Introduction: Special issue on semiotics of nature

In the history of 20th century semiotics since Peirce and Saussure, there have been two views of how nature should be approached from a semiotic perspective, the view of cultural, and the view of general semiotics.

The view of cultural semiotics is the one developed in the tradition of semiotic structuralism. Based on anthropocentric and logocentric foundations, cultural semiotics investigates in how far nature is interpreted from a cultural perspective and in how far various cultures interpret the same natural phenomena differently. This approach is essentially the one adopted by Umberto Eco (cf. Nöth 2000), Juri Lotman (2001; e.g., p. 252), and more explicitly by the Paris School of Semiotics. In their *Dictionary of Semiotics*, Greimas and Courtés (1982: 375) adopt this approach to the semiotics of nature in a programmatic way, when they describe the study of the "Natural world" as follows: "Nature is [...] not a neutral, but a strongly culturalized [...] and at the same time relativized referent (since ethnotaxonomies give different 'visions of the world'). This means that the natural world is the place for the elaboration of a vast semiotics of cultures".

In contrast to the cultural semiotic perspective of nature, the perspective of general semiotics investigates sign processes in nature as semiotic processes *sui generis*. Foundations of this tradition have been laid by C. S. Peirce, C. Morris, and T. A. Sebeok, and on the basis of this broader concept of semiotics, new fields of semiotic research have been explored during the last decades, which have led to a considerable extension of the field of semiotic research. Semiotics is no longer *only* concerned with signs that depend on culture and cultural codes, since it has advanced to a theory of sign processes in culture *and* in nature. Contributions to this extension of the semiotic field come from the *history of semiotics* with its long tradition of the study of *natural signs*, which were sometimes defined in sharp opposition to other signs, but sometimes as a branch of the general theory of signs. Re-

search in *zoosemiotics* and *biosemiotics* has proceeded with the lowering of the semiotic threshold from human semiosis to semiotic processes whose agents are animals and micro-organisms, in fact all living cells. More recently, the question has been raised whether precursors of semiosis should even be sought in the inanimate or prebiotic world and whether semiotics should also include the field of *physicosemiotics*: autocatalytic systems, dissipative structures, and other processes in dynamic physical systems, which testify to the possibility of a spontaneous increase of order in nature, and accordingly become the topics of study in the search for the origins of semiosis in a field of protosemiotic studies.

The papers presented in this issue of Sign Systems Studies on the semiotics of nature are based on the broader approach to the topic founded in general semiotics and in transdisciplinary collaborations of semioticians with biologists, ecologists, philosophers, linguists, and scholars in language, literature and the media. These are the result of two joint semiotic ventures by Winfried Nöth, Director of Research Center for Cultural Studies of the University of Kassel, and Kalevi Kull from the Department of Semiotics of the University of Tartu. The first was the jointly organized workshop on Ecosemiotics: Studies in Environmental Semiosis, which took place in the framework of the Nordic-Baltic Summer Institute for Semiotic and Structural Studies at Imatra, Finland, on June 16-17, 2000 (cf. Nöth & Kull 2000). The second was the German-Italian Colloquium on The Semiotic Threshold from Nature to Culture at the Research Center for Cultural Studies of the University of Kassel, from February 16-17, 2001, with the support of the Deutsche Forschungsgemeinschaft, Bonn, and Dr. Luigi Volta, the Director of the Istituto Italiano di Cultura at Frankfurt/Main. Thanks are due to these generous sponsors who made the international extension of the semiotic cooperation between Kassel and Tartu to Bari (Ponzio, Petrilli), Houston/Texas (Deely), Brazil (Santaella), Switzerland (Ljungberg), Denmark (Brier, Emmeche, Hoffmeyer), and other countries possible. The decision of the publishers of Sign Systems Studies to include this special issue in their publication schedule is gratefully acknowledged.

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