

Landscape at Boiling Point - Studying the Environmental History of the East Asian Inland Seas from Prehistory to Future

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Geographical unit, temporal scale and methodology are probably the three most crucial questions when defining the subject for an environmental historical research project. During my presentation, I will be focusing on these three major issues through an example of a multidisciplinary research initiative on East Asian inland seas (Japan Sea, East China Sea rim).

What is the optimal geographical unit? A village? A county? A nation-state? A regional political alliance? Or a larger setting? Depending on the specific research question the answer will vary. We have proposed an inland sea basin as an insightful unit for ecohistory. While the ecohistory of the Mediterranean Sea has been widely researched, the crucial role of other inland seas in regional environmental development has caught less attention, partly because of our modern perception of sea as something that separates rather than unites. In East Asian context the inland sea has been a major medium for travelling landscape changes where maritime contacts have been key forces for spreading of rice and millet agriculture and carp breeding.

What should be the optimal time frame? If the research target is relatively narrow, such as one definite species, for example, the delimitation of a time frame also results easier. On the other hand, the availability of the material and the scope of the project also pose their limitations, and there is a partly inevitable tendency to focus more on the changes in modern history after the fuel revolution and accompanying industrialisation. However, in our research initiative we have attempted to demonstrate that the environmental impact of earlier cultures should by no means be underestimated and we propose that there have been two major ecohistorical periods of irreversible change — Neolithisation in prehistory and Modernisation in recent history — that have established major patterns of present and future environmental issues. If Neolithisation in Middle Eastern and European context is a rather defined set of transformations, including agriculture, emergence of pottery, permanent settlements and polished stone

artefacts, then in Asian context the concept needs a thorough revision, since it took 8000 to 13000 years from the emergence of first earthenware and polished stone implements to the appearance of agriculture. If Neolithisation is one of the major points of no return where new patterns of active resource use and human-environment interaction were established, then East Asian context gives an interesting insight into how such irreversible changes come to be adopted. We can describe the East Asian pre-agricultural landscapes as a hot water kettle at boiling point: a smallest external impetus can bring the kettle to boil and cause irreversible change, whereas the reduction of the external heat, so-to-say, can cause the maintenance of the status quo among complex foragers despite extensive cultural contact with purely agricultural cultures.

As a profoundly interdisciplinary field of study, ecohistory depends on the research methodologies of various individual disciplines from both hard and soft sciences, thus the success of an ecohistorical research project depends on how well the research methodologies and results are communicated across the disciplinary borders, and whether or not there are operative concepts that can function as topical umbrellas that the individual methodologies can relate to. We have chosen the “landscape” concept as the principal theoretical concept since this allows for both the analysis of semiotic and physical reality and the “cultural factor” in the birth of environmental issues. More precisely, several methodological tools, such as central GIS database have been used, and throughout the presentation, several results of the project will be introduced.