

Conference

**Contemporary Umwelt Analysis: Applications for
Culture and Ecological Relations**

18.-19. April, 2023

Estonian Naturalists' Society's building, Struve 2, Tartu, Estonia

ABSTRACTS

Organised by the Department of Semiotics, University of Tartu

Funded by the European Union (Horizon Europe project 101084220: “Coevolutionary approach to unlock the transformative potential of nature-based solutions for more inclusive and resilient communities”) and by the Estonian Research Council (project PRG1504: “Meanings of endangered species in culture: ecology, semiotic modelling and reception”)



CONFERENCE PROGRAM

18.04

8.30-9 registration + coffee

9-10.30 Animal cognition, minimal umwelten

Siiri Tarrikas *Attentional Processes in the Umwelten of Animals*

Silver Rattasepp *The Ontological Primacy of Umwelt*

Oscar Castro *From Umwelten and Affordances to Ecosemiotic Cognition: Building Bridges of Meaning*

J. Augustus Bacigalupi *Beyond Reflex: Radical Creativity in the Novel Circles Populating Animal Umwelten*

10.30-11.00 coffee

11.00-12.00 plenary talk. Kalevi Kull *Um: Umwelt, Umweb, and Eco-Existential Semiotics*

12.00-13.00 lunch

13.00-14.30 Human-alloanimal interactions

Oleksii Popovych *Holding Through Together: Towards a Zoosemiotic and Actor-Network Understanding of Interspecific Sociality in Wartime Zoos*

Tatiana Kluvánková, Martin Špaček, Jiří Louda, Stanislava Brnkaláková, Julius Janáček, Tomáš Szabo, Dominik Horváth, Jan Macháč *Behavioural Approach to Understanding Human and Non-human Interactions*

Mikko Jokinen, Matti Salo *From an Admired Species to the Rat of the Skies: Changing Meanings of the Barnacle Goose and its Conservation Measurements*

Pauline Delahaye *Hybrid Semiosphere: Interspecies Cohabitation in the Urban Environment*

14.30-14.45 coffee

14.45-16.15 Umwelt in the study of culture texts

Ene-Reet Soovik *'Umwelt' and 'omailm': Charting the Range of a Travelling Concept*

Alex Beatty *The Stone of Werder: Umwelt Analysis and Romantic Literary Theory in Jakob von Uexküll's Late Novella*

Sara Bédard-Goulet *Contribution of Contemporary Literature to Umwelt Analysis*

Candace Goodrich *Bioinvasion in Cho Dharman's Koogai - The Owl: An Ecosemiotic, Literary Analysis of the Noxious Colonizers Prosopis juliflora and Acacia mellifera in Tamil Nadu, India*

16.15-16.45 coffee

16.45-17.45 plenary talk. Martín Ávila *Alter-Natives and Other Others*

19 joint dinner

19.04

8.30-9 coffee

9-10.30 Umwelt and nature protection

Matthew Chrulew *From Umwelt Theory to Animal Cosmology*

Nelly Mäekivi, Riin Magnus *Umwelt Analysis for Species Reintroduction*

Juha Hiedanpää *Umwelts in Institutional Design: The Case of Protecting the Teno Atlantic Salmon, Northern Finland*

Timo Maran *Umwelt Collapse: Loss of Umwelt-Ecosystem Integration*

10.30-11.00 coffee

11.00-12.00 plenary talk. Morten Tønnessen *A Comprehensive Framework for Studies of Changing Umwelten*

12.00-13.00 lunch

13.00-14.30 The plurality of umwelten

Carlo Brentari *Reasoning by Marginal Analogy: The Alleged Poverty of Animal Experience*

Andrew Mark Creighton *Umwelt Theory and Critiquing Human Emotions*

Irmak Ugur Mertens *Co-habitation with Free-Ranging Domesticates: An Ecosemiotic Analysis of the Relations between Stray animals and Humans in Istanbul*

Kadri Tüür *Umwelt Collision: When Bear and Human Meet*

14.30-14.45 break

14.45-15.45 plenary talk. Carsten Herrmann-Pillath *The Ecosemiotic Design of Nature-Based Solutions*

15.45-16.15 coffee

16.15-17.25 Ramifications of Umwelt theory

Ott Puumeister *Dance without Organs: Memoria, Time-Image and Ecological Politics*

Thorolf van Walsum *The Imagined and the Magical: The Semiotics of Uexküll in Lacan*

Alec Kozicki *Umwelt in an Umwelt: Utilizing Semiotic Components for the Co-development of
an Inhabitant and Their Techno-Living Space*

17.25-17.35 Closing of the conference. Timo Maran

Alter-Natives and Other Others

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Design partakes in the enaction of worlds. Designed artefacts trigger responses from those that encounter them, whether those that meet these are human or not. Yet designing has been not only done by humans but mostly for humans. Through this predominantly anthropocentric devising, the semiotic channels acknowledged continue to be mostly for human beings. Striving to care for the places that we inhabit, the activity of devising (as a material and life-affirming pursuit) must support human cohabitation while scaffolding and supporting the life of other-than-human beings. Ecosemiotic approaches have the potential to cultivate new sensitivities to create new adaptive capabilities if incorporated into the practice of design. The notion of *umwelt*, through its defining of beings as capable of perceiving limited semiotic phenomena, helps us frame certain tensions and conflicts of cross-species sense making and interests. In this presentation, I will attend to some of the eco-political implications of designed artefacts through the notion of *alter-natives*; a concept that exposes the alterity of artificial things and the potential of these things to participate in the sustainment of environments. The notion of alter-natives indicates the alterity of a thing, its own foreignness to environments by being artificial, fabricated by humans. It demands thinking of how some-thing alters the relations to those that live in an environment, how it makes them different in some way. It suggests the possibility that these ‘others’ (alterity) may enter a process of ‘nativization’, if they are designed within the ecological and biological constraints of the particular places where they will be used. This engages us in a poetics of relating, a semiotic practice of interrelating humans, artificial things and other-than-human species; a design practice that can make us more explicitly dependable on life and communication across species, a designing for interdependence.

Bionote. Martín Ávila is a designer, researcher, and Professor of Design at Konstfack, the University of Arts, Crafts and Design in Stockholm, Sweden. Martín’s research is design-driven and addresses forms of interspecies cohabitation. His latest book is [*Designing for Interdependence: A Poetics of Relating*](#). See also www.martinavila.com

Beyond Reflex: Radical Creativity in the Novel Circles Populating Animal Umwelten

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In the literature there is some ambiguity as to whether or not the behaviors of simple organisms, such as single-celled organisms, are merely reflexes or instincts. Either of these realities implicitly assume that organismal reactions are built-in to their biological plan *a priori*. To assume this, however, is to beg an infinite regress, because the question remains: from whence and where have these adaptive behaviors been built-in? This presentation will not argue that there are no reflexes, instincts or other inherited mechanism of adaptive behavior. But neither will this presentation assume these as etiological givens or even the result of neo-Darwinian mechanisms: external selection and internal random mutation. On the contrary, this talk will illustrate how it is possible for what may become such built-in actions to have been acquired by simple organisms, based on their creative and intrinsic semiotic powers, not merely random mutation. It will then describe how these acquisitions, both over lineages and in individual lifetimes, build umwelten in the simplest of creatures.

