THE COPPER AGE IN THE LANDS OF ANTEQUERA (MÁLAGA): INTRODUCTION TO THE SETTLEMENT PATTERNS AND SOCIAL DYNAMICS

La Edad del Cobre en las Tierras de Antequera (Málaga): introducción a los patrones de asentamiento y dinámicas sociales

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Abstract: Antequera (Málaga) is home to one of the most important Neolithic and Copper Age megalithic landscapes in Europe, as proven by its recent declaration as a World Heritage Site by unesco on July 15th 2016. This declaration highlights the need to push ahead in the research of the Neolithic and Copper Age periods, when the megalithic phenomenon developed and the three large Antequera megaliths, Menga, Viera and El Romeral, were built. In this paper, stemming from an on-going research project, we present a synthesis of the evidence available for the study of the Copper Age settlement patterns and social dynamics in the Lands of Antequera. Departing from a comprehensive review of the existing literature an assessment is made of the settlement patterns, subsistence economy, exploitation and exchange of abiotic resources, monumentality and burial practices of this time period. The aim is to formulate a preliminary framework of analysis of the cultural and social context in which the construction of El Romeral, the largest tholos monument known in Iberia, took place.

Key words: Chalcolithic; Spatial Analysis; social organisation; subsistence economy; abiotic resources; burial practices; Megalithic phenomenon.

Resumen: Antequera (Málaga) alberga uno de los más importantes paisajes megalíticos del Neolítico y la Edad del Cobre en Europa, como lo demuestra su reciente declaración como Patrimonio de la Humanidad por la unesco el 15 de julio de 2016. Esta declaración pone el foco en la necesidad de avanzar en la investigación de los períodos Neolítico y Edad del Cobre, en los que se produce el apogeo del fenómeno megalítico y en cuyo contexto se construyen los tres grandes megalitos antequeranos, Menga, Viera y El Romeral. En este artículo, que deriva de un proyecto de investigación actualmente en curso, se presenta una síntesis de los datos disponibles para el conocimiento de las pautas de asentamiento y las dinámicas sociales de la Edad del Cobre en Tierras de Antequera. Partiendo de una exhaustiva síntesis de la literatura existente, se realiza un ensayo de valoración de los patrones de asentamiento, la economía subsistencial, la explotación e intercambio de recursos abióticos, la monumentalidad y las prácticas funerarias en este periodo. Con ello se persigue formular un marco preliminar...
de análisis del contexto cultural y social en el que se dio la construcción de El Romeral, el mayor tholos conocido en Iberia.

Palabras clave: Calcolítico; análisis espacial; organización social; economía de subsistencia; recursos abióticos; prácticas funerarias; Megalitismo.

1. Introduction

Antequera (Málaga) is home to one of the most important Neolithic and Copper Age megalithic landscapes in Europe, as proven by its recent declaration as a UNESCO World Heritage Site on July 15th 2016. The Antequera megalithic landscape is structured around two major ‘natural monuments’—La Peña de los Enamorados mountain and El Torcal karstic landscape—and three remarkable megalithic monuments built in the Late Neolithic—Menga and Viera—, and the Copper Age—El Romeral—. Despite a long history of research that goes back to the first half of the 19th century AD, however, surprisingly little is known about the settlements used by the builders and users of those monuments, their spatial organisation and landscape patterns as well as their social dynamics, all of which have fundamental importance to understand the processes that led to the creation of what is one of Europe’s most extraordinary prehistoric monumental landscapes. This article is the first attempt at a synthesis looking at the settlement patterns and social dynamics of the Copper Age in the Lands of Antequera. The evidence used for this synthesis comes from the existing literature—both published and grey—and the data set available in the Arca database—Archivo de Contextos Arqueológicos in its Spanish acronym-Arqueological Contexts Archive—, created by the authors to collate the enormous inventory of sites recorded in this region (Moreno Escobar and García Sanjuán, 2013). The overall aim of this summary is to evaluate the available archaeological record in order to make a preliminary assessment of the settlement dynamics, economy and social organisation of the Copper Age societies in the region, hence providing a better understanding of the context in which the Antequera megaliths developed.

2. Empirical record

Research into Late Prehistory in the Lands of Antequera goes a long way back, to the mid-19th century, when R. Mitjana y Ardison published an opuscule in which he presented the results of his excavations at Menga (Mitjana y Ardison, 1847). As J. I. Sánchez-Cuenca’s work (2011) showed recently, from that moment on, Menga became an international benchmark for the study of the megalithic phenomenon world-wide. Within the Iberian context, the Late Prehistory of Antequera became all the more relevant after the discovery in 1903 of Viera and El Romeral, the other two major megalithic monuments of the region (Velázquez, 1905; Gómez-Moreno, 1905; Mergelina, 1922; Hemp, 1934). The Spanish civil war and subsequent post-war era was a time of relative inactivity. Nevertheless, during this period, the Alcaide necropolis of artificial

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2 The region of the Lands of Antequera, with a total area of 2,640 km², includes the municipalities of Alameda, Alfarnate, Alfarnatejo, Almargen, Almogía, Antequera, Archidona, Ardales, Campillos, Cañete la Real, Carratraca, Casabermeja, Colmenar, Cuevas Bajas, Cuevas del Becerro, Cuevas de San Marcos, Fuente de Piedra, Humilladero, Mollina, Periana, Sierra de Yeguas, Teba, Valle de Abdalajís, Villanueva de Algaidas, Villanueva de Tapia, Villanueva del Rosario and Villanueva del Trabuco.
caves was discovered and excavated (Giménez Reyna, 1946, 1953; and Berdichewsky, 1964: 100-128). From the second half of the 1970s onwards, late prehistoric research in the region intensified thanks to the substantial work carried out by the University of Málaga, which had been founded in 1974. Excavations and studies were undertaken on the Antequeran megaliths themselves (Ferrer, 1997a, 1997b), as well as on other sites such as Las Palomas (Ferrer and Marqués, 1978; Aguado and Baldomero, 1979; Ferrer and Fernández Ruiz, 1987), Marimacho (Leiva and Ruiz González, 1977a; Ferrer et al., 1988; Marqués et al., 2004), Alcaide (Marqués, 1983, 1987, 1990; Marqués and Ferrer, 1979, 1983; Marqués et al., 1992; Aguado et al., 1997, 2002; Tovar et al., 2014) and El Tardón (Ferrer et al., 1987; Fernández Ruiz et al., 1997).

In addition to these archaeological studies, since the end of the 1990s, numerous rescue excavations and surveys have been carried out in the region due to major public infrastructure work –particularly in connection with new roads and railways–. Consequently, various new Late Prehistoric sites have come to light, including Cortijo de San Miguel (Fernández Rodríguez et al., 1996, 1997, 1999a), Rodahuevos (Fernández Rodríguez et al., 1999b), Cortijo Quemado (Fernández Rodríguez, 2005a), Yacimiento 129 (Fernández Rodríguez, 2005b), El Site Municipality Chronology Type Source Bibliog. References (selection)

