

Journal of Social Archaeology

<http://jsa.sagepub.com>

Death and everyday life: The Argaric societies from Southeast Iberia

Gonzalo Aranda, Sandra Montón-Subías, Margarita Sánchez-Romero and Eva Alarcón

Journal of Social Archaeology 2009; 9; 139

DOI: 10.1177/1469605309104134

The online version of this article can be found at:
<http://jsa.sagepub.com/cgi/content/abstract/9/2/139>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Journal of Social Archaeology* can be found at:

Email Alerts: <http://jsa.sagepub.com/cgi/alerts>

Subscriptions: <http://jsa.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.co.uk/journalsPermissions.nav>

Citations <http://jsa.sagepub.com/cgi/content/refs/9/2/139>



Copyright © 2009 SAGE Publications (www.sagepublications.com)
ISSN 1469-6053 Vol 9(2): 139–162 DOI: 10.1177/1469605309104134

Death and everyday life

The Argaric societies from Southeast Iberia

GONZALO ARANDA¹

Department of Prehistory and Archaeology, University of Granada, Spain

SANDRA MONTÓN-SUBÍAS¹

ICREA, Department of Humanities, Universitat Pompeu Fabra, Spain

MARGARITA SÁNCHEZ-ROMERO

Department of Prehistory and Archaeology, University of Granada, Spain

EVA ALARCÓN

Department of Prehistory and Archaeology, University of Granada, Spain

ABSTRACT

This essay highlights the relationships between the realm of the symbolic world expressed in the funerary sphere and the realm of the maintenance activities of quotidian life, focusing on the Argaric culture of Southeast Iberia (c. 2250–1450 cal BC). The article begins by summarizing engendered mortuary archaeology in relation to maintenance activities and by briefly reviewing the funerary record of the Argaric societies. We then expand on the Argar culture, presenting in more depth two different types of archaeological evidence:



grave goods deposited in tombs and paleoanthropological analyses conducted on Argaric skeletons. In the first case, we evaluate the relationship of grave goods to material culture integrated in practices related to the management of everyday domestic life, discussing the socio-symbolical significance that the exclusive association between awls and women may have had. In the second case, we report on those skeletal studies that allow us to infer information about sex differentiated tasks. To conclude, we bring these two different bodies of evidence into a focused dialogue in order to reach a better understanding about the relationship between the social perception and construction of Argaric women's identity and the practices that they may have carried out on a quotidian basis.

KEYWORDS

Argaric societies ● Bronze Age ● female identity ● funerary record ● maintenance activities ● symbolic material culture

■ INTRODUCTION

With the advent of gender archaeology to the study of mortuary practices and cemeteries, a plethora of interpretations was added to an already privileged archaeological sphere. As posed by Jensen and Nielsen (1997: 10), 'besides the fact that topics of interest in archaeology change, so too do ideas about how burials may contribute to the analysis of various questions'.

In this article we re-evaluate funerary data from the Argaric culture (c. 2250–1450 cal BC in Southeast Spain), discussing the socio-symbolic value of some artefacts integrated in practices of the management of everyday domestic life and deposited in tombs as grave goods. As stated by Pluciennik, practices associated with death and burial may 'allow a point of entry into part of the symbolic universe' of past communities since 'death is a time at which certain social roles and structures may be explicitly referred to and materially symbolised' (1998: 59). Material culture connected with maintenance activities is, more often than not, present in archaeological burials. Its symbolical dimension, however, has not yet been fully explored in archaeological studies. Our aim in this article is precisely to address this issue, using as a case example the Argaric culture.

To further this goal, we present the results of a study that analysed tombs from different Argaric sites, providing a good representation of the area under research (Figure 1). As a prelude, we review, on the one hand, the relationship between mortuary gender archaeology and maintenance

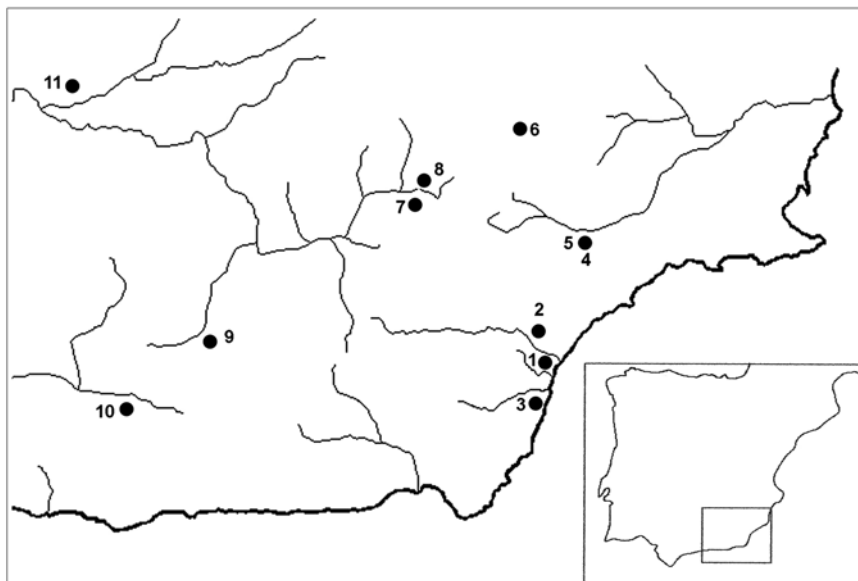


Figure 1 Map of the Argaric area with selected sites: 1 El Argar; 2 Fuente Álamo; 3 Gatas; 4 Lorca; 5 Los Cipreses; 6 Cerro de las Víboras; 7 Castellón Alto; 8 Fuente Amarga; 9 Cuesta del Negro; 10 Cerro de la Encina; 11 Peñalosa

activities and, on the other hand, the funerary ritual of the Argaric societies. We then evaluate the symbolic meaning of burial artefacts related to daily maintenance through the assessment and combination of two different types of evidence: the very specific objects used as grave goods and the traces that task performance left on Argaric skeletons.

■ ENGENDERED MORTUARY ARCHAEOLOGY AND MAINTENANCE ACTIVITIES

With the arrival of gender archaeology, the willingness to rescue women in archaeology favoured the emergence of new approaches to the mortuary record. This contribution began first in Scandinavian countries and was rapidly extended to the Anglo-Saxon world, with a clear intention to denounce the androcentric bias of traditional funerary interpretations (Conkey and Spector, 1984; Dommasnes, 1982). Ever since, and with the common aim to resituate women in the archaeological interpretive *scenae*, there have been many approaches to the study of gender in the funerary context. Among these, for instance: osteological analyses to infer health,



diet, activities, paleodemography and gender roles and even to return their sex to women previously converted into males (Cohen and Bennett, 1993; Damm, 1991; Leighton, 1998; Peterson, 2000; Wilson, 1997); analyses to demonstrate women's access to economic, social, political and ideological organization (Donnan and Castillo, 1992; Gräslund, 2001; Wilson, 1997); studies of female infanticide (Scott, 2001); analyses of gender status (O'Gorman, 2001; Whelan, 1991) and of gender diversity (Duke, 1991; Hollimon, 2001; Weglian, 2001).

Gender archaeology is relatively new in our discipline and, consequently and fortunately, several research topics have yet to come to maturity and be enriched with further insights. It seems to us that the relationship between the funerary material culture and the activities and practices associated with women is a good example. It is true that, following the burgeoning interest in gender archaeology, the use of mortuary evidence to document and theorize mundane everyday routines with a gender meaning has appeared in many valuable publications (Armelagos, 1998; Hamlin, 2001; Hollimon, 2001; Sofaer, 2000; Weaver, 1998). It is also true that over the years the challenges of studying social identity and symbolism embedded in the material culture deposited in burials have been taken up in our discipline (Arnold, 2002; Chesson, 2001; Gillespie, 2001; Hodder, 1984; Joyce, 2001; Morris, 1988; O'Shea, 1996; Parker-Pearson, 1999; Scarre, 1994). But it seems to us that the use of material culture integrated in the practices of maintenance activities as grave furniture needs to be further explored. Indeed, this was the main purpose when we initiated this research, since we wished to gain understanding of this issue in Argaric societies. We were convinced that this kind of material culture might also carry symbolical meaning, as also suggested by other archaeologists (Rega, 1997: 233). It is precisely this idea that is not often found in prehistoric archaeology.

The concept of maintenance activities began to be used in the context of Spanish archaeology at the end of the twentieth century (Colomer et al., 1998; Picazo, 1997). Its development has continued in the twenty-first century (Hernando, 2008; Montón-Subías and Sánchez-Romero, 2008) and has even begun to be used in other academic traditions (Dommasnes and Montón-Subías, 2007; Gifford-González, 2008).

