SOMA 2018
XXII Symposium on Mediterranean Archaeology

FROM EAST TO WEST
THE MOBILITY OF PEOPLE, GOODS AND IDEAS IN THE ANCIENT MEDITERRANEAN
22nd-25th November 2018 Museo del Mare e della Navigazione Antica - Santa Severa (Rome)

Sponsored by
SOMA 2018: XXII Symposium on Mediterranean Archaeology

WELCOME ADDRESS
Pietro Tidel, Mayor of the city of Santa Marinella, Italy
Ivana Della Portella, Councilor of Culture, Italy

SCIENTIFIC COMMITTEE
Barbara Davide Petriaggi, Director of the Underwater Archaeological Operation Unit, ISCR, Italy
Roberto Petriaggi, Director of the International Journal Archaeologia Maritima Mediterranea, Italy
Flavio Enel, Director of the Museo del Mare e della Navigazione Antica, Santa Severa, Italy
Michele Stefanile, University of Naples L’Orientale and ISCR-MUSASProject collaborator, Italy
Hakan Oniz, Secretary of ICOMOS, ICUC, Turkey
Asman Baldiran, Archaeology Department, Selcuk University, Turkey
Osman Erevsar, Medieval Archaeology Department, Selcuk University, Turkey
Sergey Fazullin, CMAS Director for Scientific Diving, Russia
Blazej Stanislawski, Institute of Archaeology and Ethnology, Polish Academy of Sciences, Poland
Felipe Cerezo Andreo, University of Cadiz, Department of History, Geography and Phylosophy, Spain

ORGANIZATION COMMITTEE
Barbara Davide Petriaggi, Director of the Underwater Archaeological Operation Unit, ISCR, Italy
Flavio Enel, Director of the Museo del Mare e della Navigazione Antica, Santa Severa, Italy
Michele Stefanile, University of Naples L’Orientale and ISCR-MUSASProject collaborator, Italy
Marco Ciabattoni, Physics Laboratory, ISCR, Italy
Carlotta Sacco Perasso, ISCR-MUSAS Project collaborator, President of the ANEDbc, Italy
Federica Antonelli, University of Tuscia, Member of ANEDbc
Lucilla Prounti, Freelance Conservation Scientist, Bursar of ANEDbc, Italy
Ludovica Ruggiero, Roma Tre University, Vice President of ANEDbc, Italy
Valerio Graziani, Freelance Conservation Scientist, Secretary of ANEDbc, Italy
Giuseppe Capobianco, Sapienza University of Rome, Member of ANEDbc, Italy
Ceyda Oztosun, Selcuk University, Turkey
Kamran Kamaei, Eastern Mediterranean University, Cyprus
Karolina Trusz, Polish Academy of Science Archaeology Ethnology Institute, Poland

SUPPORT STAFF
Carlota Perez-Reverte, University of Cadiz, Department of History, Geography and Phylosophy, Spain
Nabila Rambaldi, Roma Tre University, Italy
Federica Stellati, Roma Tre University, Italy
Martina Rocca, Roma Tre University, Italy
Lisa Catalano, Roma Tre University, Italy
Giulia D’Alessio, Roma Tre University, Italy

SIDE EVENTS
Albino Ruberti, Head of Cabinet of the Lazio Region, Italy

Sponsored by
ABSTRACT BOOK
In the period between the 10th and the 8th centuries BCE the area of south-eastern Anatolia and northern Syria was occupied by small political units established by the Luwians that arose after the collapse of the Hittite Empire and population movements at the end of the 12th century BCE. The area over which the Luwians seized power was inhabited by an ethnically mixed population and the kingdoms founded by the newcomers, commonly referred as to Neo-Hittite, were in fact multi-ethnic and multi-cultural in their composition. This ethnic mix as well as intensive contacts with neighbouring peoples found their reflection in the material remains of these kingdoms. The complexity of what we call Neo-Hittite culture is best illustrated by small glyptic products which iconographic repertoire most fully reflects the fusion of Hittite artistic achievements and foreign decorative motifs. Decoration of some of the seals recognized as Neo-Hittite contains separate motifs or whole scenes which prototypes are to find in Assyrian art, both from the Middle and the Neo-Assyrian period. The history of Neo-Hittite kingdoms was namely determined by their relationship to Assyria. Contacts of the Neo-Hittite states with the Neo-Assyrian Empire are attested by Assyrian historical records as early as the reign of Assurnasirpal II who initiated strong expansionist policy of the Assyrian Empire to the west. Intensive Neo-Hittite – Assyrian contacts in the 9th and 8th centuries which resulted, among other, in population displacements, created good conditions for artistic exchange and the presence of Assyrian elements noticeable in the Neo-Hittite art as well as in the glyptic was definitely a result of a number of military expeditions led by Assyrian kings to the west against Neo-Hittite states, first in order to capture spoils and then to annex new territories. The process of turning the Neo-Hittite states into provinces annexed to the Assyrian Empire started in the 8th century BCE. It is also the time of the strongest Assyrian influence on the Neo-Hittite art. The best examples of it are small seals mainly used by inhabitants of the Neo-Hittite kingdoms for marking wares and also as amulets, most of which, as it will be shown, was made in this period. The aim of the paper is therefore to discuss these single motifs or even whole decorative patterns occurring in the Neo-Hittite glyptic which reveal in my opinion the clear Assyrian origin as being worked out by Assyrian craftsmen, whose artistic production was one of main sources of inspiration of Neo-Hittite artists.
The last few years, in the history of studies on Late Bronze Age Mediterranean, archaeology has been particularly productive in the investigation of the ancient economy and trade, having brought to light a complex system of connections, both maritime and terrestrial. The existence of a wide and systematic network regulated by laws, norms and a value system, although in nuce, is now evident. Within this network, commodities, people and ideas freely circulated and a certain degree of safety seemed to be assured. These connections were mostly in the hands of the palaces, as testified by the written sources, but nonetheless it is possible that some commodities circulated by different means, external to the palatial control.

In this talk we will enquire the possibility of the existence of a private agency in the Eastern Mediterranean trade and its relationship with the palatial controlled economy. In order to do so, two kinds of data will be taken into consideration: written sources and pottery. The first piece of evidence will consist mostly in tablets coming from Ugarit and the Amarna letters, and an overview of possible traces of trade in the Linear B tablets will be made, along with a short reference to some interesting new interpretation of the miniaturized inscribed ingots coming from Cyprus. For the latter, the case study in exam will be the Mycenaean pottery, mainly due to its wide distribution and the large amount of available data, but also because presumably out of the palatial control, as it is not mentioned in the archive records.

The analysis of the pottery will be mainly quantitative and focused on an area that includes Anatolia, Syria, Cyprus and Levantine coast during a chronological span that goes from 1450 to 1200 ca. BC (LH IIB-LH IIIC in relative chronology). In this area, the imports include fine examples of drinking pottery and stirrup jars, these latter intended for the transport of wine and perfumed oils. As the results of this research will show, the distribution pattern of this kind of pottery is not homogeneous and varies in time and space.
Digitizing Cypriot glass and faience: manufacture, mobility and interconnections in the Late Bronze Age Mediterranean

Kellie YOUNGS
University of Melbourne
kellie.youngs@unimelb.edu.au

Powerful kingdoms and territorial states characterise the second millennium BC in the eastern Mediterranean. Associated with these developments, social elites created a demand for exotic objects fashioned in styles that referenced links with foreign or distant lands. Precious materials, artistic influences, innovations and ideas were shared and circulated via trade networks and diplomatic exchanges. The high temperature industries of glass and faience provide evidence for the manufacture, movement and interconnections of prestige goods during this period.

This paper examines recent analysis of Cypriot glass and faience objects held in the collections of the British Museum in London, the Medelhaavsmuseet in Stockholm, and the Cyprus Museum in Lefkosia. It will discuss the use of a portable scanner/camera with an automated turntable, to create a database of 3D images of glass and faience objects in these museum collections. The scans provide a dataset for precise 3D morphometric comparative analysis that enables distinctive manufacturing techniques to be identified. One aim of this digital scanning project is provide a better understanding of the influence of imported products on local production: including technology transfer and the movement of luxury items made of faience and glass in the Late Bronze Age. The project also seeks to establish a virtual repository of digital imagery and meta-data that will enable broader access and interpretation opportunities in the study of Cypriot glass and faience than has hitherto been possible.

Within the context of the manufacture, movement and interconnections of prestige goods in the Late Bronze Age Mediterranean, this paper will outline the Cypriot faience and glass scanning project methodology, discuss selected scanned samples and present preliminary findings on patterns represented in the 3D dataset.
From West to East: Some Observations on the Introduction of Naue II Swords in the Aegean

Stefano RUZZA
University “La Sapienza” of Rome
stefano.ruzza@uniroma1.it

The introduction of the Naue II swords in the LH IIIB:2 Aegean, is often regarded as a watershed in the Mycenaean combat techniques. This swords in fact, shows close ties with Italian typologies, namely Cetona and Allerona types, and was probably introduced from the Central Mediterranean. The date of its appearance also, slightly predates the final collapse of the Mycenaean palatial systems. These facts led many scholars, at many different degrees, to the conclusion that, at least in some cases, Mycenaean kingdoms were eventually overwhelmed by an enemy equipped with a new array of weapons.