In making the case above, this proposal will articulate a rigorous model of *radical creativity* that is the source of the emergent constraints within all semiotic organisms, which are then habituated into interpretants. This will be likened to *new circles* in von Uexküll's *function-circle* (1926: 157) and will suggest that *new circles* are not necessarily pre-given in the organism's biological plan but are born of the intrinsic semiotic potentiality of organisms. The rigorous exploration of this semiotic potentiality is called *virtuality* (see Bacigalupi 2022), and is the intrinsically creative wellspring of *semiogenesis*.

References

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Bionote. J. Augustus Bacigalupi is a Junior Researcher at the University of Tartu, Department of Semiotics. As a PhD candidate supervised by Kalevi Kull, his research in biosemiotics is focused on *semiogenesis*, which explores the unbounded virtual potential of *relevant noise* in the continuous, irreducible and irreversible process of semiosis.

The Stone of Werder: Umwelt Analysis and Romantic Literary Theory in Jakob von Uexküll's Late Novella

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This paper examines the role that umwelt analysis plays in Jakob von Uexküll's novella, *Der Stein von Werder*, as well as the affinities between Uexküll's novella and German Romantic literary theories. Beginning with the influence that Schlegel's notion of "poesy" has on one of the novella's narrators, Louise, who claims that she is able to "see into a strange world, where events unfold as if on the stage of a theater" – a condition that her doctor diagnoses as "poesy" – I go on to analyze the connection between character and fate in Uexküll's narratives, a connection which, as Walter Benjamin observes about baroque drama in *The Origin of German Tragic Drama*, is not causal, but rather signifies an integral relationship between two narrative elements. Secondly, I examine the influence that Schelling's *System of Transcendental Idealism*, with its emphasis on the individual as the site of transcendental meaning-formation, may have had on Uexküll's presentation of umwelt theory within his novella. Finally, I examine the hermeneutic possibilities of the eponymous Stone of Werder's fragmented inscription, "... God is my Salvation, Small is your Gain," which shows the close connection that Uexküll acknowledged between umwelt and textual analysis toward the end of his life. Having translated *Der Stein von Werder* in its entirety, my further aim is to stimulate a broader conversation about how umwelt analysis can enrich current semiotic approaches to translation, both literary and ecological.

Bionote. Alex Beatty is a writer, translator, and researcher living in New York City. His translations include *The Stone of Werder* by Jakob von Uexküll, numerous essays in the field of animal studies, and two letters by Johannes Kepler. His essays have focused on the influence of German Romanticism on posthumanism.

Contribution of Contemporary Literature to Umwelt Analysis

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Rather than showing the effective Umwelt theory's application in and contribution to literary analysis (Mänty 2015), this paper aims to examine how contemporary literature and its study can contribute to developing further Umwelt analysis. It considers the "document effect" (Zenetti 2017) created by a number of contemporary literary productions that engage with documents (archives, photos, data, etc.) and their discourses (e.g. journalistic, scientific) to interrogate them as knowledge devices and question how they condition our apprehension of the world (Barad 2007). By appropriating nonfiction forms for their capacity to generate fiction and thus showing the reversibility of the fictional and the real (Zenetti 2019), some of these literary works refine scientific representations of reality by bridging the gaps in current research. When it comes to Jakob von Uexküll's Umwelt theory (2010), based on "the role of biological heritage in the use and function of signs" (Deely 2001: 126), literature can expand on the species-specific "semiotic process of composing a world" (Rattasepp 2022: 362) by including expressive value to each species' capacities to perceive and act. Thanks to literature's critical stance towards discourses (Citton 2007), literary works avoid the ideological pitfalls specific to science and can consider the creative or narrative or fictional dimension of nonhuman signs, which has been mentioned in the field of aesthetics (Souriau 1965; Prévost 2016) and philosophy (Despret 2020). This paper builds on contemporary understandings of Umwelt theory as well as on the close-text analysis of a contemporary narrative to think the creative abilities of nonhumans in their world-making. Vinciane Despret's *Autobiographie d'un poulpe et autres récits d'anticipation* (2021, untranslated) exemplifies the literary re-appropriation of scientific discourse and shows the legitimate contribution of literature to worlding and its theorization through considering the creative relationship of nonhumans to the world and its objects.

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Bionote. Sara Bédard-Goulet is Visiting Research Fellow in Romance Studies at the University of Tartu and involved in the project *Meanings of endangered species in culture: Ecology, semiotic modelling and reception* (PRG1504). Her research interests in the field of literary studies build on ecocriticism, reader-response theory and psychoanalysis.

Reasoning by Marginal Analogy: The Alleged Poverty of Animal Experience

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In *A Foray into the Worlds of Animals and Humans*, Uexküll challengingly proposes to try and understand the Umwelt of the mechanists, i.e. of those scholars who deny the presence of truly cognitive and semiotic processes in non-human living beings. Taking up this suggestion, my talk will focus first on how a poor and ‘mechanical’ experience can be thought of, and second, which arguments can be used to defend the assumption that such poverty is the standard condition even of complex animals.

In the mechanistic approach, notions such as reflexes, tropisms, stimuli/reaction combinations, and instincts seem to be sufficient to explain the animals’ actions. This view, however, collides with the opposite tendency of many observers to provide at least some animals with higher, meaning-related faculties such as imagination, insight, and deduction. To strengthen their position, many mechanists then resort to a particular argumentative strategy, the *marginal analogy*. By marginal analogy I mean the establishment of an analogy between the animal behavior as a whole and some marginal phenomena of human experience – typically sleepwalking (as in Descartes), or stereotyped reactions to signals (as in Ernst Cassirer and Susanne Langer). This analogy aims to convince the opponents that even apparently complex actions can be carried out without the help of higher cognitive and/or semiotic faculties.

In the concluding remarks, the fact will be stressed that the argument of marginal analogy shows a long life even outside the *strictu sensu* philosophical field. Its critical analysis, therefore, is useful in overcoming the speciesist bias, according to which the experience of animals would be nothing more than an impoverished form of the human one – a bias that is still widely represented not only in today’s cognitive sciences (particularly in robotic-inspired approaches), but also in many environmental political choices.

Bionote. Carlo Brentari is a researcher at the University of Trento (Italy). His key research fields are the German philosophical anthropology of the twentieth century, modern and contemporary philosophy of biology, the Umwelt theory of Jakob von Uexküll, and Nicolai Hartmann’s ontology of nature. Among his recent publications: Ernst Cassirer’s reading of Jakob von Uexküll. In: Michelini F., Köchy C. (eds), *Jakob von Uexküll and Philosophy*. Routledge, 106-121, 2020.

