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ABSTRACT BOOK

Another complex from the Neolithic era, represented by artifacts made of translucent coarse-grained quartzite, differs in size and the character of retouching on blade-like flakes. Because of this, we hypothesize that it is either an indigenous local population group (since sources of this raw material are present in the region), or an adaptation of incoming populations to new local resources. The tool assemblage of these two population groups is similar. The functionality of the tools was confirmed through traceological analysis.

5 FUNCTIONAL ANALYSIS OF THE MACRO-TOOLS OF THE LATE MESOLITHIC SHELL MIDDEN SITES IN MORBIHAN (BRITTANY)

Dehurtevent, Alexanne (CReAAH)

The macro-tools discovered in a coastal context provide an insight into raw material supply strategies and the activities carried out, helping to interpret the type and duration of occupation of a site. A technological study integrating a first level of functional analysis was carried out on the macro-lithic corpus of the three Second Mesolithic sites of Beg-er-Vil (Quiberon), Port-Neuf (Hoedic) and Tévéc (Saint-Pierre-de-Quiberon), all three located on the Morbihan coast (France). Our goal was to understand the functionality of these tools through the analysis of use-wear traces and to be able to integrate them into fields of activity. The sites established on the seashore, in comparison with continental sites, have a greater diversity of raw materials, particularly on the Armorican coast, and a diversity of pebble morphologies allowing a reduction in the technical investment to obtain blanks for the purpose of its use.

We have twelve types of tools, the majority of which were used in thrusting percussion, such as the different sub-types of percussion tools, cutting tools and bevelled pebbles. We also have resting percussion with abraders and smoothers, indirect percussion with intermediate pieces, thrusting and resting percussion with pestles and tools that function without percussion such as weights and discs. These tools were used in various activities, the traces of which are imperceptible to us today, such as food preparation activities or the working of animal materials. From the different activities recorded at each site, a dichotomy emerged between the macro-tool assemblages, showing a certain divergence in the mode of occupation of the sites, whereas the results provided by other fields of expertise would rather indicate a similarity in their mode of occupation.

6 TECHNICAL SYSTEMS OF MESOLITHIC COASTAL GROUPS AROUND THE BAY OF BISCAY: A FUNCTIONAL APPROACH THROUGH USE-WEAR ANALYSIS ON KNAPPED TOOLS

Calvo-Gómez, Jorge (University of Rennes - CNRS) - Cuenca-Solana, David (Instituto Internacional de Investigaciones Prehistóricas de Cantabria - Universidad de Cantabria) - Gutiérrez-Zugasti, Igor (Instituto Internacional de Investigaciones Prehistóricas de Cantabria - Universidad de Cantabria) - Marchand, Grégor (University of Rennes - CNRS)

The occupation and exploitation of the coastal environments by human populations has been long time discussed by the archaeologist as a process in which the technology would have played a major role. While many Holocene contexts along the Atlantic European seashores have delivered data related to the exploitation of marine resources, the functioning of the technological system remains rather poorly understood. Around the Bay of Biscay, in the shell middens of Brittany (France) and Asturias (Spain) the production of knapped tools is part of the technical standards of the Mesolithic. While these traditions in lithic knapping are not restricted exclusively to marine environments, the function and functioning of tools could reflect technical traditions specific to these coastal contexts. In this work we have sought to deepen the characterisation of the technical system of coastal populations through the functional study of the knapped tools from three shell middens from Brittany (Beg-er-Vil, Tévéc and Port-Neuf) and two from Asturias (El Mazo and El Toral III). The final objective is to address the question of a potential specificity of techniques in the coastal sphere. The study of the use-wears revealed that there is a certain functional consistency in both study regions. However, the functioning of the identified tools cannot be undeniably associated to specifically coastal techniques. In some cases, the functioning of the tools arises from technical traditions known at a supra-regional scale, transversal to various geographical areas, both terrestrial and coastal. On the other hand, the use of certain tools could respond to specific technical choices, but which seem to respond to essentially cultural realities.

