Maritime Archaeology Research Exchange

Book of Abstracts

20. & 21.11.2020

Timetable

(all CET)

Friday 20.11.2020

10:00h - 10:15h **Welcoming Words**

10:15h - 11:15 h **Keynote-Lecture „*The coasts of the Karian Chersonesos from the Bronze Age to the Roman Imperial period. First results of a new Turkish-German cooperation project*“ by Prof. Dr. Winfried Held (Marburg, GER)**

Coffee Break

11:30h - 14:15h Panel I "Theory and Methods of Maritime Archaeology“

11:30h - 12:00h **J. Enzmann (Wilhelmshaven, GER) „*Making the submerged visible: strategies of excavation, measurement and documentation of an Ertebølle site at strande LA 163 in the Kiel Bay, Schleswig-Holstein, Germany*“**

12:00h - 12:30h **O. Serdar (Ankara, TUR) „*From Black Earth to Blue Sea: The Story of Stone Anchors found at Theodosius Harbour*“**

12:30h - 13:00h **I. Nakas (Birmingham, UK) „*Experiencing harbours through the eyes of the ships: ship size, draft, capacity and handling in the Hellenistic and Roman harbours of the Mediterranean*“**

Lunch Break

14:00h - 14:30h **A. Reich (Hamburg, GER) „*Terra et aqua. Research on the accessibilty and nautical conditions of Miletus‘ harbour basins in consideration of geo-archaeological methods*“**

14:30h - 16:45h Panel II „Archaeology of Harbours, Ports and Marinas“

14:30h - 15:00h **P. Athanasopoulos (Athens, GRC) „*The ancient harbour of Lechaion: Wooden structures in harbour building during the Roman and Byzantine period*“**

15:00h - 15:30h **J. Wertz (Cologne, GER) „*The dendrochronological studies of the harbour of Colonia Ulpia Traiana near Xanten*“**

Coffee Break

15:45h - 16:15h **M. Fiederling (Munich, GER) „*Underwater archaeological research in front of the ancient city of Meninx on Djerba / Tunisia*“**

16:15h - 16:45h **M. Thurn (Hamburg, GER) „*The harbours of Miletus - An analysis of their infrastructure*“**

16:45h - 17:15h **I. Martí Gil (Louisiana, USA) „*Underwater Archaeological Looting in the Maya Area. Historical Background, Current Situation, and Future Challenges to Preventing the Destruction of Subaquatic Heritage*“ (supplement to Panel I)**

Saturday 21.11.2020

10:00h - 11:30h Panel III „*Archaeology of the Eastern Mediterranean*“

10:00h - 10:30h **A. Iasonos (Oxford, UK) „*Deep-Sea archaeology in the Exclusive Economic Zone (EEZ) of Cyprus*“**

10:30h - 11:00 **N. El-Galy (Oxford, UK) „*Ancient Egyptian Ship & Boat Models Between Theory & Simulation*“**

11:00h - 11:30h **Judith Gatt (Aix-Marseille, FRA) „*The Harbours of Cyprus during the Diadochi Wars*“**

Coffee Break

11:45h - 15:15h Panel IV „*Trading Routes*“

11:45h - 12:15h **Katerina Velentza (Southampton, UK) „*Found and Lost: Stories of Ancient Sculptures Lost at Sea during the Grand Tour*“**

12:15h - 12:45h **A. Dawson (Oxford, UK) „*Moving in Silence and Violence: Some Thoughts on the Archaeology of Piracy*“**

12:45h - 13:15h **N. Köknar (Nikosia, CYP) „*Late Bronze Age Burials in the Western Anatolian Coast and Sea Trade and Cultural Connections with Mycenaeans*“**

Lunch Break

14:15h - 14:45h **E. Loizou (Kiel, GER) „*The harboursides as key-sites for understanding the networks in the Aegean Prehistory*“**

14:45h - 15:15h **S. Moshfegh Nia (Cologne, GER) „*Let's talk about the "Indo-" part! India's impact on the maritime trade of the Roman Empire*“**

15:15h - 15:45h **Closing Discussion**

15:45h **Farewell Words**

At the time this conference was planned, it was impossible to foresee the extent to which the world would be shaken in 2020. The idea of the conference was to give early career researchers the opportunity to present their current projects, while creating a friendly and pleasant atmosphere and gain first-hand experience of a scientific conference. The current situation now forces us to pursue this idea online and in a different format.

But even these restrictions have their opportunities, as more colleagues can join the conference and our speakers have a broader platform to present their research.

During the two-day conference seventeen early career researchers from a variety of countries will present their degree thesis that reach from B.A. to PhD level. Divided into four panels, each with a different approach, they are united in their focus on the discipline of Maritime Archaeology. We hope that during the conference we can gain new insight into the latest state of research and that fruitful discussions will help our speakers to further advance their projects.

