

## Bom Santo Neolithical Necropolis

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### Summary

Discovered in 1993 during a speleological prospection campaign in Montejunto Mountain Ridge led by *Associação de Estudos Subterrâneos e Defesa do Ambiente* (Subterrean Studies and Environment Protection Association), the Bom Santo Cave is one of the most important neolithical cave necropolis at an European level. This presentation will show how important was the cavers' role in the discovery, study and preservation of the site. In addition, the communication will present the study's findings until the present date.

### Introduction

The cave of Bom Santo was discovered in 1993, during survey work led by AESDA (Associação Estudos e Subterrâneos e Defesa do Ambiente), from Torres Vedras, central coastal Portugal (Regala, 1995; Zilhão & Araújo, 1993). Integrated in the karstic system of the Montejunto/Aire e Candeeiros mountain range, the cave is located at 350 meters above sea level, on the eastern slope of the Montejunto mountain. The whole system is part of the Estremadura limestone massif, where a series of cavities occupied during Prehistory has been identified and investigated since the 19<sup>th</sup> century (Cardoso & Soares, 1995; Leitão *et al*, 1987; Zilhão, 1984; Zilhão & Carvalho, 1996).

### Description of the site

Upon its discovery, it became clear that the cave had three levels, two of which had been intensely used as a cemetery, likely during Prehistory. Observation of the few ceramic vessels visible at the surface suggested a Neolithic chronology for the occupation. The number of bones observable on the surface of the rooms and galleries and their level of preservation were promising and seemed to indicate that the cave had remained undisturbed since its utilization as a funerary space.

Recognition of what Algar do Bom Santo could mean in terms of mortuary archaeology research for this time period led to the unfolding of a series of events that made archaeological research possible at the site, during 3 field seasons (1994, 1995 and 1997). In 1994, the main goal was to define the dimensions of the cave as a whole, to characterize the type of occupation that was dominant in the cave and to test the apparent good level of preservation of the funerary context recognizable at the surface (Duarte, 1998). Simultaneously, cave topography was initiated.

Firstly, we tried to understand the relationship of the large boulder that sealed the entrance recognized by the speleologists when they first found the site, with the use of the cave during Prehistory. Its removal exposed its shape and position, suggesting that it had been purposefully placed at the entrance, sealing the burial.

Secondly, all the rooms and galleries where human bones were visible were measured, in order to define the dimension of the cemetery. The total area was estimated at 285 square meters, divided into 11 rooms (cf. slide with room dimensions).

Thirdly, we thought it was important to test the real state of preservation of the archaeological assemblage as a whole; that is, it became pivotal to test, in taphonomic terms, if the magnificently preserved mortuary assemblage visible today at the surface corresponds to the original distribution of the human remains placed at the site. This evaluation could only be efficient if careful and detailed description of the remains were ensured before exhuming the bones. The strategy adopted by the team was to test two rooms: the entrance area (designated as Room A) was selected on the basis of spatial convenience. In fact, curiosity of the local population led to the constant arrival of visitors at the site, during excavation. The fact that the team was excavating at the entrance made the contact with the public easier.

The second room was selected given its excellent state of preservation and the fact that it had once been continuous with Room A, before a large roof fall separated both spaces.

Excavation of Room B during the first field season allowed verification of the apparent level of preservation of the assemblage. In fact, in one square meter excavated, it became clear that what appeared to be one skeleton lying on the surface actually corresponded to the remains of 3 adults and 3 subadults, all compressed in a stratigraphic sequence of almost strictly human remains, with little sediment associated (Duarte & Arnaud, 1996).

During the second field season, a fourth question was given special attention, that is, an estimation of how many individuals were deposited in the cave cemetery and where they had been placed. A detailed inventory was performed along the 11 rooms used as funerary spaces in order to define how many individuals were represented. The remains of a minimum of 111 individuals could be recognized at the surface, but only one was complete; in reality, the skeletons represented in this tomb do not constitute the remains of complete bodies but they are, instead, the result of the manipulation of the body of the deceased, practised by the people who chose this tomb as the final home to their ancestors, family and companions.

Confronted with the fact that Algar do Bom Santo is not the place of primary disposal of the dead chosen by these people, research went one step further – to try to investigate the steps of manipulation, their spatial location, and the role of this particular assemblage in the complex procedures that rule the relationship with Death in this population.