<table>
<thead>
<tr>
<th>Site</th>
<th>Municipality</th>
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<th>Type</th>
<th>Source</th>
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<td>Alameda</td>
<td>ca</td>
<td>settlement</td>
<td>excavation</td>
<td>Marqués et al., 1999</td>
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<td>excavation</td>
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<td>ca</td>
<td>burial</td>
<td>survey</td>
<td>Sanchidrián et al., 1989</td>
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<td>ne/ca</td>
<td>settlement</td>
<td>excavation</td>
<td>unpublished</td>
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<td>survey</td>
<td>Ramos et al., 1986</td>
</tr>
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<td>Antequera</td>
<td>ca</td>
<td>burial</td>
<td>excavation</td>
<td>Fernández Rodríguez et al., 2014a</td>
</tr>
<tr>
<td>Cerro García</td>
<td>Casabermeja</td>
<td>ca</td>
<td>settlement</td>
<td>survey</td>
<td>Marqués, 1985</td>
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<td>Chaperas</td>
<td>Casabermeja</td>
<td>ca</td>
<td>burial</td>
<td>excavation</td>
<td>Marqués et al., 2000</td>
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<td>Cortijo Quemado</td>
<td>Antequera</td>
<td>ln/ce</td>
<td>settlement</td>
<td>excavation</td>
<td>Fernández Rodríguez, 2005a</td>
</tr>
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<td>Cortijo San Miguel</td>
<td>Ardales</td>
<td>ca</td>
<td>settlement</td>
<td>excavation</td>
<td>Fernández Rodríguez et al., 1996, 1997, 1999</td>
</tr>
<tr>
<td>El Castillejo</td>
<td>Almogía</td>
<td>ca</td>
<td>settlement</td>
<td>excavation</td>
<td>Fernández Rodríguez and Rodríguez Vinceiro, 1995</td>
</tr>
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<td>El Cuchillo</td>
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<td>ca</td>
<td>burial</td>
<td>excavation</td>
<td>unpublished</td>
</tr>
<tr>
<td>El Romeral</td>
<td>Antequera</td>
<td>ca</td>
<td>burial/ritual</td>
<td>excavation</td>
<td>Marqués and Fernández Ruiz, 2009; Ruiz González, 2009; etc.</td>
</tr>
<tr>
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<td>Antequera</td>
<td>ca</td>
<td>settlement</td>
<td>excavation</td>
<td>Fernández Rodríguez et al., 2011, 2014a</td>
</tr>
<tr>
<td>El Toro</td>
<td>Antequera</td>
<td>ne/ca/lba</td>
<td>settlement (cave)</td>
<td>excavation</td>
<td>Martín Socas et al., 2004</td>
</tr>
<tr>
<td>La Capellanía</td>
<td>Periana</td>
<td>ne/ca/ba/ia</td>
<td>settlement</td>
<td>excavation</td>
<td>Martín Córdoba and Recio, 2004</td>
</tr>
<tr>
<td>La Curra</td>
<td>Carratraca</td>
<td>ca</td>
<td>burial</td>
<td>survey</td>
<td>Sanchidrián, 1985</td>
</tr>
<tr>
<td>La Galeota</td>
<td>Ardales</td>
<td>ca/ba</td>
<td>settlement/lithic workshop</td>
<td>survey</td>
<td>Espejo and Cantalejo, 1990</td>
</tr>
</tbody>
</table>

Silillo (Fernández Rodríguez et al., 2011, 2014), and Arroyo Saladillo and Huerta del Ciprés to mention those that have been published. As a result, at present, there is quite an extensive literature available for the Late Prehistory of the Lands of Antequera, including 15 monographs—essentially corresponding to Antequera’s megaliths and the Ardales cave and its surrounding area—and some 350 articles published in scientific journals, edited books and conference proceedings. Furthermore, there is also a significant amount of grey literature, particularly unpublished reports of rescue archaeological interventions—both excavations and surveys—as well as various unpublished PhD and degree theses.

Regarding the Copper Age, to this date, there are 290 sites recorded in the arca database, which represents an average density of 0.11 sites per km², in other words, than in the Neolithic period. This is a reflection of the demographic and economic expansion that the region’s communities underwent during this time period. Of these 290 sites, a total of 33 have been explored archaeologically (Figs. 1 and 2). With regard to their basic functional configuration, these sites can be broken down as follows:

- A total of 16 are open-air settlements: Alamedon, Aratispi, Arroyo Saladillo, Castillo del Turón, Cerro García, Cortijo Quemado, Cortijo San Miguel, El Castillejo, El Silillo, La Capellanía, La Galeota, La Huerta del Ciprés, La Peña de Ardales, La Peña de los Enamorados, Marimacho and Peñón del Oso.

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Fig. 1. Table of Copper Age sites in Lands of Antequera. Only those excavated or studied through intensive surface survey and/or artefact studies are included. Chronology: NE (Neolithic); CA (Copper Age); BA (Bronze Age); LBA (Late Bronze Age); IA (Iron Age).
Fig. 2. Distribution of excavated or studied Copper Age sites in the Lands of Antequera.
<table>
<thead>
<tr>
<th>Site</th>
<th>Municipality</th>
<th>BP</th>
<th>Lab Reference</th>
<th>Sample</th>
<th>BC (2 σ)</th>
<th>Type</th>
<th>Biblio. Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>La Capellanía</td>
<td>Periana</td>
<td>4340 ± 110</td>
<td>ly-4421</td>
<td>not available</td>
<td>3350-2650</td>
<td>settlement</td>
<td>Rodríguez Vinceiro and Márquez, 2003</td>
</tr>
<tr>
<td>La Capellanía</td>
<td>Periana</td>
<td>4180 ± 80</td>
<td>ly-4422</td>
<td>not available</td>
<td>2920-2490</td>
<td>settlement</td>
<td>Rodríguez Vinceiro and Márquez, 2003</td>
</tr>
<tr>
<td>El Toro</td>
<td>Antequera</td>
<td>4120 ± 120</td>
<td>t-17553</td>
<td>charred material</td>
<td>3050-2300</td>
<td>natural cave</td>
<td>Martín Socas et al., 2004</td>
</tr>
<tr>
<td>Viera</td>
<td>Antequera</td>
<td>4090 ± 30</td>
<td>Beta-353820</td>
<td>animal bone</td>
<td>2860-2500</td>
<td>megalith</td>
<td>Aranda et al., 2013</td>
</tr>
<tr>
<td>El Castillejo</td>
<td>Almogía</td>
<td>4085 ± 45</td>
<td>GMA-20691</td>
<td>not available</td>
<td>2870-2480</td>
<td>settlement</td>
<td>Rodríguez Vinceiro and Márquez, 2003</td>
</tr>
<tr>
<td>Las Palomas</td>
<td>Teba</td>
<td>4032 ± 39</td>
<td>COL-2013</td>
<td>human bone</td>
<td>2836-2468</td>
<td>natural cave</td>
<td>Kehl et al., 2013; Bayle, 2014</td>
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<tr>
<td>Alcaide (Cueva n.º 19)</td>
<td>Antequera</td>
<td>4030 ± 110</td>
<td>GRN-16062</td>
<td>human bone</td>
<td>2900-2200</td>
<td>hypogeum</td>
<td>Marqués et al., 2004</td>
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<td>El Castillejo</td>
<td>Almogía</td>
<td>3980 ± 40</td>
<td>GMA-20661</td>
<td>charred material</td>
<td>2859-2210</td>
<td>settlement</td>
<td>Rodríguez Vinceiro and Márquez, 2003</td>
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<td>UA-35082</td>
<td>charred material</td>
<td>2577-2344</td>
<td>settlement</td>
<td>Fernández Rodriguez et al., 2011</td>
</tr>
<tr>
<td>Ardales</td>
<td>Ardales</td>
<td>3885 ± 36</td>
<td>COL-1636</td>
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<td>2471-2212</td>
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<td>Rethemeyer, 2014</td>
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<td>3775 ± 40</td>
<td>UA-35080</td>
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<td>2339-2039</td>
<td>settlement</td>
<td>Fernández Rodriguez et al., 2011</td>
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<td>Antequera</td>
<td>3755 ± 210</td>
<td>GRN-19197</td>
<td>human bone</td>
<td>2862-1659</td>
<td>hypogeum</td>
<td>Marqués et al., 2004</td>
</tr>
</tbody>
</table>

**Fig. 3. Published radiocarbon dates for Copper Age sites at the Lands of Antequera.**

- Another 5 sites are settlement or activity areas in caves and rock-shelters: El Toro, Las Mezquitas, Las Palomas, La Higuera and Los Porqueros.
- A further 11 sites are funerary locations: the Ardales, La Pulsera and La Curra caves, the El Romeral, Viera, Chaperas, Tajillo del Moro, El Cuchillo and La Lentejuela megalithic monuments, and the Cerro del Comandante and Peñas Prietas hypogeas. The site of Alcaide presents evidence of burial as well as domestic (or residential) activity.

