

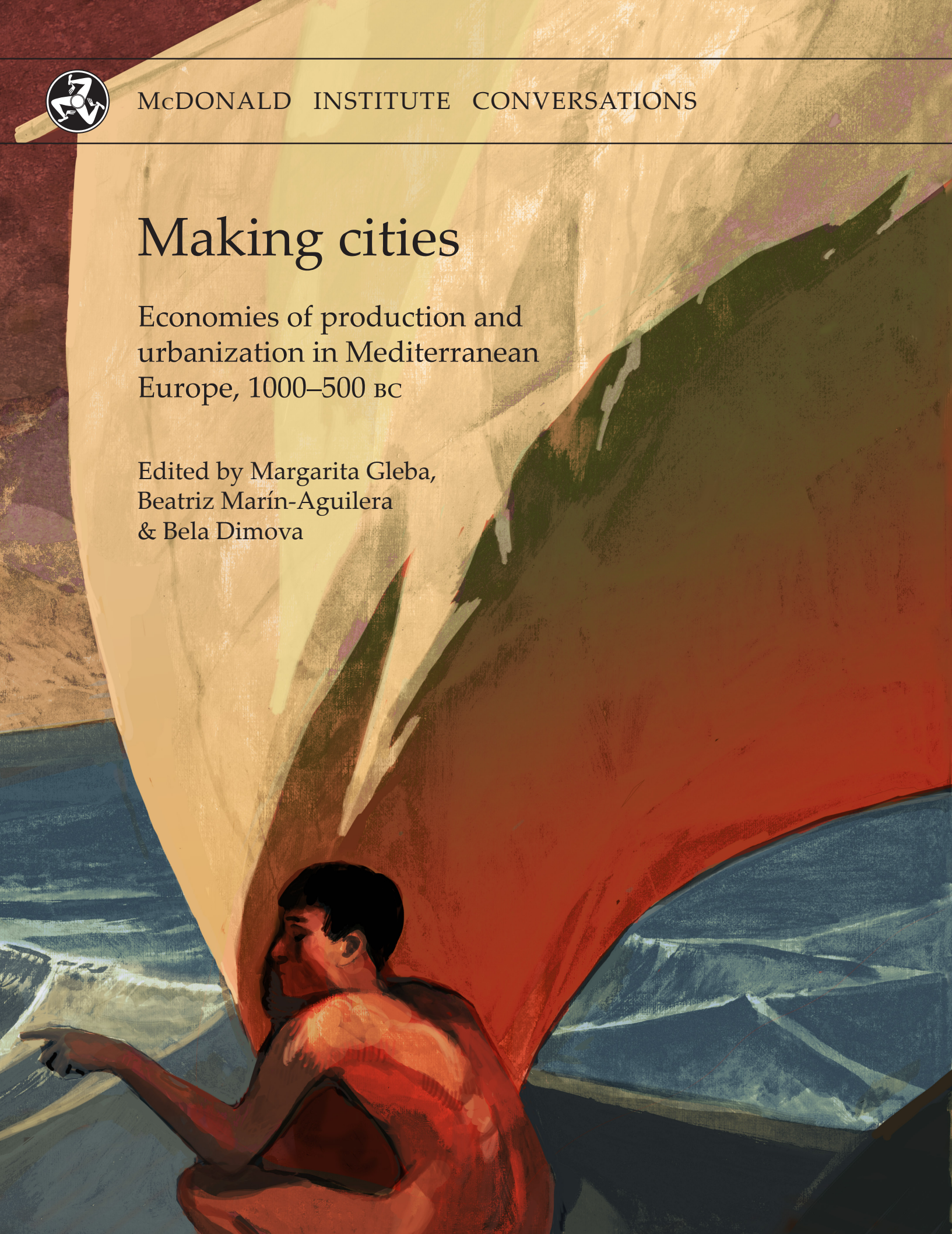


McDONALD INSTITUTE CONVERSATIONS

Making cities

Economies of production and
urbanization in Mediterranean
Europe, 1000–500 BC

Edited by Margarita Gleba,
Beatriz Marín-Aguilera
& Bela Dimova



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with contributions from

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Chapter 24

Urbanization and early state formation: elite control over manufacture in Iberia (seventh to third century BC)

Joan Sanmartí, David Asensio & Rafel Jornet

During the last decades, a considerable number of surveys and extensive excavations in the northern part of the pre-Roman Iberia (Catalonia, the eastern part of Aragon and the southern part of western Languedoc) (Fig. 24.1) have provided a significant, if unequally distributed and sometimes difficult to interpret, volume of data. This makes possible a global review in this area of the subject matter that is analysed in this volume, to wit, the role of craft activities in the processes of urbanization and the formation of hierarchical societies. This topic has been studied recently by Alexis Gorgues in several very interesting papers (Gorgues 2009; 2017a,b), to which we will refer at different points of our contribution. For the moment, let us simply indicate that, according to Gorgues, there are good reasons to suppose that Iberian elites not only controlled transformation activities such as metallurgy, textile production and perhaps pottery, but also were directly involved in the actual execution of these activities, while the rest of the population was largely excluded from them.

First, we will describe the transformations that took place in the area under study during the first millennium BC, which led to the formation of the first cities, stratified societies and relatively developed administrative systems. We will then consider the shifts that craft activities (pottery production, metallurgy and textile manufacture) underwent during the same period. More specifically, we will reflect on the reasons that may explain the adoption of technological innovations, the role of the latter in the productive system, and the place of craftspeople in the organization of society.

The historical process

As we have pointed out in previous works (Sanmartí 2004; 2014), the first millennium BC was a period of pervasive transformations from a sociocultural point of

view in northern Iberia, particularly from the mid-sixth century BC. At this time, the so-called 'Iberian period' began, which is usually divided into three stages: the Early Iberian period, lasting until the end of the fifth century BC; the Middle Iberian period, corresponding to the fourth–third centuries BC; and the Late Iberian period, from the Roman conquest to the full Romanization of the region. In a relatively short time, the small-scale societies that had occupied this territory during the preceding millennia were transformed into profoundly hierarchical ones; the egalitarian access to wealth was replaced by institutionalized inequality, supported by both coercive means and a legitimizing ideology that naturalized the (supposedly) intrinsic superiority of a segment of the society; population experienced a growth never seen until then – to the point of generating, for the first time in the history of this region, a completely humanized landscape; and polities of a size comparable to those of the city-states of the Eastern Mediterranean and Italy were formed. Complex settlement patterns developed: in addition to isolated houses and hamlets that already existed in previous periods, larger sites appeared, some of which may have housed a population of thousands, probably with diverse statuses from a social and professional point of view. We may unambiguously designate these habitation sites as cities (Belarte *et al.* 2019). The existence, in some cases, of three or more settlement size levels, as well as some evidence of production control by the elites, suggests the existence of an administrative system. To this we may add a number of written documents (on lead sheets) that, despite not being well understood as yet, may be considered as administrative and/or commercial accounting records. All this suggests the existence of state-like societies at least from the late fifth century BC.