The aim of this paper is to summarize, discuss and reassess, in the light of the latest studies, the significance laying behind the introduction in the Aegean of the Naue II. This will be made both from a tactical and a social point of view. Concerning the first, the pictures that can be drawn is different from the one often assumed. In fact, as demonstrated especially by Experimental Archaeology, the Naue II didn’t epitomize an entirely new kind of fighting technique, although it was undoubtedly a new type of sword. On the other hand, it is more difficult to conceive a model able to fully include the various social dynamics that allowed the adoption of this artefact. To do so, it is necessary to analyse, from the Aegean point of view, the dynamics of interaction implied by the exchanges between Bronze Age Italy and Mycenaean Greece in LH IIIB and LH IIIC. Inside this frame, emerges how trade and violence are deeply interconnected especially in the postpalatial Aegean.
Trade relations between Daskyleion and Athens during the Archaic and Classical period

Çiçek KARAÖZ

Muğla Sıtkı Koçman Üniversitesi
cicekatay@hotmail.com

Daskyleion which is situated in the northwestern Turkey and on the southwestern shore of the Manyas Lake had been the administrative center of the Satrapy of Hellespontine Phrygia during the Achaemenian reign of Anatolia. Athenian pottery, which is one of the most widely spread product in the Black Sea, Mediterranean and Aegean Basins, had been imported uninterruptedly in Daskyleion from the second quarter of the 6th century BC, until the last quarter of the 4th century BC, even though fluctuated due to economic reasons. Even though the Athenians and the Persians were on war during the 5th century BC, recent excavations showed that the political conflicts or cultural differences never interrupted the trade and the circulation of the Athenian vases throughout the Achaemenian Reign. Daskyleion seem always housed a rich community able to buy some of the most prestigious products of the time, especially the Athenian vases. The vases of all shapes and techniques produced by the most famous potters and painters in the biggest workshops were imported by the Daskyleion elite. A big number of some of the large-scale productions, like the Heimon Painter cup-skyphoi or the Beldam Painter lekythoi, found in various contexts shows that the ordinary people was not in the lack of Athenian pottery. In fact, in the late 5th-4th century BCE, the Athenian vase demand in Daskyleion was so big that the black gloss Atticising pottery formed the biggest pottery group throughout the settlement’s history. Daskyleion was a buyer of unusual Athenian pottery looking at shapes, subjects and even relations between shape and subject. The fixing holes and lead clamps found on many Athenian pottery sherds from Daskyleion make us think that these vessels kept being used as a decor element for a longer period, even if they lose their original function. Therefore, it is understood that these vessels were prestigious and important products in the eyes of the people of Daskyleion and perhaps were transferred across generations. Daskyleion was not different from any other center of the Empire in the way of taste in shapes, subjects or quality of the Athenian pottery imported. In order to understand how Daskyleion was involved in the Athenian pottery importation of Anatolia, it is necessary to mention the relations with culturally close centers like Sardis and Gordion. Gordion is located in the Satrapy of Hellespontine Phrygia where Daskyleion is the center and between all the centers in Ionia and the Northern Anatolia, Gordion presents the most close parallels for the Athenian pottery imported to Daskyleion in terms of the volume and character of the importation. The trade routes for the pottery coming from Athens should have been different for Sardis, Daskyleion and Gordion. So which were the trade routes that connect Daskyleion with Gordion and leave Sardis out?
The specific genre of temple design with a raised platform is characteristic for the Aiolian settlements of Western Anatolia in the Archaic period. The temples in Neandria, Larisa, old Smyrna and Klopedi constitute the most prominent examples of this type. Within my ongoing PhD studies a detailed survey of the Athena temenos and temple of the ancient settlement of Larisa (Buruncuk) is accomplished, and the temple building is studied in a comparative context with other Archaic Aiolian temples of Western Anatolia.

The remains of the first phase of the temple from the 6th century B.C. are only preserved in basement level. The building is composed of a cella with dimensions 4.30 x 6.60 - 7.59 m., and a narrow platform that surrounds the cella. An altar is situated southeast of it. Since the altar is located at the highest point of the temenos, a connection ramp between this and the temple is thought to be probable. In the 6th century, the temenos included a temple, an altar and a stoa as the main elements in its composition. Around the year 530, the temple and the altar were renewed; the cella was enlarged and the platform around the temple was enlarged into a “U” shaped podium.

Such examples of early period temples with a platform of Western Anatolia show some evident similarities to Etruscan temples. First of all is the fact that these temples are raised on a “podium”. Secondly, except the substructures, the podium and probably the wall-base, the building is constructed entirely out of timber and mudbrick. In both Western Anatolian and Etruscan temples numerous terracotta decorative elements of upper structures have survived. Upper structure elements such as terracotta friezes, raking simas and antefixes reflect a common practice. Similarities in style must also be added to this.

Similar construction techniques, design and stylistic characteristics of Aiolian temples of Western Anatolia and Etruscan temples arise the question of the probability of a “common origin”. The major supportive factor here is that the Etruscans are known to have Anatolian origins. The probability of the transference of some early Anatolian developments in temple architecture by means of Etruscans to the West is handled through hypothetical discussions in this study.
Recent excavations conducted at Klazomenai have brought new evidence, which is expected to help us understand settlement patterns and city planning of the site in the 6th century B.C. With the help of archaeological investigations concentrated on the east of the site’s industrial area, where structures such as an olive oil extraction plant and a blacksmith dated to the 6th century B.C. are also located, as well as an inside area surrounded by a fortification wall established in the 7th century B.C., a large stone paved open space and a series of buildings facing this space have been unearthed. It is quite likely that the most important of those buildings, which were separated from each other with lanes and opened to the pavement lying southward, was the central one in the megaron plan. This building clearly takes a privileged place among the contemporary structures reported from the Archaic Period settlement at Klazomenai especially with its some remarkable features such as strong and thick walls built up with large ashlar blocks, dominating position both over the paved courtyard on the south and neighbouring buildings, and terracotta decorative elements probably belonging to the superstructure in the original. Seven in-situ pithoi which were established throughout the side walls, and many pottery fragments belonging to trade amphorae and other vessels which were uncovered at the south-eastern corner of the main room of the megaron, clearly demonstrate that the building did not serve as a residence but more likely was a civic storehouse. This study aims to answer some questions regarding the architecture, chronology and function of this building.
Trading and shipping characterized Greek world since the Mycenaean period and more and more from the Geometric time the diffusion of Greek culture was related to the increasing of commercial routes, across the Mediterranean Sea and moving over, toward Central Europe or Black Sea area. If pottery findings are generally the most common source for understanding and studying these exchanges, also the study of Greek bronze vessels can be very useful for defining the routes and the spread of Greek cultural traditions travelling together with those precious pieces. Starting from the analysis of several funerary assemblages, it is possible to recognize difference and similarity in the diffusion and use of Greek bronze vessels imported in Archaic and classical time in indigenous contexts of Southern Italy, Central Europe and the Black Sea area, expression of the different relation they had with Greek cities.
A “Kohl Box” from Tepebağ (Plain Cilicia)

Dr. Fatma ŞAHİN
Çukurova University (Turkey)
fatmasahin@cu.edu.tr

Abstract

The poster focuses on a peculiar type of cosmetic containers called “Kohl Box”, small metal, ivory, bone or stone rectangular objects mostly decorated with zoomorphic and/or anthropomorphic motifs and characterised by long and narrow tubes containing black pigment. This category of artefacts appears in numerous sites across the Near East, particularly Egypt, Levant and Cilicia; the earliest examples come from Egypt and are dateable to the early 2nd millennium BC, but become more frequent during the early 1st millennium BC. They are clearly the product of sophisticated artisanship and hint at a wide network of exchange of finished products as well as the technological know how involved in their production. Up to present, they have received very scanty scientific interest, partly because most of the examples come from museum collections or poorly stratified contexts. The example from the mound of Tepebağ (Adana, Turkey) is not only well-dated to the 15th-14th centuries BC, but it is also the earliest example in Anatolia. The poster will present a detailed analysis of the artefact in the context of Late Bronze Age and Iron Age long distance contacts in the ancient Near East.
‘Marea’ ad Aegyptum: Economic and Cultural Links of a North Egyptian Settlement
with the Mediterranean World

Tomasz DERDA
Institute of Archaeology, University of Warsaw
Mariusz GWIAZDA
Polish Centre of Mediterranean Archaeology, University of Warsaw

An ancient urban settlement located on the southern shore of Lake Mariut about forty-five kilometres west of Alexandria has been excavated since the year 2000 by the mission of the Archæological Museum in Cracow and the Polish Centre of Mediterranean Archaeology of the University of Warsaw. The site has been provisionally baptized ‘Marea’ by its investigators; however, its identification with Marea of Herodotus and Thucydidès remains uncertain.