Of the 33 explored sites, 12 came to light through surface survey and/or artefactual studies (Castillo del Turón, Cerro García, Cueva de Ardales, La Curra, La Galeota, Las Mezquitas, La Peña de Ardales, La Peña de los Enamorados, La Pulsera, Los Porqueros, La Lentejuela and Peñas Prietas), whilst the other 21 were excavated (Alameda, Alcaide, Aratispi, Arroyo Saladillo, Chaperas, Cerro del Comandante, Cortijo Quemado, Cortijo San Miguel, El Castillejo, El Cuchillo, El Romeral, El Silillo, El Toro, La Capellanía, La Higuera, La Huerta del Ciprés, Las Palomas, Marimacho, Peñón del Oso, Tajillo del Moro and Viera). Whatever southern Iberian region these figures are compared with, Lands of Antequera stands out because of the very high number of studied Chalcolithic sites, especially with regard to excavated ones.

At present, there are only 14 published radiocarbon dates for this Copper Age date set (Fig. 3), 10
of which date settlement areas—La Capellanía, El Castillejo, Las Palomas, El Toro and El Silillo—while four date funerary locations—the Viera dolmen and Alcaide hypogea number 19 and 20—\(^4\). These 14 radiocarbon dates are nowhere near sufficient to provide an understanding of the very complex patterns of temporality of the large number of excavated sites and the even more complex sequence of social processes they were part of. The main characteristics of the excavated sites are summarised in Fig. 4.

3. Settlement Patterns

The vast majority—30 out of 33—of the Copper Age sites excavated or surveyed in the Lands of Antequera are located in low-lying areas. Only three of them are in topographically-prominent places: La Capellanía, Aratispi and El Castillejo. Of these three, the former two were occupied for a long period of time which went beyond the Copper Age into the Bronze Age and the Iron Age. La Capellanía is on a limestone ridge, some 254 m above sea level, bordered by the Guaro River to its east and south, on a naturally well-defended location and with a commanding view of the surrounding area, which includes different ecological niches and abundant natural resources (Martín Córdoba, 1994: 6; Martín Córdoba and Recio, 2004: 342). Aratispi, on the other hand is located in a very strategic position at the foot of the Las Pedrizas mountain pass, a natural route that connects the coast of Málaga with the Antequera plain and, further north, towards the Guadalquivir valley, Andalusia’s natural East-West corridor. Although Aratispi does not enjoy a particularly remarkable visual control of its surrounding area, its strategic value explains—like is the case with La Capellanía—its long occupation, well into Roman times. Lastly, El Castillejo is located on a flat-topped hill surrounded by a meander of the Campanillas River on three sides, which affords it a good natural defence (Fernández Rodríguez and Rodríguez Vinceiro, 1995: 61).

A much larger group of open-air Chalcolithic settlements are located on flat or slightly elevated areas, lacking good conditions for natural defence or visual control of the surrounding areas. This would appear to be specially the case of sites located in the Antequera plain and neighbouring sectors, including Alameda, Alcaide, Cortijo Quemado, Cortijo San Miguel, Marimacho, El Silillo, Arroyo Saladillo and Huerta del Ciprés\(^5\). All these sites are notable for being well connected with each other and having immediate access to land with high—or very high—agricultural potential. The impression that good natural defence was not a key factor in establishing settlement locations tallies with the absence of substantial stone-walled structures that could have had a defensive character. Alcaide is a good example of this. The fact that the residential area is located on a low-lying, flat area lacking natural defensive conditions, led the excavators to suggest that no defensive concerns were taken into account when the place was first inhabited (Aguado et al., 2002: 371-372). In this respect, a rather remarkable feature of the Copper Age in the Lands of Antequera is that, to this date, there is an almost complete absence of Los Millares-type walled enclosures\(^6\).

There is scant data available on the size of the Chalcolithic settlements of the Lands of Antequera. Estimates have only been published for El Silillo—9 ha— and Cortijo Quemado—0.2 ha—, which prevents any sort of generalisation being made. It has been suggested that Arroyo Saladillo would have

\(^4\) From the information published about a date recently obtained from a sample of unspecified material discovered at the entrance of the Ardales cave (Rethmeyer, 2014: 83) it is not clear whether the cave was used as a dwelling or a funerary location in this time period.

\(^5\) The same could be said of Cerro de El Comandante, for which ‘domestic’ structures have been mentioned (Fernández Rodríguez et al., 2014a), although the description given is rather generic, which is why this site has not been included in this summary.

\(^6\) In fact, only one stone-walled enclosure has been found so far: La Capellanía. Surveys carried out at El Torcal described El Parque as a ‘fortified’ settlement (Moreno et al., 2004), although no excavation data exist regarding its precise chronology.
<table>
<thead>
<tr>
<th>Site</th>
<th>Size</th>
<th>Number of Structures</th>
<th>Description of Structures</th>
<th>Above-Surface Residential Structures</th>
<th>Walled Enclosures</th>
<th>Metallurgy</th>
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<td>La Capellanía (Early Copper Age)</td>
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<td>yes</td>
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<td>not available</td>
<td>NA</td>
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<tr>
<td>Arroyo Saladillo</td>
<td>not available</td>
<td>152</td>
<td>negative structures “of multifunctional character”</td>
<td>none</td>
<td>none</td>
<td>not available</td>
<td>no</td>
</tr>
<tr>
<td>El Silillo</td>
<td>9 ha</td>
<td>58</td>
<td>negative structures</td>
<td>none</td>
<td>none</td>
<td>fragments of a sickle blade, a saw blade and a crucible or mould, as well as a whole nozzle</td>
<td>no</td>
</tr>
<tr>
<td>Cortijo Quemado</td>
<td>0.2 ha (2052 m²)</td>
<td>30</td>
<td>negative structures</td>
<td>none</td>
<td>none</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Alameda</td>
<td>not available</td>
<td>28</td>
<td>negative structures</td>
<td>none</td>
<td>none</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Cortijo de San Miguel</td>
<td>not available</td>
<td>20</td>
<td>negative structures</td>
<td>none</td>
<td>none</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Alcaide</td>
<td>not available</td>
<td>1</td>
<td>sun-dried mud floors and wall-lining material</td>
<td>none</td>
<td>none</td>
<td>one Palmela arrowhead and one punch of square section</td>
<td>yes</td>
</tr>
<tr>
<td>Peñón del Oso</td>
<td>not available</td>
<td>1</td>
<td>hut floor with remains of sun-dried mud for wall-lining</td>
<td>none</td>
<td>none</td>
<td>one Palmela arrowhead</td>
<td>yes</td>
</tr>
<tr>
<td>La Higuera</td>
<td>not available</td>
<td>0</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>one punch and one chisel</td>
<td>yes</td>
</tr>
<tr>
<td>Marimacho</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>none</td>
<td>none</td>
<td>one Palmela arrowhead</td>
<td>yes</td>
</tr>
<tr>
<td>El Toro</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>none</td>
<td>none</td>
<td>one Palmela arrowhead</td>
<td>yes</td>
</tr>
<tr>
<td>Cerro García</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>none</td>
<td>none</td>
<td>one Palmela arrowhead</td>
<td>yes</td>
</tr>
<tr>
<td>Las Mezquitas</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>none</td>
<td>none</td>
<td>one Palmela arrowhead</td>
<td>yes</td>
</tr>
<tr>
<td>Castillo del Turón</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>none</td>
<td>none</td>
<td>one Palmela arrowhead</td>
<td>yes</td>
</tr>
<tr>
<td>La Galeota</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>None</td>
<td>none</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Los Porqueros</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>None</td>
<td>none</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Aratispi</td>
<td>not available</td>
<td>1</td>
<td>hut</td>
<td>two stone walls associated to a hut; the first is 65 cm wide, presented 4 rows of stone and was made with medium-sized stones linked with mud mortar; the second had a preserved width of 50 cm and only two rows of stones</td>
<td>none</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>
Table 1: Site data from Copper Age settlements in the Lands of Antequera.