Such a general account, however, is necessarily schematic. It is not possible to provide here a detailed

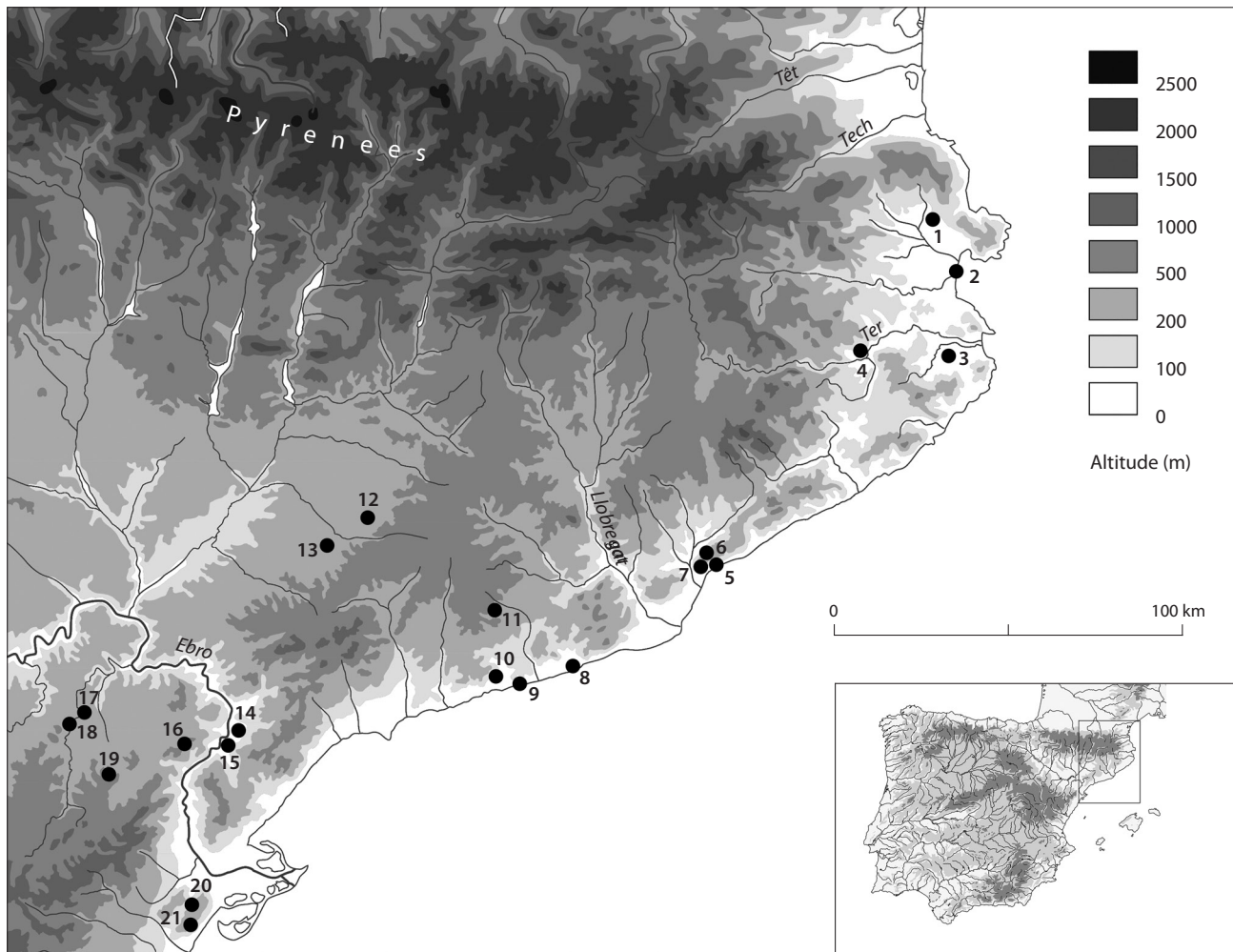


Figure 24.1. Map of northern Iberia showing the sites mentioned in the text: 1. Felines; 2. Emporion (Empúries/ Ampurias); 3. Ullastret; 4. Mas Castellar de Pontós; 5. Turó de Mas Boscà; 6. Turó de les Maleses; 7. Puig Castellar de Santa Coloma de Gramenet; 8. Darró; 9. Alorda Park; 10. Les Guàrdies; 11. Hortes de Cal Pons; 12. Els Estinclells; 13. Els Vilars d'Arbeca; 14. El Castellet de Banyoles; 15. Barranc de Gàfols; 16. Coll del Moro de Gandesa; 17. Sant Antoni de Calaceit; 18. Tossal Montañés; 19. Les Escodines Altes and Les Escodines Baixes; 20. La Ferradura; 21. Sant Jaume-Mas d'en Serrà.

description of the characteristics of each microregion, but it must be remembered that the rhythms of sociocultural change were not the same throughout the territory, nor was the final result of the individual processes. In the coastal zone of northern Iberia and, further south, in Valencia, there is firm evidence of the existence, not later than the fourth century BC (and possibly before) of highly centralized political entities that took the form of city-states (Sanmartí *et al.* 2019), while in central and western Catalonia and in eastern Aragon heterarchical power relations were seemingly dominant (Sanmartí 2014; Asensio & Jornet 2019). It is also probable that the organizational forms typical of the Bronze Age have lasted a long time in the Pyrenean area.

The reasons that account for the quick development of sociocultural complexity are manifold, and were driven by different factors of demographic, technological and commercial character. Drawing on Johnson and Earle's (2000) model of sociocultural evolution, we have argued in previous works that demographic growth was a necessary condition for this process (Sanmartí 2004; 2014). We have also provided the factual data that indicate a rapid population increase from the ninth century BC. In addition, we have shown that the origin of this process does not lie in any technological change, given that iron metallurgy – which is the only remarkable innovation prior to the great transformations that occurred from the mid-sixth

century BC – remained initially restricted to the field of prestige goods, without any immediate repercussion in the subsistence economy, nor in weapons production. On the other hand, we believe that, from the mid-sixth century BC, iron metallurgy played a decisive role in the consolidation and expansion of urban societies, since the use of much more efficient agricultural equipment was instrumental in the economic intensification that made possible both a further population growth and the consolidation of the elites' power. Without this technological improvement, we think that, as attested in some historically well-documented instances (Friedman 1976), and hypothesized for prehistoric ones (Sabloff 1990; Chew 2002; Delgado Raack & Rosas Casals 2012, among many others; *contra* Middleton 2012), population growth would have led to an ecological crisis and, ultimately, to a regression to the organizational forms that are typical of small-scale societies.

Finally, we must also assess the role of commercial contacts with the Mediterranean world. In a first phase – from the eighth century BC to the early sixth century BC – these were with the Phoenicians, established on the southern shores of the Iberian Peninsula and on Ibiza. Later, the Phocaeans also acquired a relevant role, following the foundation of Massalia (Marseille) in Mediterranean Gaul around 600 BC and, one generation later, of Emporion (Ampurias) in northeastern Catalonia. Contact with the Etruscans, on the other hand, was very limited, in fact almost non-existent to the south of Emporion. The exotic products acquired through this trade – especially transport *amphorae* and tableware – were a valuable instrument in the hands of the elites to build and consolidate their power, but, as already said, we think that the deep causes of this process lie in the growth of political economy as a consequence of the problems in the subsistence economy. It goes without saying that contact with these Mediterranean civilizations facilitated transfer of knowledge of the technologies we are dealing with in this contribution. Their adoption, however, must be explained in terms of the structures of the indigenous societies, and especially their instrumental role in the formation and perpetuation of the elites. In accordance with these assumptions, the important question is not whether technological change or foreign trade provoked sociocultural change, but how the indigenous elites used technology and imported prestige goods to advance their strategies of social control and the reproduction of institutionalized inequality.

Craft in its social context

In the following pages, we intend to analyse the role of secondary sector activities as instruments of control

of the Iberian societies by their elites. We will focus on the three aspects on which we have better information: ceramic production, metallurgy (especially iron work) and textile manufacture. We will try to understand how craft production was organized, to which extent it was specialized, who the artisans were, and how it all relates to social structure and social process.

Wheel-thrown pottery

Wheel-thrown pottery (often with painted decoration) is considered, and rightly so, as one of the most characteristic elements of Iberian Culture. Its rapid spread in the area under study during the second half of the sixth century BC goes hand in hand with the rise and development of a hierarchical society. This type of ceramics soon constituted a substantial part of the material recovered in habitation sites, mainly in southern Catalonia (over 50 per cent of the vessels used for transport, storage and tableware), and even more so in tombs. From the end of the fifth century BC, it became the most widespread pottery production, and was applied to almost every use, excepting cooking ware, which continued to be hand-made to a large though variable extent. The replacement of a large part of the vessels that were previously hand-made on a domestic scale implies by itself a very different scale and way of organizing production, with significant costs (Dietler 1996, 114–15). It is therefore necessary to explain the reasons that made this change possible or necessary.