The assemblage characterized, its reliability tested, it became important to maintain the information on Video. A professional team from the Portuguese National Television ensured that all rooms and bone assemblages were visually documented to prevent the possibility of robbery and disturbance by external factors. The visual recording done proved important, given the unfortunate event that took place in November 2000. The cave was robbed and the bones at the surface were partially disturbed. Visual comparison of the assemblage before and after the theft was the basis used in the elaboration of the necessary inventory of lost elements demanded by police investigation.

Information potentially provided by the archaeological assemblage contained in Algar do Bom Santo is too important to be completely removed by current investigation. The research strategy for this context has been to pinpoint specific issues and to direct excavation towards answering the questions defined before archaeological intervention.

To date, we know that Algar do Bom Santo was used during the latest phase of the Neolithic, as defined in Portuguese archaeology; it is part of a group of mortuary assemblages inside caves, where human remains are disposed at the surface, apparently disconnected, accompanied by rare ceramic vessels, globular in shape and with no decoration, few lithic artefacts, mostly flint blades and geometric segments of composite tools, few polished axes and adzes. These latter were almost always placed in pairs, side by side – one adze, one axe - accompanying specific skeletal remains.

Radiocarbon dates obtained for the site confirmed this diagnosis and placed it within the Late Neolithic mortuary sites known in Portugal (e.g., Araújo & Lejeune, 1994, Cardoso *et al.*, 1992; Cardoso & Cuna, 1995; Serrão & Marques, 1971, Soares, 1994; Soares & Cabral, 1993).

Spatial distribution of the bones demonstrated that human remains were placed in specific places, according to chosen procedures, defining sub-units within the cemetery, on circular or sub-circular spaces internally defined. Whether they correspond to biologically related groups (such as families) may possibly be made clear by DNA fingerprinting and this line of research will be considered in the near future.

The nuclei created inside the cave suggest the symbolisation of what might correspond to separate tombs. Inside each of these units, human remains from all age groups and both sexes are present. This heterogeneous distribution suggests no differential treatment on the basis of gender or age. In fact, the assemblage contained in Room B, almost completely excavated (about 95% of the room has been excavated and the bones exhumed and analysed) shows evidence of vertical accumulation of remains from different individuals, belonging to several age groups, both males and females.

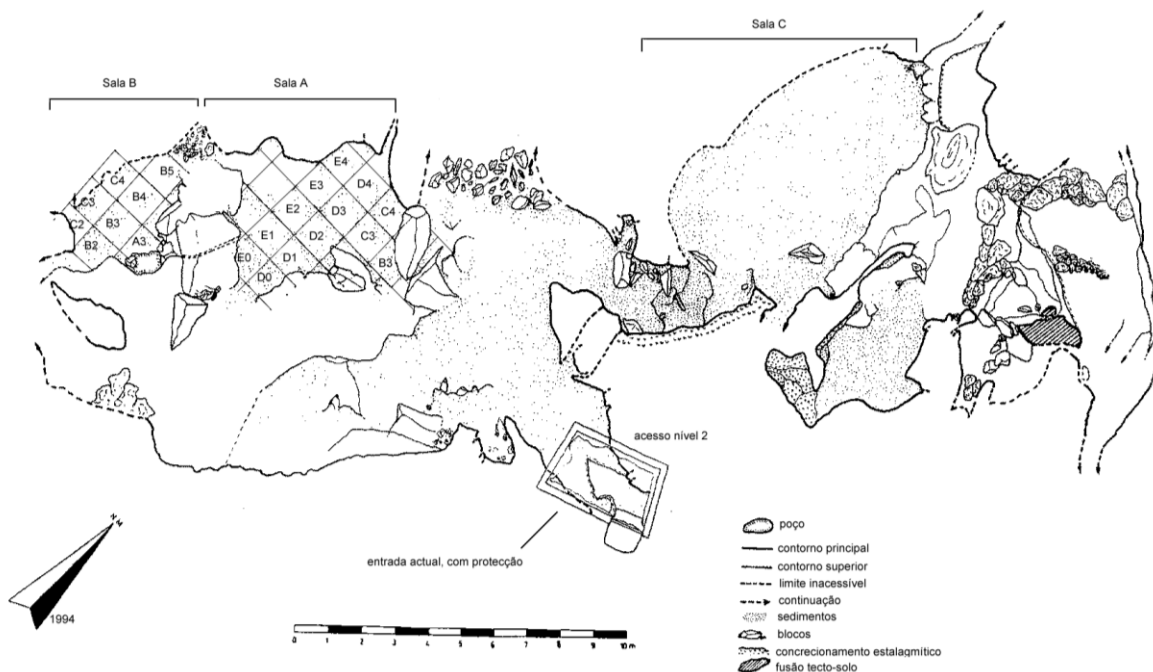
Quantification of the human remains exhumed suggests that preferential treatment was given not to individuals but to specific body parts. In fact, and given the level of preservation of each bone group, it appears that special attention was paid to the cranium and to the long bones of the lower limb. Higher concentration of certain bone groups suggests a secondary character for the assemblage, reinforcing the diagnosis based on the spatial distribution of bones inside the whole cave.

