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*Session C68 (Part I). Monumental Questions: Prehistoric Megaliths, Mounds, and Enclosures*

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# SOME STONES CAN SPEAK! THE SOCIAL STRUCTURE, IDENTITY AND TERRITORIALITY OF SW ATLANTIC EUROPE COMPLEX APPROPRIATOR COMMUNITIES REFLECTED IN THEIR STANDING STONES

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**Abstract:** *In the extreme southwestern Atlantic Europe numerous permanent settlement sites with standing stones, decorated with recurring symbols, have been identified. Chronologically, these standing stones started to be erected before the first existing evidences of cereal agriculture in the area. Moreover, the dispersion of the settlement sites, standing stones and symbols, allows the interpretation of patterns of the social organization of the menhir-makers with evidence and detail not previously possible for a European prehistoric society.*

**Keywords:** *Atlantic Europe, Appropriator Communities, Standing stones, Symbols, Ethnicity, Boundaries, Lineages*

## ***Algunas piedras hablan! La estructura social, identidad y territorialidad, de las comunidades de apropiadores complejos, reflejada en sus menhires***

**Resumo:** *En el extremo suroeste peninsular se identificaron numerosos poblados permanentes con menhires decorados por símbolos recurrentes. Al nivel cronológico, esos menhires empiezan a ser erigidos previo a las primeras evidencias inequívocas, conocidas, de agricultura de cereales en la zona. La dispersión de estos poblados, menhires y símbolos, permite la inferencia de los padrones de organización social de estas comunidades con un nivel de evidencia y detalle anteriormente no posible en la comprensión de una sociedad prehistórica Europea.*

**Mots-clés:** *Europe Atlantique; épipaléolithique; mésolithique chasseurs-cueilleurs; menhirs; symboles; ethnicité; lignages*

## **INTRODUCTION AND CHRONOLOGICAL SETTING**

Following our investigations into pristine-state societies and the origins of social complexity in SW Europe, a systematic survey was carried out of a 50 km<sup>2</sup> sector in Lagos, Algarve, Portugal. During the survey 17 sites with standing stones were registered. Some of them were already known, but the vast majority had not previously been recorded. Surprisingly, all the groups of standing stones seemed to be linked to settlements with an artefact set dating before the middle of the 5<sup>th</sup> millennium BCE (D. Calado 2000, Nocete 2001). Other researchers identified a similar pattern among the standing stones of Algarve (Gomes & Cabrita 1997). Furthermore, the surface surveys document the absence or extreme rarity of prehistoric pottery in some standing stones settlement sites.

It was possible to assert the reliability of the inferred chronology of the western Algarve standing stones through optically stimulated luminescence, single aliquot regeneration (OSL-SAR) dating of the strata related to a still *in situ* menhir in the Quinta da Queimada settlement site, Odiáxere, Lagos. During the excavation two moments of occupation were observed. One related to what Fortea (Fortea 1973) described as the “Epipalaeo-

lithic Microblade Tradition”, corresponding to an approximate chronology between the 9<sup>th</sup> and 7<sup>th</sup> millennia BCE, and the other from late Bronze Age, typically dating to the late 2<sup>nd</sup> and early 1<sup>st</sup> millennia BCE. The OSL-SAR results from a soil sample collected inside the undisturbed and sealed menhir’s implantation pit yielded an age of 9095 ± 445 years BT (Shfd 02014), suggesting that, with 95.4% probability, the soil that filled the implantation pit was last exposed to light between 7983 and 6203 BCE, a period that ought to be related to the original erection of the standing stone. This result demonstrates that at least one of the Quinta da Queimada standing stones, with 95.4% probability, must be no younger than 6200 BCE (Bateman 2002, D. Calado, Nieto & Nocete 2004). The two other existing radiometric dates that are connected with a standing stone in Western Algarve also yield very old dates. At Padrão, a large settlement site with Algarve-type standing stones in Vila do Bispo, approximately 22 km west of Quinta da Queimada, Varela Gomes (unpublished report) obtained two consistent calibrated radiocarbon ages from the third quarter of the 6<sup>th</sup> millennium BCE (Icen 645: 6440 ± 60 BP; Icen 873: 6560 ± 70 BP) from a hearth apparently covering a fallen menhir-implantation pit.