The quick spread of wheel-thrown pottery could have been linked to population growth, since it allows accelerating production processes and gives an efficient response to a greater demand (cf. Gailledrat in this volume). This assumption is reasonable, but needs to be nuanced. In the first instance, because it is not always fulfilled: for example, the Numidian kingdoms were densely populated and urbanized, but there was never an important production of wheel-thrown pottery in that area (Sanmartí *et al.* 2016). Secondly, because an explanation based exclusively on the size of the population does not justify the persistence in the territory under study of handmade pottery for culinary functions. The increased demand that surely explains the adoption of this technique must then probably lie in its links with other aspects – more precisely, other innovations – of the productive system. A plausible hypothesis is that the rapid spread of the new technology was mostly related to the need to produce large vases, which are more easily, efficiently and quickly made by using the potter's wheel. This is consistent with the fact that mid- and large-sized vases constitute a very substantial part of the early wheel-made production. In the sixth and fifth centuries BC, most of these large vessels were intended for food

storage, but a limited number of transport *amphorae* (derived from Archaic Phoenician prototypes) are also attested, not only on Iberian sites, but also in Greek and Phoenician ones, such as Ibiza (Ramon 2004, 272, 279) and Emporion (Castanyer *et al.* 1999, 235–7), and, significantly enough, in the Greek shipwreck of Cala Sant Vicenç near Majorca (Manzano & Santos 2009). Therefore, we can assume that the adoption of the potter's wheel was related mainly to the shifts that took place in agricultural production during the sixth century BC (cf. Perkins in this volume), not only from a quantitative point of view, but maybe also as a consequence of the production of new foodstuffs, such as wine. Indeed, the production of wine at that time is firmly attested in southern Iberia (Gómez Bellard & Guérin 1999); despite the lack of data on vinification facilities or *amphora* contents, it could well have existed in the area under study, since there are seed remains of cultivated vine dating back to around 600 BC (López *et al.* 2011, 75–7; also see Álvarez *et al.* in this volume). Other foodstuffs, however, cannot be excluded, like hydromel and more particularly beer, which according to some scholars was the most usual content of Iberian *amphorae* in the fourth–third centuries BC (Juan & Matamala 2004), a period when the production of these transport containers experienced a very substantial increase. In the Middle Iberian period, frequent spatial proximity of silo fields and pottery workshops mostly intended for *amphora* production could be a further indication of this relationship (Cardona 2009, 149). Once introduced for the aforementioned particular purpose, the new technology would have been quickly applied to the production of other kinds of vases, mostly tableware.

A number of wheel-thrown pottery production facilities are attested, particularly on the coast of Catalonia (Cardona 2009). They are dated from the fifth to the first centuries BC, but only some of them have been excavated systematically and using modern methodology. In some cases, they are located close to large sites such as Ullastret – where remains of kilns, poorly preserved, were discovered in the town's periphery (Martin *et al.* 2007) – and Darró (López & Fierro 1988, 1994). In general, however, they are found at a considerable distance from habitation sites, in locations that permit easy access to raw materials and energy sources needed for pottery production. We still know little about their internal organization, save at Hortes de Cal Pons (a site dated to the late fifth–early fourth century BC), where several kilns have been excavated, and at least three stages of the production process are attested, namely clay extraction and preparation, drying of unfired vases and firing (Fig. 24.2) (Cardona 2009).

The production volume of each individual workshop cannot be determined; however, in some cases (for example in Hortes de Cal Pons) the significant number of manufacturing remains (firing discards, broken vases) intuitively suggests that it was considerable. A certain degree of specialization may also be perceived. Thus, only vessels of a very specific type (the so-called 'Catalan coast grey pottery table-ware') were manufactured in the workshop at Fellines, Girona (Martin 1981). At Hortes de Cal Pons, *amphorae*, large storage vases, *situlae* and dishes were almost exclusive, and some workshops of the Maresme coast, to the northeast of Barcelona, were mostly devoted to the production of *amphorae* (Bonamusa 1973). The reasons for this specialization must obviously lie in the role of the workshops in the entire productive system, which was certainly controlled by the elites, but is still far from being completely understood. It is also important to note that the production of some workshops seems to be remarkably standardized: detailed analysis of large series of vessels points to the mechanical repetition of the potters' gestures, which in turn indicates serial work (Fig. 24.3). In addition, the relative complexity of the whole process suggests the involvement of a comparatively large number of craftspeople. This would indicate a considerable level of specialization, and perhaps full-time dedication.

We do not have sufficient information to determine the potters' social position. Alexis Gorgues points at the possibility that they would form part of the elites (Gorgues 2017b, 98), but this hypothesis is grounded on rather weak data, since the mere proximity of one workshop to an isolated settlement of Mas de Moreno (which is the author's main argument: Gorgues 2017b, 89) cannot prove anything in this sense; nor can the existence of pottery furnaces close to Ullastret, an Iberian town where the presence of the aristocracy is well attested. In any case, it is a logical assumption that the aristocracy controlled this craft activity, which, as already noted, was likely linked to agricultural surplus and the production of specialized foodstuffs. Surely, aristocracy was the only social segment capable of promoting and controlling such a specialized activity, but direct involvement of its members in the production process is hardly verifiable.

Metallurgy

There are two distinct stages with regard to the use of iron in the area under study. Initially, between the late eighth and the mid-sixth century BC, this metal was mainly used for the manufacture of knives and objects related to clothing and personal adornment; these items have been recovered mainly in funerary contexts. Excavations carried out in settlements have



Figure 24.2. Pottery workshop of Hortes de Cal Pons.

provided few iron objects, some of which were tools, but none intended for agricultural production. Early iron production facilities are not known, except for a possible reduction kiln at Vilars d'Arbeca (Grup d'Investigació Prehistòrica 2003, 265). This probably indicates that at this time the whole process was generally carried out outside the habitation sites, probably close to the mineral deposits; it also suggests that the volume of production was quite small. In short, before the mid-sixth century BC, the use of iron seems to be limited basically to the sphere of the prestige economy. Lineage leaders, who probably used these objects in the same way as their bronze counterparts were employed

– that is, in social exchanges – must have controlled the production of iron items. Findings of foundry moulds for bronze objects in houses of Early Iron Age sites – such as La Ferradura (Maluquer de Motes 1983, 23–24 and pl. 1) or Sant Jaume-Mas d'en Serrà (Garcia *et al.* 120, fig. 79; Álvarez *et al.* in this volume) in the lower Ebro region, Les Escodines Altes and Les Escodines Baixes in lower Aragon (Jornet 2017, 271) – clearly indicate that they were made on a domestic scale, and the same may be true regarding iron objects.

The fact that iron was used mainly in the sphere of the prestige economy does not imply that the properties of this metal and the possibility of using it