From Umwelten and Affordances to Ecosemiotic Cognition: Building Bridges of Meaning

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The concept of umwelt has yet to be exhaustively related to affordances in cases where organisms do not have a nervous system. This is so because the investigation of perception without representation in living organisms is still scarce. I want to elaborate on the description that I presented in The Biosemiotic Glossary Project of Umwelt as a “[f]ield of multisensory perception of the meaning environment” that can be “with or without representation, with or without nervous systems” (Tønnessen et al. 2016). Given this description, I will present a relationship between antirepresentationalism (Chemero 1999; Steiner 2014; Salis 2019) with ecological psychology, in which it is possible to conceive of affordances without representation, and which entails some of the ‘proto’ and ‘eusemiotic’ foundations of perception without representation that defines the primary Umwelt of brainless organisms, such as slime moulds, fungi and plants. I will present this description of affordances for ecosystems of lower organisms where we can relate them to each other through the enactive, embodied, embedded and extended cognitive nexus. Just as the autonomy of an organism emerges from a primordial tension (Gastelum 2020) between the organism and its environment, I maintain that this tension comes from the unity between the organism and Umwelt, since it is the perceived medium and the one that allows acting that has meaning for the organism. As such, ecological psychology takes up this organism-Umwelt system as a unit of study of cognition as a whole, with or without representation. From this, we deduce that affordances can function as actants concerning perceiving agents. It offers another argument, which reinforces that cognition does not reside inside the organism, but in its interaction with its Umwelten, through its internal world or Innenwelt.

Bionote. Oscar Castro is an associate professor in the Department of Philosophy at the Autonomous University of Barcelona. In addition, he was a Postdoctoral Researcher of Biosemiotics at the Department of Semiotics at the University of Tartu. He is a specialist in basal cognition and minimal semiotics in primitive organisms and plants. He is a member of ISBS.

From Umwelt Theory to Animal Cosmology

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Alongside its enduring centrality for biosemiotics and theoretical biology (Brentari 2015), Uexküll's concept of the Umwelt has had a long and varied history in the humanities (Buchanan 2008; Michelini, Köchy 2020). It has recently been the subject of a renewed and markedly ambivalent reception, both lauded as a vital precursor for the posthumanist recognition of the diversity of nonhuman worlds (Sagan 2010) and criticised as sowing the seeds of a totalising political enclosure (Schnödl, Sprenger 2021). Other promising responses to Uexküll's legacy, meanwhile—such as the third way between ethological objectivity and animal-psychological subjectivity that Adriaan Kortlandt sought to frame, following Heini Hediger, as an 'animal cosmology'—largely petered out into dead ends. By paying attention to a number of domains within the contemporary environmental humanities in which the notion of animal Umwelten has been put to productive use—from multispecies ethnography and extinction studies to philosophical ethology and cosmopolitics—and by identifying some key advances, as well as problems, that accompany the deployment of this concept, this paper will seek to outline what a new animal cosmology might mean in an era characterised by the intensified transformation of human and animal worlds. It is through attention to processes of worlding and deworlding—both the ecological and social unravelling of species loss and the choreographed coordination of varied types of perception and action in hybrid communities—that Umwelt analysis can escape its own 'enclosure' and contribute the construction of new worlds in common.

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Bionote. Matthew Chrulew is a Senior Research Fellow at Curtin University. In 2022 he was Visiting Professor at the Ecole Normale Supérieure. He leads the ARC Discovery Research Project ‘Rethinking Zoo Biology: The Histories, Effects and Futures of Captivity’ conducted with Nigel Rothfels and Nelly Mäekivi, and edits the book series *Animalities* at Edinburgh University Press.

Umwelt Theory and Critiquing Human Emotions

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In this presentation, I will focus on Jakob von Uexküll's umwelt as a method of critical analysis, and I will begin with an overview of the concept as it relates to critiques and critical views within academic literature. This overview will include criticisms of Cartesianism, critiques of researchers and reflexivity, and other animal relations with humans, institutions, and technology. I will then position umwelt theory within the critical framework of sociologists and social critics Stjepan Meštrović and Thorstein Veblen. Through this synthesis of frameworks, I hope to present a more concise way of critiquing and recognizing anthropomorphic emotional interpretations of other animals. Meštrović's and Veblen's works have had little sway within semiotics and alloanimal phenomenology, although their focus on culture and meaning positions them as integrative with these disciplines. Moreover, I will argue that their unique and thorough analysis of modernity/postmodernity (Veblen is argued to be the first scholar to refer to society as 'postmodern') offers further avenues to apply and develop umwelt theory as a critical approach. I will present the beginnings of one such avenue in which the hyperbolic analyses of Veblen on society and alloanimal corporeality, and Meštrović's focus on emotional manipulation, masking, and rationalization are used within the context of other animal umwelts to demonstrate and critique anthropomorphic views of alloanimal-human intersubjectivity. Such anthropomorphic intersubjectivity refers to missed understandings of emotions and feelings, and changes to alloanimal corporeality and environments with the goal of better suiting human emotional interpretations and desires.

Bionote. Andrew Mark Creighton is a PhD student at the University of Tartu, his research interests are in zoosemiotics, social theory, and emotions. His PhD thesis focuses on enchantment and rationalisation within Northern Canada. He is currently part of the editorial board at Hortus Semioticus, a semiotics focused peer-reviewed student journal.

Hybrid Semiosphere: Interspecies Cohabitation in the Urban Environment

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This presentation will focus on the description of the city as a hybrid environment, created by humans and for humans, but which has become the main living place for different and various species. In this sense, this presentation aims to explore the interactions between human and animal umwelten in the area of anthropogenic environmental change. Cities are becoming larger, more numerous and more populated, and more and more human beings live each year in an urban environment. As cities are also becoming, for a large variety of species, a place where to find food, heat or predator-free areas, the problem of interspecies cohabitation is becoming more and more acute.

Cohabitation is a word used to describe a situation where two species are living in the same space without relying on each other, which excludes most complicated situations such as parasitism, symbiosis, predation or exploitation. Therefore, when issues appear in situations of cohabitation between human beings and other species, there is no need for lethal or radical solutions (as it could be in situations of parasitism, for example), and a positive evaluation can lead to more relevant and conservation-based measures.

From a semiotic point of view, the urban context influences what normal and ecological behaviour is (both regarding humans and other animals), how living beings are interpreting the signs in this environment, and how they are interacting with it. As a consequence, this context has a major impact on the way humans and liminal animals are co-constructing their common semiosphere.

This presentation will show how semiotic tools and models can be useful and fruitful both for the diagnosis of these cohabitation issues and for the choice and creation of the best solutions possible to solve these issues.

Bionote. Pauline Delahaye obtained a PhD in language sciences at Sorbonne University, France. She is a specialist in zoosemiotics, especially complex emotions, communication and cognitive abilities. She is the general secretary of the French Society of Zoosemiotics, and an involved science popularizer. She is currently a postdoctoral fellow at the University of Tartu, Estonia.

