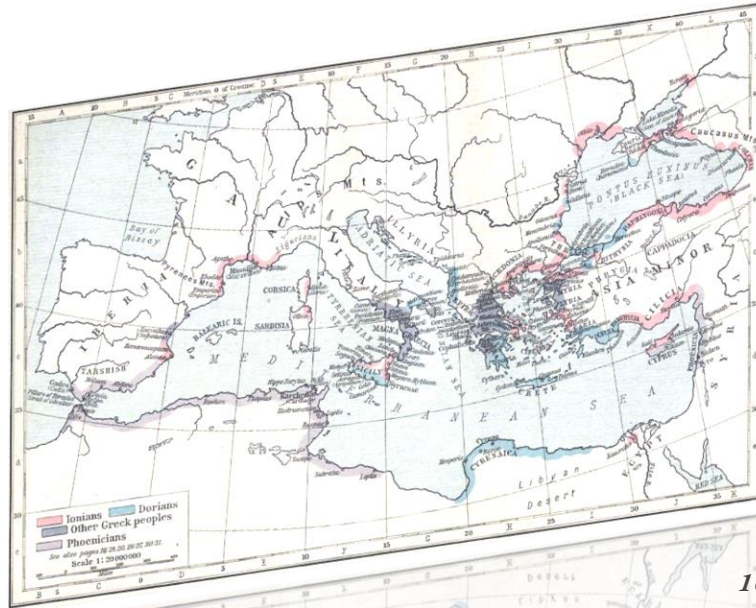


First Milestone Seminar - PRIN 2017

*Peoples of the Middle Sea. Innovation and Integration in Ancient Mediterranean (1600-500 BC)*

TRACKING INNOVATION  
AND INTEGRATION IN ANCIENT MEDITERRANEAN:  
METHODS AND CASE STUDIES



16<sup>th</sup> December 2020

**Principal Investigator**

Lorenzo NIGRO (Sapienza University of Rome)

**Associated Investigator**

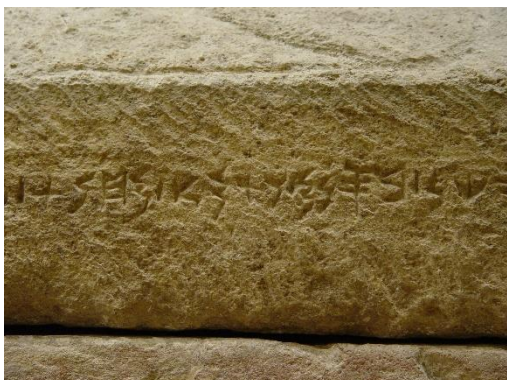
Ida OGGIANO (National Research Council)

Michele GUIRGUIS (University of Sassari)

Salvatore DE VINCENZO (University of Viterbo)

## WRITING, ALPHABET, AND LITERATURE IN THE PHOENICIAN CULTURE

[A.1.Culture]



In the first part of the present lecture I try to sketch a wider and more general frame in which writing is to be set, specifically taking into account the system of communication. From this viewpoint, writing is a peculiar form of visual communication. In the second part I deal with the history of the alphabet and with the question of a “Phoenician literature”, with focus on the use of writing and its extense in Phoenician culture.



Andrea Ercolani, Researcher  
National Research Council  
[andrea.ercolani@ismed.cnr.it](mailto:andrea.ercolani@ismed.cnr.it)

## PHOENICIAN GODS TOWARDS THE WEST. TRADITION AND INNOVATION

[C.4.Society]



The present study is aimed at presenting the most ancient evidences of the cult to Phoenician gods in the western Mediterranean. Around the 9th century BCE, the arrival of the Levantine immigrants in that large region included between North Africa, Sicily, Sardinia and southern Spain, going also beyond the Strait of Gibraltar, implied the appearance in those territories of new cultural experiences, as, for the topic we are dealing with, new cults and new deities. The investigation devoted to the forms of cult and the gods' morphologies, then, as well as of the traits they acquired in the western lands, can help to delineate some aspects of the new cultural features that rooted in certain areas of the Mediterranean at the beginning of the first millennium BCE. In order to show the variability of such process, these notes will be specifically focused on three case studies: the god Pumay at Nora, the double divine name Eshmun-Melqart in Ibiza and the emergence of the god Baal Hammon as the deity of the *tophet*.



