Archaeology PhDs at Portuguese Universities: A Brief Overview of the Last Decade (2010-2018)

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Abstract

The aim of this paper is to analyze and discuss the PhDs degrees obtained in Archaeology at Portuguese universities between 2010 and 2018. The effects of the Bologna Process were felt during this period, as were those of the growing European investment in higher education, which led to a very significant growth in the number of PhDs in different fields of knowledge. The main questions examined here are the impact of these new European policies on the study of Archaeology, the profile of these PhD holders, and the characterization of the themes of their dissertations.

Keywords

PhDs; Archaeology; Portugal; European higher education policies; 2010-2018

Resumo

Pretende-se, neste texto, analisar e discutir os doutoramentos obtidos em Arqueologia, em Universidades portuguesas, no período compreendido entre 2010 e 2018. Durante este período, fazem-se sentir os efeitos do Processo de Bolonha, ao mesmo tempo que o crescente investimento europeu na formação superior leva ao aumento muito expressivo do número de Doutores, nas diferentes áreas do Conhecimento. Analisar o impacto, em Arqueologia, destas novas políticas europeias, definir o perfil destes Doutores, caracterizar as temáticas escolhidas como tema de dissertação são algumas das questões centrais em análise.

Palavras-chave

Doutoramentos; Arqueologia; Portugal; Políticas europeias para o ensino superior; 2010-2018

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³ This article is dedicated to all who are much more than just numbers in a table; to all those PhD holders who are real people with their own stories and trajectories. It is also dedicated to all who should be, but for various reasons are not, included among those numbers.
Archaeology PhDs and European Higher Education Policies

Just as in other scientific areas, the PhDs completed in Archaeology in Portugal at the end of the twentieth century were almost exclusively obtained by academics as part of their *cursus honorum* at the university. Very few researchers linked to public institutions obtained this degree, and the number of PhDs in Archaeology was therefore extremely low.

During the last decade (2010-2018), the number of Archaeology PhD dissertations represented a share of roughly 11% in the overall scientific area of History, Archaeology, Heritage Studies, and Art History. The previous decade (before 2010) had seen a dramatic change in the European higher education system resulting from the introduction of the so-called Bologna Process. In Portugal, some of the investment in this new policy was made by the Fundação para a Ciência e Tecnologia (FCT), with the award of PhD research grants that encouraged the younger generation to continue their academic studies.

PhDs in Archaeology

As a result of the European and national investment in higher education, the number of Archaeology PhDs almost doubled in the last decade (Bugalhão 2016). Some features of those ninety-one new PhDs will now be presented and discussed.

Sexes

In this universe of ninety-one 1 people, there were fifty women and forty-one men. These numbers reflect an overall trend in higher education where the majority of undergraduate and postgraduate students are female. According to PORDATA, women first began to outnumber men in higher education courses in 1986, and since then they have always been dominant in Portuguese Universities.

These numbers show a close correlation between the proportions of women and men in the overall population as the numbers of women and men with PhD degrees. According to 2011 data (INE, PORDATA), women in Portugal amount to roughly 52% of the population, and they represent 56% of PhD holders in Archaeology. However, the social significance of this coincidence needs to be stressed out. As a historical trend, these numbers reflect the profound changes that have taken place in Portuguese society in the last decades and must be understood as part of the long-term process of empowering women through
education. In fact, this numbers reflects only the natural proportions of the population: there are more women than men attending university, which means that equal opportunities do indeed exist for both sexes in terms of access to PhD studies. (It was tempting to add: “in an area such as Archaeology, which was previously traditionally dominated by men,”, but this was not considered to be appropriate as all scientific areas were, in fact, male-dominated).

**Nationality of PhD Degree Holders (Portuguese/Foreign)**

The PhD degrees completed in Archaeology at Portuguese universities were mainly obtained by Portuguese students, who corresponded to roughly 71% of the population (seventy-one students in total). In the case of foreign students, Brazilians were, as expected, the only significant group, with roughly 17.5% of all PhDs (sixteen students). The presence of a very small Italian contingent and just one isolated student from Bangladesh does not provide enough data to make any conclusive comments, apart from noting the Brazilian share in completed PhDs.

These figures do, in fact, reflect a very recent trend in the number of Brazilian students coming to Portugal, but this is no more than a long-term consequence of the historical relationship between Portugal and Brazil. The shared language means that Brazilian students can study abroad—in Europe—using their mother tongue, which is a factor of attractiveness that should be noted. At the same time, the importance of studying in the metropolis (mainly in Coimbra) continues to be a major feature of the Brazilian elite’s mindset (more data about Brazilian students in Portugal can be found in Chatti Ioro 2018).

Brazilian students are concentrated mainly at UTAD (seven out of sixteen), in Porto and in Coimbra (four PhDs each), with one at U. Algarve. No Brazilian PhD dissertations were recorded in Lisbon (neither at U. Lisboa nor at U.N. Lisboa), Évora, or Minho.

Considering that there are eight million students studying at Brazilian universities (data provided by the Brazilian Ministry of Education) the sixteen students who completed their PhDs in Archaeology in Portugal can hardly be described as a significant trend.

But, even if these numbers may be considered to be rather low, their importance lies in the fact that they can be perceived as a new market for the Portuguese higher education system. The potential growth in the number of Brazilian undergraduate and postgraduate students at Portuguese universities is almost endless and the Portuguese demographic winter could be offset by the influx of Brazilian students in the future.
However, the complex economic and political situation in Brazil makes this scenario highly uncertain, and the future of this emerging behavior is unclear for the moment.

Languages

Between 2010-2018, most PhD dissertations at Portuguese universities were written in Portuguese. Only one thesis was written in English and three in Italian. From these numbers, it is clear that Portuguese is (still) an academic language used by Portuguese and Brazilian researchers. Indeed, in Archaeology, there is a particular Portuguese archaeological vocabulary—unlike other scientific fields where researchers do not translate foreign words or concepts—and therefore a strong conceptualization of this area of knowledge in Portuguese.

However, in view of the present-day demands linked to globalization and internationalization, this scenario will undoubtedly change quite dramatically in the next few years and Portuguese language will begin to lose its importance in Science.

Given the global numbers—Portuguese is the sixth most spoken language in the world, with an impressive total of 221 million speakers, or almost 3% of the world population—it is easy to recognize that Portuguese and Brazilian researchers share a very powerful common tool. Nevertheless, it should be stressed that these 221 million people are indeed speakers not readers, and the generalized poverty that affects an important mass of the Portuguese-speaking population means that only an insignificant part of them will obtain a higher education degree. So, despite the global numbers, a PhD dissertation written in Portuguese is not destined to a two hundred and twenty one million people market, but only to a very restricted group of scientists composed almost entirely of Portuguese and Brazilian researchers.

If written in Portuguese, Portuguese archaeological research will not be part of the global science that is currently endorsed by all academic communities.

Portuguese and many languages other than English undoubtedly find themselves in a crossroad between linguistic totalitarianism—now exercised by the English language in a role that has already been performed by Latin and French—and the right to their own linguistic identity, a (potentially dangerous) concept that emerges from a complex amalgam of nationalist and postmodern statements.

For a native speaker of a Romance language, writing in English is not simply a question of translating words, but instead of translating the conceptual process of thinking.
into a completely different mindset. “Sentence too long. Consider revising…” is much more than just the advice of the Word software program. As Google says, “So here's the rule: your sentences should usually be about from 20 to 30 words long. If your style is breezy, 15 words would be good. Sentences with 50 or more words should be avoided if possible…”

If the linguicide of Portuguese as an academic language is already in progress, and if a young generation of Portuguese researchers is now emerging only able to think and write in English, this could be the dark side of a more inclusive and globalized science. It is expected that the long-standing barriers surrounding Portuguese research written in Portuguese will vanish when a common language will be in use.

Ages and Grants

Two other variables were considered important concerning the latest generation of PhD theses: the age of the students when they defended their PhDs and the mechanism used for funding dissertations. Unfortunately, it was not possible to retrieve this information in any systematic way. Even so, a general picture emerged, using mostly qualitative data, an acceptable procedure within a small community like Archaeology, where direct acquaintance with the students is the norm.

During the period from 2010 to 2018, the PhDs completed in Archaeology were mainly produced by a generation of young researchers under 35 years of age. Most of the PhD dissertations were funded through PhD grants awarded by the FCT, but the exact numbers are not easy to find since many theses do not mentioned the grant support.

PhD Topics and Epistemological Guidelines

At Portuguese universities, PhD courses in Archaeology mainly consist of tutorials, given the restricted number of students who start the course each year. The PhD tutorial system relies on the development of a close academic relationship between the student and the supervisor, which will lead to the production of a dissertation. Archaeology at Portuguese universities is studied in an environment of scientific and academic freedom. The different schools and different supervisors tend to give privilege to certain research areas, but students—even when they belong to wider research groups—are free to choose the subject
for their dissertation without any constraints and to present their research program to competitive calls opened in all scientific domains.

Under this traditional scheme, researchers first define their research subject and then search for funding. The primacy of the subject is established within the overall knowledge process, and this type of scientific freedom sometimes gives the impression that there are no agendas in Social and Human Sciences.

Recent European and Portuguese research projects have included the award of short-term PhD grants in their general budgets, so research positions will be open, and Archaeology will act as an experimental or laboratory science in which students are given specific subjects to analyze.

**PhD Topics**

In a recent debate, I had the opportunity to present what I considered to be the most significant theoretical and methodological categories into which the study of Archaeology in the twenty-first century can be classified. I considered four categories, with the first and the second being closely related, as are the third and fourth:

i) Artefacts, sites, and landscapes—this is the most traditional way of studying Archaeology in continental Europe. Geography and chronology are considered as crucial variables for understanding the past. Within a specific time-space framework, a class of artefacts, an archaeological site, and a landscape are monographically described and inserted into a historical process. Detailed descriptions are provided together with solid graphic documentation. This category is closely related to the next one.

ii) Laboratory Archaeology—this is closely linked to a transdisciplinary framework. In this category, the study of Archaeology depends on laboratory analysis and the development of rigorous methodologies drawn from different scientific fields. By using elements taken from Geology, Chemistry, Biology, Physics, Biostatistics, and other disciplines, the laboratory archaeologist searches for the truth within the materiality of things.

iii) Semiotic Archaeology—this category applies to postmodern archaeologies, which have shifted their emphasis from truth to meaning. In the initial phase of its development, except at the Porto school, this way of studying Archaeology was viewed with great suspicion by Portuguese academics. There was too much structuralism, too much phenomenology, for a very conservative scientific community. This category is closely related to the next one.
iv) Engaged Archaeology—this category defends ideological and political action, by using knowledge from past societies to fight against, resist and transform the modern world. Gender Archaeology and the Archaeology of slavery, Conflict Archaeology are common topics in this area. It is not a branch commonly found in Portuguese universities.

If we divide the ninety-one PhD dissertations according to these categories, using the PhD titles or their keywords (Graph 5), the final picture is highly elucidatory about the type of science that was practiced by Archaeology at Portuguese universities during the 2010-2018 period.

Graph 1: PhD dissertations according to the different categories of Archaeology (2010-2018)

The graph depicts a very conservative community in terms of the themes chosen for PhD theses and several reasons can explain why students do not seem prepared to disrupt a traditional scenario. Preferences move to more solid and safer themes meaning that a PhD dissertation is not the right moment to change to a potentially disruptive theme and/or grant boards do not sympathize with unfamiliar themes.

No theses were written in the fields of gender archaeology, colonial/postcolonial archaeology, the archaeology of war, the archaeology of slavery or even public archaeology, except by two Brazilian students.

For whatever reasons, during the 2010-2018 period, Artefacts, Sites and Landscapes and Laboratory archaeology represented roughly 89% of the dissertations produced. The historical, positivist, and transdisciplinary tradition ruled the archaeological panorama.
Portuguese archaeologists are generally very open to the use of new and cutting-edge methodologies and laboratory analysis (Carvalho and Diniz 2017), and was only financial constraints kept Portuguese researchers away from an High-Tech Archaeology.

Transdisciplinary analysis is almost mandatory, but transdisciplinary is understood as a relationship with the hard sciences. Other fields of knowledge that might also be considered to be vital for studying human societies, such as Philosophy and Sociology, etc. are not included in the references. The soft sciences are absent except for those that belong to the very small group of semiotic archaeology.

Within the most significant of the four categories—artefacts, sites and landscapes (representing sixty-eight out of ninety-one theses)—the main themes of Portuguese archaeology—the Roman period, Neolithic-Chalcolithic, Paleolithic—are well-documented. The most frequently chosen topic was rock art, which attracted several students, including those from Brazil. This was certainly a reflection of the Côa effect as the widespread attention that is now being paid to rock art sites in Portugal (Graph 2).

It should be mentioned that, during this time period, not one single thesis was defended in Archaeology PhD courses on Megalithism, which was traditionally a core area in Portuguese Archaeology. This absence is due to the fact that necropolis analysis are mostly being developed under the scope of Physical anthropological in Natural Sciences schools.

During this time period, there was a notable enlargement of the chronological scope of PhD themes, with dissertations ranging from the Paleolithic to contemporary archaeology. The development of new methodological tools was also a frequent PhD topic, combining archaeological data with approaches from the natural sciences. Other significant aspects, such as territorial policies, the history of archaeology, and the archaeology of social roles, were analyzed in single works.
As far as the themes of Archaeology PhDs are concerned, Brazilian students represent a specific case study. In Portugal, Brazilian students wrote their PhD theses on Brazilian issues. Only one exception is documented, with one PhD being written on Archaeology during the Salazar dictatorship. Brazilian rock art is a very important subject, as are both social and inclusive archaeology. Brazilian archaeology is deeply committed to the principles of public archaeology, so PhD students are more aware of such issues than their Portuguese colleagues (five Brazilian PhDs on that subject as opposed to two Portuguese theses). This engaged attitude towards science reflects the long-lasting and solid tradition among Latin American archaeologists of political activism underlying social archaeology and their commitment to a Marxist agenda and to local (non-white) communities (for a classic interpretation, see Lumbreras 1974; for a more recent overview, see Tantaléan and Aguilar (eds.) 2012).

In sum, a historical perspective lies behind the studies of past societies, and, according to processual archaeology, the traditional space-time dimension of cultural-historical archaeology was understood as a dynamic environment that drove the changes taking place in social systems.

**Schools**

The various schools provide different pictures for the PhDs completed in Archaeology between 2010 and 2018. These range from the eighteen PhD dissertations written under the scope of UTAD’s Quaternary, Materials and Cultures PhD program (which
was discontinued after February 2016) to the single dissertations written at U. Autónoma and U. Portucalense.

The schools have their own research traditions and thematic preferences, which depend on the particular research areas of the resident professors and researchers. The chronologies, geographies, and topics chosen did indeed relate to each school, and there is a close relationship between the number and diversity of research areas developed in different Universities and the scope of the PhD dissertations defended.

It might be possible to suggest the existence of a certain specialization at the different schools, but rather than this being a conscious epistemological choice—even if this contradicts certain evidence (Cimini et al. 2014)—it seems to reflect a natural coincidence between the research themes of students and supervisors.

Some cases are elucidative: at U. Coimbra, which as an archaeology school is closely linked to the ruins at Conímbriga, no PhD was presented on prehistoric archaeology,\(^4\) with classical archaeology being the main topic, just as Paleolithic archaeology was the main topic at the U. Algarve and medieval and modern archaeology were the main topics at U. Nova.

U. Porto and U. Lisboa presented a broader picture, with PhD dissertations ranging from Prehistory to the Bronze/Iron Age, Roman and Medieval periods, due to the wider interests of the academic staff, which allowed for a broad spectrum of themes for the dissertations.

Until now, the PhD supervisors have mainly been university professors with an academic career. Nowadays, PhDs are the joint responsibility of university departments and university research centers, so that the involvement of researchers in PhD supervision will greatly increase in future years, thus widening the scope of research areas offered at each school.

Competitive funding obtained through the different centers will play a very significant role in future PhD programs. The grants that are made available through national or European projects financed by the budgets of university centers mean that the students are viewed as the raw material from which the PhDs are made.

But, in Archaeology, just as in all small academic communities, a personhood effect continues to exist as a real factor underlying PhD courses, grants, and dissertations. The close relationship sometimes established after graduation between students and supervisors, the prestige of particular professors and researchers, and the attractiveness of specific

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\(^4\) As previously noted, during this period, a PhD dissertation on prehistoric funerary contexts was defended at U. Coimbra, but not as part of the PhD course in Archaeology.
archaeological sites and geographical areas (even if this is hard to quantify) should not be overlooked when reflecting upon a theme such as the PhDs obtained in this subject area.

**Career Opportunities for PhD Holders**

In an almost complete reversal of the traditional employment scenario, PhD students in Archaeology do not automatically become part of the university staff. In fact, the integration of PhD holders into the labor market has proved to be much more difficult than expected. Employers—both public and private—apparently do not offer jobs to such high-profile and qualified people. Indeed, the social crisis in terms of PhD unemployment has spread to the heirs of a European higher education policy, with governments seeking for global solutions. In Portugal, the 57th article, as it was known, or the *Norma transitória* (transitional provision), was introduced as an attempt to solve the situation of some of these PhD holders through the offer of a provisory academic employment.

Although there is no official data available in regard to this matter, almost all PhD in Archaeology are either employed or in receipt of post-doctoral research fellowships in the heritage departments of central or local government, working in private companies or heritage associations, and, more recently, as contracted researchers working for research centers. Portuguese PhD holders in Archaeology appear to have jobs, even if most of these are precarious. Brazilian students apparently tend to return to Brazil.

PhD dissertations have continued to preserve, or even increase, their importance as a rite of passage. The autonomy that has been granted for the presentation of research projects to Portuguese or European funding bodies requires that applicants must have a PhD, so only after obtaining this degree researchers gain their scientific autonomy.

In Portugal, PhD dissertations are not considered to be the (right) moment for introducing or discussing controversial or disruptive research themes. On the contrary, in PhD dissertations, students prefer to demonstrate their solid competence to become part of the scientific community, working as peers with their colleagues.

In short, during the 2010-2018 period, the Archaeology PhDs completed in Portugal tended to reveal a historical—and somewhat conservative—perspective in relation to the study of the human past, reflecting a highly transdisciplinary way of practicing science on the part of a mostly young and gender-balanced community. The potential for increasing the numbers of PhD students may depend on the discipline’s capacity to attract more foreign students—mainly Brazilian ones—and its effective internationalization will require the use of English
as the language for the dissertation. As Europe predicted long ago, PhD studies depend on the award of grants and fellowships, with students being sponsored by either European or national institutions, which means that the offer of a few public jobs is hardly enough to satisfy this extremely well-prepared generation.

However, the future of Europe itself and the solution to the dramatic social and environmental problems that we are facing require the development of a truly knowledge-based society, so this generation of PhD holders, with their unprecedented tools and resources for problem-solving, must be made an important part of this solution and about that there can be no doubt.
References


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Annex: Archaeology
PhD Theses in Portuguese Universities (2010-2018)

Prepared by the editors of *e-JPH* with the assistance of Elsa Lorga Vila (Graduate of University of Evora; Master’s Degree in History—Nova University of Lisbon)

AKANDA, Muhammad Kamal Hossen, *Holocene alluvial geoaheology of Wari-Bateshwar, Bangladesh*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Pierluigi Rosina and Pedro Proença Cunha, 2016 ([http://hdl.handle.net/10348/6163](http://hdl.handle.net/10348/6163))

**Keywords:** Archaeology; Bangladesh; Geology; Mineralogy; Sedimentology

**Abstract:** The Wari-Bateshwar is a celebrated theme among the contemporary intelligentsia in Bangladesh archaeology. A few recent publications have recently illuminated different aspects of the archaeological places and claims that are much debated in academia. This region contains archaeological remains with a probable age of 5th-4th century BCE based on the stylistic dating of artifacts and radiocarbon dating, but their stratigraphic context is not clear. Wari and Bateshwar are two adjoining villages sited in Balabo Thana of Narsingdi District, north-eastern part of Bangladesh. This research is an attempt to know the nature and formation processes of the archaeological materials in the alluvial terrain of Wari-Bateshwar with special reference to alluvial geoaheology. One of the basic landform of the study area is Madhupur Tract, which an old (Pleistocene) formation of Bangladesh. Methodologically this study is divided into three steps: literature review, fieldwork and laboratory work. During fieldwork sediments samples have been collected from fifteen localities. Various types of laboratory analyses are used in this research. As more relevant, Laser Particle Size Analyzer and X-ray diffraction were used to identify the grain size and clay mineral composition. After the completion of these methodological steps, the result of the analyses indicates distal fluvial/delta plain depositional environments and it is also found that archaeological records in different occurrences of Wari-Bateshwar have been relocated. The findings also suggest that formation and modification of the archaeological materials have been engendered by low energy fluvial activity like floods. Textural and compositional data help in the characterization of the depositional environments during the Late Holocene (< 3000 yrs BP) and it is also found that archaeological materials of this area have been relocated and modified by low energy fluvial activity as well as flood related processes (overbank). Clay mineralogy is dominated by illite and kaolinite, indicating similar climate conditions to the present ones. The analyses of historical maps and landscape history suggest that along with very active alluvial processes, changes in the shoreline, particularly the eastern part of the delta in Late Holocene have been significant.

ALBUQUERQUE, Pedro Miguel de Araújo, *Tartessos: The construction of identities through the written record and the archaeological documentation. A comparative study*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Ana Margarida Arruda and Carlos González Wagner, 2014 ([http://hdl.handle.net/10451/11434](http://hdl.handle.net/10451/11434))

**Keywords:** Not available

**Abstract:** This text is the result of a comparative study which deals with ancient written sources (Old Testament, Greek and Latin texts, Near Eastern inscriptions, etc.), archaeological record and History of Africa. Based on the latter, particularly on the construction of colonial Angola, we establish some questions about the changes in the archaeological records between the Cadiz Bay and the Tagus river, in light of the formation of new territorial perceptions between the 9th and the 6th centuries B.C.
Those questions, applied to the written sources, enabled us to define processes of destruction of the community’s territorial markers when another one intends to prevail. We established, with this procedure, a starting point to the analysis of the so-called "Orientalizing" Period. The foundation and use of new territorial markers (cult buildings and cemeteries) can reflect deconstructive processes which, afterwards, end in the changes of the archaeological records. The recent criticisms to the European sources which represent the African have allowed us to develop a critical reading of the representations in the Greek textual production. This production was criticized as an instrument to the study of the represented communities. This aspect is particularly evident in the case of Tartessos, in which those texts were used to construct an archaeological image of an indigenous entity. This comparative study allows us a perspective which also values the "Indigenous", presenting, on the other hand, an alternative view of the classical image in which commerce was responsible for the changes in the resident communities, known as "Tartessians".

ALMEIDA, Maria José de Melo Henriques de, From Augusta Emerita to Olisipo through Ebora: A reading of the territory from the road network, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Carlos Jorge Gonçalves Soares Fabião and Amílcar Manuel Ribeiro Guerra, 2017 (http://hdl.handle.net/10451/29682)

Keywords: Roman civilisation; Antonine Itinerary; Roads; Territory; Lusitania

Abstract: The existence of three main itineraries between the capital of Lusitania and the maritime harbour of Olisipo is attested to by archaeological evidence and by written, literary and epigraphic sources from the Roman period. Among this group of written sources, the text known as the Antonine Itinerary is the main document. The object of study is one of these itineraries, connecting Augusta Emerita to Olisipo through Ebora. The interpretation of the Antonine Itinerary, a group of texts known through its medieval copies, is still open to debate in current scientific research. There are several views regarding its nature and purpose, chronology and, especially, regarding the correspondence between the itineraries descriptions and the road network, which indeed existed in the territory during the Roman period. In order to overcome these difficulties of interpretation, it seems relevant to understand the topological nature of the Antonine Itinerary and seek to understand the data structure that it presents. Therefore, this thesis revises current available information, in order to define, within the territory, a plausible route, relying on archaeological, epigraphic and historical data. Starting with the definition of a route and of a wide band encircling the conventional representation of it’s axis, it seeks to understand the manner in which the itinerary is articulated with the occupation and organisation of the territory. The analysis of the information thus analysed culminated in a proposal of interpretation of the sequence of mile indications for this path in the Antonine Itinerary: it defends the thesis that the numerals expressed in these sequences correspond to distances between stations, in a counting scheme limited to boundaries of administrative territory within the route. In other words, it defends that the mile indications have their origin in the capital of each territorial unit, irradiating from this caput uiae in the different directions of the roads until they reached the territory of the adjoining city.

ALMEIDA, Nelson António Carvalho de, The Portas de Ródão middle Palaeolithic, the left bank (Nisa, Portugal): a contribution for its chronostratigraphic characterization, PhD in Archaeology submitted to the Institute for Advanced Studies and Research of the Universidade de Évora, supervised by Leonor Maria Pereira Rocha and Thierry Jean Aubry, 2014 (http://hdl.handle.net/10174/23064)

Keywords: Middle palaeolithic; Mousterian; Residential structures; OSL datation; Tagus River

Abstract: This thesis presents results of the work done in the Pegos do Tejo 2, Azinhal and Tapada do Montinho middle Palaeolithic sites (Northeastern Alentejo, Portugal). A first analysis of the lithic industry and the relation with the chronological record allowed us to discuss the Middle Palaeolithic...
occupations from about 150 Ky to 45 Ky. From the results of the Pegos do Tejo 2 site, the existence of Mousterian industries during the Riss can be proved. The OSL dates obtained in this occupation show the presence of Mousterian industries in the Final of the Middle Pleistocene of Portugal. Remains of a residential area are identified and a structured hearth supports a controlled use of fire by man, in this site. A continued human presence is established, in this area, since the beginning of the Wurm glacial, as the Azinhal OSL datation confirm. The lithic industries in this site confirm the reappearance of handaxes, phenomena not only local but identified in other regions of the European continent, and the use of quartz not as a necessity but as an intentional selected rock. In the Tapada do Montinho site Kombewa and Quina knapping were used and leptolithization of the lithic industry were observed at the final of the middle Palaeolithic. When an overview is made, about the lithic industries identified in these three sites of the Arneiro depression, a major guideline is observed. A central Levallois reduction system is common to all the occupations but surrounded by other technical solutions, that aim the immediate production of desired supports, without the time constraints of a full Levallois reduction system per si. The data presented in this work indicate that at the end of the Middle Pleistocene and further, new behaviours emerge and new ideas start to appear in the left bank of the Tagus River.