‘Marea’ is one of the few archaeologically investigated sites in the north-western Egypt. Sixteen successive seasons of excavation have revealed evidence of habitation spanning the period from the third century BC until the 8th century AD which offers an opportunity to study the history of the town and changes of its settlement patterns over a millennium. The disentanglement of these complex processes is the main objective of the project financed by the National Science Centre of the Republic of Poland (‘Is “Marea” indeed Marea? Roman industrial centre and Byzantine city in the region of Mareotis’, NCN UMO-2017/25/B/HS3/01841). A vital part of these processes were the economic and cultural ties of ‘Marea’ not only with Egypt and Cyrenaica, but also with the Western and Eastern Mediterranean.

Among the sources crucial for our understanding of the regional and trans-regional connections of the town are amphorae produced in the settlement during the Roman period (the so-called amphores égyptiennes 2 and 3). They served for transporting products (wine?) that reached remote areas, including Italy, and were also used in long-distance trade in the Indian Ocean basin.

Significant changes are also observed in the forms of buildings constructed over the centuries in ‘Marea’, as well as in preferences in choosing their building material. These developments are also a reflection of cultural influences reaching Marea both directly and indirectly. Residential architecture plays a special role here. The earliest phases of the settlement display clear connections with the Egyptian building traditions; later on, the local population becomes more open to influences from the architectural tradition of the Eastern Mediterranean.

When analysed, these developments produce a picture of changing economic and cultural relations with Egypt and the Eastern Mediterranean, which is characterized by a shift from the strong hold of local tradition in the earlier phases to a growing importance of external influences in the early Byzantine period. This change is further highlighted by an increase in the quantity of imported goods, mainly from the Eastern Mediterranean, in the later part of the settlement’s existence.
From East to West the Mobility of People, Goods and Ideas in the Ancient Mediterranean: Female Gold Ornaments for Hair (Sakkos) of the Hellenistic Age from Pella to the Greek Colonies of Sicily

Paola PUPPO
paola.puppo@katamail.com

The intense network of exchanges, which involves the land of Sicily in the Hellenistic age, in particular the cities well integrated in the maritime traffic by position and availability of capital, within the Mediterranean koiné, emerges from different types of imported products (fine ware, amphorae, ceramics, stones, glasses, coins, and other materials). Here we examine a very refined product, rather rare, the sakkos: in gold, with a central medallion connected to a mobile chain in which the hair was collected. Two sections are distinguished, the first with a medallion on the top, the second with meshes of increasing length, divided from the first by small spirals; the spheres could be placed along the edge, to which the twisted cords were also fixed.

In Sicily it was found in a house in Morgantina (preserved now in the Metropolitan Museum of New York) and more recently, in 1998, another gold sakkos has been found in room 7 of house I in the Hellenistic residential quarter of the city of Finziade. According to Diodoro Siculo, this city which is in the territory of Licata, between Agrigento and Gela, had been founded by the tyrannos Finzia in 282 BC transplanting the citizens of Gela forced to emigrate due to the demolition of the walls and houses of their city. Another specimen, which had been also found in Sicily, is now preserved in the Paul Getty Museum in Malibu (M. PFROMMER, Alexandria. Im Schatten der Pyramiden, Mainz am Rhein 1999, pp. 125-134, Figs 147 a-c). The discovery of such objects, usually in funerary context (as the case of a specimen found in a grave in the Necropolis of Tarent, now preserved in Antikesammlungen Museen in Berlin) or in hidden treasures, is evidently - for their own preciousness – very rare.

The technique of textile yarn nets remains to be clarified; obviously the knowledge and the technical ability of the goldsmiths in the manipulation of elements of such reduced dimensions and particularly in the processing and welding of the foils and the gold thread was certainly high.

There is also the question of the origin of these products which, precious and very small, could be part of loads of goods coming from the East. The place of production of these objects is not yet clear; generally, the scholars attribute them to refined workshops in Alexandria of Egypt (L. Gandolfo-ed.- Pulcherrima Res. Preziosi ornamenti del passato. Catalogo Mostra, Palermo 2008, pp. 142-191), but the type of execution and the central medallion seem to refer to Macedonian gold productions, especially Pella.

In the society of the polis, within the class that can exhibit its richness and own economic availability, in the period where this is legal, especially in the Hellenistic age, a real urban aristocracy clearly reappears, that can express this richness indicative. Wearing these very rich ornaments is also a reflection of the models proposed by the affirmation of the Macedonian aristocracy, which elaborates new forms of representation of wealth, suitable to express the specific cultural and political needs of the new power. On the other hand, they were worn by Greek women of high rank, similar in power and charisma to almost deities, since the sakkos belongs mainly to female figures such as Demeter and Persephone, as evidenced by the image depicted on an arula found in Himera (Himera, Antiquarium inv. H 7265).
The Roman world is a singular example of how movements of population have been a dynamic force of social and cultural transformation throughout history. The Roman Empire caused a “globalized” environment in a vast territory in which free circulation of people was favored. From republican times, the migratory phenomenon extended from soldiers, magistrates and civil servants of the administration to all the population. Because of that, customs, cults and ideas moved and spread. In this context, diffusion of different scientific disciplines was greatly benefited. A paradigmatic case is Hippocratic medicine, which was born in the Ionic cost in 5th century BC and spread to Rome and the western provinces after the conquest of Greece and Asia in 2nd century BC. Since that moment, a process of change and transplantation began, and a foreign element as scientific Greek medicine turned into a representative manifestation of the Roman culture.

This process of scientific diffusion was possible thanks to the displacement of people who possessed the knowledge of the Τέχνη Ἰατρική: Greek physicians were the agents who carry and introduce the new medical theories and procedures in the West. The aim of this paper is to delve into this phenomenon of cultural exchange by focusing the attention on the actors who made it possible. With this purpose, we will exam literary and epigraphical sources that refers to doctors who moved from the oriental lands to Rome and the West. Literary texts give information about the medical notions brought by these professionals, whereas epigraphy provides evidences of specific trips made by doctors. Based on this documentation, we will analyze the following questions: a) the cities of origin of doctors and its connection with the great medical schools; b) the places of destination and its economic and civil status; c) the motivation and nature of the displacements; d) the socio-juridical status of the transferred physicians; d) the ideas and practices moved by doctors. In this way, we will try to compose a portrait of who were these doctors and what was the impact of their migrations to the diffusion of Greek medicine in Rome.

The chronological frame we propose for this analysis goes from the year 219 BC, when Pliny the Elder place the arrival of the first Greek physician in Rome, to the 2nd century AD, when Galen of Pergamum established himself in the imperial court. Finally, even if the studies about geographical mobility in the Ancient world have a great importance in current historiography, specific studies about mobility of physicians in the ancient Mediterranean are scarce. This provide more attraction to our contribution.
Tokens can be generally defined as small ‘monetiform’ objects, produced as a substitute of money. We currently use tokens in every-day life. For instance, plastic tokens may be used in fun fairs or to unblock a trolley at a supermarket. Moreover, Bitcoins can be considered tokens functioning as virtual money. Token production was also massive in the ancient times. For instance, archaeologists found hundreds of lead and bronze tesserae – as the Roman sometimes called them – along the River Tiber in Rome, while clay tokens, showing gods, local priests and religious symbols, were extremely common in Palmyra between 1st and 2nd century AD. Despite of substantial finds, those materials are still quite unknown among scholars.

An on-going research project, called Token Communities in the Ancient Mediterranean, funded by the European Research Council and carried out by the University of Warwick (UK), is examining the production, mobility and diffusion of ancient tokens. As a Research Fellow within this project, I am chiefly studying sets of Hellenistic and Roman tokens from Sicily, recently discovered in the island’s museums. In particular, these tokens represent a vital numismatic and archaeological source to understand how the mobility and spread of gods, iconographies and local traditions could occur in the Mediterranean context, especially in Sicily, where a strong interaction between inner and coastal communities favoured this process.

The main scope of my paper is to present these ‘newly-found’ finds by select case studies. First, I link Sicilian tokens to their archaeological contexts showing how their production was strongly anchored to the place where local communities operated and produced those artefacts. Second, I assess two case studies of token production. In particular, tesserae from Makella-Marineo (Palermo), showing Demeter, demonstrate how the mobility of religious iconographies could impact on inner communities and boosted a micro-economy of local festivals. On the other hand, tokens from Tyndaris-Tindari (Messina), depicting caps of the Dioscuri, demonstrate an essential links between civic life and religious traditions. At Tindari, a small coastal centre whose economy was strongly based on sailing, fishing and maritime commerce, the Dioscuri were constantly venerated, because they protected sailors. Such ‘monetiform’ objects, including coins issued by Tyndaris showing the sacred twins, well represented the mobility of religious ideas, gods and iconographies between a local Sicilian community and the Mediterranean sea.
This study aims to make a preliminary assessment on the terracotta sarcophagi and painted large vases from Old Smyrna. The most important feature of the large vases, particularly their shapes and sizes inappropriate to importation, possibly comprise their indigenous nature for determination of their distinctive characteristics at any site they were found in. The sarcophagus fragments and large vases such as pithoi, situlae and dinoid closed vessels are also differentiated by their painted decorations. When their intended purposes are taken into consideration, these large vases may have been key instruments for fundamental behaviour patterns such as bathing, storing and cooking as well as providing evidence of burial customs of a particular community. The painted large vases of Old Smyrna have very complicated cultural and artistic ties with other painted pottery schools of the Western Anatolia from the Late Geometric to the Classical Periods. The main objective of this study is to provide a first look into the multiculturalism of Old Smyrna by means of its large vases.
The Mediterranean As Broadcasting Center of the Cult of Goddess Roma

Maria Grazia CINTI
mgcintiarcheo@gmail.com

The cult of the goddess Roma originated in the eastern Greece; this worship was established, almost always, as the result of an intervention of the city in favor of the populations that lived there, because they were used to deify every form of power which could carry benefits. The goddess Roma, for this reason, assumed both religious and political value, embodying the gratitude and the loyalty of these people.