The Central Portuguese Alentejo-type standing stones are substantially different from the Algarve ones and their

chronology and function are difficult to establish. The Algarve and the Alentejo standing stone differences are related to the symbolic decoration as well as to the distribution pattern. The Algarve standing stones are decorated with feminine symbols in profoundly high relief, and they are located in permanent settlement sites. Incised “shepherd-staff” symbols and small pitted lines decorate the Alentejo standing stones and many of them are organized in cromlechs, probably defining ritual centres.

In opposition to the Algarve standing stone sites, that stand in large settlement sites with abundant artefacts, Alentejo’s cromlechs are very parsimonious with archaeological elements other than the standing stones themselves. A direct relation between an Algarve standing stone and the Alentejo-type “shepherd-staff” symbol is known from the Gregórios menhir, near Silves. This menhir is a typical Algarve standing stone with an undulating decoration of strong relief and with “shepherd-staff” symbols that were incised superficially during later prehistoric times, when the old symbols were already partially eroded. Thus, the only available evidence suggests that the Alentejo “shepherd-staff” symbols seem to be a good deal younger than the western Algarve feminine symbols.

Based on several archaeological excavations, Manuel Calado (2002, 2005) suggests an “Early Neolithic” chronology for at least some of the Alentejo-type standing stones. Further, the only existing radiometric date related to an Alentejo menhir supports the inferences of Manuel Calado, because charcoal recovered from inside the Meada menhir’s implantation pit provided a calibrated  $^{14}\text{C}$  age from the first quarter of the 5<sup>th</sup> millennia BCE (UtC 4452: 6022 ± 40 BP) (Oliveira 1996). Nevertheless, an Alentejo-type standing stone, in apparent association with artefacts from the late 4<sup>th</sup> or early 3<sup>rd</sup> millennium BCE, was excavated by João Luis Cardoso in the eastern Algarve mountain region. In a general sense what has been understood as Alentejo-type standing stones perhaps reflects chronologically and functionally different kinds of monuments? This may indeed be suggested by the wide time span, and the dissimilar types of structures, ranging from large cromlechs to isolated stones.

In conclusion, there exists growing and consistent evidence for the very early erection of standing stones in Southwest Atlantic Europe. In Western Algarve, standing stones were erected prior to the late 7<sup>th</sup> millennium BCE. The standing stones of Western Algarve are associated with permanent settlement sites (Gomes & Cabrita 1997, D. Calado 2000, Ramos 2000, Nocete 2001, CALADO, Nieto & Nocete 2003b, Martín-Socas *et al.* 2003), some of them seemingly belonging to an aceramic period.

## STRUCTURE OF THE SETTLEMENT

Analysis of the spatial distribution of settlements with standing stones in a 50 km<sup>2</sup> sector of the Bensafrim–Odiáxere interfluve, using the Delaunay triangulation

method, yielded a convex hull with an area of 24 km<sup>2</sup> and a perimeter of 21.7 km for a total of 17 settlement sites. Nearest neighbour analysis indicates that settlements are less than 900 m apart, with a standard deviation of 440 m (D. Calado 2000). Settlement sites with standing stones from the neighbouring Vila do Bispo region, as well as 7<sup>th</sup> and 6<sup>th</sup> millennium BCE settlement sites without menhirs from the Spanish provinces of Huelva (Nocete 2001) and Cádiz (Ramos 2000) exhibit similar distributional patterns. These results indicate a regular pattern of territorial occupation over the Mesozoic, Cenozoic, and Quaternary geological layers common to the whole of the extreme SW Atlantic Europe between Gibraltar and the western coast of the Algarve (Ramos 2000).

In the Bensafrim–Odiáxere interfluve, the extents of settlement sites with standing stones vary between six and 40 ha (D. Calado 2000). In the specific instance of Milrei–Padrão, in Vila do Bispo, the settlement extends for roughly 1500 m. In fact, the large settlement sites with standing stones seem to have been permanent settlements with dispersed house compounds, likely analogous to those of some modern farmer-herdsman societies (e.g., the Sidama of Ethiopia). This pattern is best described as one of *intra-site* occupation, which is particularly difficult to understand and interpret via archaeological excavation. It was possible to identify this pattern in the Algarve, because of the incorporation of the standing stones in the settlement sites.