ALMEIDA, Nelson José Oliveira de, *Zooarchaeology and taphonomy of the transition to agro-pastoralism in the Lower and Middle Vale do Tejo*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Luiz Miguel Oosterbeek, Palmira Saladié Balleste and Enrique Cerrillo Cuenca, 2017 (http://hdl.handle.net/10348/7552)

**Keywords:** Neolithic; Iberian Peninsula; Tagus basin; Zooarchaeology; Taphonomy

**Abstract:** The introduction and development of the first productive economies has been a matter of great debate in the last decades. This was due to the acquisition of information from non traditional archaeological disciplines, in transdisciplinary based research. Nonetheless, specialised studies such as Zooarchaeology did not always accompany this dynamic as it is normally considered supplementary for interpretation purposes. Southwest Iberian Peninsula neolithisation is one of the most discussed theamatics due to previous final Mesolithic occupation of this region. Different models (increasingly complex because of a higher number of variables) have been developed aiming to explain the existence of productive economies direct indicators in both coastal and inner areas. In the last two decades, inland areas have been given special attention due to the growing number of early Mesolithic sites, and the higher celerity and variability identified during the early Neolithic. Although not always presented as consistently as the Mesolithic-Neolithic transition, the development and maturation of productive economies has followed the archaeological practice evolution; still, it is stigmatised by the special attention historically given to megalithic contexts. The quantity and quality of information allows for a more consistent approach to the dynamics registered during the long period that spawned the Mesolithic, Neolithic and Chalcolithic. Taking the Lower and Middle Tagus Basin as a study area (namely the Lisbon Peninsula, Estremadura and North Ribatejo in Portugal, and the Extremadura in Spain), the present work focuses on these questions. This thesis is centred in the study of archaeofauna relatable to the animal domestication process. Besides new radiometric dates in selected contexts aiming to better understand absolute chronologies, this thesis addresses zooarchaeological and taphonomical analysis of several assemblages: Encosta de Sant’Ana, Espargueira/Serra das Éguas, Nossa Senhora das Lapas cave, Cadaval cave, Morgado superior cave, Los Barruecos and Los Postes cave. Selected methodologies comprised anatomy, taxonomy, demography and biometric comparative analysis, and focused mainly on the acquisition of taphonomic indicators for nutritive, sub-aerial and diagenetic phases, through comparison with actualistic data. Archaeological contexts analysis, with different degrees of chronological fiability but spawning the early Mesolithic (Epipalaeolithic), several moments of the Neolithic sequence (early, middle, final) and the transition to the early Chalcolithic, allowed the discussion of palaeoeconomy
evidences from a supra-regional point of view. The methodologies implemented also allowed different analytical scales with a relevant interpretative depth for the understanding of polimodal marks, and the involved taphonomical agents and processes. This was only possible due to the implementation of a standardised methodology in all the assemblages. After a differentiated pondering based on taphonomic interpretations, the archaeofaunistic evidence where compared with other evidence (e.g., settlement patterns, absolute chronology, stable isotopes analysis). Some differences were registered on faunal spectra during these periods but general patterns are observable in the early, middle and final Neolithic. Data suggests that the beginning of the first productive economies comprises archaeofaunistic spectra with a predominance of Sus and a lower representativeness of Bos and Ovis/Capra, as is the case of Encosta de Sant’Ana, in Lisbon Peninsula. A change towards a specialisation in Cervus elaphus hunting and Ovis/Capra pastoralism is registered for the middle Neolithic, for example in Cadaval cave, North Ribatejo. During the final Neolithic and early Chalcolithic, Sus and Ovis/Capra seem to have been the main taxa exploited, for example in Espargueira/Serra das Êguas, Lisbon Peninsula. The contexts analyses raised the need for an in-depth discussion regarding leporids exploitation. In several of the studied assemblages, mainly the ones in karstic environments (Los Postes, Nossa Senhora das Lapas, Cadaval and Morgado superior caves), no clear indicators of anthropic accumulation were recorded in leporids. The confrontation of these data with other similar assemblages led us to suggest the necessity to empirically demonstrate, in a wider chronological scale, the possible anthropic accumulation of these species, because they are commonly of intrusive and exogenous origins.

AMATO, Alessia, *Archaeology of aquatic constructions in the Garb al-Andalus: Ports, Arsenals, Shipyards and Boats*, PhD in History: Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Vasco Gil da Cruz Mantas, 2015 (https://estudogeral.sib.uc.pt/handle/10316/23753)

**Keywords:** Not available

**Abstract:** This study is aimed to define its own characteristics within the chronological sphere of the Muslim occupation on the Iberian Peninsula and particularly on the development which involves the Southern region of Portugal, bound between the low Tejo (Lisbon) and the Algarve. The analysis of the relationship between this People and the sea with its components precedes the period of the great conquest, which see the Christian Reign of Portugal engaged in an area beyond the Ocean – from the end of XV Century onwards – anyway engaged outside the Mediterranean basin and in the classical circuits that have had their exclusive attention until that time. During the Islamic period, VIII-XIII, one sees the vitality of the port cities, with the development of nautical activities, including naval construction in shipyards mentioned by Arab authors, such as Al-Razi, Al-Bakri, Ibne Mozaine and al-Idrisi. Various descriptions made by Arab historians and geographers with a common vision of these territories considered as a prolongation of the eastern Arab world reachable through North Africa and most likely via navigation along the coast. Al-Razi proposes a significant division of Andalusia into As-Xarqi and al-Garbe or, in other words, eastern and western Andalusia. Al-Garbe corresponds to current Southern Portugal Although the Arabic literary sources and the corpus of the Medieval Arabian geography constitute the primary sources for the study of the use of the coast and shipping lanes during the Arab dominion of Southern Portugal, the main maritime cities have revealed large quantities of imported ceramics dating from the Islamic period. The ancient geomorphology of the Portuguese coast Geographically speaking, benefits from a strategic location between the Mediterranean world and the Atlantic one. Inserted in an Atlantic geographical space, the Portuguese coast still preserves many Mediterranean characteristics (Arruda and Vilaça 2006, 31; Ribeiro 1986, 39). Geomorphologic studies are useful for the creation of hypothesis regarding possible locations of ancient natural ports. But one must also consider the modifications to the seaboard that were responsible for the different interactions between men and environment. Generally, one could argue that the outline of the coast has been “simplified” in the last 1000 years (Freitas and Andrade 1998).
Up to the 15th and 16th centuries AD, the design of the west coast of the Iberian Peninsula would be more irregular than the current one, more indented, and there would be more bays and river mouths. Maria Luisa Blot (Blot 1998, 148) summarizes the Portuguese coast evolution process according to three aspects: the gradual connection between ancient islands and the continent, forming peninsulas, the closing of ancient coastal embayment and formation of coastal lagoons and siltation of estuaries and subsequent inland context of former coastal areas. Siltation is a gradual process that has been increasing over the centuries in most Portuguese waterways and estuaries, decreasing their navigability. The historical cartography is commonly used to study the waterfront geomorphologic changes of the Portuguese coast. However, this should be interpreted with caution. These testimonials often pose problems, such as the inaccuracy of the outlining of the coast, the small scale and the omission or enlargement of certain details, such as embayments. Cartography analysis is also affected by chronological contradictions and mistakes resulting from the fact that some maps are copies of previous works. In this field, the compilation of Cortesão and Mota (1987) stands out, with particular emphasis on the maps of Pedro Teixeira (Descripción de España y de las costas y puertos de sus reinos, Atlas de Viena, c. 1634) and João Teixeira (Descrição dos Portos Marítimos do Reino de Portugal, c. 1648), which are quoted by the majority of the authors who study the evolution of the Portuguese coast and its harbour characteristics. The complexity of the Atlantic environment makes it particularly difficult for one to recognise ancient port facilities and makes one reflect on the concept of harbour space. One must first identify the relationship between harbour typology - recognized since Antiquity - and possible corresponding archaeological vestiges. In fact, these vestiges are not always materialised in specific harbour equipment. Early mariners certainly understood the necessity of waiting for high tide before incoming on estuaries. These mooring places, naturally sheltered by high cliffs, are still today’s deep and safe mooring sites while waiting to enter an estuary (Blot 2010, 84). Besides nautical artifacts such as lead anchor stocks, evidence from Portuguese waters included Muslim imported and exported products also found in archaeological excavations on the seabords and on land. Some of the cities are Lisbon on the Tagus river, Alcácer do Sal on the Sado river, Silves on the Arade river, Tavira on the Ria Formosa and Mértola, on the Guadiana river. Those provide important information regarding the capacity of overseas transport and regarding social, economic, and cultural factors relating to marine activity. The Islamic evidences of maritime activities are used to compensate the lack of archaeological findings and the impossibility of comparison with the current ethnographic evidences, which express the continuity of ancient practices and use of the same sites. The ports, areas of trade and cultural exchanges, in the post-Lusitanian period, would be the sites in particular to contact with naval technology information, opening the way for its materialization and diffusion in shipyards, mooring places or arsenals. Regarding medieval Islamic times, especially concerning traces of maritime nature, we must distance ourselves from outdated readings that see the naval archeology as a limited source of knowledge as it is deprived of its object of study: the ship I (Barata 1996). To counter this idea, at least partially, we considered the studies that have contributed to the overcoming of these limitations, which were also attributed to the Roman period. From the present sources of the Islamic period, stand out especially works of nautical nature dedicated to the history and historiography (Picard 1997), such as collections of naval warfare, ship’s logs and detailed descriptions of the coastal dangers. Nevertheless there is a lack of references to trade and exchanges, this gap is bridged by the etymology of the places, whose names testify their Islamic origin and are the preamble for the caravel, transformed in to an institutional ship (Fonseca 2003) and to the future conquest of unknown seas. In the specific case of the identification of wrecks or vessels structures, the problem is compounded by the lack of attention that they have received. An example of this is the work of A. J Parker (1992), the focus on medieval shipwrecks is somehow vague and does not highlight any differences in Arab-Islamic boat structures. This study also presents limitations of the geographic space, considering predominantly the Mare Nostrum in detriment of the Atlantic. The lack of literature sources and archeological remains seems indicate a real decline of Muslim maritime policy. This has contributed for a simplistic view of Islamic and Roman naval history, where sea exploration was based on unplanned and adventurous navigations. That have contributed to the theory of an autonomous emergent 15 century Expansionism. This study covers
the ports included in the area between the estuary olisipponense, on the banks of the Tagus river, which defines the boundaries of Strabo’s Mesopotamia (Geography III, 2, 4) and the Guadiana river which allows access to the interior mines through Algarve. The numerous and fascinating testimonies of geographers and contemporary chronicles of the kingdoms of Gharb narrate a reality that opposes the one established in the mid-13th century. Some documents, such as Forais II and Charters of the King of Portugal, can be related to a geomorphological moment of accentuated siltation process, which may be related to the massive deforestation implemented by Dom Dinis’s agricultural policy. Since, the so-called Christian Reconquest, the port entities suffered restrictions of a political and social nature, with the probable goal of limiting contacts with the North African Islamic coast. Besides this long-term problem, the administrative priority of the Portuguese Kingdom seems to have been the remodeling of coastal boundaries, manifested with a transfer of port competences from the main Islamic centers to the northcentral coastal cities, but keeping nautical characteristics and types of transport. At the moment of a national identity formation, the establishment of southern ports might have been a menace for an Islamic determination to control the seas but it was considered by Christians the only way to conquer hostile regions that still existed. Arabic language is also present in the harbour space, resulting from the presence of merchants and communication and interaction between the previous occupants of the south western and the new conquerors from the Portuguese dynasties’ territories. Muslims master carpenters have also admitted New-Christians as craftsmen at their service, consigning in this way, the secrets of the Moorish construction and contributing to the likely evolution from the qarib to the Caravela. From documentary data we have also developed an approach to the subject of vessel production. Knowledge of the existence of old vessels, shipyards and arsenals, is mainly due to the number of information obtained from written sources, since we know that the recoveries from underwater archaeology have been limited as a result of the complexity of methodologies and techniques. The parallel between the nautical archaeological remains (shipwrecks) and graphical representations of boats used in the documentary or iconographic sources is, therefore, still an open field for a number of different interpretations, often a starting point for the identification of a certain type of vessel. In 1892 H. Lopes de Mendonça pointed out, in reference to the art documentation, the overlooking of ancient documentation regarding navigation, especially paintings, sculptures and written sources. This fact does not invalidate them, but draws attention to the proper way of how to read and use these documents. An example of this exercise is exemplified by the ethnographic map of Duarte de Armas. The 115 folio of his work III clearly restores the physiognomy of a land on the river banks where, despite the geographical proximity to Galicia, one can recognize the same elements that can be found along other medieval coasts, including the Iberian Peninsula. The simplicity of this type of structure can still be seen today in many parts of Mediterranean and Atlantic coasts, pointing to a secular continuity in the naval context. To overcome the lack of objective evidences in the Portuguese territory, we use the example of Mallorca Bacini describing the longitudinal profiles of a similar set of boats, from which are obtained most of the information for reconstruction of the hypothetical qarib. Three models, the number 292, the number 19, from the San Michele degli Scalzi church in Pisa, and a third corresponding to the number 59 from San Pietro church in Grado, which date from the last quarter of the tenth century, all them in the Museo Nazionale di San Matteo, Pisa- Italia. The most obvious problems in interpreting the given examples lies in the hollow support of the plates, under a distorted representation that had to be adapted to the available forms. The 59 and the number 19 are particularly important for an initial graphic reconstruction. The sum of these ceramic elements with other data collected during our study raises etymological, structural and logistic inevitable questions, more specifically, the absence of remains (wooden boats), which have a negative impact on the work in progress. From these it is then possible to derive elements of the technique that are not always retainable by the naval archeology because of the fragility of some natural systems in which the site is formed. The parting oceans are, therefore, penalized, and to retrace the elements which are defined as qarib, common merchant vessels, it was taken in account the specific analyzes of contemporary wrecks (a list of them will be presented in the slideshow below) considering also the contacts that always existed between the extensive territorial margins of the common traits of the Arabic language (that functioned then in the
same way as the English language today). In fact, if the Muslim ships dominated the Mediterranean - with a sudden peak around the XI and XIII centuries - it would not be correct to think of all these sailors as being attentive scholars concerned with an accurate description of the precise points on the nautical charts and the correspondences between the stars. These charts served, in fact, as a reminder of the distances between the various places of orientation in relation to the coastline and entrance points in the ports. Similarly we do not have details on the type of construction techniques, instead we derive the components from the iconography and representations of the time, compared with the subsequent artistic legacies. As we know, in the arrival at the Islamic period, there must be a reference to the number of ceramic basins found in the Western Mediterranean, the contact with the Byzantine world and to the most fortunate archaeological findings and even to the lexical continuity in the caravel that probably sailed the seas as far as India in 1509, alternating with the length of the warships.

In order to better deal with the inherent shortcomings, we have the intervention, with a contextualization on the medieval period, of numerous types of support. Ataíforas and bacini, open ceramic forms, miniatures obtained from archival and library materials - with several references to ships bearing only one master, Latin sails and axial rudders representations. One more consideration, comparing the examples of Graffiti from the Islamic site of Mértola, Garb al-Andalus. The housing complex near the banks of river port from which it comes the graphite under study, with a chronological frame of the XII century, bears similarities with those of Medina, but is closely linked to the port context of the site. The graffiti were preserved due to the fact that the stone has been laid with the decorated face in reverse. In one of the sets, three registers are noted. Two lines resembling Arabic calligraphy appear at the top and it is impossible to decode its meaning. A boat appears immediately below this line with a mast fitted with a square sail but collected at the bottom (Graphite A). The only part of the vessel that was drawn emerges from the water with the stern and the bow rather raised. We can clearly notice, in the stern, two large oars, rudder to steer the boat would also be driven by 9 oars. Other incised lines, imprecise and blurred, certainly from an earlier draft, interfere with the design making it difficult to define it. This hypothetical previous design bears a glimpse, a slight one, of the bow of another boat. In another place of the same stone, a third boat is noticeable, better designed than the previous ones (Graphite B). It is also a vessel of one mast and square sail collected at the bottom, with two paddle-wheel. This example includes ten paddles and has only been drawn the emerging part of the hull with bow and stern curved towards the interior of the vessel. The incisions in graffiti show, moreover, a certain familiarity with the boats and their maneuvers, revealing knowledge in skillful ship driving and crews forced into long periods of inactivity. The graphic treatment chart thus shows its "sailor" origins, justifying the graphite greatest asset as a historical document, the fact that it was the contemporary view of the author and of his own free expression motivated, probably, by a personal drive. The graffiti may therefore present a thin conformation that immediately leads us to interpret it as being possible representation of the saette, rapid changes of the galleys. The saetta or sagitta, a kind of chase/hunting ship, gets its momentum through extremely long oars. It is for this reason capable of achieving high speeds and is suitable for surprise incursions. We conclude that the unifying element of the research lies on the continuous use of the aquatic areas. The urban centers and developed areas of the coast are the essential starting point for an interdisciplinary approach in the seaboard analysis, studied from the standpoint of geographical, geomorphological and anthropogenic evolution. The literary and iconographic historical sources reflected technical developments over the centuries, hypothetical signs of interaction with the material components unexplored. The inconsistent boundaries of the Algarve’s territory, at the end of the Islamic domination, and the evident linguistic assimilation that occurs in the most populated areas, both in the Atlantic and in the Mediterranean, correspond to the simultaneously use of techniques and places with the Christian lords in the thirteenth century. Is from this coexistence that arises the expansionist desire of the sixteenth century. In the present knowledge of Garb al-Andalus the archaeological evidence of arsenals and shipyards is insufficient, despite the clear functional importance of these areas and their logistics and etymological continuity. The main limitation of our research is actually the main reason why it is performed: the ephemeral character of the wood and the hypothetical possibility of analysis still keeping the hope of rebuilding the ancient
maritime activities, confirming the writings reported by medieval Muslim authors. In the words of Professor Vasco Gil Mantas “Most cities that performed important sea port functions during the Roman dominion continued to perform such functions until today” (Mantas 2002-2003, 466), and lasting throughout the Arab period.

AREZES, Andreia Catarina Magalhães, “Germanic” Occupation in the High Middle Ages in Portugal: Necropolis of the 5th to 8th centuries, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Mário Jorge Barroca, 2015 (http://hdl.handle.net/10216/78898)

Keywords: Portuguese Territory; “Germanic” migration; Ethnicity; Burials

Abstract: This dissertation focuses on the study of one of the dimensions of funerary world crystallized in the period that ranges from the beginning of the fifth century until the very dawn of the eighth, in a broad area that corresponds to the Portuguese territory. Concretely, it focuses on those necropolized areas where the burial revealed material remains correlated with the “German” presence, hence the attempt to do the inventory of all cemeteries, nuclei of small size, or even isolated graves that, given the information currently available, fit in the parameters set as valid to establish the differentiation in relation to other spaces of death: those who do not illustrate the changes introduced from the fifth century, and that continue to perpetuate inherited models of the Lower Empire, in a completely Hispano-Roman framework. In order to justify the selection undertaken, we proceeded to the inventory and, whenever possible, to the presential analysis of objects unearthed at the sites where the “German” presence has been traced. That artifactual assembly includes basically adornments to worn over dress and to adorn the body or, in the sphere of votive material, ceramic and vitreous containers, presently preserved in public institutions located all over the country, but also in private companies and, more rarely, in private collections. These materials were the starting point for a reflection on the problems that mark this transition period. The path taken passes by the revaluation of the “old” paradigms and by the confrontation with the renewed assumptions meanwhile brought up for discussion, by the approach of the current state of research, by the dialogue or opposition between the contributions of archeology and the information gathered in the scarce coeval sources of events, and finally, by the discussion about the factors of ethnicity or about the role ascribed to “Germanic migrations”. On the other hand, because the privileged “source” of this work is rooted in the spaces of death and in artefacts therein collected, there is room to wonder about the manner in which worked the contemporary mindset and the underlying religious framework, to wonder about the lessons to be drawn from the “fragments” of reality recovered and, lastly, to rehearse the systematization of the funerary universe that constitutes our subject of study.

BARCELOS, Reginaldo, Between gold and slag: gold archeometallurgy in Brazil in 18th and 19th centuries, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Maria Teresa Cordeiro de Moura Soeiro and Maria da Conceição de Meireles Pereira, 2016 (http://hdl.handle.net/10216/83730)

Keywords: Royal Foundries; Gold Metallurgy; Royal Fifth Tax; Corrosive Sublimate; Crucible; Sabará; Goiás; Rio de Janeiro

Abstract: The history of the metallurgic techniques used in order to purify gold during the XVII, XVIII and XIX centuries is rescued from archaeological data taken from sites near the ancient royal foundries established in the mining districts in Sabará, Goiás Velho and at the ancient Mint in Rio de Janeiro in a close dialogue with historic documents and contemporary reports. It was sought to learn the century-old techniques used in the refinement and transformation of in natura gold into bars of gold that circulated for approximately a century as money for commercial trades in Brazil. The manufacturing of these bars took place in the official Royal Casting Mills and in the illegal ones which
did not use to collect the Royal Fifth tax owed to the Crown and which ended up spreading to the reaches of the hills in Minas Gerais. In order to fully understand the smelting of gold activity, the present study aims not only to investigate the technical aspects, but it also engages in the social and political-administrative aspects which constitutes the collection of the tax over the gold ore in the mining captaincies in Brazil during the XVIII century and beginning of the XIX century. The smelting operation, the workers and productive structure are closely scrutinized and it is offered information about a possible African knowledge exchange about the mining and smelting duty. The learning of the smelting role and assayer then is also considered. Data concerning the results of projects of archaeological searches that occurred in places where gold was officially smelted in Brazil specifically at the Mint in Rio de Janeiro, the Casthouse in Goiás and the Casthouse in Sabará, are available here in order to provide subsidies for the researches involving gold metallurgy, however, they are mainly available for a scientific discussion concerning Historical Archaeology applied to the gold melt shop in colonial Brazil. Finally, there is also a discussion about the results of X-ray spectroscopy tests performed through a sampling of crucible and slag fragments collected from the excavation of the archaeological sites in point.

BATATA, Carlos António Moutoso, *Roman mining in the Tresminas and Jales complex*, PhD in Archaeology submitted to the Institute for Advanced Studies and Research of the Universidade de Évora, supervised by Jorge Manuel Pestana Forte de Oliveira and José António Paulo Mirão, 2017 (http://hdl.handle.net/10174/23065)

**Keywords:** Roman period; Mining; Technology; Geology

**Abstract:** In Chapter I, he tried to illustrate what was mining from Prehistory to the Roman period. He tried to find out what the classical sources and epigraphy have given us on the subject. We studied the geological and mineralogical characteristics of Tresminas and Jales. The conclusion refers to scientific studies that have been conducted until now-a-days. Chapter II deals with the Roman technology and logistics operated on the site, with particular emphasis on pylons mill, for its uniqueness and also his representation of the "the latest technology" in the mines of the Roman Period. Chapter III deals with the material culture, which provides us, through its evolution, timelines for the various stages of exploration. In the last chapter he try to seeks the frames for the mining in Tresminas and Jales, the economic and political context of the conquest of the Iberian Peninsula, and explaining the role of the legions in the maintenance and monitoring of mining operations.

BETTENCOURT, José António, *The shipwrecks of the bay of Angra (Terceira Island, Azores): an archaeological approach to the Iberian ships and the port of Angra in the 16th and 17th centuries*, PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by André Teixeira and Eric Rieth, 2018 (http://hdl.handle.net/10362/37601)

**Keywords:** Maritime Archaeology; Angra do Heroísmo; Azores; 16th and 17th centuries; Shipbuilding

**Abstract:** This PhD project aims to contribute for the study of Iberian ships and navigation in the in 16th and 17th centuries, through the archaeological analysis of three shipwreck sites and their maritime context, located in Angra (Terceira island), the main port of call in Azores archipelago during that period. The first objective is the study of the shipbuilding of Angra B, D and F ships, from the working stage in the shipyards to the methods adopted in its design and construction. The second is the analyses of those remains in their historical, regional and international context, setting its function, route and operation areas. This approach will consider the material culture and will examine aspects of life aboard and related to ships operation. A third objective, aims to contribute to the characterization of the harbour organization, through the integrated analysis of the maritime landscape, supported by cartographic analysis, geophysical surveys and intensive archaeological work,
interpreted in a Geographic Information System project. This stage considered the general research of all archaeological sites on Angra Bay, besides there chronology and origin, focusing on a long term approach.

BOMBICO, Sónia Alexandra Rupio, *Maritime Economy of Roman Lusitania: Export and Circulation of food products*, PhD in History: Archaeology submitted to the Institute for Advanced Studies and Research of the Universidade de Évora, supervised by Filipe Themudo Barata and Carlos J. G. S. Fabião, 2017 (http://hdl.handle.net/10174/21051)

**Keywords**: Lusitanian amphorae; Shipwrecks; Trade; Ports; Shipping routes

**Abstract**: The present dissertation researches and analyses the economic rhythms of production and exportation of food products produced in the Roman province of Lusitania, between the middle of the 1st century AD to the beginning of the 6th AD. It’s given special emphasis to the fish products, most keenly exported products, and for which the amphorae give us testimony of their circulation on the Mediterranean and Atlantic. Are presented the maritime areas of production, featuring the production units and amphorae pottery centers; listing up the Lusitanian amphorae types, currently known. The reading of the exportation is done through the presentation of data about the diffusion of Lusitanian containers. In this context, we focus in coastal land contexts, essentially the major port areas of the Mediterranean, and its present an inventory of shipwreck sites that contained Lusitanian amphorae. The joint interpretation of these data allows us to infer the distribution flows and define the main shipping routes used to export Lusitanian amphorae. An analysis that, despite the limitations of the sample, allows to outline the general evolutionary lines of Lusitanian food products circulation and export, especially the fish products, towards the main markets of the Roman Empire, especially to its capital - Rome.