The first artifact certainly attributable to the personification of Roma, thanks to the legend ΡΩΜΗ, is dated to the III century BC and comes from the village of Locri Epizefirii (in the modern southern Italy); it is a didrachma and its mintage is due to the protection of Rome for the magno-greek town. This coinage, however, remains isolated, because the first ongoing evidences of the cult of Rome are dated at the beginning of the II century BC and come from East. The cities which lay the foundation of the institution of this worship are, in fact, Smirne, for the asiantic world, and Delfi, for the greek world: the first city erected a templum urbis Romae (195 BC) to guarantee itself the protection of the city against Antiochus III, and the other established the Romaia, games in her honor celebrated in 189 BC.

Furthermore, following the Treaty of Apamea (188 BC), many private citizens, but especially cities and confederation in the whole mediterranean area (Chios, Magnesia, Miletus, Ionians, Lycians, Athens,…) decided to establish the cult of Roma.

In the roman empire this goddess will have some space only in the augustan era, when the emperor associate her to his own cult, spreading the worship from Pergamon to Ostia, from Gallia to Hispania Citerior to the Africa Proconsularis: however, it will be necessary to wait until Hadrian to consider Rome as an individual deity in the empire. Hadrian, in fact, building the temple of Venus and Rome in the heart of the city, and attributing her the epithet of aeterna, ensured her a fame she never had.

The deify of Rome is notable in every archaeological context: there are, in fact, coins, statues, reliefs, mosaics and other evidences which represent her in the two fundamental typologies: in pacific clothing, for religious places, and in militar clothing, as vehicle of political and propagandistic messages. Today Roma is not so known but she is one of the few deities which take all the mediterranean basin: from Asia to Spain and from Africa to Germany.
Andriake is an international port city on the Mediterranean coast of Myra, the Eastern Roman Metropolis in the Lycian region. The position of Andriake in the maritime trade and the archaeological evidence showing the deliberate interaction between the east and the west; architectural structures, reliefs, finds and linguistic representations. There exists an Imperial Granary dedicated to Hadrian; “Horrea Hadriani/Granarium” in Andriake. Adjacent to the Granarium there is a large Agora, so-called the Plakoma, where the sales of the incoming and outgoing goods took place. We are informed of the tradable-goods and the commodity duties in the region by the customs inscription from Andriake. One of the most important commercial commodities in the city is the purple dye obtained from myrex. Because of the church of Myra's famous Saint Nikolaos, where many of the Christians come from far away from the region, they become pilgrims here. Not only is the city a center of attraction for Christians, but also for the Jews. This is evident from the fact that one of the two synagogues in Lycia was found in this city. The storage of grain from Egypt in Granaria and its relocation to Rome shows that this is a commercial relationship with both Egypt and Rome. The Egyptian influence in thought shows its presence in the city. God and Goddess of Egypt; The reliefs of Serapis and Isis are seen on the port buildings and Granarium wall. A group of imported ceramics to be examined in this article are selected among the bothros area from the synagogue. Data from Bothros; it extends from the Classical Period to the Byzantine Period. Selected group of imported ceramics are; Amphoras, Eastern and Western Sigillata, Late Roman Red Slipped Ceramics, Oil Lamps, Moldmade Ceramics, Braziers, Lykions, Unguentaria. As a result of the examination of these ceramics, it was concluded that Andriake had trade with Africa, Mediterranean coast, Anatolia, Islands and Greece.
Before the beginning of the Second Punic war, Roma had established commercial routes with the Levante ports. It has been probed not only in archeologic remains but also by epigraphic and literary sources. When war between the two main powers arrived to Hispania, Roma took advantage of its victories for a quick conquest and an afterwar settlement. This particular situation created new circumstances for the long-established traders who operated in those ports, especially the ones that articulated the Roman conquest: Tarraco and Carthago Nova.

Roma did not arrive alone, it needed a set of juridical conditions which eased territory control and resources exploitation allowing the arrival of new italic immigrants to the former Punic capital. Some aspects of those movements and the Italy-Carthago Nova connection have been already studied by scholars such as Stefanile and Díaz Ariño.

This paper proposes to stablish the juridical setting that made possible the Carthago Nova’s foundation by romans, probably as a Latin colony. For this, it is imperative to define the status of its citizens. Population data can be traced from conquer until the beginning of Principate thanks to a detailed study of the city onomastics (based on epigraphic sources). Epigraphic and onomastic data has not been considered in the same analysis even though Koch researched the city gentes. This new data aprochel from a multidisciplinary point of view permits to determine juridical conditions of this important trade and strategic port.

Roma came with its iura that allow its system to work effectively. The literary sources explain the foundation of Carteia as Latin colony in 171 BC. We do not have this kind of sources for Carthago Nova but we can use epigraphy and archeology to define a similar set of circumstances. In both cases, the onomastics of those who expressed their selves in Latin, the tria nomina structure and the nomina transmission through time allow us to accept that Latin colonies were a model to organize the interaction between old population and new emigrants. This was systematized through ius conubii, which recognized a marriage as iusta (inside the proper law system) and is supposed the only way of having legitimate children in a mixed union, and ius commercii, the ability of participate in an ius civile act (like inherit). Both are considered on the juridical set of the Latin colonies.

In conclusion, this paper wants to show how Rome used to apply iura to control the population interactions in some ports of Hispania. For this purpose, we will focus on two cities of a wellknown Punic past that had also a strategic position of vital importance: Carteia, which ran part of the “Circle of the Straits” and Carthago Nova, the commercial capital of Hispania Citerior. For each of them it has been created an epigraphic-onomastic database which permits to analyze population interactions with a new perspective.
Early Medieval Byzantine Sculpture in Dalmatia

Mirja JARAK
Faculty of Humanities and Social Sciences, University of Zagreb
mjarak@ffzg.hr

The paper presents an examination into the presence of Byzantine sculpture in Dalmatia during the early Middle Ages. After the Late Antiquity when sculpture from Byzantine workshops were very numerous in Dalmatia, early medieval Byzantine works are rare in the present-day Croatia. While the Late Antiquity period of appearance of the Byzantine stone sculpture is thoroughly examined and there are many articles and books devoted to that period, the medieval phase has not yet been so carefully examined. Concerning the antique Byzantine sculpture in Dalmatia, it is interesting to note that some important Byzantine iconographic schemes were executed on the monuments made of limestone in the domestic east Adriatic workshops. As an especially important iconographic concept, we must underline the cross on the segmented pedestal, a motive known on a greater number of plutei in Dalmatia and discussed in the recent literature in Croatia.

In the early Middle Ages Byzantine influence in the field of the stone sculpture was of a minor significance. During the pre-Romanesque phase, the so-called Byzantine interlace was rarely present on the sculptural works in Dalmatia. But some examples are known (e.g. fragments of the church furniture from Putalj), and it will be possible to examine their features in connection with Byzantine works from eastern and western areas.

In the 11th century some important figural sculptures of Byzantine origin or with prominent Byzantine features, appeared in Dalmatia. One extraordinary important relief is today built into the wall of the Rab Cathedral. That is the marble relief with Christ on the lyre backed throne. This representation of the seated Christ belongs to the Byzantine art in the proper sense and it is known in the monumental art, book-illuminations and on the Byzantine coins. The relief from Rab, dated to the 11th century, is the only example of the stone sculpture with this specific Byzantine iconography. Because the relief has not been mentioned in the recent syntheses on Byzantine art, its great meaning must be underlined.

Some other figural works of the 11th century date exhibit clear Byzantine features. The paper includes an analysis of the chosen examples.
From the Mediterranean to the Black Sea: bladed weapons from Novy Svet in the context of the mobility of people, goods and ideas in Medieval Times

Kateryna VALENTIROVA
Taras Shevchenko National University of Kiev, Ukraine
ksd1096kv@gmail.com

Maritime trade strongly influenced the cultural connections in the Middle Ages. Archaeological investigations allow us to draw some conclusions about the distribution of things, industries and traditions. But it is very important to understand how the same elements of material culture were perceived in different societies too. It is necessary for clear interpretation of the ancient cultural ties. So comprehensive research and interdisciplinary approach in archaeology are very important today.