Giuseppe Garbati, Researcher  
National Research Council  
[giuseppe.garbati@cnr.it](mailto:giuseppe.garbati@cnr.it)

## DUAL INHERITANCE?

### SHAPING *HABITUS* AND FOODSCAPES IN PHOENICIAN SARDINIA

[A.3.Culture; B.1.Technology]

In this contribution we will focus on the dimension of daily life in Phoenician Sardinia, from the end of the 9<sup>th</sup> up until the 6<sup>th</sup> century BC.: specially in the southern part of the island the deep autochthonous roots met new lifestyles of oriental origin. We will reflect on material culture linked to domesticity and, particularly, on cooking wares and vessels from Sulky (modern Sant'Antioco), Monte Sirai (Carbonia) and Cuccureddus (Villasimius). Going beyond the usual categories of analysis that distinguish Phoenician traditions from Nuragic ones, we will try to present a much more complex panorama, characterized by a complete redefinition of the households and living spaces. Innovative processes, even in the field of what we could define as a "Phoenician foodscape", play a key-role in order to understand the genesis of the new societies of the Mediterranean Iron Age.



Michele Guirguis, Associate professor  
University of Sassari  
guirguis@uniss.it



Rosana Pla Orquín, Researcher  
University of Sassari  
r.plaorquin@gmail.com

## "NEWFANGLED" PHOENICIAN LANDSCAPES. MATERIAL CULTURE & RED-SLIP WARE AS INDICATOR OF INNOVATIVE PROCESSES

[A.3.Culture; B.1.Technology]

This essay focuses on a particular ceramic production characteristic of the Phoenician manufacture of the Levant, the red-slip ware. In the archaeological site of Sulky, in south-western Sardinia, it is possible to find the first and most ancient evidence of these materials, which represent an extraordinary novelty in the panorama of the material culture of Iron Age Sardinia. Thanks to a new analytical process, still in progress, we are now able to certify that the vast majority of these products, between the end of the 9<sup>th</sup> and the whole of the 8<sup>th</sup> century B.C., were internally produced, using an innovative technological process locally developed and through technical procedures that gave rise to original and appreciated forms. These new ceramic productions, destined for the inhabitants of the Phoenician city (which elsewhere we have tried to define in its multicultural features), also brought about transformations in aesthetic taste, functionality and consumption, defining a new horizon of material culture.

In this phase of the research, with a careful approach to methodology and the definition of a solid documentary base, the study also focused on aspects connected with relative and absolute chronology; the new calibrated radiometric dating and the interpretation of the results, made possible thanks to the PRIN project, will be presented and discussed with reference to the entire Mediterranean horizon in the first centuries of the 1<sup>st</sup> millennium BC.



Michele Guirguis, Associate professor  
University of Sassari  
guirguis@uniss.it



Sara Muscuso, Researcher  
University of Sassari  
saramuscuso@gmail.com



## GREEK IMPORTS AND LOCAL CERAMICS IN ELYMIAN SITES

[A.5.Culture]



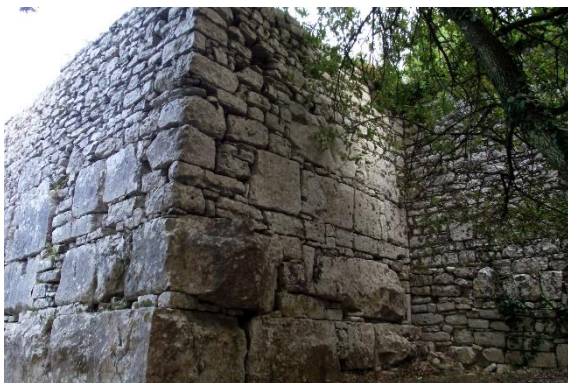
My research focuses on pottery imports, especially Corinthian, Ionic and Attic ceramics, as well as locally produced ceramics from the most important Elymian sites in Western Sicily. In my talk I will concentrate on ceramic materials from excavations of the sanctuary of Venus Erycina and of the fortifications in Erice. In this context, I am particularly interested in investigating the cultural innovations and interactions between Elymians, Greeks and Phoenicians in Erice from the end of the 8<sup>th</sup> to the beginning of the 5<sup>th</sup> century.