Initially inspired by gender archaeology claims to correct 'the appalling absence of concepts that tap women's experience' (Conkey and Gero, 1991: 3), the concept of maintenance activities encompasses a set of practices and experiences concerning the sustenance, welfare and long-term reproduction of the members of a social group. They enclose the basic activities of quotidian life that convey social cohesion to human groups and make their life possible. Basically conformed by caregiving, feeding and food processing, weaving and cloth manufacture, hygiene, public health and healing, socialization of children and conditioning and organization of domestic space, they operate in a specific framework of interpersonal social relationships

(for similar ideas see Meyers, 2008). Therefore, they are related to the technological level, to the social system of production and distribution and to the ability of sustaining webs of interpersonal relationships, as well as to the specific values and norms operating within a particular society. They are not only essential in intersecting with other spheres of social action but, in many cases, in foregrounding social dynamics (as demonstrated by Brumfiel, 1991; Gifford-González, 1993; González-Marcén et al., 2007; Montón-Subías, 2002).

We are aware that these practices may not always have been carried out by women in prehistoric societies, as indicated for instance by studies of mortuary evidence related to gender roles (Hamlin, 2001: 132–3). In fact, in the origins of humankind, the whole social group – men, women, girls and boys – must have been involved in most of these practices as they formed the core of social life. Progressively, and for reasons that are lateral to the argument of this article, these sets of practices became part and parcel of women's heritage in most traditional and historical societies (e.g. Hernando, 2008). Notwithstanding, what we wanted to emphasize was the fact that these practices had been disregarded in the traditional archaeological accounts and considered not to be essential for historical interpretation because they were associated with women's activities in the present. In this sense, the study of maintenance activities also followed the line, initiated in the 1970s, that sought to value female activities in historical – and archaeological – explanation (Conkey and Spector, 1984; Dahlberg, 1981; Rosaldo and Lamphere, 1974).

In the process of tracing the history of this sphere of practices, we are trying not only to deduce sexually determined practices by studying human remains and associated grave goods in the funerary record, but, above all, to understand the symbolical expression of such material culture. We are convinced that it will enlighten us about senses of personhood, identity, ideology, norms and values in Argaric society (see also Aranda and Esquivel, 2006, 2007; Montón-Subías, 2007; Sánchez-Romero and Aranda, 2008).

■ THE MORTUARY RECORD OF EL ARGAR

Argaric culture, corresponding to the Bronze Age in Southeast Iberia and spanning from c. 2250 to 1450 cal BC, is one of the better-known periods in the prehistory of the Iberian Peninsula. In recent years, it has also become better known outside Spain owing to a series of publications in English (Aranda, 2004; Aranda and Molina, 2006; Chapman, 2005; Gilman, 2001; Lull, 2000; Mathers, 1994; Montero, 1993; Montón-Subías 2007; Sánchez-Romero, 2004).



Research on Argaric societies began at the end of the nineteenth century when Louis and Henri Siret proposed the existence of this archaeological culture after excavating many sites in Southeast Spain (Siret and Siret, 1886). Its classical archaeological definition is centred on a combination of elements that include a specific settlement pattern, the presence of certain kinds of metal tools and ceramic vessels, and a characteristic burial rite.

Despite the peculiarities of each region, Argaric settlements are usually situated on the terraced slopes of steep mountains and hills, usually beside rivers, and sometimes exhibit diverse and complex defence systems: stone walls, towers, bastions and stone enclosures protecting the highest points of the settlements. In addition, these settlements are different in terms of size, location, strategic position and productive activities, which have been used to suggest a hierarchical and territorially structured settlement pattern, in which different sites had specialized strategic and economic functions.

Due to its peculiar nature, one of the most significant features of the Argaric world is the location of burials within the settlement area, usually under the floors of the houses. In fact, if anything is considered characteristic of the Argaric culture it is precisely the fact that one space – the dwelling – combined the spheres of life and death. It seems clear that people did not seek out funerary spaces differentiated and separated from their quotidian environment. Quite the opposite: it was the areas used by the living on a daily basis that were considered the ideal locations to bury their dead. This represents an important change with respect to the previous Copper Age period, when people were buried in cemeteries of collective tombs outside the settlements.

The tombs consisted of single, double or, more rarely, triple and quadruple inhumations in cists, pits, urns and *covachas* (artificial caves cut into the rock), with bodies usually in a flexed position. Argaric communities generally buried their dead with a series of objects that represented the funerary offering. Grave goods uncovered in tombs are dramatically different in number, variety and quality. In fact, burials range from tombs with no grave goods to graves with an important accumulation of funerary furniture. Items include ornaments made in stone, bone and metal (including gold and silver), different types of pottery (in some cases made only for funerary rituals) and metallic daggers, swords, halberds, axes, awls and pins. A few categories are associated with one or the other sex, although the vast majority of objects are placed in the tombs of both women and men.

With respect to the evaluation of funerary offerings, two common lines of research have been developed: first, the study of the material characteristics of the objects from a typological and chronological point of view, broadly developed from the end of the nineteenth century to the 1970s (Blance, 1971; Cuadrado, 1950; Schubart, 1975; Siret and Siret, 1886); and second, from the 1980s onwards, the study of the combination of patterns in which such objects appear in the tombs, of paleopathologies, of activity

patterns and of spatial relations among different tombs as a base from which to infer socio-economic aspects. Following this second line, a strong stratified society, composed by social classes, has been proposed (Aranda and Molina, 2006; Arteaga, 1993; Cámara, 2001; Contreras et al., 1987–8; Lull, 1983, 2000; Lull and Estévez, 1986; Molina, 1983).

While these works have been influential in the interpretation of the Argaric world, in recent publications new research topics are progressively appearing regarding gender, age and identity differences with a focus on the decisions that Argaric people took regarding where, how and with what objects to bury their dead (Alarcón, 2006; De Miguel, 2006; Montón-Subías, 2007; Sánchez-Romero, 2004, 2007). As stated elsewhere ‘these decisions were undoubtedly related to the experiences they had, the practices they carried out, the interrelationships they developed and their specific way of understanding the surrounding reality’ (Montón-Subías, 2007: 252). It also seems to us that the living used the treatment of the dead as a way to express social identities and the group’s social perception of the deceased.

From here on, we expand on this idea focusing on the study of funerary archaeological evidence present in women’s tombs. Most specifically, we bring together paleoanthropological and grave goods analyses to propose that the practices of everyday maintenance were materially symbolized in the Argaric funerary ritual.

■ GRAVE GOODS AND SKELETONS AS ARCHAEOLOGICAL EVIDENCE

It is well known that mortuary practices and the objects deposited in tombs as funerary offerings have been dominant in the definition and characterization of archaeological cultures. The structures and objects that the living chose to bury with their dead have been fundamental in trying to understand what life was like in those groups (Arnold and Wicker, 2001; Binford, 1971; Chapman et al., 1981; Parker-Pearson, 1999; Peebles and Kus, 1977; Shennan, 1975).

We agree with different studies that warn against mirroring social structures in burial organization (Parker-Pearson, 1999; Rautman and Talalay, 2004; Sofaer, 2006), but it also seems to us that death and life are intertwined in the funerary ritual and, most probably, in the mortuary record. In the case of the Argaric culture, we know that people followed a particular funerary ritual and deposited specific types of objects with their dead. This ritual possibly resulted from a complex interplay between different factors such as social perceptions, social norms, material culture and emotions (Chesson, 2001; Damm, 1991; Dietler, 2001; Joyce, 2001). And the social perception of the deceased was possibly connected, in part, with the



social roles and activities performed while alive. Having these ideas in mind, it is important to notice that among the material culture selected to be part of the funerary offering, we find objects used to undertake quotidian maintenance activities. Therefore, everyday-life materiality also acted in that complex interplay expressed in funerals and entered the symbolic universe of death. Considered from this perspective, the study of material culture opens new and unexplored pathways to the archaeological interpretation of El Argar culture.

On the other hand, evidence provided by skeletal bodies themselves is also vital to our discussion. As pointed out by Meskell (2000: 21), 'the body represents the particular site of interface between several irreducible domains'. In skeletons, different levels of social life and action converge, including the micro level of quotidian activities, where maintenance activities are to be found. If the skeletal evidence also suggests, as will be shown, a close association between women and the domestic domain, then we have stronger evidence to support the central role of maintenance activities in processes related to the social construction of female identity and to understand the symbolic value of related material culture found in tombs.