BOTELHO, Iva João da Silva Teles Morais, *The Process of Corgo. About the Principle of Conservation by the Scientific Register*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Maria de Jesus Sanches and Glória Teixeira, 2016 (http://hdl.handle.net/10216/112219)

**Keywords**: Rescue Archaeology; Preservation by record; The principle of stratigraphy; Archaeological watching brief; Harris Matrix system; Land use diagram; Topological land use outline; Contract Archaeology

**Abstract**: This thesis intends to bring into reflection the practice of rescue archaeology in Portugal. The aim is to discuss both juridical-administrative and scientific issues, bearing in the mind the basic requirement of intra- and inter-generational equity. The case study has, thus, as subject of analysis a specific process of archaeological mitigation resulting from exclusively public funding. I.e., I mention the «Process of Corgo», which was adjacent to the works of Metro of Porto/ Line of Póvoa that took place between 2005 and 2009, under environmental and cultural heritage legislation. The discussion is focused on preservation by record, here approached within the convergence of both legal and archaeological laws, crossed under the headline of the basic principle of stratigraphy. Two forms of action linked in particular to rescue archaeology and to the case study are in analysis. They are the archaeological watching brief work and the Harris Matrix system. By the work, the archaeologist came across the Site of Corgo, a Middle Bronze Age settlement. Regarding the system, its use was denied at the archaeological excavation done by commercial hiring, and this fact was strongly questioned by Permit giving Authority. The purpose is to overcome some reigning alienation that prevails on the existence of a directed reflection to the assessment of the contributions of both work and system to the archaeological science and also with respect to their effectiveness aimed at the enriching of the collective memory. In demanding for sustained knowledge of the chosen subjects, the following path departed from the search of historical backgrounds. Next, hermeneutics was based on a rational
analysis of documental sources, whether they were legal texts or the author’s opus Edward Cecil Harris. Finally, the discussion of conclusions was sustained on heuristics applying to data collected during Corgo’s archaeological campaigns; and by the results achieved, the potential of work and system was tested in this cropmark site. The structure of the text is given by the process itself, which resulted in the following development of subjects. Part I, including chapters 1-6, is developed under the sign of Accountability and concerns law matters. It holds forth on archaeological watching brief (centred on MP-ACOMP_P01.04-05 and MPAZR02.05 works) and on the accreditation of units on contract archaeology – in this case, departing from the tender for MP-AZR03.07 archaeological excavation. Part II, composed by chapters 7-10, was written under the sign of Supervision and focus the supra mentioned tender. Moreover, (thoroughly) addressing on an archaeological scientific subject, the Harris Matrix System, and as far as it affirms the absolute primacy of the principle of stratigraphy, simultaneously serves as proof to the thesis defended in Part I. Given that inquiring also depends on previous knowledge, Part III was developed under the sign of Training, aiming to stress the basic needs for a consequent exercise of rescue archaeology. Set in a monograph draft, it is focused on the scientific approach to the site, resulting from the presentation of joined results of MP-ACOMP_P01.04-05, MP-AZR02.05, MP-AZR03.07, MP-AZR04.07-08 and MPAZR05.08-09 (chapter 11); following, it is tested the given stratigraphic sequence through the construction and discussion of Harris Matrix diagram, ending by alternatively presenting a land use diagram complemented by a topological land use outline (chapter 12); and at last, it is given a possible path for further development, by means of design project for further research (chapter 13). Moreover, it is its primary goal to deepen the discussion of Parts I and II and, as said, to test the potential of work and system, by presenting results obtained over the five campaigns. Regarding the Harris Matrix system, but extensible to archaeological watching brief work, it is defended that “the art of archaeology is not to be fashionable, but to be appropriate”, as someone already said. As far as the work is concerned, it is denied legal framework. Beyond the necessary provision in the law, the problem may be solved by revising deviating interpretation – besides, restricting the ontological nature of archaeology as research – by which goals have been developed, such as preservation, and principles accepted such as those of precaution, prevention, priority rectification of damage at source and the polluter-pays basis. As all these four principles belong to environmental legal action, it must be noted that this one, constituting among us the heart of rescue archaeology, calls for action in advance, its “Golden Rule”. Besides, as Corgo demonstrates, watching briefs do not avoid irreversible damage, definitely disrespecting stratification. A question left without an answer is whether the revision of the contract archaeology – by now generalized, but not by legal constraint –, will lead to a greater parsimony on the option for watching briefs. Should it be reduced to abstract risk of archaeological imponderability, i.e., inside of a sui generis precautionary approach, and one could reserve the possible guarantees of discovering new sites such as Corgo in the development path. Only then shall we succeed in enhancing the use of the principle of stratigraphy, through the consequent promotion of archaeological excavations. As far as the system is concerned, all that is needed is the valorisation of specificities of each site. Corgo itself stresses its inadequacy to these cropmark sites, as they are poor in vertical stratification and plenty of extensive ablative phenomena. In these cases, a hermeneutics that enables to translate present into past, enriching then memory, entangles stratigraphy and seriation, it is finally defended. The volume of Appendices is an integral part of the thesis in discussion. It includes a systematized characterisation of the situation by the year of 2009, some proposals for amendments to legislation in force, and methodological specifications of the presented research project. Finally, the dissertation is complemented by a dossier of Annexes in digital format, which includes several documental and technical compilations, and some of the archival collection of Process of Corgo.

BOTTAIINI, Carlo Emanuele, Metal deposits in the Late Bronze Age (13th-7th BC centuries) of the Center and Northern Portugal. Social and Archeometallurgical Aspects, PhD in History: Archaeology submitted to the
Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Raquel Vilaça, 2013 (https://estudogeral.sib.uc.pt/handle/10316/23582)

**Keywords:** Not available

**Abstract:** Not available

BRAGA, Ariana Silva, *Different landscapes and techniques, similar motifs. The dispersion of rock art in the Tocantins River, the case of Palmas and Lajeado - TO, Brazil*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Maria Emília Pereira Simões de Abreu and Lucas de Melo Reis Bueno, 2015 (http://hdl.handle.net/10348/5549)

**Keywords:** Rock art; Brazil; Engravings; Paints; Landscape; Archeology

**Abstract:** This thesis aims to study rock-art manifestations—paintings and engravings—in the Lajeado Complex, area delimited for this research. This area encompasses in geographic terms the municipalities of Palmas and Lajeado, in the State of Tocantins, Brazil and geomorphological terms two units: the Tocantins Depression and the Residual Plateau of Tocantins. The Lajeado Complex 30 rock-art sites are currently known, five of them unpublished. All of these sites are here presented and described, among these two were selected as case studies, one site in each of the geomorphological units mentioned above: the Foz do Lajeado site with 16 unpublished engraved rocks, confluence of the Lajeado and Tocantins Rive in the Tocantins Depression and the already known Vão Grande site, in the Serra do Lajeado in the Residual Plateau of Tocantins. The analysis of both sites includes comparisons with the remaining known sites in the Lajeado Complex. The application of concepts from Rupestrian Archaeology and Landscape Archaeology took in account the relationship between rock art, archaeological context and its place in the landscape. In terms of Rupestrian Archaeology we analysed the relationship of the rock-art with the other archaeological remains, lithics and ceramics, with the aim of contextualizing it in space and time. Based on fifteen datings associated with rock-art sites in the area, we can infer that the technique to do engravings already exists in the region at least since 8000 years before present. When some of the motifs are compared to ethnographic and archaeological data, these are similar to those found in the ceramic tradition context, spanning from 2000 to 300 years before present. Still within the Rupestrian Archaeology approach we elaborated full recordings of the sites, without selecting elements for analysis and therefore these sites are fully described and understood. Within the Landscape Archaeology approach we identified were each site is placed in the landscape by analysing at the microscale the spatial arrangement within sites, at mesoscale the geomorphological characterization of sites and at macroscale the relationships established between sites in the different landscapes. Fieldwork based on this approach was limited by the fact that the area has were engraved rocks exist has been partly flooded by a large hydroelectric dam, UHE-Lajeado, which could have contributed to a better understanding of the subjects dealt with. Rupestrian and landscape analysis provided insights, never before noticed. Because of this, a series of petrographic and chemical analysis were made with the aim of better understanding the relationship between the sites and their geological and geomorphological characteristics and additionally this allowed to understand the conservation issues of rock-art engravings and painting. The petrographic analysis resulted in better understanding of the correlation between the use of the rock surface and conservation of engravings and paintings which supports the idea that these have affinities. This analysis resulted in more information about engraving which allowed us to identify important aspects about the act of engraving. The resistance of the rock to pecking and the texture, allowed us to identify that the same technique results in two distinct styles due to the differences in the rock surface. The internal colour of the rock is different from the patina of the surface and that of the engravings, therefore these engravings were much more noticeable when they were made since they would have had the same colour as the rock interior. This widened the distance at which these could be seen and therefore widened the scale of interaction with
landscape and amongst the rocks. The chemical analysis of pigment identified the main components and opens a very important window in the stylistic debate of rock-art paintings, since we observed that some of physical-chemical changes in the pigments are due to the exposure to natural agents through time and not only due to technical and stylistic choices of the painters. In the end, the wide range of hypotheses and results of this initial study provides the basis for future rock-art research in the Lajeado Complex and Tocantins in general.

BRANCO, Maria Gertrudes Azinheira, *Environmental Impact Assessment: the Archaeological Heritage in Alentejo Central*, PhD in Archaeology submitted to the Institute for Advanced Studies and Research of the Universidade de Évora, supervised by Leonor Rocha and Isabel Alexandra Joaquina Ramos, 2014 (http://hdl.handle.net/10174/11184)

Keywords: Not available

Abstract: The environmental impact assessment procedure was introduced in the Portuguese legislation in the beginning of the 1990’s of the last century. Since its origin, this normative document has required the characterization, assessment and minimization of the impact of some projects on the Cultural Heritage, specifically, on the values of architectural and archaeological interest. Based on a set of documents resulting from 79 projects submitted to an environmental impact assessment in Central Alentejo, between 1995 and 2008, we approach some of the main issues related to the archaeological activity, which was developed in order to comply with the environmental law requirements and the patrimonial law particularities. The archaeological activity adequacy to fulfil the demands of environmental impact assessment, the archaeologist and government’s role in safeguarding the inventoried patrimonial values, the assertiveness of the proposed minimization measures and the contribution of the results to format knowledge are some of the issues developed in this thesis, along with legal and conceptual matters. Although this is a local reading, the issues addressed reflect the archaeological activity dynamics in Portugal, which has been developed over the last decades under the aegis of the commonly known “archaeology and preventive protection” which results of a relevant reflection that can boost a qualitative development of current and future archaeological practices.

BRUNO, Carla Patrícia de Abreu, *Earth architecture in the prehistoric domestic spaces of southern Portugal: sites, structures, technologies and materials*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Victor S. Gonçalves and Paulina Faria, 2010 (http://hdl.handle.net/10451/3475)

Keywords: Pre-history; Architecture; Settlements; Construction techniques

Abstract: Architectural traces from pre-historic settlements of South Portugal current territory are analyzed, mostly in a typological and technological perspective. Based on available data, some readings about domestic architectures are presented, with the aim of contributing to interpretation and reconstitution of those spaces, by formulating some new working hypotheses. The analysis of structure traces that existed in the considered set of archaeological sites allowed characterizing pre-historic domestic architectures, attending to aspects like shape, typology, construction techniques and building materials. Identifying similar features between different settlements, without, however, ignoring particular aspects, allowed to relate some morphologies and technologies with certain chronological contexts. On its turn, case studies provided deepen knowledge about some building techniques, contributing to the interpretation and reconstitution of the analyzed structures. Other factors, beyond environment conditionings and immediate functional needs, seem to contribute to domestic space morphology and organization. From the integrated analysis of settlements, architectures, technologies and building materials, it seemed to result a coherent whole, due not only...
to technological limitations and natural conditionings, but also from aspects apparently related with pre-historic man way of thinking.

CAMPOS, Juliano Bitencourt, Archaeology between rivers and integrated management of the territory in the extreme south of Santa Catarina - Brazil, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Luiz Oosterbeek and Jairo José Zocche, 2015 (http://hdl.handle.net/10348/4828)

Keywords: Archaeological sites; Landscape; Human activities; Heritage laws; Geo-processing

Abstract: This Ph.D thesis aims to contribute to the discussion about the archaeological panorama of the southernmost region of Santa Catarina, Brazil. Focusing on the territory, this research is based on the premise that the development of interdisciplinary studies, grounded in technological resources of Geographic Information System, provides a better understanding about how the prehistoric human groups interacted with the landscape in the study area. Were used data about the historical dynamics of the landscape, in their physical and biological components, as well as about the ways in which prehistoric populations have made use of the environment. In addition, it seeks to support the discussions on the Integrated Management of the Territory. The work is divided into four chapters. Chapter 1 presents the research project “Arqueologia Entre Rios: do Urussanga ao Mampituba”, defining it as a territory of research and describing, regionally, their physical, biotic and paleoenvironmental characteristics. Chapter 2 accesses data regarding the dynamics of prehistoric human occupation in the southernmost region of Santa Catarina, comparing this to a wider regional archaeological context, the historical human occupation in the area of “Projeto Entre Rios” and the current economic activities developed there. Chapter 3 discusses issues related to federal and state environmental laws and about archaeological heritage. Chapter 4 sets out the delimitation of an experimental area within the territory of the project and analyzes the threats that human activities developed in the vicinity of archaeological sites represent to the integrity of the archaeological heritage, integrating concepts of landscape, paleolandscape, archaeology and ecology on GIS environment, as a proposal for Integrated Management of the Territory.

CAMPOS, Luana Cristina da Silva, Paleoclimate and human behavior in the Holocene: a comparative study between Brazil and the Iberian Peninsula, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Rui José dos Santos Teixeira, Ana Isabel Peres Correia Rodrigues and Eric Boëda, 2015 (http://hdl.handle.net/10348/4820)

Keywords: Paleoclimate; Human occupation; Prehistory; Holocene; Isotopic data

Abstract: The relationship between Man and his habitat is being studied by several researchers for a long time. In this study we intended to identify records of climate variations during the Holocene and their influence on the development of cultural and socio-economic relations in prehistory. The data analysed were selected from three archaeological sites located in different geographical areas: the sites of Toca da Ema do Sítio do Brás I and Toca do Baixão do Perna I, located in the National Park of Serra de Capivara (PNSC), Piauí, Brazil and the site of Los Postes, located in the Natural Monument Cuevas de Fuentes de León (MNCFL), Extremadura, Spain. A multiproxy approach was applied to the samples collected in each of these regions (sediments, soils and speleothems), including petrographic and granulometric analysis in thin section, analysis by EDS/SEM, XRD of bulk samples and clay fraction of oriented aggregates, spectrophotometry of UV/VIS, atomic absorption, determination of isotopic ratios and dating using different methods (e.g. 14C and 234U/230Th). For the three regions, SIG analysis were also performed. The observation of the stratigraphy of the surveys carried out near the archaeological sites in Brazil, together with the results obtained from different analysis applied to the collected sediments, led to the identification of climate variations that
occurred during the transition Pleistocene-Holocene. The results of isotopic analysis of the organic matter presents in the soils together with the granulometry results and the analysis of the thin sections led to the characterization of a very dry climate during the middle Holocene, with short periods of heavy rainfalls. The mentioned climate changes are coincident with the various stages of human occupation observed in the region, with an occupation during the more humid periods, which was followed by the abandonment of the region by the human groups during the drier periods and a further reoccupation in the period in which an increase in humidity was once again observed. In these periods it was also verified a coincidence with the changes in the type of representations observed in the rock art observed in the sites. In the site of Los Postes in Spain, the analyses were performed not only on the sediments collected from the cave but also on some speleothems. The isotopic analyses of δ18O and δ13C in the speleothems showed the occurrence of two dry and warm moments and a more humid and cold moment during the mid and late Holocene. These climatic variations were also confirmed by the thin sections analysis where changes in the crystallographic texture were identified corresponding to the variations of the humidity identified by the isotopic analysis. The data of the material culture of the location leads to the assign of a continuous occupation of the Los Postes cave, independent of the type of climate regime. However, the moment characterized as warm and dry would have been coincident with the moment of neolithization of the territory in this region, while the more humid period, which followed the end of the warm and dry phase, would have been coincident with an increase in deposition of bodies in the cave, which should correspond to an increase in the demographic density typical of the sedentarization process. A GIS model of spacial analysis was applied to both regions using geomorfological and climatic criteria, which allowed the identification of areas with more and less susceptibility to alterations in landscape induced by climate changes. The obtained results led to the identification, in the neighbourhood areas of the studied archaeological sites of both hemispheres, of records of global events, such as the Younger Dryas, the 8.2 ka BP event, the Thermal Maximum Holocene, the 4.2 ka BP event, and the Bond cycle, as well as effects of the so-called internal forcing mechanisms (ENSO, Flandrian Transgression and Intertropical Convergence Zone).

CARDOSO, Daniela Dolores Faria, *The Atlantic art of the Monte de S. Romão (Guimarães) in the context of the post-Palaeolithic rock art of the Ave Basin - Northwestern Portugal*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Ana Maria dos Santos Bettencourt and George Nash, 2015 (http://hdl.handle.net/10348/4689)

**Keywords**: Rock art; Monte de S. Romão (Guimarães, Portugal); Atlantic art

**Abstract**: This dissertation contributes for the increase in the knowledge about post-Paleolithic rupestrian art, in outdoors, in the northwest of Portugal, namely in the Ave basin. In here there were identified two great stylistic cycles: the “Schematic” and Atlantic Arts, both from Prehistory; a third cycle with footprints and palettes, from Final Bronze/Initial Iron; a fourth cycle with new circular motifs, from Recent Iron/Romanization, and a fifth cycle, with crosses and pentagrams, from the Middle or Modern Ages. It was also approached the hypothesis of the existence of a Paleolithic cycle, based on the Vinhas quadruped. In terms of Atlantic Art versus “Schematic” Art we considered that both traditions occupied distinct spaces. The first one concentrated to the west and to inferior elevations while the second one occurred in interior and mountainous areas, to the east, and to superior elevations at 640 m. In the Atlantic Art we can distinguish two phases, having the oldest one circular compositions and reticulated figures and, the second one, anthropomorphics and zoomorphics. Also in the “Schematic” Art we have, likewise, a first phase composed by circular motifs and reticulated figures, followed by a phase with anthropomorphics with headdresses and/or large hands. We considered the “Schematic” Art the oldest and heir of the rest of the Iberian and megalithic art, dated from the end of the V to the end of the IV millennia b.C. We took in account that, in the Atlantic Art, the number of engravings lessens from north to south. Therefore we believe,
as well as other several authors, that it is linked to an intrusive phenomenon in the Iberian Northwest, having entered along the Atlantic coast from the end of the Neolithic, and beginning of the Chalcolithic. That would be the reason for it being a coastal phenomenon and that, in its initial phase, contains symbols from the old phase of the “Schematic” Art, in a process of assimilation in continuity, of new cosmologies. Accepting that they had coexisted, at least in the III millennium B.C., these two artistic cycles would have expressed distinct cosmologies and different forms of interaction of the populations with the space where they lived. For the Atlantic Art, from the S. Romão Hill study case, it was possible to place several hypothesis to know: that there would have been an engravings hierarchy, interconnected between themselves and with different meanings to the populations and destined to distinguishable audiences; that many engraving sites are in natural pathways, but also in injunction places (between the vale and the mountaintop, or between the earth and the sky) that we believe are structuring in the cosmology of the populations of this period; that from the spatial context and phenomenological observations, the water resources, the solar and seasons cycles would have been also significant in the cosmology of the Recent Prehistory. Last that the symbolism of S. Romão Hill has endured until today, although through the additions and narratives that were successively added, changing their original meanings.

CARNEIRO, André Miguel Serra Pedreira, Rural settlements in Alto Alentejo in Roman times: places, times and people - structuring vectors during the empire and late antiquity, PhD in Archaeology submitted to the Institute for Advanced Studies and Research of the Universidade de Évora, supervised by Jorge Manuel Forte Oliveira and Carlos Fabião, 2011 (http://hdl.handle.net/10174/12331)

Keywords: Roman settlement; Villae; Alentejo; Roman agriculture

Abstract: The aim of the present study is to offer a reading of what the distribution of the rural population of Alto Alentejo may have looked like in Roman times. Dealing with such an extensive territorial area and with such a diverse landscape has allowed us to better understand how the patterns of organisation of rural human settlements were influenced both by the natural environment as well as the pre-existing rural communities. The period studied is intentionally long: our analysis begins with the formation of the imperial landscape and ends in 711, a milestone which is considered significant in establishing the boundary with the Ancient World. Drawing on substantial work of archaeological prospection, this study therefore proceeds to analyse the factors that motivated the creation of a landscape that was inhabited and modified throughout Empire and Late Antiquity by many diverse people.

CASCALHEIRA, João Miguel Mico, The Mediterranean influence on the social networks of the final Solutrean Iberian Peninsula, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Gonçalo Viana Pereira Ferreira Bicho, 2013 (http://hdl.handle.net/10400.1/6717)

Keywords: Solutrean; Mediterranean; Lithic technology; Last Glacial Maximum

Abstract: This dissertation presents the results of a study on the technological variability of the lithic industries from a set of Solutrean sites located along the coastal strip that connects the region of the Spanish Levante and the Portuguese Estremadura. Previous studies have pointed out that this would be a relatively wide cultural territory, defined by the presence of symbolic markers (arrowheads and ornaments), shared through contact networks over long distances, as evidences of a common ethnic identity. The aim of this study was precisely to test the degree of relationship between the various regions in order to better define the influence and operating mode of those contact networks. This goal could only be accomplished through the analysis of the basic elements of the adaptive system of these communities, in this case the technological organization of the lithic industries. Thus, through the analysis of a broad range of technological attributes and their comparison with the use of
multivariate statistical methods, some similarities and dissimilarities between the contexts were identified which showed that: (1) when present, the similarity across regions is mostly visible in the size and type of the lithic blanks produced and, very rarely, in the specific technological attributes of their production; (2) some of these associations are supported by a solid chronometric framework, which shows on one hand, that the industries that are similar from a typological point of view are contemporary and, secondly, that the traditional subdivision of the Mediterranean Solutrean in phases cannot be proven with the currently available data. From a paleoanthropological standpoint, the results obtained show that the human adaptive system to the Last Glacial Maximum worked at two different, but complementary, scales. One that is essentially local, formed by several, well established eco-cultural niches, where communities have shared, and maintained in the form of cultural traditions, techno-economic schemes that are best adapted to the particularities of the respective ecological contexts. The other, suprarregional, related mainly with broad geographical social ties, maintained as an extra factor of the adaptive response to the impact of climate and landscape modifications, and functioning through sharing behaviors of stylistic concepts and typological elements.

CASIMIRO, Tânia Manuel de Oliveira Alves e, *Portuguese Faience in the British Isles (from the end of the 16th century to the beginning of the 18th century)*, PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by Rosa Varela Gomes, 2011 ([http://hdl.handle.net/10362/5537](http://hdl.handle.net/10362/5537))

**Keywords**: Not available

**Abstract**: The present dissertation aims to identify, analyze, register and study the evidences of Portuguese Faience recovered in the British Isles. Seven hundred and thirty seven sherds were recovered, spread across twenty three cities and seventy nine sites, from late 16th century to early 18th century. Whenever their size, conservation and importance justify it, the vases were drawn, described and organized in the present corpus. The archaeological environment and recovered material culture allowed to include the Portuguese Faience sherds in social, economical and cultural British contexts. The shortness of studies concerning Portuguese Faience, in Portugal and abroad, forced us to start the analyses of the evidences in a tabula rasa of knowledge. Knowing production, resources and people involved were fundamental in the comprehension and interpretation of the archaeological evidences. Raw materials, production techniques, workshops and manufacturers were analyzed, trying to reveal all the technical and artistic information, which would help in the study of Portuguese Faience in the British Isles. Such information were taken from foreign treaties, describing the making of tin glaze ware in Italy, Low Countries and France, but equally from data taken directly from production areas. In this sense only the visualization of pots recovered in the production centres workshops, namely Lisbon, Coimbra and Vila Nova could confirm the origin of the vessels recovered in England and Ireland, giving secure parallels. The decoration was one of the most important features of Portuguese Faience and the one that researchers, especially Art Historians, dedicated more time since late 19th century. In the last decade, archaeology has given an important contribute to the Portuguese Faience studies, since new forms and decorations have been exhumed from archaeological contexts. These vessels differ from the sumptuous pieces stored in museums and private collections, considered as every day pots and giving a new insight to Post-Medieval pottery productions. The Portuguese Faience recovered in the British Isles has also contributed to the study of shapes and decorations, but especially to the chronology of vessels. The goal is to conclude the importance of the Portuguese tin glaze ware in English and Irish contexts, but also the consequences of the exportation to the Portuguese workshops and the type of trade. In pursuit of that goal it was necessary to read several documents registering the exit of pottery from Portuguese ports and its entrance in British cities. Archaeological and historical information were crossed, concluding that Portuguese Faience, although a recognized and frequently imported into England and Ireland was not acquired in large amounts.
CEREZER, Jedson Francisco, *Technology and symbolism in the Guarani expansion in the South of Brazil*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Luiz Miguel Oosterbeek and André Luís Ramos Soares, 2017 (http://hdl.handle.net/10348/7778)

**Keywords**: Ceramics; Guarani Expansion; Territory; Technology; Experimental Archeology; Functional Studies; Socialization of Knowledge

**Abstract**: Tentative models to explain the ceramic artifacts and Guarani territories are presented and discussed in this thesis. From them is built a reflective and argument framework for a new explanation about Guarani expansion. This has at its base the ceramic technology, studies of archaeological experimentation and of morphometry, developed into three macro-regions of southern Brazil (West/high Uruguay, Central Depression of the Rio Grande do Sul and the southern coast of Santa Catarina) including collections of entire recipients and of fragments. The combination of morphometric and technological data with the chronologies of archaeological sites and of the territories enabled the presentation of an explanatory model based on the colonization of territories by waves of long-range advances, resulting from social fission mechanisms. Research into material culture associated with the Guarani has provided conditions for socializing with Guarani communities the produced knowledge and the technology recovered through experimental archaeology.

COIXÃO, António do Nascimento Sá, *The Romanization of Lower Côa*, PhD in Heritage Studies: Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, 2017 (https://repositorio-aberto.up.pt/handle/10216/106000)

**Keywords**: Not available

**Abstract**: Not available

CORREIA, Virgílio Nuno Hipólito, *The domestic architecture of Conímbriga and the economic and social structures of the Roman city*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Jorge Alarcão, 2011 (https://estudogeral.sib.uc.pt/handle/10316/18134)

**Keywords**: Not available

**Abstract**: The present thesis is constituted by a general study of the domestic architecture of the Roman town of Conimbriga (prov. Lusitania), divided in two parts. The study proper is preceded by a context setting of the available evidence, under three main points-of-view: previous research and the advancement of knowledge on the subject; the actual contexts of research in what concerns the main problems of the chronology of buildings and their documentation, and the global picture of what is known about the domestic architecture in the Roman Empire. The first part of the study is built upon the systematic analysis of the twenty seven domestic buildings known in the town, in their entirety or just partially, and a reference to two buildings not considered in the study for various reasons. The town itself is excavated to 15% of its original maximum extent. Of the known buildings reference is made to the nature, extension and origin of available information; their structures are described and their chronology and architecture is considered; residential units are catalogued. The catalogue of the residential units is the essential element to understand the internal articulation of the buildings and it is the necessary basis for the support of some conclusions henceforth. The second part of the study is composed by closer examinations of the more relevant aspects of the reality under scrutiny, namely, the ecological aspect of building activities in the town, the historical, artistic and
ethnographic models of the constructions, and – central element in the thesis – the connections between domestic architecture program and their underlying ideology (under the perspective of the Wertbegriff). To this element an analysis of the ideological expression of decorative programs in the main residences mosaics is added. The relationships between recognized elements allow for the identification of distinct of distinct urban settings (as proposed by A. Rapoport) and this line of enquiry is also developed. Of particular importance under this topic is, beyond the identification of a very fine mesh of situations of residential units that can be classified under the traditional label of domus or insulae, the possibility of finding some units of semi-public character, that can be identified with seats of corporations or associations, and thus to be designated as scholae. The social and economic structure of the town is approached through a reconstitution of the population numbers, their social stratification and the economic value of the domestic construction, as means of expression of that stratification. The conclusions are mainly centered on proposals of interpreting the analyzed data as illustration of an innovative concept of “Romanization” as a process of enculturation, through which local populations recentered their position in a new (Roman) cultural and political sphere with a new cognitive process, enhanced mainly by internal competition about a privileged social status, expressed by individual adhesion to a Roman habitational practice, with deep consequences in the cultural, social and economical realms.