<table>
<thead>
<tr>
<th>Site</th>
<th>Size</th>
<th>Number of Structures</th>
<th>Description of Structures</th>
<th>Above-Surface Residential Structures</th>
<th>Walled Enclosures</th>
<th>Metallurgy</th>
<th>Bell Beaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huerta del Ciprés</td>
<td>not available</td>
<td>70</td>
<td>negative structures</td>
<td>wall: “wind-stopper” of 5.1 m in length and 1.05 m in width, made of blocks of stones held with mud</td>
<td>none</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>El Castillejo</td>
<td>not available</td>
<td>1</td>
<td>hut</td>
<td>single row of stones of large size held with smaller stones, enclosing a large-sized hut</td>
<td>none</td>
<td>one fragment of straight saw, one fragment of chisel, one drop of copper, three fragments of copper slag, one fragment of crucible and two fragments of copper mineral (malachite on sandstone)</td>
<td>yes?</td>
</tr>
</tbody>
</table>

Fig. 4. Synthesis of available data for Copper Age settlements in the Lands of Antequera. Descriptions are from the original publications (English translation by the authors).

Covered an area of 124 ha\(^7\), had the ditch found at this site formed a full circular enclosure, a point as yet unconfirmed\(^8\). In Alcaide’s case, its excavators pointed that it must have housed a small community (Aguado et al., 2002: 371-372), although no data were provided on estimated inhabited area.

In an overwhelming majority of cases, these settlements present only negative features —underground or semi-underground structures—. Among the excavated ones, Arroyo Saladillo stands out with 152 features —although only 125 were excavated—, followed by Huerta del Ciprés —70—, El Silillo —58—, Cortijo Quemado —30—, Alameda —28— and Cortijo San Miguel (20). In all the other excavated settlements —Aratispi, Alcaide, El Castillejo and Peñón del Oso— just a single structure has been identified in each of them. Therefore, 262 Chalcolithic negative features have been identified in the Lands of Antequera to date—the number of them that have been excavated would be a little lower—. These counts cannot, however, be taken directly as an indication of settlement size. Firstly, the sites with the highest count of identified structures are clearly those that have been excavated across a larger area in the context of major public works projects —especially railways—. Therefore, the number of identified structures cannot be interpreted directly with regard to the size—or hierarchical status— of each settlement. Secondly, given the crippling limitations of the available radiocarbon chronology, there is no way of knowing the extent of the diachronic changes each site underwent throughout the Late Neolithic and Copper Age. In fact, from an assessment based on the study of material culture, several sites have been interpreted by their excavators to have been in use for long periods of time. Therefore, any extrapolation of the number of identified structures in terms of the settlement size—or population— would be, in all probability, inaccurate. Although they are still rather insufficient, what these data do suggest is that the Antequera plain was fairly densely populated in the Copper Age, and that both small and large communities must have existed.

With regard to their intrinsic characteristics, despite the large number of excavated Chalcolithic structures (Fig. 4), there are very few references to above-the-surface architecture. The only published references are as follows:

- Aratispi: two small walls of 4 and 2 rows of medium-sized stones, which would have been part of a hut.

---


\(^8\) Fernández Rodríguez y Cisneros, op. cit. n. 3.
• El Castillejo: a large hut enclosed by a one course of fairly large stones secured with smaller stones.

• Huerta del Ciprés: a 5.1 m-long and 1.05 m-wide stone wall made of blocks of masonry worked with mud and described as a “parapet”, given it did not seem to close up on itself, forming an enclosure.

The structures found in Alcaide, Aratispi and Peñón del Oso are described as “huts”, with hardened mud floors and lumps of mud imprinted with marks of vegetable material that could have been part of walls and roofs made of foliage and sun-dried mud coating. According to its excavators, in light of this evidence Aratispi would have been a stable open-air settlement (Perdiguero, 1990: 67), but in fact the evidence to go by is very limited. In La Capellanía, huts built from stone and mud have been described for the “Middle Chalcolithic” occupation phase, as opposed to the unstable structures—made from perishable materials—characteristic of the “Early Chalcolithic” period, but no specific information has been published.

Generally speaking, aside from these cases, the vast majority of the Chalcolithic structures found in the Lands of Antequera are underground structures or pits, generally of small size (Figs. 5-8). A host of different—and sometimes multiple—functions have been attributed to these structures: storage, combustion, dumping, dwelling, structured deposition, etc. Although material culture clearly connected with domestic or residential activities—such as stone querns, loom weights, ceramic vessels and lithic artefacts as well imprinted lumps of mud perhaps resulting from hut architecture—is often found inside these pits, in light of their morphology very few of them could be described as dwellings. That these structures have remains or utensils from domestic activities does not necessarily mean that they would have been used as dwellings themselves, as more often than not their morphology, size and physical conditions are totally inappropriate for such a purpose—for an extended discussion of this issue in the context of Late Neolithic and Chalcolithic southern Iberia see Jiménez and Márquez, 2008: 47—.

The scarcity of above-the-ground stone architecture, and the fact that it is highly unlikely that the majority of the underground structures could have served as dwellings, suggests that a good part of the residential architecture used in the 4th and 3rd

Fig. 5. Alameda: negative structures (photograph: J. E. Márquez Romero).
units that were not particularly large in size. The absence of alignments of post holes that could be interpreted as palisades, fences or foundations for larger dwellings, points to a similar conclusion. Although future investigations may change this picture, the currently available evidence suggests more attention must be paid to practices of residential mobility, seasonality and abandonment in the formation of the archaeological record of the 4th and 3rd millennia BCE in the Lands of Antequera.

A good example of this is Cortijo de San Miguel a site which, in view of the light nature of the structures detected and of the absence of significant domestic infrastructures, was described by its excavators as a

![Fig. 6. El Silillo: Structure 5 after excavation (source: Fernández Rodríguez et al., 2014).](image)

![Fig. 7. Huerta del Ciprés: general view of Trench 2 after excavation (photograph: M. I. Cisneros García).](image)
seasonal camp used between spring and summer by a semi-sedentary community (Fernández Rodríguez et al., 1996: 52-53). Another example is Huerta del Ciprés, located in a low-lying and probably floodable location which, according to its excavators was not very well suited for permanent occupation (Cisneros, 2013: 205). As for Las Palomas caves, its Chalcolithic frequentation is believed to have been decidedly seasonal or sporadic (Ferrer and Fernández Ruiz, 1987: 7).