7 TECHNOLOGICAL DEVELOPMENTS IN THE LATE MESOLITHIC AND NEOLITHIC WETLANDS OF THE RHINE MEUSE DELTA: A VIEW FROM THE MICROSCOPE

van Gijn, Annelou (Faculty of Archaeology, Leiden University) - van den Dikkenberg, Lasse (Faculty of Archaeology, Leiden University) - Verbaas, Annemieke (Faculty of Archaeology, Leiden University)

In the last decades a number of sites have been excavated that provide a glimpse of daily life in the Rhine/Meuse delta of the coastal western Netherlands. People lived on river levees and coastal dunes, but were always, to various extent, within the influence of the sea. These sites date from the Late Mesolithic (the Hardinxveld-Giessendam sites) to the Late Neolithic Vlaardingen culture (e.g. Hekelingen, Den Haag-Steynhof), encompassing a period of c. 3000 years

of intermittent occupation of this wetland area. Usewear studies were done for many of these sites, including not only the flint implements, but also tools made of bone, antler, and non-flakeable stone, enabling us to reconstruct the toolkits for various activities. In all of these sites a variety of craft activities was carried out, from woodworking, hide working, making bone and antler tools, to making ornaments. We also have found evidence for various subsistence activities, such as fishing. Which activities were carried out, and which kind of tools were selected for these tasks, varies somewhat between the various sites. We will discuss these differences, and relate them to other lines of evidence as well as to their specific landscape setting. Last, we will address the issue of a possible continuation of Mesolithic lifeways into the Neolithic of the coastal Netherlands, especially in the light of recent evidence from the analysis of Late Neolithic Vlaardingen tools (www.puttinglife.com).

8 TEETH AS TECHNICAL TOOLS? ANALYSING DENTAL WEAR AS AN INDICATOR OF SUBSISTENCE-RELATED ACTIVITIES IN ISLAND INHABITANTS FROM NEOLITHIC NORTHERN GERMANY

Boensch, Victoria-Luise (Kiel University) - Jantzen, Detlef (State Agency for Heritage Service of Mecklenburg-Vorpommern, Schwerin, Germany) - Fuchs, Katharina (Institute of Clinical Molecular Biology, Kiel University, Germany)

The use of one's own teeth as tools in performing daily tasks is a well-documented practice in ethnological and osteoarchaeological studies. It can be recognised both macroscopically and microscopically by microfractures and dental modifications that are indicative of certain activities, such as chipping, interproximal grooves, or occlusal notches. Chipping and occlusal notches have been observed to be a possible indication for fishing-related activities due to their increased occurrence in coastal communities and their potential role in processing fibres e.g., for net-making.

The excellently preserved flat grave cemetery on the island of Ostorf-Tannenwerder in Lake Ostorf near the north-eastern German coast has been subject to one of the first tooth-tool use case studies in Germany. The cemetery had its main period of use in the Middle Neolithic from c. 3200 to 2900 BC but exhibits grave goods and anthropological findings that hint to a lifestyle more akin to that of Mesolithic hunter-fisher-gatherers than that of early agriculturalists. Isotope studies have shown that the Ostorf people consumed a high proportion of fish, but tools that could have been used for fishing are significantly underrepresented among the cemetery's grave goods.

Following a macro- and microscopic assessment for identifying and recording dental modifications related to the habitual use of teeth, we could gain important insight into this population's activities and social organisation against the background of their aquatic environment. Furthermore, we offer an alternative approach to detect the possible presence and use of technologies related to fishing activities in the archaeological record of Ostorf-Tannenwerder.

460 ALTERNATIVE PATHS TO COMPLEXITY: NEW PERSPECTIVES ON LATE BRONZE AGE AND IRON AGE CENTRALISATION IN THE MEDITERRANEAN

Session theme: 4. Persisting with Change: Theory and Archaeological Scrutiny

Session organisers: de Vos, Marcello (Sapienza University of Rome; University of Groningen) - Zamboni, Lorenzo (University of Milan) - Attema, Peter (University of Groningen) - Monti, Dario (Université catholique de Louvain) - Scarsella, Elena (University of Cambridge)

Session format: Regular session

The Late Bronze Age and Iron Age Mediterranean (ca.1300-500BCE) saw the transformation of society from small, loose communities into complex and organised polities. When it comes to the study of this transformation, much emphasis has been placed on concepts such as 'state' and 'urbanism'. These terms have proven difficult to define and can only be measured in relative terms. Recent research has shown that in many cases the trajectory toward more complex societies is not linear and that many variations occur in different landscapes. A universal definition of the term "urbanisation" is therefore difficult to formulate and misses the opportunity to explore intermediate and alternative phenomena, such as the emergence of other nucleated centres and the challenges posed by fragmented landscapes, such as mountainous areas or wetlands. This session aims to step away from state and urbanism as fixed concepts and ultimate societal models. It rather approaches society's pathway to complexity as a multi-linear process, the diverse character whereof reflects an adaptive strategy to environmental and historical necessities.

