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## The artisans of metal and the elite in the western Hallstatt zone (630-450 BC).

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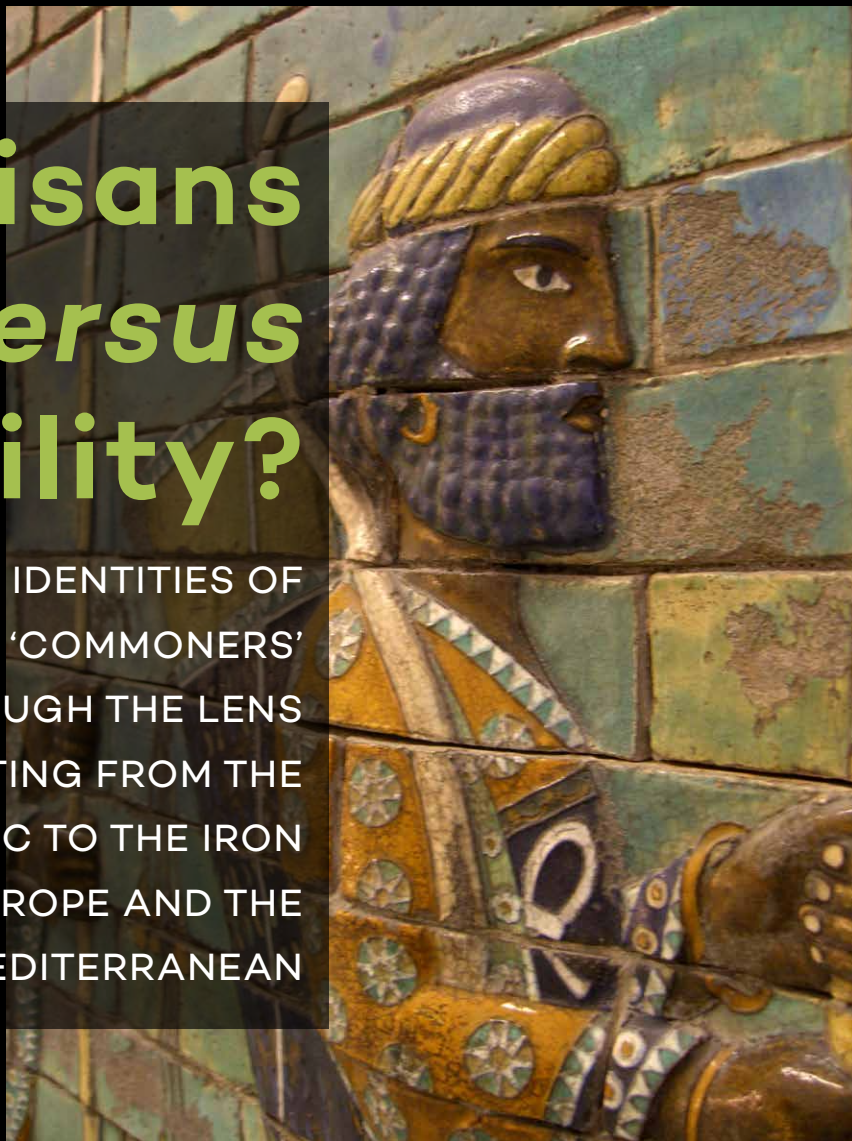
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# Artisans *versus* nobility?

MULTIPLE IDENTITIES OF  
ELITES AND 'COMMONERS'  
VIEWED THROUGH THE LENS  
OF CRAFTING FROM THE  
CHALCOLITHIC TO THE IRON  
AGES IN EUROPE AND THE  
MEDITERRANEAN



edited by  
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# The artisans of metal and the elite in the western Hallstatt zone (630-450 BC)

*Emilie Dubreucq*

## Introduction

This paper will focus on the central-western Hallstatt Culture, located between southwestern Germany, western Switzerland and eastern and central France (Figure 1) during the end of the First Iron Age (between Ha D1 and the beginning of LTA1 – around 630-450/425 BC).

During this period, important developments in political structure, indicated by centralised and highly stratified social organisation, provide fecund ground for studying “metal craftspeople” and the elite and have prompted several interpretative models (Kimmig 1969; Brun 1992; Milcent 2003). This phenomenon of centralisation and social stratification is especially apparent through funerary practices, with some tombs gathering exceptional wealth—for example, the Royal tomb in Vix (Burgundy: Rolley 2003) and the tomb of Hochdorf (Baden-Württemberg: Biel 1985). At

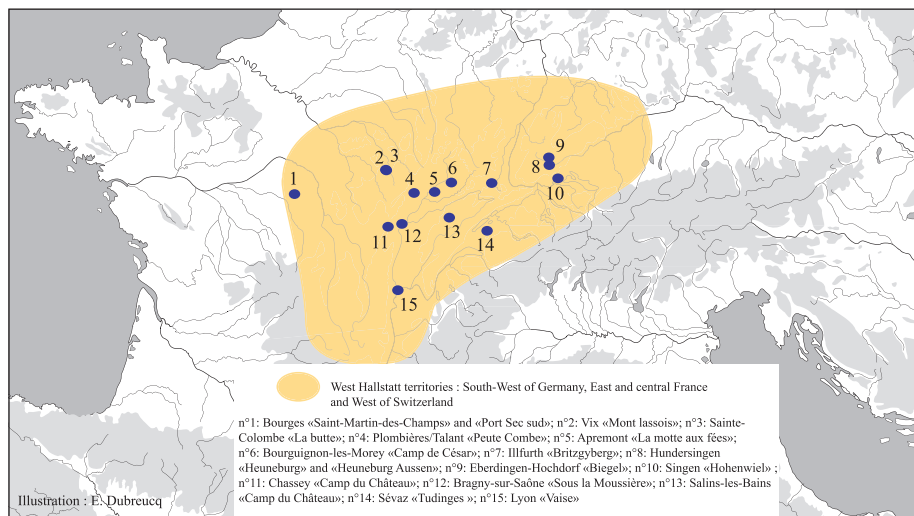


Figure 1: Location of the central western zone of the Hallstatt culture and different settlements of this paper (E. Dubreucq).



the same time, hilltop sites were reoccupied, and some have been considered elite residences and regarded as craft production centres, exemplified by the site of Heuneburg in Germany (Kimmig 1968; Gersbach 1989; Kurz 2010).