Even though, we are not able to hold the conference as planned, we would like to take this opportunity to thank all those who have supported us. First of all we would like to thank the people who have supported our ideas and helped us to realise them: Prof. Dr. M. Seifert, Prof. Dr. Ch. Berns, Dr. S. Huy, Dr. L. Ziemer and A. Wohlers. We are very thankful that we can enjoy the liberties and the support that our institute, the Institut für Archäologie und Kulturgeschichte des antiken Mittelmeerraumes Universität Hamburg, provides. Furthermore, to our sponsors: Honor Frost Foundation, Fachschaft Archäologie Universität Hamburg, Kalliope – Freundeskreis Klassische Archäologie, Prof. Dr. M. Seifert, Fachbereichsrat Kulturwissenschaften Universität Hamburg and the AStA Universität Hamburg. Also, to Achilleas Iasonos M.A. for establishing the contact to the HFF and Prof. Dr. W. Held for his kindness to take over the keynote lecture.

We hope that this conference can be used to build networks, that will help us all, speakers and listeners alike, to advance scientifically in the future. We wish everyone a fruitful conference, good health and that we can soon exchange scientific information and ideas again vis à vis.

Askya Pizzuto, Alexander Reich, Florian Schwake and Maurice Thurn

Panel I „Theory and Methods of Maritime Archaeology“

Chair: Prof. Dr. W. Held (Marburg, GER)

Making the submerged visible: Strategies of excavation, measurement and documentation of an Ertebølle site at Strande LA 163 in the Kiel Bay, Schleswig-Holstein, Germany

Since 2011 the site Strande LA 163, in 6 m depth around 1 km in front of the modern coast, is known as one of the few aceramic Ertebølle sites in Northern Germany. A first excavation campaign in 2012 and a survey in 2014 had very promising results, which led to the current project. Under the title: „Subsistence strategies, settlement structure and communication during the terminal Mesolithic exemplified by a submarine micro region in the Bay of Kiel" the German Research Foundation (DFG) granted a three years project to the Lower Saxony Institute for Historical Coastal Research (NIhK). The author will present the first results of his PhD after four campaigns of coring and excavating the site in 2018 and 2019. Aim of the presentation is an overview of the work that is done so far and the applied methods. The lecture will specifically address the innovative measurement system that developed from the combined use of Computer Vision Photogrammetry (Structure from Motion) and measurements taken with total station, which allows a measurement precision like on land. In addition, the lecture will show how different datasets from excavations, corings and seismic surveys benefit from the global measurement system and enable the reconstruction of the palaeolandscape.

Jonas Enzmann
Niedersächsisches Institut für historische Küstenforschung, Wilhelmshaven
jonas.enzmann@nihk.de

From Black Earth to Blue Sea. The Story of Stone Anchors that Found at Theodosius Harbour

The excavations of Theodosian harbour brought to light 37 well preserved shipwrecks and their valuable bearing objects, exposing important aspects of the Byzantine life and culture. Theodosian Harbour was built to import commercial materials necessary for expanding city (Müller-Wiener, 1994: 8-10; Magdalino, 2000: 210-11). Wolfgang Wiener Müller, former head of the Istanbul DAI - German Archaeology Institute, stated in his book "Port of Istanbul" published in 1995 that traces of the port of Thedosius can be found in the Yenikapı region. The massive quantities of grain were shipped from Alexandria to Constantinople to sustain the growing population of the capital (Mango, 2000: 190). Amongst the finds, there were a large number of stone anchors, while most of them they were surprisingly made of marble. The research work on the marble provenance that used in early 90's which develops day by day with new techniques, methodologies and marble databases from most of ancient marble quarries all around the Mediterranean. The research on scientific analysis of the marble stone anchors of the Yenikapi Shipwrecks is a pioneer work of marble provenance on anchors, since marble was not preferred as material to build stone anchors in ancient world. The archaeologists of the Istanbul Archaeological Museum found 37 well preserved Byzantine shipwrecks on Theodosian Harbour dating to between 5th -11th century (C.Pulak, 2015). Since an alluvial layer of Lycos river has covered 37 shipwrecks, they were brought to light with various other finds during the excavations. The archaeological site shows that different unknown aspects of the Byzantine life and culture. More than 300 stone anchors and weights excavated were surprisingly mostly made of marble.

The study presents the archaeometric analysis of stone anchors from the Yenikapi Shipwrecks. The archaeometric techniques used in this project enlightened our work that held for provenance analysis of these ships that were carrying grain from Alexandria to Constantinople (Mango, 1986: Magdalino, 2000).

Determining the origins of the marble anchors will enable the data which can lead us to the origin of these shipwrecks, while they were sailing from Alexandria to Constantinople where the ancient trade routes in Byzantine period. Since the excavation held on one of the biggest harbour of Constantinople, the data obtained can reveal the connections between the Byzantine Imperial Capital and the cities in Levanten region, Eastern Mediterranean. This study will help the collaborative work between the archaeologists and scientific researchers to learn details of marble use in antiquity.

