

OCEANS OF ARCHAEOLOGY

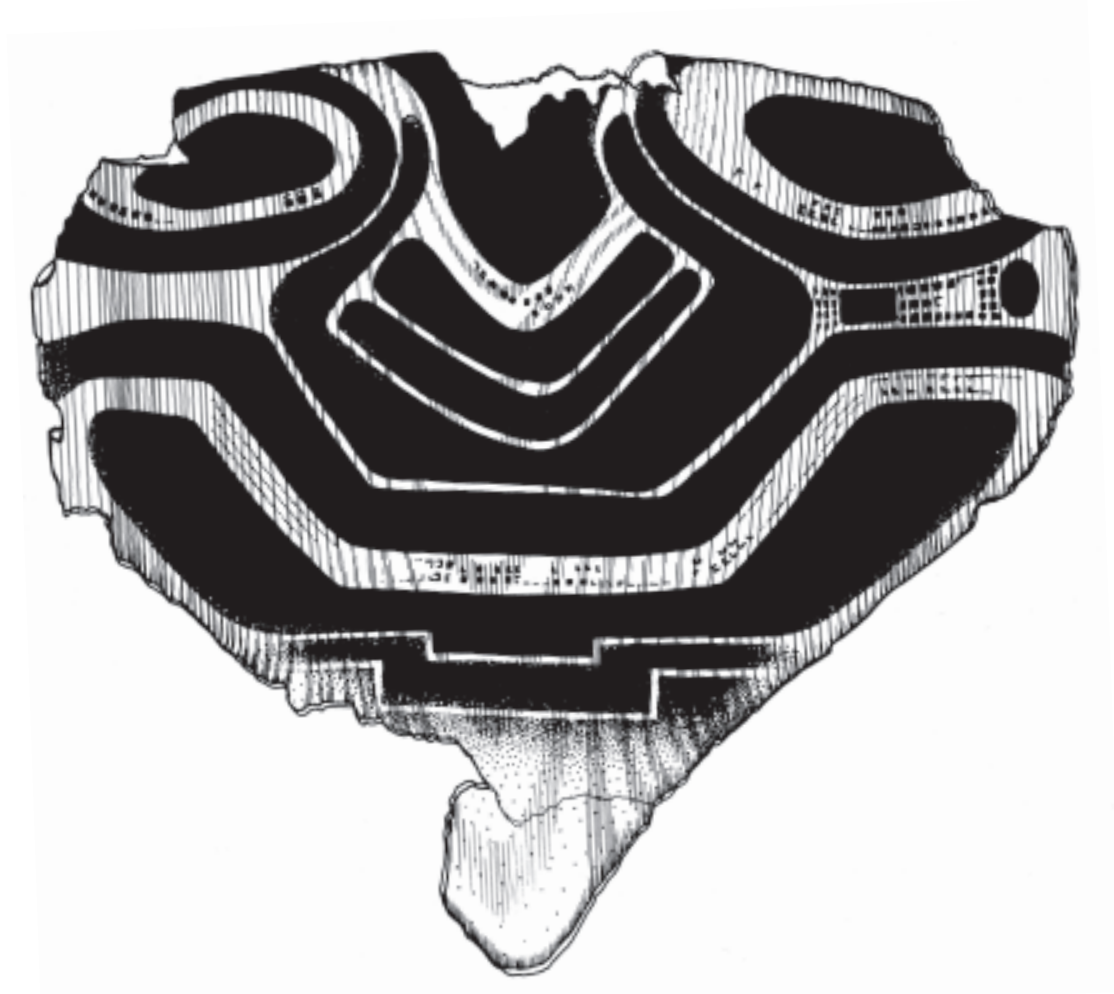
Edited by Anders Fischer
and Lisbeth Pedersen



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The National Museum of Denmark
Moesgaard Museum
—
Jutland Archaeological Society



A smile from the drowned Stone Age – a stylised human face on a c. 6500 year old paddle blade found at a submerged settlement in Tybrind Vig, Denmark (cf. Chs. 4.3.1 and 6.5). Drawing: Elsebeth Morville, courtesy excavation director Søren H. Andersen; cf. Andersen 2013.

Published with financial support from:
Dronning Margrethe II's Arkæologiske Fond
The National Museum of Denmark
Danish Agency for Culture
Augustinus Fonden
Sea War Museum Jutland

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Part 1

Introducing *Oceans of Archaeology*



Traces of the life and death of early prehistoric humans are found in many places on the seabed, originating from a time when the sea level was as much as 130 m lower than it is today. One example is this more than 7000

year old burial discovered at Tybrind Vig in Denmark. On closer examination, the grave was found to contain the skeletons of two individuals – a girl of about 15 and her new-born child. Photo: Hans Dal 1979.



1.1 Welcome to Oceans of Archaeology

Anders Fischer and Lisbeth Pedersen

The Oceans of Archaeology volume bids welcome to a vast submerged prehistoric world that, as yet, is unfamiliar to most people. The inundated cultural heritage of the European and eastern Mediterranean countries presented in the following chapters is of a richness and diversity so far unmatched anywhere else on the globe. It results from the systematic and far-sighted efforts that generations of enthusiasts, both professionals and amateurs, have invested in collecting, surveying and recording. The volume is gratefully dedicated to the many amateur archaeologists, recreational divers, fishers, aggregate extractors, contract archaeologists, museum curators, heritage managers etc. who have contributed to the accumulation of the current body of knowledge on the early prehistory of the seabed, and to the many individuals and institutions who have made its production and publication possible. This introductory chapter outlines the book's background and defines its scope and content.

