

Notes on the Summer 2015 Campaign

The Proença-a-Nova Archaeological Field Camp (CAPN - Campo Arqueológico de Proença-a-Nova) has been created in 2012 in order to investigate the archaeological heritage of Proença-a-Nova, a municipality forming part of the Beira Baixa Intermunicipal Community (further information available at <http://archaeologicalfieldcamps-portugal.pt>).

CAPN is organized by the Upper Tagus Study Association (AEAT - Associação de Estudos do Alto Tejo) and the Proença-a-Nova Town Council, and counts among its supporters several Portuguese and Spanish universities (Coimbra, Évora, Oporto and Alcalá de Henares), research centres (Hercules Laboratory or the Art History and Artistic Research Centre (CHAIA) from the Évora University Institute of Earth Sciences), the Portuguese Army, the Geopark Naturtejo, private companies (EMERITA, Superfície Geomática, Visa Consultores, ProceSl and TTerra), and the individual participation of different researchers.

The fourth edition of CAPN, the third with an international range, took place between 3 and 29 August 2015. Like in past editions, CAPN2015 offered several learning experiences to the participants by combining a scope on

research and valorization of municipal archaeological heritage with training in practices of field archaeology (excavation and surveying) and other scientific techniques and methods applied to this domain of investigation.

CAPN format and program can be considered exemplary at a national level, given what is being offered to participants, as well as the excellent conditions of stay and accompaniment, stated, for instance, in the 2014 evaluation (average satisfaction of 4.7 out of 5; see http://archaeologicalfieldcamps-portugal.pt/uploads/3/5/4/3/3543592/evaluation_capn_2014.pdf).

In 2015, the purpose was to expand the amount of archaeological sites under actual investigation to benefit other areas of the municipal territory and broaden the potential choices to participants.

Excavations were focused on two megalithic monuments located in the vicinity of Moitas (Cimo do Vale de Alvito and Cabeço da Anta), directed by João Caninas, a huge walled enclosure, probably from the Late Bronze Age (Chão de Galego), under the direction of Paulo Félix, and at the Late Modern Fort of Batarias (Catraia Fundeira), directed by Mário Monteiro.

At the same time, Francisco Henriques, responsible for the elaboration of the Proença-a-Nova archaeological heritage inventory, conducted a set of surveying activities in different areas of the municipal territory. The inventory is currently in a very advanced stage of development and has already been

subject of a first international presentation at a congress held in Castelo Branco early this year.

The vast majority of participants in CAPN2015 were Archaeology students from the Portuguese universities of Oporto, Coimbra, Évora, Algarve and Lisbon Nova University, but also from Spain (Alcalá de Henares University) and China (Beijing Language and Culture University). We received young people from the district of Castelo Branco, as well.

We wish to thank all the organization, participants, partners and sponsors for their commitment in achieving all the objectives previously outlined.

Regarding the 2015 campaign, we would like to highlight some innovations made in the use of new technologies to support fieldwork, specifically the development of a web-based solution for the acquisition and record of site data ("Alcaide", created and developed by Gonçalo Ferreira and Paulo Félix), and the progressive replacement of at sight field drawings by 3D photogrammetric recording, a technique elaborated by Hugo Pires.

"Alcaide" is an Archaeological Information System. It's a concept apparently new in Portuguese archaeological practice, maybe even at a peninsular level. Gonçalo Ferreira's original idea consisted in the development of system for the management of data necessary to the work of an Archaeology company or institution. It's a system prepared to manage all the aspects inherent to

archaeological work, either of academic/research or rescue nature, such as global administration of campaigns, site excavation, surveying, students/volunteers, archaeologists, production of site reports and evaluation by participants. It's compatible with most platforms, OS and browsers, totally remote, meaning several users can access it in real time in various locations and through different devices.

3D photogrammetric record has been applied in the course of varied phases of work at the sites under excavation, and was accomplished by obtaining several rows of partially superposed photographs and the acquisition of a set of georeferenced points in the area being photographed. Processing these data allows the production of a detailed three-dimensional model for each phase of the registry, from which we can extract distinct graphical representations, like planimetric, altimetric and perspective views. Simultaneously, as it preserves the appearance and dimensions of all moments of excavation, this kind of record becomes a sort of "volumetric memory" enabling to virtually reverse the disappearance of all excavated strata, structures and other stratigraphic features.