From a macro-spatial perspective, the nearest neighbour analysis shows a concentrated occupation pattern (Fig. 9), statistically significant at a 0.01 significance level –there is a less than 1 in 100 chance that the concentrated patterns are random–. Upon applying Ripley’s k test, the Copper Age site distribution displays –in contrast to the Neolithic and Bronze Age ones– a total correlation between the statistically significant radius and the standard radius of a concentrated pattern (Figure 10). This suggests there is a statistically significant concentrated distribution in radii below 28 km, which also coincides with the maximum number of sites occupied in the Lands of Antequera throughout Late Prehistory. It is much more difficult to know whether this pattern reflects a cultural phenomenon that was effectively intrinsic to the local communities during the 3rd millennium BCE or whether it is determined by the way the data have been obtained through archaeological excavation and survey.

<table>
<thead>
<tr>
<th>Average observed distance</th>
<th>Average expected distance</th>
<th>Nearest neighbour coefficient (k)</th>
<th>Z coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1095.97</td>
<td>1583.19</td>
<td>0.69</td>
<td>-9.67</td>
</tr>
</tbody>
</table>

Fig. 9. Results of Nearest Neighbour Coefficient analysis and significance testing for the distribution of Copper Age sites at the Lands of Antequera. The z coefficient is a measure of statistical significance indicating whether the null hypothesis is rejected or not; in the case of a significance level of 0.01 the z coefficient must be inferior to -2.58 to reject the null hypothesis.

Fig. 11 shows the density maps of the Chalcolithic sites in the region, using different radii of calculation. In the case of the kernel density calculations, given this situation is an anomaly inasmuch as the statistically significant and standard radii coincide –r = 28 km–, it was decided that this distance would be reflected in the kernel density calculation, complemented by an exploration of the behaviour of the
occupation intensity through calculations with different radii –10 km, 15 km, 20 km and 25 km– (Fig. 11). The first of the figures (Fig. 11a) shows how the sites are most concentrated in the south-eastern section of the Lands of Antequera, especially in the most westerly part of the Campo de Cámara corridor. Nevertheless, there are various other sections with high levels of occupation in the western side of the Lands of Antequera and in some secondary clusters, which are not particularly significant at this radius of calculation, spread across a large part of the area of study.

Fig. 10. Ripley’s $\kappa$ for the distribution of Copper Age sites in the Lands of Antequera.

Fig. 11. Kernel densities for the distribution of Copper Age sites in the Lands of Antequera; a) $r = 10$ km; b) $r = 15$ km; c) $r = 20$ km; d) $r = 25$ km (density in number of sites per km$^2$).
Some of these areas with quite a high level of occupation appear to be unique when lower search radii are used in the density calculation: using a distance of 10 km, the clusters stand out across the entirety of Campo de Cámara, in the most westerly section of the Lands of Antequera, in the area currently occupied by the Guadalhorce and Guadalteba water reservoirs and in the central zone between Antequera and Archidona, with many other smaller clusters outside of these areas with higher levels of occupation. When the radius is lengthened to 15 km, all these areas are included in a region with a medium-to-low level of density, with only the eastern and western ends of the Lands of Antequera having a higher level of occupation (Fig. 11b). The surface area of the medium-intensity zones increases as the radii of calculation are increased (Fig. 11c and d), with the sections with higher levels of occupation remaining in the eastern zone of the Campo de Cámara and, to a lesser extent, in the western section of the Lands of Antequera (Fig. 11d).

With regard to visibility patterns, which can be linked to strategies of territorial integration and/or control, the main Copper Age sites show average viewsheds –Marimacho, El Silillo and El Romeral–, although La Peña de los Enamorados has the largest viewshed in the region –23.7%– (Figs. 12-15). There does not seem to be a particularly well defined pattern in the orientation of the viewsheds: the Menga, Viera and El Romeral megaliths have viewsheds essentially facing NE and NW, whilst high-ground settlements, such as La Peña de los Enamorados and Aratispi, display pseudo-circular viewsheds. In terms of inter-visibility relationships, considering viewsheds generated for a 20 km visibility radius and a 5 m observation offset, the three large megalithic monuments turn out to be visible from one another, sharing over 60% of their viewsheds, which is to be expected given how close they are to one another, whilst Marimacho and El Silillo, located more than 10 km away from one another, cannot be distinguished from each other, although they share around 15% of each other’s viewshed (Fig. 14).
To summarise, the settlement dynamics of the Lands of Antequera in the late 4th and throughout the 3rd millennium BCE seem to have included a number of sizeable settlements, such as Arroyo Saladillo, Huerta del Ciprés, Marimacho and La Peña de los Enamorados within a 90-minute isochrone, whilst slightly further north there would have been sites such as El Silillo and possibly El Perezón (Figs. 16-18). According to the date compiled for this paper (Fig. 4), the low profile of their residential and domestic architecture and the absence of major labour investments—such as large walled enclosures like those known of in the neighbouring provinces of Almería and Granada—, suggests that some Late Neolithic and Copper Age settlements may have been periodically abandoned due to residential mobility linked to factors such as soil depletion, fluctuations in the availability of water resources, demographic crises, or others. The availability of fresh water in particular may have been an issue for the early sedentary communities of the Lands of Antequera, as the region is full of salty water streams and lakes, as reflected even on today’s toponymy (Fig. 19). Difficulty in the access to drinking water, Site abandonment may result from other social and economic causes—see discussion in Horn, 1996 and Nelson, 2000—.

Fig. 13. Viewsheds of some of the Copper Age sites discussed in the text plus Menga: a) El Perezón; b) El Silillo; c) El Romeral; d) Menga.
further complicated with the natural rainfall fluctuations in a Mediterranean region, may be connected to the fact that an extraordinary Neolithic monument such as Menga has a 20 m deep shaft reaching towards fresh water.

The general lack of substantial residential architecture is in stark contrast with the presence in the region of what perhaps is the most formidable Copper Age megalithic monument ever built in Iberia: El Romeral tholos. It is unlikely that a monument of such magnitude and significance, located at a very short distance from all these settlements—at most 2 hours by foot—would have been built unless a significant demographic contingent lived in the region. El Romeral may have played a central role in the lives of the Copper Age communities of the Antequera plain, just like, presumably, Menga and Viera had done for the Late Neolithic communities—and perhaps also for the Copper Age ones—.

Fig. 14. Combined viewsheds of some of the Copper Age sites discussed in the text plus Menga: a) El Romeral and Menga; b) El Silillo and Marimacho.
4. Social Dynamics

4.1. Subsistence Economy

With regard to agriculture, no archaeobotanical study has been published for any of the 21 excavated Chalcolithic sites, the only available evidence being indirect in character. The excavators of Aratispi and El Castillejo highlighted the importance of cereal agriculture based on the discovery of lithic tools such as blades, fragments of sickle with polished edges and abundant grinding tools (Perdiguero, 1990: 67; Fernández Rodríguez and Rodríguez Vinceiro, 1995: 68). The excavators suggested that the pits found at Cortijo de San Miguel were silos that had later been used to dump domestic refuse (Fernández Rodríguez et al., 1996: 52). The study of La Capellanía revealed a remarkable number of large-sized jars, which were thought to be storage containers connected with the intensification of agricultural production (Martín Córdoba and Recio, 2004: 348). Similarly, in the 27 underground structures identified and excavated at Huerta del Ciprés, a large number of grinding tools were found, which, according to the excavators, suggests that this site could have been used agricultural processing (Cisneros, 2013: 259-261).