This session welcomes papers that take a different approach to increasing complexity in the Late Bronze Age and Iron Age Mediterranean, including non-linear perspectives, such as deurbanisation, and alternative forms of nucleated agglomerations.

1 THE ARCHAEOLOGY FROM THE BIRD'S EYE VIEW. THE TRANSITIONS IN SETTLEMENT PATTERNS BETWEEN BRONZE AGE, IRON AGE IN CENTRAL ANATOLIA

Hordecki, Jędrzej (Polish Academy of Science)

The history of the Bronze Age, Iron Age Anatolia is often seen from a historical viewpoint. The main narrative is based on historical sources and excavations conducted in the major administrative centers. This presents an intriguing but fairly one-dimensional perspective with well-defined political actors. However, archaeological research offers more insights than excavation alone.

Hundreds of sites in Central Anatolia have been identified as a result of archaeological investigations done over the previous forty years. They provide a major opportunity for the study of the Bronze Age and Iron Age transitions. The emergence and decay of settlements can be observed using an archaeological technique rather than a historical one.

The transitions encompassing the emergence and decline of archaeological sites will be examined through the prism of two primary perspectives: the decline of Bronze Age states and the advent of the inaugural Iron Age states within the region, both of which have significantly influenced these changes. This paper will explore the natural factors that have impacted settlement configurations during this period. Nonetheless, while the people responsible for these settlements remain elusive, their decisions resonate through the shape of the settlement.

The research outlined in this paper aims to redirect focus towards the analysis of settlement patterns during the Iron Age and Late Bronze Age. The principal objective is to delineate the evolving dynamics of settlements, which served as catalysts for the emergence of embryonic states.

As a result, we may track changes in settlement localization, geographical differentiation, and the level of organization and grouping rather than the political entities standing behind them. This perspective reveals an unknown picture of Central Anatolia's relatively undiscovered archaeological region.

2 COLONIAL ENCOUNTERS: GREEK ARCHAIC SETTLEMENTS AND ECO-CULTURAL ADAPTATION IN THE WESTERN BLACK SEA

Bivolaru, Alexandra (Ca'Foscari University)

This paper focuses on Greek colonization (7th-5th c. BC) along the western Black Sea coast, examining the interaction between colonists and the colonised environments. The newly founded settlements adapted to local conditions, which differed significantly in climate and environment from Anatolia, where the mother-city was located, leading to the development of distinct landscapes through land management practices. In the construction of these settlements, both agrarian territory (chora) and harbors played pivotal roles, influencing land use patterns, the movement of goods and people, and the distribution of terrestrial infrastructure. However, efforts to comprehensively integrate traditionally separately studied contexts (such as paleo-environment, harbors, roads, and hinterland) for examining the occupation and structuring of ancient colonial territories in the Black Sea region have been limited. This study seeks to address questions such as the dimensions of the chorai and how settlement structures adjusted to local environmental conditions and ergonomic limitations. Furthermore, it investigates whether the distinctive steppe-wetland landscape of the western Black Sea, coupled with the impact of land cadasters and the influence of export trade, led to the development of a distinct communication system and settlement pattern. Lastly, we shall ask the question of interactions with autochthonous communities. These Greek settlements played a pivotal role as centres of commerce and connectivity, fostering trade networks and facilitating interactions between the Greek settlers and local Getae communities. This brings to fore the question of Greek colonies of the western Black sea shore undergoing a process of assimilation between local environments, Getae customs and Greek traditions in the construction of their communities.

3 ANOTHER LOOK AT MYCENAEAN DIMINI: ALTERNATIVE CENTRALISATION IN LATE BRONZE AGE COASTAL THESSALY

Zeman, Piotr (Institute of Archaeology and Ethnology of the Polish Academy of Sciences) - Lis, Bartłomiej (Institute of Archaeology and Ethnology of the Polish Academy of Sciences)