Bioinvasion in Cho Dharman's *Koogai - The Owl*: An Ecossemiotic, Literary Analysis of the Noxious Colonizers *Prosopis juliflora* and *Acacia mellifera* in Tamil Nadu, India

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Encouraged by Claus Emmeche's call to analyze the "ecossemiotics of bioinvasion [...] as a cultural phenomenon" (Emmeche 2001), this paper will examine the signification of mesquite and blackthorn trees in Cho Dharman's novel *Koogai - The Owl*. First introduced by the British in 1870 to combat desertification and the depletion of fuel and fodder resulting from excessive deforestation, both species are now classified as invasive and have garnered the attention of international and regional legislative bodies to control or eradicate the noxious weed. Accelerated environmental degradation throughout the sub-continent, due to the commodification of timber for the Royal Navy and the expansion of the national railway to connect colonial trade, created a circumstance for the colonizers to flourish, devastating biodiversity, effecting natural evolution patterns and driving many indigenous species to extinction. The conversion of forests for the cultivation of mono-agriculture for export, and to feed the growing population, created civic unrest, particularly among farmers who were often violently coerced to plant crops such as jute, wheat, cotton, indigo, tea, and sugarcane. Left unmanaged, mesquite and blackthorn altered local hydrology by damaging irrigation systems and adversely effecting the water table; depleted soil nutrients and poisoned cattle; and encroached upon grasslands used as grazing commons. The cultural impact on rural communities has been that it has forced pastoralists to abandon animal husbandry and agro-ecology in favor of charcoal production. The ramifications on landscapes and livelihoods is emblematic of Emmeche's concept of Hyperpangaea.

By studying ecological impact reports and legislative measures from Tamil Nadu, where Dharman's novel takes place, alongside botanical research on how native Umwelten are harmed by these alien species, as well as the postcolonial history of the state, Dharman's use of these ecossemiotic signs gains new dimensions and shows readers how ecocasteism and anthropogenic climate change have further oppressed lower caste communities (Sharma 2018).

Bionote. Candace Goodrich is a PhD student at Justus Liebig Universität Gießen, Germany. She is a member of the Literary and Cultural Studies Programme (IPP) and International Graduate Centre for the Study of Culture (GCSC). She is also the speaker of Research Area 9 "Ecology and the Study of Culture."

The research objective of her dissertation, "Reading Ecossemiospheres - A Comparative Analysis of Extractive Fiction and Art" is to identify and decode a diversity of ecossemiotics signs across cultures, using Timo Maran's concept of ecossemiosphere, shaped by Juri Lotman's cultural semiotics and Jakob von Uexküll's Umwelten. Her conjecture is that by studying the biopolitical, postcolonial, and historical circumstances that contribute to environmental degradation, especially in resource-cursed commodity regions and "geographies of sacrifice," disentangling the intersectional violence of environmental racism and ecocasteism embedded in signifiers, may open

a path for decolonizing the asymmetrical global discourse on extractivism as a development model (Kuletz 1998).

The Ecosemiotic Design of Nature-Based Solutions

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NBS are mostly approached as technological fixes of ecological challenges to human societies that engage nature as contributing to human environmental and societal goals. As such, they closely relate to catchwords such as ‘green infrastructure’ or ‘policy instrument’. At the same time, widely recognized standards of NBS design require contributions to sustaining and enhancing biodiversity. Hence, a key question is how NBS design as technology can fulfill this functional requirement. Following the COEVOLVERS’s general understanding of NBS as co-evolutionary technology, the keynote speech suggests the concept and method of ecosemiotic design of NBS. Co-evolution means that in a genuine NBS, the design of the NBS activates evolutionary potential in the ecosystem where it is located and implemented, and that actualized potentials contribute to the sustainable development of the setting of the NBS and its ongoing piecemeal evolutionary change. Given the unpredictability and the possible scope and size of environmental, especially climate challenges in the near future, NBS need to be designed as evolving structures engaging the evolutionary potential of nature. For achieving this goal, ecosemiotic design is indispensable for creating semiotically mediated affordances fostering creativity and behavioural innovation of non-human living beings. Ecosemiotic design can be informed by biological knowledge about species and umwelt characteristics, but this only builds on past data on behaviour and cannot adequately recognize unpredictable non-human creativity. Therefore, ecosemiotic design needs to adopt an arts perspective that activates various forms and media of human empathetic relationships with other non-human beings for creating designs which can reasonably be expected to invite creative responses by non-humans. In this way, NBS design transforms co-evolutionary technology into an inclusive co-creative process engaging humans and non-humans. In other words, ecosemiotic design of NBS is a paradigmatic case of inter-species art. This idea is exemplarily discussed for the case of urban green infrastructure.

Bionote. Carsten Herrmann-Pillath is Professor and Permanent Fellow at the Max Weber Centre for Advanced Cultural and Social Studies, University of Erfurt and a principal researcher at the COEVOLVERS project. Hisatransdisciplinary research covers economic philosophy, evolutionary, ecological and institutional economics, And Chinese studies. In 2023, the summa of his work was published (co-authored with Christian Hederer): ‘A New Principles of Economics. The Science of Markets’ (Routledge). Websites: www.cahepil.net; technosphere.blog.

Umwelts in Institutional Design: The Case of Protecting the Teno Atlantic Salmon, Northern Finland

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Nature protection is about institutional design. This is indeed the case at the transboundary River Teno in the northernmost Fennoscandia, where the stock status of Atlantic Salmon (*Salmo salar*) has plummeted to critical levels. Hence, to protect the c.30 genetically distinct salmon populations in the Teno system, the bilateral total ban on salmon fishing was introduced by Finland and Norway in 2021. The fishing ban will continue also in the summer of 2023, a third successive year. While the ecological effects of the ban on salmon biodiversity are positive, the effects on cultural continuity, economic prospects and social well-being are cumulatively negative. The Teno river runs through the Sámi homeland area and in both countries the Sámi have a constitutional right to exercise their indigenous culture, for example, by fishing salmon. In response to the problematic situation, two locally initiated actions co-benefiting the people and the salmon have emerged. The first one is to allow carefully managed fishing on the native sea trout (*Salmo trutta*) in selected parts of the Teno system with minimum or no by-catch of endangered salmon. This would protect salmon populations (the sea trout prey on juvenile salmon) but also provide the local people and tourists with an opportunity to fish, with positive experiential, cultural, social, and economic effects. To work properly, the action would require the integration of local, traditional, and scientific knowledge about the umwelts of both protected fish species and local fishers into the management scheme. The second one is to remove pink salmon (*Oncorhynchus gorbuscha*), an invasive, alien Pacific salmon species to the Barents Sea with the potential of competing and displacing native salmon and enriching the barren northern river ecosystems, because all pink salmon die after spawning. Pink salmon has a strict two-year life cycle (mostly odd-year populations in the North Atlantic), and the population size increase in the new territory has been dramatic. Before 2017, few tens or hundreds of pink salmon ascended the Teno river in odd years, in 2017 and 2019 the run size was a few thousand, in 2021 some 50 000, and the worst-case scenario for 2023 could probably be half a million pink salmon breeding in the Teno river system. As a remedy, traditional fishers, salmon scientists and wildlife administration have prepared for 2023 by adopting some key traditional Teno salmon fishing methods (seining and drift net), designed and adapted them for effective removal fishing for pink salmon. To work properly the action would require an integration of local, traditional, and scientific knowledge about the umwelts of both native and alien fish species and local fishers into the management scheme. In our presentation, we introduce the problematic policy and management situation, theorize the institutional design challenge from the integrated umwelt perspective, explicate the actual use of local, traditional, scientific umwelt knowings in policy and management design cases, and discuss to what extent these processes witness a quest for concrete reasonableness in the Teno salmon policy and management.