Maintenance activities and funerary material culture: the awl–woman relationship

Following other papers (Montón-Subías, 2007), we have concentrated on the presence of awls in female tombs, because the awl is the only tool integrated into daily life activities that, with very few possible exceptions, is found only in female tombs (Figure 2). This association between females and awls has been noticed since the beginning of research on Argaric societies (Castro et al., 1993–4; González-Marcén, 1991; Lull and Estévez, 1986; Pingel et al., 2003; Siret and Siret, 1886), although it has not traditionally resulted in significant debates.

The presence of awls in the mortuary record crosscuts age and social position, but not sex. In fact, awls are the only funerary metallic element associated with one sex that is found throughout the entire Argaric period. Male tombs, on the contrary, offer more variability in the appearance of exclusive metal items during the same span of time.



Figure 2 Funerary awl with wooden handle from Rincón de Almendricos (tomb 8). After Ayala, 1991

On the other hand, awls are the only element associated with one sex also found in children's tombs. With only one exception, exclusive male items have not been recovered from children's tombs (Lull et al., 2004). Some researchers have suggested that the presence of awls in children's tombs indicates girls' tombs (Castro et al., 1993–4; Lull et al., 2004). The same has been proposed for other archaeological examples, either in relation to awls (Weglian, 2001) or needles (Rega, 2000). However, it has also been claimed that items related to some maintenance activities found in children's tombs do not necessarily indicate girl's tombs, since it could have been possible that children (boys and girls) participated in the activities in which their mothers were engaged (Hamlin, 2001).

Awls seem to be independent of other social categories, since they can be found in any female tomb with grave goods. Not everybody was buried in Argaric times, and not all those who were buried were given grave goods. However, among those interred with funerary offerings, awls are found in tombs that range from a single object to a much wider panoply of offerings (Figure 3).

Besides, awls are the only metallic items associated to one sex that are most often found in non-funerary domestic contexts. Usually, awls have been considered to present a low degree of variation and have been included in a uniform group of tools (Montero, 1994: 61). However, in the case of the Argaric site of Peñalosa, where they were studied in more detail, a morphological difference was noticed between awls recovered from funerary and non-funerary contexts, the first ones being longer (Moreno, 2000). Moreno also mentions that they would not have been manufactured in order to be deposited, but interred as personal belongings of the deceased, although it is not clear what evidence supports this claim (2000: 197). At least in one case, Tomb 7 at the Argaric site of Fuente Alamo, we know that the awl recovered was not used for task performance since it was made of silver (Siret and Siret, 1886), although we cannot discern whether it was a personal belonging or whether it was specifically produced to be deposited.

Considering all the previous aspects, we decided to re-evaluate the awl–woman association, analysing evidence from undisturbed tombs sexed by independent osteological criteria and with reliable information about the excavation process. We studied tombs (Figure 1) from Gatas and Fuente Alamo (in Almería), Peñalosa (in Jaén), Cerro de la Encina and Fuente Amarga (in Granada) and Lorca (Calle Zapatería 11, Convento de las Madres Mercedarias and Los Tintes), Los Cipreses and Cerro de las Víboras (in Murcia) (Aranda and Molina, 2006; Castro et al., 1995; Contreras et al., 2000; Eiroa, 1993–4, 2004; Fresneda et al., 1999; Kunter, 2000; Martínez and Ponce, 2002a, 2002b; Martínez et al., 1996; Schubart and Arteaga, 1986; Schubart et al., 1987, 1993, 2000). This makes a total of 140 tombs and 185 skeletons. Among them, 43 are certainly female and four probably female; 47 are certainly male and five probably male; and 86 are

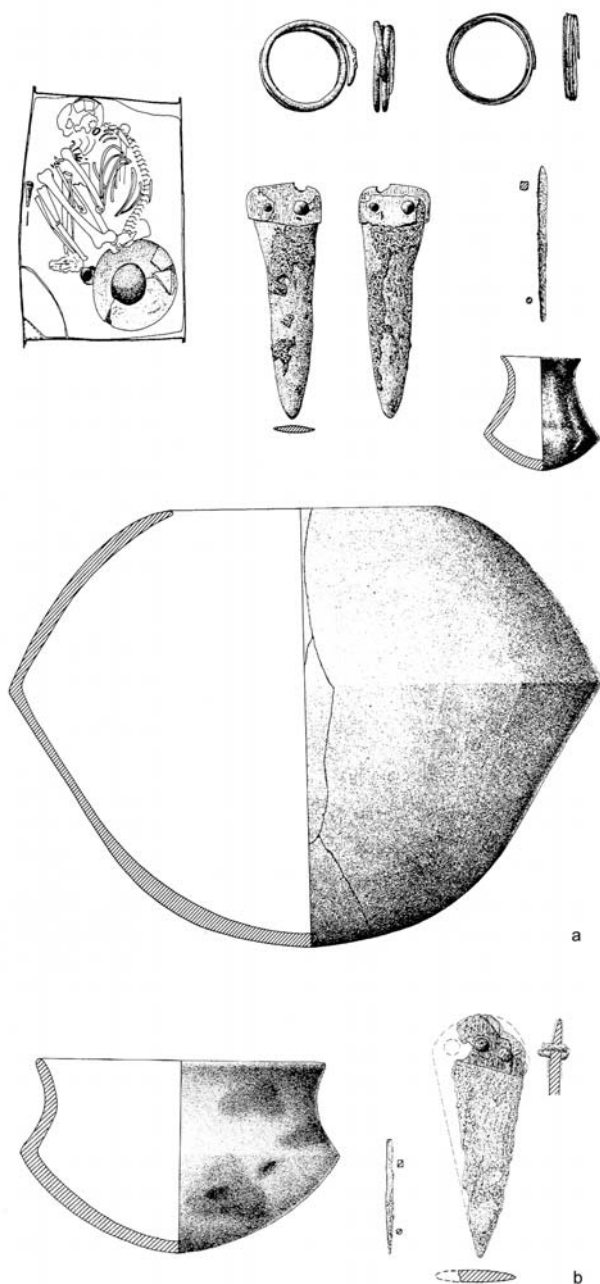


Figure 3 Grave goods from T 52 (a) and T 69 (b) in Fuente Álamo, documenting clear differences among female furniture. After Schubart et al., 2000

of unknown sex. A majority of the undetermined skeletons correspond to infants and children (82). Among women, 15 were inhumed in individual tombs (19 if we count the four possible women), 22 in double tombs, five in triple tombs and one in a quadruple tomb. All the tombs containing women had grave goods, with the exception of one individual tomb and two double tombs.

Among the grave goods, there were 27 awls (most of them made of copper, but two made of bone). One was found in a quadruple tomb and, fortunately, it was possible to associate it with the body of a woman during the excavation process. Three more awls were found in three triple tombs and one of the awls could also be related to a woman. Eleven more awls were found in double tombs, but only in two cases was a clear association established with women. Eight were recovered in individual female tombs; two in possible female individual tombs; one in a possible male individual tomb; and, finally, one more was found in a child's tomb. At first sight, it seemed that this evidence confirmed the previously made statement about the association between women and awls, but to corroborate our observations with statistical methods we undertook two different chi-squared analyses.

In the first one, we included all the tombs, accepting as certain the sex of skeletons given as probable and considering that awls belonged to women in non-individual inhumations. We also considered the child's tomb as a girl's tomb. In this case the p -value obtained was $p = 0.0001$, which means that differences observed in the presence of awls between women and men are highly significant from a statistical point of view.

In the second analysis, we only considered as female and male those tombs whose sex had been given for sure. We did not include the child's tomb and non-individual tombs, unless a clear association had been established between awls and women in the excavation process. We had a total of 106 skeletons: 19 females, 25 males and 62 undetermined. Also in this case $p = 0.0001$, which indicates that there must be a non-random explanation for the presence of awls in female tombs.

In previous papers we have advanced a possible interpretation for this fact, and connected the presence of the awl with the symbolical need to mark a transversal female identity in the funerary ritual (Montón-Subías, 2007). Identity is connected to different aspects of life and with a specific way of viewing and experiencing the surrounding world. Among these aspects, the practices and activities carried out together with the personal interrelationships that they imply are most relevant. Following Hamlin (2001: 125), it seems plausible that when there is such a link between a tool and a particular sex, it is because that particular sex undertakes the activities performed with that tool. Up to the present, no analyses have been conducted to ascertain the tasks performed with awls, but, following ethnographic and textual evidence, we presume that awls could have been



used in day-to-day production activities such as leather and wood tasks, textile and basketry manufacture, and maintenance and reparation of certain objects (Spector, 1993). We do not have to conclude from this that all Argaric women, not even all those buried with awls, would have been performing such tasks. What we are rather defending is that, as an element integrated in practices related to the daily management of quotidian life, plausibly conducted by many Argaric women, the awl could have been selected to symbolically represent female identity in the funerary record. One of the reviewers of this article made an interesting comparison with Etruscan loom weights and spindle whorls which also turn up in most female graves and virtually no male ones. Together with iconographic evidence, this suggests that wool working was a female activity, associated with Etruscan femaleness. However, some Etruscan scholars have noted that this does not prove that all women actually engaged in wool working, since they could have just borrowed the symbolism in death.