The paper focuses on the site of Dimini, located in coastal part of Thessaly. During the Late Bronze Age (LBA), this region was subject to a process of Mycenaeanisation, so the gradual adoption and adaptation of various Mycenaean cultural markers. Dimini started to show presence of Mycenaean characteristics already during 15th c. BC, together with two other important local centers – sites of Kastro/Palaia (Volos) and Pefkakia, which testify to the contacts of the local communities with the elites of central and southern Greece. However, the historical trajectory of the development of LBA Thessaly did not follow that of the inherently Mycenaean regions, where during the 14th c. BC the

emergence of palatial centers led to the formation of urbanized and strictly hierarchical settlement networks. Instead, all the main settlements of the region co-existed during this period, experiencing recognizable phases of development and decline which may suggest shifts of power. Both a heterarchical model of cooperation and competition, and a model of a nucleated agglomeration were proposed in the literature as interpretations of this regional network not fitting the patterns recognized elsewhere. Moreover, even though it seems that there was a proper Mycenaean palace at the site of Kastro/Palaia, it is clear that Dimini, located only 3 km away and clearly a center of major regional importance, developed differently. During this period Dimini formed a large open settlement, organized along a central road and centered on an administrative and ritual complex of quasi-palatial nature, separated from the rest of the settlement only by a formal propylon. The paper gathers data from the excavated parts of the site, in an attempt to reinterpret it as a unique example of an alternative, local form of a Mycenaean urbanized settlement and seeks to understand its position in the regional settlement network.

4 INTEGRATING EVIDENCE: AN HOLISTIC SYSTEMS APPROACH TO CENTRALIZATION IN CENTRAL ITALY

de Vos, Marcello (Sapienza University of Rome; University of Groningen)

The process of centralization in Central Italy is a rapid transformation that must have greatly impacted society. In the past, many studies have been dedicated to this subject, mostly from economic and regional perspectives that focus on the long term development of urban centers. Although we gained great insights from such approaches, it is susceptible to teleological biases and tends to overemphasize the role of the economy. When considering centralization as the turning point that leads up to urbanism, the complex and multifaceted nature of the process is overlooked. Furthermore, the focus on economic development, often inspired on Marxist theory, tends to neglect that such crucial transformations involve and impact all domains of society including the social and cultural. To gain a better understanding of this phenomenon, therefore, it is necessary to take centralization as the focal point without the evolutionary connotation of urbanization and to incorporate all aspects of society. In this paper, a new conceptual social systems framework will be presented that will serve to do so. This framework is based on the action systems approach developed by sociologist Talcott Parsons. Contrary to conventional archaeological applications of systems theory, this framework does not consist of a top-down differentiation model, but rather of a bidirectional cybernetic order of subsystems that encompass the different environments of social action and their relations. This framework allows to integrate archaeological evidence relating to various domains of society and takes into account the influence of the landscape. Finally, the cybernetic orders provide directions that help to understand how change, in this case centralization in Central Italy, impacts society in a non-linear way.

5 THE PIEDILUCO BASIN IN THE CONTEXT OF THE GENESIS OF PROTOHISTORIC COMMUNITIES IN CENTRAL ITALY.

Zanini, Alessandro (Independent researcher) - Virili, Carlo (Department of Science of Antiquities, Sapienza University in Rome) - Jaia, Alessandro M. (Department of Science of Antiquities, Sapienza University in Rome)

The data from the research still underway on the proto-historic site of the Paduli wetland area constitute a useful starting point for a re-reading of the evidence in southern Umbria. It is difficult to perceive a unitary overview of this territory on the threshold of the first millennium B.C., the time of general definition of the structures of future historical communities, both Etruscan and Central Italic.

The central-northern part of the present region is better defined in late protohistory, both from the point of view of archaeological aspects and territorial arrangements. Further south, different dynamics must be identified and clarified that cannot yet be traced back to a unitary cultural model that seems to be innervated by Tyrrhenian models. The reading of the emergencies that have been accumulating in the Piediluco lake basin, mainly around the multi-layered site of Paduli, through researches conducted by the Sapienza University of Rome, could provide one of the possible keys to interpreting the evolution of the peopling between the Final Bronze Age and the beginning of the Iron Age. Is this the time of maximum development of the settlement lake related-system of the Velino area, capable, in a socio-economic and political framework of village communities with a tribal structure, of bringing out elites included in a network of continental and indirectly Mediterranean trade and of managing a large metallurgical production such as that represented by the Piediluco deposits with notable Tyrrhenian affinities. After the ancient phase of the Iron Age the Velino lake-related system collapsed, showing the inability to transform this cluster into proto-urban outcomes, perhaps more potentially activatable in the nearby Terni basin, which sees in PF1 the crystallisation of the great funerary area of the Acciaierie.