The development of these central sites north of the Alps, some now described as the result of a real process of proto-urbanisation, is contemporary to the development of city-states in the Mediterranean territories, with which the Hallstatt groups maintained diverse relationships through trade (Rolley 1992), diplomatic relations (Fischer 1973; Verger 2003; Milcent 2004), and, probably, religion (Verger 2006).

From a technical point of view, this phenomenon appears together with the development of metalwork within the settlements themselves (Dubreucq 2013). Because of its physical properties, iron revealed itself to be much more efficient than bronze in many utilisations—for example, weaponry, tools and equipment for wagons. This led to noticeable improvements, especially in terms of artisanal production. The spread of iron use to all areas of daily life also indicates a highly structured society capable of organising the entire production chain, from obtaining the raw materials to distributing the finished products.

Within this society, characterised by a growing level of complexity, we will try to define the roles of the upper class and/or the artisans during a time when they became the makers as well as the central pillars of economic and technological development. By investigating how the archaeological features and sites were organised, this article aims to discuss the relationship between the artisans and the aristocrats within the Hallstatt society.

## **Characterising the elite members of the society**

Since the end of the 19th century, archaeological sites characteristic of the Hallstatt Culture have revealed a number of extremely rich tombs, some of which have been described as “princely”. Indeed, it is within the funerary world that the elite portray themselves in the most visible fashion.

### *The aristocratic tombs*

From the end of the Bronze Age, the northern Alps developed into a region of complex and dynamic entities, both technologically and economically (Brun, Ruby 2008). Territories became more stable as the society transitioned into increased complexity, characterised by a more defined hierarchy and the development of specialised craftsmanship.

The beginning of the Early Iron Age witnessed an evolution of funerary practices with the redevelopment of barrows. These monuments were erected by the whole community but benefited only one person. This beneficiary was generally male, and judging from the funerary offerings often accompanying the deceased (horse tack, sword), the monuments were probably mostly dedicated to horsemen or warriors of some kind (Vuailat 1977; Olivier, Reinhardt 1993; Chaume, Feugère 1990).

At the end of the 7<sup>th</sup> century BC, under the impetus of the eastern Hallstatt regions (Bavaria, Austria, Slovenia), a concentration of power began to grow, first in southwestern Germany, eastern Switzerland and parts of eastern France (Alsace and Lorraine) (Pare 1989). The *tumuli* became very large monuments containing

lavishly equipped tombs. They were characterised by a wooden framed funerary chamber containing high-status goods such as wagons; imported metal wares conjuring an image of luxurious banquets; and particularly rich personal objects, such as ornaments and clothing accessories made out of precious materials: for example, gold, amber, glass and coral. During the 6<sup>th</sup> century BC (Ha D2-D3), this concentration of power spread to several regions in eastern and central France (Burgundy, Franche-Comté, Lorraine, Centre), where it reached its zenith between the end of the 6<sup>th</sup> century and the beginning of the 5<sup>th</sup> century BC (Piningre *et al.* 1996; Olivier 2000; Milcent 2004). The famous royal tomb of Vix in Burgundy demonstrates this clearly (Rolley 2003).

Although the most luxurious tombs stand out, we can also distinguish different hierarchical levels by looking at the richness and the quality of the objects placed within the tombs, as well as the size of the monument reserved for the elite class in the Hallstatt society (Milcent 2003).

### *Aristocrats and the settlements*

Understanding the elite through the study of Iron Age settlements is more difficult, as the archaeological record is often incomplete or missing altogether (Malrain 2007). Moreover, the excavation of those sites has covered limited areas too small to distinguish the elite from the rest of the population. However, the development of rescue archaeology and the excavations of numerous structures have added new perspectives for research on this topic (Daubigney 1993; Malrain 2007; Guichard, Perrin 2002). Among the main criteria used to shed light on the aristocrats are the goods they used, together with a study of the architecture of their homes (Malrain 2007).

The status of the objects is defined by their qualities—whether aesthetic, symbolic or exotic—as well as by the quality of the craftsmanship (*cf.* Craftspeople community, 1). It is also interesting to compare these objects with those discovered within a funerary context, where they are considered status symbols (Brun 1997).

Different types of finds are of interest on settlement sites. First, metal objects, such as fragments of wagons, kitchenware or weapons, are the ultimate prestigious goods found in the tombs. However, such finds are also often found on the settlement sites (Dubreucq 2013), demonstrating their use in their owners' everyday life (Figure 2).

Pottery can also be a good indicator of socio-economic prominence (Bardel 2012). For example, wheel-thrown pottery was a product that was still quite rare during the Early Iron Age. It was produced on only a few high-status sites and was viewed as a specialised and high-standard craft (Augier *et al.* 2013) (Figure 3). Imported ceramics from the Mediterranean or from southern Gaul are also used to distinguish a hierarchical structure. Some of these vessels contained exotic products such as wine or oil (in *amphorae*) whilst others were used to complete the dinner and drinking set (such as Attic bowls) and were wheel-thrown and painted (Bardel 2012).

