

# THE SALME SHIP BURIALS

## Two Eighth-Century Mass Graves on Saaremaa Island, Estonia

Fieldwork and Catalogue  
Edited by Lembi Lõugas and Heidi Luik

Archaeological Research Collection, Tallinn University  
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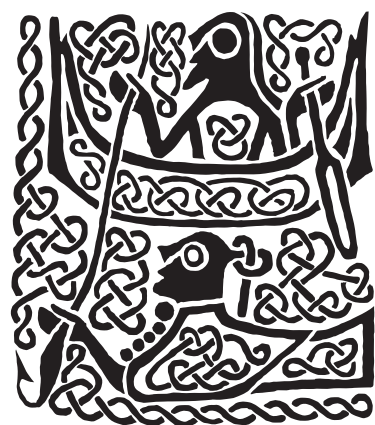
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**THE VIKING  
PHENOMENON**



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## PREFACE

Archaeological investigations on the site of two ship burials in Salme Borough, Saaremaa Island, Estonia, took place in 2008 and 2010–2012. The fieldwork was carried out by researchers, students, and collection keepers from Tallinn University, the University of Tartu, and Saaremaa Museum – among others, Jüri Peets, Külli Rikas, Marge Konsa, Ragnar Saage, Raili Allmäe, and Liina Maldre. The excavations were supported by the Estonian Heritage Board, Saaremaa Museum, Tallinn University, and the University of Tartu. Post-excavation processing of the bone and artefact collections and the conservation of artefacts have been conducted at the Archaeological Research Collection of Tallinn University (until 2015, the Department of Archaeobiology and Ancient Technology of the Institute of History). Financial support for post-excavation analysis in the years 2008–2013 has been received from the Estonian Ministry of Education and Research, and thereafter from Tallinn University and the University of Tartu. During the years 2017–2021, very valuable support came from the Swedish Research Council (via the Viking Phenomenon project, Uppsala University; 2015-00466).

The present book is intended to summarise the work conducted during the fieldwork and the post-excavation studies on the Salme ship burial complex. In the INTRODUCTION section, the overview by Neil Price and John Ljungkvist introduces the Viking Phenomenon project and its relation to research on the Salme complex and burials. Also in this section, Jüri Peets discusses the Salme find as a unique and extraordinary discovery of the Pre-/Viking Age in Estonia. Following these introductory chapters, the ship burials – SALME I and SALME II – are examined in two separate but similarly structured sections. Thus, the first chapter of each section presents the archaeological fieldwork (Jüri Peets, Marge Konsa, Raili Allmäe, and Liina Maldre), followed by a more

specific description of the human skeletal remains (Raili Allmäe), artefacts (Jüri Peets and Heidi Luik), and animal bones (Liina Maldre and Lembi Lõugas) from the Salme ship burial complex. In the last chapter (Lembi Lõugas, Alar Rosentau, Jüri Peets, and Heidi Luik), radiocarbon ( $^{14}\text{C}$ ) dating is discussed together with interpretation issues.

The lengthiest part of the book is the CATALOGUE, with lists of human skeletal remains, artefacts, and animal bones, followed by schemes of the finds distribution within the excavated areas, human and animal skeleton figures, and photo plates. In presenting the human skeletons in the ships, their positions in relation to the sides of the ship and each other are also shown. The figures of the skeletons indicate which bones and bone parts are preserved, as well as the injuries that most probably caused the death of the buried individual. Dental schemes provide information on the preserved teeth and which of these were sampled for isotopic and aDNA analyses. Information on the various analyses performed on human and animal bones can also be found in the lists of bone finds and in the final chapter on the  $^{14}\text{C}$  dates.

In the catalogue, the distribution schemes and photos of artefacts follow after the information on human skeletons. The artefacts from the Salme I ship, which had suffered more damage from recent construction activities, are presented according to the find locations: starting with those recovered from the cable trench, where the Salme ship burial complex was first discovered, followed by finds from the area of other construction works, and finally, artefacts found *in situ* within the ship contour. The site plan and photos of the ship rivets found in rows *in situ* are presented on separate plates. In the case of the Salme II ship, the plates start with the artefacts found during the construction work in 2008; thereafter, the finds from the archaeological excavations,

which are registered according to excavation spits and layers of human skeletons, are presented. Artefacts relating to the human skeletons are presented together with the relevant group of skeletons or single skeleton. The plates of artefacts conclude with the distribution scheme and photos of ship rivets and clamps found *in situ*. The photos illustrate only a selection of the rivets, showing all the different types.

The plates illustrating the material from each ship conclude with the distribution schemes and skeleton figures of animal species found in the excavation areas. The skeleton drawings represent hypothetical individuals, based on the count of the Minimum Number of Individuals (MNI). The skeleton figures show intact and fragmentary bones as well as cut and/or chop marks.

The authors and editors of the book are grateful to the various institutions that have supported the fieldwork

and post-excavation research, as well as publication of the book. These include: the Estonian Heritage Board, Saaremaa Museum, Tallinn University, the University of Tartu, the Estonian Research Council, the Swedish Research Council and Uppsala University, the Cultural Endowment of Estonia, and the Archaeological Centre (NGO). Many thanks to everyone who participated in some stage of research on the Salme ships, both in the field and the laboratory, and to the people who identified the finds and conducted specialist cleaning and conservation, analysed and reconstructed the find situation, drew plans, dated finds, and took photos. Most importantly, we thank the contributors to this book: the authors as well as the (language) editors and designers.

Lembi Lõugas and Heidi Luik

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