COSTA, Carlos Alberto Santos, *Rock representations in the Piedmont of Chapada Diamantina, Bahia, Brazil*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Maria da Conceição Lopes and Carlos Alberto Etchevarne, 2012 ([https://estudogeral.sib.uc.pt/handle/10316/21072](https://estudogeral.sib.uc.pt/handle/10316/21072))

**Keywords**: Piedmont of Chapada Diamantina; Rock representations; Geometry; Bahia archeology

**Abstract**: The object of this research are the sites of rock art representations of Piedmont in Chapada Diamantina. The initial investigation problem of the discussion of the notion of tradition in Brazilian archeology and its application in the study of representations rock in the Northeast. This path led to the finding that the geometric signs are identified partially, due to the difficulty of understanding its contents and submit forms represented universally argument against the prospect of building regional archaeological scenarios. Contrary to this understanding, this study sought to determine whether the signs identified in Piedmont geometric graphs showed significant repertoire, so as to constitute elements for construction of regional archaeological scenarios. To achieve this goal we set for the observation of the Piedmont landscape of Chapada Diamantina, when we lift data on their conformation (geotectonic, geology, soils, hydrology, climate, vegetation, paleopaisagem and current use), leading to the understanding of the sites chosen by human groups for the occupation and understanding the factors that highlight the reciprocal relationship between man and environment. On this basis, we studied the cave sites, assuming there are meanings behind the paintings and embracing the notion of grammar for the analysis of 49 archaeological sites raised. From this perspective, it was possible to indicate three graphic profiles specific to the region, probably the result of a succession of distinct periods of occupation of the territory, among which the most significant is formed almost exclusively by geometric symbols. From the case study we conclude that the representations are important sources for construction of regional archaeological panoramas, plus the data make possible to induce specific guidelines for the observation of the region and, consequently, for the future continuation of archaeological studies in Diamantina Plateau Piedmont.

COSTA, Cláudia Maria Cordeiro da, *Taphonomy in prehistoric context: zooarchaeology as a resource for understanding the “negative structures” of recent prehistory*, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Ferreira Bicho and Rebecca Dea, 2013 ([http://hdl.handle.net/10400.1/7713](http://hdl.handle.net/10400.1/7713))
Keywords: Zooarchaeology; Taphonomy; Late Neolithic; Chalcolithic; Bronze Age; Negative structures

Abstract: This thesis aims to clarify the filling process of prehistoric negative structures through the taphonomic study of vertebrate remains. To do so faunal assemblages from Perdigões (Reguengos de Monsaraz), Horta do Jacinto (Beja) and Montinhos 6 (Serpa) were chosen, with human occupations spanning the end of the 4th millennium to the first half of the 2nd millennium BC. The assemblages come from negative structures from these sites, namely pits and ditches from sector I and ditches from sectors Q and L in Perdigões, prehistoric pits and hypogea from Montinhos and negative structure 1 of Horta do Jacinto. The data shows a majority of mammals from a small group of species like suids, ovicaprids, cattle, auroch, deer, roe deer, dog, hare, rabbit and rodents. There were also identified reptiles like lizard, tortoise and snake, amphibians like toad and western spadefoot and unidentifiable birds. The methodology employed a taphonomic analysis with a detailed understanding of the faunal associations, stratigraphy and artifacts associations with the archaeological provenance proceeding from the study of the post-depositional phenomena. The main variables were the anatomical profiles, fragmentation and natural taphonomic signatures both physical and chemical. With this approach I demonstrate that recent prehistoric negative structures were filled by a mix of natural and anthropic processes. The natural processes are slow and cause exposure and water stagnation marks on the bones surfaces. The anthropic fill is faster, in ditches could occur in a phased manner, and water circulation allowed the preservation of the faunal materials.
Keywords: Not available

Abstract: Not available

CRUZ, Ana Rosa Gomes Pinto da, *Recent Prehistory in the Lower Zêzere Valley: A Diachronic Look*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Manuel João Maio do Calado, 2010 (http://hdl.handle.net/10348/2182)

Keywords: Settlement; Ritual; Neolithic

Abstract: Several are the archaeological sites that support this work. Some of them were excavated dating back to the late twentieth century - the early years of this century, others were only intervened in 2008. They are considered as paradigm-sites for a relatively small part of the Lower Zêzere Valley, in broad chronological spectrum of human society’s behaviour, which extends from the Epipaleolithic until the Late Bronze Age. The various interpretative models which correspond to periods of transition are discussed with the aim of better understanding the internal and external dynamics, which were behind these societies located in a geographic area dominated by the River Tagus. The prehistoric environment of this small region partially located administratively in the councils of Constance and Abrantes, is still conducted in a wider area - the Alto Ribatejo. This framework entails some revision of pre-existing explanatory model and the introduction of a chronological table a little wider in a diachronic point of view. It discusses the process of neolithization at this territorial framework, from the evidence provided by field work and the presence and absence of certain items that may have been crucial in the adoption of a new way of life, with obvious impacts on social and ideological level. The aim of this work, which is dependent on paradigm-sites, is to draw up, in this area, a social, economic and ideological diachronic scheme of human societies.

CUNHA, Ana Carolina Rodrigues, *Archaeology and geosciences: diachronic analysis of raw material management in the prehistoric space of the region of Diamantina, Minas Gerais, Brazil*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Andrei Isnardis Horta and Artur Agostinho de Abreu e Sá, 2017 (http://hdl.handle.net/10348/8094)

Keywords: Prehistoric Archeology; Landscape; Archaeology; Geoarchaeology; Lithic Technology; Raw material management; Diamantina

Abstract: The present thesis focused on the study of the prehistoric populations that occupied the region of Diamantina, state of Minas Gerais, Brazil, in chronological horizons established as Old (Pleistocene / Lower Holocene) and Recent (Upper Holocene). Based on horizons of occupations separated by a minimum time gap of 6,000 years, this study proposed to analyze diachronically the management of the lithic material in three archeological sites of this region, regarding its interface with specific elements recognized in the area, in order to advance in the comprehension of the interaction of these diachronic populations with the landscape and their perceptions about raw materials, and to identify potential changes reflected in the lithic industries and their meanings. To this purpose, we use a theoretical-methodological framework derived from lithic technology studies, and from interdisciplinary processes that relate Archeology and some specialties of Geosciences in two of its main segments: Landscape Archeology and Geoarchaeology. Research findings of the diachronic analysis of the management of the main raw materials, hyaline quartz and quartzite, as well as of the other raw materials observed in the archaeological sites in interface with the landscape and the territories - understood from the characterization of the space – pointed out similar and dissimilar elements in the comparison of the horizons analyzed, which gave rise to interpretations of the management of the raw materials, of the operative chains and technological organization, and of the
function of the archaeological sites. In addition, the results allowed, opportunistically, to improve the understanding of potential elements in the landscape that could have contributed to the choice of the sites analyzed, as well as the possible predilection of the prehistoric occupations in the geological formation Galho do Miguel. Finally, in exploring the relationships between the archaeological sites, their lithic industries and the space in which they are located, we provided contributions to the knowledge on the populations that occupied the Old and Recent horizons in the region of Diamantina, and to the development of knowledge about the prehistory of Serra do Espinhaço.

CUNHA, Rui Manuel Maneira, *Industrial Archaeology: Overview of the Portuguese Milling Industry in the 20th Century and the Empreza de Moagem do Fundão, Ld.* PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by Rosa Varela Gomes and Maria Fernanda Rollo, 2013

**Keywords:** Not available

**Abstract:** Not available

CURA, Sara Raquel Mendes, *Lithic technology and human behavior in the Late Pleistocene of Alto Ribatejo: a study of the lithic industry of Ribeira da Ponte da Pedra*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Stefano Grimaldi and Luiz Oosterbeek, 2014 (http://hdl.handle.net/10348/3382)

**Keywords:** Not available

**Abstract:** The Ribeira da Ponte da Pedra is an archaeological site located in the Q3/T4 fluvial terrace in the middle Tagus of the Portuguese territory. Beyond the Final Middle Pleistocene occupations that we study in this thesis, it also contains remains of Middle and Upper Paleolithic. The Final Middle Pleistocene remains include lithic artifacts in 12 distinct lithological units, which represent four depositional morphologies: a bar (formed by reddish coarse sands and pebbles); a channel (filled with blocks and large pebbles, up to 35 cm in size, and reddish coarse sands and pebbles) that cuts through the bar; a floodplain of fine grain deposits (grey to yellow); and transversal channels (filled with reddish sands and pebbles up to 10 cm in size) with very erosive contact with the floodplain deposit. Naturally the nature of these deposits and the consequent secondary position of the artifacts created a difficulty for the technological analysis. Around 1500 lithic artifacts were recovered in these deposits that were analyzed from a technological perspective, as well as a morphological one, also using complementary experimentations and functional analysis. The study of the artifacts derived from the different lithological units revealed quite homogenic features, without significant differences amongst them, which allowed us to form the hypothetical reconstruction of the reduction sequences and their technical objectives. Therefore there are two reduction sequences: one orientated towards the retouch of pebbles to obtain small tools; the other consists in the knapping of pebbles to obtain flakes used with or without retouch (simultaneously some of these knapped pebbles are used as Choppers). This last reduction sequence has 3 variables: 2A encompasses the production of pebbles with one removal; 2B is composed by pebbles with 2, 3 or more removals (we consider the production of bifacial artifacts a rare variant of this sequence); 2C is represented by the exploitation of cores of different typologies, being the flake cores a rare variant of this sequence. The assemblage is dominated by the presence of cortical and half cortical flakes, among these there are numerous retouched flakes, some of them we considered as «informal» retouch. This is characterized by irregular edge modifications, sometimes discontinuous, variable in its position, alter and alternating, abrupt or semi abrupt and occasionally they delineate an active edge. These «informal» retouch are also visible in some worked pebbles. To better understand these features we engaged a series of experimentations and functional studies that, despite the need for further research, indicate that these «informal» retouch might be the
consequence of blanks used in various subsistence activities, namely the work of hard and semi hard materials, such as wood and bone. In fact, the functional studies done over a sample of some dozen flakes point out that different subsistence activities were engaged in Ribeira da Ponte da Pedra. The data obtained in the present study was framed within the known human occupations of the Middle Pleistocene of the Tagus valley in the Portuguese territory. To do so, we elaborated a «state of the art» about the main sites: Monte Famaco, Fonte da Moita, Galeria Pesada, Vale do Forno 1, 3 e 8 and Samouco. We understand that the site of Ribeira da Ponte da Pedra is articulated with these other sites, not necessarily in an absolute synchronic way, in the obtention of biotic and abiotic resources. In what concerns to the capture of biotic resources, we believe that Ribeira da Ponte da Pedra might have an articulation with the sites in the Almonda karstic complex, since it is located in a landscape environment – river plain with small hills – that allows the capture of species of animals that do not exist in higher altitudes. This complementarity would also comprise the gathering of lithic raw materials. We believe that Ribeira da Ponte da Pedra is located in an area where good quality raw material, both in texture and volumetry, was largely available for the production of tools on pebbles and on large to medium size flakes. It is for this reason that we advance the hypothesis of an articulation with the other mentioned sites of the Tagus valley, whose human communities, within their nomadic management of territorial resources, would obtain good raw materials in this area. For the moment the archaeological record does not allow the entire confirmation of these hypotheses, nevertheless, we are inclined to consider this as the path for future research, in order to form a perspective of the Tagus valley peopling in complementarity logic, integrating the several sites with remains of human occupation.

DIAS, Rita Dupont de Sousa, Subsistence and seasonality of the last Mesolithic hunter-gatherers. The Ichthyological remains of Cabeço da Amoreira (Muge, Portugal), PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Gonçalo Viana Pereira Ferreira Bicho and Cleia Detry, 2018 (http://hdl.handle.net/10400.1/10769)

Keywords: Ichthyological remains; Mesolithic; Seasonality; Subsistence

Abstract: The study of Subsistence patterns, occupation and mobility of Mesolithic human communities is a central theme in the context of evolution and changes in human behaviour and adaptation processes during the environmental alterations characteristic of the Holocene period. One of the phenomena associated to these alterations is the appearance of a particular kind of anthropic deposit known as shell midden, and characteristic of Mesolithic occupation in the Atlantic façade of the Iberian Peninsula. Nevertheless, the state of the art makes clear the importance of some questions concerning the territories’ Mesolithic occupation and exploitation models. Based on the in force theoretical models, the present investigation seeks to make a contribution to the discussion on the type of occupation at the Mesolithic shell middens, developing issues related with the interpretation of the site on what concerns function, intensity and seasonality of occupation. Bearing in mind the geographical reality of the Iberian Peninsula’s Atlantic façade, this investigation uses the Cabeço da Amoreira Shell midden as a case study, using an interdisciplinary analysis of the ichthyological remains from the different chrono-stratigraphic units. This investigation presents high-resolution data from fish remains recovered through the 2008-2014 excavations at Cabeço da Amoreira, through the systematic investigation of 5379 fish bone remains. The analysis refers to taxonomic diversity, squeletal distribution, taphonomic processes and the criteria that usually affects the identification of these type of remains. Simultaneously, a tentative reconstruction of the role of fish in subsistence e technological reality is made, through the theoretical framing of known fishing methods, susceptible of being used in the Mesolithic. The framing of these type of resources exploitation in a chronological context is made, indicating a systematic exploitation fairly older than the Pleistocene-Holocene transition. Ichthyology as a discipline e its’ evolution is framed as well as the evolution that would
lead to archaeological, particularly zooarchaeological, investigations of fish remains. Taking into account the abovementioned issues, this work aims to give a contribution to the discussion about occupation models (e.g. seasonality), type of occupation, subsistence strategies and exploitation of locally and regionally available species and, to confirm the existing models that propose a sedentary or semi-sedentary occupation, throughout the year and that does not exclude a relatively high individual mobility. Simultaneously, we seek to integrate the Cabeço da Amoreira shell midden on the Mesolithic geographical and paleoenvironmental setting, through the ichthyological remains. Beyond the taxonomic description of the remains from the several stratigraphic units, we also seek to present and discuss data from the sclerochronological analysis and δ18O stable isotopes, of 15 Meagre (Argyrosomus regius) otoliths from the last Mesolithic occupation of the Cabeço da Amoreira shell midden. In this way, we established a reproducible methodology for this type of materials from archaeological excavations. The analysed otoliths were sectioned and observed with a binocular microscope with reflected light allowing the observation of seasonally formed growth rings. The carbonate samples, collected on the several growth rings, with the help of a sampling instrument equipped with a diamond microdrill was analysed to obtain the values of δ18O stable isotopes, with the aim of determining a predominant season of capture and, seasonally frame the site’s occupation, paleoenvironmental setting and origin of resources (locally vs regionally), Potential diagenetic alterations were tested through μ-Raman and LA-ICPMS. Results have shown aragonite preservation and, therefore, no evidence of diagenetic processed able to alter the isotopic results leading to erroneous interpretations. In short, the results presented and discussed here reveal clear seasonal values and a seasonal estimation consistent with periods of higher temperature (Spring-Summer-beginning of Autumn) for the last Mesolithic occupation of Cabeço da Amoreira.

DIAS, Vítor Manuel da Silva, Common ware of the roman city of Ammaia, PhD in Archaeology submitted to the Institute for Advanced Studies and Research of the Universidade de Évora, supervised by Filipe Themudo Barata and Carlos Jorge Gonçalves Soares Fabião, 2014 (http://hdl.handle.net/10174/16490)

Keywords: Not available

Abstract: The title of the present dissertation “Common ware of the roman city of Ammaia” embodies and intents to synthetize the larger and broader areas of knowledge that include “common ceramics” and “archaeology” in general, as well as, “Roman archaeology”, in particular. The study comprehends the selection and analysis of a ceramic asset composed by pieces exhumed via excavation of the ruins of Ammaia, since 1995, specifically from the “South Gate”, “Baths”, “Parking I”, “Parking II” and “House of Deão” sectors, along with the pieces found at the city necropolis, and that compose the “António and Delmira Maçãs” collection (now deposited at the National Museum of Archaeology). The archiving and the examination of over than 1,300 pieces has allowed to identify the fundamental characteristics of the ceramic universe studied, also enabling the subsequent comparison of the vestiges with the ceramic realities of many other archaeological sites in Lusitania, Hispania, and in the Narbonense and Italian Peninsulas. The application of several archaeological methodologies has enabled to fulfill the objectives of the investigation and to postulate a representative morphological, functional and technological scenario of the ceramic universe of the city of Ammaia, also accompanied by the indication of the cultural value of the collection studied.

ÉVORA, Glória Marina Sousa de Almeida, The Upper Paleolithic bone industry in the south of the Iberian Peninsula: risk and uncertainty management, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Gonçalo Viana Pereira Bicho and Valentín Villaverde Bonilla, 2016 (http://hdl.handle.net/10400.1/8405)

Keywords: Bone tools; Upper Paleolithic; Hunter-gatherers; South of Iberian Peninsula; Risk and uncertainty
Abstract: This dissertation presents the results of the analysis of bone tools assemblages from four Upper Paleolithic archaeological sites, located in the south of the Iberian Peninsula. The technological analysis led to the identification of several fracturing, extraction and modification techniques made on mammal bone and antler, that were used as raw materials. It thus documented techniques such as the longitudinal double grooving and partition from the beginning of the Gravettian cultural phase, extending its use throughout the Upper Paleolithic. Several tools were produced, but the most used was the bone retoucher, an important element in some activities of daily life of these communities, as it relates to the work of bone and lithic materials. Analysis of these collections, in the light of theoretical concepts like risk and uncertainty, concluded that the existing bone industry in the studied sites, seems to be appropriate to the daily lives of hunter-gatherer groups who inhabited the south of the Iberian Peninsula during the Upper Paleolithic. The quantity and variety of bone tools seems to be influenced by cultural and ecological factors, and also from the management that hunter-gatherers performed on the resources that were available in this region.

FERREIRA, Ana Paula Ramos, *Heritage and Citizenship: from archaeological remains to pedagogical action*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by José d’Encarnação, 2014 (https://estudogeral.sib.uc.pt/handle/10316/23993)

Keywords: Not available

Abstract: The connection between citizenship heritage is fundamental to raise individual awareness to heritage. In this sense educators have an essential role in their action with children. That was the reason why the school field was chosen to make the approach of this theme. It is considered that what is at stake is not only acquiring knowledge, but also the education of the individual to become an active participant citizen in the life of the community. The responsibility of the History teacher is crucial in this matter. He has a determinant role in the building of the historical awareness of the future citizens: he can lead them to realize that they were part of History and they influence the role of events in the future. In this essay we tried, on one hand, to show the potential of Roman archeological heritage as a didactic instrument in History in the Basic Education (first nine years in the Portuguese school system), and, on the other hand, look at the Golden Age as an important cultural reference by using archeological evidence. Since the Past is not known in a direct way, but through analysis and interpretation of signs recurring to an objective methodology and to an accurate and coherent discourse, the direct contact of the student with the ruins or the relics allows him to rebuild that process himself. In achieving this objective and based on the ruins of Conimbriga and Rabaçal, several students’ books were analysed to verify the approach and suggestions regarding archeological heritage. The local press of Condeixa and Penela was also examined in order to ascertain the impact of the presence of archeological heritage in the local population. Given the challenges of the current globalization process, we tried to present on what Archeology is concerned, a contribute to qualitative changes in local communities and education, responding simultaneously to the imperatives of global integration and to the specific needs of those communities with a very own heritage, that allows them to build their own identity. Eventually, creating between Man and what surrounds him new relations that can be used as sources of education.

FERREIRA, Cristiana Duarte, *Environmental and human dynamics during the Holocene in the Tagus Valley*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Pierluigi Rosina, Francesc Burjachs and Luiz Oosterbeek, 2017 (http://hdl.handle.net/10348/7780)

Keywords: Pollen; Analysis; Vegetation; Evolution; Non-pollinic palynomorphs; Anthropic impact; Paleoenvironment
Abstract: This thesis objective is to contribute to the understanding of the transition to agro-pastoralist societies and posterior development of this economic system. Based on vegetation development records from the Tagus Valley we try to relate these changes with Holocene palaeoenvironmental dynamics. Palynology was the main analytical procedure aiming to acquire data on the vegetation composition in order to access which factors influenced its evolution during this period. Two cores from natural contexts located in the Lower Tagus Valley, specifically Vale de Cavalos (Chamusca) and Golegã in Portugal were studied to obtain data on palaeoenvironmental dynamics and human behaviour. We tried to identify climatic and anthropic factors that influenced the vegetation evolution. Palynological analyses in two archaeological contexts located in the Spanish Extremadura were also made: Cueva del Sapo (Monfragüe) and Cueva de Los Postes (Fuentes de León). These focused on the acquisition of information related to landscape composition and mainly subsistence activities developed by the prehistoric communities that occupied these areas. Pollen, non-pollen-palynomorphs, micro-charcoal and sedimentary charcoals analysis allowed us to gather information related to the vegetation evolution since ca. 10.200 cal BP until roman times, offering a frame in which climatic variations and deep human behavioural changes were evidenced throughout the Holocene. Vegetation dynamics and fire events reflect the influence of several dry and moist climatic oscillations manifested by forests expansion and decline. An initial relation between human behavioural changes and woodland decline was not verified. The various phases of diminishing or relative expansion of forest areas coincides with climatic variations and cycles described for the Holocene. Pollen and non-pollen-palynomorphs analysis allowed relating pastoral activities with Tagus Valley communities preceding the first direct indicators of agricultural practices. First evidences of agriculture were registered at ca. 7.000 ca BP by the presence of cereal in pollen spectra. Although relevant indicators of agriculture and pastoral practices are observable since the Mesolithic/Early Neolithic, vegetation record and fire events occurrence only indicate an anthropic impact in the landscape after 5.000 cal BP. The intensification of agro-pastoral practices is notorious during the Chalcolithic and Bronze Age.

FIGUEIREDO, Sofia Catarina Soares de, The schematic art of Northeastern Trás-os-Montes: contexts and languages, PhD in Archaeology: Landscape and Settlement Archaeology submitted to the Institute of Social Sciences of the Universidade do Minho, supervised by José Luiz Meireles Batista and António Martinho do Carmo Baptista, 2014 (http://hdl.handle.net/1822/29085)

Keywords: Not available

Abstract: The present work aims to systematically delineate recent pre-historic schematic art in northwestern Trás-os-Montes (which corresponds to the administrative district of Bragança). To achieve this, field work was carried out and methodologies were constructed which, above all else, attempted to analyze the universe of schematic art and its archaeological contexts. On one hand, both field-walking and excavation were undertaken to better understand the archaeology of the geographical area which, until now, has been understudied in Portuguese archaeology. On the other, a methodological model was constructed which tries to come close to an explanation of schematic art and its diverse meanings and purposes. The model itself is supported by different theoretical approaches subsequently applied to a statistical analyses grid, which seeks to show different correlations between the diverse variables defined for schematic art. By doing this we defined the consistent characteristics, as well as the irregularities, in the art. This study allowed the definition of two distinct groups within the twenty six sites analyzed, and for each of these groups an interpretation was sought, using as a base the main lines of discourse on prehistory used in Eastern Trás-os-Montes in the last decades. Group I corresponds to the Neolithic period, and is analyzed within the context of the neolithization of the region, in the relations it establishes with engraved motifs as well as burial contexts, and, finally, on the role of schematic art as a factor in social cohesion throughout this large chronological period. We also tried to make sense of Group II, which corresponds chronologically to the Chalcolithic. We supported the narrative in its relations to habitational context and its increase
in the representation of the human figure in various forms and on different supports. Finally, a group of sites in the Serra de Passos was analyzed as a paradigmatic example of schematic art in Trás-os-Montes over a long chronology.

FONTES, Luís Fernando de Oliveira, *Archaeology, Settlement and Construction of Mountainous Landscapes. The Lindoso Territory, in Serra Amarela*, PhD in Archaeology: Landscape and Settlement Archaeology submitted to the Institute of Social Sciences of the Universidade do Minho, supervised by Lino Augusto Tavares Dias and Maria da Conceição Falcão Ferreira, 2012 (http://hdl.handle.net/1822/20982)

**Keywords:** Not available

**Abstract:** As is shown in the title “Archaeology, Settlement and Construction of Mountainous Landscapes. The Lindoso Territory, in Serra Amarela”, this work is signed up within Landscape Archaeology area aiming the understanding of the long term landscape evolution of the Lindoso’s territory. We sought especially to identify the characteristics of the territorial structure and the changing and/or continuity processes, highlighting a multiscale analysis in a doubly synchronous and diachronic perspective. To achieve the polysemic expressions of the landscape we rehearse the interpretation of the interrelationships between human communities and the physical environment, seeking to identify the relative weight of cultural and natural factors. In addition we have also tried to develop methodologies for data collecting and analysing, in view of its validation as support for the study of cultural landscapes. To achieve these objectives were procedures were defined and specific methodological tools were adopted for the management of a wide range of data with a diverse origin demanding the practice of different techniques and procedures, from field survey to aerial photography and thematic maps analysis, as well archaeological excavation or consultation of historic archives. The interpretation of the data allowed us to rehearse a diachronic reading of the landscape and of the territorial structure changes, shown in maps of the human settlement identified in the main chronological periods: Pre and Proto-History, Roman and Late Antiquity, Middle Age and Modern/Contemporary Ages. As main results of this work can be highlighted the following: the importance of Landscape Archaeology for the study of cultural landscapes; the potential of the archaeological methodology in approaching landscape analysis, as they represent always a complex signals repository, only understandable as cultural expressions; the need to conserve and study the heritage resources looking the enhancement of cultural mountainous landscapes.