It seems logical that the element chosen to mark female identity is associated in life with domestic contexts and maintenance activities, with those practices that keep the process of creation and recreation of life continuing on. The possibility that some funerary awls, although resembling the ones recovered in domestic contexts, could have been especially manufactured for ritual purposes could strengthen the interpretation of awls as symbolic elements and attributes of identity.

Day to day through the study of death: activity patterns and paleopathologies in Argaric societies

The study of Argaric skeletons may also instruct us about possible differences between activity patterns performed by men and women while alive. Fortunately, several analyses have reported on this evidence (Al-oumaqui et al., 2004; Aranda et al., 2008; Botella, 1975; Botella et al., 1986, 1995; Buikstra et al., 1990; Contreras et al., 2000; De Miguel, 2001; Jiménez-Brobeil et al., 1995, 2004, 2007; Kunter, 2000, 2004; Ortega et al., 1995).

As has long been noted, bone footprints may have different origins, physical activities being one of them. Because of this multicausality and to obtain a more accurate picture of the difference in physical activities carried out by men and women in Argaric societies, the study we outline here combined evidence provided by two fundamental markers: arthrosis and musculoskeletal stress (Aranda et al., 2008; Jiménez-Brobeil and Ortega, 1992; Jiménez-Brobeil et al., 1995, 2004).

It is well-known that arthrosis is a chronic and degenerative disease that afflicts bones when the joint cartilage is worn out. Although age is the more determinant factor in its development, menopause (a critical moment for women), other causes such as genetics, metabolism and physical activities also contribute. In the case of Argaric communities, the differences in

the presence of arthrosis between men (38%) and women (25.9%) were not statistically significant at a general level. However, when only specific joints or the axial skeleton were considered, the higher levels of arthrosis in male skeletons reached statistical significance in the dorsal vertebrae, the shoulders and the feet (Figure 4) (Jiménez-Brobeil et al., 1995, 2004).

Musculoskeletal stress, produced by the changes in the ligaments and tendons insertion areas as a consequence of increased muscular development, may also be related to physical activities, in addition to sex, age, hormonal levels and genetic differences. To evaluate its presence, 15 markers related to the main body joints were applied (Figure 5). The results demonstrated that men experienced greater muscular development and that it should be explained by causes different from sexual dimorphism (Al-oumaqui et al., 2004; Jiménez-Brobeil et al., 2004).

Argaric men presented a strong development of the upper limbs compared to women, especially on markers such as the major pectoral muscles, supinator and teres major. These differences may be explained by the performance of more intense activities by men (Jiménez-Brobeil et al., 2004). In relation to the lower limb markers, higher musculoskeletal stress was found in muscles and was associated with the action of walking, specially on steep hilly areas, such as the places where Argaric settlements

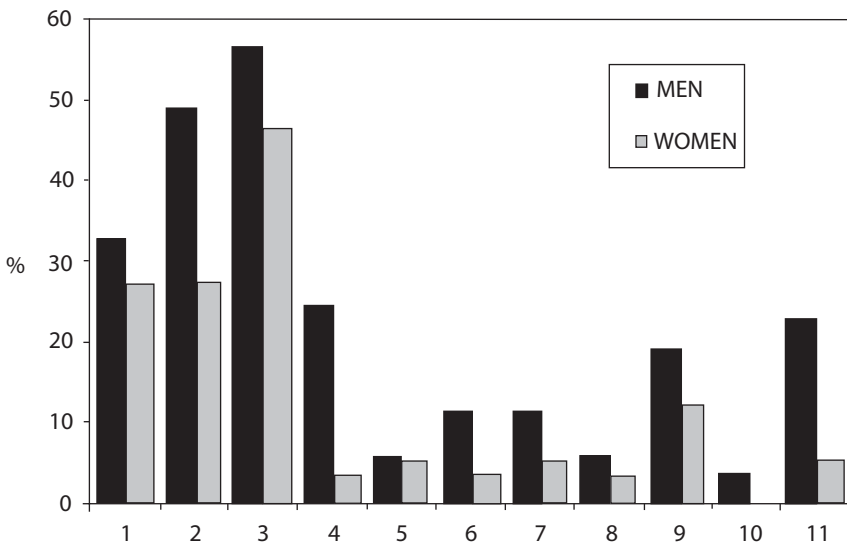


Figure 4 Incidence of arthrosis in men and women: 1 Cervical spine; 2 Dorsal spine; 3 Lumbar spine; 4 Shoulder; 5 Elbow; 6 Wrist; 7 Hand; 8 Hip; 9 Knee; 10 Ankle; 11 Foot. After Jiménez-Brobeil et al., 2004

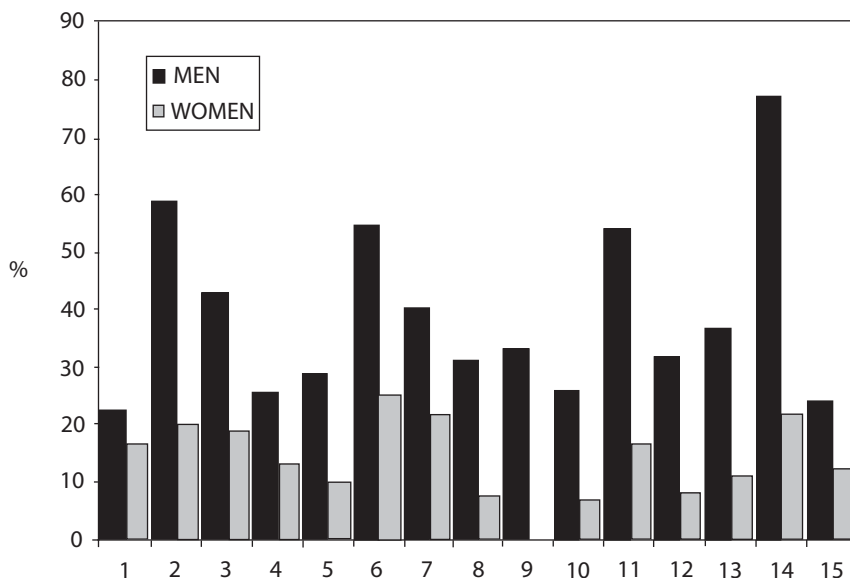


Figure 5 Incidence of musculoskeletal stress in men and women: 1 Scapula; 2 Pectoralis major; 3 Teres major; 4 Deltoid; 5 Olecranon; 6 Supinator; 7 Radius; 8 Greater trochanter; 9 Lesser trochanter; 10 Linea aspera; 11 Patella; 12 Popliteal line; 13 Tibial tuberosity; 14 Achilles tendon; 15 Spur. Al-oumaqui et al., 2004; Jiménez-Brobeil et al., 2004

are found. The differences between men and women were highly significant, which points to a much higher mobility for men than for women, probably related to the performance of different tasks (Jiménez-Brobeil et al., 2004).

The significance of these musculoskeletal patterns is even more outstanding if we consider the results after comparing the Argaric sample with a Copper Age sample and three medieval samples from the Iberian Peninsula. The comparison between the Copper Age and Argaric populations deserves particular emphasis, since, although placed in the same region and successive in time, they present very different musculoskeletal patterns. The Copper Age population shows the lesser degree of sexual dimorphism and a stronger development in the higher limb than in the lower one (Al-oumaqui et al., 2004). These differences probably indicate different mobility patterns and a change in the organization of work between Calcolithic and Argaric populations, with activities implying less mobility for Argaric women. Besides, Argaric women present a development pattern similar to female medieval populations, where a high sexual division of work was established (Al-oumaqui et al., 2004).

Bringing together the evidence provided by the two markers all seems to suggest that activity patterns were very different between men and women during the Argaric period. Arthrosis affects those body parts that also carry greater musculoskeletal stress: the dorsal vertebrae, shoulders and feet joints. This means that the development of arthrosis could be related, at least in some joints, to the performance of intense physical activities. This relationship acquires relevant meaning when considering that this coincidence of markers appears in the same skeletal bodies (Aranda et al., 2008; Contreras et al., 2000; De Miguel, 2001; López-Padilla et al., 2006).