Although the Sidama are a farmer-herdsman society, the earliest phases of Algarve settlements with standing stones appear to be older than the currently known earliest indications of domesticated cereals in Southwest Iberia. Excavations at the Murciélagos and Toro caves in Andalusia, Spain, (D. Calado *et al.* 2003b, Buxó 2004) identified evidence of domesticated cereals dating no earlier than to the middle 6<sup>th</sup> millennium BCE onwards. Further, pollen diagrams of Lagoa Travessa, in the Alentejo coast, show that the earliest cereal pollen appears, during the second half of the 6<sup>th</sup> millennium BCE (Mateus 1992, Calado *et al.* 2003a). This is quite similar to Murciélagos and Toro caves and suggests that the rise of complex sedentary societies preceded cereal agriculture in SW Atlantic Europe. Therefore, we infer that the generalist pattern of subsistence proposed by Melvin Aikens (1981) best fits this evidence and that it appears to be a common and widespread phenomenon (Chang 1981, Price & Brown 1985, D. Calado *et al.* 2003b, Okada 2003).

## TERRITORY AND SOCIAL ORGANIZATION

Apart from the *intra-site* analysis, the standing stones of the extreme SW Atlantic Europe have been shown to be a powerful and singular instrument of *inter-site* territorial analysis. Their uniformity of manufacture and recurring symbolism enables the inference of elements of the 8<sup>th</sup> and 7<sup>th</sup> millennia BCE non-material culture of an Atlantic Europe society reproduced in symbolic artefacts—the

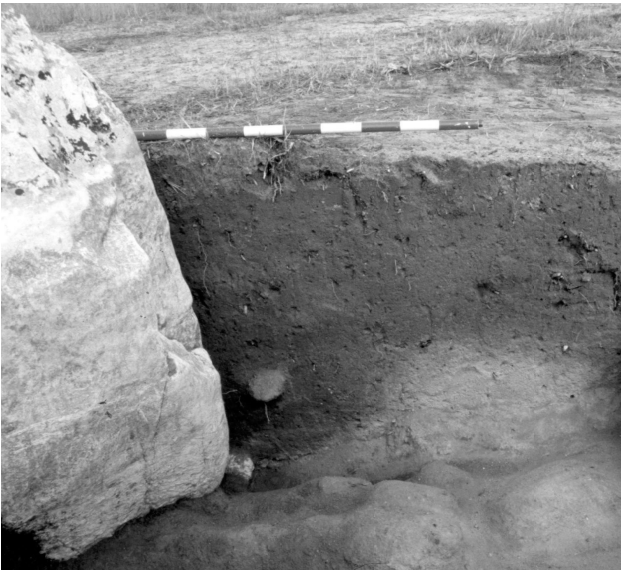


Fig. 2.1. Buried deposit underneath the erected stone

standing stones themselves—and defines a divisional cultural trait in the common material complex that typifies the entire region from Gibraltar to the south-western Atlantic coast of Iberia. We understand the distribution of the very particular type of Western Algarve menhir as being a reflection of some specific and uniform elements of a common superstructure shared by its builders, an *emic* manifestation of a *them/us* dichotomy that seems to fully correspond to the demands of self-perpetuation, unity, interaction and identification, postulated by Fredrik Barth (1966, 1969) for the determination of ethnic distinction. This spatial distribution replicates a concept of identity throughout a region of almost 1000 km<sup>2</sup> that seems to reflect a specific territory of a supra-local polity (Johnson & Earle 1987, Nocete 2001) organized through lineages (Dupre & Rey 1973, Meillassoux 1977, Nocete 1984, Plog 1990, Gailey & Patterson 1998) that we understand as being of a totemic kind (D. Calado *et al.* 2003a, 2003b). We define totemic lineages as those where the ego identity and his ancestors are totem related, whereas true or biological lineages are those by which ego is related by real or pretended biological ancestry.