Serdar, O.[1]*, Turkmenoglu, A.*[2]

[1] *Middle East Technical University, Archaeometry Dep. , orhanserdar@hotmail.com*

[2] *Middle East Technical University, Geology Dep. , asumant@metu.edu.tr*

Experiencing harbours through the eyes of the ships: ship size, draft, capacity and handling in the Hellenistic and Roman harbours of the Mediterranean

Despite the importance ancient harbours had as commercial centres, markets, ports-of-trade, meeting places or as parts of important and thriving coastal cities, especially during the period of the first financial, cultural and political unification of the Mediterranean that started with Alexander and peaked with the *pax romana*, harbours were and are still built, organised and operated to serve the primary goal of accommodating ships. This vital aspect of the harbours' function is often neglected by literature, on the one hand overshadowed by the importance and richness of coastal and land archaeological finds and on the other due to the lack of adequate evidence on the configuration and depth of each harbour and knowledge on the form and operation of contemporary ships.

This paper aims in studying how ships and their crews experienced harbours and how they made the best out of them in terms of anchoring, docking, beaching and navigating inside them. Another aspect of this experience also considers the actual capacity of the harbours to house ships of various numbers, types and capacities and the complications generated by such issues like depth, exposure and siltation. Through the application of a new methodology that combines data both from ships as well as from harbours we hope to introduce a new, more "practical" way of seeing, studying and eventually understanding Hellenistic and Roman harbours of the Mediterranean.

Ioannis Nakas
Department of Classics, Ancient History and Archaeology, University of Birmingham
ydn761@student.bham.ac.uk

Terra et aqua. Research on the accessibilty and nautical conditions of Miletus‘ harbour basins in consideration of geo-archaeological methods

The ancient city of Miletus was located at the Meandros delta‘s Southern edge which gave it an excellent strategic position on the West coast of Ionia in modern Turkey. According to Strabo the city had four major harbours, one of which, big enough to host a fleet. This ‚main harbour‘ has been identified by A. von Gerkan as the Lion Harbour which is connected to the socio-economic and cultural centre of Miletus. Due to the fact that this basin was flanked by the Humeitepe in the East and the Kaletepe in the West it offered a protected and save area for ships which could even be locked. The other three important harbours are the Theatre Harbour, the Humeitepe Harbour and the East Harbour. All four areas offer enough space to be used as effective mercantile ports. From 1993 to 2004 several geo-physical surveys were conducted throughout the whole city. On this basis drilling surveys were performed by H. Brückner and A. Herda which gave further insights on the geo-morphing of the Milesian peninsula. Thanks to this research the progradation of the Meandros, accumulation, denudation processes, change of sea level and anthropogenic impacts could be reproduced and gave a better understanding of the area’s development. As these studies connect water and land they are essential for understanding the harbours and their surroundings.

This paper will refer to the geo-archaeological approaches and uses the results of H. Brückner’s and A. Herda’s as basis for the reconstruction of the four major basins. Furthermore, other promising drilling spots are being proposed to complete the picture. This way one could gain better knowledge about the harbour entrances as well as their accessibility. In this context also the currents and winds shall be taken in consideration as they may or may not have a direct impact on the navigation of ships in the port. Understanding and reconstructing the currents of a silted up harbour of course bring several problems with them. Also the winds‘ impact on the navigation is not easy to evaluate as one does not only have to look at the sea breeze, but also the down wind of the Mykale mountain range in the North on the other side of the delta. Hence, solutions on this shall be proposed and analyzed. Studying different ship types will help to understand the basins as they are the object they were built for. These geo-archaeological approaches together with the sources and classical archaeological methods will help to understand what the harbours of Miletus were able to achieve.

Alexander Reich

Institut für Archäologie und Kulturgeschichte des antiken Mittelmeerraumes, Universität Hamburg

Alexander.reich@studium.uni-hamburg.de

Underwater Archaeological Looting in the Maya Area. Historical Background, Current Situation, and Future Challenges to Preventing the Destruction of Subaquatic Heritage.

The turn of the twenty-first century entailed a remarkable advance in placing further value on salvaging and cherishing of underwater heritage assets. The drafting of the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage encouraged a renewed interest in the development of maritime archaeology and the conservation of subaquatic archaeological remains. Despite the international efforts, the uneven ratification of the convention has not put a stop to the looting of sunken heritage assets.

The Maya lands, which now consist of the countries of Belize, Honduras, El Salvador, Guatemala, and five states in Mexico, have been ruthlessly pillaged for centuries. The still-standing majestic architecture, the exquisite fine crafts, and the mesmerizing sculptures and mural paintings, have been targeted by looters since early times. As a result, a broad spectrum of protective legislation has been developed to preserve land-based cultural heritage, both tangible and intangible, from the natural and human destruction. However, less attention has been placed on safeguarding underwater heritage remains.

As a matter of fact, in this area of Central America, the professionalized discipline of underwater archaeology has evolved from a vocational activity focused on the mere recovery of artifacts. Amateur drivers and treasure hunters have been on the quest for sunken cities, shipwrecks, prehistoric sites, and ancient objects spread over the ocean, river, and cenote floors. These heritage assets contain invaluable scientific data that is lost when artifacts are removed without systematic and methodological techniques, impairing the reconstruction of its history, the co-creation of social identities, and the growth of sustainable tourism.