■ CONCLUSION

In this article, we have re-evaluated evidence from the Argaric mortuary record, analysing the association between awls and women and emphasizing the idea that material culture integrated in practices of everyday maintenance acts as a symbolic signifier of women's identity.

Although traditional scholarship in Argaric culture has only tiptoed over the awl-woman association, we were convinced that this continuous and exclusive association, highly significant from a statistical point of view, deserved an explanation in itself. We have proposed here that this explanation is to be found in the expression of women's identity. The awl, a tool related in daily life to the performance of different maintenance activities, would have been chosen to be deposited as an element related to female identity and as an element denoting women's practices and experiences. As noted earlier, the awls can be found throughout the entire Argaric period, in any female tomb with grave goods (possibly including that of girls) and in both life and death spaces. In this way, the awl would be a connecting element, marking continuity on several levels: chronological continuity throughout the Argaric period; continuity throughout the social scale; and continuity between the domestic context of daily life and the domestic context of death (Montón-Subías, 2007).

We are convinced that there were also different dimensions to Argaric women's identity and their sense of personhood. We consider persons, and among them Argaric women, as comprising a dynamic network of interpersonal relationships that converge in multiple social adscription (Fisher and Di Paolo Loren, 2003; Gillespie, 2001; Jenkins, 1997; Knapp and Van Dommelen, 2008; Lerner, 1993; Meskell, 2001; Montón-Subías, 2007). This multiple social adscription is indicated, for instance, by the substantive differences in the quality and quantity of women's grave goods or by the very fact that, in some cases, awls were made of silver or included silver elements in their handle. The awl could have been selected in order to symbolically represent one of these identities: an identity forged in relation



to the type of activities included in the sphere of maintenance activities, to the sustenance of a specific network of social relationships and to a specific social and temporal organization; an identity dominated by relationships to the others, recursive in relation to time and bonded to fixed spaces (Geertz, 1973; Hernando, 2002; Markus and Kitayama, 1998; Min-Sun, 2001).

According to the archaeological information provided by material culture and skeletal bodies, it seems plausible to propose that awls in female tombs indicate a conceptual association between women and maintenance activities. The differences observed between the skeletons of Argaric men and women are almost surely due to the performance of different activity patterns. The lesser degree of mobility and intense physical activity associated with women's skeletons is consistent with the fact that women were the main performers of maintenance activities and suggests a close association between women and the domestic domain. Consequently, and although we are aware of the more speculative level of the following statement, we also believe that the symbolism expressed in tombs was congruent with the practices actually accomplished by Argaric women in everyday life.

Note

- 1 These authors have contributed equally to the present manuscript and both should be considered as first authors.

References

- Al-oumaqui, I., S.A. Jiménez-Brobeil and P. du Souich (2004) 'Markers of Activity Patterns in Some Populations of the Iberian Peninsula', *International Journal of Osteoarchaeology* 14: 343–59.
- Alarcón, E. (2006) 'Aproximación a la vida cotidiana de las poblaciones argáricas: el caso de Peñalosa', *Arqueología y Territorio* 3: 89–116.
- Aranda, G. (2004) 'Craft Specialization in Pottery Production during the Bronze Age in South-eastern Iberia', *Journal of Iberian Archaeology* 6: 157–79.
- Aranda, G. and J.A. Esquivel (2006) 'Ritual Funerario y Comensalidad en las sociedades de la Edad del Bronce del Sureste Peninsular: la Cultura del Argar', *Trabajos de Prehistoria* 63(2): 117–33.
- Aranda, G. and J.A. Esquivel (2007) 'Poder y Prestigio en las sociedades de la cultura del Argar. El consumo comunal de bóvidos y ovicápridos en los rituales de enterramiento', *Trabajos de Prehistoria* 64(2): 95–118.
- Aranda, G. and F. Molina (2006) 'Wealth and Power in the Bronze Age of the South-east of the Iberian Peninsula: The Funerary Record of Cerro de la Encina', *Oxford Journal of Archaeology* 25(1): 47–59.
- Aranda, G., F. Molina, S. Fernández, M. Sánchez, I. Al-oumaqui, S. Jiménez-Brobeil and M.G. Roca (2008) 'El poblado y necrópolis argáricos del Cerro de la Encina (Monachil, Granada). Las campañas de excavación de 2003–05', *Cuadernos de Prehistoria y Arqueología de la Universidad de Granada* 18: 219–64.
- Armélagos, G. (1998) 'Introduction: Sex, Gender and Health Status in Prehistoric

- and Contemporary Populations', in A. Grauer and P. Stuart-Macadam (eds) *Sex and Gender in Paleopathological Perspective*, pp. 1–10. Cambridge: Cambridge University Press.
- Arnold, B. (2002) 'Sein und Werden: Gender as a Process in Mortuary Ritual', in S. Nelson (ed.) *In Pursuit of Gender*, pp. 239–56. Walnut Creek, CA: Altamira.
- Arnold, B. and N. Wicker (2001) *Gender and the Archaeology of Death*. Walnut Creek, CA: Altamira Press.
- Arteaga, O. (1993) 'Tribalización, jerarquización y Estado en el territorio de El Argar', *Spal* 1: 197–208.
- Ayala, M.M. (1991) *El poblamiento argárico en Lorca. Estado de la cuestión*. Murcia: Real Academia Alfonso X el Sabio.
- Binford, L. (1971) 'Mortuary Practices: Their Study and Their Potential', in J. Brown (ed.) *Approaches to the Social Dimensions of Mortuary Practices*, pp. 390–420. Washington, DC: Memoir of the Society for American Archaeology.
- Blance, B. (1971) *Die Anfänge der Metallurgie auf der Iberischen Halbinsel*. Berlin: S.A.M.
- Botella, M. (1975) 'Paleopatología en la necrópolis argárica de la Cuesta del Negro, Purullena (Granada)', in *IV Congreso Español de Historia de la Medicina*, pp. 21–8. Granada: Universidad de Granada.
- Botella, M.C., T. Escoriza and M.J. Cabañete (1986) 'La mortalidad en las poblaciones argáricas', in AA.VV. (eds) *Homenaje a Luis Siret (1934–1984)*, pp. 467–72. Sevilla: Consejería de Cultura de la Junta de Andalucía.
- Botella, M.C., S.A. Jiménez-Brobeil and J.A. Ortega (1995) 'Traumatismos in Bronze Age Settlements in the Iberian Peninsula: Argar Culture', in *Proceedings of the IXth European Meeting of the Paleopathology Association*, pp. 65–72. Barcelona: Museu d'Arqueologia de Catalunya.
- Brumfiel, E. (1991) 'Weaving and Cooking: Women's Production in Aztec Mexico', in J.M. Gero and M.W. Conkey (eds) *Engendering Archaeology. Women and Prehistory*, pp. 224–51. Oxford: Basil Blackwell.
- Buikstra, J., P. Castro, R. Chapman, P. González-Marcén, L. Hoshower, V. Lull, M. Picazo, R. Risch and E. Sanahuja (1990) 'La necrópolis de Gatas', *Anuario de Arqueología Andaluza* II: 261–76.
- Cámara, J.A. (2001) *El ritual funerario en la Prehistoria Reciente en el Sur de la Península Ibérica*. International Series 913. Oxford: BAR.
- Castro, P.V., B. Chapman, S. Gili, L. Lull, R. Micó, C. Rihuete and M.E. Sanahuja (1993–4) 'Tiempos sociales de los contextos funerarios argáricos', *Anales de Prehistoria y Arqueología* 9–10: 77–106.
- Castro, P.V., V. Lull, R. Micó and C. Rihuete (1995) 'La prehistoria reciente en el sudeste de la Península Ibérica. Dimensión socio-económica de las prácticas funerarias', in R. Fábregas, F. Pérez and C. Fernández (eds) *Arqueología da Morte na Península Ibérica desde as Orixes ata o Meieiro*, pp. 127–67. Xinxo de Limia: Excmo. Concello de Xinxo de Limia.
- Chapman, R.W. (2005) 'Mortuary Analysis: A Matter of Time?', in J.E. Buikstra, L.A. Beck and S.R. Williams (eds) *Interacting with the Dead. Perspectives on Mortuary Archaeology for the New Millennium*, pp. 25–40. Gainesville: University Press of Florida.
- Chapman, R.W., I. Kinnes and K. Randsborg (1981) *The Archaeology of Death*. Cambridge: Cambridge University Press.