GARCÉS, Sara Liliana Magalhães Barbosa, *Cervidae: symbols and society in the early days of agriculture in the Tagus Valley*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Luiz Miguel Oosterbeek and Hipólito Collado Giraldo, 2017 (http://hdl.handle.net/10348/8305)

**Keywords:** Rock art; Tagus; Complex; Typology; Cervidae

**Abstract:** The present thesis aims to point out the Tagus Valley Rock Art Complex (CARVT) in a systematic and updated way. It has 12 Rock Art nucleuses along 120 km length between the Ocreza River mouth (downstream) and the Erges River valley (upstream). These nucleuses hold a set of 1636 engraved rocks with 6988 figures of several typologies that cover a timeline roughly from the Upper Palaeolithic to the Final Bronze Age. The work includes an approach of the story of the investigation of the CARVT, the context of the problematic and of the region, the analytical description of the rock engravings and the systematization of the subjects, with a specially analyze of the deer as the central figure of the CARVT. The study is guided by two main questions; a primary one: what can one understand about the occupation of the territory and the timeline of the Tagus Valley Rock Art Complex, and a methodological one: from a qualitative point of view, how different can a more exhausting study be towards other studies focused on places or rocks apparently more complex and
on mainly anthropological arguments or with resort to essentially supra regional context? The conclusions answer the two questions and are complemented by the bibliography and a catalogue of the studied places.

GOMES, Francisco João Bentes, *Cultural contacts and identity discourses in the I Iron Age (VIII-V BCE): Readings from funerary records*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Ana Margarida Costa Arruda dos Santos Gonçalves, 2016 (http://hdl.handle.net/10451/25042)

**Keywords**: Early Iron Age; Necropolis; Olival do Senhor dos Mártires (Alcácer do Sal); Identity; Archaeology of Death

**Abstract**: The Early Iron Age of Southern Portugal represents a moment of profound transformation. The installation of the Phoenician commercial and colonial interface and the restructuration of the regional socio-political networks it entailed constituted far-reaching historical phenomena which set in motion a process of territorial, political, social and cultural reconfiguration which gave rise, during the first half of the 1st millennium BCE, to very diversified realities, which reflect the multiple adaptation strategies of local communities in face of the new geopolitical framework. In recent years the development of the research has in fact resulted in the identification of a complex and multifarious mosaic of situations within the overall historical and chronological framework of the Early Iron Age, putting in evidence the necessity of explanatory models which take into account such a diversity of territorial, economic, political, social and even cultural solutions, by analysing the objective conditions and the sociocultural options which underlie their development. This work aims precisely to analyse that diversity by assessing a particular facet of the archaeological record – that which concerns funerary practices – which is considered to be particularly representative of the distinctive socio-political and identity strategies of the local communities during the Early Iron Age of Southern Portugal. The data from the necropolis of Olival do Senhor dos Mártires, in Alcácer do Sal, which is studied monographically here, is particularly emphasised, both due to its quality and volume and because it offers a good counterpoint for the remainder of the funerary ensembles analysed here. Such an analysis develops from the working hypothesis that the new global socio-political situation emerging from the arrival of the Phoenician merchants and colonists and from the profound restructuration of the regional socio-political networks in the end of the Bronze Age called for the construction of new identity discourses destined to situate and represent the role of each group within the new historical fabric, and that such a construction was actively operated by each community by combining “traditional” and exogenous, oriental, elements according to specific and differentiated logics. The assessment of the data from the funerary sphere seem, in fact, to allow for the restitution of differentiated socio-political and identity discourses, bringing to light the existence of a gradation of solutions in which local and exogenous elements are combined in very different ways, which in turn reflects the very position of each community within the overall historical process. With this fact in mind, and despite the many existing limitations, a preliminary analysis of the articulation of this continuum of cultural and identity solutions was attempted, in order to establish a first global sketch reference framework which allows in the future, and with a broader documental base, to address the question of the relationships between the different Early Iron Age communities of Southern Portugal, assessing the geometry of the socio-political networks in which they are inserted with all its balances and asymmetries.

GOMES, Hugo Filipe Teixeira, *Archaeometry of rock art pigments: mineralogical characterization and production techniques in the schematic art of the Western Iberian Peninsula*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Pierluigi Rosina and Luiz Oosterbeek, 2016 (http://hdl.handle.net/10348/5686)
Keywords: Rock art; Pigments; Archaeometry

Abstract: This thesis is the result of research carried out within the project Rupscience: Analysis of Operative Chains, Archaeometry and Rock Paintings chronology. This approach uses materials and technology primarily in Portugal and Spain (PTDC/HIS-ARQ/101299/2008) and is in conjunction with other projects such as the RupTejo: Archaeology Cave of the Tagus basin, and Pigment characterization in the Schematic Art in Portugal, in conjunction with the EraArqueologia company and other international collaborations, such as the team of EBO project, Mapping and Rock Art of the registration of Angola Midwest Zone (PTDC/HIS-ARQ/103187/2008); FUNDHAM in Brazil, and the Research and Conservation of Cultural Heritage (ARCCCH) of Ethiopia. These various research projects were developed in an interdisciplinary way, applying approaches to understanding the constituents associated with chemical-mineralogical-based prehistoric pigments. These were analyzed using archaeometric analysis techniques (particularly, the application of Raman spectroscopy, the x-rays microfluorescence, electron spectroscopy, stereomicroscopes and optical microscopy). In Portugal, a selected number of shelters where schematic rock art is located were analysed, in particular, the pigments. Sites included Pego da Rainha, the Lapa of Coelhos, the shelters Lapedo 1, Ribeiro das Casas and Segura, whilst in Spain sites included La Calderita and Friso del Terror. As part of a comparative analysis, the same methodology for extracting suitable pigment samples was applied to the Ndalambiri shelter in Angola, Roriso Gode in Ethiopia and two shelters in the Serra da Capivara in Brazil (Toca do Boqueirão da Pedra Furada and Toca do Paraguaio). Pigment assemblages have been examined with the aim of firstly characterizing the chemical-mineralogical composition and secondly, applied processes used in the preparation. Careful consideration has been also given to the choice and selection of materials used in the production of pigments. Based on the fieldwork, many panels from the various research areas were given conservation status. From the conservation fieldwork, scientists can now determine the rate of biodeterioration produced from, say, lichens and mosses. Based on long-term trials, conservation and archaeologist can now carefully treat rock art surfaces using non-invasive methods. Archaeometric analysis on prehistoric pigment samples have yielded significant results and have assisted in our understanding with methods and techniques were used and allowed the characterization of the main components of the paintings; however, it is not easy to discover the so-called "recipes"- proportions and possible binders used. The components identified through archaeometric analyses reveal homogeneity of raw materials used in the production of pigments, but recognized different techniques of preparation and application. The results establish that the raw materials used in reddish pigments in the Western Iberian Peninsula (representing the total sample figures in the sites analysed) were essentially comprised of iron oxides and hydroxides (hematite and goethite in particular). In other analysed contexts (shelters in Africa and Brazil), red pigments were directly associated with iron oxides (principally hematite), but also used were different materials which produced different colour pigments (white: beeswax, calcite and clays; black: charcoal). The use of different raw materials is attributed mainly to availability of certain raw materials. Based on laboratory work, were identified some preparation techniques such as crushing, and probable thermal heating; this latter technique could probably be applied due to the purpose of the inclusion of other substances (binders), although these have not been identified in the samples analysed in this set of sites. This thesis is therefore intended to establish the mineralogical characterization of south-western schematic art paintings of the Iberian Peninsula and to raise questions about the preparation, production and conservation of prehistoric pigments. Within rock art studies, these scientific approaches are considered relatively new and will provide some of the answers to many of the fundamental questions on why rock art was commissioned.

GOMES, Mário Augusto dos Santos Varela, The rock-art of the Tagus river. A Prehistoric and Protohistoric artistic and cultural cycle, PhD in History: Archaeology submitted to the School of Social Sciences and
Keywords: Portugal; Stone engravings; Chrono-stylistic evolution

Abstract: Forgotten for more than two thousand years in barren solitude in the deep middle valley of the longest river course in the central-western region of the Iberian Peninsula, the rock-art of the Tagus was discovered by accident in 1971. As if by irony, three years later it would disappear almost completely under the waters of the Fratel dam. The support for the engravings are the natural schist surfaces, polished by the erosion of the river waters throughout the millennia, which line the river for sixty kilometres between the tributary streams of Erges and Ocresa. They alternate between the two banks and are concentrated in places where the rock platforms are larger. Other rock engravings were also uncovered along some of the tributaries of the Tagus (the Erges, Sever and Ocresa). The Tagus rock-art complex has around ten thousand engravings, mostly made by direct or indirect pecking using lithic artefacts on the predominantly horizontal hard rock surfaces; sixty percent of the engravings have now been studied. They complete an artistic cycle that had begun in the Upper Palaeolithic (Gravettian-Solutrean) with rare figures and ended in the first millennium BC (Iron Age). The cycle contains six main Holocenic periods of achievement. Only one inscription from early Roman times and a few others - much more modern and mostly consisting of personal names - represent the production of engravings from historic times. The engraved images - pictograms, ideograms and psychograms - are isolated or grouped, but most are vertically or horizontally associated, sometimes forming intricate palimpsests. They express changes in the conception of life or in the dominant ideology, reflecting successive economic, social, technical and mainly religious patterns. The 0 or archaic period of Tagus art corresponds to the Upper Palaeolithic and integrates filiform lines and a pecked horse (Ocresa). In the second period, large wild animals, some of them with segmented bodies and elegant profiles in a sub-naturalistic style, belong to hunter-gatherer societies that would prolong into early post-glacial times an economic and figurative conception of Palaeolithic tradition. A process of growing stylisation informs animal figures with their long striped bodies, thus establishing the third artistic period which we call stylised-static. These still belong to the Epipalaeolithic, showing the continuation of an economy based on gathering and hunting wild animals. A new period (stylised-dynamic) reveals animals with smaller dimensions than the previous ones, with some of them demonstrating a flowing vitality and movement. In this period the first anthropomorphific figures appear. These are linked to clearly religious manifestestations, expressing mythographies and belonging to the Neolithic. In the second half of the fourth millennium BC and during the third millennium BC, a new cultural inflow reaches the Tagus Valley, introducing schematic art and new symbols such as the sun figures which are sometimes associated in pairs as if they were large eyes (meridional period). A symbolic wave of typically Atlantic inspiration spread widely over the Tagus Valley, already in the Bronze Age, reflecting the interest in the exploitation of non-ferrous metals (tin, gold, silver, copper) and their subsequent commerce (atlantic period). Large spirals, groups of enormous concentric circles, meandric figures and some representations of weapons are the main repertoire of this period in the schist chaos of the Tagus river banks. The last period shows us primarily circles, representing the Sun, but accompanying foot-prints (some of them of giants), weapons, snakes (sometimes of huge dimensions) and fantastic animals, all of which denounce the presence of societies with a strong heroic ideology, characteristic of Protohistoric times (Late Bronze Age, Early Iron Age). The end of this important cycle of peninsular rock-art and of the corresponding civilizational flourishing perhaps reflects a major cultural discontinuity provoked by the meeting of the old autochthonous Tagus river society with people of the Iron Age coming in from the outside, perhaps from the Southwestern Iberian Peninsula.

GOMES, Sérgio Alexandre da Rocha, Past, Identity, and Webs of Government: Studies on the Intertwining of the Production of Archaeological Knowledge and the Construction of Salazar's Portuguese National Identity, PhD in...
Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Susana Oliveira Jorge, 2012 (http://hdl.handle.net/10216/63187)

Keywords: Archaeological practice; Identity practice; Nation-State; National Identity; Estado Novo (New State)

Abstract: This dissertation is the result of a study of the relationship between the production of archaeological knowledge and the construction of the Portuguese National Identity during Estado Novo. It explores the dialogue between archaeological practice, dynamics of identity, and the projects of a Nation-State at a certain time. I consider this dialogue in terms of a network of significations that build a horizon of meaning in which it is naturalized as a particular idea of Past, Identity and Life’s Community. I demonstrate that in the naturalization of this horizon of meaning, there is an order of things that encourages an interpretation of the traces of the past as a process of decoding significations. A process that allows for the creation of meaningful traces, and that produces a chain between Past and Present. This enchainment is constructed under an ideology of inheritance, an idea that attaches the national community to a timeless identity. It is with this idea of timeless identity that political projects are legitimized, and they then go on to define future communities. Therefore, archaeological practice and identity practice become mechanisms supporting the projects of the government of the nation-state. Archaeology and Identity, through order and ‘natural state’, are established as the authorized form of knowledge and the unquestionable representation of Community. Archaeology and Identity seem, thus, to be part of a hegemonic vision that reduces things to a metric and to a range of gears that it is possible to use in the projects of the government behind the Nation-State. This metric of things seems to be beyond the Portuguese historical context that I have examined. Its all-encompassing nature means that the world, and its chains of reference, is lost in tautology. At the end of the dissertation, I look at the possibilities for archaeological practice to confront this metric and to exceed this horizon of meaning.

GONÇALVES, Célia Maria Alves, Predictive models of territory occupation in the Mesolithic between the Tagus and Sado valleys, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Gonçalo Viana Pereira Ferreira Bicho, 2014 (http://hdl.handle.net/10400.1/6715)

Keywords: Mesolithic; Central Portugal; Predictive models; Geographic Information Systems

Abstract: This dissertation presents the results of the elaboration of an Archaeological Predictive Model based on the analysis of a set of geographic and environmental variables that carachterize the location of the Mesolithic shell middens in the Tagus and Sado valley. The main goals of the study were, on one hand to establish establish criteria for differentiating the locational patterns of sites in both watersheds, and on the other to provide a set of numerical and cartographic predictive data that would allow to complement the current knowledge on the Mesolithic settlement system in central Portugal and could, simultaneously, serve as a starting point for future field survey. Thus, through a methodology that essentially followed a descriptive and univariate statistical approach that resulted in four predictive models built through the so-called binary addition method, the main contributions of this study are: (1) the existence of an effective differentiation between location patterns and choice of environs and landscape for the settlement of shell middens in the Tagus and Sado valleys. When confronted with the currently available archaeological data, that demonstrates distinct morpho-structural patterns in the composition of the sites that comprise each shellmidden complex, these patterns seem to confirm the existence of cultural differences between the two sets; (2) and, from a methodological standpoint, the corroboration of the viability of implementing this specific predictive approach to Mesolithic hunter-gatherer societies, taking into account the success indexes, either statistical or through preliminary field survey.
LAGE, Welington, *Between the embroidered rocks passes a river: a Gestalt look to carry out a reading of the past*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Maria da Conceição Lopes, 2018 (https://estudogeral.sib.uc.pt/handle/10316/80401)

**Keywords:** Engravings; Visual language; Conservation status; Phenomenology; Gestalt

**Abstract:** The present study aimed to evaluate and to report the rock engravings of the Poço da Bebidinha archaeological site, which is located at the Poti river canyon on the municipality of Buriti dos Montes in central-north region of the State of Piauí in Brazil. The Poço da Bebidinha site presents a large amount of figurative and non-figurative rock engravings so far unique in the region. These engravings show a regular and constant depth, which is a specific feature of the execution of indirect peck type technique, with more control and effectiveness in the work. The operational flow applied in this study began with a trial to determine the characterization of the environment in which the site is located, its colonial settlement and the ethno-historical populations in the state of Piauí, followed by a brief history of the municipality and the “Espírito Santo” farm. Also, it was taken an analysis of the main degradation agents found on the site. A systematic archaeological survey was carried out in 28 sets, 14 of which were selected due to its significancy. Data collected in-site during field work were analyzed in the laboratory, and a collection of photographs, records of analysis of the sets of engravings and the compositions individually was generated. For the engravings, a visual reading system was used, in accordance to Phenomenology methodologies based on the principles and features proposed by Gestalt Theory, which presents methodological insumes (Basic Principles) to proceed to the understanding of the images, in terms of analysis, interpretation and synthesis of the visual organization of form, that consists in: unity, segregation, unification, closure, continuity, closeness, resemblance and form Prägnanz. The principles explain why we concluded analysis as it is and not in another way. In the area where lytic material were found in the surface was prospected and drilled as an attempt to correlate them with the engravings. However, findings indicated an association of the engravings to contact and historical occupations more related to groups of farmers and potters. Overall, Phenomenology and Gestalt Theory supported the studies methodologically, aiming to present the feasibility of a new approach of evaluation the rock representations on the Poço da Bebidinha site.

LUÍS, Elsa Verónica Penas, Change and transformation. Chalcolithic, Early and Middle Bronze in Eastern Trás-os-Montes: Reflections from Ceramic Containers, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by João Carlos Senna Martinez, 2016 (http://hdl.handle.net/10451/25046)

**Keywords:** Chalcolithic; Early Bronze Age; Middle Bronze Age; Eastern Trás-os-Montes; Cultural change; Ceramic vessels

**Abstract:** The present work has, as its main goal, the analysis of the changes and transformations between Chalcolithic, Early Bronze Age and Middle Bronze Age societies in Eastern Trás-os-Montes, through the study of the ceramic vessels of each chronological period. It is assumed, for this aim, that the conservation and transformation of social structures have repercussions on the production of each society’s material culture. Secondly, a wide revision of the known archaeological sites of this region was made, digesting the archaeological works of each site and their potential for information, in order to build a viable sample to discuss the change processes between the considered chronological periods. This revision allowed for the verification of a wide difference on the amount of sites identified for the three chronological periods, consequence either of the archaeological investigation processes or, to some degree, by historical factors. The study of the ceramic materials from several archaeological sites of Eastern Trás-os-Montes allowed a characterization of the ceramic production processes for each chronological period, allowing a comparison through the same methodological premises. The ceramic production was thus characterized bearing in mind three main
criteria, technology, typology and decoration. Throughout the Chalcolithic period, pottery production remained stable, preserving the overall shape and decoration of the vessels to which some small alterations were progressively added, following a tradition that dates back to the Neolithic period. The Early Bronze Age is the period where we have the smallest amount of available information for this region, especially regarding its ceramic production. And for that reason, it was necessary to summarize the available data from the neighboring regions. The ceramic production of the Middle Bronze Age shows a rupture with previous traditions, bringing new decorations that indicate new social representation options. These are believed to be a conscious and active means of social affirmation, to act on the new relationship spheres between different regional areas.

MACHADO, Andreia Ribeiro Romão Veliça, Conservation of underwater archaeological organic materials, PhD in History submitted to the History, Arts and Humanities Department of the Universidade Autónoma de Lisboa, supervised by Adolfo Silveira Martins and Donny L. Hamilton, 2013 (http://hdl.handle.net/11144/270)

Keywords: Underwater archaeology; Organic materials; State of conservation; Methods of conservation

Abstract: The main proposal of the thesis “Conservation of Underwater Archaeological Organic Materials” is to present to archaeologists and archeology technicians, in an understandable way, the principles and procedures of the conservation of underwater archaeological organic materials, thus maximizing the efforts and results of the preservation of underwater cultural heritage. The aim to this study is, also, to define new interventional procedures concerning the conservation and restoration of underwater archaeological heritage and combine these with information and training. In this sense, after the characterization of the type of organic materials, commonly found in underwater archaeological sites, the identification of conservation status is followed. From this, the causes and their levels of degradation are recognized and understood. This step provides information and is also essential to ensure the future integrity of organic archaeological remains. From critical research-based methods and laboratory tests, specific methodologies are presented for the preservation of organic materials from underwater contexts, which can be implemented by the various technicians and experts in the field of underwater archeology and thus contribute to the safeguarding of heritage.

MARQUES, João António Ferreira, The rural settlement in the middle section of the Guadiana Valley between late Antiquity and the Middle Ages, PhD in Archaeology submitted to the Institute for Advanced Studies and Research of the Universidade de Évora, supervised by Jorge Manuel Pestana Forte de Oliveira and Susana Gómez Martinez, 2016 (http://hdl.handle.net/10174/18213)

Keywords: Guadiana river; Dam; Rural settlement; Archaeological sites; Continuity; Late antiquity; High middle ages

Abstract: By the end of the nineties in the 20th century, in Alentejo’s region, in the Valley of the river Guadiana, an important program for minimizing impact on the archaeological heritage resulted due to the Alqueva’s dam construction, in particular in the area of its extensive dam with the aim to make the prior registration of the contexts of some hundreds of sites. Interventions were carried out in a very significant set of archaeological occurrences located in rural environment, which revealed contexts out of the traditional archaeological research, in particular to the transitional period between the Late Antiquity and the High Middle Ages. The territory under study was so administratively bounded by current municipalities bordering Portuguese Alqueva dam, having, in addition to the archaeological data resulting from mitigation program, been collected archaeological information georeferenced of the places listed in Endovelico, Archaeological Information and Management System, as well as the constant in the reports and in the monographs of the works meanwhile
published. The main issue concerning this investigation about rural settlement is connected to the existing data and their huge diachronic. Facing a lack of written sources and other documentation it arises the need of looking into archaeological data which may allow the perception of its evolution. The theoretical approach model followed, supposes beforehand, that in spite of the conjuncture changes there was a cultural continuity of Mediterranean pattern with regional particularities in the settlement patterns since the Roman Period. That assumption is sustained in a hierarchical settlement structure, mainly expressed in villae, small farms or agricultural houses. This work seeks to understand how was processed, in this environment, the socio-economic transition and phenomena of acculturation, and highlight the existence of phenomena of continuity in material culture, even after the Islamic conquest, with persistence until the contemporary era, in particular to the industrialization and mechanization of agriculture.

MARQUES, Marta Sofia Alves de Miranda, *Litoral settlement between Cávado and Lima: from origins to Arabic invasions*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Carlos Alberto Brochado de Almeida, 2013 (http://hdl.handle.net/10216/97005)

**Keywords:** Not available

**Abstract:** Not available

MARQUES, Pedro Miguel Correia, *Epigraphy of Hispania in the epistolary correspondence between Emil Hübner and José Leite de Vasconcelos*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Amílcar Manuel Ribeiro Guerra, 2016 (http://hdl.handle.net/10451/25080)

**Keywords:** Emil Hübner; José Leite de Vasconcelos; Epistolary; History of Epigraphy; Latin Epigraph

**Abstract:** This doctoral dissertation aims to edit and analyze the epistolary between Emil Hübner and José Leite de Vasconcelos. The choice of the two personalities relates with the importance that they hold within the History of Epigraphy, as well as the quantity and quality of the letters, which until this moment remained virtually unpublished. The letters from Hübner are kept in the National Archaeological Museum. The letters from Leite de Vasconcelos are preserved in the Sociedade Martins Sarmento. We do not have all the letters. It seems that some letters were lost – seven from Hübner and eight from Leite de Vasconcelos –, others went astray – six from Hübner – and perhaps there were still others, of which we have no news, but in our analysis it was possible to reconstitute a collection of 131 letters, 65 sent by the German scholar and 66 addressed by the Lusitanian investigator. The correspondence began on April 21, 1888, with a letter of Hübner, and ended on December 18, 1900, with a letter of Leite de Vasconcelos, distributing throughout this period. We do not have letters from the year 1889. The letters were written in a variety of languages. The German scholar wrote mostly in French, but from 1893 also wrote in German and in the following year also began to write in Latin. The Lusitanian investigator favored his mother tongue, which Hübner understood, but did not dare to use. In the year 1893, Leite de Vasconcelos began to write letters in Latin, from 1898 also wrote in German and wrote part of a letter in French. In the study of the epistolary, we analyze its thematic scope, in which the Epigraphy stands out wide. The allusions focus in particular on Latin Epigraphy, but also cover the early christian Epigraphy, the Iberian inscriptions (Southwest writing) and Greek Epigraphy. This diversity is due naturally from the Hübner's commitment to developing the different epigraphic corpora and the concern for rigor on them. Leite de Vasconcelos take advantage of the contact to question Hübner with reading doubts and epigraphic analysis, learning from his correspondent. The thematic diversity attested other areas: Archaeology (encompassing Mosaicistic and Numismatics), Ancient History (covering the Ancient Geography),
Ethnology, Philology, Literature and even the theme of Religions (especially the Lusitania), so dear to Leite de Vasconcelos. Many of these references correspond to requests and bibliography exchanges, which are directly related to the needs of the Lusitanian investigator in acquiring scientific works and update bibliographically. Another important component concerns the travel of the two correspondents, in number highlighted that the Lusitanian investigator made. Leite de Vasconcelos traveled through Portugal in order to collect the materials for the Portuguese Ethnographic Museum and for his research. In his travels abroad, we see an interest in learning about the heritage, visiting museums and monuments, but also by contacting personally with scholars and learning from them. On one of these trips, in 1899, he traveled to Germany where he can deprive with Hübner. For that reason too, it is mentioned quite a few personalities in the epistolary, whose works are sometimes subject to scientific criticism from the correspondents. From 1893, there were new themes in the letters: the Portuguese Ethnographic Museum, named after Portuguese Ethnological Museum, and its journal O Arqueólogo Português, an important mean of scientific communication. As a corollary of the analysis of the contents and framework of these letters, we draw up a brief overview of the epigraphic studies over the eighteenth and nineteenth centuries. It appears the extraordinary weight of local correspondents, being decisive in carrying out the epigraphic works by the German scholar. Once we have dealt with a substantial body of epigraphs, primarily Latin, we thought it would be interesting, in addition to this work, studying the epigraphic set of the Roman period referred to in the letters, which we completed in Annex 1.

MARREIROS, João Manuel Figueiras, Organization and variability of the lytic industries during the Gravettian period in the Southwest of the Iberian Peninsula, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Gonçalo Viana Pereira Ferreira Bicho and Juan Francisco Gibaja Bao, 2013 (http://hdl.handle.net/10400.1/7740)

Keywords: Archaeology; Prehistory; Gravettian; Lithic Industries

Abstract: The origin and expansion of Gravettian industries in Eurasia is undoubtedly associated with the first evidences of technological and cultural regionalisms among Modern Human populations. During the last decades different lithic technological patterns and lithic weaponry variability have been associated with distinct chronological phases and ecological/regional territories, where such Gravettian polymorphism is recognized. Until recently this polymorphism was unseen from Southern Iberian Peninsula, and traditionally the expansion of Gravettian industries in Southwestern Iberian Peninsula ~32 ka calBP has been seen as a uniform process, characterized by minor regional differences and no diachronic technological changes. In the last decade, however, new research has increasingly shown that this idea is unlikely due to new lithic techno-typological data, and the Gravettian is seen as an important step for the regional Upper Paleolithic cultural tradition setting. This dissertation focuses on technological and functional variability of the lithic industries during the Gravettian in Southwestern Iberia, using case studies from Atlantic central and southern Portugal and South Mediterranean Spain. Results show new evidences of lithic technology and tool design variability are reflex of distinct regional facies from a diachronic and regional scale during the Gravettian in Southwestern Iberia. Associated with the origin and expansion of Gravettian industries in Southwestern Iberia, the onset of Heinrich event climatic crisis, had major impact on hunter-gatherer ecodynamics, reflected on demographic, subsistence strategies, technological and therefore cultural and stylistic variability and organization.

