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People and plants: introducing environmental humanities of plants in the Baltics and beyond

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In his most recent book, the American historian of biology Philip Pauly rewrote the history of American environment arguing that horticulture – quite contrary to being an ornamental leisure activity – influences the development of the USA because it is a massive industrial enterprise, which pushes technological progress. In his opinion, horticulture embodies the true global history: 'through it [horticulture] we can see together the histories of the environment, agriculture, science, arts, and national development' (Pauly, 2007: 8). Pauly points to the importance of studying plants and the ways that they have influenced culture, politics, and economics. Humans profoundly interact with vegetation – consuming it as food, using it as medicine, decorating their homes and cities with it, studying it, etc. While the science of ecology has long been interested in studying plants and plant communities, scholars in the environmental humanities bring the human interaction with plants into focus.

The study of the environment from humanistic perspectives offers the opportunity to cross disciplinary boundaries, opening up new and vital avenues for environmental research. The leading scholar of environmental literature analysis Lawrence Buell argued that although science, engineering, and public policy must be involved in addressing the pressing environmental issues of our times,

> no less intrinsically important are the environmental humanities – history, philosophy, religion, cultural geography, literature, and other arts. For technological breakthroughs, legislative reforms, and paper covenants about environmental welfare to take effect, or even to be generated in the first place, requires a climate of transformed environmental values, perception, and will. To that end, the power of story, image, and artistic performance and the resources of aesthetics, ethics, and cultural theory are crucial. (Buell, 2005: vi)

Understanding human interaction with plants over time – both in terms of how the humans modified the plants and how the plants modified human culture and institutions – should therefore become an integral part of ecological research.

One of the primary fields of environmental humanities takes history as its core concern. The American environmental historian John R. McNeill has summed up environmental history as 'the history of the mutual relations between humankind

and the rest of nature. There are three main varieties, one that is material in focus, one that is cultural/intellectual, and one that is political' (McNeill, 2003: 6). Environmental history can also be considered in a more material fashion as 'the reconstruction of environmental conditions of the past' and 'the reconstruction how these conditions were perceived and interpreted by the then living humans' (Winiwarter & Knoll, 2007). In other words, environmental history in general studies the interdependencies of human societies and our environment. Further, it traces the modes of how we humans confronted and/or perceived our natural world, exposing/revealing the norms that determine our attitudes towards the environment over time.

Linking both statements we argue here that the historical research into the relationship between human societies with the material aspects of nature, or the environment they occupy, shows that phenomena like climate change, species extinction, and natural disasters are not at all new incidents, even though these are perceived, particularly in popular debates, as novel situations. Against this misconception, environmental history points out that environmental risks, issues, and problems are to be understood first as a product of human agency by historical analyses. Actual environmental problems always have a historical dimension and the long-term consequences cannot be comprehended without a perspective that also includes the cultural and social dimension of our acting inside and against the environment. Accordingly, the economic historian Helmut Braun concluded that 'environmental history comes, therefore, with a research program that goes beyond other historical sub-disciplines and demands for the challenges of interdisciplinarity' (Braun, 2005: 400). Thus, environmental history reflects on the origin, development, preservation, and decline of scientific, technical, medical, and cultural knowledge about Nature as well as the reasoning on non-scientific forms of knowledge as long as these are efficient for a value-based concept of human life.

Another strain of environmental humanities uses literary criticism as its basis. Scholars employing ecocriticism, which is 'the commonest omnibus term for an increasingly heterogeneous movement' (Buell, 2005), engage with texts and their environmental discourses – the way the environment is talked about, imagined, and embodied. In this analysis, the relationship between the literary work (and the humans who produced it) and the physical world comes into focus (Glotfelty, 1996). Texts are then more than words: they expose our deepest thoughts and notions about the environment.

Enter 'People and Plants: A Humanitarian View', a collection of four articles exposing the value of a humanistic approach to plants. One objective here is to examine the divergent knowledge space of such fields as taxonomy of (exotic) botany (Hollsten) and its twin ethnobotany with its roots in folk knowledge, pharmacology, and public health (Sõukand & Kalle), literature and nature writing (Tüür & Reitalu), and settlement history and cartography (Tarkiainen). The main objective, however, is to substantiate the statement of the interdisciplinarity of environmental humanities in general, and in particular to show the multiplicity of views on a single natural object like the plant. The articles are arranged in reverse

chronological order, taking us on a journey back in time as the authors expose quite different relationships between humans and the plant world.