However, using the presence of imported pottery as a criterion for detecting the upper class has been much criticised and debated, particularly on sites dating to the LTA1 (Milcent 2007), where such pottery has been found in workshop rubbish

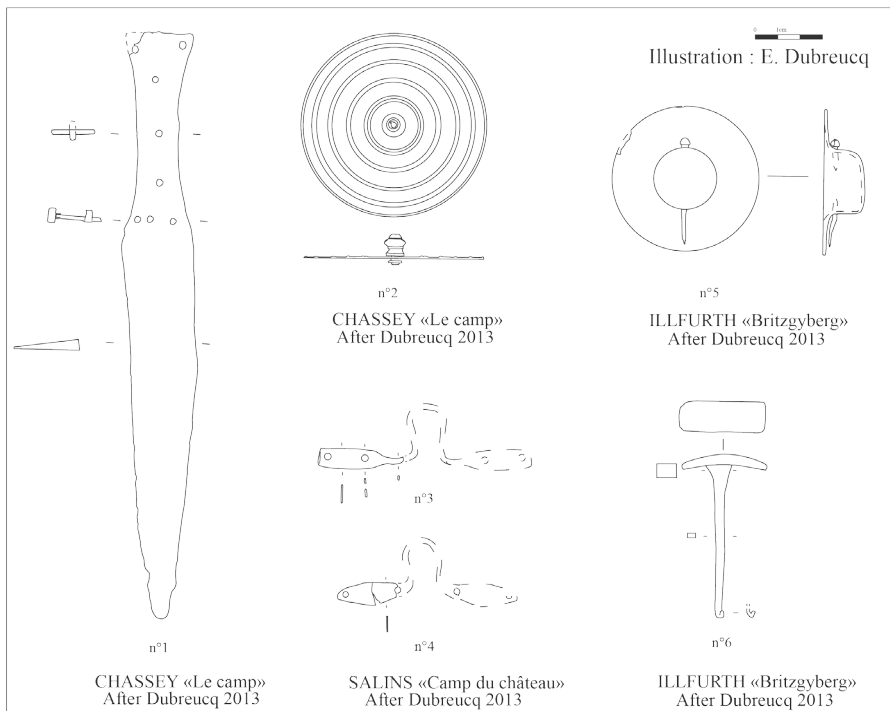


Figure 2: “Prestigious” objects from settlement (n°1: iron dagger; n°2: bronze lid of quiver; n°3: bronze handles of vessels; n°4-5: iron elements of wagon).

pits (Cf. 2). Therefore, these finds cannot always be associated with higher-status features, as is the case for earlier sites dating from Ha D1 to Ha D3.

Over the past 10 years, the development of archaeozoological and archeobotanical studies has made it possible to obtain new information on the quality of people’s diet, which also gives some indications about the hierarchical structure of the society. Some recent studies on a number of Hallstatt sites have shown that the meat consumed was of high quality and that the animals dedicated to human consumption were carefully selected (especially young animals; for example Euler, Krause 2012). The same observations have been made through the study of cereals showing that the varieties discovered on hillfort sites contrasted with those associated with agricultural and open-air occupations (Euler, Krause 2012).

Alongside the study of the material culture, the architecture can also help to distinguish the elite from the other members of the society. The size, complexity and organisation of the equipment and features are also acknowledged as criteria for social distinction in archaeological studies (Gersbach 1996; Malrain 2007). They have been used during this research as well.

Unfortunately, only a few known Hallstatt settlements provide such information. The Heuneburg site in Germany is the best example, as it has been excavated on a large scale since the 1950s. Through systematic explorations, S. Kurz and his team exposed a truly “proto-urbanised” site, which extended for over 20 hectares on the main plateau, referred to as a fortified citadel. The site

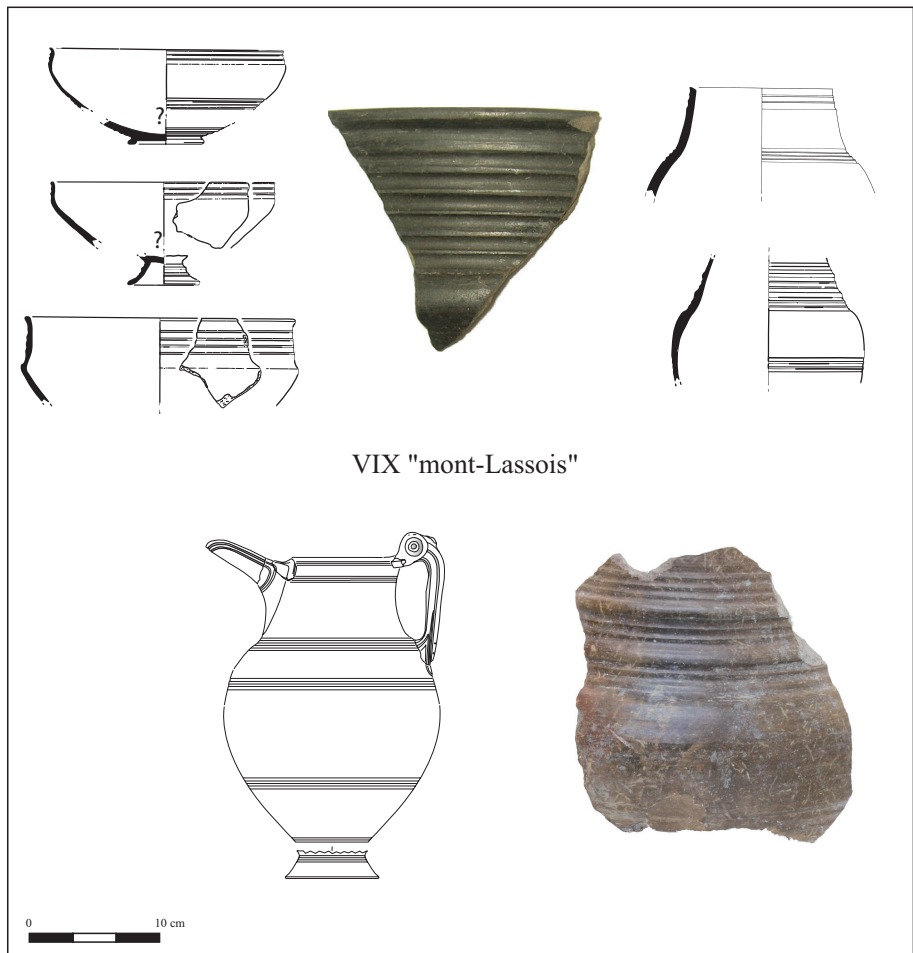


Figure 3: Wheel pottery finds from Mont Lassois-Vix (Burgundy-France). Illustration / photography D. Bardel and I Balzer.

is divided in different areas: a fortified plateau and an “exterior” site, which was also protected by fortifications (Kurz 2010). Originally, the fortification had been built according to local traditions, but after the first phase of occupation, a mud-brick wall was constructed around the three hectares surrounding the plateau. This particular type of construction was unique north of the Alps and clearly inspired by Mediterranean examples. Many structures have also been discovered on the plateau itself as well as outside the citadel, and these were organised into different districts or areas, each separated by a ditch system that was to evolve over time (Gersbach 1995; Gersbach 1996; Kurz 2010).

