

Energy Landscapes in the Rhine Meuse delta

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Through all periods of history, humankind has always had a dependency on energy. Because of technological innovations in energy use and land use, the relationship between humans and landscape has developed extensively over time. Throughout history, several transitions in energy use can be identified: a shift from one primary energy source to another. This research attempts to determine whether coring research can contribute to archaeological research regarding energy regime transitions. The study area for this thesis will be the central part of the Rhine Meuse delta, situated in the Netherlands, also known as the Dutch river area, focused on the Late-Holocene history. Results show that the concept of energy landscape and the behavioural drive energy management provides within society is an excellent framework to study the past, as one of the most important elements in human history is society's relation with the surrounding landscape. Data collected through excavation, laboratory analyses and coring should be examined within a framework regarding humans as managers of energy with an active role in environmental and evolutionary change through time. Researchers studying the spatial dimensions of energy transitions have found the energy landscape concept useful as a way to describe and to understand the role of energy in human-environment relations, with particular emphasis on how energy transitions shape and are shaped by social relations to land in terms of changing land-use patterns and landscape values. Energy revolutions in deep time, like aerobic photosynthesis, and chemotrophy likely had similar planetary scale impacts, through resource exploitation and environmental impact and could potentially serve as natural analogues.