MARTINS, Andrea Cristina Rodrigues, Rock painting of central Portugal: symbolic anthropization of the landscape by the first agro-pastoral societies, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by António Faustino de Carvalho and Mauro Hernández Pérez, 2014 (http://hdl.handle.net/10400.1/6833)

Keywords: Schematic painting; Portugal; Rockshelters; Neolithic; Chalcolithic; Rock Art
Abstract: The main objective of this dissertation is an attempt at understanding the conceptual mechanisms which drove human groups to mark certain places by means of schematic rock art during Neolithic and Chalcolithic times. Several clusters of painted rockshelters from the central region of the Portuguese territory were studied: Abrigo do Ribeiro das Casas (Almeida), Abrigo de Segura (Idanha-a-Nova), Abrigos do Pego da Rainha (Mação), Abrigo do Lapedo (Leiria), Lapa dos Coelhos (Torres Novas), Lapa dos Louções (Arronches), Igreja dos Mouros (Arronches) and Abrigo Pinho Monteiro (Arronches). The analysis of formal characteristics and production techniques (including an archaeometric approach to pigments) enabled some considerations on the methodology followed when the paintings were produced. The study of each site’s location details resulted in the definition of four site location patterns which, along with the systematic description of motifs and their interconnection, allowed for a two-phase periodization of the paintings. The first phase is characterized by the iconography of the transition from foraging communities to early agro-pastoral groups. This iconography still features some aspects of Palaeolithic imagistic, besides large sized zoomorphs and anthropomorphs with formal characteristics, and should be considered a “pre-schematic art”. The consolidation of agro pastoral systems, along with sedentarization and socio-economic complexification, caused deep changes in landscape anthropization schemes and in the collective conceptual world, which originated depictions reduced to the most basic elements, i.e. totally schematic. A transmutation of motifs into ideograms occurs, initiating the second phase – the “ideographic schematic art”; its chronology ranges from Final Neolithic to Early Bronze Age. According to several scholars, the Iberian schematic art ought to be seen as a very heterogeneous process resulting from the dynamics of the communities that produced it. Therefore, it can only be analyzed on a broad regional scale. Thus, the referred periodization should be applied only to this dissertation’s geographical study area, for the time being.

MARTINS, Cristina Augusta Pombares da Silva, Ndalambiri and the rock art of Ebo, Kwanza Sul, Angola: time, space and people in a cultural landscape, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Luiz Oosterbeek, Hipólito Collado and Manuel Gutierrez, 2016 (http://hdl.handle.net/10348/5532)

Keywords: Angola; Ebo; Ndalambiri; Rock Art; Archaeology; Cultural landscape

Abstract: This thesis is the result of an archaeological research focused on the study of rock art from Ebo, in Kwanza Sul Province, Angola. The region of Ebo is, in landscape matters, dominated by granite inselbergs that disrupt from the peneplain, which is flanked by mountains. The communities from the region, despite a marked and progressive integration into the national system, still live largely according to traditional canons, personified in the chief (“Soba”) of each village. Archaeologically, the region comprises several shelters with rock paintings, tombs, lithic, ceramics and ancient paths, materials that testify the remote human presence in the region. The intersection of these three dimensions represents a unique Cultural Landscape. This study focuses on the Ndalambiri’s shelter, which presents rock paintings classified as a National Monument. This important shelter is related with the territory and, in particular, with the other painted shelters around. This is the first systematic study of the region. There were two fieldwork campaigns carried by us (2012 and 2013), from which it was possible to collect much of the data that based this work, including the recording of shelters with rock paintings, historical and anthropological framework of the region, its geomorphological characteristics and important issues about conservation and characterization of the paintings pigments. The methodology was adapted and selected in order to adjust to the intended objectives, but always taking into account the maximum preservation of the paintings, using non-invasive methods. It was organized the pictorial corpus of Ndalambiri’s site, which includes the tracing of all its rock paintings (more than 1000 painted figures), a capital resource for the country that has one of its national monuments cataloged and in position to be publicized, nationally and internationally (publications, conferences, exhibitions). The study contains a number of perspectives for future
research, particularly regarding the relevance of female rituals in the processing of certain panels, the specific functionality of the various shelters or cultural nature of Phase I (eventually attributed to hunter-gatherer communities). Four main phases were identified as a result of the chronological study of the paintings. The shelter of Ndalambiri, which appears to be a central place in the region, has only paintings of the phase II to phase IV, which clearly represents farming communities and, at least some from the phase III, metallurgists. This is consistent with the notion that defines the logic of a central position, which is more relevant in complex societies. We estimate that the work will allow, on one hand, further monographic research in the region and, on the other, to start a classification process as World Heritage Cultural Landscape, under the criteria I (creative genius) and criteria III (unique testimony of a cultural tradition).

MEDEIROS, Mércia Carréra de, Portuguese planning logic in Capitania de Pernambuco - 1535 to 1554, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Vítor Oliveira Jorge and Virgínia Maria Almôedo de Assis, 2011
(http://hdl.handle.net/10216/53900)

Keywords: Historical Archeology; Landscape Archeology; Planning Logic; Capitania de Pernambuco

Abstract: The challenge of this investigation was to identify organization and spatial distribution of the mills at colonization beginning, as part of an interconnected planning system, within appropriation space process in order to establish that there was not only a mercantile intention in implantation of the mills, but a purpose, a plan of territorial occupation. The study object was the Capitania de Pernambuco, in spatial window, and during Duarte Coelho Administration (1535 – 1555) as a temporal window. The theoretical approach to locate and delimit the topic being studied, took place from a Landscape Archaeology perspective, resorting others sciences such as geography, architecture and anthropology featuring and interdisciplinarity that extended the instrumental to the analysis of the collected information. Landscape Archaeology concepts provide a large potential base to understand past societies. The methodology comprised three steps: field research, with documentary basis, aiming to gather information (books, theses, dissertations, reports, periodical articles); iconographic and mapping research to select that documents that would be used; selected documents study and analysis for theoretical investigation basement; area studied photographic record. The mills had a very important paper in economy during the studied period and acted as an attraction for land occupation and settlement with town and villages foundation. Although all occurred transformation in researched area, it is possible to note that there still persists strong evidences from the genesis of this Capitania occupation, Duarte Coelho initial planning. For example, the port still has its specific function of world communication. Early mills area today is occupied by Recife city area, still being residential space. Even though no more housing the mills having its function as producing sugar, they did not loose their character as a auto-independent, as in the past, where the mills was completely independents from Olinda Village and Recife port. Of course political-administrative and social-economical situation undergone changes over time (more than four centuries) till present moment. However, the present space use, despite all society changes, continues to maintain strong identity with spatial occupation in the past. The study result, covering all researched sources (including printed texts, photos, maps, in loco research etc.) leads to a conclusive path to confirm the hypothesis that Duarte Coelho donee used a rational occupation form of the Capitania de Pernambuco space, using established system, port, plantation, sugar production (mills) and rivers for transportation. This way characterizing that there was a “Portuguese planning logic in Capitania de Pernambuco”.

MEDICI, Teresa, Glass from the Earth. Late medieval and early modern glass in Portugal (14th-17th centuries). The contribution of the archaeology, PhD in Archaeology submitted to the Faculty of Arts and Humanities
of the Universidade de Coimbra, supervised by Helena Catarino and António Pires de Matos, 2015 (https://estudogeral.sib.uc.pt/handle/10316/26739)

**Keywords**: Not available

**Abstract**: This thesis, entitled Glass from the Earth. Late medieval and early modern glass in Portugal (14th-17th centuries). The contribution of the archaeology, seeks to investigate the production, the use and the diffusion of late medieval and early modern glass objects, in Portugal, based on archaeological evidence. The study of several glass complexes coming from archaeological excavations carried out in various Portuguese locations (Tarouca, Coimbra, Lisbon, Setúbal, Beja and Tavira) made possible the construction of a typological classification of the glass finds dating from the 14th to the 17th century, closing a gap in the studies on Portuguese material culture. The typological study was integrated with other aspects related to the manufacture of the glass and the production of the objects. Chemical analysis, performed on a selection of pieces, allowed identifying the raw materials used. This typological classification permitted to trace the evolution of the use and circulation of glass objects in Portugal in the considered chronology. The data collected was discussed from different points of view, with the aim of investigating the origin of the objects, the chronological development of the types, and the pattern of employment of glass in Portugal. Some questions emerged from the need to determine whether the archaeological finds could help to disclose the Portuguese late medieval and early modern glass productions, whose existence had been affirmed by the written sources, but had not yet been proven by archaeology. Lacking archaeological data on furnaces working in the country before the 18th century, we tried to answer these questions linking together the information obtained from the stylistic approach and the results of the chemical analyses. Comparing the glass found in Portugal with other European glassware of the same chronology, it became evident the presence of objects whose stylistic and technological characteristics allowed us to identify as imported, mainly from Venice or from some façon de Venise production center. Others objects showed features clearly shared with the Spanish post-medieval glass production. Besides, we were able to isolate groups of objects that, due to their form and decoration and to the types of glass used, we can exclude as a result of any European production identified until today; we advanced the hypothesis that they derived from unknown workshops, perhaps located in Portugal. With the support of documentary and iconographic sources, it was also possible to ascertain to which extent glassware participated in the construction of everyday life, and which technological and stylistic currents are recognizable in the studied glass objects. Given this purpose, we proposed a chronological seriation of the shapes and the types identified. We can conclude that it is possible to recognize factors of continuity and innovation in the use of glass in Portugal between the 14th and the 17th century. In the first two centuries, the medieval forms predominate, showing strict analogies with the contemporary European glassware. During the 16th and the 17th century, the objects are characterized by a greater stylistic variability and an intensification of the import is evident. The identification of the origin of the glasses taken as imported confirmed that the dominant trade currents brought to Portugal mainly glass coming from Venice, or from other centers manufacturing façon de Venise glass, and from Spain. However, the arrival of imported goods has not prevented the development of a national production, using local raw materials and featuring specific shapes. This investigation brought forth a new reality, thus overcoming the existing notions about the Portuguese glass production based merely on written documents. New concepts emerged, underlying the importance of the glass in the late medieval and early modern Portuguese society.

MENDONÇA, Rosiane Limaverde Vilar, *Inclusive Social Archaeology. The Casa Grande Foundation and the Management of the Cultural Heritage of the Chapada do Araripe*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Maria da Conceição Lopes, 2015 (https://estudogeral.sib.uc.pt/handle/10316/28110)

**Keywords**: Inclusive social archaeology; Identity; Inheritance; Cultural Heritage
Abstract: This thesis presents the case study of the Fundação Casa Grande uses of systematic knowledge in archeology, in the design of practical solutions and ways forward to the practical problems of Nova Olinda community, the Araripe, Brazil. This community through their children, could legitimate the heritage of the archaeological heritage as guardians of local memory, building citizenship and dignifying their own lives. These revived inheritance, were recreated and relayed by the children themselves to build citizenship: Taking Stock, knowing, preserving, sharing and disseminating the old and new knowledge. With this experience, we could also infer that archeology should yes, provide and develop the scientific and social interests of knowledge production on cultural heritage in a small community, inserted in a macro archaeological context, as the Chapada do and the Northeast Brazil. In this delivery process of cultural heritage to contemporary archeology part a key potential development of a Social Archaeology Inclusive, based on concrete experience, but at the same time intangible identity reassurance.

MONTEIRO, Cláudio Inácio, Drying of archaeological woods: analysis of physical behavior and application of a binary drying model, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by José Luís Louzada and João Paulo Pereira de Freitas Coroado, 2015 (http://hdl.handle.net/10348/5218)

Keywords: Conservation; Drying wood; Underwater archeology; Degradation of wood; Conservation techniques; Physical-chemical wood; Binary drying; Kiln drying

Abstract: This dissertation aims to develop the study of the physical and chemical behavior of waterlogged archaeological woods during its drying process. The work was performed by testing different samples of wood from archaeological intervened sites (Ria de Aveiro, Aveiro Ria F, Museu da Levada and Troia I), with samples that we think that have the conditions for being analyzed to the expected end, being chosen objects with different characteristics of species, size and condition. The exchange moisture content of the samples varies between 98% and 684% comprising a range of levels of deterioration. The samples were divided into three groups of different environments and dried according to the parameters of temperature and relative humidity so as to allow monitoring of the process and related reactions, namely dimensional nature, resulting from the imposition of new hygrothermal conditions. Thus, the first group was air dried in a natural way and no treatment, the second group was oven dried climate system equipped with infrared drying in an experimental system which we call the binary drying and the third group was oven dried climate with a drying program, based on a gradual increase of temperature and high relative humidity. Special tests were also conducted in order to screen the behavior of lignin through a drying pressure differential of 1 bar. Finally a treatment has been tested in actual wood objects, combining consolidation with sucrose supplemented with a model of binary drying. This study allowed: Checking that lignin has a key role in the destruction of the wood during drying, since their degradation is related to the breakdown of the wood structure, clear, especially in the samples dried in the drying binary model; Drying binary performs better with respect to the anisotropic deformation of the woods; The binary drying proved to be a valid option either in conservation and drying of waterlogged archaeological wood well preserved, or when combined with a consolidants such as sucrose, presenting excellent results in this area. In this sense, the model torque drying proved to be effective in reducing the impacts of the stresses created during drying and may be implemented in the drying of wet archaeological remains, in dense and well preserved woods, without any consolidants of addiction, and to the currently the most sustainable and environmentally friendly method for treating these materials. With respect to the timber and with very high levels of humidity poorly preserved materials, the results have not fully conclusive. However, pointed out that can be combined with suitable consolidants as sucrose or, eventually, in the future with other compatible materials.
MONTEIRO, Patrícia Alexandra Diogo, *Economics of collecting wood for fuel from the last hunter-gatherers of Muge: an anthropological study of the Mesolithic shellmiddens of Cabeço da Amoreira and Cabeço da Arruda (Santarém, Portugal)*, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Gonçalo Viana Pereira Ferreira Bicho and Laura Caruso Fermé, 2018 ([http://hdl.handle.net/10400.1/10814](http://hdl.handle.net/10400.1/10814))

**Keywords**: Anthracology; Mesolithic; Shellmiddens; Portugal

**Abstract**: The climate changes during the transition to the Holocene had an important impact on landscape and available resources. It is during Mesolithic that we testify the cultural alterations in hunters-gatherers societies, reflecting a different adaptation to the environment. The management of wild resources of the last Mesolithic hunter-gatherers communities is a main topic to characterize the relationship between these societies and their environment. The goal of this thesis is to characterize the economy of Mesolithic communities of Cabeço da Amoreira and Cabeço da Arruda, based on the acquisition modalities of firewood. The anthracological study on archaeological charcoal, with taxonomic identification and taphonomic alterations, allowed the identification of species used as fuel (Pinus pinaster, Pinus pinea/pinaster, Pinus tp. sylvestris, Pinus sp., Quercus subg. Quercus, Quercus ilex/Q. cocifera, Quercus sp., cf. Salix, Arbutus unedo, Pistacia lentiscus, Erica arborea, Calluna vulgaris) and state of the wood. The results show that not all species available in Muge landscape were being exploited, and also that Pinus is the most representative species in almost every context, along with Quercus, and other minor taxa with low representation, showing also a preference for tree wood. Taphonomical alterations in wood were observed and attest the good state of the wood used as fuel. This study indicates the selection criteria for fuelwood is based on the species (Pinus), for its availability, easy acquisition, size and taxonomical characteristics.

NASCIMENTO, Tânia Tomázia do, *Technological aspects of the lithic complex of the Central Coast of Santa Catarina: Tapera and Base Aérea, a case study*, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Luiz Miguel Oosterbeek and Rossano Lopes Bastos, 2016 ([http://hdl.handle.net/10348/5897](http://hdl.handle.net/10348/5897))

**Keywords**: Archaeology; Lithic technology; Conchíferos camps; Island of Santa Catarina

**Abstract**: This doctoral thesis focuses on the study of the technological aspects of stone artifacts and is based on the analysis of archeological evidence from two “conchíferos” camps: Tapera and Base Aérea, located on the island of Santa Catarina, along Santa Catarina’s coast line, Brazil. To begin with the aspects related to a Holocene lithic set of artifacts belonging to sites dating around 1140 AP and 550 AP, associated with the second and third settlements who populated the Santa Catarina’s region, are examined. The Tapera and Base Aérea sites were excavated by Father João Alfredo Rohr between 1958 and 1966, and the remains analyzed here are under the auspices of the Father João Alfredo Rohr” S.J’s Museum of the man of the Sambaqui (Museum Homem do Sambaqui) in the “Catarinense” College, Santa Catarina’s Island. As pottery fragments were the main source of evidence, the Tapera site was associated with Taquara - Itararé and Guarani traditions, while the site Base Aérea, for which pottery fragments were also used as a reference, was associated with the Taquara – Itararé tradition. The selection of these archaeological sites was based on the representativeness of the Tapera site as one characterized as “conchífero” camp, as well as its vast sampling of lithic artifacts, and its possible link to the Base Aérea site, whose territorial proximity and material correlation, a priori, could generate a rich comparative analysis. In total 3557 lithic artifacts in the archaeological site Tapera and 303 in the archaeological site Base Aérea were examined. The conceptual tool used to evaluate the analysis of the lithic set was that of “chaîne opératoire”, especially when considering macroscopic analysis approaches.
NEVES, César Augusto Portugal Sousa Castanheira, *The middle Neolithic of Western Iberia: the site of Moita do Ourives (Benavente, Portugal) within the framework of human settlements from the 5th and 4th millennium BC*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Mariana Teodózia de Lemos Castelo Branco Diniz, 2018 (http://hdl.handle.net/10451/33908)

**Keywords**: Middle Neolithic; Moita do Ourives; Human settlement; Material Culture

**Abstract**: The main goal of this thesis is to define a poorly constrained phase of Western Iberia’s Prehistory: the Middle Neolithic. Chronologically, this study is bounded from the end of the Early Neolithic until the end of the Middle Neolithic, that is, from the beginning of the second half of the 5th millennium until the third quarter of the 4th millennium cal BC. Taking into account the empirical data available and the detailed study of Middle Neolithic occupations at the site of Moita do Ourives (Benavente), this study aims to characterize the spaces of habitat associated with this chrono-cultural period, incorporating them in the larger dynamics of the Neolithisation process in the center and south of today’s Portuguese territory. Simultaneously, it seeks to detect changes and/or continuities between this phase and the behavior of earlier Neolithic groups, in terms of their society, material culture, economy, settlement strategies and symbolic behavior. In contrast with the dynamics of the first stages of the Neolithisation process – where cultural identities are well established –, the Middle Neolithic in Western Iberia seems to be characterized by an enlarged “social coherence”. This is shown by the uniformity of domestic and grave goods material culture, which is the same throughout an enlarged territory. The Middle Neolithic human groups explore distinct geomorphological contexts and ecosystems within settlements based on strong circulation dynamics, adapting their agro-pastoralist and hunting-gathering subsistence strategies to the functional typology of distinct domestic spaces that are typically of short duration.

NUNES, Maria Margarida Ataíde, *Death in Lisbon in Middle Age. Archaeological contribution (12th-15th centuries)*, PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by Rosa Varela Gomes, 2010 (http://hdl.handle.net/10362/5561)

**Keywords**: Archaeology; Death; Middle Age

**Abstract**: With the present work it was intended, through the analysis of the archaeological excavations made inside Lisbon’s perimeter in the last few years, to build a theoretical study about the graveyard spaces distribution, the rites typology, the bodies’ position and the featuring archaeological findings in Middle Age. For such a research, it was made a comparative analysis of the archaeological interventions results also performed in the territories of Sintra and Odivelas, allowing the making of a regional approach and also the eventual differentiation between the burials in a rural and urban environment. Such analysis allowed a synthesis work, using the data obtained from the archaeological findings, which it’s thought that might contribute for the knowledge about Death in Lisbon in Middle Age. To do so, the excavations data of the work already made in Lisbon, Sintra and Odivelas territories was verified, with the documents remaining in the National Archives, in order to understand the evolution of the information from the burial stones. It was also used as a resource the cooperation of an expert in such matters to identify the possible death causes in the cases in which it was possible. Finally, one tried to establish a correspondence between the burial typologies, its social integration, as well as the evolution of the information from the burial stones with other cases at a European level.

OLIVEIRA, Cristina Fernandes de, *Roman Mosaics of Portugal: the Eastern Algarve*, PhD in History: Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by José d’Encarnação, 2010 (https://estudogeral.sib.uc.pt/handle/10316/14291)
**Keywords:** Not available

**Abstract:** The thesis presented is the result of the broader work that the Portuguese-French Mission “Mosaicos do Sul de Portugal” (Mosaics of Southern Portugal) has developed in Portugal in order to publish a vast and well-known heritage, not only of the general public, but also of the scientific public, in particular. Following up on the two volumes of the Corpus of Roman Mosaics of Portugal edited so far, this Mission has devoted the last five years to the study of mosaics in Algarve - Eastern zone, the present study is the result of the researches we have developed under this project. Known, in their majority, since the 19th century, these mosaics have never been the object of an in-depth study, although often referred to since then in various publications on the Roman Algarve. Our study integrates two of the largest villae in the region - Cerro da Vila (Vilamoura) and Milreu (Estói - Faro), as well as other less well-known sites, such as the villa of Amendol. Also included are all fragments of mosaics in this region, now dispersed throughout several Portuguese museums (National Archaeology Museum, Municipal Museum of Faro, Municipal Museum of Figueira da Foz, Municipal Museum of Loulé and Museum of Albufeira), making a catalog of 78 numbers. The methodology follows the line already implemented in CMRP II: exhaustion in the collection of existing documentation, design of each tessera to 1/1 scale, photographic dossier, detailed description of all floors, palette of colors. With the respective archaeological and architectural framework, all the mosaics of Eastern Algarve are presented, highlighting not only the influences but also their original character, in a peripheral area of the Roman Empire. The stylistic discussion, taking into account the architectural and archaeological evidences available for each of the cases, allows the debate around the chronology of these pavements. Due to the greater focus on mosaics of a geometric character, the mosaics with the theme of the marine fauna of Milreu and the mosaic of the Ocean of Ossonoba (Faro) are approached very briefly with respect to the iconographic aspects, reserving themselves for the second edition of CMRP II its in-depth study. Although the information available on mosaic structures is limited in most cases, it is considered appropriate to analyze the relationship between the functionality of a particular compartment and the mosaic that covers it, representing an innovative approach in the study of mosaics. Also the discussion of technical aspects of the construction of the floor are justified because they mirror the construction dynamics of the building, bringing important contributions, not only to the understanding of architectural interventions carried out, when analyzing the supports, for example, as well as the definition of quality of the mosaic production, when analyzing chromatic aspects or the dimensions of the tessera. In the light of the available data on Roman occupation in the Algarve, the study of these mosaics contributed to the clarification of several aspects of the characterization of the populations that occupied this region of Lusitania, during a period between the 1st and the 5th centuries.

OSÓRIO, Ana Bica Dias, *Gestures and Materials: An Interdisciplinary Approach on Ceramics with Bruised Decorations of the Late Bronze Age/I Iron Age*, PhD in History: Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Raquel Maria da Rosa Vilaça and Maria Teresa Freire Vieira, 2014 ([https://estudogeral.sib.uc.pt/handle/10316/23778](https://estudogeral.sib.uc.pt/handle/10316/23778))

**Keywords:** Pattern-burnished pottery; Late Bronze Age/Early Iron Age; Chaine opératoire; Typology; Archaeometry; Experimental archaeology

**Abstract:** Pattern-burnished pottery has been found in the southwest of the Iberian Peninsula, in archaeological contexts of the Late Bronze Age (LBA) / Early Iron Age (EIA). Although it was previously considered a “chronological marker” of the LBA, studies have shown that it appears through a wider chronology than previously thought and it is clearly present in the EIA. Similar handmade vessels also show up, though very residually, in contexts of the II Iron Age (6th century BC). Another variant, wheel thrown, has been related to hybridization phenomena resulting from Phoenician relations. Decorating by burnishing is a technique older than the Late Bronze Age. One of its technical variants, the lightly grooved burnished variant, has been known since the Chalcolithic, when it is associated to channelled pottery. In the Portuguese territory, at least during the LBA,
grooved burnishing and stroke burnishing variants coexist, although different regions show preference to one or to the other technique. The interpretation of this group of LBA/EIA pottery, particularly of the highly decorated stroke burnished variant, has been linked to the development of social inequalities and attributed either to the “elites” or to “special” and ritualistic contexts or purposes. It has also been argued that, alongside other pottery categories, it may represent part of the material culture that characterized the communities of the mythical kingdom of Tartessos. The following text discusses the significance of the category “pattern-burnished pottery” through an interdisciplinary approach. This approach was put together in order to understand its technical and morphological aspects, mainly evaluated through the methodological concept of chaine opératoire of production. Therefore, both human and material constraints that may be implied in pottery production as a whole at that time have to be considered. This feature and the wide territorial distribution of this pottery require the combination of broader and narrower focuses. The text comprises an analysis and synthesis of previously published examples from the Portuguese territory, followed by the proposal of their stylistic distinction. However, the material analysis of the “chaînes opératoires” focuses on seven case studies from Portuguese and Spanish regions: Moreirinha (Idanha-a-Nova, Castelo Branco), Castelo de Arraíolos (Arraiolos, Évora), Los Conejiles (Lobón, Badajoz); Castillo de Alange (Alange, Badajoz), Castro de Ratinhos (Moura, Beja), Outeiro do Circo (Mombelba, Beja) and Cidade das Rosas 4 (Serpa, Beja). Considering the study of pottery examples of the seven case studies, the methodology comprises a combination of macroscopic and archaeometric analysis. The archaeometric approach is based on mineralogical and textural analysis of pottery fabrics, combining thin section analysis by optical microscopy with powder X-ray diffraction (XRD). In addition to those analyses, a study of soils collected at the vicinity of some sites was also conducted. This study consisted in XRD analysis of oriented powders and, in fewer cases, complemented by high-temperature XRD and termogravimetry/differential scanning calorimetry (TG/DSC) analysis. The production processes inferred from archaeological, macroscopic and archaeometric studies where then correlated to ethnographic information and tested experimentally in particular aspects. The outcome of the combined approaches results in the proposal of production models (chaînes opératoires) for the seven sites and their comparison. Another important aspect is the discussion and methodological proposal of some archaeological elements that can be registered and evaluated in this type of studies. Finally the text concludes with an evaluation of the category “pattern-burnished pottery” and with its interpretation in the context of LBA/EIA communities in the Iberian Peninsula.