- Chesson, M. (2001) 'Social Memory, Identity and Death: An Introduction', in M. Chesson (ed.) *Social Memory, Identity, and Death: Anthropological Perspectives on Mortuary Rituals*, pp. 1–10. Arlington, VA: American Anthropological Association.
- Cohen, M.N. and S. Bennett (1993) 'Skeletal Evidence for Sex Roles and Gender Hierarchies in Prehistory', in B.D. Miller (ed.) *Sex and Gender Hierarchies*, pp. 273–96. Cambridge: Cambridge University Press.
- Colomer, L., P. González-Marcén and S. Montón-Subías (1998) 'Maintenance Activities, Technological Knowledge and Consumption Patterns: A View from a Pre-historic Iberian Site (Can Roqueta, 1200–500 cal BC)', *Journal of Mediterranean Archaeology* 11: 53–80.
- Conkey, M.W. and J.M. Gero (1991) 'Tensions, Pluralities, and Engendering Archaeology: An Introduction to Women and Prehistory', in J.M. Gero and M.W. Conkey (eds) *Engendering Archaeology. Women and Prehistory*, pp. 3–30. Oxford: Basil Blackwell.
- Conkey, M.W. and J.M. Spector (1984) 'Archaeology and the Study of Gender', *Advances in Archaeological Method and Theory* 7: 1–38.
- Contreras, F., J. Capel, J.A. Esquivel, F. Molina and F. de la Torre (1987–8) 'Los ajuares cerámicos de la necrópolis argárica de la Cuesta del Negro (Purullena, Granada). Avance al estudio analítico y estadístico', *Cuadernos de Prehistoria de la Universidad de Granada* 12–13: 135–56.
- Contreras, F., J.A. Cámara, B. Robledo and G. Tranco (2000) 'La Necrópolis', in F. Contreras (ed.) *Proyecto Peñalosa. Análisis histórico de las comunidades de la Edad del Bronce del piedemonte meridional de sierra Morena y depresión Linares-Bailén*, pp. 287–322. Arqueología Monográficas, 10. Sevilla: Junta de Andalucía. Consejería de Cultura.
- Cuadrado, E. (1950) 'Útiles y armas de El Argar. Ensayo de tipología', in *I Congreso Nacional de Arqueología*, pp. 7–28. Cartagena.
- Dahlberg, F. (1981) *Woman the Gatherer*. New Haven, CT: Yale University Press.
- Damm, C. (1991) 'From Burials to Gender Roles: Problems and Potentials in Post-Processual Archaeology', in D. Walde and N. Willows (eds) *The Archaeology of Gender. Proceedings of the Twenty-Second Annual Conference of the Archaeological Association of the University of Calgary*, pp. 130–5. Calgary: University of Calgary Archaeological Association.
- De Miguel, M.P. (2001) 'Inhumaciones argáricas de la Illeta dels Banyets (El Campello, Alicante): aproximación paleopatológica', in J.A. Sánchez (ed.) *V Congreso Nacional de Paleopatología*, pp. 9–19. Alcalá la Real: Asociación Española de Paleopatología.
- De Miguel, M.P. (2006) 'Les dones en els contextos funeraris prehistòrics. Aportacions des de l'osteoarqueologia', *Les Dones en la Prehistòria*, pp. 91–104. Valencia: Diputació de Valencia.
- Dietler, M. (2001) 'Theorizing the Feast: Ritual of Consumption, Commensal Politics, and Power in African Contexts', in M. Dietler and B. Hayden (eds) *Feasts. Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, pp. 65–114. London: Smithsonian Institution Press.
- Dommasnes, L.H. (1982) 'Late Iron Age in Western Norway. Female Roles and Ranks as Deduced from an Analysis of Burial Customs', *Norwegian Archaeological Review* 15: 70–84.

- Dommasnes, L.H. and S. Montón-Subías (2007) 'Engendering Historical Change', paper presented at the Engendering Historical Change Workshop, Bergen.
- Donnan, C.B. and L.J. Castillo (1992) 'Finding the Tomb of a Moche Priestess', *Archaeology* 45: 38–42.
- Duke, P. (1991) 'Recognizing Gender in Plains Hunting Groups: Is it Possible or Even Necessary?', in D. Walde and N. Willows (eds) *The Archaeology of Gender: Proceedings of the Twenty-Second Annual Chacmool Conference of the Archaeological Association of the University of Calgary*, pp. 280–3. Calgary: University of Calgary.
- Eiroa, J. (1993–4) 'Aspectos funerarios del poblado de El Bajil (Moratalla, Murcia). (Niveles de la Edad del Bronce)', *Anales de Prehistoria y Arqueología* 9–10: 55–76.
- Eiroa, J. (2004) *La Edad del Bronce en Murcia*. Murcia: Real Academia Alfonso X el Sabio.
- Fisher, G. and D. di Paolo Loren (2003) 'Introduction', *Cambridge Archaeological Journal* 13: 225–30.
- Fresneda, E., O. Rodríguez-Ariza, M. López and J.M. Peña (1999) 'El asentamiento argárico de Fuente Amarga', *XXIV Congreso Nacional de Arqueología*, pp. 231–40. Murcia: Instituto de Patrimonio Histórico de Murcia.
- Geertz, C. (1973) *The Interpretation of Culture: Selected Essays*. New York: Basic Books.
- Gifford-González, D. (1993) 'Gaps in Zooarchaeological Analyses of Butchery: Is Gender an Issue?', in J. Hudson (ed.) *From Bones to Behaviour: Ethnoarchaeological and Experimental Contributions to the Interpretation of Faunal Remains*, pp. 181–99. Carbondale: Southern Illinois University.
- Gifford-González, D. (2008) 'Thoughts on a Method for Zooarchaeological Study of Quotidian Life', in S. Montón-Subías and M. Sánchez-Romero (eds) *The Archaeology of Maintenance Activities*, pp. 15–23. Oxford: BAR.
- Gillespie, S. (2001) 'Mortuary Ritual, Agency and Personhood. A Case Study from the Ancient Maya', *Journal of Anthropological Archaeology* 20(1): 73–112.
- Gilman, A. (2001) 'Assessing Political Development in Copper and Bronze Age Southeast Spain', in J. Hass (ed.) *From Leaders to Rulers*, pp. 59–84. New York: Kluwer Academic / Plenum Publishers.
- González-Marcén, P. (1991) 'Cronología del grupo Argárico', PhD dissertation, Universitat Autònoma de Barcelona.
- González-Marcén, P., S. Montón-Subías and M. Picazo, eds (2007) 'Interpreting Household Practices: Reflections on the Social and Cultural Roles of Maintenance Activities', *Treballs d'Arqueologia* 13.
- Gräslund, A. (2001) 'The Position of Iron Age Scandinavian Women: Evidence from Graves and Rune Stones', in B. Arnold and N.L. Wicker (eds) *Gender and the Archaeology of Death*, pp. 81–102. Walnut Creek, CA: Altamira Press.
- Hamlin, C. (2001) 'Sharing the Load: Gender and Task Division at the Windover Site', in B. Arnold and N.L. Wicker (eds) *Gender and the Archaeology of Death*, pp. 119–35. Walnut Creek, CA: Altamira Press.
- Hernando, A. (2002) *Arqueología de la Identidad*. Madrid: Akal.
- Hernando, A. (2008) 'Why Did History not Appreciate Maintenance Activities?', in S. Montón-Subías and M. Sánchez-Romero (eds) *The Archaeology of Maintenance Activities*, pp. 9–23. Oxford: BAR.