## Final Considerations

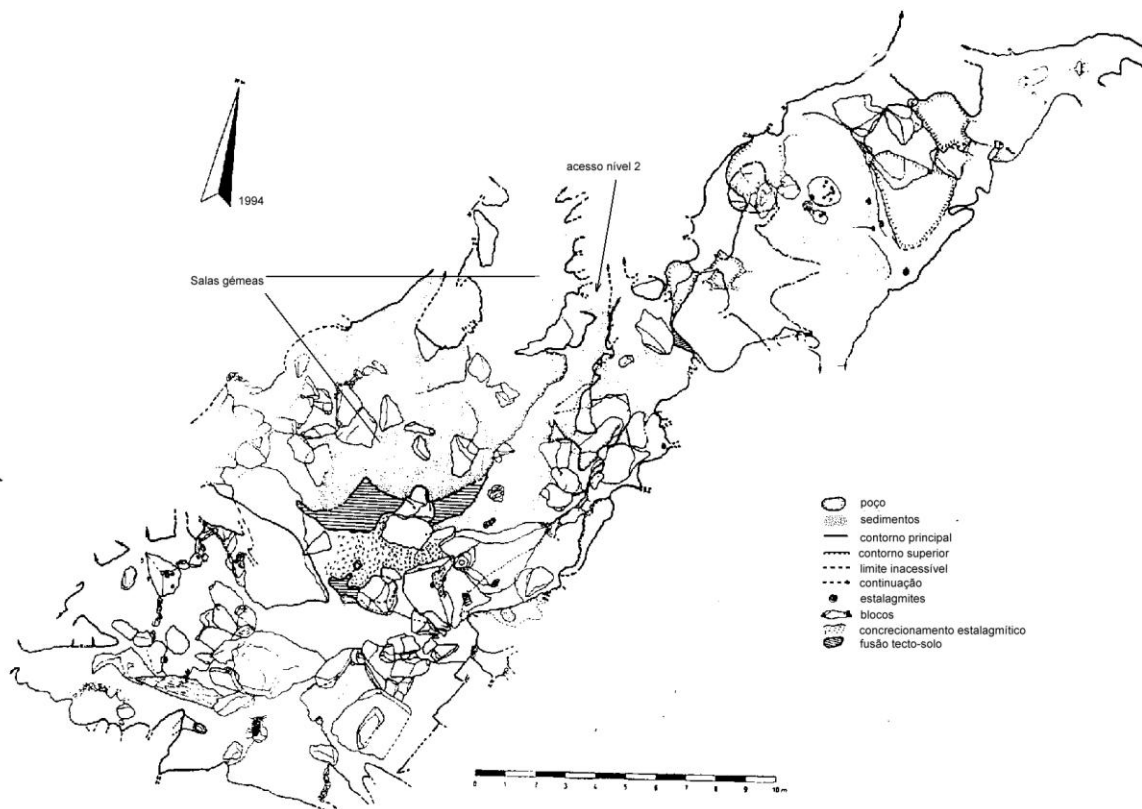
Excavation of Room B, however, revealed the presence of a partial rib cage, not associated with the remaining skeleton. This suggests an even more complex picture for the behaviour of these populations in the face of death. In fact, the presence of segments of the skeleton might imply that the secondary nature of the Algar do Bom Santo cemetery is possibly local or dual; i.e., provenience of some bones is possibly distant, while others had been possibly manipulated during the different steps of the mortuary procedures within the spatial limits of the cave itself. Further investigation on the details of spatial organization and taphonomic alteration of bones is in course, in order to answer these questions.

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**Level 1 - Bom Santo Neolithic Necropolis**



**Level 2 - Bom Santo Neolithic Necropolis**



Associação de Estudos Subterrâneos e Defesa do Ambiente

Topo A.E.S.D.A. (Associação de Estudos Subterrâneos e Defesa do Ambiente) – 1994 – Torres Vedras - Portugal  
Original Scale: 1/50 – Authors: Rui Mergulho, Emanuel Carvalho, Teresa Julião