Little research has been conducted on underwater looting in the Maya area per se, notwithstanding its pervasiveness. This constitutes a gap in literature that contributes to underestimating the extent of subaquatic pillage and its dreadful consequences. To start bridging that gap, this presentation has three main goals. Firstly, it aims at compiling the historical background of looting in the Maya countries and its scope, by conducting an exhaustive research on the information published in academic journals as well as in open-source databases. Secondly, it assesses the current state of underwater looting in the Maya area countries, and the legal measures that are being enforced to deter it. Finally, it identifies and analyzes the future challenges related to subaquatic looting, and investigates potential solutions.

Ultimately, this paper is not intended to be a comprehensive state of the art in underwater archaeological pillage, but a preliminary approach to a field that has remained largely unexplored.

Irene Martí Gil
Department of Geography & Anthropology, LSU
imart23@lsu.edu

Panel II „Archaeology of Harbours, Ports and Marinas“

Chair: Prof. Dr. Ch. Berns (Hamburg, GER)

The ancient harbour of Lechaion: Wooden structures in harbour building during the Roman and Byzantine period.

The city of Corinth in Greece lies on the northeastern part of the Peloponnese peninsula and that exceptional geographical position partially explains the crucial impact she had in the history of the ancient Greek world. Having access both to the Corinthian and the Saronic Gulf, it was inevitable to turn to the sea and gradually create the suitable maritime infrastructures to support her growing needs. This necessity was fulfilled with the construction of the Lechaion harbour at the Corinthian Gulf. The harbour was at a very close distance from ancient Corinth and offered a clear getaway to the west and to the north. The first phase of harbour construction in Lechaion should be placed at around 625-585 BC and recent archaeological evidence suggest that the harbour remained in use until the 15th century AD and perhaps even later in smaller extend.

Underwater excavations at the harbour of Lechaion from 2013 to 2018 by the Lechaion Harbour Project brought to light, among many other harbour related structures, submerged remains of exceptionally well preserved wooden constructions. The remains consist of several wooden caissons and wooden posts all forming supplementary piers or jetties to the existing massive harbour mole structures and constitute a unique archaeological find in the Greek seas and among the very few in the Mediterranean Sea.

This lecture aims at presenting the preliminary results of the excavations undertaken at those wooden remains and will address the issues raised regarding the chronology and the advanced and costly building techniques employed in the construction of those structures. In addition, the paper shall present the ongoing condition assessment of the wooden material and discuss the long term preservation plans required to protect archaeological remains in shallow and environmentally active waters.

Future research goals will also be presented as part of an interdisciplinary research scheme scheduled in order to acquire a coherent understanding of the function and use of those remains· how the wooden structures contribute to the study of ancient Corinth during and after Roman years and eventually enhance our knowledge about ancient harbours and harbour building in general.

Panagiotis Athanasopoulos
Lechaion Harbour Project, Corinth
paathana@gmail.com

The dendrochronological studies of the harbour of Colonia Ulpia Traiana near Xanten

In the course of a bachelor's thesis, the archaeological woods of the port of Colonia Ulpia Traiana near Xanten were processed in the course of a revision work.

A total of 164 timbers were revised, divided into three features: the so-called pier, the so-called impact slope and the quay. Of these woods, 143 could be dated, which is a very high rate. Thus, 85% of the pier, 87% of the impact slope and 92% of the quayside timbers are dated. They provide an important basis for the discussion of a possible multiphase of the habour near Xanten.

However, an absolute chronological dating is only available for woods with bark. Of these, three have been recovered, 37 sapwoods with a maximum dating period of 15 years have been found. 37 of the so-called mole, which is a ship's lobe, has been dated to 141 AD. This date could easily be corrected to 150 ± 5 AD. The 76 dated samples show a very uniform picture, so that a short, single-phase construction is very likely (Fig. 1).

The so-called impact slope was long interpreted as a second harbour. The interpretation was only revised in 2015. From now on, the finding will be interpreted as a type of impact slope which is intended to prevent the river bank from being eroded by the strong Rhine flow. In the literature it is dated 130 AD and would thus be the oldest verifiable in all of Germany. During the excavation 48 woods were sampled, of which 42 could be dated after the revision. The dating period ranges from 16 BC to 129 AD (Fig. 2). A wood with a bark lies in the archaeological context of the impact slope and can be dated to 129 AD, which suggests that the work was done around 130 ±1 AD. However, there is another wood with a bark which is dated 47 AD. A repair can be excluded on the basis of the findings. Dendrochronologically, the phenomenon can be explained very simply by the use of old wood, which was very popular in Roman times.

The quay is the heart of the CUT's port facilities. It is the only one detectable on the entire Rhine so far. During the excavation 27 woods were sampled, 25 of which can be dated. Researchers have long been discussing the four-phase nature of the facility. After the revision, three main areas of dating can be identified (Fig. 3). The first is dated between 45 and 60 AD, the second around 85 AD, and the third around 135 AD. Archaeologically, these are interpreted as different construction phases, but they would often only be covered very thinly with less than five timbers. Whether or not there is a possible use of old wood will be discussed during the lecture and afterwards.