Chiara Blasetti Fantauzzi, Researcher  
Freie University of Berlin  
[blasettif@zedat.fu-berlin.de](mailto:blasettif@zedat.fu-berlin.de)

## INNOVATIONS IN ARCHITECTURE AND URBAN PLANNING OF ARCHAIC SICILY BETWEEN PHOENICIANS, GREEKS AND INDIGENOUS POPULATIONS

[A.2.Culture]



This talk discusses the process of *métissage*, the encounter of different cultures and the formation of new architectural and urbanistic culture in the Phoenician, Greek and indigenous settlements of Sicily. The focus is on the Archaic period. Greek construction techniques and urbanistic concepts were used in different contexts of Sicily and modified according to specific local needs.



Salvatore De Vincenzo, Associate professor  
University of Tuscia  
[devincenzo@unitus.it](mailto:devincenzo@unitus.it)

## TECHNOLOGICAL INNOVATIONS IN HYDRAULIC SYSTEMS IN PRE-ROMAN SICILY

[B.2. Technology]

This contribution focusses on the invention, adoption and development of hydraulic systems in Phoenician, Greek and Indigenous settlements in pre-Roman Sicily. Surveying archaeological remains, an attempt will be made to identify innovations and technology transfers.

Research questions are:

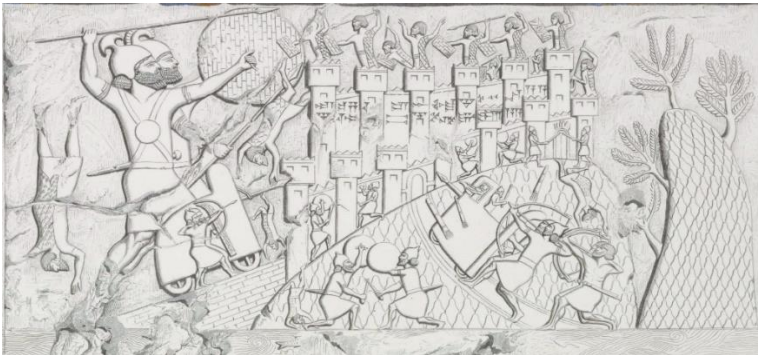
- When and why certain technologies had innovative power?
- Under which conditions innovations prevailed or failed in certain social and cultural contexts?
- How and by whom hydraulic technologies are transferred into new contexts?



Frerich Schön, Researcher  
University of Tübingen  
[frerich.schoen@uni-tuebingen.de](mailto:frerich.schoen@uni-tuebingen.de)

## DEFENSIVE ARCHITECTURE IN THE SOUTHERN LEVANT IRON AGE: A SNAPSHOT

[A.2.Culture]



Since ancient times protection and defence of private spaces represent a crucial need for human beings. With the appearance and development of organized and ever more complex communities, this need takes shape with the construction of powerful defensive systems that delimited the urban space and that evolved with it. Throughout a selection of sites and architectural examples, this paper addresses the emergence and development of fortified settlements in the Southern Levant between the end of the 2<sup>nd</sup> and the half of the 1<sup>st</sup> millennium BC, highlighting the most noticeable changes occurred from the multifactorial Late Bronze Age crisis up to the advent of the Neo-Assyrian Empire. Together with the analysis of some defensive types, useful for identifying public and private spaces and their coexistence, but also building techniques and materials, the role of Assyrian poliorcetics will be considered as well. In a such historical setting, largely governed by war and conquest codes, it is possible that the employed construction criteria were formulated in response to warfare and specific siege tactics.



