How Boats Change: Explaining Morphological Variation in European Watercraft, based on an Investigation of Logboats from Bohemia and Moravia, Czech Republic

Submitted by Jason Samuel Rogers, to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Archaeology, September 2009.

I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Signature……..

ABSTRACT

This thesis examines questions regarding aspects of cultural change in prehistoric and early modern Europe, specifically the transmittal of skills, knowledge and technology. Dugout logboats from Bohemia and Moravia (Czech Republic) are used as proxy artifacts to make this transmittal visible. Boats in general and riverine watercraft specifically, are an unusual class of artifact, as they are neither completely portable nor permanently fixed in place. The movement of watercraft is restricted to a relatively narrow corridor through the landscape. The morphology and construction of logboats are reflective of skill sets and technological traditions. Pre-literate boat construction traditions and technology, spread through personal contact and experience, may thus be traced through close examination of the technical features of surviving examples. In many parts of Europe, however, dugout logboats remain an extremely uncontextualized category of artefact. Placing these vessels in their appropriate geographic, environmental, and human contexts helps us to understand their meaning and forms (and the behavior of their builders and operators). The geographic element of this investigation is especially significant, as the spread of information and skill sets in physical space is a main focus of the thesis. The Czech Lands sit astride one of Europe's main continental divides, and rivers originating on this territory flow to the North Sea, the Baltic Sea, and the Black Sea. Topographic conditions have funneled travel and transport in this region through the river valleys and across a few key passes or watershed boundaries. Water transport, far more efficient than overland haulage, was likely an important element in trans-continental trade and exchange. Analysis of the surviving logboats from this region indicates that different construction traditions prevailed in different watershed areas. These data also suggest a model explaining the mechanisms by which boats can change. Key elements of the model include an inherent conservatism of boat design; internal change, driven by social or environmental factors; and external change, adopted through the personal experience of the boat builder or operator. The model is subsequently tested against case studies of vessels from other regions of Europe, and other types of watercraft.

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