Bionote. Juha Hiedanpää (PhD) is a research professor in natural resources and environmental policy and governance at the Natural Resources Institute Finland (Luke). He writes about

institutional design in the contexts of biodiversity and wildlife. His publications include *Environmental Heresies: The Quest for Reasonable* (with Daniel W. Bromley, Routledge, 2016).

From an Admired Species to the Rat of the Skies: Changing Meanings of the Barnacle Goose and its Conservation Measurements

Mikko Jokinen, Matti Salo
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The barnacle goose (*Branta leucopsis*) is a bird species with a dramatic history and meanings. In the Middle Ages it was commonly believed that this mystical bird is born from a special goose tree. In the early 20th century, the barnacle goose was in peril. High hunting pressure and the transformation of its environment endangered the species, with a mere 30 000–45 000 individuals remaining in the world.

After World War II, the first conservation measures began in Europe, but the goose population grew only slowly until the early 2000s. The expansion then accelerated, and the population multiplied at least 30–fold, today causing severe problems on crop fields and pastures in many European countries, such as Holland, Estonia and Finland.

We have studied how to mitigate and avoid the damage that the barnacle goose causes on farmlands in Eastern Finland. Farmers may meet tens of thousands of geese at one single field, causing serious damage to the crop and consequently the livestock that loses its fodder. In 2021, we launched a series of experiments by establishing goose fields where barnacle geese are allowed to graze while they are driven away from other fields.

We have also studied the meanings that the bird and its conservation measurements are loaded with. Through interviews and surveys with farmers we now know that the bird that once was admired among farmers has become a source of stress, fear and hate, the “rat of the skies”. However, our preliminary research shows that the goose fields can help save the crops and together with the compensations the barnacle goose can be tolerated. Negative meanings have eased off.

The presence of the goose has changed the meaning of fields and farmer as well. If goose fields become business as usual, farmers alter from human food suppliers to goose food suppliers.

Bionotes

Mikko Jokinen (PhD) is a senior scientist at the Natural Resources Institute Finland (Luke). He has studied the reconciliation of nature-based livelihoods in Northern Finland and sociocultural aspects of environmental conflicts.

Matti Salo (PhD) is a senior scientist at the Natural Resources Institute Finland (Luke) and adjunct professor of biodiversity and natural resources governance at the University of Turku. His research develops around human-nature relationships across a variety of natural and human settings.

Behavioural Approach to Understanding Human and Non-Human Interactions

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Unsustainable behaviour, biodiversity loss, climate change or natural resource overuse and degradation represent societal challenges that both human and non-human actors are facing together. A coevolutionary approach (societal change) towards designing and implementing nature-based solutions (NBS) could significantly contribute to societal change, aiming to overcome persistent problems in land use and the negative impacts of economic activities on natural processes.

Role board game (RBG) represents an innovative method for nature resource management, enabling the simulation of real world processes, learning about ecosystem dynamics and potentially changing human behaviour. It brings together various types of agents (human and non-human) in order to stimulate natural resource management from which all actors are benefitting, although they have diverse interests. Through role-playing, agents can empathize with other human or non-human beings.

The method combines the common pool resource experimental design, originally developed by Elinor Ostrom, and is applied to diverse contexts in order to overcome situations of social dilemma, as well as role-playing as a tool for enhancing collaboration and learning within the community to address socio-ecological challenges. The RBG integrating non-human perspectives is under development in a new Horizon Europe project COEVOLVERS, and it is expected that it will be further co-created by 7 project Living Labs communities.

Through RBG design, we plan to coevolve human and non-human actors' specific behaviour for resource use, different social, environmental and economic incentives, community knowledge, and social values. Moreover, the methodology based on RBG could create a space for innovative nature-based approaches towards overcoming barriers to cooperation, economic profit, and innovative societal initiatives, and gaining sensitivity for the semiotic multiplicity of nature. We believe that through game-based learning we can help to understand and navigate purposeful behavioural change for long-term sustainability and community well-being as a target of coevolutionary NBS design.

Bionotes

Tatiana Kluvánková is an ecological institutional economist concentrating on trans-disciplinary collaborations between natural and social sciences under the conditions of complexity and uncertainty.

Martin Špaček has a PhD degree from the Faculty of Management, Comenius University in Bratislava, specializing in the institutional and social innovations in regional development.

Jiří Louda focuses in his research on the concept of ecosystem services and its implementation in practical environmental policy (primarily in the field of urban green and blue infrastructure and forest management). In addition, he has been working on projects in the field of energy for a long time.

Stanislava Brnkalakova has PhD degree from the Institute of Management at Slovak University of Technology in Bratislava, specializing in the adaptive management of mountain ecosystem services, with emphasis on climate change mitigation.

Umwelt in an Umwelt: Utilizing Semiotic Components for the Co-development of an Inhabitant and Their Techno-Living Space

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This presentation examines the co-development of a user interacting within an immersive virtual environment while being in the confinement of a physical environment, such as a living space. The purpose of this research is to emphasize how the four semiotic components of resources, affordances, scaffolding and competence are integral elements for the meaning-making process related to an immersive hyperreality and the physical reality. Regarding the notion of an immersive hyperreality within a living space, this paper argues that various technologies, such as video games, virtual reality, augmented reality, metaverse, and platfospheres that are appropriated into a user's living space can provide the user with an immersive experience, which subsequently alters their direct perception of their physical environment. Additionally, this presentation will explain how Kalevi Kull's four degrees of nature are applicable to the user's umwelt in relation to the immersive virtual environment where meaning is constructed. Paradoxically, identifying the four degrees of nature allows for a distinction between the nature of reality and of hyperreality; this is significant for examining how an individual not only co-develops with their physical environment but also within the experienced immersive virtual environment. In this research, the degrees of nature for reality and hyperreality are broken down as: imaginative, exhibitivite, manipulative, and reproductive nature. The theoretical application of integrating semiotic components and the degrees of nature is significant since it allows creators and users of immersive virtual environments (and Web 3.0 technologies) to have a deeper understanding on how the physical environment is impacted by the meaning-making act within a digital environment.