Scientists from the Center for Underwater Archaeology of Taras Shevchenko National University of Kyiv have been researching materials from medieval Italian shipwreck since 1999. The galley was sanked near the modern settlement Novy Svet (Black Sea) in the second part of 13th century. There is very interesting group of artifacts represented by bladed weapons. This type of finds are traditionally perceived as a good cultural and chronological marker in archaeology. We tried to combine data about the material thing and a concept of it (idea of it) which was in Medieval times for interpretation of archaeological finds and even for some social reconstructions.

Comparison of bladed weapons from the Novy Svet site with the weaponry which were inherited for Northern Black Sea region in 13th century leads to interesting assumptions about the extend of military traditions in the medieval world.
Konya City, Taşkent, Seydisehir and Bozkır Towns 2015 Year Surface Analysis

Asuman BALDIRAN
Selcuk University, Faculty of Literature- Archaeology Dept.
abaldiran@gmail.com

In 2015, within the scope of surface analysis conducted in Bozkır, Ahırlı and Hadım Area, it has been surveyed in Bademli, Karacaardıç, Aliçerçi, Sazlı, Arslantaş, Kınık, Boyalı, Aşağı Eşenler ve Sorkun villages and Arslantaş, Civlese ve Beşpinar Plateau. In the south of aforementioned area and the area of capital’s name Isarura are defined as Isauria. In this perspective, in 2015 survey analysis, 85 artefact in total has been catalogued. Besides 4 different cisterns utilized in different periods has been documented.

In conclusion, with the evaluation of findings in 2015-year surface analysis, archaeological materials that we found in surface analysis in the South area of Lykaonia Region are dated back to Roman, Late Roman and Byzantine Era in chronological order.
Some Altars from Lykaonia Region

Burak BALDIRAN
Akdeniz University, Social Sciences Institute
baldiran86@gmail.com

Lykaonia Region is an area in which consists of today’s Konya and Karaman Provinces largely and also includes Cappadocia to the east, Cilicia to the South, Pamphylia and Psidia to the West and Phrygia and Galatia to the North. In our research, I would like to share some information about some of altars which have rectangular and cylinder forms and that we found during our surface analysis.

During the antiquity, altars have widely area of utilization especially such as in dwelling, official buildings, graves and cult zones. Basically, altars are defined as the places where the religion ceremonies are taken place and offering are sacrificed. Among the altars which are divided into certain groups, the ones that we are going to deal with and examine in details are called as commonly portable altars. These altars must have been produced by the same workshops in certain places in compatible with the ones also produce sarcophagus and ostoteks. In Hellenistic and Roman Era, in addition to offering places to Gods, the altars had been also commonly utilized as tomb memorials or grave steles. These materials also became irreplaceable parts of necropolis areas during Hellenistic and Roman Era.

Among the examples we examine in details, the tetragonal form altars are from in Seydişehir County in central district, in Yenice and Bostandere Neighbourhood; in Beyşehir County in Başgöze and Bayavşar Neighbourhood, in Bozkır County in Işıklar Neighbourhood. Cylinder altars are from Bozkır County in Hacılar Neighbourhood and Beyşehir County in Bayavşar Neighbourhood.
Located at a distance of about 2 km from the historical center of the ancient urban center of Venosa, the Maddalena hill hosts a series of hypogea, with a clear funerary destination, used by both the Christian and Jewish communities, the latter particularly active in the city in Late Antiquity and Early Middle Ages. In addition to the Jewish hypogeum, today perfectly usable and open to the public, Cesare Colafemmina's research (Apulia cristiana, Venosa, Studi e scoperte, Bari 1973), in collaboration with the University of Duke and prof. Eric Meyers (Vetera Christianorum 20, 1983, pp. 455-459), led to the discovery of three hypogea: the attention of the present contribution focuses on the hypogeum indicated with the letter C, in the seriation proposed by Colafemmina, placed on the slope North-East of the hill. The hypogeum consists of two superimposed planes: the lower one, underground, explored by Colafemmina, is now inaccessible, while the upper one, previous to the lower one, presents a topographic situation that is still widely readable even if in several places seriously compromised. The original nucleus of the hypogeum is a niche, located along the back wall, where at first there were few graves, presumably referable to the same family group, from which, in a second moment, starts the expansion of the hypogeum, placing tombs close to the original nucleus. The characteristics of the privileged burial areas, codified by Reekmans in reference to areas ad sanctos of the Roman catacombs, seem to fit those of the Hypogeum C of Venosa, suggesting the presence of a venerated tomb or a group of particularly eminent burials, inside of this funerary space.
Elaiussa Sebaste, laying in Cilicia Tracheia, in current borders of Mersin (Turkey), had played a significant role in commerces in the Mediterranean since Hellenistic Period to 7th century AD, due to its geographic position and natural seaports. Commercial activities of the city spread to various regions from Syria to Spain after its population raised, and wine and olive oil production increased, in the Roman period. During the city’s excavations many amphorae were found, especially on the island side, where the seaports were located, which provide evidence for these commercial relations. The amphorae from several production centres such as Spain, Italy, Aegean islands and Cyprus that were found in the A3 terrace of southern port show the extent of the commercial network.

Variations of Dressel 2-4 amphoras were also produced as well as several standard forms of Pompeii 5, Zemer 41, Agora M54 and Agora G 198 in Cilicia Region in Roman Period. There seems to be distinctive imitations of Dressel 2-4 amphoras, found in A3 terrace area in various types and sizes, and whose certain production centres are not yet determined, apart from a shape whose production place can be assigned to Cilicia. In this study, amphora shapes of Elaiussa region used in Roman period are evaluated, presenting topological and fabric features of Dressel 2-4 amphoras.
“The ‘Time-Traveller’ Follows Alexander, Prince of the Macedonian Kingdom, From Pella to Mieza”: An Innovative Museological Project

Maria GIRTZI – Athanasia BOUNTIDOU
Tutor of Hellenic Civilization in Hellenic Open University
mgirtzi@yahoo.com

Pella and Mieza: two very important cities that played major role in Alexander’s youth. The former, Pella, was his birthplace and the latter, Mieza, was the place that housed the School of Aristotle specially organised for the Macedonian prince and his Companions.

Pella was founded by king Archelaos in around 400BC in order to replace Aigai, the first capital of the Macedonian Kingdom. It occupied a unique strategic position, communicating through a navigable inlet with the Thermaic gulf and controlling the most important commercial routes to all directions: the northern one to the Balkans, the eastern-western one linking the Black Sea with Adriatic, the southern one leading to Thessaly and Southern Greece. It gradually became the greatest and richest city of the Kingdom and flourished all through the late Classical, Hellenistic and early Roman period. All these centuries of history have accumulated a lot of monuments that testify the cultural grandeur of the city. Mieza, on the other hand, was a little village; however, it accommodated a “shrine of Nymphs” at a natural landscape of unique beauty. That place was selected by Philip the II and Aristotle as the ideal settlement for the “School” for young Alexander and his Companions (Hephaistion, Ptolemy, Kassander, Cleitus, Seleucus, Marsyas, Hector, Nearchos, Arpalos, Amyntas etc.). A certain amount of architectural remains stand reminiscent of the place where Alexander met his tutor.

Aim of this paper is to present an innovative museological project: the potential for a group of students, pupils, tourists or any kind of visitors of Ancient Macedon to “travel through time” and live the days that prince Alexander departs from Pella to meet Aristotle in Mieza. This project constitutes a unique approach of pages of the Ancient Greek History that cover the Era of Philip and Alexander and of various monuments of Macedonia. It is based on dramatization of historical scenario (based on historical and archaeological evidence) and role-playing, supported by multimedia applications. Through this educational-cultural program anybody can become a “Time traveller” in Macedonian Era, “follow Alexander” and go with him around the 4th century BC Pella and Mieza. In this way the regular tour of monuments is transformed in an adventurous “journey to the Past” of Ancient Macedonia, where everybody can play an active role.
As a result of modernization studies in the Ottoman Empire in the 19th century, modern cartography activities were also started. In this way, engineers are trained in map drawing in engineering schools in the Ottoman Empire and foreign workers who map to these schools are employed. The maps of the Black Sea and the Marmara Sea, prepared by Russian Naval officers named Manganari and Yalovsky, which began before the Crimean War (1853-1856) and continue after the Crimean War in order to destroy Russia's Navy in Sevastopol, will be presented in this declaration through documents and maps in the Presidency State Archive. So these documents will be evaluated in terms of art history.
The Place of the Commercial Amphorae Recovered During the Excavations at the Pilgrimage Church of St. John and at the Ayasuluk Hill in the Byzantine Trade

Sinan MIMARoğlu- Orçun ERDOGAN
Hatay Mustafa Kemal University
smimaroglu@mku.edu.tr
oerdogan@mku.edu.tr

A great number of amphorae were unearthed during the archaeological excavations conducted at the Church of St. John and in the Ayasuluk Hill, located in the Selçuk District of İzmir. The earliest excavation work at the church was carried out by G.A. Sotriou in 1921-1922, followed by another excavation by Austrian Archaeological Institute in 1927-1930. Between the years of 1960-2006, the Ministry of Culture conducted some excavation and restoration works at the buildings and the fortress surrounding the hill. Archaeological excavation still continues under the direction of retired professor Mustafa Büyükkolancı together with a team.