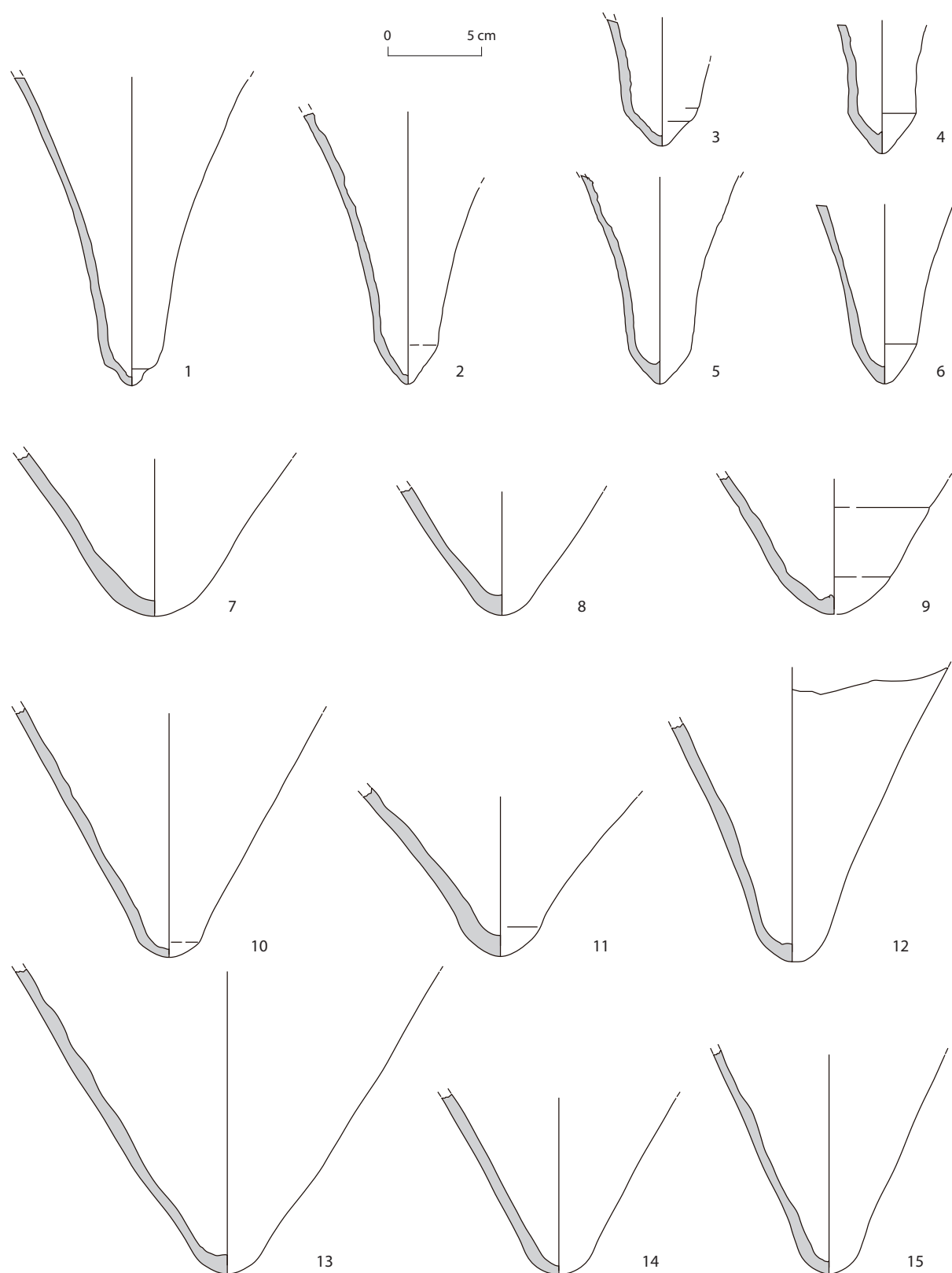


Figure 24.3. Bases of Iberian amphorae: 1–6) Alorda Park (third century BC); 7–9) Valls del Foix (fourth century BC); 10–15) Hortes de cal Pons (fourth century BC).

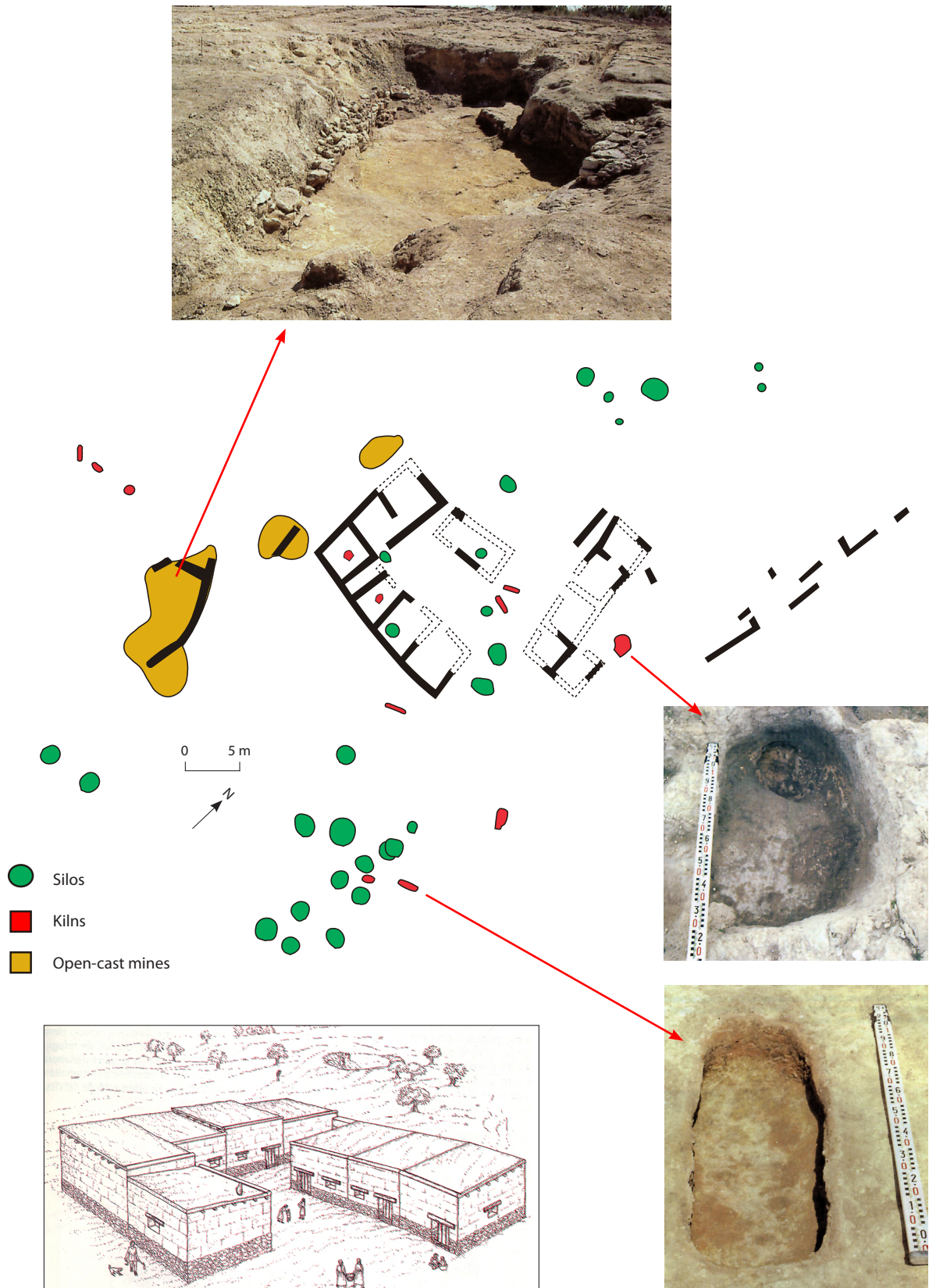


Figure 24.4. The Iberian site of Les Guàrdies (El Vendrell).

in agricultural tasks and the manufacture of weapons were ignored. In the Early Iron Age small-scale societies, the level of social and political integration did not go beyond Big Man collectivity, and agricultural production was mainly based on the slash-and-burn system. There was no elite capable of imposing a grain farming system of Mediterranean ecotype, in which fields are ploughed and cross-ploughed several times using ploughs whose distal end is shod with an iron protection (Wolf 1966, 32–3). This system implies high work inputs that would be barely acceptable in egalitarian societies. In other words, we think that the formation of the aristocracy – the causes of which we have already mentioned – preceded the large-scale use of iron. We also think that it was this social group that, well into the sixth century BC, promoted the use of this metal, both in agricultural production – in order to increase its wealth – and in the manufacture of weaponry, which was necessary to emphasize its power and coercion capacity.

Starting in the second half of the sixth century BC, iron weapons, farming instruments and other elements of practical use in everyday life (such as wheel rims, nails and a large number of tools used in carpentry and other activities) became key elements in the reproduction of a system of exploitation based on hereditary inequality. It is no surprise, therefore, that the data on iron metallurgy become much more abundant, both in terms of the number of objects recovered and in relation to the production (and/or repair) facilities. Conversely, the number of iron items related to clothing and personal adornment dramatically decreases.