Utilization of symbols in standing stones have been used to identify patterns of social organization. The work of Driscoll (1998) in Scotland is of particular note. However, the society described by Driscoll is very different in social organization and time than the one in Western Algarve. The Pictish symbols from Scotland's standing stones are interpreted as a coercive expression emanating from the local socio-political elite. The symbols are believed to articulate the relation between the force of production (serfs) with the means of production (the land) in space and time. As such, they are an expression of control over natural resources that reflect the ideology of an utterly hierarchical society. On the other hand, the 6000-year-old standing stones and symbols from southwest Algarve are not linked to a class-related appropriation

inequality of the means of production and labour. Rather, they appear to be convening symbols within the villages, seemingly reflecting totemic lineages of different house compounds.

The standing stones of south-western Atlantic Europe, more precisely in Western Algarve, exhibit unique features. All of them are expressive sculptures of phalluses, with clear delineation of the gland and urethra being a general feature. The size and weight of the menhirs in a particular settlement may vary considerably. Stones of less than 1000 kg may stand alongside giants weighing more than ten times that weight. Symbols that decorate the stones are consistently from only four different types, expressing mostly feminine sexual attributes, i.e. female breasts (*Mama*), vulvas with one or more of the labia open (*Vulva B*), vulvas with the outer labia closed (*Vulva A*), and undulating patterns (*Onda*).

There seems to be no clear relationship between an explicit type of symbol and a particular settlement site. A settlement may contain a great number of standing stones, each with randomly distributed symbols, yet each menhir bears only one type of symbol. This suggests an internal division of the *intra-site* space through symbols that we understand as seemingly expressing a totemic ritual of solidarity where each basic cluster of people is identified through the symbols engraved on objects whose shape denotes an intrinsic value of an intensification rite (Calado, Nieto & Nocete 2003b). Moreover, the recurrence of the same four types of symbols in the numerous settlement sites seems to define four huge leaderless totemic lineages that spread throughout the territory of the menhir-makers (D. Calado, Nieto & Nocete 2003b), that we interpret as reflecting a section system of organization for the society as a whole.

At least one kind of symbol, the *Mama*, is very common in the westernmost area, yet it is rare in the very eastern part of the menhir-makers' territory. Further, settlement sites with standing stones become more scarce in the east, with the easternmost boundary being in the middle of the Algarve. The combination of the progressive disappearance of settlement sites with standing stones and the scarcity of the *Mama* symbol in the east, seems to reflect a phenomenon of multiple fission of the primordial social units that began to erect the standing stones in their large villages. The phenomenon of social fission has been understood as a way of resolution of conflict and demographic pressure among societies with a low level of social stratification and capacity for territorial expansion (Kent 1989). Because of the specific characteristics of Algarve's standing stones and high amount of evidence of territoriality, boundaries and ethnic incorporation projected into artefacts that ought to be integrated in the superstructure of a society, it seems to be the very first time that a social-fission phenomenon, that might have been a very common occurrence in pre-hierarchical societies, seems to be recorded in Atlantic Europe for such an early chronology.