After his death in c. 100 C.E., St. John was buried on the Ayasuluk hill and a basilica was built upon his tomb in the 5th century. A written source records that the basilica was in a ruined condition by the 6th century and subsequently Justinian and his wife Theodora erected a new cross-plan church which was to become one of the most famous pilgrimage buildings of the Byzantine period and the following ages in Anatolia. The Excavations conducted in the sacred precinct have provided a great number of amphorae. As part of the work conducted in the Excavation Warehouse of the Pilgrimage Church of St. John and in the Ayasuluk Hill, a group of amphorae dating from the Late Roman- Early Byzantine to the Late Byzantine periods of Anatolia have been identified.

LR 1 Amphorae are one of the most discovered amphora types in excavations and surveys conducted in the Eastern Mediterranean. As a result of the recent studies made on the typology of LR 1, two new forms, B and C, have been identified. LR 1C form which is the smaller model of the LR 1 A, 1B, is known to have been manufactured until the middle of the 7th century C.E. The fragments of LR 3 amphorae which are probably from the Late Roman- Early Byzantine periods and probably of Ephesus production are some of the amphorae from Late Antiquity. Apart from these, a great number of Ganos amphorae, known as Gunseñin Type 1, dated to the Middle Byzantine Period and manufactured in the ateliers located between the Hoşköy and Gazıköy in the Sea of Marmara were unerthed. The Ganos amphorae were discovered in many of the settlement in Anatolia and in several shipwrecks and have been used widely from the 11th to the 13th centuries. An amphora which is likely to be from Crimea and the other imported amphorae attest probably to the commercial connection between the Eastern Mediterranean- Levant and the Black Sea.

Considering the periodic factors of the Byzantine period, this study examines the sea trade between the East and West, based on the commercial amphorae discovered at the Pilgrimage Church of St. John and in the Ayasuluk Hill.
“Ancient Thrace” has played a unique role in Ancient Greek history. It occupied a very broad area defined by the Danube River to the North, the Aegean Sea to the South and the Black Sea to the East. The first traces of human presence in the area belong to the nomadic food collectors of the Palaeolithic era, while remains of permanent settlement date to 6000BC. Its key position on the crossroads of East and West and its fertile lands initially attracted the Thracian tribes that inhabited it. Herodotus, the “father of History” refers to the “Thracian ethnos” as “the greatest after the one of Indians”. The uniqueness of the area attracted Greeks from the South, the Aegean islands and the shores of Asia Minor that during the Second Colonization (about 7th century BC) started a series of voyages, both to the Aegean shores of Thrace and the western shores of the Black Sea, which in many cases ended up to the foundation of “emporia” or even colonies. The present study deals with Greek colonies of Aegean Thrace that included Thasos, Abdera, Maroneia, Samothrace, Ainos etc.

The selection of Abdera and Maroneia is based on the fact that they both constitute representative examples of Ionian colonies of the area. Aim of this paper is to reconstruct various aspects of the pre-roman history of those sites through the study of the up-to date preserved literary and archaeological evidence (i.e. ancient authors’ texts, inscriptions, architectural remains and other archaeological finds). The particular aspects to be examined for each site are: the name (testimonies and etymology), the foundation of the colony (who, when, where), political organization (administration, officials and administrative bodies), religion (list of deities worshiped), trading relations with other reek cities. An evaluation of the similarities -beyond the obvious ones, such as the fact that they are both situated on the northern Aegean Sea littoral in close proximity- will support the attempt to draw some comparative conclusions.
The Byzantine and Seljuq Treasure from a Seljuk-Mosque in Akşehir

Osman ERAVSAR
eravsar@yahoo.com

Akşehir was most important city in Byzantine and Seljuk Time. There was a lot of medieval building in the city. These building was changed in the time with restoration and re-function. Although today there is some sample from Byzantine time, in the Byzantine period city had got a lot of monument.

Akşehir was important with regard to most considerable person like that Kyr Fart and Sahip Ata Fahreddin Ali. Kyr Fart was an emir during reign of the Alaaddin Keykubat I. He was ruler in Alanya (Colonoros). During the conquest of Alanya by Alaaddin Keykubat I., he gave up city to Seljuk Sultan of the Alaaddin Keykubat I. Sultan Alaaddin Keykubat I rewarded him as a Akşehir ruler. But this was not reward for Kyr Fart. Actually he was sent as a sentenced. But historical chroniques does not give any other information about Kyr Fart and his family.

Second important person was Sahip Ata Fahredin Ali. Sahip Ata Fahredin Ali was a vizier in the court of the Seljuq Sultans of Rum from the 1250s until his death in 1288. He was having the power to produce a desired effect both on sultans and their court after the death of the Pervane Mu’ın al-Din Suleyman in 1277. After that Sahip Ata was exile to Nadir village in Akşehir.

Seeing that Akşehir hosted two important person in medieval time. For this reason city was use as a court in Seljuk time. A lot of buildings were built in this process. Some of this building was restored and re-modify. One of these buildings is Akşehir Ulu Mosque. These building was researched by scientist, G.Öney, Y.Demiralp, İ.H.Konyalı, T.Samur, etc. The Mosque was described and dated in the whole of publication about mosque. Recently, The Mosque was restored by the General Directory of Vakıf. While this restoration new evidence was found about early construction of building. Beside, yet more important some treasure found in the mosque. It is include different part from Byzantine to Seljuq time. The Treasure is include some sultan rings, necklace, belt earings. Some material has got gemstone also.

In this paper, I will dwell on two differentiate issue. Firstly, I will describe to alteration of early period of building in the light of evidence. What is the plan of early time of building? What is the addition to building in the 13 th century? Secondly, I will discuss about the treasure. Whose of this treasure may be belong? What is the originate of this treasure?
Recent archeological researches in Cala Corvino, Monopoli (Apulia, Italy)

Luigi LA ROCCA – Gianpaolo COLUCCI – Angelo RAGUSO
gianpaolocolucci@tiscali.it

The present article demonstrates the preliminary results of underwater archaeological investigations carried out by the Superintendency for Archaeology, Fine Arts and Landscape for Metropolitan Bari in the locality of Cala Corvino, the inlet situated to the north-west of the town of Monopoli (province of Bari), following several communications.

At a depth of 12 to 13 meters, a few tens of meters off the coast was identified a considerable scattering of circular and semi-square stone artefacts with central holes in them and numerous stones in less definite shapes and of various dimensions also with holes in them.

Other artefacts were discovered on the coast. Some of them are already known while others are a recent acquisition. On the cliff, very close to the water were found short columns with the mushroom-shaped top that had been conveniently moulded from calcarenite and positioned over the length of about 200 meters, undoubtably by human beings. They were identified as bollards arranged, in some cases, to form the real berth.

In the sea, inside the through holes of some stone artefacts there is something that is thought to be the remains of ropes made from plants like hemp, covered by sediments. The artefacts, in particular those that are trapezoid in shape, are considered to be stone anchors. It cannot be excluded that other artefacts are also anchors. The highest concentration of anchors was found in the areas of the seabed where the depth of the sea changes. The bathymetry of the investigation area, in fact, represents a series of big descending parallel to the coast steps that starts near the cliff at a depth of 5 meters and leads to a depth of 13 meters, which is the deepest area of the site. It is obvious that it was the place where the anchors embedded in the seabed with the right amount of tension in the rope, thereby ensuring a stable and safe mooring.

This series of elements, the land and the water together, suggests that the entire area was an ancient berth provided with well-organized mooring.

The picture of berths in the lower Adriatic can be extended.
Evidence of Commercial and Transportation Activities of Assos Harbor

Nurettin ARSLAN – Caner BAKAN
Çanakkale Onsekizmart University
narslan@hotmail.de

Assos, situated to the South of Troas Region has been considered as a perfect example in means of investigating the Greek *polis*. Built on a high volcanic rock on the Aegean coast, the city has two harbors built with artificial breakwaters. The city's significance as Strabo emphasized is more directly related to its connectivity over those harbors. Prior to the Hellenistic Age, the students of Plato were active in Assos. The most famous one of them was Aristotle who lived for three years in the city.

The high-quality wheat produced in Satnioeis Valley at Assos was sent to the Persian king via the harbors. In the Hellenistic period, commercial relations of the city with other *poleis* are revealed on the basis of trade amphoras. The trade amphorae at Assos are of Thasos, Rhodes, Cnidus, Chios and Sinope. Amphora seals of those dated from the end of the 4th century to the first half of the first century B.C. Assos imported wine from Thasos and Cnidus at most. An inscription found at Thasos referring to sailors from Assos proves the trade relation between these two *poleis*.

In 161-154 B.C. Egyptian King Ptolomaioes Euergetes VIII visited Assos during his military expedition to Cyprus. As a gift the people of Assos gave him a white pig. This must be a very precious gift since once for a similar pig Ptolemaios VIII had paid 4000 *drachma* to Eumenes II, the King of Pergamum.