Through a detailed look at the structures and their remains, such as postholes, beam slots, hearths and chimneys, E. Gersbach was able to propose a building typology based on the size of the units and the complexity of the associated structures (Gersbach 1995; Gersbach 1996). He was able to show the density of the first occupation through his analysis of small, aligned buildings, including workshops (Kurz 2010). Although most of these buildings measured around

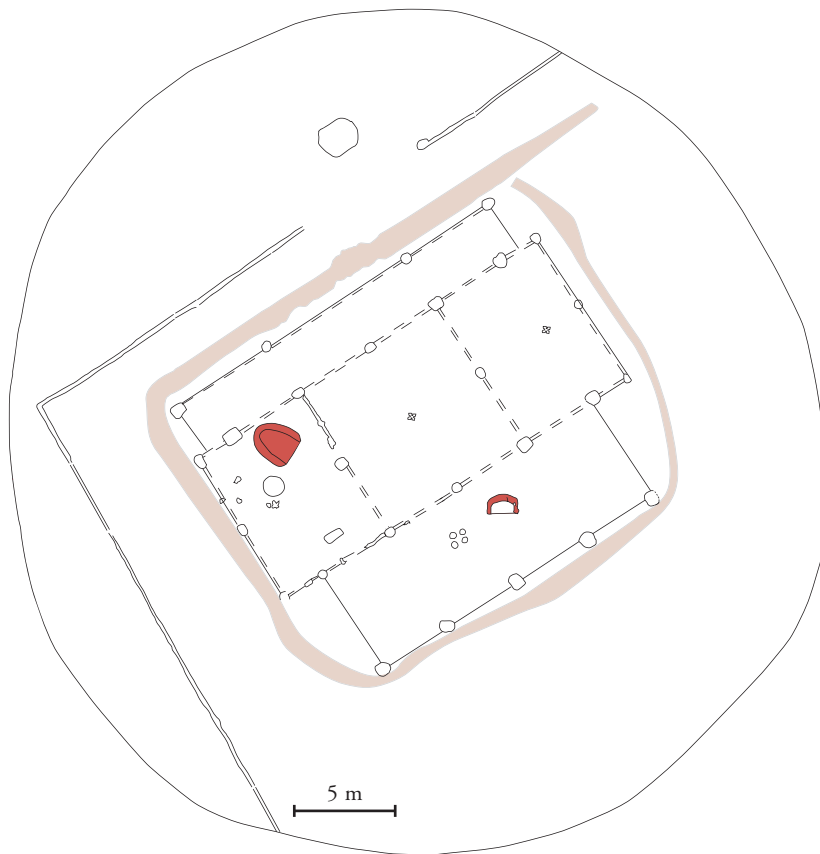


Figure 4: Building plan of "Outside settlement" in Heuneburg for period IV-Ha D1 (approx. 600 BC) (Baden-Württemberg-Germany). After Kurz 2000. Illustration: E. Dubreucq.

30 m<sup>2</sup>, some were distinguished by their larger size, notably on the external part of the site (Gersbach 1996; Kurz 2010). They have been interpreted as buildings reserved for a small group within the community – the elite.

During the fourth period (dated to Ha D1), an enormous building housing many different rooms was erected outside the citadel, while the mud-brick wall was in use. It measured nearly 320 m<sup>2</sup> and has been compared to the Etruscan palatial architecture in Murlo or Acquarossa (Kimmig 1983) (Figure 4). Its design is exceptionally uniform and has three main elements: one central, square-shaped room, with two rectangular rooms built onto two of the sides.

To the north, these three rooms were expanded with a continuous and narrow extension, while to the south another rectangular room was built. In the centre of the square room, a very large hearth was discovered and interpreted as being used for domestic purposes linked with a reception activity (Kurz 2000; Verger 2008). At the rear of the building another hearth was discovered, this time with a chimney-stack system suggesting an artisanal structure. This was confirmed by the large quantity of metal waste associated with it. A fire destroyed this building and the site itself at the end of the IV period (around 530 BC) (Kimmig 1983).



