

Bark vessel (find no. 1880) in situ in Linear Pottery well 1188 from Altscherbitz, district of North Saxony. © State Office for Archaeology Saxony. (Photograph: Rengert Elburg)

Archaeobark

This project aims to create a knowledge base to enable a new understanding of the significance of unretted bark objects in prehistory. Funded within the Weave programme by SNSF and DFG, it brings together conservators and conservation scientists (IMIKUK and LEIZA), dendrologists (LAD) and archaeologists (LfA and Leipzig University) to study the identification, conservation and significance of unretted bark objects, with a focus on linden bark.

Das Projekt möchte ein neues Verständnis zur Bedeutung von unretuschierten Rindenobjekten in der Urgeschichte schaffen. Von SNF und der DFG im Rahmen des Weave-Programms gefördert, bringt das Vorhaben Restaurator*innen und Konservierungswissenschaftler*innen (IMIKUK und LEIZA), Dendrolog*innen (LAD) und Archäolog*innen (LfA und Universität Leipzig) zusammen, um die Identifizierung, Konservierung und Bedeutung von Objekten aus ungebleichter Rinde zu untersuchen, wobei der Schwerpunkt auf Lindenrinde liegt.

Introduction: In prehistoric times, the inner and outer bark of a few tree species such as willow, oak, birch, poplar and linden was used to make everyday objects. The study of these objects, which have only survived in specific contexts, opens up new ways of interpreting human history. Unfortunately, these objects are rarely recognised, not only because of their ephemeral nature, but also because of the lack of knowledge about their identification and preservation. We will examine an exceptional corpus of very early bark vessels from Linear Pottery wells and a series of Late Neolithic and Bronze Age cylindrical vessels from Saxony.

Methods: We will develop a key for identifying lime bark based solely on stereomicroscopic analysis, which can be used by archaeologists and conservators in the field and in the laboratory, and highlight when such a key might fail. Furthermore, we will use light microscopy (LM), transmission electron microscopy (TEM) and scanning electron microscopy (SEM) to examine the morphology and anatomy of contemporary and archaeological lime bark, both restored and unrestored, to identify pathways of degradation. Samples will also be characterised by their moisture sorption isotherm. Current and past consolidation and drying methods will be investigated through structured interviews and archival research, while the effects of different consolidation and drying methods will be studied using micro-computed tomography (µCT). Finally, we will investigate for the first time possible cell damage due to freeze-drying and storage.

Results: The careful study of the construction and use of the vessels from Saxony, both microscopically and macroscopically, will allow us to understand their production and use. These results will form the basis for a contextual and comparative study of bark vessels in Central Europe and their role in the material cultures of the respective Neolithic and Bronze Age communities.Our vision is that bark objects should be identified, interpreted and conserved as central testimonies of prehistoric societies in Europe.

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