

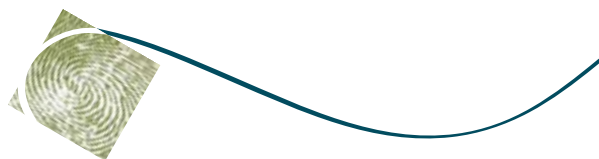


## **SOCIO-ENVIRONMENTAL DYNAMICS OVER THE LAST 12,000 YEARS: THE CREATION OF LANDSCAPES**

Picture: B. Schulz-Paulsson

OPEN WORKSHOP  
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GRADUATE SCHOOL  
AT THE UNIVERSITY OF KIEL



### **human development in landscapes**

Creation of cultural environments amplifies the meaning of landscape: Beyond natural conditions social constants play a decisive role in the formation of landscapes. Social environments, within this landscape concept, are not only reflected by material remains but also by the spatial imprints of mobility and sustainability. The development of social space under specific ecological conditions is linked to the ideological systems maintained by societies for economic reasons or ritual purposes. The study of landscapes thus does not concern only environmental, demographic, and social aspects but also the ideological changes regarding 'landscapes', i.e. the conception that individuals and societies have concerning 'nature'.

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## SESSION 1 | Monuments and monumentality

F. Rumscheid, J. Müller, N. Toma, B. Schulz-Paulsson, C. Nübel

Monuments have been used by prehistoric and ancient societies to mark landscapes. While monumentality led to the creation of new landscape structures, the realisation of monuments and monumentality is dependant on source exploitation, mobility of know-how and social power. Given these conditions different societies developed different strategies of using and abusing landscape. Nevertheless, also common concepts of spatial divisions may be observable, describing both, the reception and the use of nature and social space by communities of different economic and social organisation levels.

Is this hypothesis true? Is there a general human behaviour in respect to the structuring of environments? A structural comparison of e.g. Neolithic societies with monuments and Classical Greek societies should help to verify these hypotheses. This session invites specialists of different periods addressing such questions to discuss the patterns of creation and development of landscape through monuments and monumentality in prehistoric and ancient societies.

## SESSION 2 | Central Sites

J. Müller, U. Müller, C. Steffen, R. Schneider

Spatial organisation of landscape through central places appears to be a basic achievement of almost all societies. Processes of centralisation are an expression of settling dynamics, in social practices as well as in the adaptation to environmental parameters. The development of centrality in settlement systems is intimately linked to the creation of social space in landscape and the rise of central hierarchies in societies.

Archaeologists employ an array of models and methods to record and to describe centralisation processes. With the arrival of geographical approaches in archaeology, questions related to “centrality”, “centrally localised functions” or “settlement hierarchy” have been decoupled from the original theories and are now explored with GIS and other analyses. Research dealing with concepts of “spatial turn” and “new geography” attributes a more subordinate role to concepts of “centrality” and “central places”.

This session takes up the outlined range of approaches, to stimulate the dialogue between archaeologists and geographers. We invite geographers to moot current terminologies, hypotheses and approaches with regard to the concepts of “centrality” and “central places”. Archaeologists and historians are encouraged in turn to offer the chance to discuss the differential terminologies, hypotheses, approaches and theories by means of own concepts and case studies.

## SESSION 3 | Impact of resource exploitation, trade, and transport on environment and societies

C. Carnap, O. Nelle, W. Kirleis, W. Dörfler, J. Dürr

Pre-industrial exploitation of natural resources in Middle Europe can be traced back at least to the Mesolithic Age. During Neolithic and Bronze Ages infrastructures of transport were developed, which are still of importance today. However, resource exploitation has also created far-reaching environmental problems, particularly well known from the Roman period.

This session aims to cope with two issues: research on prehistoric mining areas, and on prehistoric transport routes. Mining creates an array of societal challenges such as supply with food, transfer of equipment and technology, including means of production. Areas of raw material exploitation were of secondary value for agriculture, nonetheless when used for pre-industrial purposes, they underwent fast development. At the same time the efficiency of the transport network is highly dependant on environmental conditions and social stability. The impact of resource exploitation, trade and transport on environment and societies is addressed in a number of archaeological studies and integrating models.

## SESSION 4 | Separating natural and anthropogenic influences in environmental change

W. Kirleis, M. Weinelt, O. Nelle, H.R. Bork, V. Robin, M. Sadovnik, C. Lubos, A. Kranz

Holocene landscapes over the course of the last 12,000 years underwent fundamental changes, controlled by both, physical environmental changes and, increasingly, by social variability. Though intimately interwoven, both variables are traditionally investigated independently and need to be explored jointly to unravel the complex interactions and feedback mechanisms inherent to landscape change.

This session aims to attract papers quantifying the differential influences of social and environmental factors on Holocene landscape development (e.g. land use vs. climate change and soil fertility); calibrating archaeological and paleoenvironmental records through precise chronologies; by uncovering causal linkages through a better understanding of involved physical and social processes; using archaeological as well as historical records to quantify human responses to environmental change.

## SESSION 5 | Population dynamics and demographic proxies

A. Nebel, N. von Wurmb-Schwark, R. Renneberg, C. Rinne, B. Krause-Kyora

Population dynamics means migration / movement, settlement patterns, and socio cultural habits in human communities. Demographic data can be used to examine these dynamics. In particular data on fecundity, mortality rates, and variability of age, gender, and physiology are investigated.

In this session we will highlight different aspects from a wide range of disciplines such as genetics, archaeology, anthropology, and sociology. This interdisciplinary approach allows a complex perspective on the reconstruction of dynamic processes in human societies.

## SESSION 6 | Perception, mental construction and conceptualization of landscapes

L. Käppel, J. Wiesehöfer, B. Schulz-Paulsson, C. Nübel

In social and historical as well as in literary studies landscape is basically regarded as a conceptualization of ‘environment’ as the physical ‘reality’ underlying it. If this is correct it would be interesting to pursue questions concerning the relation between landscape and society. Which elements affect the human concepts of his vicinity? Which patterns to describe nature and landscapes are used by certain societies from ancient times to the present? Another question could be the importance of self-localisation of the individual in certain landscapes or spaces in the frame of its self-perception and cognition. Contributors are invited to scrutinise the assumption that it is possible to infer from perceptions of landscape and space to socio-cultural circumstances (and vice versa). Examples from both pre-historical and historical periods to modern times are highly welcome.

## SESSION 7 | New approaches and proxies for socio-environmental reconstructions

P. Grootes, R. Duttmann, M. Nadeau, M. Hinz

A detailed reconstruction of living conditions and habits of past societies is essential for the documentation of their development and the quantification of their interactions with their environment (discussed in 4). The availability of ever more powerful and sensitive analytical techniques allows more detailed quantitative reconstructions of e.g. dietary patterns, foraging, trade, and migration, but also of the environment in which, and the climatic conditions under which the people lived. This session aims to bring together the knowledge of archaeologically relevant materials - to be tested - with the latest analytical approaches (available in the GS platforms in Kiel or elsewhere) to foster joint new approaches to proxy-reconstructions.