PEREIRA, Carlos Samuel Pires, The Roman necropolis of Algarve: About the death spaces in the extreme south of Lusitania, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Ana Margarida Arruda, 2014, (http://hdl.handle.net/10451/11460)

Keywords: Algarve; Roman Necropolises; Christianity; Paganism; Funerary Rituals

Abstract: The Roman necropolises from Algarve have remained for too long without a monographic study that would simultaneously compile and analyse them. Therefore, the volume of information available until now was large, compelling to the choice of certain topics over others. Such choices aimed to present a preliminary discussion of certain topics which proved essential to the conclusions obtained in this study. Thus, the space limitation forced the elimination of some basic issues, such as the introduction to the geographical area of Algarve or a study on the history of the research of Roman necropolises in Portugal, topics which, in any case, would provide nothing new to the conclusions of this work. Despite the selectivity that was imposed, we sought to present all the information available on each of the known Roman necropolises in Algarve, analysing the funerary goods, when existent, and digesting all the data in order to get a reading as clear as possible. Nevertheless, not all funerary spaces allowed that, either because they correspond to some old interventions of which the information was lost, or because only some oral indications are known. Despite the great difficulties that we encountered, some sites, either recent or old, allowed to obtain
important data on various topics. What excited us the most was to realise that it is possible to obtain data about the introduction of Christianity in this territory, or more correctly, about its fixation. Surely, as you will note in the proposals put forward, its introduction must be earlier, suggested by subtle funerary remains. However, as we managed to answer some questions that troubled the experts, new doubts and other issues emerged which call upon the continuity of this project.

PEREIRA, Telmo Jorge Ramos, The exploration of quartzite in the peninsular Atlantic strip at the end of Upper Paleolithic, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Gonçalo Viana Pereira Ferreira Bicho and Francisco José Nunes da Silva e Almeida, 2010 (http://hdl.handle.net/10400.1/1741)

Keywords: Lithic technology; Raw materials; Quartzite; Iberian Atlantic Strip; Upper Paleolithic; Abiotic ethology

Abstract: The purpose of this dissertation was to understand how quartzite was managed during the Upper Paleolithic in the Atlantic Iberia, especially in its Southwestern sector. Estremadura, Alentejo and Algarve were the regions considered. Lithic sets were studied by attribute analyzes and Refitting. Results were compared not only with existing models for the exploitation of this raw materials, but also with previous ones related to the behavior of hunter-gather communities in the time and the territory concerned. It was concluded that, given the physical characteristics of the Iberian Peninsula and the demographic pressure from Neanderthal populations occupying the Southwest, the new comers groups of Anatomically Modern Humans had the need to change their technological tradition from an essentially flint-based one to other based on local raw materials. This change was possible given the extensive knowledge that these people had from the surrounding territory. The success of this abiotic ethology allowed it to remain until the Iron age. In this context, quartzite was a key pillar, with unique strategies of exploitation, including that for its transport on the landscape. Its physical characteristics did not, however, conditioned these patterns since there was a significant chronological variation not only when compared with previous periods, but also between the pre, pleni and post-Last Glacial Maximum.

PEREIRA, Vítor Manuel Fernandes, The Roman Site of Póvoa do Milen (Guarda) - Archaeological Settlements, Structures and Materials of a Little Ciuitas Located at the Western Borders of the Roman Empire, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Vasco Gil da Cruz Soares Mantas, 2014

Keywords: Not available

Abstract: Not available

PINTO, Dulcineia Cândida Bernardo, The Crasto de Palheiros in the Iron Age. Contribution of the application of a new methodology in the study of ceramics, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Raquel Maria da Rosa Vilaça and Maria de Jesus Sanches, 2012 (https://estudogeral.sib.uc.pt/handle/10316/19994)

Keywords: Not available

Abstract: This thesis presents the results of applying a new methodology in the study of sets of ceramic occupations of the Bronze Age and Iron Age in Crasto de Palheiros (Murça, North of Portugal) between the 10/9th century BC and the 2nd century AD. In chronological terms, Crasto de Palheiros was occupied throughout the 3rd and beginning of the 2nd millennium BC, therefore in the regional Chalcolithic. It has occupations of the Late Bronze Age – between the 10/9th century and the 6/5th century BC. They continue through the Iron Age and end in the 2nd century AD,
which coincides with the end of the site as a village. There are no evidences of later occupations. The Crasto appears as an archaeological site of great scientific importance for understanding the Protohistoric (and prehistoric) communities of that region of Trás-os-Montes. It is the only Iron Age settlement systematically studied in the whole province, and one of the most extensively excavated, and now studied, in the North of Portugal. Our work focused primarily on the site itself, on the documents (graphic records and archaeological materials) collected in the excavation, having been sought the characterization of the communities that inhabited the site. The methodology has focused on understanding the formation of the site as "archaeological deposit", held by the characterization of complex / archaeological strata in conjunction with the full description of each ceramic sets and sets present in several residential areas. The ultimate goal would be to understand the dynamic between the site and the communities that built him, by its occupational characteristics - occupied topographical areas, its organization and reorganization over time and the ways of handling materials in their manufacture, use and disposal. We believe that this characterization, which is presented here as innovative in methods and goals, allowed to understand the "modes of habitability" created by the Iron Age communities in this place, as well as some of their collective behavior that betray a peculiar type of seizure and integration of the site in historical and cosmogonic narratives. We studied a ceramic set composed of approximately 35,000 fragments from about two hundred strata (complex), spread over 6 residential areas. The characterization of the ceramics sets did not rest solely upon the technical and cultural integrations. It sought to understand the conservation status of the strata through the conservation of "their" ceramic sets, in order to characterize the Crasto as an archaeological site in the processes of its formation, survival and death. This way of reading allowed us to question the ways of collecting and preparing the documentation of an archaeological site of this nature, leading to a reflection on the interpretative possibilities and limits of this approach. Such detailed characterization of ceramic sets allowed us to observe a remarkable continuity in the traditions of manufacture which, on the site, takes place from Pre-history (Chalcolithic and Late Bronze Age) to the end of the Iron Age. This finding acquires a very specific meaning, in need of an explanation, as it is an extended time period of about three millennia. In fact, the use of similar ceramic pastes during this long chronological period indicates a continuity of habits / traditions, also extensible, in a sense, to the decoration of containers. Indeed, the vast majority of ceramic containers of Iron Age settlements exhibit decorations with an imagery already present in the prehistoric period or one that develops from pre-history. The formal characterization of ceramic containers also allowed us to understand a degree of continuity, especially in the period between the Late Bronze - 10/9th century to 6/5th century BC -, and the Iron Age - 6/5th century BC to 2nd century AD. We also noted discontinuities and innovations in the technical and social spheres, although on a smaller scale, having yet to understand the relationship between tradition and innovation, which requires other studies at the regional level that may articulate different scales and different "objects" of study. On the other hand, the characterization of complex / archaeological strata with regard to "their" ceramic sets allowed us to observe actions of intentional manipulation of Chalcolithic ceramic fragments by the Bronze Age and Iron Age communities, other causes of taphonomic or depositional disturbance being ruled out. This manipulation focuses preferentially on edge and decorated fragments, the ones statistically more represented in Iron Age contexts. This behavioral aspect of a past that is manipulated through objects and fragments of objects, and that has been systematically observed in pre-historic communities, make us believe that in fact the Iron Age communities are still conceptually linked to Prehistory, representing perhaps the "end" of prehistory. Thus, the Iron Age communities are the culmination of a way of life developed regionally throughout the recent Pre-history, including social and genealogical conceptions, only to have changed radically, with no turning back, by the Roman presence. The Roman presence in Crasto is only understood by few archaeological material, although chronologically it is commonly accepted that the regional Romanization, visible in mining, would have begun at the turn of the Age. Characterization of Iron Age communities in Trás-os-Montes cannot be made solely based on the excavation and study of one village. We need to understand other contemporary villages through excavation, but to look as well for the socioeconomic and political characteristics of other indigenous communities, in the regional
occupations between the middle of the 2nd millennium and all 1st millennium BC. Only then can we develop a whole interpretative framework that seeks the characterization of the communities in this historical period, integrating the knowledge already acquired about Crasto de Palheiros.

POLONI, Rita Juliana Soares, Archaeological Expeditions in the Overseas Territories: A View of Portuguese Science and Society in the Colonial Period, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by Nuno Ferreira Bicho, 2012 (http://hdl.handle.net/10400.1/3468)

Keywords: Archaeology; Theory; Methods; Colonialism; Dictatorship; Overseas

Abstract: This work aim to understand the trajectory of Archaeological production of Anthropological Mission carried out in Mozambique, Guinea, Angola, and Timor, between the 30 and 60, whose collection is now contained in the Institute of Tropical Scientific Investigation, in order to analyze the relationship between archaeological praxis and society, culture and ideologies that characterize the period in which these works evolved. First seek to contextualize the theoretical and political universe of anthropology and archeology from the late nineteenth century and first half of the twentieth century as a way of perceiving the relationship between the scientific universe that circumscribes the Anthropological Missions and nationalist and colonialist ideas prevailing in the period. Then seek to reconstruct the legal universe of the Missions, the academic career of their responsible and the archaeological production performed in the field work and in some publications resulting from this research as a way to understand how archeology is developed in this context. Finally try to define the place of this scientific field in this project through the investigation of the scientific, political, personal and logistics contexts, who were fundamental in this process. Thus, one can deconstruct the networks of the production of this science in order to understand its complexity.

REDENTOR, Armando José Mariano, The epigraphic culture in Conventvs Bracaravgvstanvs (pars occidentalis): routes by the Bracara society of the Roman period, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by José d'Encarnação, 2011 (https://estudogeral.sib.uc.pt/handle/10316/19989)

Keywords: Not available

Abstract: The dawn of Roman occupation of the Iberian northwest brought up the emergence of epigraphic habits, as a new practice of cultural communication introduced by the imperial administration and its agents. The local peoples rapidly adopted this trend, which was disseminated through its social elites. Epigraphy, as a form of communication, focused mostly on both the individual and the communal celebrations and self-representations. The material remains of this practice, as seen on the engraved surfaces with writings of various purposes, are today a privileged source to face the challenges posed by the study of societies of Classical Antiquity, despite the fact that epigraphic messages provide only a fragmentary picture. These are the main concerns of this research, which focus on southern Callaecia. The starting point is the review of the epigraphic data originating from the western Bracarens. One has attempted to clarify its nature, chronology and representativeness, and therefore merged on the markers of the society that prospered here during Roman rule, the territory, the settlements and the roads they were connected by. The study of personal names permits the understanding of both the social and juridical organization of the population spectrum, which is referred to in epigraphic evidence. Here one can envisage not only the well-established division between Roman citizens and peregrini (these latter in former times to the constitutio Antoniniana), but also between slaves and freedmen, of both private and public sphere. One draws upon mechanisms of mobility, both social and juridical, and the tendencies or preferences reflected by choices on the names of individuals, including the gender strategies, within an anthroponomical span, which is wide and bearing varied linguistic origins. Social elites have
dominant role within the epigraphic culture, due to their natural inclinations and their wealth. Those from the local indigenous populations mingle with those who originate from outside the western conuentus, such as private individuals driven by diverse interests, military, or officials from Roman administration. The latter imposed a local government based on the ciuitas, often associated with the individual naming. We also attempt limited approaches to the economical structure of the territory, through the documents that bear information on natural resources, namely gold exploitation, as well as urban dynamics and harbour settings, or a cluster of craftsmanship references in epigraphy, often completing the identification of the individuals, in funerary or in worship circumstances. Religion, while a socially intrinsic phenomenon, has a relevant role within the studied documents. Therefore, one attempts a description of religious practices associated to indigenous names, some of which are known solely in this context, and also to the gods of the Graeco-Roman pantheon, as well as the sacred Mysteries, on a smaller scale. Here, one pays particular attention to the political cult centred on emperors and their dynasties, which had a significant expression at Bracara Augusta, in Augustan times. In this head of conuentus, imperial rites will persist in subsequent centuries, as one can infer from epigraphic practices, and the existence of a organized priesthood incorporating individuals from autochthonous elites which, there were cases, raised to positions in this capital of province. While complemented by literary sources and the archaeological record, Roman inscriptions build a path towards Classical Antiquity, searching for the actors of this wide scenario of the western conuentus Bracaraugustanus.

REIS, Maria Pilar Miguel dos, De Lusitaniae urbium balneis: Study about the thermal baths and bathhouses in the cities of Lusitania, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Maria da Conceição Lopes, 2015 (https://estudogeral.sib.uc.pt/handle/10316/27119)

Keywords: Thermal baths; Bathhouses; Roman Lusitania; Cities; Aqueduct

Abstract: Roman culture monuments by excellence, the public baths were rather a symbol of culture than a building. First, there is the construction issue: thermal baths were technologically complex buildings that have evolved both in project and in structure, as a result of the acquired knowledge, that has been experienced in this field. The new construction techniques resulting from this process, granted the architects the freedom to enlarge the covered areas without central pillars and to search for ingenious ways to heat the vast spaces. Second: the buildings increased, and so did the urban communities' search for these types of equipment, turning them into essential spaces in daily life. The most privileged social classes built private thermal baths and bathhouses, exhibiting those as external signs of prosperity (a prosperity that could be real or just a demonstration of it). Third: thermal baths became goods with a political importance, as they allowed a wide range public patronage that was always welcomed by the people. These buildings, empirically only dedicated to personal hygiene, became meeting places and led to the collective transformation of Roman society. This will eventually allow us to understand the quick appropriation of this type of building by the local communities. In the late first century b. C., the thermal baths were mandatory in new urban projects for the new colonies and future urban centres. During the Flavian period, these projects were already associated with the monumental centres and adapted to the reality of each province. In the cities of Lusitania, we can find abundant traces of thermal baths and bathhouses, as they were present in every city. Augusta Emerita, the capital of the province, with almost 50 examples, is a paradigmatic case. In Mirobiga, there are two public buildings, which the good state of conservation, allowed a detailed revisit. Évora hided a magnificent thermal bath - we have disassembled the history of that part of the town and rebuilt a section of the public building. Olisipo was a different challenge, as we tried to show what had been seen some days after the earthquake, and what we know nowadays. However, Conimbriga was, by excellence, our main object of study. Inspired by the study of this city, we have decide for the contextualized analysis of each Lusitania building. We have carried out a study and an analysis of the urban planning of each one of the cities in Lusitania where thermal baths and
bathhouses were documented. In this equation, we could not forget the importance of water, and we had to understand how, in each building, the water was conducted to the baths and pools. This was one of the motivations for the restoration of the Conimbriga aqueduct and the water supply and drainage system of this city. This thesis gathers the route through these cities of Lusitania, two of them now in Spanish territory.


**Keywords:** Not available

**Abstract:** The purpose of this work is to characterize the roman architecture of Bracara Augusta, from a detailed and diachronical analysis of construction materials and constructive techniques that have been used. Therefore it’s not an architectural study based on morphologic and functional criterions, but a valuation of public and private architecture having for base the use of raw materials and materials (stone, clay, wood, cements) and technologies applied in the execution of constructions vertical and horizontal elements (walls, colonnade, floors, coverings…) Actually, excavations carried out in Braga, since 1976, had supplied a significant amount of vestiges liable to allow city architecture characterization and, simultaneously, to verify the used materials particularities and constructive techniques that had legalized solutions to clear up certain problems, like, unlevellings, terraces, or coverings in vault. Bracara Augusta was a roman city where construction was essencialy realized in granite, and, until today any vestige of opus caementicium was found, even in imposing public buildings construction, as the baths or the theater. This fact justifies the opportunity of this research, since that it will emphasize construction specificity in this important city of north-west Iberian Peninsula. Thus, we made a detailed study of the public buildings already discovered, that we consider more relevant, as the baths and the theater, as well as of all private buildings susceptible to supply useful information in relation to roman edilice. Water supply and sanitation structures, heating baths systems and other equipment, had been, also, considered in this work. Raw materials study was completed with a characterization of the granite types used in construction, in a diachronical perspective, which had been compared with the main granite massifs allowing to identify the probable areas of roman quarrying.

RODRIGUES, Ana Filipa de Castro, *The Ponte da Azambuja 2 (Portel, Évora) Archaeological Site and the Emergence of Ditched Enclosures in Late Fourth Millennium BC*, PhD in Archaeology submitted to the Faculty of Human and Social Sciences of the Universidade do Algarve, supervised by António Manuel Faustino de Carvalho, 2015 ([http://hdl.handle.net/10400.1/7613](http://hdl.handle.net/10400.1/7613))

**Keywords:** Late Neolithic; Ditched Enclosures; SW Iberia; Territorial Organization

**Abstract:** From the late 1990’s onwards, studies on the Late Prehistory of present-day Portugal went through a “true empirical revolution” (Valera, 2008: 112), which concerns ditched enclosures as well. Furthermore, an archaeological discovery boom, along with the issues raised by such sites, turned the whole subject of ditched enclosures into a specific study unit, dated from between the late fourth and the third millennium BC. “Which reasons took societies from late fourth millennium BC to build ditched enclosures in Southwest Iberia?” was the starting question of this dissertation. Building up a coherent answer to that question involved a previous enquiry and the analysis of empirical data gathered at Ponte da Azambuja 2 (Portel, Évora) archaeological site. After a review of the literature, the dissertation focused on that particular archaeological site, including: characterization of settlement location features; description of archaeological works and interpretive reading of stratigraphy and identified structures; material culture analysis, from a perspective that encompasses both the
typological scope of artefacts and their manufacture technology; discussion of site formation processes and of social inferences resulting thereof; paleoenvironmental reconstruction and assessment of subsistence strategies, to outline the social groups’ background. A comparison with ten other coeval enclosures resulted in the conclusion that the emergence of this new paradigm of appropriation of space might be related to issues of social aggregation, spurred by a demographic growth (deduced from funerary megalithism), which necessarily requires more efficient and effective production methods. Paleoclimatic conditions associated to population movements that were taking place since previous periods originated a new model of territorial organization, regulating a society that was more complex than is commonly assumed.

RODRIGUES, Marian Helen da Silva Gomes, Collaborative archaeology in the treatment of heritage assets for the cultural sustainability of communities in Brazil: theory and case studies, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Erika Marion Robrahn-Gonzalez and Luiz Miguel Oosterbeek, 2016 (http://hdl.handle.net/10348/6013)

Keywords: Heritage; Collaborative Archaeology; Communities; Cultural sustainability; Brazil

Abstract: Brazil bears numerous and diversified materials pertaining both to tangible and intangible heritage. The study and interpretation of those materials allow us to understand human occupational patterns both coming from prehistorical and historical contexts. The involvement of the communities living within the studied areas is as important as the study of such materials. This action is performed through synergic and integrated solutions to be aligned with the cultural preservation, fruition and sustainability. Based on that, in the last two decades, archaeology acquired a new understanding leading to the incorporation of the perspectives of the living communities within research. Therefore, Collaborative Archaeology arose from the post-processual thinking, being integrated within the main purposes of Public Archaeology. Some applications of this new discipline have been realized involving those communities. We rose the question if this heritage was always treated to promote the cultural sustainability of the communities bearing the knowledge connected with this heritage and/or living within the studied areas through a process of social integrated participation. Bearing this question in mind, this thesis has as a main objective the analysis and the utilization of tangible and intangible heritage in the application of the cultural sustainability in Brazil, through conceptual observations and our personal experiences related to research programs involving different Brazilian contexts. Moreover, this work deals with issues related to legislation, ethic, management and application of the Educational Heritage. One specific chapter of this thesis is dedicated to the definition of cultural sustainability, collecting experiences developed in different countries. After that, three different case studies from Brazil, but coming from diverse patrimonial and environmental contexts, are presented: the Archaeological Program of the electric power plant Teles Pires in the Amazon region; The AES Tietê SP Archaeological Program focusing on valorization and preservation of heritage in 11 hydroelectric enterprises in the south-eastern region of Brazil, involving São Paulo and Minas Gerais states; and the projects of the Olho D’Água Institute, placed in the north-eastern region of Brazil, specifically in the Serra da Capivara (Piauí). Those projects comprise different activities, yet only those involving the local communities are included in this thesis and results in response to specific and local demand are presented.

RONCORONI, Francesca, Winding blade knives from the second Iron Age in the Alpine and Trans-Padan regions: rock art and material culture, typology, diffusion, cultural meanings, PhD in Quaternary, Materials and Cultures submitted to the School of Life and Environmental Sciences of the Universidade de Trás-os-Montes e Alto Douro, supervised by Davide Francesco Delfino and Raffaele C. de Marinis, 2015 (http://hdl.handle.net/10348/4952)

Keywords: Rock Art
Abstract: In the present research, a series of knives belonging to the morphological-functional family of sinuous or meandering knives has been analyzed from the typological point of view. These are iron knives, with a sheath made of composite material (iron and wood), known in literature as Introbio or Lovere type knives and characteristic of the late Iron Age in Northern Italy, with particular reference to the Alpine and peri-alpine areas. Some specimens, cited by various scholars as pertinent or similar to these two types, have also been taken into consideration (knives of Peschiera del Garda, Sanzeno and Ortisei), although they already showed substantial differences at a first glance. Through the bibliographic examination all the useful findings have been identified (26), including knives with their scabbard, isolated knives or sheaths, intact or fragmentary. There are two miniature knives used as pendants and one is a funerary altar from the 1st century BC, depicting a Lovere type knife. We then proceed to their direct examination and production of graphic and photographic documentation in all cases in which it was possible. Only for the two knives of the necropolis of Santa Maria di Zevio (VR) there were logistical problems, which prevented their vision. The finds are located in distant places of conservation, in Martigny and Zurich in Switzerland, in Milan (MI), in Val Camonica and in Val Sabbia (BS), in Trento (TN), in Ortisei (BZ) in Italy and at Innsbruck in Austria. We also tried to trace two knives, those of Fontanella di Casalromano (MN) and that of Peschiera del Garda (BS), known for a long time only by documentary means. Unfortunately, contacts with various museums, both Italian and foreign, have not produced any results. For each of them a RA (archaeological find) sheet has been created containing the description and all the elements useful for identifying the find. The use of archive sources and chemical (XRF) and physical (X-ray) analyzes have also allowed us to understand unclear aspects of the findings and have allowed us to delineate, in our opinion, the elements that are fundamental for a typological identification. The study of the contexts of origin, associations and critical analysis of previous publications have finally clarified the areas and the chronology of diffusion. The comparative analyzes of the findings pertinent to the two types have also shown the actual derivation of the Lovere type from the Introbio, beyond simple intuitions or hypothesis proposed in the past. Ample space was also given to the analysis of the rock art of Val Camonica, where the same types of knives are represented, mainly the Introbio type, sporadically the Lovere, but also other older ones. The lack of covering of the handles of the archaeological finds, originally in organic material, has led us to concentrate on the engravings in order to be able to define these aspects too. Data was then collected, once again first by means of bibliographic scrutiny and direct reporting by colleagues working on site. Subsequently, the documentation, through surveys and photographs, was created in all accessible places and for which study permission was obtained. The corpus of the engravings is therefore made up of 82 figures, organized in 81 IR (rock engraving) cards, designed in the same way as the RA cards, but adapted to the type of evidence. The engravings are widespread in the Valcamonica media in fourteen sites, and on a total of 22 rocky surfaces, emerging from the ground or on the wall, and 2 small fragments preserved at the Town Hall of Piancogno. Some rocks have not been observed in person, because they are in private property, they were covered after their study due to conservative problems (Berzo Demo - Loa), or they are being studied by other colleagues. From the analysis of the engravings it was possible to highlight the zoomorphic aspect of the grips and the tips of the sheaths, a fact which allowed, taking in consideration also the cultural context, and the associations between knives and other figures, to proceed to a series of reflections on their meaning and use. Finally, hypotheses have been proposed on the motivations that, beyond taste and fashion, may have determined the transition from one type to another, and, on the possible models of typological derivation. In addition to the derivation of the Paleovenetian models, from which the majority of the chronological knives of northern Italy are descended (including those from Rhaetian and probably from Lepontii origin), it has been hypothesized a dependency relationship also from Italic kopides, which on the basis of some clues are known in the Euganean environment at least from the VI-V century BC.