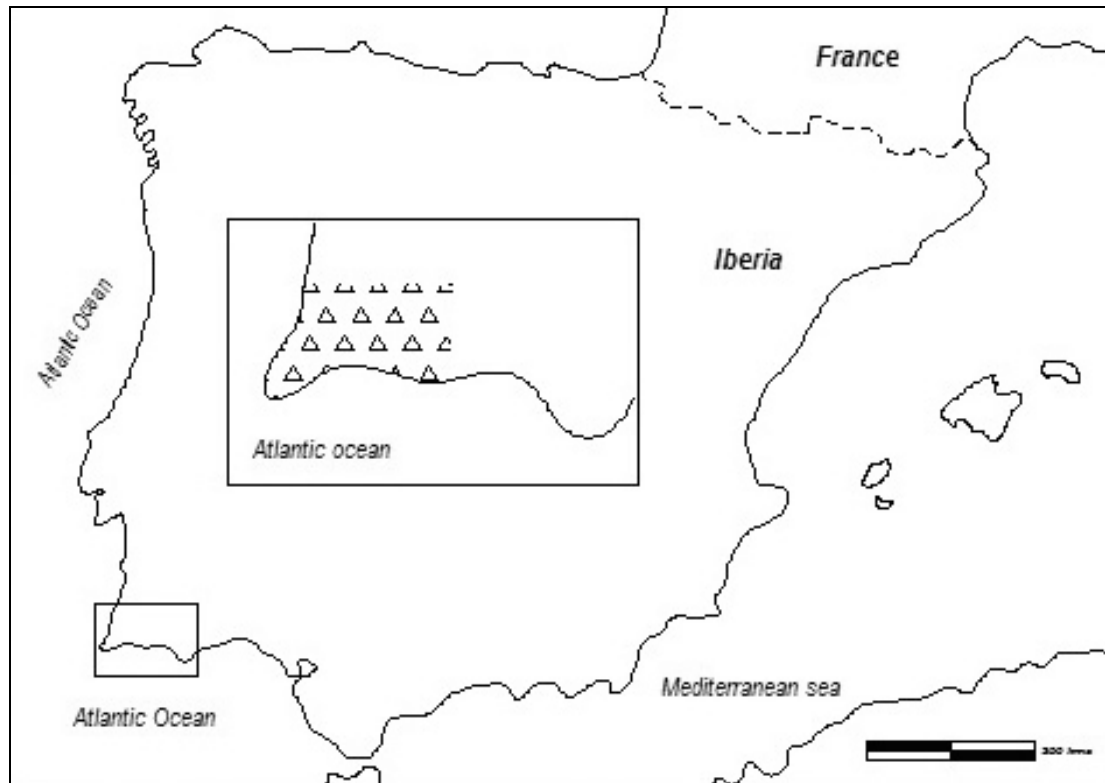


Fig. 2.2. Distribution of early menhirs in the Algarve

### RAW MATERIALS AND NATURAL OUTCROPS

Analysis of the lithic items from the settlement site of Quinta da Queimada indicates that, apart from bracelets made from black shale (the nearest outcrops of which are located roughly 25 km away), all the artefacts found at the site are made from rocks collected close to the site. Standing stones at other settlements are made from rock types chosen for their hardness and splitting quality, usually oolitic, crinoidal, and micritic limestones, as long as these types of rocks exist nearby. In the few cases where such stone do not exist nearby, other types of rocks were used for the standing stones. Thus, it may be concluded that, with the possible exception of the black-shale bracelets, there is no indication of items or raw materials acquired from far-off places.

The variety of imported items introduced into intricate exchange circuits is a common feature of hierarchical and politically centralized societies (Brunfield & Earle 1987, Bayman 2002) and is amply demonstrated in the archaeological records of Eastern North America in the early part of our era (Binford 1983) and in SW Atlantic Europe from the 4<sup>th</sup> millennium BCE onwards (Nocete 2001). This phenomenon must not be confused with the model of dispersal through personal exchange of restricted sets of objects, as observed among the Yir Yoront of Australia (Sharp 1964) and demonstrated in Europe and elsewhere since the Palaeolithic (Lyons, Glascock & Mehinger 2003). Thus, the information at hand does not support a hypothesis of integration of the

menhir-makers' society with a grouping of hierarchical or political centralized societies.

In the specific case of the Algarve, the existing evidence from Quinta da Queimada points towards a model of mainly local exploitation of raw materials for artefact production. The only recorded exogenous objects are the bracelets made from black shale, which could also be related to the 2<sup>nd</sup> millennium BCE (Bronze age) occupation of the site. The nearest black-shale outcrops are roughly a one-day journey from the site. Nevertheless, the origin of the black shale could be from much farther north or northeast, that is from the Palaeozoic strata of Alentejo or Andalusia, where outcrops of this type of rock are identified. If this last hypothesis is correct, then the data could be interpreted as evidence of egocentric-type long exchange lines of restricted sets of status objects (Fitzhugh 2003). However, as we stated before, for now we have no evidence to allow the integration of the black-shale bracelets in a specific chronological context.