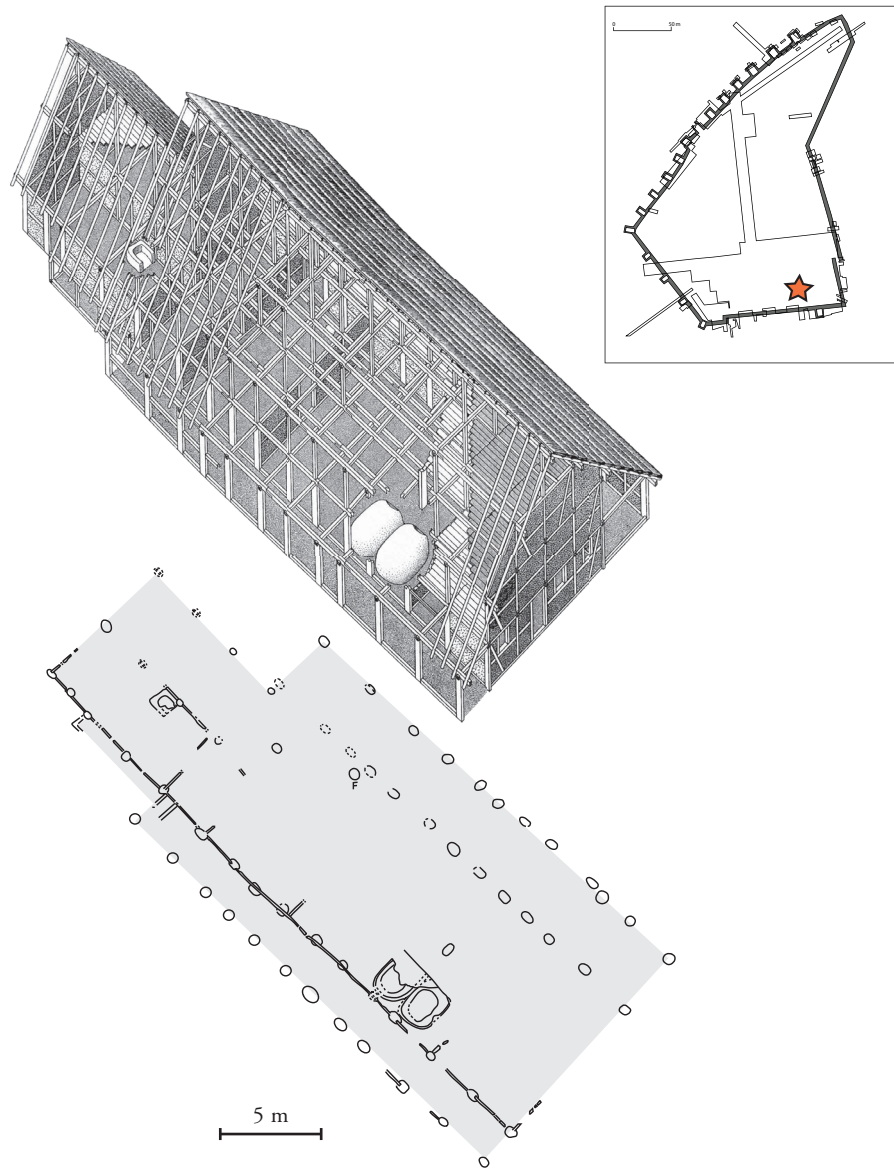


Figure 5: A new building plan and architectural reconstruction in the Citadel of Heuneburg for period III-Ha D2 (580-530 BC) (Baden-Württemberg-Germany). After Gersbach 1996. Illustration: E. Dubreucq.

During the next period of occupation (III-Ha D2), this palace was not rebuilt but instead was replaced by a burial mound (Kurz 2000). A new aristocratic building appeared on the south-east corner of the plateau (Figure 5). This evolution has been interpreted as the result of a possible political change (Sievers 1984; Kurz 2000). This 335 m<sup>2</sup> building was composed of one main rectangular-shaped room divided into several areas, with another rectangular section added to the west and a narrower extension to the south. The main room contained two

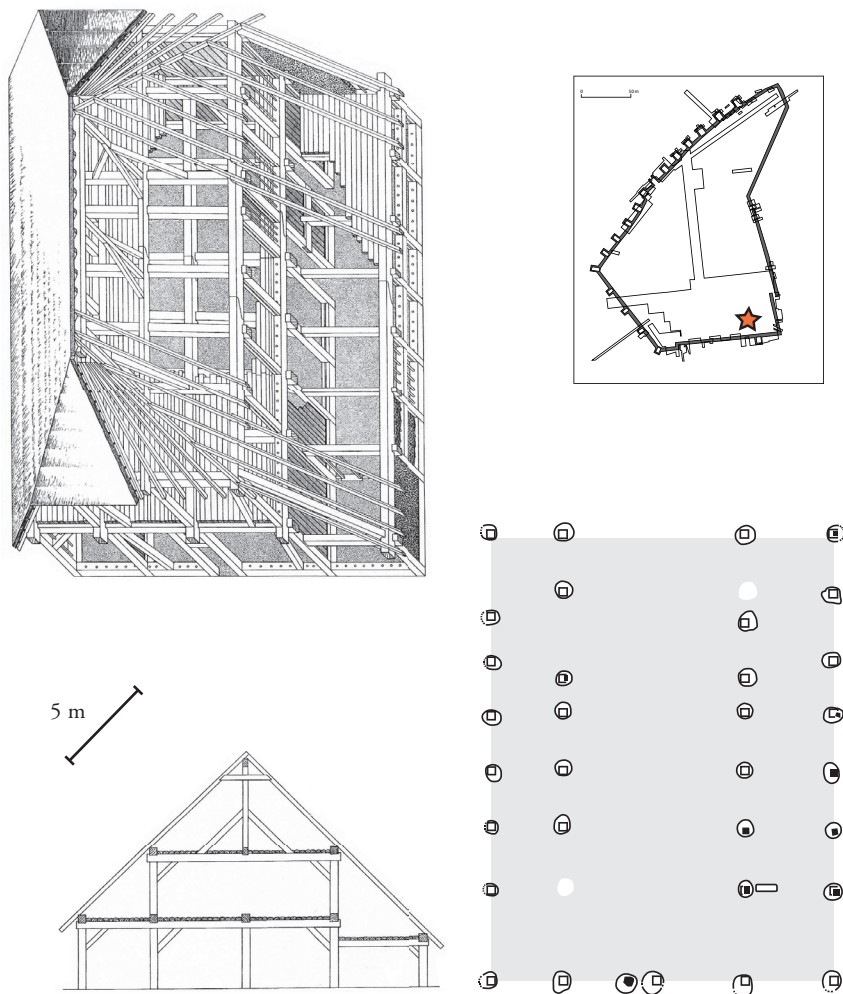


Figure 6: Building plan and architectural reconstruction in the Citadel of Heuneburg for period II-Ha D3 (530-480 BC) (Baden-Württemberg-Germany). After Gersbach 1996. Illustration: E. Dubreucq.

immense hearths. The space itself has been interpreted as a probable reception room (Gersbach 1996).