The book expounds the research potential of the early prehistoric archaeological resource concealed beneath the ocean and highlights an urgent need for cultural heritage management. The several thousand early prehistoric sites dealt with here represent a mere fraction of what would be discovered, given the application of qualified and systematic survey and reconnaissance methods.

Oceans of Archaeology developed out of an EU-financed network, SPLASHCOS (COST Action TD0902), which operated between 2009 and 2013. During this period, more than 100 researchers and heritage managers gathered and shared data and discussed approaches to the study of submerged landscapes and habitations on the continental shelf around Europe and adjacent parts of the

Mediterranean (Fischer 2010; Bailey et al. 2012). The first editor of this book acted as chair of the network's archaeology workgroup.

In 2011, members of the SPLASHCOS network began to put together two major complementary overviews: this volume, dealing with the early prehistoric archaeology on the seabed, and a volume dedicated to the geology of submerged prehistoric landscapes (Flemming et al. 2017).

From the outset, the aim of *Oceans of Archaeology* was to serve up an appetising overview of the fascinating world of prehistoric archaeology concealed beneath the waves to both the academic world and a wider audience. This kind of broad publication has a long and fruitful tradition in many branches of archaeology, and the approach

Fig. 1. The pristine underwater world of early prehistoric archaeology lies just waiting to be discovered. Recreational divers and professional marine archaeologists are seen here together exploring the Rønsten settlement, Denmark, which has been covered by the sea for the last 8000 years. Targeted and tenacious fieldwork such as this can be profitably undertaken to the mutual benefit of the volunteers and the heritage authorities involved. Photos: Anders Fischer 1989 (a), 1998 (c-d) and Torben Malm 1997 (b).

has proved to be of benefit to both parties: Society's understanding, legislative backing and financial support is crucial to professional archaeologists, while for many others, archaeology, both above and below water, offers captivating experiences and intellectual enrichment. Moreover, prehistory – and active public participation in its exploration and preservation – is integrated into the national identity of many countries.

The reference base for *Oceans of Archaeology*, from inception to publication, has been *The Danish Storebælt since the Ice Age* (Pedersen et al. 1997). This was published by the organisation behind the fixed link across the Great Belt, one of the largest construction works ever undertaken in Denmark, in collaboration with institutions who undertook the associated archaeological investigations both on land and at sea. The positive reception of the Storebælt publication, in both research and lay circles, was one of many reasons for its first editor, Lisbeth Pedersen, being invited to co-edit the present volume.

Geographically, the volume focusses on the sea floor around the member states of the European Union (as of 2014), together with that of Norway, Ukraine, Turkey and Israel. The study is limited to the seabed, which is defined as any area covered by the salt and brackish waters of seas and oceans. The mean high-water mark defines its landward boundary, and it thereby includes estuaries. In most of the countries, the upper limit of the mean tidal zone also represents the boundary between public (state) and private property. Data from areas of former seabed, such as reclaimed fjords, artificially constructed islands and land that has emerged due to earth crust movements or the natural accumulation of waterborne materials (alluvium), are generally not included.

To ensure a high scientific standard, all contributions – both the larger chapters and the smaller themed boxes – have been subjected to peer review. In most cases, this took the form of an anonymous double-blind procedure, with two specialists examining each chapter. The panel of peer review specialists was mustered from many countries and several research disciplines.

Updating of literature references etc. ceased on completion of the peer review procedure for each individual paper, such that the manuscripts for Parts 2, 3 and 4, as well as Chapter 6.1, obtained their final appearance in 2015 and 2016, while editing of contributions to Parts 1 and 5, together with Chapters 6.2-6.5 concluded in 2017.

Oceans of Archaeology provides the first comprehensive overview of the submerged early prehistoric record of an entire subcontinent, i.e. Europe and the eastern Mediterranean. It focuses on habitations, graves and other sacred places that vanished beneath the waves more than 5000 years ago due to global warming and a consequent c. 130 m rise in sea level. The five national overview chapters provide the first ever internationally published synthesis of seabed prehistory from the countries in question.

Readers are also given an insight into best practice in field investigation methods and into heritage management and conservation issues relating to the rich and diverse submarine archaeological record. Thematic and synthetic chapters explore the importance of coasts to early humans and describe the special qualities of archaeological remains associated with the inundated coastal lowlands that once offered some of the most productive and stable habitats for human subsistence. A solid insight into the cultural heritage of these vast, drowned landmasses is a precondition for any comprehensive scientific synthesis on early humanity.

We bid readers a warm welcome on board *Oceans of Archaeology* and hope they will enjoy their voyage through the fascinating and intriguing world of submerged prehistoric archaeology.

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- Fischer, A. (2010) SPLASHCOS, a European network on submerged prehistory. *Maritime Archaeology Newsletter* 25, 24-27.



Fig. 2. A close encounter with early prehistory – separated by only a few centimetres of turbid seawater. A representative from a more than 8000 year old habitation and burial site bids diving archaeologists welcome with a big toothy 'grin', 10 m below present sea level off Atlit-Yam, Israel. Photo: Ahuva Zaid 1986, courtesy excavation director Ehud Galili.

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