Jana Wertz
Archäologisches Institut, Universität zu Köln
jwertz@smail.uni-koeln.de

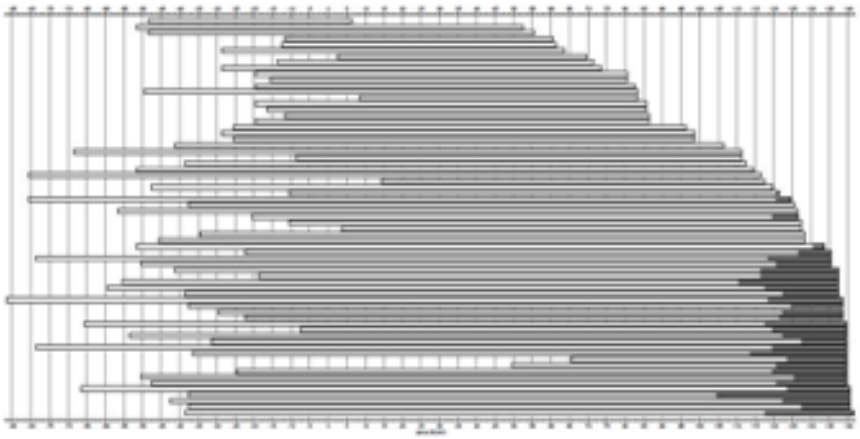

Figure 1 Bar chart of all dated sample curves from the building context of the so-called pier. The sapwood rings are highlighted in grey.

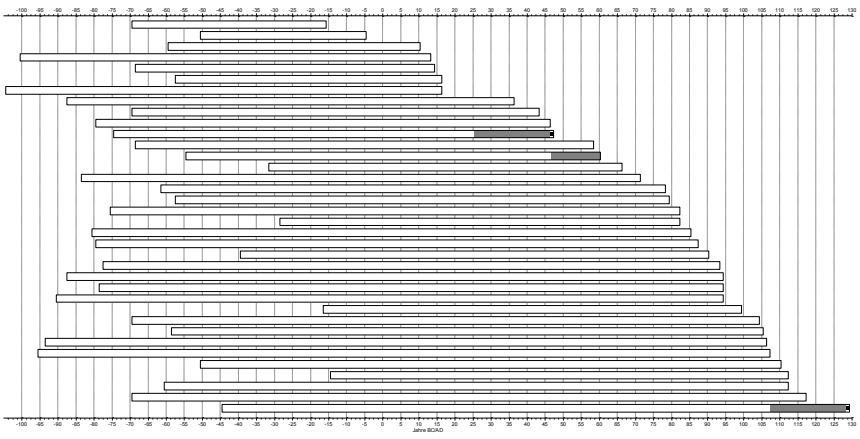

Figure 2 Bar chart of all dated sample curves from building contexts of the impact slope of Colonia Ulpia Traiana. The sapwood rings are highlighted in grey. The black dots indicate forest edges.

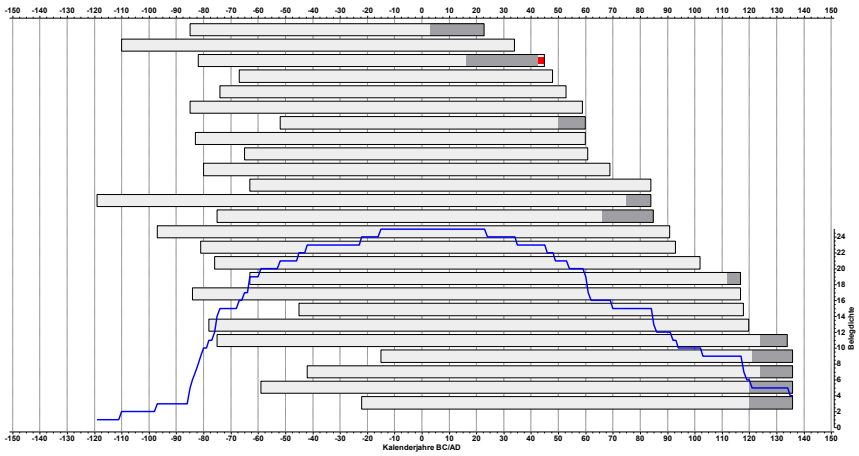

Figure 3 Bar chart of all dated sample curves of the quay of Colonia Ulpia Traiana. The sapwood rings are highlighted in grey, with red forest markers. The blue graph shows the density of the sample.

Underwater archaeological research in front of the ancient city of Meninx on Djerba / Tunisia

As a part of the DFG project "The Meninx Archaeological Project - MAP" launched by the LMU Munich and the INP, members of the Bavarian Society for Underwater Archeology were able to document for the first time underwater archaeological evidence off the coast of the ancient city of Meninx on Djerba.

The results contributed the first answers on sea trade and the port situation of the city and thus enriched the knowledge on the city's history in total. Two field campaigns in 2017 and 2018 were carried out and finished by documentation campaign in 2019. During 2017 and 2018 the first surveys and excavations were carried out and further discoveries were made in the last days of the field cmapaign 2018. The results of the participation were processed and will be presented, together with all other results of the project, in a final monography of the DAI in 2021.