In the first article, Tüür and Reitalu apply an ecocritical reading to a book written by the well-known Estonian botanist Haide-Ene Rebassoo. Her *Botaanilisi kilde 17 Hiiumaa suvest* [Botanical Fragments from 17 Summers in Hiiumaa] offers us a glimpse in her scientific practices, her emotional attachment to her vegetative subjects, and her physical and temporal presence in the landscape. The text embodies more than botanical knowledge: it also reveals the author's and broader social attitudes toward nature in the 1950s to the 1970s.

Next, Sõukand and Kalle examine the use of medicinal plants in a small Estonian community in the 1930s. Their study reveals that the distribution of folk knowledge about plants occurs at both the individual and the community level. Through their concept of 'herbal landscape' we can see the interaction between the knowledge base of individuals and physical space. Their findings challenge ecologists to value botanical knowledge outside of institutionalized science and to recognize the fragmentary nature of the ecocultural commons.

In the third article, Hollsten takes us back to the Age of Discovery, when the New World was indeed new. As scientists moved through the Americas in the 1600s, they came in contact with novel flora, which they set about cataloging and naming. Hollsten highlights the colonial programme within which these activities took place, giving the actions particular meanings in time and space. Her study of the French botanist Charles Plumier reveals the struggles early modern scientists faced with rectifying multiple naming conventions and the ways in which networks of scientific elites affected the process. Although modern scientists may not realize it, plants such as begonia and fuchsia, were named after leading botanists of Plumier's day, invoking complete colonization of these once exotic plants.

Finally, Tarkiainen shows how cartographic sources can be read as environmental histories. Using Estonian maps from the 13th through 18th centuries, she identifies the role of large trees as property boundary markers and how that role changed over time. Landowners used many tree species, including oak, birch, spruce, pine, aspen, and alder, to delimit their property lines before the 17th century. These trees were often marked with a cross, which Tarkiainen argues is not directly related to spiritual trees, which were also marked with a cross. In the 17th century, as professional surveyors became involved in mapmaking in Estonia, trees gradually disappeared as functional boundary markers. Tarkiainen's findings make us wonder if large trees became less culturally valuable, and therefore less conserved, as their property marker function faded.

A common feature of these articles is their focus on plants, either showing the natural history inside environmental history (Hollsten), the herbal landscape as an ecocultural commons (Kalle & Sõukand), the tri-partite plant space of ecocritical writing (Tüür & Reitalu), or how the power of the line changed the shape of landed property over time (Tarkiainen). The articles link scientific botany to political issues like imperialism, social networking, and a culturally influenced taxonomy; ethnobotany to folkloristics and education; scientific botanical practice to nature

writing and leisure walks through the landscape; and economic and religious practices to the function of plant species.

Modern societies tend to overestimate the standardized canon of scientific knowledge and the standards of the scientific method as a safe harbour, sheltering and securing against the imponderabilities of Nature. However, when suddenly knowledge and the data we did trust in fail, whether caused by natural disasters or human-induced catastrophes, we are forced to correct them, to study anew seemingly outdated problems we thought the sciences had solved some decades ago. In general, it has become a truism that the development of topics and content of scientific knowledge, as well as the methods how to gain such knowledge, is a historically contingent process. Consequently, historical research and inter-disciplinary case studies of the sciences and the humanities are needed – in fact are indispensable – for analysing and reflecting upon data assemblage, the growth of scientific knowledge, and the relationship we have with nature. Moreover, the communication between the sciences and the public, between experts and laymen, or between scientists of different disciplines and fields gains ever more in importance. And it does not matter whether it concerns the environment as a whole or the life of the (molecular) cell. The environmental disciplines of the sciences, the humanities, the technical and socio-cultural fields must share their experiences, approaches, and knowledge. We hope this collection of articles offers a start to such a process.

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