Maria Tamburrini, Researcher  
Sapienza University of Rome  
[maria.tamburrini@uniroma1.it](mailto:maria.tamburrini@uniroma1.it)

## INTERNATIONAL BRONZES: THE CASE STUDY OF A SARDINIAN BRONZE AXE FROM MOTYA

[B.2.Technology]



The circulation of various kind of metals in the Mediterranean is attested since the mid of the 2<sup>nd</sup> millennium BC. Ideas, skills, and technologies moved together with rough material and finished objects, according to the fashion and the trend of the time. The orientation of the flow was mainly from East towards West, but it was not unidirectional. Oxhide ingots clearly represent this exchange net and give information about ore supply basins and the movement of technological innovation, starting from Cyprus. Nevertheless, several paths did exist, as shown by peculiar items such weapons discovered at Crete and Cyprus and in the Uluburun shipwreck, or in Sicily and Sardinia. The Sardinian axe discovered at Motya in 2018 seem to be part of a West-East flow in the Mediterranean metallurgical koine (13<sup>th</sup>-10<sup>th</sup> BC).



Daria Montanari, Researcher  
Sapienza University of Rome  
[daria.montanari@unroma1.it](mailto:daria.montanari@unroma1.it)

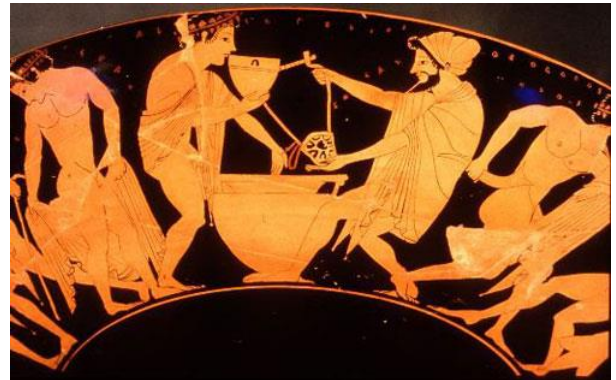
## BIBERON AND DRINKING VESSELS. SYMPOSIAL PRACTICE IN THE TOPHET?

[A.4.Culture]

The topic will analyze the drinking vessels of Tophet sanctuaries and the integration in the Phoenician-Punic repertoire of the foreign specimens of Greek derivation. Starting from the case study of Motya, the main attestations will be considered and compared with the data known to date from the other Tophet-type sanctuaries, but also from other ritual scenarios in different geographical and cultural contexts.

In fact, the discovery in Tophet of numerous and varied vascular specimens, not inherent to the sanctuary urns, concretely supports the hypothesis of the regular practice of convivial meals. Furthermore, there seems to be an increase in the activity between the 6<sup>th</sup> and 5<sup>th</sup> centuries BC, coinciding with a more frequent contact with the Hellenic world.

Finally, attention will be focused on the shape of the *biberon*, also of Greek derivation. The *guttus*, which has always been associated with the environment of childhood, however, is scarcely attested in Tophet sanctuaries. This evidence leads to the reconsideration of the function of this form in the Phoenician sanctuary and to hypothesize a use different from the classical one, maybe linked to the cult practice carried out in the sanctuary.



Fabiola Zielli, Researcher  
Sapienza University of Rome  
fabiola.zielli@uniroma1.it

## PMSEA GEODATABASE. COLLECT, CLASSIFY, NORMALIZE AND ORGANIZE ARCHAEOLOGICAL, CHRONOLOGICAL AND GEOGRAPHIC DATA

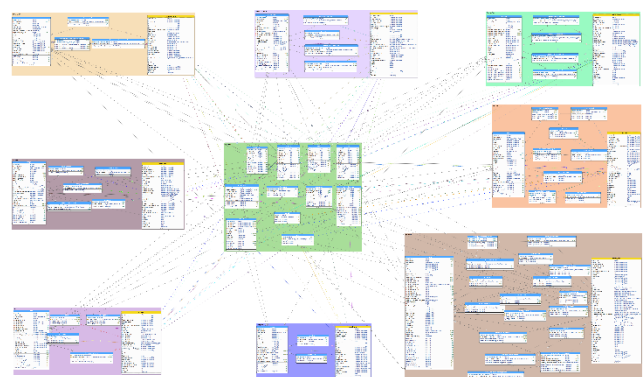
Importance of record data recovered from archaeological excavations is by now well known. The same can be said about GIS.

I will describe the structure we have planned and the choices that led to the PemSea realization.