A considerable number of facilities devoted to iron items production and repair is attested. They are found in cities (for example in Ullastret), but also on smaller sites, like villages and hamlets, and even in scattered farms and rural houses (Rovira 2000, 265–7). At first glance, this could indicate a generalized and unlimited access to the use of this metal. However, it is a reasonable assumption that the elites would try to exercise a strict control over iron production and use, given that it was a critical resource for the control of production and power maintenance. The most efficient way to do this would be supervising, as far as possible, the extraction of the raw ore and its distribution to the commoners only in the quantities necessary to uphold the productive system (Gorgues 2017b, 79). In the same vein, we may think that the aristocracy could have controlled the manufacture of many kinds of iron items.

Of course, the extent to which such control over ore extraction and transformation could be carried out efficiently cannot be determined, since we cannot know what objects were manufactured in the forging

facilities attested archaeologically. The complete chain of iron production is documented only at the site of Les Guàrdies, in the Penedès area (Morer & Rigo 1999). This is a quite small farm (some 1800 sq. m), similar to many other rural sites in the same area (Fig. 24.4). Opencast mines for mineral extraction (ferric oxide rich clays) have been found, as well as specific kilns for enrichment, reduction and forging. We do not have, however, any information about the objects that were manufactured, nor can we calculate the volume of the production; still, the remains preserved suggest that this was not very large and did not last long. It is a plausible assumption that Les Guàrdies was controlled by the site of Alorda Park – some 2.7 km away, as the crow flies – which was a power centre at the micro-regional scale (Morer & Rigo 1999).

There are indications of iron production in other farms in the Penedès area, but most facilities are found in nucleated sites whose sizes range from small villages to cities. It is worth noting that the nature of these production facilities apparently varies according to the type of settlement in which they are located. Thus, in hamlets and villages they are usually segregated from houses, save for a few cases in which they are located in small dwellings. A good example, dated to the third century BC, is found a little further north, near Barcelona, at Turó de les Maleses. Here, reduction and forge processes are attested in a single workshop (Durán *et al.* 2014). This kind of iron production facility must have been quite common in nucleated habitation sites, given the need to make iron tools, or at least to repair them. It is important to note (for reasons that will become clear later) that at Turó de les Maleses there was one house of remarkable size, much larger than the other dwellings, but it did not include a metallurgical workshop.

Workshops segregated from dwellings are also found in (usually large) sites where the presence of the elite is well-attested; a good example is found in building 19 at Castellet de Banyoles (Fig. 24.5) (Asensio *et al.* 2012, 183–4). However, such sites (in particular Mas Castellar de Pontós, Ullastret and Castellet de Banyoles) have also yielded good evidence of iron metallurgy inside large elite mansions. Ullastret is the largest site in the area under study (about 18 ha), undoubtedly a true city and the capital of the Indikete city-state. As already said, a large area devoted to metallurgy and pottery production is attested outside the city walls. However, its precise nature is unknown, since the only excavation that has been carried out (Gou-Batlle sector) has produced very limited results. In any case, the large volume of iron scrap indicates that there was a workshop ‘of some entity’ (Martín *et al.* 2008, 182). In addition to this extramural production area, an iron workshop has been

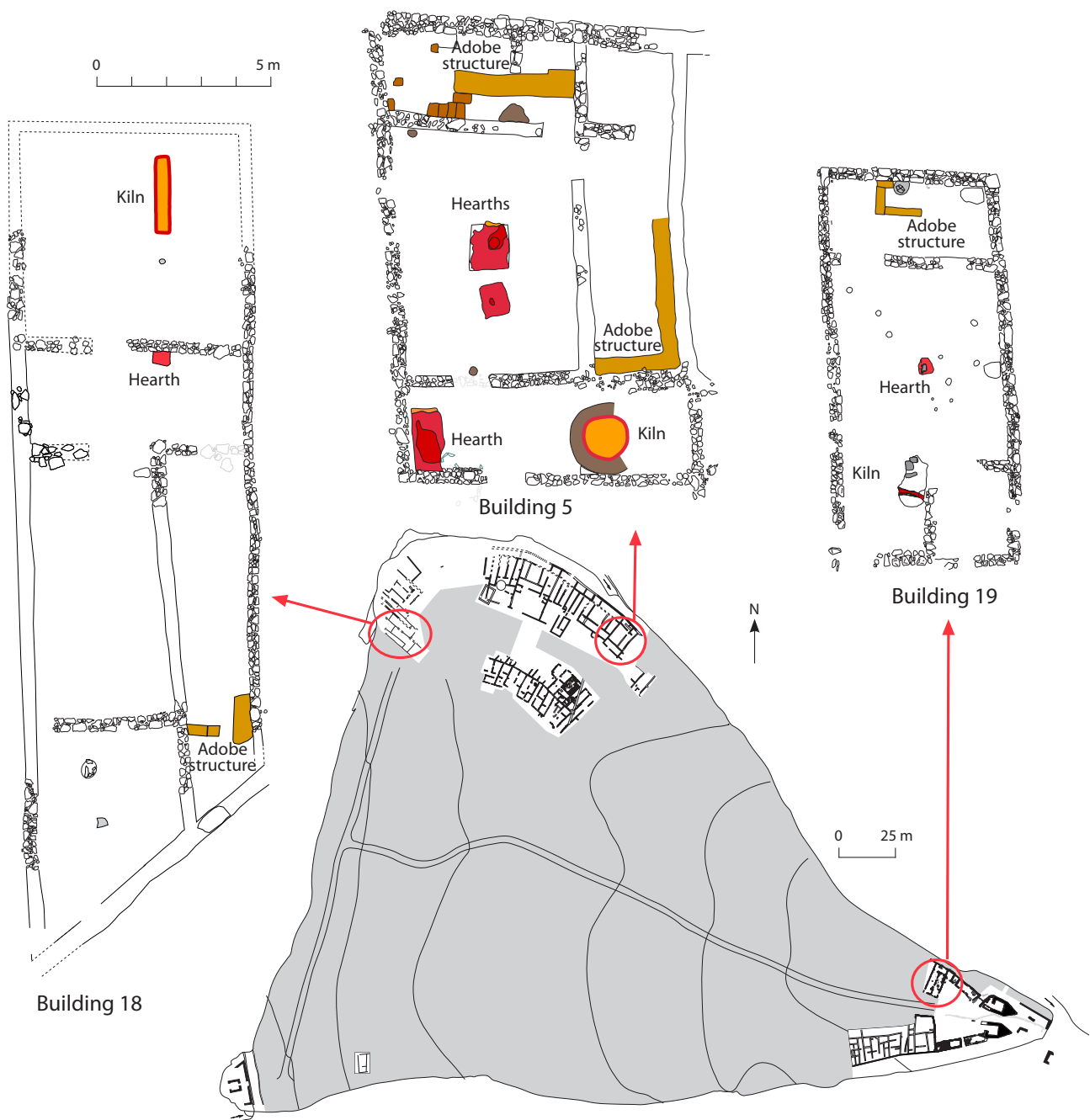


Figure 24.5. The Iberian site of Castellet de Banyoles.

found in the large aristocratic house labelled as 'zone 14' (Martín *et al.* 2004). This mansion stretched over an area of some 600 sq. m and contained a variety of objects denoting prestige and wealth, including weapons and skulls nailed to the facade of the house (and therefore publicly visible). Another iron production workshop is attested in a large aristocratic house at Mas Castellar Pontós, an elite rural site probably located within the

territory of Ullastret (Fig. 24.6) (Pons 2002). In Castellet de Banyoles, a town in the lower Ebro valley, an iron production workshop was found in house 18, which also contained two golden jewellery items, a Hellenistic glass bowl (an exceptional find in this area), a couple of iron spear tips and remains of what could have been an iron sword (Fig. 24.5) (Asensio *et al.* 2012, 184–5). In such cases, it is logical to suppose – as does Gorgues (2017b,