- Hodder, I. (1984) 'Burials, Houses, Women and Men in the European Neolithic', in D. Miller and C. Tilley (eds) *Ideology, Power and Prehistory*, pp. 51–68. Cambridge: Cambridge University Press.
- Hollimon, S.E. (2001) 'Warfare and Gender in the Northern Plains', in B. Arnold and N.L. Wicker (eds) *Gender and the Archaeology of Death*, pp. 179–93. Walnut Creek, CA: Altamira Press.
- Jenkins, R. (1997) *Rethinking Ethnicity: Arguments and Explorations*. London: SAGE.
- Jensen, C.K. and K.H. Nielsen (1997) 'Introduction. Towards a Danish Burial Archaeology?', in C.K. Jensen and K.H. Nielsen (eds) *Burial and Society. The Chronological and Social Analysis of Archaeological Burial Data*, pp. 9–15. Aarhus: Aarhus University Press.
- Jiménez-Brobeil, S.A. and J.A. Ortega (1992) 'Osteoarthritis de la columna vertebral en las poblaciones de la Edad del Bronce en la provincia de Granada', *Munibe Supl.* 8: 257–60.
- Jiménez-Brobeil, S.A., M.C. Botella and J.A. Ortega (1995) 'Arthropaties in the Iberian Peninsula during the Bronze Age: Argar Culture', in *Proceedings of the IXth European Meeting of the Paleopathology Association*, pp. 173–79. Barcelona: Museu d'Arqueologia de Catalunya.
- Jiménez-Brobeil, S.A., I. Al-oumaqui and J.A. Esquivel (2004) 'Actividad física según sexo en la cultura Argárica. Una aproximación desde los restos humanos', *Trabajos de Prehistoria* 62(2): 141–54.
- Jiménez-Brobeil, S.A., I. Al-oumaqui and P.D. Souich (2007) 'Childhood Trauma in Several Populations from the Iberian Peninsula', *International Journal of Osteoarchaeology* 17: 189–98.
- Joyce, R. (2001) 'Burying the Dead at Tlatilco: Social Memory and Social Identities', in M. Chesson (ed.) *Social Memory, Identity, and Death: Anthropological Perspectives on Mortuary Rituals*, pp. 12–26. Arlington: American Anthropological Association.
- Knapp, B. and P. Van Dommelen (2008) 'Past Practices: Rethinking Individuals and Agents in Archaeology', *Cambridge Archaeological Journal* 18(1): 15–34.
- Kunter, M. (2000) 'Los Restos de esqueletos Humanos Hallados en Fuente Álamo durante las campañas de 1985, 1988 y 1991', in H. Schubart, V. Pingel and O. Arteaga (eds) *Fuente Álamo. Las Excavaciones Arqueológicas 1977–1991 en el Poblado de la Edad Del Bronce*, pp. 265–82. Sevilla: Consejería de Cultura de la Junta de Andalucía.
- Kunter, M. (2004) 'Die Menschlichen Skekettreste aus den grabungskampagnen 1996 und 1999 in Fuente Álamo', *Madridrer Mitteilungen* 45: 88–96.
- Leighton, R. (1998) 'Reflections on San Teodoro 1–7 and Recent Sex Changes in the Upper Paleolithic', in R. Whitehouse (ed.) *Gender and Italian Archaeology. Challenging the Stereotypes*, pp. 45–55. London: Accordia Research Institute & University College Institute of Archaeology.
- Lerner, G. (1993) 'Reconceptualizing Differences among Women', in A. Jagger and P.S. Rothenberg (eds) *Feminist Frameworks: Alternative Theoretical Accounts of the Relation between Women and Men*, pp. 237–48. New York: McGraw Hill.
- López-Padilla, J.A., D. Belmonte and M.P. De Miguel (2006) 'Los enterramientos argáricos de la Illeta dels Banyets, El Campello, Alicante', in J. Soler (ed.) *La ocupación prehistórica de la Illeta dels Banyets (El Campello, Alicante)*, pp. 119–72. Alicante: Museo Arqueológico de Alicante/Diputación de Alicante.

- Lull, V. (1983) *La cultura de El Argar: un modelo económico para el estudio de las formaciones económico-sociales prehistóricas*. Madrid: Akal.
- Lull, V. (2000) 'Argaric Society: Death at Home', *Antiquity* 74: 581–90.
- Lull, V. and J. Estévez (1986) 'Propuesta metodológica para el estudio de las necrópolis argáricas', in *Homenaje a Luis Siret (1934–1984)*, pp. 441–52. Sevilla: Consejería de Cultura de la Junta de Andalucía.
- Lull, V., C. Rihuete, R. Micó and R. Risch (2004) 'Las relaciones de propiedad en la sociedad argárica. Una aproximación a través del análisis de las tumbas de individuos infantiles', *Mainake* 26: 233–72.
- Markus, H. and S. Kitayama (1998) 'The Cultural Psychology of Personality', *Journal of Cross-Cultural Psychology* 29: 63–87.
- Martínez, A. and J. Ponce (2002a) 'Excavación arqueológica de urgencia en el subsuelo de la antigua iglesia del convento de las Madres Mercedarias (C/Zapatería-C/ La Cava, Lorca)', *Memorias de Arqueología* 10: 90–137.
- Martínez, A. and J. Ponce (2002b) 'Segunda intervención arqueológica en la Plaza Juan Moreno no. 8, confluencia con la calle Los Tintes, (Lorca)', *Memorias de Arqueología* 19: 150–60.
- Martínez, A., J. Ponce and M.M. Ayala (1996) *Las prácticas funerarias de la cultura argárica en Lorca (Murcia)*. Lorca: Caja de Ahorros de Murcia-Ayto. de Lorca.
- Mathers, C. (1994) 'Goodbye to All That?: Contrasting Patterns of Change in the South-east Iberian Bronze Age c. 24/2200–600 BC', in C. Mathers and S. Stoddart (eds) *Development and Decline in the Mediterranean Bronze Age*, pp. 21–72. Sheffield: Collis.
- Meskell, L. (2000) 'Writing the Body in Archaeology', in A.E. Rautnam (ed.) *Reading the Body. Representations and Remains in the Archaeological Record*, pp. 13–24. Philadelphia: University of Pennsylvania Press.
- Meskell, L. (2001) 'The Archaeology of Identity', in I. Hodder (ed.) *Archaeological Theory Today*, pp. 187–213. Cambridge: Polity Press.
- Meyers, C. (2008) 'Grinding to a Halt: Gender and the Changing Technology of Flour Production in Roman Galilee', in S. Montón-Subías and M. Sánchez-Romero (eds) *The Archaeology of Maintenance Activities*, pp. 65–74. Oxford: BAR.
- Min-Sun, K. (2001) 'Perspectives on Human Communication. Implications for Transculture Theory', in V. Milhouse, M. Asante and P. Nwosu (eds) *Transcultural Realities. Interdisciplinary Perspectives on Cross-Cultural Relations*, pp. 3–31. London: SAGE.
- Molina, F. (1983) 'La Prehistoria', in F. Molina and J.M. Roldán Hervas *Historia de Granada I. De las primeras culturas al Islam*, pp. 11–131. Granada: Quijote.
- Montero, I. (1993) 'Bronze Age Metallurgy in the Southeast of Spain', *Antiquity* 67: 46–57.
- Montero, I. (1994) *El origen de la metalurgia en el sudeste peninsular*. Almería: Instituto de Estudios Almerienses.
- Montón-Subías, S. (2002) 'Cooking in Zooarchaeology: Is this Issue Still Raw?', in P. Miracle and N. Milner (eds) *Consuming Passions and Patterns of Consumption*, pp. 7–15. Cambridge: McDonald Institute Monographs.
- Montón-Subías, S. (2007) 'Interpreting Archaeological Continuities: An Approach to Transversal Equality in the Argaric Bronze Age of South-east Iberia', *World Archaeology* 39(2): 246–62.
- Montón-Subías, S. and M. Sánchez-Romero, eds (2008) *The Archaeology of Maintenance Activities*. Oxford: BAR.