<table>
<thead>
<tr>
<th>Site</th>
<th>Viewshed (ha)</th>
<th>Viewshed (%)</th>
<th>Prevailing Orientation of Viewshed</th>
<th>Maximum extent of Viewshed (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>La Peña de los Enamorados</td>
<td>29750</td>
<td>23.7</td>
<td>NW, SW and SE</td>
<td>20000</td>
</tr>
<tr>
<td>Menga</td>
<td>11921</td>
<td>10.5</td>
<td>NW</td>
<td>19000</td>
</tr>
<tr>
<td>El Pérezón</td>
<td>10273</td>
<td>9.1</td>
<td>SW</td>
<td>19000</td>
</tr>
<tr>
<td>El Romeral</td>
<td>9377</td>
<td>8.3</td>
<td>NW</td>
<td>19000</td>
</tr>
<tr>
<td>Marimacho</td>
<td>8343</td>
<td>8.6</td>
<td>NE y NW</td>
<td>20000</td>
</tr>
<tr>
<td>El Silillo</td>
<td>8088</td>
<td>6.4</td>
<td>S</td>
<td>18500</td>
</tr>
<tr>
<td>Aratispi</td>
<td>1047</td>
<td>0.8</td>
<td>NW, SW and SE</td>
<td>6500</td>
</tr>
</tbody>
</table>

Fig. 15. Viewshed parameters for a selection of Lands of Antequera Copper Age sites (plus Menga).

Generally speaking, this indirect evidence has been taken to point to a greater productive capacity and more intensive agriculture in the Chalcolithic compared to the Neolithic period. In reality, however, such evidence is very ambiguous. The pits thought to be silos have not been studied from a geo-chemical, sedimentological or archaeobotanical perspective; it is far from clear whether those pits and their infill were formed as a result of the abandonment and re-filling of silos, or as a result of practices involving structured deposition; the lithic sickle blades with cereal lustre could have been used to reap wild plants; the grinding utensils could have equally been used for grinding wild nuts, fruit, etc. Therefore, in order to evaluate the nature and scope of agricultural production in the Lands of Antequera in the 3rd millennium BCE the most sensible thing to do is to wait until there are direct quantifiable and reliable archaeobotanical data that allow generalisations about productive scales and agricultural intensification.

In fact, the same can be said about animal husbandry. Out of the 21 excavated Chalcolithic sites, only for El Silillo are archaeozoological data available. Very few remains were found at this site, and only 51 of the 259 fragments could be identified, which gives a total mni of 10 (Fernández Rodríguez et al., 2014b). The domestic animals present include cows, sheep and pigs, but in such small quantities that they are not statistically significant. Of the other excavated sites, relatively generic evaluations of the identified fauna have been published, but there are no concrete quantitative data. Abundant ovicaprid, and to a far lesser extent suid and bovid remains, were found in Alameda (Márquez et al., 1999: 184-186). In El Castillejo, excavators noted significant livestock activity, which mainly involved ovicaprids and, to a lesser extent, bovids as well as...
Fig. 16. El Romeral isochrone areas.

Fig. 17. Marimacho isochrone areas.
an abundance of suids in the lower levels (Fernández Rodríguez and Rodríguez Vinceiro, 1995: 68). Livestock farming (mainly sheep, pigs and, to a lesser extent, cows) was considered to be the main basis for subsistence during La Capellanía’s “Middle Chalcolithic” phase (Martín Córdoba and Recio, 2004: 346); the faunal remains cited for Cortijo de San Miguel include bovids and oviscaprids, as well as a fair amount of bones of small canids (Fernández Rodríguez et al., 1996: 52); in the unpublished report on Arroyo Saladillo, a large amount of domestic faunal remains are cited, especially in the trench infill, with bovid mandible remains, as well as long bones and ribcage remains, but oviscaprid and suid remains also being collected10; in contrast, the amount of domestic animal remains found in Huerta del Ciprés was very small, with scant remains of oviscaprids, pigs and possibly some type of equid (Cisneros, 2013: 313).

There is substantial evidence of a significant land mammal-hunting economy in almost all the sites excavated. In El Silillo, the wild fauna would have consisted of deer and possibly horses; in El Castillo-jo bones from wild boar and deer, among others, were found (Fernández Rodríguez and Rodríguez Vinceiro, 1995: 68); there was a significant percentage of adult deer in La Capellanía in the “Middle Chalcolithic” phase (Martín Córdoba and Recio, 2004: 346); and the wild fauna hunted by the Arroyo Saladillo inhabitants included deer, wild boar and birds11.

There are also numerous examples of the presence of marine molluscs, most probably originating from the coast of Málaga. Wedge clam shells were found in El Castillejo (Fernández Rodríguez and Rodríguez Vinceiro, 1995: 68); limpet and wedge clam shells were discovered at Cortijo San Miguel (Fernández Rodríguez et al., 1996: 52); it seems there was scant malacofauna in Arroyo Saladillo, although a perforated marine shell bead –Conus mediterraneus– was counted amongst the findings12; samples of river and marine malacofauna were collected in Huerta del Ciprés (Cisneros, 2013: 313).

Of course, both domestic and wild animals served to provide raw materials for a wide range of products for which there is scant archaeological evidence –horns, bones, leather, skins, etc.–. At Huerta del Ciprés small fragments of ivory –perhaps debris from a manufacturing process– were found (Capel et al., 2014), which is a rare find in the Lands of Antequera, adding to recent studies that have shed light on the circulation and use of this exotic raw material during the 3rd millennium BCE in southern Iberia.

4.2. Exploitation and Exchange of Abiotic Resources and Copper Metallurgy

Aside from subsistence production, an important economic and social feature of the region’s Chalcolithic communities was the exploitation, processing and exchange of abiotic resources –in particular, flint and copper–.

Flint was obtained and processed at a number of sites. At Peñón del Oso, where a siliceous outcrop is available some 300 m away, evidence was found of the processing of assorted, generally low quality flint. The techno-morphological study of a collection of items from this site suggested that the processing of flint may have been specialised in the manufacture of sickle elements (Márquez, 1998: 290 and 295; 2004: 278). Also in the case of Alcaide a connection was made with a flint quarry located on the western slope of the neighbouring Loma del Viento (Márquez and Marqués, 1997; Aguado et al., 2002: 261). The studies on surface materials conducted on several sites in the Ardales area also indicate there were flint quarries and processing locations: this is the case with Castillo del Turón, thought to be a major workshop associated with a large outcrop of this raw material (Ramos et al., 1986: 98) and La Galeota (Ardales), described as a ‘quarry facies’ flint workshop (Espejo Herrerías


11 Sánchez Voigt, op. cit. n. 12, pp. 51-52.

12 Sánchez Voigt, op. cit. n. 12, pp. 50-52.
and Cantalejo Duarte, 1990: 39-40). The knapped flint tools recovered from the two underground structures—a pit and a ditch—recently discovered at Marimacho have been linked to the flint of the Late Jurassic period in the External Zones of the Baetic System (García González et al., 2014: 252).

 Artefacts made of rare and exotic stone have been found at a small number of sites at Lands of Antequera. Fibrolite axes were identified in the funerary contexts of Tajillo del Moro and Cerro del Comandante, as well as in El Toro cave—although in this instance of more likely Neolithic chronology—(García González, 2014: 413). Evidence was found indicating that red pigments were ground up in both Arroyo Saladillo and Huerta del Ciprés, including a red-stained quern in the former and a possible ingot of red pigment in the latter (Cisneros, 2013: 268). Personal objects and body ornaments made of rare stones have also been documented in some sites. A green quartz bead and two smoky quartz monocrystals were found in Huerta del Ciprés (Cisneros, 2013: 296-300). Mergelina (1922: 88) mentioned an “obscure polyhedral shard of glass”, now lost, among the findings from the Viera dolmen a piece that, in light of the drawing provided by Mergelina himself, was very probably a prism of quartz or rock crystal (Costa et al., 2011: 267)\textsuperscript{13}, although it is impossible to say whether the piece was deposited in the megalith in the Neolithic period, the Copper Age, the Bronze Age or even later.