6 A MOUNTAIN PATH TO COMPLEXITY: THE CASE STUDY OF INNER SABINA BETWEEN THE IRON AGE AND THE ROMAN CONQUEST

Monti, Dario (Université catholique de Louvain)

Even though mountainous areas represent around 35% of Italy's national territory, they have been archaeologically under-studied over time. Although there has been a trend reversal in recent decades, especially in the Apennines this gap is still far from being bridged. Moreover, there is also a lack of recognition of the particularity of this environment, which is often evaluated based on criteria that are alien to it. This is particularly evident in relation to the phenomenon of (proto-)urbanisation. Scholars attribute a fundamental role to this process in the complexification of society on the peninsula. This perspective relies on the great complexity achieved for example by Etruscan cities as well as the pivotal role played by the city (the Urbs) par excellence, Rome, in subsequent Italian and European history. This led too often to defining the process of complexification of societies on a teleological evolutionary basis, in which the urban phenomenon is a necessary step. Because of its absence, the mountainous communities have for long time been considered as isolated, marginal, and backward. An increasing number of studies in the last decades, on the contrary, is showing instead the adaptability to local geographical contexts, the dynamism and cultural elaboration of mountain communities. In other words, their own path to complexity.

The paper wants to highlight these latter characteristics through the case study of Nursia territory (south-eastern Umbria) between the Iron Age and the Roman conquest (290 BC). The first aim is to show the vitality of the area in pre-Roman times, through the analysis of the new data from survey research, as well as the study of unpublished material from local deposits. The second is to underline how this settlement pattern did not change even following the Roman conquest and colonisation of the territory, demonstrating its adaptation to the local context.

7 ALTERNATIVE PATHS TO EARLY CENTRALISATION IN NORTHERN ITALY

Zamboni, Lorenzo (University of Milan)

For several years, early urbanism in northern Italy has been an underrated phenomenon, often viewed through antiquated cultural-historical mechanisms of colonisation and acculturation from supposedly more advanced Mediterranean civilisations. However, recent fieldwork and polythetic studies have revealed evidence for early and potentially independent nucleation processes in the regions south of the Alps. This led to a significant expansion of our understanding of site agglomerations in the study area, including potential cases of instability, ephemerality, low-density population, and seasonality.

Yet, I argue in this paper that previous archaeological studies have placed excessive emphasis on the elites and the exchange of prestige goods, overemphasizing the role of coercive authorities who alone promoted and ruled the urbanisation process. A comparative perspective could help disentangle the simplistic equation between urbanism and pyramidal social hierarchy. By examining collective forms of cooperation, egalitarianism, and alternative strategies of wealth-sharing, a more nuanced understanding of urbanisation can be achieved.

463 METHODS OF ANALYSING SUBSISTENCE RESOURCES, LANDSCAPE MANAGEMENT AND EXPLOITATION PRACTICES BETWEEN THE BRONZE AGE AND IRON AGE

Session theme: 4. Persisting with Change: Theory and Archaeological Scrutiny

Session organisers: Sotgia, Agostino (RUG - University of Groningen) - Debandi, Florencia Ines (Alma Mater Studiorum - University of Bologna) - Cattani, Maurizio (Alma Mater Studiorum - University of Bologna)

Session format: Regular session

The significant demographic growth and extensive land occupation that greatly increased in Europe during the Bronze Age can be explained by a different approach to resource exploitation and, more importantly, a different organization of agricultural and animal production methods. Agriculture is one of the most comprehensive and rational forms of resource utilization within communities' landscapes. Together with pastoralism, it has always held a prominent place in historical reconstructions and archaeological analyses, both in terms of landscapes and the ancient societies that inhabited them. This is particularly true for the period between 2200 BC and 800 BC, where agro-pastoral systems played a pivotal role in the development of communities, affecting their internal socio-political dynamics and inter-community relations on a large scale. Traces of ploughing, field partitioning, possible fertilization or manuring interventions, along with crop rotation, suggest meticulous planning of agricultural production. Furthermore, effective livestock management, involving the selection of animals, the choice of grazing areas, and precise breeding strategies, should not be underestimated.

Numerous interdisciplinary studies have addressed these topics, establishing reference criteria, explaining analytical methods, and providing general reconstructions of subsistence forms. However, there have been limited opportunities for scholars to come together to clarify various hypotheses and propose common guidelines. This session is aimed

at archaeo-zoologists, archaeo-botanists, geo-archaeologists, as well as archaeologists studying the productive and subsistence processes of ancient communities. The goal is to understand how to approach the analysis of archaeological data related to agricultural and livestock resources, stay updated on archaeological contexts where traces of agricultural landscapes are discernible, and delve into the scientific aspects related to the results of micro-archaeological analyses of ancient agro-pastoral contexts. In this way, we can develop a common "toolbox" necessary to address this important and fascinating theme.