Bionote. Alec Kozicki, from Marietta, Georgia, is a second-year PhD student in the University of Tartu's semiotics program. The design of techno-living spaces is the main focus of his dissertation, he also researches value relations from the perspective of cultural psychology and the psychological processing of inner speech and meaning-making.

***Um*: Umwelt, Umweb, and Eco-Existential Semiotics**

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This is a brief journey through a century of Baltoscandian ecological thought in its relation to semiotics, which can be seen here as a fundamental tool and theory for understanding the ways of co-existence, and capable of integrating otherwise separate models.

This walk will go through several points.

1. Umwelt. Organisms as semiotic agents have an umwelt. Umwelt, a concept (of Baltic descent) introduced by Jakob von Uexküll, has been commonly defined as the subjective world of an organism. Once an organism can make distinctions, once it uses signs and can choose, there should also appear its umwelt. Umwelt is the world with meanings.
2. Deep ecology. Ecological philosophy (of Norwegian descent) by Peter Zapffe and Arne Naess, as influenced by the umwelt approach, focussed on the inherent or intrinsic value of life. The intrinsic value of life can find its origin in semiotic freedom (a concept of Danish descent) as introduced by Jesper Hoffmeyer.
3. Umweb. On closer inspection, the term umwelt includes at least two different concepts – momentary umwelt (the umwelt proper) and distributed umwelt (for which we use the term umweb). Umwelt is the meaningful world of an organism that exists now, at the present, atemporally (synchronically) in subjective time. Umweb is the web of meaning relations over the course of time. Umweb is the whole set of sign relations that organisms have throughout their lives. Umweb is the whole complex of habit-based ecological relations.
4. Existential semiotics. The existential aspect of living beings, their thrownness in the world, as having to make choices, is what turns attention to existential semiotics (a concept of Finnish descent) by Eero Tarasti, which can be generalised into eco-existential semiotics.
5. The semiotics of landscape (a concept of Estonian descent) by Kati Lindström is another way of organizing the knowledge of *um*, or coexistence.

Bionote. Kalevi Kull is a biologist and semiotician, who has worked in field ecology and theoretical biology, primarily interested in understanding the processes of meaning making in living systems. For the last 30 years he has been a member of the international research group of biosemiotics.

Umwelt Collapse: The Loss of Umwelt-Ecosystem Integration

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The current global ecological crisis influences practically every species on Earth. The effects range from the direct elimination and diminishing of habitats to mediated impacts through climate warming and changes in ecosystems and food webs. This presentation aims to analyze these processes from the perspective of Jakob von Uexküll's umwelt theory by focusing on the lived experiences of animals. I seek to answer the following questions: 1) how do ecological crises manifest in the changing relations between animal umwelts and ecosystems; 2) what mechanisms take part in umwelt collapse, and are there different types of this; 3) what are the gains of interpreting ecological crises and extinction from an umwelt perspective? The umwelt can be seen as the sum of structural correspondences between an animal's subjective experience, the given environment (affordances), its physiology (body), and behavior. In the ecological crisis, these connections become unreliable. This may lead to umwelt collapse, the disintegration of an animal's umwelt structure due to systemic errors in semiotic processes that mediate an animal and an ecosystem. Umwelt collapse can probably occur in many ways (conflicts between different functional cycles, the use of environmental features as part of a semiotic code, general stress caused by environmental change). A suitable example is bee colony collapse disorder. No single cause has been observed behind the disorder, but the inability of the bees to manage the high number of environmental stress factors causes them to lose the coherence of their umwelt and their ability to navigate. Umwelt theory gives a central focus to animal subjectivity and enables the reinterpretation of extinction as a breakdown of the cognitive and physiological structures of animals.

Bionote. Timo Maran is Professor of Ecosemiotics and Environmental Humanities at the Department of Semiotics, University of Tartu, Estonia. Maran's research interests are theory and applications of ecosemiotics; ecocriticism and Estonian nature writing; and semiotics of biological mimicry. His publications include "Mimicry and Meaning: Semiotics of Biological Mimicry" (2017) and "Ecosemiotics. The Study of Signs in Changing Ecologies" (2020). Maran has also authored several poetry collections.

Umwelt Analysis for Species Reintroduction

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The reintroduction of species as a conservation measure is important in the context of current biodiversity crisis. This presentation addresses different semiotic aspects to battle species loss and habitat degradation. We aim to explicate the significance of biosemiotic analysis when dealing with the perception and cognition of the reintroduced animal. We set our focus on animal agency, search and function tone, semiotic fitting and umwelt changes when analysing the reintroduction process from the perspective of the animal. The incompatibility of the existing umwelt of an animal and the semiotic niche, defined as the environmental cues that must be recognized in order to thrive in a specific environment, may lead to the disfunctioning of functional cycles. Also, we show how search and function tones serve the animal in the new environment upon reintroduction. Finally, we show how the reintroduction environment encourages changes in the umwelt and how the animal learns to use species-specific resources. As a case study, we will use the reintroduction of European mink (*Mustela lutreola*) to the Estonian island of Hiiumaa.

Bionotes. Nelly Mäekivi is a researcher at the department of semiotics at University of Tartu, Estonia. Her interests lie in intra- and interspecies communication, ethology, anthropology, and human representations of other species. Her main research focus lies in analyzing hybrid environments and species conservation as a multifaceted research object by applying zoosemiotic, ecosemiotic, and cultural semiotic perspectives.

Riin Magnus is a researcher at the department of semiotics at the University of Tartu, Estonia. Her research focuses on urban ecosemiotics, human and non-human animal communication, and umwelt theory of Jakob von Uexküll.

Holding Through Together: Towards a Zoosemiotic and Actor-Network Understanding of Interspecific Sociality in Wartime Zoos

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As a place where species meet, zoos have been studied in a zoosemiotic (Maekivi 2016, Cerrone 2020), and zoobiological frameworks (Hediger 1969, Hediger 1950). However, research on zoos in war has been rather limited (Hediger 2013, Braverman 2013, Malamud 1998), primarily covers zoos in WW2, and is written in the theoretical vein of biopolitics and as a critique of the inscription of animals into the war machine. Ukrainian zoos surviving the wartime conditions have been widely covered by mass media reports, but have not received scholarly attention yet. I propose to interlink conceptual vocabularies of zoosemiotics and actor-network theory to trace the transformations of human-animal relations affected by the disruptions of physical and acoustic environments, of critical supplies, and displacements of significant human and nonhuman actors. I argue that actor-network theory and zoosemiotics share key sensibilities with pragmatic relations on-site that can be easily disturbed (and possibly repaired) by modifying affordances and enrolling human and nonhuman actors in novel ways in an effort to enhance the durability of the network and realign the multiplicity of Umwelten. Specifically, I suggest that concepts of regional, network, and fluid space developed by John Law and Annamarie Mol can complement zoosemiotic notions of Umwelt and eco-field if the robustness and flexibility of spaces are posed as research questions. Additionally, I develop the concepts of fixers and connectors to clarify the active role of material objects in bridging human and animal Umwelten.