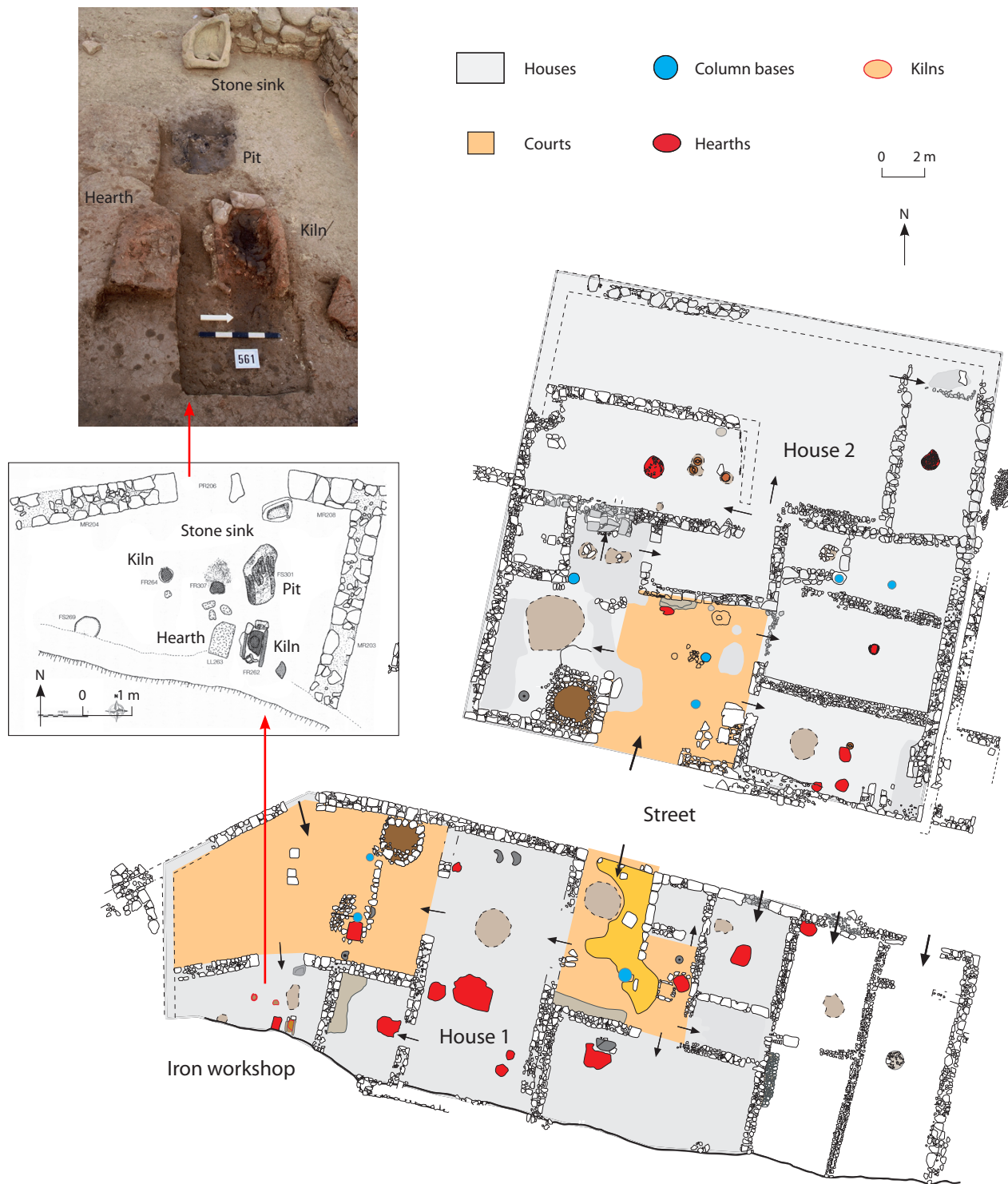


Figure 24.6. *The Iberian site of Mas Castellar de Pontós.*

89–90) – that the blacksmith was, in fact, a member of the elite family that lived in the house, or at least one of its clients. The production would include mainly tools, both agricultural and handicraft, and weapons

as well. In contrast, it is plausible that the activity of workshops located in hamlets and villages would be limited to the manufacture and repair of tools. If that were true – and it goes without saying that we move in

the field of hypotheses – control over production by the aristocracy would have been mainly exercised – insofar as it was possible – in the field of mineral extraction and distribution, limiting the amount of raw material available to the inhabitants of the different sites.

In addition to iron production, the excavations at Castellet de Banyoles (Tivissa) have produced considerable information on the reduction of galena to obtain lead, and maybe also silver; this is well attested in building 5 of this site (Fig. 24.5) (Rafel *et al.* 2008; Sanmartí *et al.* 2012, 56). As for the manufacturing of bronze items such as fibulae, bracelets, etc., it is attested by the presence of crucibles and moulds at large sites such as Ullastret (Rauret 1976, 103, 106–8), but also in much smaller locations like Turó del Vent. Unfortunately, contextual information about these finds is not sufficient for an accurate understanding of the social dimension of the production process.

Textile production

Concerning textile production, there are no preserved remains of finished products. In contrast, some of the tools presumably used for this craft are widely attested, but only from the eighth century BC, when the earliest loom weights appear in lower Aragon; in the seventh and early sixth centuries BC they are also attested in several sites in southern Catalonia, generally in very small numbers. Barranc de Gàfols, a small hamlet inhabited by only five to ten families, is a good example: loom weights were found in six houses; there was only one in three of these dwellings; three were found in two further houses, and four in another one (Sanmartí *et al.* 2000, 166–9). These are very low numbers, even if we accept that post-depositional processes may have caused the loss of a certain number of such objects. One possible explanation is that these weights were used in small looms to make narrow fabric strips that would subsequently be sewn together. The site of La Ferradura has produced different evidence: 25 loom weights were found together in a restricted area, which would indicate the existence of a small vertical warp-weighted loom (Gràcia & Garcia 1998). Similar numbers are attested in two Lower Aragon sites, Les Escodines Altes (24 loom weights) and Les Escodines Baixes (25 loom weights), but it is not known whether they were found together or scattered in different houses (Jornet 2017, 270).

The evidence recovered from these sites suggests that the textile activity was of a domestic nature, but the data from Sant Jaume-Mas d'en Serrà clearly indicate that woven fabric was also used in the prestige economy. This is a large fortified dwelling, extending over just 700 sq. m of which about one third has been excavated, where many goods of a very diverse nature were stored (Garcia i Rubert *et al.* 2016; Álvarez *et al.*,

this volume). Over 900 loom weights have been found so far at this site; they were distributed in several groups of 60 to 100 (Garcia *et al.* 2016), each of which probably corresponding to a single loom. The existence of several looms operating simultaneously in such a small site strongly suggests the production of a large surplus. In addition, the number of weights that were seemingly used in each loom indicates that these looms were larger than those in the aforementioned coeval sites, and probably intended to manufacture fabrics of different sizes and qualities. It is important to note that the locations where these sets of weights have been found are not domestic in character; they rather look like working spaces with an upper floor where these and other tools were stored. It is a logical assumption that this presumably large and somewhat specialized production was destined to be redistributed to the hamlets and villages of a limited territory, along with other goods, such as the Phoenician *amphorae* that are also found at the site. Despite the opinion of the excavators (who consider this site as the residence of a chiefdom's head), the lack of clear evidence of social stratification in the regional archaeological record rather suggests that this large dwelling, full of riches, was the residence of a Big Man who, for a short time, managed to control access to natural resources and labour, and to establish close links with Phoenician traders, who undoubtedly provided the huge quantity of imported wine.