We only used open source software and they rely on broad and valid communities. We talk about Postgresql, a relational database, postgis its spatial extension that permits to manage spatial information inside the relational database and Qgis, a GIS well known in archaeology, used to map and visually query the data.

The process of normalization is fundamental to correctly structure a relational database in order to reduce data redundancy and ensure data integrity.

The process of data insert will be examined too.



Luciano Fattore, PhD Student  
Sapienza University of Rome  
luciano.fattore@uniroma1.it



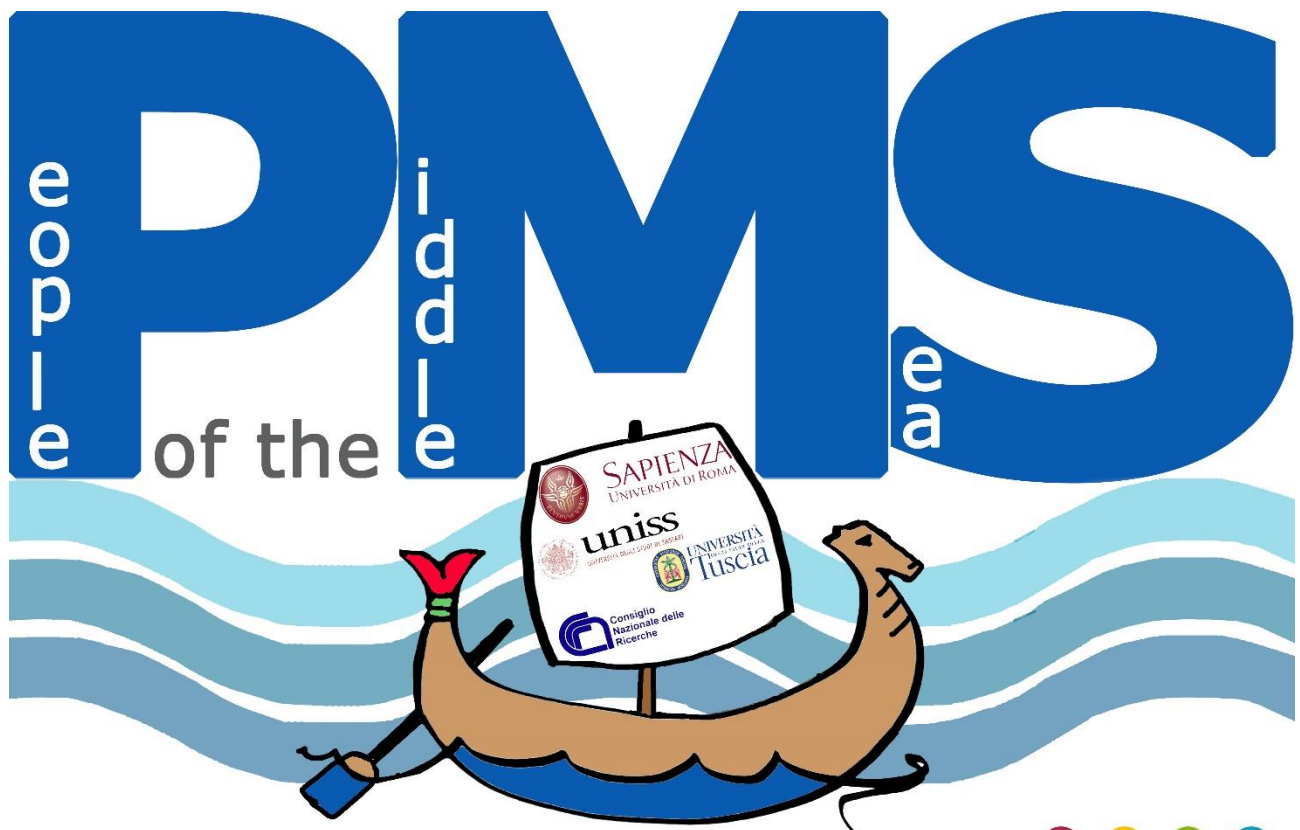
## PeMSea [PRIN2017] - Peoples of the Middle Sea. Innovation and Integration in Ancient Mediterranean (1600-500 BC)