During the next phase (II-Ha D3) and in the same area, another construction was built (Figure 6). Although its design shows modifications compared to the previous building, its size is nonetheless impressive, thus leading us to conclude that it was again linked to the elites (Gersbach 1996).

As such, the Heuneburg settlement is an exceptional site for the end of the Early Iron Age, especially if we consider the richness of the material and architectural remains it produced. It enables us to gain a fairly good understanding of the elite members of this community.

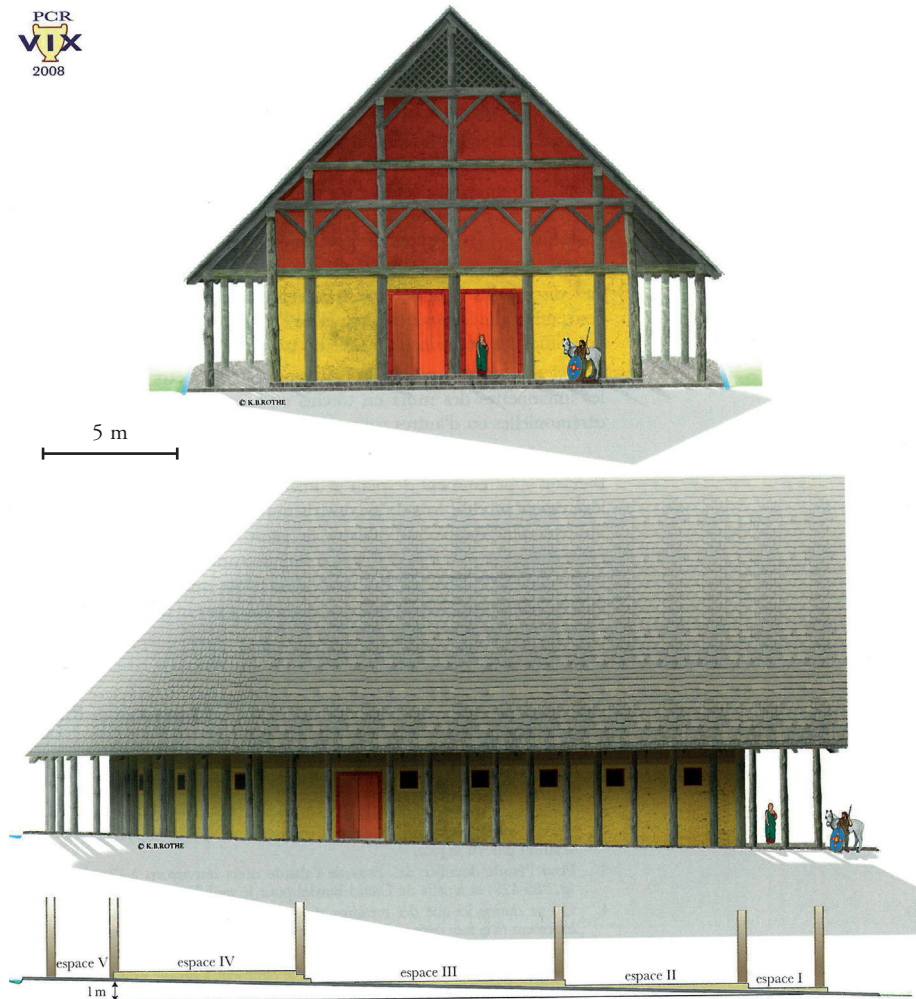


Figure 7: Reconstruction of elites building of Mont Lassois-Vix (Burgundy-France)  
(Illustration: M. N. Filgis and K. Rothe – in Chaume, Mordant 2011).

Another site, Mont Lassois in Vix (Burgundy), also factors into the debate over aristocratic architecture, albeit this settlement was occupied over a shorter time. This fortified site was mainly used between Ha D2 and the beginning of LTA1 (530 to 450 BC). On the upper plateau were discovered the remains of a rectangular building measuring nearly 265 m<sup>2</sup> (Chaume, Mordant 2011) (Figure 7). This rectangular structure, made of load-bearing posts, presented a semi-circular apse at one end. Next to its rounded end, the building was divided in two rectangular rooms, both with an “*in antis*” entrance. In addition to the large size of the building, the presence of various types of coloured wall plaster confirms the quality of the construction, which was also surrounded by a complex ditch system that encompassed the whole site. Similar to the Heuneburg site, the material finds were of exceptionally high quality, in particular the ceramics (Bardel

2012), confirming that an elite occupied this building (possibly the lady of Vix?) Clearly, the variety of archaeological remains discovered on this site indicates an ostentatious function. The lack of craft remains there seems to exclude the possibility of artisanal activities.

### **Craftspeople community in Hallstatt period: status**

No so-called “craftspeople” burials or burials “with tools” have been discovered in this geographical area. At the end of the First Iron Age, this type of discovery is more common in the eastern Hallstatt area (Austria and Slovenia), during the Ha C periods (8th C. BC).

Apart from a few rare examples, craftspeople were not necessarily represented in the funerary world. During the Later Prehistory, metal craftspeople can essentially be understood through the study of their production.

#### *The variety of productions and craftspeople at the end of Ha D -and the beginning of LTA<sub>1</sub>*

The study of metal collections from settlements shows us the variety of the metal production within a given society (Dubreucq 2013), whereas objects deposited in graves are more specific, in that they would have been selected for funerary purposes only. So, by looking at all the different types of archaeological context (funerary sites and settlements), we can determine the diversity of the preserved metal finds, which can be separated into two large categories: objects used by the masses and more exceptional objects reserved for a more privileged social class.