These innovations have the advantage of creating favourable conditions to accelerate the rhythm of the excavation, to ease the output of site reports and to increase the possibilities of relating and representing data stored in digital form, especially in a three-dimensional way.

The program of CAPN2015 included also practical sessions with experts in Archaeology-related scientific domains, namely António Correia, professor at the Évora University Institute of Earth Sciences, who showed the application of methods of geophysical diagnosis at Cabeço da Anta megalithic mound (electric tomography and magnetometer), and Luís Bravo, from the Portuguese Catholic University Science and Arts Technology Research Centre, who exemplified the use of multispectral photography to the study of prehistoric paintings at Serra das Talhadas (Proença-a-Nova).

As usual, CAPN2015 included a program of conferences with several themes and lecturers coming from different locations, like Eugénio Sequeira (LPN - Nature Protection League), Mário Benjamim (CHAIA), André Tomás Santos (Côa Park Foundation), João Caninas (AEAT), Francisco Henriques (AEAT), Mascos Osório (Sabugal Town Council), Maria de Jesus Sanches (Oporto University), Carlos Tavares da Silva (MAEDS - District of Setúbal Museum of Archaeology and Ethnography), Joaquina Soares (MAEDS - District of Setúbal Museum of Archaeology and Ethnography), Luís Bravo (Portuguese Catholic University Science and Arts Technology Research Centre), Rui Mataloto (Redondo Town Council), António Monge Soares (retired from the IST - Technical Superior Institute), Florbela Estêvão (Lisbon Nova University Institute of Contemporary History), Mário Monteiro (AEAT), André Afonso Pereira (AEAT), João Paulo Berger (Portuguese Army Military History Archaeological

Studies Office), Davide Delfino (Abrantes Iberian Museum of Archaeology and Arts), and Leonel Borrela (Beja Municipal Museum).

Participants have enjoyed study trips throughout the region, allowing them to make contact with many sites of cultural and natural interest located in the territories of Proença-a-Nova (Defensive Line of Talhadas-Moradal), Almourão Gates, traditional villages of Figueira and Oliveiras and Alvelus Wine Cellar), Castelo Branco (Francisco Tavares de Proença Jr. Museum and Castelo Branco Medieval Castle), and Vila Velha de Ródão (Ródão Gates, CIART - Tagus Valley Rock Art Interpretation Centre, and River Enxarrique mouth).

Next, we present a summary of CAPN2015 main results.

Archaeological surveying

Activities in the field of archaeological surveying revealed the first evidence of a remote human presence in the Proença-a-Nova territory, at the River Ocreza, and maybe River Pracana, banks, dating from the Lower or the Middle Palaeolithic, *i.e.* more than 100,000 years before present. Unfortunately, as that remote occupation was made preferably on river terraces, in the case of the Ocreza, these terraces were systematically dismantled in consequence of the Roman alluvial gold exploitation. Thus, the Roman presence in this territory may have destructed most of the "memories" of that Palaeolithic occupation,

but we can't exclude by now the identification of Pleistocene sites close to the Serra das Talhadas slope deposits.

Surveying carried out in other areas of the municipality lead to the recognition of new rock shelters, some with enough soil depth to be excavated, other showing schematic paintings, all near Chão de Galego, engraved rock surfaces of unknown chronology (Pedreira), and Late Middle Ages settlements (Lameira de Ordem and Pedra do Altar).

Fourth millennium BC megalithic mounds of Cabeço da Anta and Vale de Alvito

In 2015, investigation initiated two years ago at the megalithic tombs of Cabeço da Anta and Vale de Alvito, two examples of the most ancient architectures preserved in the Portuguese landscape, dating from the fourth millennium BC, was continued. This particular research aims to get knowledge about the construction techniques used at these funerary monuments, which are so distinctive of the European Prehistory, the funerary rites that took place on them, and to qualify them to be visited as part of a touristic pedestrian trail. A third monument in the study area, Cão do Ribeiro, has already been investigated and reconstructed.

Cabeço da Anta is a dolmen with a nine-slab chamber, whose configuration was previously delimited at the surface, and is enclosed by a great mound of more than 30 meters diameter and some 3.5 meters high. The excavation of the chamber is almost finished, but the investigation of other sectors of the monument should continue in the following years.