	SAPIENZA	SASSARI	CNR	TUSCIA
<b>A. CULTURE</b>	<b>A.1</b> Scheda per prime iscrizioni alfabetiche nel Levante (A. Campus, D. Balboa)	<b>A.1.</b> Catalogo iscrizioni in Sardegna e Sicilia (R. Zucca) Aggiornamento delle iscrizioni	<b>A.1.</b> Innovazioni tecnologiche alfabeto con individuazione dei gangli di snodo e di diffusione (A. Ercolani, F. Porzia)	
	<b>A.2.</b> Capitolo Urbanistica Levante (L. Nigro, N. Ferrante, C. Liberati); Cipro (I. Bitti); Malta (G. Bonanno).  Citadels and Fortifications in Eastern and Western Mediterranean (M. Tamburrini+Bianca Berti).  Domestic Architecture (L. De Vito)	<b>A.2.</b> Urbanistica Sardegna (R. Pla) Fasi Arcaiche VIII-metà VI, e Nord Africa (M. Guirguis)	<b>A.2.</b> Urbanistica Sardegna V-III secolo a.C. e Iberia (M. Botto, L. Tirabassi)	<b>A.2.</b> Urbanistica in Sicilia (S. De Vincenzo)
	<b>A.3.</b> Food traditions & food plants: F. Spagnoli + <u>laureando</u> (cooking pot); Red Slip typologies (F. Cappella); <i>Flora Antiqua</i> : L. Sadori, C. Moricca; The spread of olive oil culture and economy through the Mediterranean basin (S. Sabatini)	<b>A.3.</b> Food traditions & food plants in Nord Africa (M. Guirguis, P. Spanu) and Sardinia (G. Carenti) Iconografia delle piante nelle stele (F. Spagnoli + R. Pla Orquín) J. Lopez castro (Iberia)	<b>A.3.</b> Food traditions & food plants in Sardinia (Massimo Botto and Emanuele Madrigali) in Phoenicia (Ida Oggiano; Barbara Mura) Vase contents analyses <u>SAMPLES</u> dai siti (CNR)	<b>A.3.</b> Analisi cooking pot da Mozia, Erice, Sardegna. Vase contents analyses <u>SAMPLES</u> dai siti (G. Favero)
	<b>A.4.</b> Commercial Amphorae: Greek: I. Melis+ <u>laureando</u> ; Punic: F. Zielli		<b>A.4.</b> Commercial Amphorae (Phoenician) (T. Pedrazzi)	
	<b>A.5.</b> Imported pottery in Motya (F. Cappella, I. Melis, F. Spagnoli, L. Fabrizi); tesi di laurea	<b>A.5.</b> Importazioni micenee, cipriote, greche e levantine in Sardegna (M. Guirguis, R. Pla Orquín): aggiornamento	<b>A.5</b> Imported Pottery Phoenicia (Ida Oggiano/Tatiana Pedrazzi; assegnista); Sardinia (Ida Oggiano/Tatiana Pedrazzi/assegnista)	<b>A.5.</b> Phoenician and Greek imports in Elymian sites (C. Fantauzzi)