- Moreno, A. (2000) 'La metalurgia de Peñalosa', in F. Contreras (ed.) *Proyecto Peñalosa: Análisis histórico de las Comunidades de la Edad del Bronce del Piedemonte Meridional de Sierra Morena y Depresión Linares-Bailén*, pp. 167–221. Granada: Junta de Andalucía. Consejería de Cultura.
- Morris, I. (1988) *Burial in Ancient Society*. Cambridge: Cambridge University Press.
- O'Gorman, J.A. (2001) 'Life, Death and the Longhouse: A Gendered View of Oneota Social Organization', in B. Arnold and N.L. Wicker (eds) *Gender and the Archaeology of Death*, pp. 23–49. Walnut Creek, CA: Altamira Press.
- Ortega, J.A., S.A. Jiménez-Brobeil and M. Botella (1995) 'Paleopathology in the "Terrera del Reloj" Necropolis, Dehesas de Guadix, Granada (Spain)', in R. Batista, D. Campillo and T. Carreras (eds) *IXth European Meeting of the Paleopathology Association*, pp. 241–48. Barcelona: Museu d'Arqueologia de Catalunya.
- O'Shea, J. (1996) *Villagers of the Maros: A Portrait of an Early Bronze Age Society*. New York: Plenum Press.
- Parker-Pearson, M. (1999) *The Archaeology of Death and Burial*. Stroud: Sutton.
- Peebles, C. and S. Kus (1977) 'Some Archaeological Correlates of Ranked Societies', *American Antiquity* 42: 421–48.
- Peterson, J.D. (2000) 'Labor Patterns in the Southern Levant in the Early Bronze Age', in A.E. Rautman (ed.) *Reading the Body, Representations and Remains in the Archaeological Record*, pp. 38–53. Philadelphia: University of Pennsylvania Press.
- Picazo, M. (1997) 'Hearth and Home: The Timing of Maintenance Activities', in J. Moore and E. Scott (eds) *Invisible People and Processes: Writing Gender and Childhood into European Archaeology*, pp. 59–60. Leicester: Leicester University Press.
- Pingel, V., H. Shubart, O. Arteaga, A.M. Roos and M. Kunst (2003) 'Excavaciones arqueológicas en la ladera sur de Fuente Álamo. Campaña de 1999', *Spal* 12: 179–230.
- Pluciennik, M. (1998) 'Representations of Gender in Prehistoric Southern Italy', in R. Whitehouse (ed.) *Gender and Italian Archaeology. Challenging the Stereotypes*, pp. 57–82. London: Acordia Research Institute and Institute of Archaeology, University of London.
- Rautman, E.A. and L.E. Talalay (2000) 'Introduction. Diverse Approaches to the Study of Gender in Archaeology', in A.E. Rautman (ed.) *Reading the Body. Representations and Remains in the Archaeological Record*, pp. 1–12. Philadelphia: University of Pennsylvania Press.
- Rega, E. (1997) 'Age, Gender and Biological Reality in the Early Bronze Age Cemetery at Mokrin', in J. Moore and E. Scott (eds) *Invisible People and Processes: Writing Gender and Childhood into European Archaeology*, pp. 229–47. Leicester: Leicester University Press.
- Rega, E. (2000) 'The Gendering of Children in the Early Bronze Age Cemetery at Mokrin', in M. Donald and L. Hurcombe (eds) *Gender and Material Culture in Historical Perspective*, pp. 238–49. London: Macmillan.
- Rosaldo, M.Z. and L. Lamphere (1974) *Women, Culture and Society*. Stanford, CA: Stanford University Press.
- Sánchez-Romero, M. (2004) 'Children in the Southeast of the Iberian Peninsula during the Bronze Age', *Ethnographisch-Archäologische Zeitschrift* 47: 377–87.

- Sánchez-Romero, M. (2007) 'Actividades de mantenimiento en la Edad del Bronce del sur peninsular: el cuidado y socialización de individuos infantiles', in M. Sánchez-Romero (ed.) *Arqueología de las mujeres y de las relaciones de género. Complutum* 18: 185–94.
- Sánchez-Romero, M. and G. Aranda (2008) 'Changing Foodways: New Strategies in Food Preparation, Serving and Consumption in the Bronze Age of the Iberian Peninsula', in S. Montón-Subías and M. Sánchez-Romero (eds) *The Archaeology of Maintenance Activities*, pp. 75–85. Oxford: BAR.
- Scarre, C. (1994) 'The Meaning of Death: Funerary Beliefs and the Prehistorian', in C. Renfrew and E. Zubrow (eds) *The Ancient Mind. Elements of Cognitive Archaeology*, pp. 75–82. Cambridge: Cambridge University Press.
- Schubart, H. (1975) 'Cronología relativa de la cerámica sepulcral de El Argar', *Trabajos de Prehistoria* 32: 78–92.
- Schubart, H. and O. Arteaga (1986) 'Fundamentos Arqueológicos para el estudio socio-económico y cultural del área de el Argar', in AA.VV. (ed.) *Homenaje a Luis Siret (1934–1984)*, pp. 289–307. Sevilla: Consejería de Cultura de la Junta de Andalucía.
- Schubart, H., O. Arteaga and V. Pingel (1987) 'Fuente Álamo (Almería): informe preliminar sobre la excavación de 1985 en el poblado de la Edad del Bronce', *Anuario Arqueológico de Andalucía* 1985(II): 305–12.
- Schubart, H., V. Pingel and O. Arteaga (1993) 'Informe preliminar sobre la excavación realizada en 1991 en el poblado de la Edad del Bronce. Fuente Álamo', *Anuario Arqueológico de Andalucía* 1991(II): 24–7.
- Schubart, H., V. Pingel and O. Arteaga (2000) *Fuente Álamo. Las excavaciones arqueológicas 1977–1991 en el poblado de la Edad del Bronce*. Arqueología Monográficas 9. Sevilla: Junta de Andalucía, Consejería de Cultura.
- Scott, E. (2001) 'Killing the Female? Archaeological Narratives of Infanticide', in B. Arnold and N.L. Wicker (eds) *Gender and the Archaeology of Death*, pp. 3–21. Walnut Creek, CA: Altamira Press.
- Shennan, S.E. (1975) 'The Social Organisation at Branc', *Antiquity* 49: 279–87.
- Siret, H. and L. Siret (1886) *Les Premiers Âges du Métal dans le Sud-Est de l'Espagne*. Anvers.
- Sofaer, J. (2000) 'Sex Differences in Activity-Related Osseous Change in the Spine and the Gendered Division of Labor at Ensay and Wharram Percy, UK', *American Journal of Physical Anthropology* 111(3): 333–54.
- Sofaer, J. (2006) 'Gender, Bioarchaeology and Human Ontogeny', in R. Gowland and C. Knüsel (eds) *Social Archaeology of Funerary Remains*, pp. 155–67. Oxford: Oxbow.
- Spector, J. (1993) *What this Awl Means: Feminist Archaeology at a Wahpeton Dakota Village*. St. Paul: Minnesota Historical Society Press.
- Weaver, D. (1998) 'Osteoporosis in the Bioarchaeology of Women', in A. Grauer and P. Stuart-Macadam (eds) *Sex and Gender in Paleopathological Perspective*, pp. 27–44. Cambridge: Cambridge University Press.
- Weglian, E. (2001) 'Grave Goods Do Not a Gender Make. A Case Study from Singen and Hohenwiell, Germany', in B. Arnold and N.L. Wicker (eds) *Gender and the Archaeology of Death*, pp. 137–55. Walnut Creek, CA: Altamira Press.
- Whelan, M.K. (1991) 'Gender and Archaeology: Mortuary Studies and the Search for the Origins of Gender Differentiation', in D. Walde and N. Willows (eds) *The*



Archaeology of Gender: Proceedings of the Twenty-Second Annual Conference of the Archaeological Association of the University of Calgary, pp. 366–74. Alberta: Archaeological Association of the University of Calgary.

Wilson, D. (1997) 'Gender, Diet, Health, and Social Structure in the Mississippian Powers Phase Turner Cemetery Population', in C. Cheryl and J.A. Rosemary (eds) *Women in Prehistory, North America and Mesoamerica*, pp. 119–35. Philadelphia: University of Pennsylvania Press.

GONZALO ARANDA is a lecturer at the Department of Prehistory and Archaeology at the University of Granada (Spain). His research interests include the process of appearance and development of complex societies in Late Prehistory, focusing his attention especially on the analysis of pottery production and on the funerary ritual during the Bronze Age. Other interests include social theory and archaeological heritage. He has conducted archaeological research in different settlements and necropolises of the southeast of Iberia.

SANDRA MONTÓN-SUBÍAS is an ICREA Research Professor at Universitat Pompeu Fabra (Barcelona, Spain). She is currently working on gender theory, maintenance activities and the archaeology of care with a special focus on Bronze Age Iberian prehistoric societies. Other research interests relate to archaeological theory, domestic technologies, material culture and cultural heritage. Her recent publications include 'Interpreting Archaeological Continuities: An Approach to Transversal Equality in the Argaric Bronze Age of South-East Iberia' (*World Archaeology* 39(2): 246–62, 2007) and, co-edited with M. Sánchez-Romero, *Engendering Social Dynamics. The Archaeology of Maintenance Activities* (BAR International Series, 2008).

[email: sandra.monton@upf.edu]

MARGARITA SÁNCHEZ-ROMERO is a lecturer at the Department of Prehistory and Archaeology at the University of Granada (Spain). Her research interests include gender archaeology, focusing her attention especially on women's technology and maintenance activities, and the archaeology of childhood with special attention to processes of learning and socialization. Other interests include archaeological methodology and studies of material culture. She has carried out archaeological fieldworks in different sites of the south of Iberia.

EVA ALARCÓN is a doctoral candidate at the Department of Prehistory and Archaeology at the University of Granada (Spain). Her research interests include gender archaeology and daily life activities during the Bronze Age. She has carried out archaeological fieldworks in different sites in the south of Iberia.