Sant Jaume-Mas d'en Serrà witnesses the use of textiles in the prestige economy in the first decades of the sixth century BC, a time of quick socio-cultural evolution. We may think that in the following centuries the Iberian elites continued to control textile manufacturing, at least to some extent. This has been assumed by Gorgues, based on a limited data (Gorgues 2017b, 86–8, 91–2). First, the existence of a small loom (37 weights) in the tower-house of Tossal Montañés, in Lower Aragon, which is dated to the Early Iberian Period and has been interpreted as an aristocratic residence (Moret *et al.* 2000). Second, a store-room at Turó de Mas Boscà (Badalona) that may have been part of an aristocratic mansion (though this is not certain) and was destroyed by the late third century BC; it contained, among many other items, 10 spindle whorls and more than 200 loom weights (Junyent & Baldellou 1972). However, the most important evidence mentioned by Gorgues is the flax processing workshop and the 107 loom weights found next to it at the site of Coll del Moro de Gandesa, in southern Catalonia (Rafel *et al.* 1994). Recent (and still ongoing) excavation work at this site has proved that these facilities were part of a wider complex devoted to the production of wine and maybe other activities (Fig. 24.7) (Jornet *et al.* 2016; ;

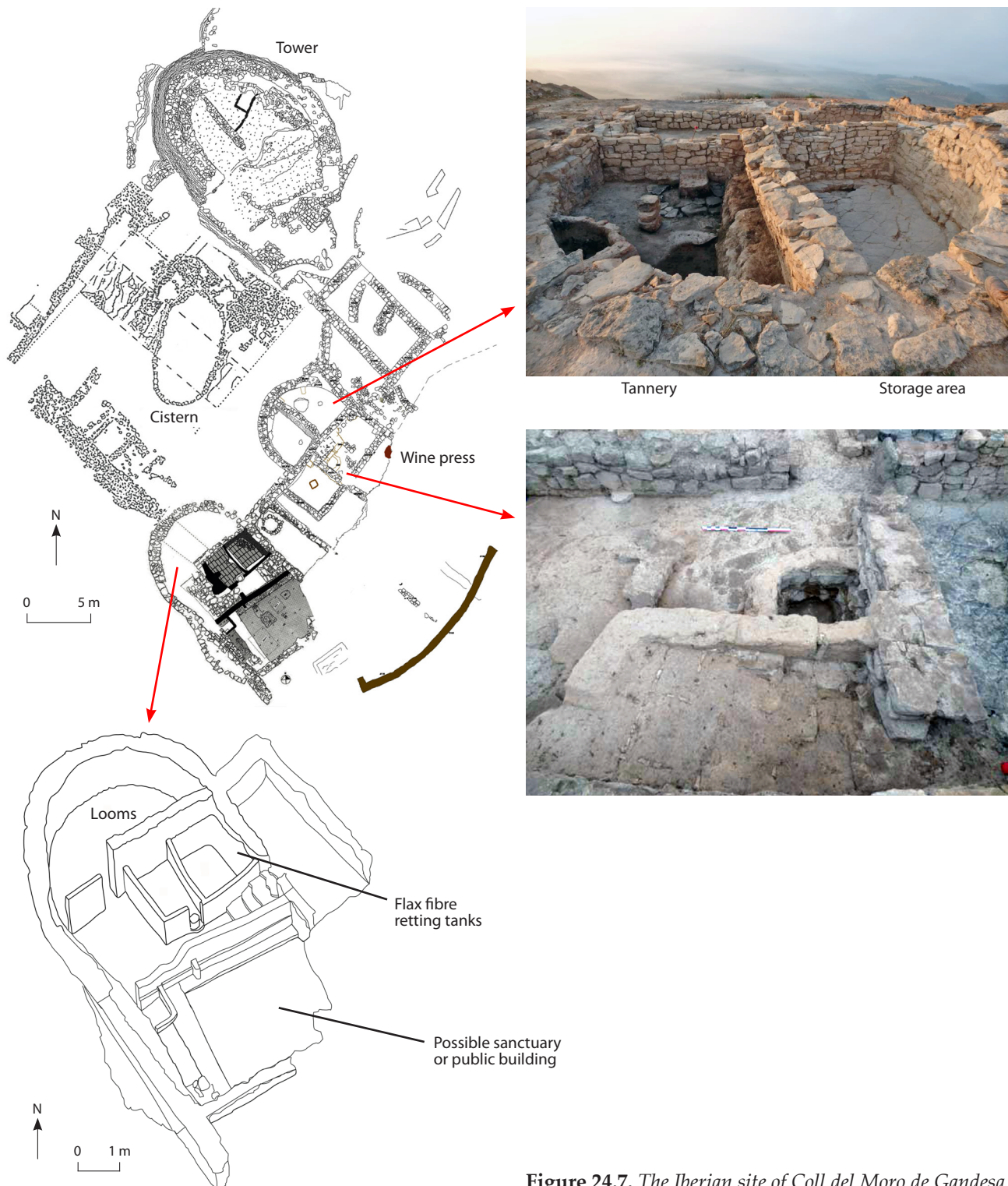


Figure 24.7. *The Iberian site of Coll del Moro de Gandesa.*

Jornet *et al.* 2020). Due to their structure and location (near a large defensive tower that was visible from several kilometres around), we may assume that these facilities were part of a large aristocratic residence. Still in the same area, it is necessary to mention Sant Antoni

de Calaceit, a fortified site with a prominent role in the microregional settlement pattern, and a locus for the accumulation of agricultural surplus (Fig. 24.8). Two relatively large groups of loom weights (130 and 40 units respectively) were found during old excavations



Figure 24.8. *The Iberian site of Sant Antoni de Calaceit.*

inside two houses that, for different and independent reasons, can be considered as having been occupied by the most important family groups living in this small town (Jornet 2017). The distribution of these items in different rooms of one of these buildings suggests that several looms were active simultaneously.

Despite what has been said in the previous paragraphs, the association of looms with aristocratic houses is not always obvious. It is not attested, for example, in the previously mentioned mansions of Puig de Sant Andreu (zone 14), Mas Castellar de Pontós and Castellet de Banyoles. At Alorda Park, a fortified citadel which we suppose was occupied by an aristocratic group, textile activity is very poorly documented: only five loom weights and 10 spindle whorls, which is a very small number, considering that the site has been extensively (though not completely) excavated. Conversely, sometimes a substantial number of loom weights are found together in specific houses of sites where a significant presence of elite members does not seem probable, such as Puig Castellar de Santa Coloma de Gramenet (Martínez Hualde 1970) and Els Estincells (Asensio *et al.* 2009, 137 and 140, fig. 12)

(Fig. 24.9). In addition, it is quite common to find loom weights inside houses of different kinds and sizes, but generally in small numbers (from one to 20) that are clearly insufficient for the operation of large vertical looms. This may indicate that small looms such as those used in the pre-Iberian period, persisted in the second half of the first millennium BC. On the other hand, extremely large concentrations of loom weights such as at Sant Jaume-Mas d'en Serrà have not been attested during the Iberian period, which seemingly confirms the uniqueness of this site and its belonging to a large-scale distribution system in a Big Man collectivity.