ABSTRACTS

1 "A PLACE IS ALWAYS THE PLACE OF SOMETHING": EXPLORING HUMAN-ENVIRONMENT INTERACTIONS THROUGH MAXENT-BASED MODELLING

Lucci, Enrico (University of Bari - DIRIUM; Istituto Italiano di Preistoria e Protostoria)

The mutual influence between the physical components of the environment and human activities was the core of the process that led to the emergence of places within the landscape for prehistoric communities. On this matter, agricultural and pastoral practices stand out as key components of the socio-economic sphere of late prehistoric societies, shaping social organisation as well as the physical landscape of their surroundings.

An integrated approach based on the combination of archaeological, palaeoeconomic, and paleoenvironmental data represents the key way to explore the places to which prehistoric communities were tied, what type of activities they performed there, and how much such practices physically impacted on those places. Within this interdisciplinary framework, the application of state-of-the-art machine learning methods significantly enhances our capacity to integrate and explore diverse datasets, characterised by varying nature and quality.

The ModLand project, funded by the Next-Generation-EU program, aims at reconstructing the ties between people and places, unveiling their diversity across space and time, through the use of the ecoinformatic MaxEnt modelling technique. The project focuses on communities from the 3rd and 2nd millennia BCE in Southeastern Italy, where a progressive emergence of differentiated settlement patterns occurred across diverse ecological niches. This process ranged from the development of long-lasting settlements, primarily along the coast, to the persistence of small and dispersed settlements in the inland and the occurrence of seasonal sites in the uplands.

Based on specific case studies, this presentation will provide an overview of the ModLand project's methodology and key outcomes, with a particular focus on the modelling processes of locations potentially associated with agropastoral practices. Moreover, it will explore how these models enable us to reconstruct changing interactions between prehistoric communities and their surroundings.

2 NEW DATA ON BRONZE AGE CEREAL CULTIVATION FROM CENTRAL AND MARGINAL AREAS OF THE TERRAMARE TERRITORY

Carra, Marialetizia (Bologna University; ArcheoLaBio, Centro di Ricerche di Bioarcheologia) - Miari, Monica (Soprintendenza Archeologia, Belle Arti e Paesaggio per la città metropolitana di Bologna e le province di Modena, Reggio Emilia e Ferrara) - Tirabassi, James (Museo del Po di Revere (MN); Postumiae Antiquarium di Piubega (MN)) - Lamanna, Leonardo (Soprintendenza Archeologia, Belle Arti e Paesaggio per le province di Cremona, Mantova e Lodi) - Cattani, Maurizio (Dipartimento di Storia, Culture, Civiltà, Alma Mater Studiorum, Università di Bologna) - Cavazzuti, Claudio (Dipartimento di Storia, Culture, Civiltà, Alma Mater Studiorum, Università di Bologna) - Mazzieri, Paola (Soprintendenza Archeologia, Belle Arti e Paesaggio per le Province di Parma e Piacenza) - Boccuccia, Paolo (Museo delle Civiltà, Roma) - Scacchetti, Federico (AR/S Archeosistemi Società Cooperativa, Reggio Emilia) - Bonometti, Paolo (AR/S Archeosistemi Società Cooperativa, Reggio Emilia)

Cereals are one of the main food resources of the Terramare settlements of the Bronze Age. Previous archaeobotanical studies have highlighted many remains of cereals, in all the settlements examined (Santa Rosa di Poviglio, RE; Montale MO; Monte Castellaccio, BO; Pilastri di Bondeno, FE; etc.)

This project intends to provide new data on cereal cultivation in the Terremare area through the study of new contexts, recently excavated or in progress. Standardized sampling and uniform sample processing techniques are the starting point of the analysis. Obtaining more easily comparable data is the aim of the work.

The different geographical location of the sites is a further point of interest: a central area of the Terramare space (Terramara di Pragatto, Crespellano - BO); a site closer to the area of pile-dwelling influence (Terramara della Bellanda, Gazoldo degli Ippoliti - MN); a border area with the North Western world (Rovere di Caorso - PC) and a more eastern area but with Terramare characteristics (Solarolo, Via Ordiera - RA).

The persistence of traditional Neolithic wheats (*Triticum monococcum*, *Triticum turgidum* ssp. *dicoccon*, *Triticum timopheevii* type) and their relationship with the typical innovations of the Bronze Age (significant increase of *Triticum spelta*, introduction of *Panicum miliaceum*) is one of the main focuses of the research. The statistical weight of barley