November 2013).
2014	- Edited volume <i>The Semiotics of Animal Representations</i> (Tønnessen, Morten; Tüür, Kadri, eds.; Rodopi 2014). - Conference “Framing Nature: Signs, Stories, and Ecologies of Meaning” (Tartu, 29 April–3 May 2014, in cooperation between the Department of Semiotics, University of Tartu, the Nordic Network for Interdisciplinary Environmental Studies (NIES) and the European Association for the Study of Literature, Culture and Environment (EASLCE)).

2015	<ul style="list-style-type: none"> - Seminar “Communication in Nature Protection and Zoological Gardens” [Kommunikatsioon looduskaitstes ja loomaaias] (Tallinn, 20–21 October 2015, in cooperation between the Department of Semiotics, University of Tartu, and the Tallinn Zoological Gardens). - The course “Semiotic Analysis of Environment” taught at the Department of Semiotics, University of Tartu, for the first time (has been a part of MA curriculum in Semiotics up to today).
2016	- Special issue of <i>Sign Systems Studies, Framing Nature and Culture</i> (vol. 44.1/2; Linask, Lauri; Magnus, Riin, eds.).
2017	<ul style="list-style-type: none"> - “Seminar on Nature-Cultures: Protected Areas” [Looduskultuuri seminar: kaitsealad] (Tallinn, 23–24 March 2017, in collaboration between the Department of Semiotics at the University of Tartu and the Tallinn Zoological Gardens). - PhD thesis related to ecosemiotics <i>Semiotics of Nature Representations: On the Example of Nature Writing</i> (Kadri Tüür). - Research project “Semiotics of Multispecies Environments: Agencies, Meaning Making and Communication Conflicts” launched (2017–2020; allocated by the Estonian Research Agency, Principal Investigator Timo Maran). - Seminar “Multispecies City: Diversity, Communication, Conflicts” (Tartu, 1–2 December 2017)
2018	<ul style="list-style-type: none"> - “Seminar on Nature-Cultures: Messages of Nature Protection” [Looduskultuuri seminar: Loodushoiu sõnumid] (Tallinn, 22–23 March 2018, in collaboration between the Department of Semiotics, University of Tartu, and the Tallinn Zoological Gardens). - Conference “Semiotics of Hybrid Natures: Anthropogenic Ecosystems, Multimodalities, Transformed Umwelts” (Tartu, 8–10 November 2018). - PhD thesis related to ecosemiotics <i>The Zoological Garden as a Hybrid Environment – A (Zoo)Semiotic Analysis</i> (Nelly Mäekivi).

Table 2. Ecosemiotic Summer Seminars [Ökosemiootika suveseminarid] (titles given as they appear in the seminar programmes)

2001	First Ecosemiotic Summer Seminar “Eesti loodus mõt(t)e viisid” [Modes of Estonian Nature Thought] (29 June–1 July 2001, Lõetsa, Muhu)
2002	Ecosemiotic Summer Seminar “Isiklikud loodused” [Personal Natures] (23–25 August 2002, Koguva, Muhu)
2003	Ecosemiotic Summer Seminar “Loomu tuhnimine” [Digging into One’s Nature] (4–6 July 2003, Kütioru)
2004	IV Ecosemiotic Summer Seminar (6–8 August 2004, Puhtu)
2005	Ecosemiotic Summer Seminar “Keskkonnaeetika – mis loom see on?” [Environmental Ethics – What Beast is That?] (15–17 July 2005, Mõndavere)
2006	Seminar “Keskkonnaeetika ja loodusfilosoofia” [Environmental Ethics and Nature Philosophy] (13–14 July 2006, Emajõe Suursoo Keskus)
2007	Ecosemiotic Summer Seminar “Pahupidi loodus” [Nature Reversed] (17–19 August 2007, Kohtla-Nõmme)
2008	Ecosemiotic Summer Seminar (3–5 August 2008, Esna)

2009	Ecosemiotic Summer Seminar (31 July –2 August 2009, Soomaa)
2010	Ecosemiotic Summer Seminar (10–11 July 2010, Nüpli)
2011	Ecosemiotic Summer Seminar (28–29 July 2011, Rutja)
2012	Ecosemiotic Summer Seminar “Mõtte kohad ja mõttekohad” [Places of Thought and Places to Think] (3–4 August 2012, Ähijärve)
2013	Ecosemiotic Summer Seminar “Mõnused elulaadid” [Good Ways of Living] (7–8 July 2013, Mustakurmu)
2014	Ecosemiotic Summer Seminar “Üksik ja üldine loodumõttes” [The Particular and the General in Nature Thought] (1–3 August 2014, Jõesuu, Hiiumaa)
2015	Ecosemiotic Summer Seminar “Semiotics of Anticipation” [Ootuse semiootika] (6–8 July 2015, Paali-Tõnise, Lihula)
2016	Ecosemiotic Summer Seminar “Ecological Impoverishment as a Collapse of Sense” [Ökoloogiline vaesumine kui tähendus- ja tunnetuskollaps] (9–11 July 2016, Tamse, Muhu)
2018	Ecosemiotic Summer Seminar “Normid ja tervis” [Norms and Health] (17–19 August 2018, Pusi)

Table 3. Concepts of Tartu ecosemiotics

<i>Concept</i>	<i>Definition</i>	<i>Source</i>
0/1/2/3 nature	“Zero nature is nature itself (e.g., absolute wilderness). First nature is the nature as we see, identify, describe and interpret it. Second nature is the nature which we have materially interpreted, this is materially translated nature, i.e. a changed nature, a produced nature. Third nature is a virtual nature, as it exists in art and science.”	Kull 1998: 355
umwelt transition	“An Umwelt transition can be defined as a lasting, systematic change, within the life cycle of a being, considered from an ontogenetic (individual), phylogenetic (population-, species-) or cultural perspective, from one typical appearance of its Umwelt to another.”	Tønnessen 2010: 383
biotranslation	“[...] some signs in one Umwelt are put into a correspondence with some signs in another Umwelt.” “For it to be possible for translation to occur, there must be a certain connection, or overlapping, between the Umwelten.”	Kull, Torop 2003: 318
nature-text	“[...] nature-text can be understood as a set of physically justified meaning connections between text written in a conventional language and the natural environment.” “[...] the nature-text model asks what kind of literary devices are there to convey what kind of human-environment relation (message) in the context of what kind of environment.”	Maran 2007: 281 Maran, Tüür 2016: 290

herbal landscape	“A cognitive field associated with plants used to treat or prevent diseases, established within specific cultural and climatic zones either personal or shared within a certain group of people.”	Sõukand 2010: 27
consortium	“Consortium can therefore be defined as <i>a group of organisms connected via (sign) relations.</i> ”	Kull 2010: 351
ecological code	“[...] the sets of (sign) relations (regular irreducible correspondences) characteristic of an entire ecosystem, including the interspecies relations in particular.” “[...] meaning structures in nature that surpass the limits of one species and thereby organise species relations in ecosystems.”	Kull 2010: 354 Maran 2017a: 128
environmental meta-signs	“[...] signs that operate on a more general level, influencing the interpretation space of any singular environmental sign in the sign field.” “[...] meta-sign is based on repetition of a significant change in the environment, which has been dealt with in landscape studies in terms of rhythms or seasonality.”	Maran 2017b: 364 Kruis 2017: 250
semicide	“I understand semicide to be a situation in which signs and stories that are significant for someone are destroyed because of someone else’s malevolence or carelessness, thereby stealing a part of the former’s identity.”	Puura 2013 (2002): 152

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