Bionote. I studied Sociology at the National University of “Kyiv-Mohyla Academy”. Currently I’m an MA student at the University of Tartu. My research interests: changes in actions and processes within wartime zoos, actor-network theory, contemporary theories of agency, zoosemiotics, the ontological turn in anthropology.

Dance without Organs: *Memoria*, Time-Image and Ecological Politics

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The politics of cinema consists in the redistribution of the sensible. This redistribution is best visible in films making highlighted use of non-representational strategies for constructing sense: rhythm, deceleration, sound design, camera (non-)movement, etc. Gilles Deleuze uses the concept ‘time-image’ to analyse these types of films and says that they call for a people that does not yet exist. This is because instead of personalised characters and identifiable causes and effects between occurrences (plots), they present us with events whose spatio-temporal actualisation remains obscure. Put in these terms, political cinema calls for *umwelts* – subject-environment couplings – that do not yet exist. This cinema visualises the potentialities or intensities of the emergence of these *umwelts* rather than the already extensive gallery of identities and identifiable worlds. Here it is no longer a question of what happened, but who, in which world, will emerge as an answer to the call. I will use Deleuze’s ‘time-image’ to talk about Apichatpong Weerasethakul’s *Memoria* (2021), which presents us with disjunctive temporalities and affects in search for a world in which they could be effectuated. As such, the film performs ecological politics in making a deliberately zombified audience confront with a rumble from the Earth’s core.

Bionote. Ott Puumeister is a research fellow in semiotics at the University of Tartu. He is an editor of *Sign Systems Studies* and *Acta Semiotica Estica*. He defended his PhD thesis (“On Biopolitical Subjectivity: Michel Foucault’s Perspective on Biopolitics and its Semiotic Aspects”) in 2018.

The Ontological Primacy of Umwelt

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Individuation – the genesis of individual entities – is generally presumed to begin with the ontology of already constituted individuals. Thus claims Gilbert Simondon. Rather than describing the appearance of individual beings from something pre-individual, the analysis of the appearance of concrete entities usually concerns itself with the appearance of composites, in which ontological privilege is given to the already constituted individuals. Is this the case with Umwelt theory as well? A straightforward conception of umwelts would treat them as a composites of organism and environment, and the emphasis is then on their mutual co-constitution through functional cycles. But does this not already assume the pre-constitution of both environments and organisms? If so, another question could be asked: what is the origin and genesis of organisms and environments which are now, as if after the fact, to be indivisibly united once again by means of functional cycles? In an admittedly speculative vein, and with the help of a certain resonance between the concepts of transaction, individuation and schismogenesis, the presentation attempts to propose that rather than organisms and environments, it is the umwelt which is ontologically primary, and that it is the internal division, separation and individuation within umwelts which gives rise to the appearance of organisms together with their environments.

Bionote. Silver Rattasepp is a researcher at the Department of Semiotics, University of Tartu. His interests include umwelt theory, animal studies, posthumanism, ontology, and science and technology studies.

‘Umwelt’ and ‘omailm’: Charting the Range of a Travelling Concept

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When Edward Said introduced the notion of travelling theory in his seminal 1983 book *The World, the Text and the Critic*, he pointed out that ideas and theories travel in the intellectual realm both in space and in time, and in the course of this they may transform to a major degree as their cultural and temporal contexts change. Initial circumstances are replaced by others in a different time and place, as the travelling ideas are met with acceptance and/or resistance, and in the end the idea will be transformed by its new position and new uses. Specifically, Said was focusing on the field that used to be known as literary criticism and theory, but would by that time encompass a broader realm of a more ambiguous definition, having recently embraced concepts from fields such as Lacanian psychoanalysis, post-structuralism and semiotics.

In her *Travelling Concepts in the Humanities* (2002), Mieke Bal, who already broadly conceptualised her field of interest as cultural analysis, emphasised the notion of travelling concepts that in her view should constitute the methodological basis of interdisciplinarity in the humanities. The counterparts of such concepts are the objects of cultural analysis to which they are applied and to the understanding of which they must contribute.

Proceeding from a framework drawing on Said and Bal, the presentation seeks to observe the modes of application of Jakob von Uexküll’s concept of the *umwelt*, particularly in its Estonian translation ‘omailm’, in texts representing the various sub-disciplines of cultural analysis that have appeared in the leading Estonian cultural weekly *Sirp*. Special attention will be paid to the possibilities of the use of the concept of ‘omailm’ in the study of literature.

Bionote. Ene-Reet Soovik is editor of the journal *Sign Systems Studies* published by the Department of Semiotics, University of Tartu. Her current research interests are related to environmental humanities, particularly ecocriticism and literary urban studies.

Attentional Processes in the Umwelten of Animals

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Attention, which consists of several subprocesses, selects and maintains the focus on the information that is most relevant according to the meanings in the animals' umwelten. Complex cognitive processes, such as attention, are more easily comprehensible with the help of semiotic tools. Attention is a mediating and guiding process in perception and meaning-making, synthesizing perceptions, binding different sensory modalities to a single representation, and simplifying representations into signs. The meaning-making ability of animals helps them assess the environment, recognize if there is anything new or even dangerous, and be creative if necessary. Neophilia and creativity are essential for survival and adaptation in rapidly changing and patchy anthropogenic environments. There is a direct link between attention and nonhuman creativity. Adding the Uexküllian approach to models of creativity makes it possible to discover and understand the mechanisms of creative behaviors and quick adaptation possibilities in changing conditions. Creativity helps animals give familiar things, organisms, and behaviors new meanings (although it is an error-prone and risky behavioral trait) and find new ways to act and respond to stimuli.

Sometimes attention fails, and sometimes meaningful signs in animal umwelten are constructed considering too few sensory modalities or simplified too much, leading to perceptual errors and behavioral mistakes. Sometimes it leads to misrecognition and can even be deadly. Too many or few meaningful sign-relations with the environment can also be stressful and harmful for organisms. Distractions in the outer and inner world can cause attentional lapses and affect the functioning of the umwelt of an animal. Since attention is essential for building and shaping the Umwelten of animals and almost every aspect of their lives, the environment in which their attention can function in its umwelt-specific way must also be protected.

Bionote. Siiri Tarrikas is currently Ph.D. student of semiotics and cultural studies at the University of Tartu. Her interests lie in zoosemiotics, ethology, and cognitive semiotics, with the main research focus on animal attention and creativity.