<b>B. TECHNOLOGY</b>	<b>B.1.</b> Red Slip tracking (F. Cappella, L. Fabrizi) Common ware typologies (S. Giardino); Potter's wheel and potter's workshops (G.E. Lugli)	<b>B.1.</b> Potters' wheel catalogue of earliest attestations (M. Guirguis, R. Pla). Prime forme tornite in Sardegna: Common ware typologies (R. Pla Orquín)	<b>B.1.</b> Isotope characterization of coatings (CNR-polo tecnologico). Ion Beam Analysis (Mohammad Roumie Lebanese CNRS; assegnista)	<b>B.1.</b> Pottery analyses (Tuscia)
	<b>B.2.</b> Innovative metallurgy (D. Montanari) Armi (P. Bigini). <u>Laureandi</u> per classi di materiali: - i lingotti (oxhide) - le patere fenicie (P. Bigini) - le brocche fenicie (E. Audaci) - calderoni, tripodi, finimenti per cavalli, candelabri  Analisi metalli (C. De Vito, M. Bernabale)	<b>B.2.</b> Innovative metallurgy: Tesoretti d'argento da Dor sardo		<b>B.2.</b> Metallurgy analyses (Vinciguerra e Cecchi)
			<b>B.3.</b> Shipwreck catalogue & Sailing techniques (CNR, S. Medas + laureando)	
	<b>B.4.</b> Innovation in hydraulic installations: the case of Motya (L. Nigro + L. Indino)	<b>B.4.</b> Innovation in hydraulic installations in Sardinia and North Africa (P. Spanu, R. Zucca)	<b>B.4.</b> Innovation in hydraulic installations in Phoenicia (I. Oggiano) and Sardinia (M. Botto) and mortar analyses	<b>B.4.</b> Innovation in hydraulic installations in Sicily (S. De Vincenzo) Mortar analyses (V. Vinciguerra, P. Cecchi)
	<b>B.5.</b> Weights and measures: I sistemi ponderali a Mozia e in Sicilia (G. Ceconi)	<b>B.5.</b> Weights and measures (G. Ceconi+laureando)	<b>B.5.</b> Weights and measures	<b>B.5.</b> Weights and measures
	<b>B.6.</b> Working stone: Mortai e mortai tripode in pietra nel Mediterraneo tra 1650 e il 550 a.C. (A. Cesaro) <u>Laureandi</u> per classi di materiali - macine - macinelli - mazze	<b>B.6.</b> Working stone: Mace heads in Nuragic culture (M. Guirguis); Pigments analysis on stone relief; characterization of lithotypes (S. Muscusu)	<b>B.6.</b> Working stone	<b>B.6.</b> Working stone
	<b>B.7.</b> Art of weaving: La tessitura a Mozia (N. Ferrante+ <u>laureando</u> )	<b>B.7.</b> Art of weaving: produzione domestica (N. Ferrante)	<b>B.7.</b> Art of weaving	<b>B.7.</b> Art of weaving
	<b>B.8.</b> Potter's workshops and potter's wheel in East & West Mediterranean (G.E. Lugli+ <u>laureando</u> )			

<b>C. SOCIETY</b>	<b>C.1.</b> Demographic Model (L. Nigro, L. Farina, L. Benvenuti)  Reconstruction of ancient climate and of the human impact on environment (F. Riguzzi)	<b>C.1.</b> Demographic Model (compilazione)	<b>C.1.</b> Demographic Model (compilazione)	<b>C.1.</b> Demographic Model (F.M. Donini)
	<b>C.2.</b> Ancient DNA (A. Caramelli, F. Spagnoli, T. Rinaldi) SAMPLES	<b>C.2.</b> DNA SAMPLES	<b>C.2.</b> DNA SAMPLES	<b>C.2.</b> DNA SAMPLES
	<b>C.3.</b> Role of women in cultural mediation (L. Nigro, F. Spagnoli). Social differentiation: luxury items -jewellery in tombs (Y. de Sciscio)	<b>C.3.</b> Social differentiation: luxury items in tombs (M. Guirguis, P. Spanu). Women and Childhood (R. Pla Orquín)	<b>C.3.</b> Role of women in cultural mediation in the Levant (Ida Oggiano; assegnista)	
	<b>C.4.</b> Religion: cult places and rituals in Middle and Late Bronze Levant (C. Ripamonti); cult places and rituals in Cyprus (I. Bitti). cult places and rituals in Iberia (N. Ferrante). <u>Laureandi</u> : luoghi di culto indigeni ellenizzati (Elimi) in Sicilia occidentale, fenomeni di sincretismo		<b>C.4.</b> Religion: cult places, gods and rituals in the Levant (Ida Oggiano; in Sardinia (Giuseppe Garbati; assegnista); Gods and rituals in Western Mediterranean (Giuseppe Garbati; assegnista)	<b>C.4.</b> Religion: cult places and rituals in Sicily and North Africa (S. De Vincenzo)



Peoples of the Middle Sea  
Innovation and Integration in ancient Mediterranean  
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SAPIENZA  
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UNIVERSITÀ DEGLI STUDI DI SASSARI



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DEGLI STUDI DELLA  
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