Geophysical surveying preceded the first campaign at Cabeço da Anta, with the application of electromagnetic (GPR - Ground Penetrating Radar) and electric (Electrical Resistivity Tomography) methods. The use of GPR didn't yield useful results regarding the identification of buried structures due to heavy noise observed in the profiles. On the other hand, electrical resistivity measurements produced images whose interpretation revealed to be very close to the actual features already excavated. Thus, as a result of the experience acquired in the previous year, we decided to perform new measurements with different orientations and spacing between the electrodes. Furthermore, we made a magnetic survey in an area not yet excavated.

Unfortunately, electrical resistivity tomography couldn't be executed during the excavation season, as the soil was too dry to allow electrical conductivity, the work being postponed to the winter, when soil moisture conditions are more favourable. However, results from magnetic surveying showed some anomalies whose confirmation depends of future excavations.

Archaeological work was also done at the megalithic tomb of Cimo do Vale de Alvito, specifically at the area of contact between the corridor and the megalithic chamber. The latter has already been completely excavated. The monument reconstruction is expected for the first semester of 2016.

Finally, in 2014, José Mirão (Hercules Laboratory, Évora University) collected some soil samples at both monuments in order to investigate the chemical characteristics of the clays used in the construction of the mounds. By now, some relevant data has been obtained, suggesting the clay used at the mounds was an actual mortar (an intentional mixture of clays with the objective of changing their chemical and physical properties).

Walled enclosure of Chão de Galego (second to first millennium BC)

The walled enclosure of Chão de Galego is located at Serra das Talhadas, near the village from which takes its name, reaching a maximum of 614 meters high. Two fortification or boundary lines of some 400 meters long each, in combination with two natural quartzite ridges, enclose a precinct with a perimeter of more than 2,000 meters and 20,000 square meters of area.

The 2015 excavation campaign intended to characterize structurally, functionally, and chronologically this walled enclosure. We intervened at three different sectors, two of them located in the northern rampart and the third on

the top of the hill, at the beginning of the eastern slope. This one (Sector 2) gave us only evidences of the use of the area as a quarry. Sectors 1 and 3 were excavated crossing the northern rampart: the former consisted of a sample trench with 6 by 2 meters positioned on a more or less flat area of the rampart, whereas the latter, a few dozen meters from Sector 1, comprised the regularization and cleaning of a section c. 2 meters high and 12 meters wide made when a forest road crossed the walled structure.

Archaeological work carried out at Sectors 1 and 3 confirmed the intentional nature of the rampart and its extension: more than 10 meters of transversal development and more than 2 meters high. Most probably, the original construction was a huge embankment whose front side was a ramp several meters high, possibly with a small stone wall at the top edge, perhaps complemented with a wooden palisade.

The chronology of the site is not definitively established, mostly due to the lack of diagnostic artifacts or absolute dating, but given its topographic position and the building techniques patented at the ramparts, it may correspond to the beginning of the first millennium BC. This site could have been a refuge settlement and/or a “deceit site” associated to a period of regional instability, conflict, and transformation following the establishment of Phoenician and oriental related colonies in the Iberian shores and main river estuaries. However, we cannot discard right away other possible interpretations for the function and chronology of Chão de Galego, hoping that the 2016 campaign

could contribute to a better knowledge of this unusual, yet challenging archaeological site.

Fort of Batarias, Catraia Fundeira (eighteenth-nineteenth centuries AD)

Fort of Batarias, a military structure, was the first archaeological site to be investigated in Proença-a-Nova, back in 2007. The results from the work done that year, which are available at the AEAT online journal (<http://www.altotejo.org/acafa/default.asp>), have shown a complex and enduring construction, features that are not easily compatible with a military campaign structure in the context of what is known about local confrontation during the Seven Year's War.

In 2015, we intended to finish the excavation of this military facility by emptying the southern and northern ditches, work that have been pending since the 2007 campaign.

Despite having just a few days for the excavation, results were again surprising, and reinforced our appreciation of the structural complexity of this fortification. Unlike the simple ditch exposed at the front (eastern) side of the fort, in the northern side appeared a narrow and shallow ditch, yet complemented by a small retaining wall, which originally should have had one meter high.

Cabeço da Anta



Chão de Galego



Forte das Batarias