A Comprehensive Framework for Studies of Changing Umwelten

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Using Jakob von Uexküll's classical Umwelt theory and updated knowledge on how human agency works as a driver of environmental change as starting points, I will present a comprehensive framework for studies of changing human and animal Umwelten. The framework indicates how past Umwelten, contemporary Umwelten, and future Umwelten can be studied by drawing on Umwelt theory accompanied by other relevant fields of study. The framework is comprehensive not only in that it allows for studies of different Umwelt temporalities, and different "layers" of the Umwelt (core – mediated – conceptual), but also by being applicable at different levels of biological organization, and by showing how changes in the Umwelt (outer subjective world) are correlated with changes in the Innenwelt (inner subjective world) and the physical environment. By seeing changes in the Umwelt, the Innenwelt, and the physical environment in context, we can achieve a better understanding of the interplay between semiotic causation and efficient causation in socio-ecological and socio-cultural contexts, and of how human agency can cause environmental problems – and solutions. In the setting of culture, socio-cultural transformations are particularly pertinent. In light of the framework presented here, these can be understood as involving collective Innenwelt transitions that in turn affect how we perceive our Umwelt. As part of my presentation, I will outline how Umwelt theory can serve as the basis of a more-than-human descriptive phenomenology suitable for studies of animal Umwelten and human–animal relations. I will further share some tentative ideas about how Umwelt theory can play a role in phenomenological triangulation, in which 1st, 2nd and 3rd person perspectives are combined (drawing on methodology developed by Jordan Zlatev).

Bionote: Morten Tønnessen (born 1976) is a professor of philosophy at the University of Stavanger's Department of social studies, Norway. He has worked with Jakob von Uexküll's Umwelt theory since his master's degree in philosophy (University of Oslo, 2002) and PhD in philosophy and semiotics (University of Tartu, 2011).

Umwelt Collision: When Bear and Human Meet

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Human and animal umwelten increasingly tend to overlap and contradict each other in the era of anthropogenic environmental change. Such instances usually end with humans being the stronger party to whom other animals have to succumb. But not always so.

The present paper proceeds from the nature documentary *Der Bär in Mir* by Roman Droux (2019; finalist of the Matsalu Nature Film Festival, among several other prizes and recognitions), featuring the life of Alaskan bears during one summer season by a salmon river in Katmai National Park. This same area became infamous when an American bear enthusiast Timothy Treadwell, together with his girlfriend, were attacked and killed by a bear there in the autumn of 2003. Werner Herzog's film *Grizzly Man* (2005), which recounts Treadwell's story, serves as another piece of audiovisual material that is touched upon in the presentation. The third source to be discussed is *In the Eye of the Wild* (2019), an autobiographical memoir by the French anthropologist Nastassja Martin, which recounts a survivor's story of a bear attack.

Following the historian Jacob Dlamini's observations of large wild animals who have attacked humans in African nature reserves, my aim is to discuss the artistic representations of the instances when a human ceases to be an insignificant feature of the landscape to a big omnivore, such as a bear, and for some reason becomes a target worth attacking. How or in which ways must the significance of a human alter in a bear's umwelt to elicit an aggressive reaction? Can we find possible answers from artistic representations?

Bionote. Kadri Tüür is a researcher in the project "Estonian Environmentalism in the 20th Century: Ideology, Discourses, Practices" at Tallinn University, and served as the head of the Estonian Centre for Environmental History (KAJAK) from 2018 to 2021. She is also the Editor-in-Chief of the Estonian craft studies journal *Studia Vernacula*.

Co-habitation with Free-Ranging Domesticates: An Ecosemiotic Analysis of the Relations between Stray animals and Humans in Istanbul

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In the twenty-first century, as evidence of human expansion over non-human habitats grows, it has become crucial to conduct research on the subject of biodiversity in urban environments from an ecosemiotic perspective. Co-habitation with animals in urban areas can be aggravating as both groups are required to adapt their lifestyles to fit in. In an anthropogenic world, non-human animals may face severely threatening interactions that harm their relationship with the environment. Nonetheless, it is also realistically possible to encounter metropolitan populations that are prepared to modify their culture, behavior, and values in order to accommodate stray animals rather than eradicating their existence.

This study has the aim of demonstrating how a weak anthropocentric approach towards stray animals can affect civilized urban life through the case of Istanbul. First of all, the analysis adopts a historical approach to showcase the background of weak anthropocentrism towards non-human animals in the Ottoman Empire with the Regulatory Law on Consumer Rights (1502) and the Edict of Faziletli Efendi (1766), drawing parallels with the current animal welfare policies in the Republic of Türkiye. Secondly, it will continue with highlighting the impact of co-habitation with stray cats and dogs in contemporary arts and culture in Istanbul, which is illustrated by an extensive survey conducted with Istanbul denizens. Lastly, it will delineate the specifics of the *umwelten* of Istanbul stray cats and dogs which enabled their development for a harmonious co-existence. The results demonstrate that, the co-habitation of different species in an urban environment for centuries not only results in tendencies of being more tolerant and affectionate towards each other, but also learning how to share the physical space together.

Bionote. Irmak Ugur Mertens follows a joint-PhD in the departments of Translation Studies and Semiotics in KU Leuven and the University of Tartu. Her research interests include semiotics of translation, museology, imagology, and anthropology.

The Imagined and the Magical – the Semiotics of Uexküll in Lacan

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In recent years, academia has seen a serious resurgence of interest in Lacanian psychoanalytic semiotics, particularly in relation to sociology, politics, and aesthetics. His notions of the gaze, desire, *jouissance* and symbolic forms of thought have all enjoyed ample analysis; yet Lacan's connection, and theoretical debt, to animal ethology and umwelt analysis remains an unexamined point of contact. Utmost respect for the ethological project is repeatedly found in Lacan's writings, which takes them as a sort of epistemological basis for more complicated (and certainly more socially-oriented) concepts. This connection remains strangely untrod. Conversely, much of the connection between contemporary psychoanalysis and biosemiotics remains neglectful of the Lacanian school of thought; for all its insights, it concerns itself primarily with the symbolism of Suzanne Langer, who bears marked differences to Lacan. As a preliminary examination in this foray, I would like to explore a basic connection between Lacan and Uexküll, one alluded to by Lacan himself: that of the imaginary *imago*. By taking this as our topic, I hope to bring to our perception four epistemic insights: 1) the Uexküllian semiotic of the perceiving subject, as well as some of its potential weaknesses or deficits, 2) the biosemiotic roots of Lacanian theory, which may serve to substantiate the Lacanian subject within ethological studies, 3) the differences between a potential Lacanian theory of biosemiotics and academia's current usage of structural psychoanalysis and finally, 4) the value of such a development. Though this is but a twenty-minute presentation, I would hope for ramifications in philosophy, psychology, ethology, and, above all, the canon of biosemiotic thought itself.

Bionote. From the roads of North America, Thorolf van Walsum is a young semiotician with big hopes. Through a biosemiotic reading of the Lacanian psychoanalytic school, he hopes to bring insight and disruption both into phenomenologically-inclined biosemiotics and contemporary psychoanalytic philosophies, and with this, significant implications for aesthetics, ethics, and ecology.