During the Roman Imperial Period, Plinius mentioned *sarcophagi* of Assos, box-like funeral receptacles accelerating the rotting process of corpses. These *sarcophagi* were exported to Palestine, Egypt, Greece and Italy in the late second century A.D. Among the cargo loads of a floating ship in the southern coast of Greece were some of these *sarcophagi*.

Although the harbors of Assos gradually lost their importance, they maintained their position in establishing relations with distant cities until the end of the 19th century A.D. In this century, the acorns grown in the Troas Region were carried to the harbors of Assos/Behramkale with the camels, where they were exported to the distant countries with ships. In addition, stones removed from ancient ruins were moved by ships for reconstruction activities in other cities, especially Istanbul. Shipyard ruins in one of the harbor, just behind the steep cliffs, suggest that this place used for the maintenance and repair of ships. It has been used and protected until today since there is no stream near the artificial breakwater which was partially destroyed but still architectural bases under the water can be visible. However, the second harbor, which is quite larger, is being used today.

Assos harbors had been used for commercial purposes. Also, they had been used for transportation. For example, in 345 B.C. Aristoteles and Theophrastos sailed from Assos to Lesvos. In the beginning of the first century A.D. St. Paulus made a similar travel.
Studies on the Dana island shipyard and underwater research at Adana, Mersin and Antalya coasts in 2018

Hakan ÖNİZ

Secretary of ICOMOS, ICUCH, Turkey

hakan.oniz@gmail.com

First part of the speech during the 21th SOMA Symposium in Santa Severa is on underwater survey at the coast of Turkish Mediterranean from the east coast of Adana to the west coast of Antalya. Many shipwrecks include 16-15th Century BC copper ingot ship, Bronze Age stone anchors, Iron Age stone stocks of wooden anchors, iron anchors and 14 amphora-loaded shipwrecks which were dated from 7th Century BC to 12th Century AD have been found in 2018.  Second part of the speech is on Dana Island Shipyard which is near the coast of Mersin’s Silifke. The shipyard was found in 2015 during the underwater survey behalf of Ministry of Culture of Turkey in the east of the Rough Cilicia region on the Mediterranean coast of Turkey. About 276 rock-cut slipways were found in 2015 and 2016 on the Island. There are also a great number of different remains such as work-shops, governmental buildings, houses, watch towers, fortification walls, temple elements, churches and about 300 cisterns behind of these slipways. Almost all part of the remains show a great shipyard complex. The surface materials on the Island were dated from Neolithic period to Iron Age to 12th Century AD. 12 small slipways which probably for the service boats of big ships and also small agricultural areas probably used as grapeyard have been detected and drawn in 2018.
The coastal landscape between the ancient sites of Kamarina and Kaukana (Sicily)

Massimo CAPULLI, Dario INNOCENTI, Sebastiano TUSA

Department of Humanities and Cultural Heritage – University of Udine (I)

massimo.capulli@uniud.it

The Southern coast of Sicily has always been at the centre of maritime commercial trades of the Mediterranean. The coastal area between modern-day Punta Braccetto and Marina di Ragusa, in particular, was the arrival point of trades from Northern Africa and the isle of Mata. In this area, where the ancient site of Kamarina was placed, the coast was in the past and still today is characterised by a shallow seabed and many rocks that guarantee several natural mooring and anchoring points. The difficulty of navigating in these waters made this area particularly dangerous, as the historical sources tell us, and as proved by the several known ship-wrecks.

The Kaukana Project was born from the partnership between the Department of Humanities and Cultural Heritage of the University of Udine and the Sea Superintendence of the Sicily Region, with the support of Institute of Nautical Archaeology, to study the underwater archaeological sites of this area and reconstruct their relationship with coastal sites and this part of Mediterranean. The field work started in the summer 2017 with the excavation of the Punta Secca shipwreck and continued in 2018 in Kamarina bay and Ispica.

This paper will give an overview of the historical landscape and will present the results of the recent underwater excavation campaigns.
Since June 2017 the University of Cadiz have been developing several research projects on a variety of sites. The objective is to approach to different problematics related with shipwreck and harbor archaeology. Using this projects for training in research for young researchers as PhD candidates and Msc program students.

In this communication we present the results of three selected research projects conducted under the Program on Nautical and Underwater archaeology and leaded by several researchers from the University of Cadiz.

The projects are related with the investigation of The Ballenera Shipwreck, a merchant vessel from the late 16th century with a probable origin from the Ligurian coast. With an interesting and complex cargo of Ligurian pottery and some other interesting artifacts.

Arapal shipwreck, is one of the few shipwreck documented with a cargo of cooper ingots in the coast of Spain. During the research is has been recovered 79 copper ingots come of them with their characteristics marks. The project is focused now on the archeometallurgical research of the vessel.

Finally we will present a project founded by the National Plan of Investigation. “The Caleta and Cadiz. Maritime traffic analysis form the underwater cultural heritage : ports and wrecks”. Within this project a specific study of the marine environment and geophysics analysis of the bottom is going to be developed using a SES-2000 parametric equipment.
Private and public ports in the Gulf of Naples. New data from recent underwater archaeology researches

Michele STEFANILE
University of Naples “L’Orientale” - ISCR
michelestefanile@gmail.com

The role played by the harbors in the Gulf of Naples during the Roman Republican and Imperial Ages constitutes a very significant subject within the wider reflection on maritime routes and connections in the ancient Mediterranean. The importance of Puteoli as commercial hub and of Misenum as military basis is very well known and diffusely described by the ancient sources, but the abundance of maritime structures still visible underwater for the effect of bradyseism has been studied and documented only partially so far.

Moreover, an incredible amount of piers, breakwaters and port facilities, built on the model of the Puteolan port, is easily recognizable along the entire Neapolitan coast, with a particular concentration in the Phlaegrean area, allowing us to imagine a long, crowded anthropized waterfront, not different from the situation described by Strabo in a famous chapter of his work about Geography.

New underwater archaeological researches in the Gulf of Naples, together with geoarchaeological works made in collaboration with marine geologists, are now offering the possibility to reconsider the entire port system of the Neapolitan region, studying the relationship existing among the huge public commercial and military ports and the big number of private piers.
Roman fishtanks and past sea level in the Mediterranean

Marco ANZIDEI
Istituto Nazionale di Geofisica e Vulcanologia
marco.anzidei@ingv.it

Following the pioneering work of Schmiedt et al. (1972) on establishing the level of the Tyrrhenian Sea in antiquity, a number of studies have examined this evidence from Roman Period fish tanks but with significantly different outcomes due primarily to different interpretations of the functional level of these pools at the time of their construction. In the Mediterranean region exist several fish tanks that can be used for establishing the past sea levels in different tectonic regimes. As part of a longer-term project to understand the causes of sea level change in this region, we have re-examined a set of well-documented fish tanks located along the Tyrrhenian coast of Italy (between Formia and Orbetello and in the Phlegrean Fields). These are all based on the same construction principles, for which it can be established that they were in open contact with the sea at the time of operation. The structural features that tidally control the exchange of water used to define the ancient local sea level are identified as the channel thresholds, the sluice gate and sliding post positions, and the lowest-level crepido. These are consistent for all the tanks examined, permitting the local sea level change over the past ~2000 years to be established at each location with a precision of 20 cm or better and against which other coastal archaeological features can be calibrated. From our surveys, we conclude that published local sea levels for the tectonically stable areas of the Tyrrhenian coast, that are based on the present-day elevations of the foundations of protective walls constructed around the tanks and lie ~50 cm above our inferred levels, are inconsistent with the successful functioning of the water exchange and have to be rejected. For Santa Liberata, we have been able to calibrate our interpretation against sedimentary evidence from the nearby Orbetello Lagoon. This confirms our interpretation of the functional control level of the tanks and we conclude that the accuracy of our local sea levels is 20 cm. The causes of sea level change along this section of the coast are several, including land motion driven by tectonic and glacio-isostatic processes and any change in ocean volume. The individual estimates for the observed local sea levels range from -0.9 to -1.5m with a mean value of -1.2 ± 0.2m. This indicate that the spatial variability of the local levels is small, consistent with model-inferences of the glacio-isostatic process that indicate near-constant contributions for this section of coast and with tectonic inferences from the elevations of the Last Interglacial shoreline. Finally, we summarize previous studies, focus on the material and methods and present an update of relative sea level for the whole Mediterranean basin for 2000 BP, as estimated from a set of the best preserved Roman age fish tanks.
In Imperial Ages many ports had been built in *opus coementicium* in Italy. The most important ones have been found in Latium (Portus, Emporium of Testaccio, Antium, Terracina), Campania (portus Iulius, Misenum, Puteoli, Baiae, Liternum, Naples) and along the high-Adriatic coast (Classis and Ravenna, Aquileia, Altino, Ancona). Among them, we can distinguish coastal ports from inland ones and military ports from commercial ones.