Among the metal finds most often discovered on archaeological sites, jewellery pieces are the most common and display the most variety (Figure 8). Such finds include: fibulae intended for keeping clothes in place, ring-shaped jewellery (bracelets, torques, leg rings), pendants (with varied shapes), pins (intended mainly for styling hair), belts, bodkins and some rarer finds, such as shoe rivets. Depending on the regions and periods, these objects quickly evolved, demonstrating the craftspeople’s capacity for innovation and creativity in this domain. Without a doubt, the best example of this innovation is the fibula because of the variety of the materials used to make it (copper alloys, iron, coral or amber) and the diversity of the craftsmanship.

Cosmetic items used by the whole population and intended for body care also appear from this period onwards. They come in the form of “wash kits” comprising of tweezers, a scalptorium and occasionally an ear swab. Razor blades and other similar implements were also used for trimming beards or cutting hair.

Knives are also important finds illustrating daily life. By the Ha D period, they already came in forms that differed in accordance with their intended function (chopping knives, boning knives).

In addition, there are several less common finds that were intended for use by the masses. These items required much more complex craftsmanship, highlighting the need for specific expertise and know-how. Other finds linked to kitchenware are metal vessels. The large bowls in particular can be distinguished from other types of kitchenware in that they required the mastery of bronze sheet working (Figure 9).

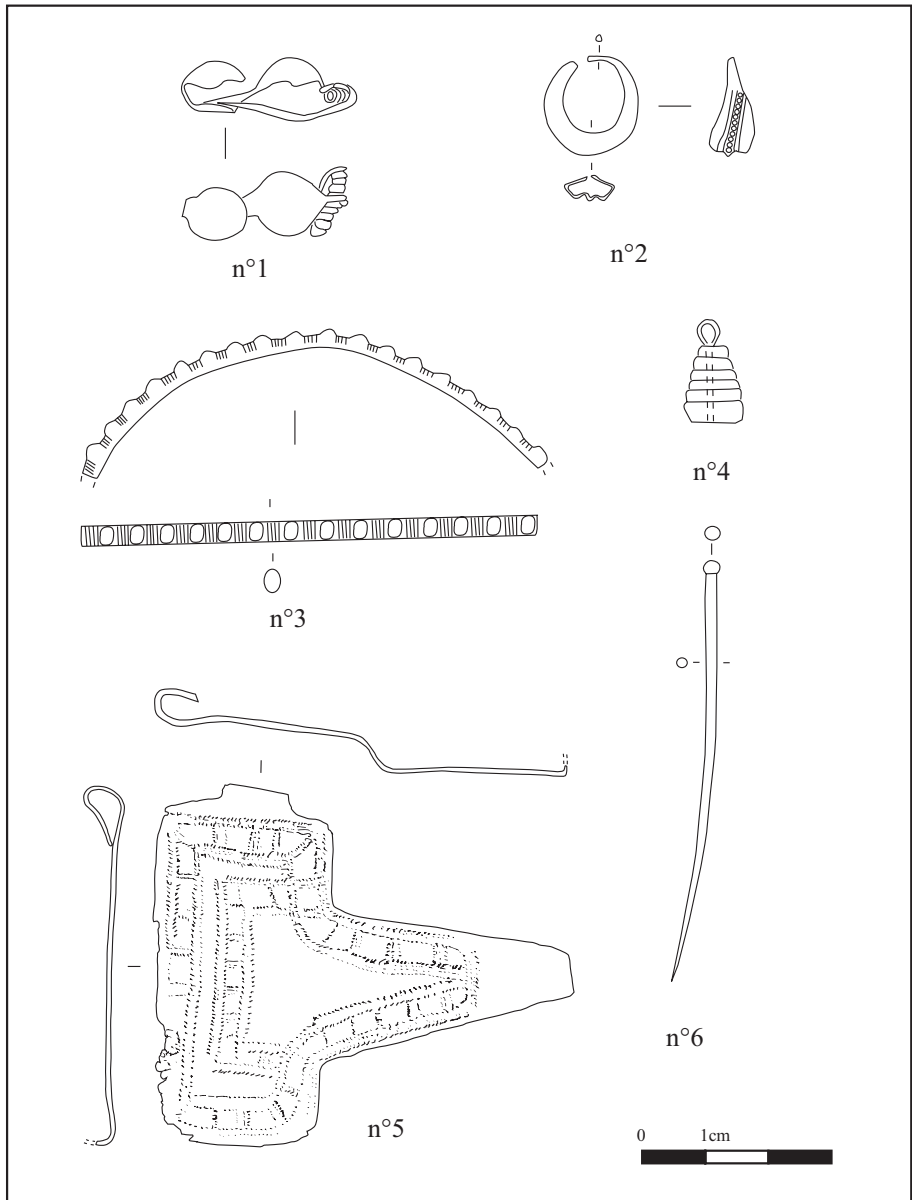


Figure 8: Different jewellery pieces from settlement (n°1: fibula; n°2: earring; n°3: ring leg; n°4: pendant (metal with amber or bone); n°5: belt; n°6: pin). Illustrations: E. Dubreucq.

However, let us not forget the locksmith trade (Figure 10), as it is still uncommon during this period since only a few keys have been discovered (their very small number could indicate the status of these finds) (Dubreucq 2013). It is the same story for measuring implements (Figure 10), which are equally rare finds for the Hallstatt territories. Some weights are known, found in Bourguignon-les-Morey (Franche-Comté – France) (Dubreucq 2013), in Singen (Baden-Württemberg-Germany) (Hopert 2003) and in Bourges (Centre-France) (Pescher 2012), as well





Figure 9: Reconstitution of bronze vessels pieces from Hallstatt (Austria) (Photo: E. Dubreucq).