The presence of rocks such as flint, fibrolite and others show that the communities of the 4th and 3rd millennia BCE in the Lands of Antequera exchanged their resources with other southern Iberian regions. Various studies have linked the siliceous raw materials of sedimentary-diagenetic origin that came from the Baetic mountains in Málaga with blade technology identified in the Los Millares necropolis (Almería) (Lozano et al., 2010: 293; Afonso et al., 2011: 311, M. J. Walker (1995: 123) included this piece among the possible faience or vitreous paste-related prehistoric finds of southern Spain.

\textsuperscript{13}
fig. 9), which suggests the existence of long-distance networks for the exchange of these raw materials. The presence of ivory, fibrolite and rock crystal puts Lands of Antequera in line with the intensification of exchange dynamics that occurred in southern Spain in this time period (Costa et al., 2011).

With regard to metallurgy, evidence of copper mineral processing has been found at six of the 16 settlements and two of the six burial sites excavated in the Lands of Antequera. A total of 13 metallic objects—or fragments of objects—can be dated to the Copper Age in the Lands of Antequera. This count excludes the finds from La Peña de los Enamorados14, which lack known contexts, and the punch from Viera, for whose chronology there is no reliable evidence either. Overall, considering the size of the region under study, the large number of sites excavated and the long time period evaluated—around a thousand years—it is clearly a small tally. Remains of copper mineral processing have only been identified at El Silillo and El Castillejo. The sites with a greater number of excavated structures, such as Arroyo Saladillo, Huerta del Ciprés, Alameda, Cortijo Quemado and Cortijo de San Miguel have not yielded metallic objects nor traces of metallurgy, which is partly connected to the fact that they witnessed intense occupation during the pre-metallurgical Late Neolithic.

4.3. Monumentality and Burial Practices

A number of funerary constructions found in the Lands of Antequera have been dated to the Copper Age. Apart from the Viera dolmen and the artificial caves of Alcaide, in all other cases no radiocarbon dates support this chronological attribution—and even in the case of Alcaide the available dates are not particularly helpful—.

El Romeral is undoubtedly the most majestic monument attributed to the 3rd millennium BCE in the Lands of Antequera. The largest tholos known in Iberia, El Romeral consists of a 26.5 m-long and 1.5 m-wide access corridor made of stone masonry and megalithic capstones, a main chamber built through corbelling with a diameter of 5.2 m and a maximum height of 4 m, and a 2.3 m-wide and 2.4 m-tall secondary chamber, separated from the previous one by a short corridor raised around 70 cm above ground level (Fig. 20). Unfortunately, almost nothing is known of this monument which has never been studied using modern scientific methods. The description published by M. Gómez-Moreno (1905: 91-92), the earliest available and the closest to the moment of its discovery, does not provide sufficient details to know how El Romeral was used during the Copper Age.

Viera was also used or frequented during the Copper Age, as recently proven by a radiocarbon date (Aranda et al., 2013). Just like El Romeral, when it was discovered in 1903, Viera was rather devoid of findings. The small collection of materials attributed to this megalith currently held in the Museum of Málaga, includes an 8 cm-long copper punch or awl, a handmade pottery recipient (bowl), a fragment of handmade rough pottery, 12 lithic blade utensils, two polished axes, a stone with a concave cavity—possibly resulting from it being used for grinding—and two animal bone fragments—one of them being a fragment of horn. Several of these materials were published in G. and V. Leisner’s summary (1943: 182-185 and plate 58). The copper punch or awl could mean the monument was used during the Copper Age, though identically shaped punches are also common in the Early Bronze Age.

Other megalithic monuments, far smaller than El Romeral and Viera, were built or frequented during the Copper Age. This is the case of Chaperas 1 (Marqués, 1979), Chaperas 2 (Marqués et al., 2000) and Tajillo del Moro (Ferrer et al., 1980), located in the municipality of Casabermeja (Málaga). The approximate chronology of use of these three megaliths was established by their excavators through the

14 According to the information published, two rivet daggers, a punch with a quadrilateral section and more than a dozen fragments of other metallic items as well as a crucible were found at La Peña de los Enamorados (Rodríguez Vincetiño et al., 1992: 227). It is not known whether these materials are from the Copper Age or the Bronze Age, a period during which this major archaeological site was also occupied.
study of material culture, as no radiocarbon dates exist. In all three cases, highly fragmented human remains were found in secondary position, which suggested to the excavators that they had been part of sequential primary or collective secondary burials —no anthropological study into these remains has been published—.

Together with the megalithic monuments, there are a significant number of Chalcolithic funerary deposits in rock-cut —hypogea— tombs. The best known of them is the Alcaide necropolis, where 21 hypogeaal structures excavated in the Miocene sandstone are currently known, to which two smaller pits can be added. The chronology of these structures spans both the Copper Age and the Bronze Age (Marqués et al.,...
funerary activity took place inside natural caves. This is evidenced at La Curra cave –also known as Los Murciélagos–, in Carratraca, a 48 m cavity with two vertical shafts 14 and 6 m in depth respectively. The biggest concentration of human remains can be found at the base of the second shaft and in the subsequent gallery and it includes also pottery, knapped lithic tools, polished stone and ornamental objects –three necklace beads and a pendant made from a shell– (Sanchidrián, 1985: 230). In the walls and speleothems surrounding these deposits, there are traces of red and black paintings, of which the only distinguishable motif is an anthropomorphic motif.

Also, in upper galleries of the Ardales cave evidence has been found of its use as a funerary space, with numerous secondary burials, small stone enclosures and hand prints (Cantalejo and Maura, 2015) (Fig. 21). This material has not been subject to any monographic study as yet, but a radiocarbon...
The date recently obtained suggests that some of this funerary activity could have taken place during the 3rd millennium BCE (Re-themeyer, 2014).

The last set of known funerary practices in the Lands of Antequera Copper Age is pit burials. This practice has been extensively documented at Arroyo Saladillo, where several instances were identified, including pits number 20, 72, 86, 90, 94, 95 and 107. In pits 72, 86 and 107, the individuals were buried in the foetal position. In structure 20, two infants were identified in a “stretched out or slightly bent” position, one of which –possibly female– was associated with an adze, a bone punch and unidentified animal remains. In structure 72 a subadult individual –of unspecified sex– was found under the remains of a what was possibly a small tumulus, associated with an entire sheep or goat skeleton, as well as other faunal bone fragments, lithic tools, pottery and grinding stones. In structures 90, 94 and 95, individual pit burials were discovered in a line parallel to the pit, inside the inhabited area. In structure 90, which was covered by a small cairn made of pebbles and stone blocks of varying sizes, including a large block of limestone, an individual burial was found (Fig. 22). This individual had been laid on their left-hand side, very curled up, with no grave goods – although pieces of ochre were found near the head and upper

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15 Sánchez Voigt, op. cit. n. 8, p. 62.
16 Sánchez Voigt, op. cit. n. 8, p. 62.
extremities. In structure 94, which was made of large slabs and completely covered by a subcircular tumulus made of pebbles and blocks—its excavators wondered whether it should be considered ‘proto-megalithic’—an individual had been laid on their left-hand side, on a crouched position, again with no grave goods, although pieces of ochre were also recovered near the head and upper extremities.