The results so far include the development of a centuries-old waterway off the coast of the ancient city within the Wadi al Kabir, as well as the discovery of the remains of an imperial jetty, which was found between the Macellum and the Horrea of the city, partly excavated and studied through an extensive core drilling program. In addition, near the current dam, which connects the island with the mainland today, further anomalies were documented and finally several wrecks within the ancient waterway system were discovered. In addition to continuing the research on the island of Djerba, another cooperation project with the INP is launched in which the bay of the ancient city of Sullecthum (today Salakta) on the Tunisian coast shall be investigated. Although the field campaigns were postponed to 2021, thanks to Corona, the planning for the continuing investigations on Djerba as well as for the new project in the bay of Sullecthum are under way.

Max Fiederling
Provinzialrömische Archäologie, LMU München
max_fiederling@web.de

The harbours of Miletus - An analysis of their infrastructure

The harbours of Miletus (SW-Turkey) were the subject of studies over the course of the last century. However, the research focused largely on representational aspects - especially concerning the so called Lion Harbour. In my master's thesis I seek to add a new perspective to this research by investigating how the different harbours of Miletus were practically used in Hellenistic and Roman Imperial times. Therefore, I will concentrate on the different functions and utilisations of the harbour buildings and facilities. Due to the geomorphological conditions of high groundwater in the harbour areas, it is currently not possible to excavate there within the scope of my project. Nevertheless, in order to identify buildings and spaces related to the harbours and to determine their individual functions, I will re-examine the published works on the already excavated harbour facilities. In particular, an important feat will be the maps, provided by the extensive geophysical prospections that have been conducted over the last 30 years (CAU Kiel). The data thus obtained shall provide a groundwork of identified and yet unidentified harbour structures in Miletus. Subsequently, I will compare my results of Miletus with other, better excavated harbours in the Aegean in order to draw analogies and contextualise them.

In the paper I want to discuss my methodological approach and to present first results. The primary focus will be on the so called Humeitepe-Harbour that has been excavated partly in 2011 (H. Bumke) and is now subject of the ongoing research of the University of Hamburg (Ch. Berns).

First results show that this harbour was of great significance, especially in the Roman Imperial period. The combination of the evaluation of the research to date shows that from the 1st century BC onwards, the infrastructure of the port was gradually expanded. In spite of its remote location, the port must therefore be given a substantial role within the trade conducted through Miletus at this time.

Maurice Thurn, B.A.
Institut für Archäologie und Kulturgeschichte des antiken Mittelmeerraumes, Universität Hamburg
maurice.thurn@web.de

Panel III „Archaeology of the Eastern Mediterranean“

Chair: TBA

Deep-Sea archaeology in the Exclusive Economic Zone (EEZ) of Cyprus

Conducting deep-sea surveys beyond the Territorial waters of a state for Underwater Cultural Heritage (UCH) is often beyond the capacity of national heritage agencies and university-based researchers due to its great expense. The result of this is that research in maritime archaeology has largely been focused in more 'convenient' and 'accessible' areas such as the shallower waters of the Territorial Seas. This is unfortunate as several pioneering projects have demonstrated that UCH finds are possible both in the waters of the Exclusive Economic Zone (EEZ) and on the Continental Shelf (CS) and beyond. Many more are likely to exist, the majority of which either remain unexplored or are potentially under threat from illegal salvagers and other commercial-sector companies. Nevertheless, it is the intention of this thesis to demonstrate that is possible to conduct research, and hence disclose new and unpublished information regarding UCH in the deep seas, by taking advantage of datasets produced by the oil and gas industry and other commercial sector companies. This approach is in its infancy and as a result of this, national heritage agencies are yet to fully exploit the potential for ensuring that any new UCH sites that are discovered are adequately documented. Consequently, the second major element of this thesis is the proposal of a robust set of recommendations that can be specified by heritage agencies to companies surveying in the deep waters of the EEZ.

Achilleas Iasonos
School of Archaeology, University of Oxford
achilleas.iasonos@arch.ox.ac.uk

Ancient Egyptian Ship & Boat Models Between Theory & Simulation

Ancient Egyptian art is wealthy with inscriptions, depictions, and monuments. Tracing and analysis their art can provide solid chronological framework and historical literature. Identifying what the ancient Egyptians referred to could be challenging and problematic. The gaps in historical texts were sometimes too brief to be precisely understood or had missing parts. And although the archaeological discoveries may reveal some answers and facts, sometimes they are highly questionable.

Through dynasties, ancient Egyptian artist's technology spin continued progressing. In addition to the two-dimensional inscription and depictions, they succeeded in creating three- dimensional objects. The industry of models' miniature helped to force the artists to demonstrate different aspects of the ancient's Egyptian life.

This paper is carefully considering ship and boat models found inside tombs as votive miniatures. Were models abstract representations chosen to represent themes for the rituals associated with burial and as such were decorative and consequently did not need to be entirely accurate in their construction? Alternatively, were boat models miniature representations of reality?