SAMPAIO, Hugo Teotónio de Pinho Aluai Gonçalves, The Bronze Age in the River Ave’s basin (Northwest of Portugal), PhD in Archaeology: Landscape and Settlement Archaeology submitted to the Institute
of Social Sciences of the Universidade do Minho, supervised by Ana M. S. Bettencourt, 2014 (http://hdl.handle.net/1822/35559)

**Keywords:** Bronze Age; Portuguese northwest; River Ave’s basin; Settlement; Funerary contexts and practices; Metallurgy and deposits; Natural places; Landscape punctuated by a network of interrelated significant places

**Abstract:** This thesis aims to increase the knowledge about the Bronze Age of the river Ave’s basin, in the Portuguese Northwest. Through the data’s synchronic and diachronic articulation with its physical and cultural contexts, and using new theoretical approaches, that chronological period was studied in a holistic manner. This seeks to interpret the way how communities were structured in the environment where they were immersed or incorporated, and how they interacted with it. Emphasizing the data’s contextualization, namely the different places constructed and used by the Bronze Age populations, this study was carried out according to three main topics: settlement, funerary contexts and practices and metallurgy and metallic depositions. It also were interpreted certain “natural places”, whose archaeological materialities denounce large frequency diachronies, revealing its importance to space’s structuration and perception for the Bronze Age societies. In regard to settlement there is no data to the Early Bronze Age. The Middle Bronze Age shows a multivariate space occupation. The most common are sheltered sites, in lower altitudes, with easy accesses to eventual agricultural valleys and natural circulation corridors. Some of this sites are sparing occupations, although other show larger dimensions, probably corresponding to long lasting dwellings. In mountainous regions the settlements occupy well irrigated plateaus, near water courses easily accessed. The top of mountains occupation is rare. During the Late Bronze Age the varied occupation continued, but the settlement in higher altitude becomes more usual. These places have good visual contact over the surrounding nearest shepherding zones, the fertile soils in the valleys and the main circulation pathways from the valley or the ridge, strategic intersection points between different rivers or basins. Although the valleys’ occupation favored the circulation, the high altitude settlement materialized the real and symbolic domination over the territory, where different influences acted. Note that some of these settlements occupied Neo-Chalcolithic symbolic mounts, activated from previous times by rock art engravings. This probably was important to the choice of those loci. With respect to settlement’s logic we also believe that some settlements were intentionally located in sites with good visibility to some kind of hills, probably with collective significance. As a hole, the multiple options may show distinct significances and assignments, in the scope of a network of places and meanings interconnected by complementary relations. Concerning to the funerary contexts and practices there is no data to the Late Bronze Age. During the Early Bronze Age the metallic objects are common in graves, some of which showing great constructive investment. These structures, connected with the valley, allow us to thing that extremely important characters to the communities existed, which would be remembered and celebrated. During this period in the mountainous areas some monuments under tumuli are larger than the subsequent, presumably indicating that the social role of death still remained visible, so as the ancestors’ memory preservation. In the Middle Bronze Age the different types of funerary architectures are connected with higher altitudes and valley, and may correspond to populations with distinct lifestyles and conceptions of death. To the mountainous communities death is a way to mark the space, where still remains the ancestors’ worship. In the valleys proliferates an invisible death and the loss of the body as spatial collective reference. There are varieties on the corpse’s treatment, showing uses of inhumation and cremation in urn or in situ. The offerings are simpler and restricted to some kind of ceramic pots. Sometimes there are no offerings at all and metallic objects are absent, probably channeled to other scenarios. More often, funerary practices were implemented in laminar or passage places, between the valley and the top of the mountains or near the ridges, between the sky and the earth, which we think that has to do with the manner how death was seen, probably percept and conceived as a passage moment between two stages. In relation to some funerary structures, like flat graves, we observe hypothetic links with the water courses and the solar or lunar cycles, as associating death to a cycle or a journey. There are also places where mortuary practices and other actions converged.
Although difficult to interpret, they denounce large cyclical frequencies, at least since between the Early and Late Bronze Age. Revealing uncommon biographies and probably working as memorial places of great collective significance, the associations with the ancestors and their cyclical celebration, either by burials or by some kind of depositions, seems to be practiced. Irrefutable evidences of metallurgy are also known in the Ave’s basin, as the presence of objects associated with the production show. However, the scarce objects found in the production sites, in the so called settlements, points out to their manipulation in other contexts. The significant quantity of those objects, discovered either alone or in deposition sets, show high links with some “natural” features (such as mounts, valleys and water basins, beyond their usual connection with outcrops, water sources and the subsoil). These facts, often registered, cannot be seen as random, since some cultural and normative patterns are noticed. In this scenario some structurating elements on the Bronze Age’s landscape stand out, such as Mount Saia (Barcelos) and Mount Penha (Guimarães). Their exceptionality is manifested by the cyclical frequency exhibited, as one can see by the anomalous concentration of different metallic materialities in the first case, and ceramic and metallic in the latter. Those materialities corroborate the unique and wide diachony of both places which by the mean of various manifestations, from the Middle Bronze Age but specially during the Late Bronze Age, was reinforced by the amortization of metallic objects. To understand Mount Saia and Mount Penha as simple sites for Bronze Age settlements is quite reducer, besides the lack of confirmation that exists. By the contrary, both were part of the Bronze Age network of places where people lived, acted and moved, materializing a landscape crowded with different senses, meanings and memories. However, let us stress that during the Bronze Age there are other orographies that show some significance, like Mount Sino, Mount S. Romão or Mount S. Miguel-o-Anjo, where metallic objects were also recovered. The same can be said in relation to the valleys of rivers Este and Abelheira, good circulation corridors where the deposition of monotypological sets of tools took place under the subsoil. As a working hypothesis, the amortization of these sets could be the result of communal celebration acts to concretize pacts or agreements established between members of different communities, which benefit from the same confluence points of passage known, very likely, since ancient times.

SANTOS, André Tomás Pinto da Silva e Conceição, *The paleolithic open air rock art of the Douro basin on the right bank of the Tagus: An overview*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Maria de Jesus Sanches, 2017 ([http://hdl.handle.net/10216/109327](http://hdl.handle.net/10216/109327))

**Keywords**: Open air rock art; Upper Palaeolithic; Iberian Meseta; Portuguese Beiras; Portuguese Trás-os-Montes e Alto Douro

**Abstract**: The main focus of this thesis concerns the Palaeolithic rock art of the Côa valley and of its territory of raw material procurement, drawing on the hypothesis that rock art reflects the ideology of the communities that created and experienced it. Although we think that it is impossible to define this ideology, we believe that is feasible to identify the type of prevailing ontology (sensu Descola) that underscores it. We show, through a historiographical approach, that Upper Palaeolithic cave art is but one side of a more varied phenomenon where natural light is highly relevant. The study of open-air rock art is therefore highly important in order to better understand European Palaeolithic art as a whole. The definition of the diachronic range and synchronies of a rock art sample is of crucial importance and must be established before any deeper analysis is undertaken. We accomplished that by applying correspondence analysis and cluster analysis to our sample. The result of that work was the identification of four classes of motifs with possible chronological significance, as it was revealed by the study of the rock art stratigraphy of the panels and by a geoarchaeological approach of the sites. The dating of these classes was made by the concurrence of geoarchaeological, archaeological and stylistic arguments. Four phases of artistic production were identified, ranging from Gravettian to Azilian. In the three older phases, we identified, through statistical procedures,
the existence of regularities in the tendencies of association between motifs and in the way information is spread in the landscape. These regularities are compatible with a totemic type of ontology. We hypothesised that some of the bigger sites of the Côa valley have functioned in this context as aggregation sites of people of different social affiliations. The transition from a totemic type of ontology to the animistic type reflected in the Mesolithic rock art, was likely due to the changes in the hunting strategies forced by the climatic improvement started in the Late Glacial and finished, after the short break of the Late Dryas, during the Holocene.

SANTOS, Claristella Alves dos, *The Prehistoric Archaeological Heritage of the Agreste de Pernambuco: Frontiers of Valorization*, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Vitor Manuel de Oliveira Jorge and Tânia Andrade Lima, 2011

**Keywords:** Not available

**Abstract:** Not available

SANTOS, Patrícia Bargão Teixeira dos, *The Castro de Segóvia: Monographic study of an archaeological site in Alto Alentejo*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Ana Margarida Arruda, 2017 ([http://hdl.handle.net/10451/28721](http://hdl.handle.net/10451/28721))

**Keywords:** Archaeology; Iron Age; Roman occupation; Alentejo

**Abstract:** The dissertation that is now being presented is a monographic study of the Castro de Segóvia, archaeological site located in the Elvas Municipality - Portugal, identified in the 70th decade of the XX century by Teresa Gamito and José Arnaud. The research work done has its origin in the typologic analysis of all the archaeological materials recovered within different excavation works, done in the decades of the 70th and the 80th of the 20th century and more recently, by myself in 2009. The study and systematic treatment of the materials allowed to straitened chronologies and phases of occupation, as well as to propose new interpretative readings of the space. This study was made over a large pottery ensemble, with roman importations such as amphorae, thin walled pottery, campanian ware, Terra sugillata and roman oil lamps, as well as local or regional productions of common ware, grey ware and a large number of decorated vessels. Therefore, this thesis aims to better identify and understand the cultural matrices and influences trough the diachrony of the occupation existing in the study area and in the neighbor territories, identifying changes and continuities which featured this border region of Alto Alentejo, in the last centuries of the first millennium a.C.

SEBASTIAN, Luís Carlos Pereira, *The production of faience in Portuguese workshops (15th-18th century)*, PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by Rosa Varela Gomes, 2010 ([http://hdl.handle.net/10362/5562](http://hdl.handle.net/10362/5562))

**Keywords:** Portuguese faience; Potters workshop; Techniques; 15th-18th century

**Abstract:** Given the growing number of archaeological interventions on national territory with exhumation of large quantities of Portuguese faience, especially those which have taken place since the eighties decade of the XX century, the knowledge about these materials, acquired throughout the end of the 19th century and the first half of the 20th century, is mainly based on the analysis of museological collections. This knowledge has been surpassed by exceptional evidence, which is in complete contradiction with what the archaeological vestiges have come to reveal as being dominant characteristics of Portuguese faience. With uncertainties which have never been satisfactorily
resolved, we have determined the exact moment in which the production of the faience happened on Portuguese territory, and have identified the pottery centres responsible for that production. In this way, we hope to directly contribute to the discernment of the origins of several productions and, indirectly, to establish future typological charts which specify shapes and decoration distributed by production centre, allowing influences and chronologies to be determined. Therefore, what is proposed is the identification of production centres and their manufacturing techniques through the study of the documentation available, and the many archaeological findings, and exhumation carried out in the last three decades, based mainly on unpublished works, and a comparative analysis with the last ethnographic parallels? From this approach, the beginning of stanniferous enamel ceramic in Portugal, is shown to have occurred at the beginning of the 16th century, where a phase of strong innovation, brought about by the immigration of Flemish potters to the city of Lisbon sometime in the same century, followed. From here, the movement spread to potteries in Coimbra and led to the development of a new pottery centre in Vila Nova.

SILVA, Leandro Surya Carvalho de Oliveira, Research on an Information and Communication Technology Environment for Brazilian Archaeology, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Vítor Oliveira Jorge and Edson Carvalho, 2011 (http://hdl.handle.net/10216/53899)

Keywords: Brazilian archaeology; Knowledge Management; Methods and techniques; Archaeology and Computing; ICT; Excavation

Abstract: The objective of this study was to investigate a computing environment, based on the principles of Knowledge Management and on Information and Communication Technologies facing site activities in archaeology, objectively the excavation. For this we sought to understand knowledge genesis, from an excavation, mapping essential points of archaeologist cognitive process, when structuring his research, to choose his hypothesis and make a contrast with direct field intervention results. Understanding this process, it is possible to segregate the elements that better fits for the development of computer information system. This way, archaeological methods and techniques used in the field, in Brazilian pre-historical research were reviewed and modeled as written diagrams using the Business Process Management Notation. This modeling permitted to understand involved process in an archeological research and consequent requirement analysis. Both, modeling and requirement analysis are fundamental steps for software developing methodology. One of obtained results was excavation archaeological process transformation, expressed in a natural language, for BPM notation, that has precision and adequate structure for a computational treatment of these processes.

SILVA, Ricardo Jorge Costeira da, The National Museum Machado de Castro - an essay on urban archaelogy in Coimbra: from the Augustan forum to the episcopal palace of Afonso de Castelo Branco, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade de Coimbra, supervised by Pedro C. Carvalho, 2016 (https://estudogeral.sib.uc.pt/handle/10316/29447)

Keywords: Urban archaeology in Coimbra; Aeminium Forum; Old Episcopal Palace of Coimbra; 1st century - 16th century; Genesis and architectural transformation; Artefactual culture; National Museum Machado de Castro

Abstract: This dissertation focuses on the group of archaeological interventions that were carried out, more or less continuously, since the 30’s at the National Museum Machado de Castro. This site was once occupied by the forum of the Roman city of Aeminium and subsequently by the Episcopal Palace of Coimbra. The archaeological interventions, especially those carried out in recent years (2006-2008), provided a unique source of information based on extensive stratigraphic records (in need of revision) and on the collection of a high volume of archaeological remains (particularly
pottery) which remained greatly unstudied. The work here presented emerged in answer to those research gaps, mostly concerning the material culture and the absence of a synthesis about the monument’s overall history. Therefore, the study combines the universe of archaeological data (gathered over several interventions at the site) compiling and justifying the current state of knowledge about the organic transformation of this heritage complex since the installation of the Roman forum of Aeminium to the Episcopal Palace at the end of the 16th century. In this study pottery was considered the main archaeological evidence due to its extent (in quantity and chronology) and potential. It boosted the recovery of information concerning this site’s occupation and, simultaneously, it bridged important gaps in the historical framework known for the city of Coimbra. The finding contexts of the archaeological remains are mostly sealed and safely dated, testifying the continuous occupation of this space in the long diachrony that goes from the 1st to the 17th centuries. The fusion and coherent review of all these analytical platforms (in what is conventionally called an urban archaeology essay) allowed to solve specific questions still posed by the building and to support the reconstitution proposals previously stated. Once again it is concluded that this historical monument (alive and lived continuously during the last two millennia and where the past is present through its overlapping volumes) despite being made, unmade and remade throughout this time span, never stopped being adjusted to its primary root – the cryptoporticus of Aeminium.

SILVA, Rodrigo de Araújo Martins Banha da, The «Potter Stamps» on the land sigillata and the circulation of vessels in the Lisbon Peninsula, PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by Rosa Varela Gomes, 2013 (http://hdl.handle.net/10362/9472)

Keywords: Olisipo; Lisboa; Scallabis; Santarém; Eburobrittium; Óbidos; Roman Empire; Romanization; Roman Economy; Roman pottery; Samian ware; Terra sigillata; Potter’s stamps

Abstract: The present work studies 647 potter’s stamps in samian ware found in the area of the roman ciuitates of Scallabis, Olisipo e Eburobrittium, the largest sample of the western part of the Atlantic coast of Hispania. The significance of the potter’s stamps for the history of the three towns and its ancient territories was explored in their cultural and economic aspects. The sample provided data which allowed to conclude for the redistributive role played by the three harbours of the towns, and to define the moment of introduction of this cultural habit and the periods of more intense consummation of samian, connected to the regional economic cycles. These showed an early pattern, explained by the presence of italics, and displayed moments of more intense acquisition: in late Augustan and early Tiberian period, a depression and stagnation with Tiberius, a new positive phase with Nero and the first half of Vespasian rule, and, from the Flavian times on, a depression, especially from late Trajan rule on.

SOARES, Maria Joaquina Coelho, Social transformations in the third millennium BC in Southern Portugal. The settlement of Porto das Carretas, PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by Rosa Varela Gomes, 2011 (http://hdl.handle.net/10362/20784; http://hdl.handle.net/10451/11818)

Keywords: Chalcolithic societies; Complex tribal organisation; Bell Beaker period; Porto das Carretas; South-Western Iberia; Metallurgy; Craft specialization

Abstract: This dissertation aims to characterise the Chalcolithic social organisation in the first half of the third millennium B.C. in Southern Portugal, and to analyse the economical and social transformations that took place in the second half of the same millennium. These were related to the decline of the Chalcolithic mode of production in South-Western Iberia. The complex, more centralised and hierarchical Bronze Age societies emerged from the collapse of that social model. The
theoretical constructions draw on the empirical record from the archaeological excavations, directed by the author, in the settlement of Porto das Carretas (Mourão), that surmount the left bank of Guadiana River. The site has been contextualised both at local (Triângulo da Luz territory) and regional scale (South-Western Iberian Peninsula). From the several factors explaining the process of change, the intensification of production was chosen for this study, as associated with technological and economical innovations. As far as the dawn of the Chalcolithic is concerned, it is necessary to follow the positive effects of the Secondary Products Revolution on the rates of growth of all the indicators of social development, such as productivity, sendentism and population density. For the first half of the third millennium B.C., the author proposes a complex tribal organisation model, where the social hierarchy was maintained in the kinship structure. The crisis of the Chalcolithic society gave way, in the second half of the third millennium B.C., to more unequal and hierarchical societies (Bell Beaker period), along with the development of copper metallurgy (copper-arsenic alloys) and craft specialisation.

SORIA, Vincenzo, *Italic Black-glazed ware and the gray impasto imitations in Portugal between the 2nd and the 1st centuries BC: a perspective of study*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Ana Margarida Costa Arruda dos Santos Gonçalves, 2018 (http://hdl.handle.net/10451/35096)

**Keywords**: Italic Black-glazed ware; Imitations in gray paste; Late republican period; Material agency; Portugal

**Abstract**: For the present work, different sets of fine black-glazed tableware produced in the Italian peninsula were analyzed and exhumed in several sites of the present Portuguese territory. The diffusion of this kind of ceramic throughout the Mediterranean during the 2nd and 1st centuries BC, and given its easily comparable formal repertoire consisting mainly of bowls, plates and small containers, made it so that these artifacts attracted the attention of many researchers over the last seven decades. This thesis was divided into three parts. In the first part, we discuss the terminological problems related to the study of black-glazed ceramics and its imitations in gray paste, the main tendencies and perspectives of this study are outlined, indicating, finally, the theoretical-conceptual approach on which this work is based. In the second part, the territory under study is introduced and described, analyzing the main sites that, in the present state of investigation, delivered considerable sets of black-glazed italic ceramics and their imitations in gray paste. Based on these results, it was possible to develop, in the third part, a second level of analysis, in which a broader perspective was given, which allowed to highlight the different characteristics that black-glazed ceramics and its imitations in gray paste present in context of its consumption. The third part closes with some conclusive observations, which allowed us to show the different phases that constitute this work, proposing readings of certain phenomena that manifested in the study of these sets of materials and indicated new and future lines of investigation.

SOUZA, Ana Catarina de Freitas Alves Bravo de, *The Penedo do Lexim and the final Neolithic and Chalcolithic sequence of the Lisbon Peninsula*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Victor S. Gonçalves, 2010 (http://hdl.handle.net/10451/3480)

**Keywords**: 3rd Millennium; Chalcolithic; Peninsula of Lisbon; Fortified Settlements

**Abstract**: The objective of the present work is to analyse the dynamics of permanence, rupture, identity and exogenous influence amongst the farming communities that inhabited the Estremadura region of Portugal, during the second half of the 4th Millennium and the 3rd Millennium B.C.E., interpreted through the evidence provided by the Prehistoric occupation at the site of Penedo do Lexim (Mafra). My excavation work at Penedo do Lexim (1998-2004) supplied a range of data that
supports a re-assessment of previous interpretation models. A polysemic model is suggested for these sites, with a marked residential function, exhibiting defensive strategies, although not necessarily military, that were also the stage of ritualised experiences, especially during the later phases of human occupation. Interpretation of settlement patterns in the area of Ribeira de Cheleiros complements that perspective, supplying a field of study toward the interpretation of settlement dynamics within the chronological period here under consideration. The social and economic dynamics of settlement seem to register distinct phases that may, in their turn, reflect distinct social groups. During the Late Neolithic, settlement is dispersed, with a variety of types of settlement and areas occupied; in the beginning of the 3rd Millennium, there seems to be a concentration of settlements in prominent places and the emergence of the first settlement walls take place; and, finally, during the second half of the 3rd Millennium, with the widespread use of Bell Beaker ceramics, there is a real rupture of settlement into smaller-sized units of settlement. Data recently identified in the south of the Iberian Peninsula indicate that the Estremadura region of Portugal didn’t play a central role in the social and economic dynamics of the period, maintaining a relatively scattered settlement, without the large scale hierarchisation characteristic of the south of the Peninsula. In the south of the Iberian Peninsula, the 3rd Millennium B.C.E. seems to congregate a mosaic where such components as, defensive architecture, metallurgy, the consolidation of an agro-pastoral economy and the emergence of social complexity appear inserted into the internal regional dynamics, revealing contacts, but not a clear definition of centre and periphery.

SOUZA, Elisa Rosa Barbosa de, *The pre-Roman occupation of the mouth of the Tagus Estuary during the second half of the 1st millennium BC*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Ana Margarida Arruda, 2011 (http://hdl.handle.net/10451/4508)

**Keywords:** Archaeology; Iron Age; Tagus Estuary; Ceramic

**Abstract:** The primary objective of this dissertation is the study of the Iron Age occupation of the Tagus Estuary during the second half of the 1st millennium b.C. It’s foundation is the analysis of specific artifacts, gathered through various excavations and other archaeological works that took place in Lisbon’s urban area (Rua dos Correiros), Amadora (Moinho da Atalaia Oeste, Baútas, Moinhos do Filipinho, Casal de Vila Chã Sul, Fiat – Alfragide, Alfragide Segundo Sul) and Sintra (Santa Eufémia, Castelo dos Mouros, “Sepultura do Rei Mouro”). Based on these studies, we tried to systematize the morphological repertoire of the cultural artifacts of the communities that inhabited that territory, considering, naturally, the categorical divisions of the ceramic sets, namely, the amphorae, the red slip ware, the gray ware and the common ware. The interpretation of this data, and the cross-reference with other information available from other archaeological sites located in the Tagus Estuary, allowed to outline a new scenery on the internal organization of this area during the 1st millennium b.C. Based on the characteristics of the artifacts and in its distribution range, we were able to individualize specific cultural areas that allow the discussion of the dynamics of the territorial occupation during the pre-roman occupation.

TENTE, Catarina Maria Santos Guerra, *Christian Medieval Archaeology in the High Mondego basin. Occupation and exploitation of the territory from the 5th to the 11th centuries*, PhD in History: Archaeology submitted to the School of Social Sciences and Humanities of the Universidade Nova de Lisboa, supervised by Rosa Varela Gomes, 2010 (http://hdl.handle.net/10362/4804)

**Keywords:** Territory; Early Middle Age; Settlement; Subsistence Economy; Local Communities

**Abstract:** This dissertation focuses the territory and the human settlement of the High Mondego basin between the 5th and the 11th centuries. Confined between the Douro and the Tagus basins, this territory constitutes an important passage connecting the Iberian Meseta and the Atlantic coast.
The Estrela Mountain — the western extension of the Iberian central ridge — is the most notorious geographic feature of the region. The period of time under study encompasses six centuries during which fundamental historic events took place in the Iberian Peninsula carrying implications on the organization of local populations and, as a consequence, in their ways of life and strategies related to the exploitation of the territory. In the course of these centuries what was left of Roman administration disintegrated, the so-called “German peoples” arrived and the “Muslim invasion” took place, as well as the Christian conquests and the implementation of the lordship model. This study is based mostly in archaeological research, such as survey and excavation. Extensive archaeological survey was made having as guidelines documental, bibliographical and toponymic references indicating the possible presence of Early Medieval evidence. Several campaigns of excavations took place in four of the identified archaeological sites. Subsequently the artefacts and ecofacts recovered were systematically analysed, as well as six other sites dated to the same chronologies that have been subject to archaeological excavations in the past by other archaeologists. Results are still limited for the period encompassing the end of the Roman Empire and 711: very little information was collected concerning the Roman sites after the 4th/5th centuries, it is not clear yet how the region has been integrated in the administrative and ecclesiastic systems of the Suevi and Visigoth monarchies, and the impact of the “Muslim invasion” in the region is not clearly perceptible. The 10th century is better characterized given the substantial data recovered in excavations. It was possible to recognize the foundation and disappearance of fortified village-like settlements during this period of time. Concerning the artefact’s analysis, it was possible to characterize local pottery productions, which could have been dated with great precision thanks to the use of the radiocarbon method. Multidisciplinary studies (archaeometrics, archaeobotany and archaeozoology) allowed the construction of a first general background concerning site’s surrounding palaeolandscape and the economic strategies in use by their Early Medieval populations. Although a first characterization of these people’s daily lives have been achieved, it is not possible yet to establish the relations that would tie them to supra-local elites. These elite’s presence is visible in the territory after the 11th century, precisely at the moment of abandonment of the Early Medieval settlements, and is probably corresponding to the direct action of the Lionese monarchy and of its aristocracy.

VALE, Ana Margarida Aparício do, Ways of Production of Space in the Context of a Monumentalized Hill: the prehistoric site of Castanheiro do Vento in Vila Nova de Foz Côa, PhD in Archaeology submitted to the Faculty of Arts and Humanities of the Universidade do Porto, supervised by Vítor Oliveira Jorge, 2012 (http://hdl.handle.net/10216/63195)

Keywords: Not available

Abstract: This work is a study of the archaeological site of Castanheiro do Vento (which is located in Horta do Douro, Vila Nova de Foz Côa and it dates from the 3rd to the first half of the 2nd millennia BC). The research is essentially based upon the question of how to understand prehistoric architecture. It pays special attention to two variables which are interconnected in the analysis of the site: built units and materials (fragments of ceramics, lithics, loom weights, animal bone, etc.). Architectural space is considered as a space in permanent construction. It cannot be defined only by its structural objects e.g. the building of a wall, but also should be understood from a fuller sense of practice e.g. the rebuilding, remaking, placing, rearranging, disposal, destruction, and removal of small materials. The built devices are not understood as scenarios in which the activities of farmers and shepherds took place, or as walls that were used as a stage set for a certain repertoire of actions. Instead, they are seen as elements which could be altered, were in a continuous dialogue, and which had a direct influence upon the actions that were co-performed. In this way I foreground the definition of architecture as practice after (L. McFadyen), as gestures (that build), and as movement (through walking, space transforms as the body moves). I emphasize the role of other variables in the construction of space at Castanheiro do Vento, for example, light and shadow. From the study of the features identified during the excavation process, in particular ‘bastions’ and ‘circular structures’, I
analyze the relationship between the form and function, of particular structures and particular activities, between construction and deposition, between the making of the domestic space and the making of the idea of “feeling at home”. I demonstrate that similar features do not always point to similar activities, that is, built devices that could be integrated into the same morphological type do not need to have a linear correlation with a specific function. I suggest that form and function have to be disconnected in order to take a new approach to prehistoric architecture. The special character of some material associations have been interpreted in archaeology as deposition. However, despite the attention given by the discipline to the deposition of small materials, the deposition of those that “make” space has not been problematized. This study seeks to enhance the creative potential of deposition in the making of spaces, and addresses the possibility that built units could themselves be considered as deposits. Why did the communities that dwelt in this territory in the beginning of the 3rd millennium BC undertake the construction of Castanheiro do Vento, which took place over a thousand years? In that time what links were established with the hill? Would they “use” the site in everyday life? Or was it just a fortress or a ‘ritual space’? Was Castanheiro do Vento the residence of elites and a place of storage? These questions are not present in this work. Immediate explanations such as these have been discarded, and the link between a name and a function (the word function being used here in its broadest sense) is avoided. This because the communities that dwelt in the “landscape” of Castanheiro do Vento, and engaged themselves in the making of a space, would have felt at home at Castanheiro do Vento, making the space their space. Keeping things open in their meaning allows me to investigate more critically the full nature of the way in which things were constructed and what and how we should use to think architecture.

WOLFRAM, Mélanie, *A synthesis on the Christianization of the rural world in southern Lusitania: Archaeology - architecture – epigraphy*, PhD in Archaeology and Pre-History submitted to the School of Arts and Humanities of the Universidade de Lisboa, supervised by Carlos Fabião and François Baratte, 2011 ([http://hdl.handle.net/10451/5678](http://hdl.handle.net/10451/5678))

**Keywords**: Christianisation; South Lusitania; Archaeology; Architecture/sculpture; Funerary epigraphy

**Abstract**: This thesis is a synthesis of all the concrete elements which confirm the Christianisation of South Lusitania between the 4th and the beginning of the 8th century. Given that the documentary sources are already known, we have chosen to study and to gather all the archaeological data, the architectural elements and the paleochristian inscriptions as being part of the same history, that of the slow adoption of the Christian religion. The first part presents the first ever synthesis of all the places with Christian presence which have so far been discovered in the current area of Alentejo. The emphasis is on the analysis of unpublished material of three essential sites: the elements of Portuguese excavations of the necropolis and basilica of Torre de Palma (Monforte), the architectural equipment of the necropolis of Silveirona (Estremoz) and the complete record of the baptistery of Vila Verde de Ficalho (Serpa). The second part focuses on the stylistic study of the decorative motives of Christian churches and uncovers the various regional styles within the great architectural school of the capital Augusta Emerita and of the Iberian Peninsula. The third part concentrates on the study of funerary epigraphy. Finally, the questioning of ‘Christianisation’ itself is explored. In particular, to what extent it is possible to understand, via the material culture, such a delicate question as the following of a new faith.