Lastly, in structure 95 (Fig. 23), which was also covered by a cairn made of pebbles and blocks of varying sizes, an individual burial was found where the individual had been laid on a crouched position on their left-hand side, with a single grave good consisting of a small ceramic pot which had been placed in their lap. Finally, inside the ditch found at the southern sector of the site, a fractured human femur diaphysis, possibly belonging to a young male individual of short stature, was found, associated with a slate cruciform idol

The small rescue excavation carried out in 2014 in Marimacho led to the finding of human bone fragments within a pit: a very slender, probably pre-adult humerus diaphysis and a skull fragment (García González et al., 2014).

Overall, the available empirical record suggests that Copper Age communities of the Lands of Antequera engaged in a wide range of burial practices which took place against a backdrop of morphological and architectural diversity, from the magnificent El Romeral tholos, perhaps the most majestic Iberian Copper Age megalith, to simple pits, through far smaller megaliths, perhaps built ‘ex novo’ or possibly erected in the Neolithic period and still used during the Copper Age. The use of natural caves like La Curra and Ardales as burial grounds and the significance of the artificial caves, the best examples of which is found in Alcaide, further underline this impression of social and cultural diversity. Unfortunately, the limitations of the radiocarbon chronology and the dearth of anthropological studies make it impossible to approach this range of funerary practices in terms of social complexity, diversity of identities and diachrony.

5. Discussion

As it was stated at the start of this paper, several factors hamper the analysis of the Lands of Antequera during the Copper Age. Inasmuch as the existing data may be somewhat assessed in terms of settlement patterns and social dynamics, it is however possible to attempt some generalisations.

Firstly, with regard to settlement patterns, throughout the 4th and especially at the start of the 3rd millennium BCE, the farming economy seems to have experienced a significant expansion, the local populations acquiring a new capacity for productive intensification. Seen on a diachronic perspective, the spatial-temporal density of the occupation of

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>SITES IN ARCA</th>
<th>STUDIED SITES (excavated + surveyed)</th>
<th>SITE DENSITY (per sq km)</th>
<th>SITE DENSITY (per century)</th>
<th>SITE DENSITY SPACE-TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paleolithic</td>
<td>33</td>
<td>2 (2+0)</td>
<td>0.01</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Neolithic</td>
<td>54</td>
<td>14 (6+8)</td>
<td>0.02</td>
<td>2.34</td>
<td>0.04</td>
</tr>
<tr>
<td>Copper Age</td>
<td>290</td>
<td>33 (22+11)</td>
<td>0.11</td>
<td>28.70</td>
<td>3.11</td>
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<tr>
<td>Bronze Age</td>
<td>180</td>
<td>18 (14+4)</td>
<td>0.06</td>
<td>13.33</td>
<td>0.90</td>
</tr>
<tr>
<td>Iron Age</td>
<td>211</td>
<td>18 (12+6)</td>
<td>0.07</td>
<td>32.46</td>
<td>2.59</td>
</tr>
<tr>
<td>Antiquity</td>
<td>956</td>
<td>--</td>
<td>0.36</td>
<td>106.22</td>
<td>38.46</td>
</tr>
</tbody>
</table>

Fig. 24. Space-time density of sites in the Lands of Antequera (2640 sq km). The standard duration for each period considered is as follows: Neolithic (c. 5500-3200 cal BC): 23 centuries; Copper Age (c. 3200-2200 cal BC): 10 centuries; Bronze Age (c. 2200-850 cal BC): 13.5 centuries; Iron Age (c. 850-200 cal BC): 6.5 centuries; Antiquity: (c. 200 cal BC-700 AD) 9 centuries.

17 Sánchez Voigt, op. cit. n. 8, p. 63.
18 Sánchez Voigt, op. cit. n. 9.
Lands of Antequera in the Copper Age clearly surpasses that of the Bronze Age and Iron Age, being only second to that of Roman times (Fig. 24). This was reflected in the spectacular development of the megalithic phenomenon, which reached an extraordinary dimension in the Antequera plain: the construction of Menga, probably in the first half of the 4th millennium BCE, Viera –some centuries later?– and the subsequent erection of El Romeral at some point in the 3rd millennium BCE –three monuments of unparalleled magnitude in Iberia– suggest that Late Neolithic and Copper Age communities had the capacity to mobilise significant amounts of labour force and resources, which is consistent with the available –mostly indirect– evidence for agricultural intensification\(^{19}\).

In terms of settlement strategies, the data summarised in this study show that residential or ‘domestic’ stone architecture is conspicuous by its absence, which, together with other previously described evidence, suggests that the local populations may have had some degree of residential mobility. It is perhaps partly within this context that the grandiose scale of the Antequeran megaliths may be explained: they probably served to bring together communities from local settlements and from further afield, thus acting as focii for social and cultural interaction.

Thus, Lands of Antequera is a good example of the systemic tension existing between the two major defining factors of the settlement strategies of southern Iberian Late Prehistoric societies: proximity to the best land –and water– on the one hand, and optimisation of protection –in terms of topographic accessibility/inaccessibility and visual control of the surrounding area, including pathways and resources– on the other (García Sanjuán, 2011a, 2011b)\(^{20}\). Among Copper Age communities, the prevailing settlement strategies seem to have prioritised proximity to good soils and intermediate topographies (flat or gentle elevations) that did not necessarily optimise defence. To a certain extent, the Copper Age essentially constitutes a continuation of the pattern established in the Late Neolithic –on a larger scale. A high demographic density was reached in the 3\(^{rd}\) millennium, possibly including some large open-air settlements, apparently devoid of residential stone architecture. In the Bronze Age, however, after what appears to have been a significant shift around 2200 cal BCE, the relationship between the two major factors explaining the variability of settlement strategies was inverted: defensive strategies became much more important, with higher grounds being preferred to those closer to soils of high agricultural potential and main waterways (García Sanjuán, 2011b: 214-215).

From an economical perspective, the available data do not enable a precise evaluation of the scale of agricultural and livestock production to be made. From the point of view of the exploitation of abiotic resources, production became increasingly complex in the Copper Age, with more specialisation in raw material processing –flint, copper metallurgy and, possibly, ivory–. The increasing economic complexity suggested by abiotic resources is associated with more social complexity, reflected in the very diverse funerary practices –natural caves, artificial caves, megaliths, trenches and pits, etc.–, themselves stemming from the diversity of social and cultural backgrounds and identities.

The investment in religious resources is nowhere better reflected than in grandiose scale of El Romeral, unparalleled within Iberia. El Romeral was probably the response of Copper Age communities to

\(^{19}\) Although the lack of a more precise radiometric framework prevent a more precise assessment as far as Antequera is concerned, monumentality in Late Neolithic and Copper Age Iberia –whether in the form of megaliths, ditched enclosures or others– may have resulted from periodic aggregations of people, as suggested by Camino de las Yeseras (San Fernando de Henares, Madrid), a ditched enclosure for which better chronological resolution is available (Balsera et al., 2015: 153). Successive phases of activity may have rendered the construction of large monuments possible for a smaller labour force, which also calls for a better understanding of the connection between monumentality, agricultural intensification and demography.

the challenge emanating from their Late Neolithic predecessors in the form of Viera and, specially, Menga. Indeed, in few other Iberian regions is the legacy and power of the Neolithic tradition as evident as it is in the Lands of Antequera. The Antequeran Copper Age shows plenty of evidence of the continuity of the Neolithic legacy. The scope and depth of cultural continuities versus the impending cultural changes seems more pronounced when the most visible social and cultural traits of the Bronze Age communities are considered. The most noteworthy is the significant continuity of the megalithic phenomenon and the apparent absence of ‘argarisation’, which suggests that the powerful Neolithic past, materialised in Menga, continued to exert a great deal of influence throughout Late Prehistory.

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