In Late Antiquity some of the Roman ports fell, while other ones lived until the 7th century. In Ravenna, a new port, known as Civitas Classis, was born.

In the Early Middle Ages the high-Adriatic coast became very important for the trades with Constantinople and Eastern Mediterranean. New settlements equipped with wooden port-structures were born at Comacchio, *Civitas Nova Iraciiana* (Cittanova) and in the Venetian lagoon. If the maritime trades in Tyrrhenian Sea fell, the river ones were still dynamic and often managed by abbeys and other ecclesiastical institutions. According to the historical sources, many river quays were located along the Po. The ports on Volturno were instead managed by San Vincenzo and Montecassino abbeys. The river quays of San Vincenzo have been found during the 2007-2008 archaeological digs.

The aim of the paper is to briefly illustrate the main Italian ports of Imperial and Early Middle Ages and show the continuity and discontinuity elements.
Substantial effort is required to monitor Italy’s underwater archaeological heritage effectively in order to protect and conserve submerged sites, and to enhance their importance and value. ISCR (the Istituto Superiore per la Conservazione ed il Restauro of the Ministero per i Beni e le Attività Culturali ed il Turismo) is therefore driving an innovative underwater heritage project.

The MUSAS project started in 2017. Its aim is to develop an integrated supraregional model to monitor and enhance underwater archaeological heritage, in museums as well as in situ, in order to develop best practices that can be extended and deployed at other sites. It has three specific objectives:

1) The creation of a web-portal for the Museo Virtuale dell’Archeologia Subacquea where annotated images and 3D models will illustrate artefacts recovered from submerged sites and now housed in museums, and the underwater sites that are the focus of the project.

2) The implementation of an advanced exploration system at the submerged archaeological sites of Baia and Egnazia.

3) The development of a network of innovative sensors that can be deployed flexibly to monitor the environment, the condition of submerged sites and the location of divers.

A number of archaeologically significant locations in Southern Italy have been selected as test sites, in Campania, Puglia (Apulia) and Calabria. In this presentation we will give an update about the activities carried on in Egnazia, in Puglia, a city with substantial submerged port structures and significant Roman and pre-Roman remains along the coastline.
The application of new technologies plays a significant role to the archaeological science and most specifically to underwater archaeology, in order to limit the difficulties encountered by the peculiar environment within which an underwater archaeologist has to operate. The application of any method or technology which can reduce the time spent underwater and simultaneously the amount of fieldwork required during an underwater survey, could lead to significant efficiency improvements and cost savings.

In the context of the Lab4Dive project a partnership composed of Greek and Italian companies and institutions is developing an innovative system able to support and link the different actors involved in the surveying and documentation tasks of underwater archaeology. The system is composed by an underwater set of devices and a cloud infrastructure. The underwater set is based on an Android/iOS tablet coupled with environmental sensors, a high resolution camera and an acoustic localization system. The cloud component is a web-based platform that supports the planning and the monitoring of the dives, allowing archaeologists to collect, analyze and share data recorded during the dives.

The Lab4Dive system supports the archaeologists in the workflow of a documentation process with two software tools intended for managing and executing the missions. The first tool is a mission managing app that allows the mission director to plan the dives by defining targets that have to be investigated, paths to be followed during surveys, areas to be photographed for creating a photomosaic and/or a 3D model.

The second tool is an underwater tablet that mainly allows divers to see their positions and movements over a 3D map of the site, to acquire geo-localized photos, notes and sketches and to plan and execute a photogrammetric survey of an area of interest with a continuous shooting of the pictures. After the dive, all the data acquired through the tablet are uploaded on a cloud platform and can be analyzed, commented and modified through the mission managing app. The pictures acquired for photogrammetric recording are sent to a remote server that performs the 3D reconstruction and sends back to the user the final 3D model.

The system has been tested by 15 users from different fields of expertise, all of whom divers who have been engaged in various underwater archaeological projects. Those users constituted the Hellenic Institute of Marine Archaeology (H.I.M.A.) team who conducted the Lab4Dive trial case during October 2018, participating in the underwater archaeological survey at Cape Vasilis (north-eastern coast of Poros island) and excavation at Modi islet (south-east of Poros island), both in the Argosaronic Gulf, Greece. More specifically, for two weeks, the members of the team had the opportunity to test the Lab4Dive system during the survey of a Byzantine shipwreck (dating to the 13th/14th century AD) and the excavation of a Mycenean shipwreck (dating to the end of the 13th/early 12th century BC) respectively and therefore to be acquainted with the functionality of the system at different environments and according to different methodological processes.

The feedback collected during the testing phase have evidenced that the tablet can be an effective solution to improve both the amount of data collected in a single mission and the management of time and human resources available during the field work.

The Lab4Dive project is co-funded by the European Maritime and Fisheries Fund (EMFF) programme of European Union through the Executive Agency for Small and Medium-sized Enterprises (EASME) and the Directorate-General for Maritime Affairs and Fisheries (DG MARE) call on “Blue Labs”.

1 3D Research s.r.l. – Università della Calabria – Italy; 2 Atlantis Consulting - Greece
3 Università Politecnica delle Marche – Italy; 4 Hellenic Institute of Marine Archaeology - Greece
The cathodic *in situ* protection of the iron cannons in Cala Spalmatore, Marettimo

**Flavia PUOTI, Barbara DAVIDDE PETRIAGGI, Marco CIABATTONI, Chiara BARTULI, Roberto PETRIAGGI**

ISCR - Istituto Superiore per la Conservazione ed il Restauro  
barbara.davidde@beniculturali.it

Over the years, the preservation of underwater archaeological sites in situ has assumed increasing importance. However, by preserving in situ, there is the threat that the richness of underwater cultural resources becomes less visible to the general public.

This project aims to study a comprehensive conservation plan for archaeological iron in seawater and using cathodic protection as the main conservation technique. The field work would take place in an archaeological area with cast iron cannons to investigate their conservation state, such as graphitization and corrosion potential, and how environmental characteristics influence cathodic protection and whether the anode weight decrease is a linear phenomenon or is affected by seasonal fluctuations.

The chosen archaeological site is near the coast of Marettimo island (Sicily, Italy) where nine cast iron cannons were discovered in 2000, dated between 17th and 18th century at about 15 m depth, dispersed as a consequence of the sinking of a Spanish ship.

In 2007 the Italian Istituto Superiore per la Conservazione ed il Restauro (IsCR) studied a comprehensive conservation plan that included cathodic protection along with the local superintendence, Soprintendenza del Mare, for making this area a marine archaeological park, but unfortunately this project was only partially achieved.

Therefore, a major part of the study will focus on improving the enjoyment and the comprehension of iron objects in underwater parks by both experts and non-specialists (e.g. diving enthusiasts) through the mechanical removal of marine concretions from the cannons’ surface and the use of geotextiles as protective coverage. Setting up a trail will facilitate access to the natural and cultural heritage through nature tourism and increase understanding of the ancient trade routes between the African coastline and the Eastern Mediterranean Sea.
The World Heritage property of the “Ancient City of Nessebar”, in Bulgaria, is a city 3,000 years old since it was first established as the Thracian settlement known as Menebria. Later it became one of the most important Byzantine towns on the west coast of the Black Sea and an important religious centre. Significant remains from the Hellenistic period – an acropolis, temple of Apollo, an agora or traces of its Thracian fortifications - as well as typical Black Sea architecture wooden houses from the 19th century are part of the urban tissue of the modern city. Furthermore, already at the time of its inscription, the property included the significant archaeological remains found in its Buffer Zone, submerged in the territorial waters around the Nessebar Peninsula.

Last December 2017, the Bulgarian authorities invited a joint Advisory Body mission to the World Heritage property following the Decision adopted by the World Heritage Committee, which expressed “its concern regarding proposed infrastructure projects, incompatible with the values, attributes and vulnerabilities of the property, as well as development approach based on mass tourism, which are representing potential threats to the Outstanding Universal Value (OUV) of the property” (41 COM 7B.43).

The mission was the first requested by a State Party to the Advisory Bodies of both the Convention on the Protection of World Cultural and Natural Heritage (1972) and the Convention on the Protection of the Underwater Cultural Heritage (2001). Previous Reactive Monitoring and Advisory Missions (2010, 2012 and 2015) already underlined the risk to have the underwater cultural heritage found around the peninsula, which was not inventoried, affected by the development projects. The mission addressed the provisions of both legal instruments and looked at the management and protection of the cultural heritage, whether on land or underwater, with a common-based approach. It also examined the current and proposed urban and port development projects affecting the “Ancient City of Nessebar” and its Buffer Zone, assessing their impact to its OUV and its conservation.

There are many World Heritage properties with underwater archaeological remains as well as maritime aspects, some yet to be identified and assessed. Illustrated by the case of the Ancient City of Nessebar, this presentation analyses the importance of including maritime and underwater archaeological aspects in the different processes evaluating the World Heritage properties (i.e. States of Conservation reports, Periodical Reporting, Reactive Monitoring or Heritage Impact Assessments) as means to redefine their OUV and improve their Management Plans, ensuring its protection, conservation and presentation.