### SETTLEMENT STRUCTURE AND IMPACT UPON THE ENVIRONMENT

It has been largely understood that the first large-scale human-induced impact on the environment in the extreme southwest of Europe was related to the introduction of cereal agriculture. However, recent data questions this traditional view.



Fig. 2.3. Mama symbol

As noted, the earliest evidences of cereals (*T. durum*, *T. aestivum*, *T. monococcum*, *T. dicoccum*, *H. sativum*) in Western Iberia dates to the middle of the 6<sup>th</sup> millennium BCE and comes from the caves of Murcielágos and Toro, in inland Andalusia. In the Toro cave, legumes (*Vicia faba*, *Lens culinaris*, *Pisum sativum*, *Lathyrus sativus*, *Vicia ervilia*), edible indigenous fruits (*Quercus* sp., *Olea europea*, *Myrtus communis*, *Rubus* sp., *Pistacia lentiscus*, *Myrtus communis*), opium poppy (*Papaver somniferum*), and other indigenous plants (*Plantago lanceolata*, *Bromus* sp., *Lolium* sp., *Lolium termulentum*, *Sherardia arvensis*, *Trifolium* sp.) were found alongside cereals (Buxó 2004). At the 6<sup>th</sup> millennium BCE coastal settlement site of El Retamar, near Cádiz, the exploitation of domesticated (or able-to-be domesticated) specimens of possible native origin, such as pig (*Sus domesticus*), ox (*Bos taurus*), and horse (*Equus* sp.), together with the non-endemic species of goat (*Capra hircus*) and sheep (*Ovis aries*) was evidenced. However, at El Retamar, the wild species, red deer (*Cervus elaphus*), rabbit (*Oryctolagus cuniculus*), and hare (*Lepus capensis*), seem to have constituted a major portion of the diet (Cáceres 2002). Even among SW Iberia politically organized polities of the 3<sup>rd</sup> millennium BCE, hunting could have provided sources of dietary protein, since it is attested in the fortified villages of Junta de Los Rios and Cerro Juré (Nocete *et al.* 1997, 2005). The data from El Retamar, where a secondary exploitation of domesticated animal specimens in comparison to wild ones is documented, can be related to the pollen diagrams of Lagoa Travessa, in which the production of cereals in southwestern Atlantic Europe appears to have been marginal until approximately the middle 5<sup>th</sup> millennium BCE. Thus it is possible to extrapolate that the production economy based on cereals and domesticated animals is relatively marginal before approximately 4500 BCE and there is no evidence of it before about 5500 BCE though. Yet, the increasing level of evidence from river estuarine cores and pollen diagrams establish a much older and potent human impact upon the environment.



Fig. 2.4. Vulva B symbol

Sediment cores obtained from the Tinto (Leblanc *et al.* 2000) and Guadiana (González-Vila *et al.* 2003) rivers attest to a strong soil erosion incident starting approximately in the 7<sup>th</sup> millennium BCE. This phenomenon is well expressed in the standing-stone settlement sites, where an almost complete destruction of ancient soils related in time to the use of the sites is identified (D. Calado 2000, D. Calado *et al.* 2003b). Likewise, the pollen cores from Lagoa Travessa evidence an episode of heavy deforestation since middle of the 7<sup>th</sup> millennium BCE. These happenings are linked with a dense network of settlement sites, and we understand it as reflecting an intense human impact upon the environment (Nocete 2001, D. Calado *et al.* 2003b). The pristine pinewood forest documented in the SU81-18 maritime pollen core as having existed since approximately 21,000 BCE (Turón *et al.* 2003) was devastated during the 8<sup>th</sup> and 7<sup>th</sup> millennia BCE, an event in which, maybe with the help of natural causes, man must have been a principal actor (D. Calado *et al.* 2003a).