In summary, the available data indicate the possible existence during the Iberian period of two levels of textile production: on the one hand, in aristocratic dwellings (but not in all of them) workshops equipped with looms of substantial size, perhaps multiple in some cases; on the other, much more modest facilities in commoners' houses. Further studies on sizes, weights, morphology and decoration of a substantial number of loom weight sets from well-defined archaeological contexts, coupled with archaeobotanical analyses to

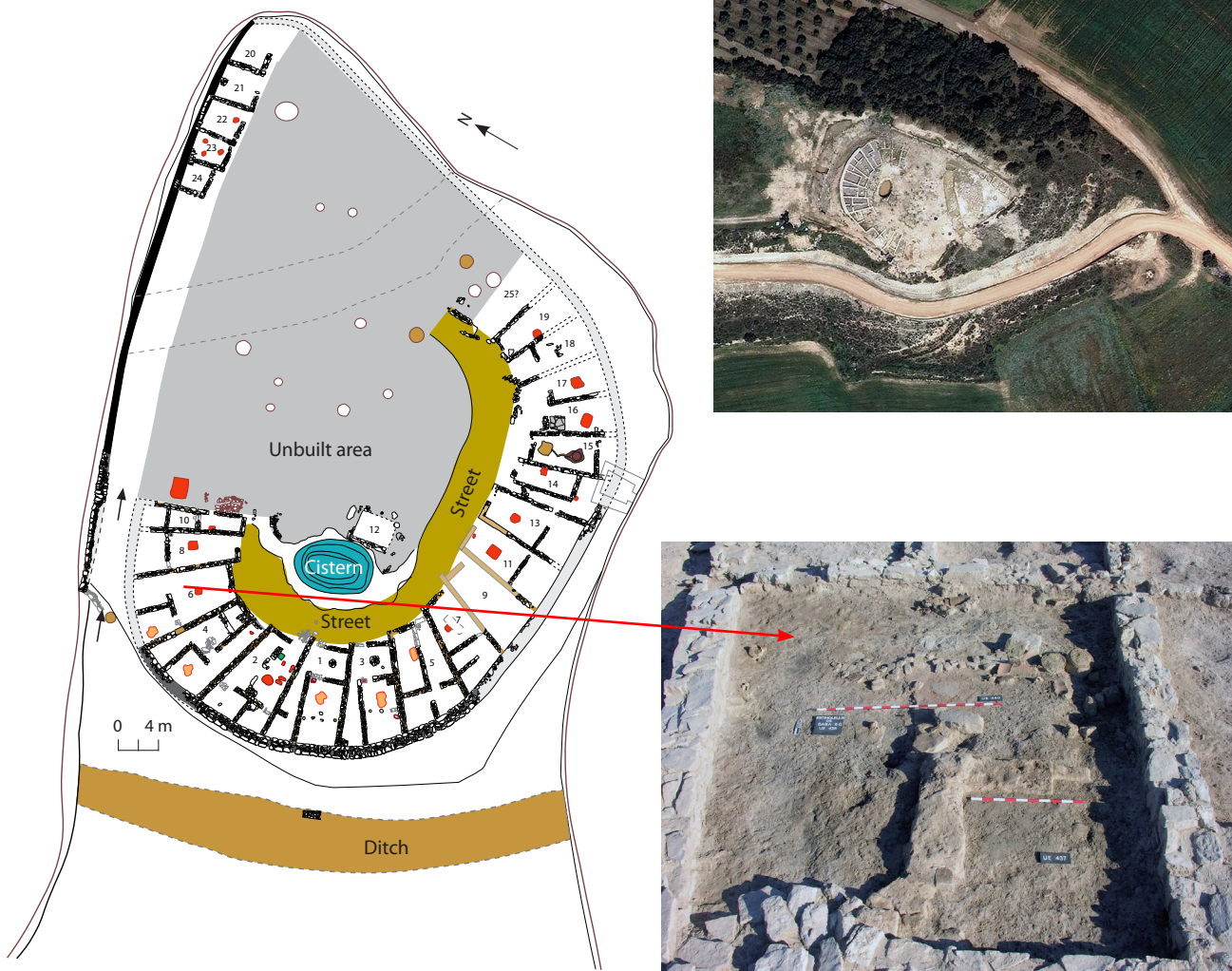


Figure 24.9. *The Iberian site of Els Estinclells.*

determine the kind of fibres that were used, are necessary in order to determine if the differences observed in the distribution of loom weights are due to the production of fabrics of different types and qualities, and not just of different sizes.

Conclusion

Socio-cultural changes that northern Iberia underwent in the first millennium BC were not caused by any technological change; rather, the formation from the mid-sixth century BC of societies characterized by institutionalized inequality coincided with (and is likely to have caused) the introduction of new technologies (the potter's wheel) and the modification of the ways in which other pre-existing ones (iron metallurgy) were used. These changes made possible the reproduction of the new social order of inequality for at least three

centuries, until the conquest of this territory by Rome.

Previous use of iron metallurgy (probably since the end of the eighth century BC) for the manufacture of prestige goods turned out to be decisive for the rise and further permanence of the elites, as it made possible the introduction into the productive system of the set of tools necessary to increase the territory's carrying capacity; this, in turn, was instrumental to solve or prevent problems in the domestic economy, and to increase the elite's income, wealth and power. In this way, the material foundations that allowed the development of a legitimizing ideology of institutionalized inequality were put in place.

In addition to objective property of land and control over primary production, some data suggest the control by the aristocracy of several crafts, at least to some extent. This control was put into practice in different ways depending on the specific nature of each

craft. In the case of wheel-thrown pottery, workshops needed to be placed outside (and frequently far away from) habitation sites. This is a logical consequence of the complexity of the operations to be carried out (from clay preparation to firing), of the discomforts they caused, and also of the need to bring together all or most of the stages of the operating chain in the same place, which should be placed as close as possible to critical resources like clay, water and fuel. This is a real workshop production that was aimed at general consumption, as evidenced by the ubiquity of wheel-thrown pottery in all types of sites, as well as by the fact that, in general, they were largely dominant in relation to any other type of ceramics. The scale of production and level of standardization, particularly in the Middle Iberian period suggests the existence of full-time craftspeople. Their social status cannot be determined with the available data, but the complexity of this craft and its links to the agricultural production suggest that it was largely if not completely controlled by the elite.

Regarding the social identity of the artisans devoted to textile and metallurgical production, and more specifically their possible belonging to the aristocracy (as suggested by A. Gorgues), all that can be said is that this hypothesis is unverifiable for the time being. It is true that belonging to the elites does not exclude direct involvement with manual work. The image of Cincinnatus, a Roman patrician personally ploughing his fields when he receives the deputies of the Senate (Livy 3.26.8), reflects this clearly, and ethnographically documented cases point to the same conclusion (Leach 1954, 15–16). Such personal involvement of elite members in manual work could explain the location of metallurgical facilities and large looms in aristocratic mansions, but, despite being a household-based production, these activities could as well have been performed by artisans attached to aristocratic families or by subordinate staff supported by them.

The fundamental question that must be considered is not so much who specifically carried out the physical work, but who controlled the production and distribution of manufactured goods. Even if craft activities were performed on elite's premises, as Gorgues has rightly pointed out, we should not overlook that iron production is also well attested in other locations, and that the frequent discovery of loom weights in commoners' houses testifies to textile production outside the strictly aristocratic sphere. This might indicate that the facilities located in aristocratic houses responded to a production of the elites and for the elites, that was used strictly within the framework of the prestige economy and with a diacritical value, to wit, in order to emphasize the differences in relation to the lower groups of the

Iberian society. These products included weapons (or at least certain types of weapons) and probably the best part of textile production. Production in the rest of workshops, in contrast, must have been linked essentially to the subsistence economy, in particular to the production and repair of tools. In this context, the use of the 'Sahlinsian' model of the Big Man forced to 'work in place of others [to] place them in a position of dependence' (Gorgues 2007–2008, 66) seems inappropriate to us, since there are sufficient elements to affirm that the Iberian elites were a true aristocracy, that is, a social group whose power was hereditary and grounded to some extent in a social consent based on a widely shared legitimizing ideology.

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Making cities

Large and complex settlements appeared across the north Mediterranean during the period 1000–500 BC, from the Aegean basin to Iberia, as well as north of the Alps. The region also became considerably more interconnected. Urban life and networks fostered new consumption practices, requiring different economic and social structures to sustain them. This book considers the emergence of cities in Mediterranean Europe, with a focus on the economy. What was distinctive about urban lifeways across the Mediterranean? How did different economic activities interact, and how did they transform power hierarchies? How was urbanism sustained by economic structures, social relations and mobility? The authors bring to the debate recently excavated sites and regions that may be unfamiliar to wider (especially Anglophone) scholarship, alongside fresh reappraisals of well-known cities. The variety of urban life, economy and local dynamics prompts us to reconsider ancient urbanism through a comparative perspective.

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