My early work on the models has suggested that their hulls are hydrodynamically efficient and that they could have effectively functioned in the fluvial landscape of the Nile. This suggests that ship and boat models can be used to augment the sparse nautical archaeological evidence from Egypt. Believing in the rebirth after death in ancient Egyptian dogma has inspired the artists with the idea of creating a reflected image of daily life through miniaturizing objects.

Nesreen El-Galy
School of Archaeology, University of Oxford
nesreen.elgaly@worc.ox.ac.uk

The Harbours of Cyprus during the Diadochi Wars

This paper explores the harbours of Cyprus, namely those of Nea Paphos, Marion, Amathus and Carpasia, in the context of the Diadochi Wars. During this time armies, fleets and harbours were a demanding need. The harbours that were built by the Diadochi for the purpose to sustain their ongoing wars are the center of interest of this research. Cyprus consists an excellent case study to understand the politics of the time as it played a prominent role. Most importantly, it preserves remains of harbour structures dating to this period. This allows us to explore the Hellenistic harbour construction and the development of the harbour network on the island but also expand beyond and link them with those of the surrounding region. The aim of this research is to better define the character of function and role of the Hellenistic harbours of Cyprus through the use of ancient sources, aerial photos and literature review. Previous research has already examined this subject however many research questions remain open for discussion. Is there any archaeological evidence that proves that the Hellenistic harbours of Cyprus were part of a project initiated by one of the Diadochi to fortify the island with naval harbours? Were these harbours indeed abandoned and destroyed and if so what is the archaeological evidence? How is our understanding of these harbours enriched when those from the surrounding area are included in the discussion? This study offers a broader understanding of the Hellenistic Harbours of Cyprus.

Judith Gatt
Master of Maritime and Coastal Archaeology, University of Aix-Marseille
gattjudith96@outlook.com

Panel IV „Trading Routes“

Chair: Dr. S. Huy (Hamburg, GER)

Found and Lost: Stories of Ancient Sculptures Lost at Sea during the *Grand Tour*

Since the 16th century numerous ancient sculptures have been discovered underwater in the waters of the Mediterranean Sea. So far, scholars of classical and maritime archaeology have considered these underwater sculptural discoveries as the result of ancient maritime activities. However, recent study on underwater sites of the Mediterranean has brought to light a series of non-ancient deposits with ancient sculptural artefacts.

These underwater deposits are mainly dated between the 17th and the 19th centuries AD and relate to the development of European Antiquarianism and the *Grand Tour*. This touristic movement of wealthy European elites in the lands of the Graeco-Roman world was accompanied by the acquisition of ancient art from the visited places. Sculptures were the most exciting pieces to acquire for the creation of ancient art collections. This long distance movement of ancient works of art and sculptures occurred mainly by ships, which sometimes wrecked, taking with them the ancient artefacts that they carried. Salvage operations were often organised for the retrieval of this precious cargo, even though not always successful.

In this paper some of the best-documented underwater depositions and shipwrecks of that era will be examined. Thus, it will be possible to assess the extent of this maritime activity and the possible, still unexplored, impact that it could have had on the underwater archaeological record of the Mediterranean.

Katerina Velentza
Centre for Maritime Archaeology, University of Southampton
katerina.archaeology@gmail.com

Moving in Silence and Violence: Some Thoughts on the Archaeology of Piracy

From Thucydides' *Archaeologia* to Robert Louis Stevenson's *Treasure Island*, literary tales of swashbuckling pirates have long captured the imagination of the public. Despite this, attempts to produce an archaeology of piracy have largely been unsuccessful. This has led historians (and some archaeologists) to dismiss piracy as a phenomena that cannot be understood using archaeological methods, only historical ones. Yet, the last 10 years have seen an unprecedented spike in archaeological publications in piracy, notable examples including "Persistent Piracy: Maritime Violence and State-Formation in Global Maritime Perspectives" and "X Marks the Spot: An Archaeology of Piracy". So how has piracy transformed from a *thema non grata* in archaeology to one of the fastest developing subjects in maritime archaeology? Encompassing a series of periods, ranging from modern day Puntland, to Ancient Cilicia, this paper will look at how changes in the perceptions of piracy have subsequently altered how we can perceive piracy from an archaeological perspective. Topics covered will include theoretical developments in maritime archaeology such as: differentiating between Ciceronean and Augustinean piracy and larger socio-political changes in western society caused by events such as the failure of the "war on drugs" and the growth of Somali piracy from 2008 onwards. This paper will go on to review how these ideas have contributed to the creation of an archaeology of piracy characterised by seasonality, disparity in quality between material culture and settlement and a form of third party backing which allows piracy to function as a sub-group of organised crime.

Adam Dawson
School of Archaeology, University of Oxford
adam.dawson@spc.ox.ac.uk

Late Bronze Age Burials in the Western Anatolian Coast and Sea Trade and Cultural Connections with Mycenaeans

Western Anatolia acted as a semi-permeable membrane between Anatolia and the Aegean in the Late Bronze Age. As per its geography it acts both like a buffer between Mycenaean and Anatolian cultures evident from the lack of Mycenaean influence in settlements and burial sites found in inner lands of Western Anatolia; and like a bridge considering the coastal sites were major hubs for the sea trade. The topography of the region in the Late Bronze Age allowed more convenient access through seafaring even when it comes to ports within the same side of the Aegean Sea.