However, the pollen charts also suggest that this very old process of man-related deforestation was not chaotic, but selective. Concurrent with the disappearance of the pine forest documented in the Lagoa Travessa cores, fruit trees, oak (*Quercus*), and olive (*Olea*) seem to have been spared, suggesting some form of primitive forest management. This inference is substantiated by the recent finds from Los Baruecos in central Iberia, where acorn phytoliths have been identified in a hand-mill from a late 6<sup>th</sup> millennium BCE context (Cerrillo *et al.* in press). In the soil analysis from Quinta da Queimada, large quantities of dwarf palm (*Chamaerops humilis*) phytoliths are registered. The very large quantity of dwarf palm phytoliths seems to reflect an economic



Fig. 2.5. Vulva A symbol



Fig. 2.6. Onda symbol

option of the SW Atlantic Europe prehistoric communities through the management of wild plants. Economically, the dwarf palm has been an important plant in the Mediterranean basin, not just for the production of ropes, mats and brooms, but the stem of the plant is edible and very appreciated by the North African peasants.

Despite the large amount of information from all over the world about complex appropriators communities, including the Ohallo II finds (Nadel & Werker 1999), where use of a broad spectrum of edible plants by Old World Palaeolithic communities and how such an economy could support semi-permanent or permanent settlements has been documented, traditional research of the origins of the Neolithic in Spain and Portugal has been too focused on non-endemic plant and animal species. Further, this research has consistently downplayed the possibility of an important economic role of native flora and fauna (D. Calado *et al.* 2003b). Yet the existing data suggests that the relative high level of social complexity reflected in the settlement sites with menhirs should not have its origins in cereal farming and stock-rearing, activities that seems to be relatively marginal before approximately 4500 BCE, and whose earliest undisputed evidence in SW Europe dates from the middle of the 6<sup>th</sup> millennium BCE – at least 700 years *after* the erection of one of the Quinta da Queimada settlement site's standing stones.

The reality of pre-cereal producers developing patterns of social organization with relatively high levels of social complexity and a sedentary way of life seems to be a common occurrence in mankind's history. However,

further research is necessary in order to understand if such societies ought to be characterized just as complex hunter-gatherers or, as we believe in face of the enormous impact that these polities seem to have had upon the environment, as societies with a broad-spectrum economy and a high level of management of natural resources that, like cereal agriculture, must be understood as a model of social behaviour for production intensification.

The powerful social classification that menhirs and symbols convey may reflect a pattern of critical resource shortage (Saxe & Gall 1977, Wobst 1977) that could strengthen a dialectic model of symbolic recognition as a result of frictions between dissimilar ethnic entities but also, as a result, would intensify inner inconsistencies (Scott 1985, Wolf 1990). In other words, menhirs would identify the society of the standing-stone makers against foreign societies, delimiting a factual territory where access to natural resources would be severely restricted. On the other hand, the implementation of totemic-lineage identification through symbols inscribed on the menhirs would break the internal social cohesion along lines of mythic descent.

The evidence that exists so far from the archaeological record indicates that many standing-stone settlements were abandoned before the middle of the 5<sup>th</sup> millennium BCE. The Quinta da Queimada settlement site seems to have been abandoned before the use of pottery, to be reoccupied several millennia later at the end of the 2<sup>nd</sup> millennium BCE. Thus, the erection of Western Algarve standing stones seems to reflect the final stages of a society before its utter disarticulation (D. Calado *et al.* 2003b).



## CONCLUSION

In the extreme southwest of Atlantic Europe, a dense network of large permanent settlement sites with standing stones decorated with recurrent symbols has been identified. Chronologically, these settlements date, at least, from the 7<sup>th</sup> millennium BCE and are substantially older than the first evidence of cereals and domesticated animals in SW Iberia.

The dispersion of settlement sites, menhirs and symbols, allowed the first convincingly recorded indication about the existence of a tangible territory, boundaries, ethnicity, lineages, social fission, social complexity and sedentary communities in such an early period of Stone Age Atlantic Europe, suggesting that in SW Iberia the rise of complex sedentary communities precedes the introduction of cereals and stock-rearing.

Ample evidence from settlement sites with standing stones calls into question traditional assumptions of primary diffusion, agricultural intensification, trade, and land irrigation as explanations for territoriality and population concentration, being therefore an exemplar model to explain some of the aspects of the genesis of social complexity. This is reinforced by the pristine character of the SW Iberian model as describing the origins and disarticulation of a society as an independent historical process not biased by interrelations with political centralized civilizations.

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