This paper focuses on graves at coastal sites as sources of information for maritime network in Western Anatolia during the Late Bronze Age. Major motivation for this inclination was that burial sites provide reliable and holistic information that pertains to social hierarchy, economic organization, and geography's impact on local culture and lifestyle. Burial sites can be seen as the quintessential remains that demonstrate how much the geology of the coastal sites effected their cultural landscape and eligibility for sea trade. Therefore, Western Anatolian graves have unique characteristics as a mixture of the Aegean and Anatolian. Characteristics of the burial customs showing cross-cultural network include architecture of graves, finds such as pottery and their style, weapons, and ornaments. Even in the absence of settlements, the material culture of the graves contributes to the understanding of maritime contacts in these sites through metal and clay analysis, geological surveys, and typological examinations.

Nisan Köknar
Mediterranean Archaeology Program, University of Cyprus
nkoknar17@ku.edu.tr

The harboursides as key-sites for understanding the networks in the Aegean Prehistory

The present paper will present the outline and discuss the preliminary results of my PhD thesis, which bears the title "*The harboursides as key-sites for understanding the networks in the Aegean Prehistory*". As the dissertation is still in progress, it is anticipated that, by June, some of the major research questions would have been answered -or at least have already acquired a direction towards some results- and some new inquiries will have been created. This presentation concerns the revised scheme of my dissertation and explores some new ideas on the Aegean Prehistory.

To begin with, the first part sets the objectives of the thesis work and concerns the theoretical background upon which the paper is constructed. It also introduces the contextual frame and the methodological tools that have been selected in order to comprehensively approach the archaeological data. Moreover, it is also attempted to criticise, or better, reconsider some of the peer archaeological theories that dominate the archaeological thought.

Secondly, some case-studies sites at the north Aegean sea have been chosen to give an overview of the Early and Late Bronze Age and the Iron Age. The Aegean civilisation exhibits great diversity in cultural and natural terms, as in many cases heterogeneity or homogeneity is independent from conspicuous factors, like distance or geography. Investigating the environment and the material culture of these sites, it can be outlined how people perceived their surroundings, by which means they interacted with them and with each other and how strong their connections had been. These elements can provide a better insight into the establishment of trade routes, political affinities and networks, which is the lead question of the paper.

Since no solid interpretation can be produced at this point, the presentation will focus on the questions and the provided tools to approach the formation and function of networks between the north Aegean sites and other distant regions. It is expected up to this point to have create a complex of questions and methodologies to approach the conditions under which the environment determines connections, what is the role of these connections in culture, politics and ideology, if we can talk about a *common Mediterranean culture* on this era and how the contact area of the Mediterranean influences the representation of peoples and individuals as well as the formation of identity.

Eugenia Loizou
Institut für Ur- und Frühgeschichte, Christian-Albrechts-University in Kiel.
eugenialoizou@yahoo.com

Let's talk about the "Indo-" part! India's impact on the maritime trade of the Roman Empire

The long-distance trade of the Roman Empire with cultures outside it's border areas is a very complex web of interactions between agents of different cultures, languages, geographical and administrative units, using varying means of transport by sea or land and concerned with goods of all kinds. The common interest of all parties involved was a secure and profitable flow of goods. Through efficient communication and contact with local traders and middlemen as well as political entities, trading networks outside the Roman Empire were continuously extended to maintain a stable chain of supply and demand within the Empire.

Although research on the economic history of the *Imperium Romanum* rarely devotes more than one subsection to long-distance trade, India is always at the center of such investigations. India had already been a subject of interest in Roman literary sources dealing with geography, society and economic issues. Excavations of Roman ports in Egypt uncovered archaeological evidence confirming the written sources and thus spurred research on Indo-Roman trade relations.

The Indian subcontinent played a crucial role within the Roman long-distance trading network, which was established after Egypt was incorporated as a Roman province in the year 30 BC. It held and dominated the trade of eastern goods in the Indian Ocean until the 3rd century AD. So what exactly made India such a profitable trading partner to the Mediterranean world? What was the driving force behind Indo-Roman trade? Did the impetus come from local cultures or the Roman Empire? What strategies did the ancient Indian cultures develop to establish, maintain and stabilize trade contacts with Mediterranean merchants? How did the local cultures react to the demand for goods from the Mediterranean region?

The paper will give an overview of trading ports, sea routes and product flow in the entire Indian subcontinent, essentially pointing out India's economic potential as a trading partner within the ancient world. A trading partner with outstanding economic influence that unfortunately has been overlooked to date, due to the fact that research on long-distance trade is mostly focused on the Roman perspective thus neglecting the "Indo-" part of the term Indo-Roman trade.

Shabnam Moshfegh Nia
Archäologisches Institut, Universität zu Köln
shabnam.moshfegh.nia@dainst.de