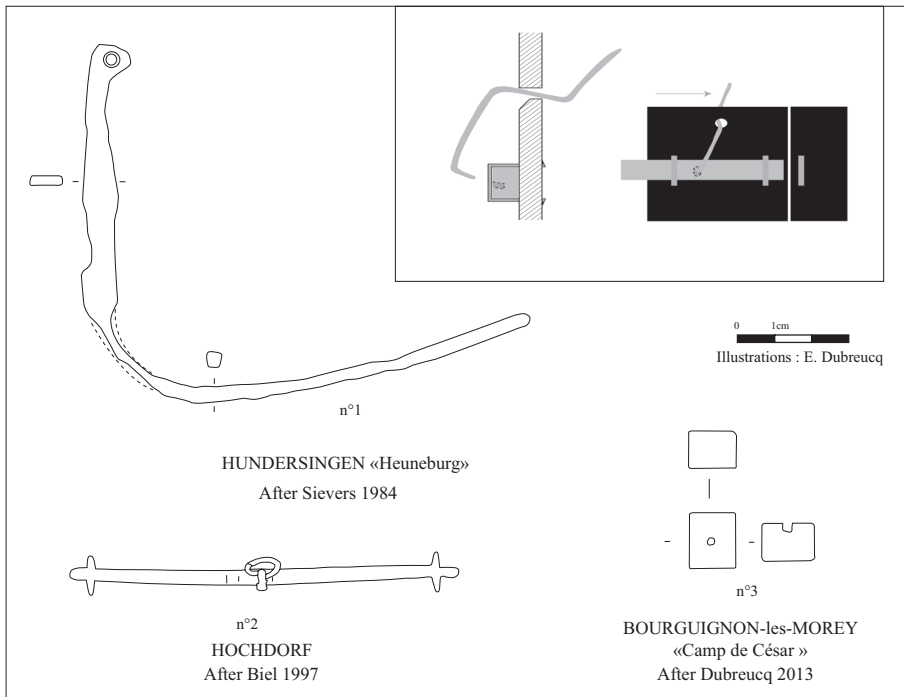


Figure 10: A key and different measuring implements from the settlements of Bourguignon-les-Morey and Hochdorf (n°1: an iron key with schema of functioning of a lock; n°2: a bronze beam balance; n°3: an iron weight).

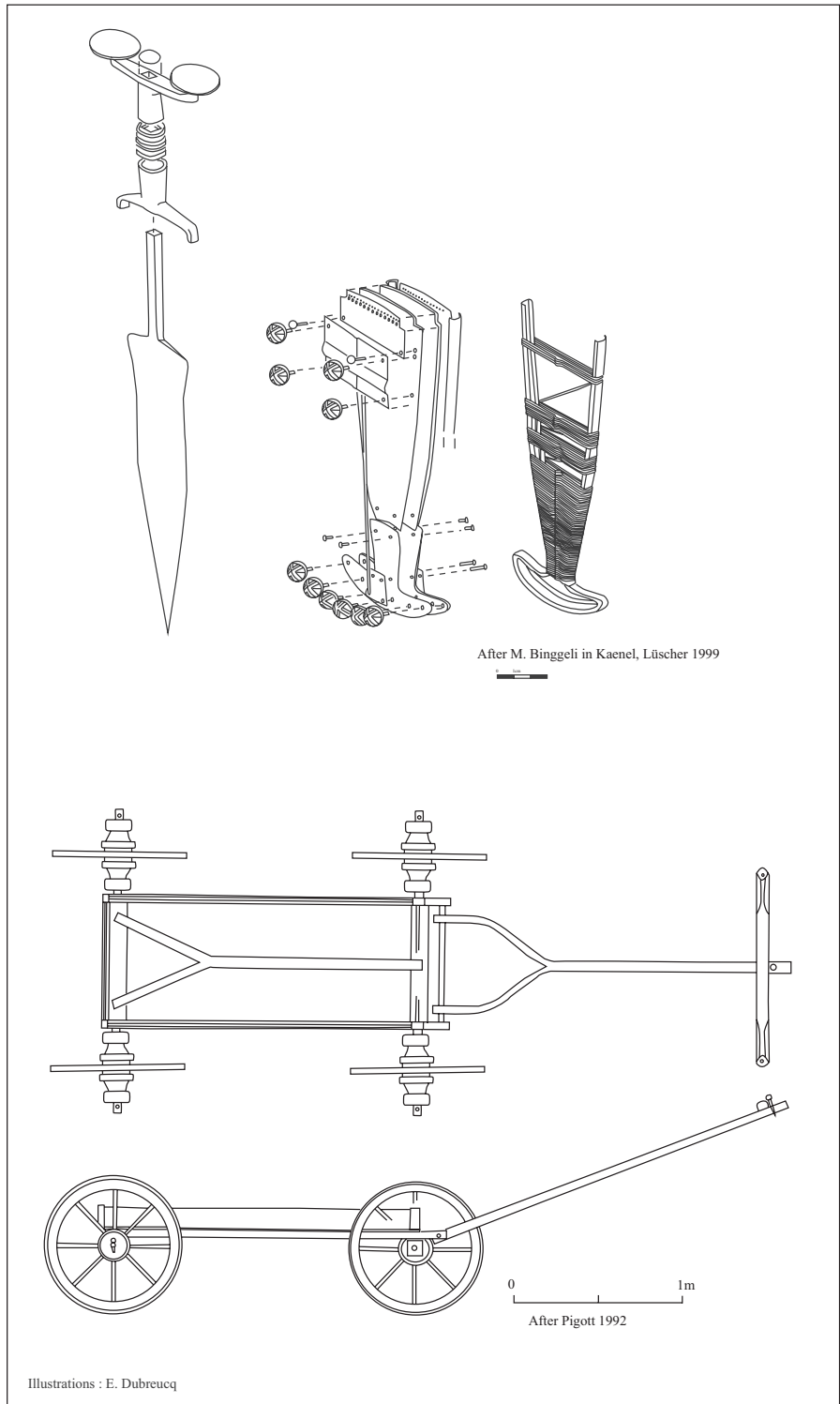


Figure 11: Examples of a dagger and its scabbard (Estavayer-le-Lac, Switzerland) (After Kaenel, Lüscher 1999) and a wagon (After Pigott, made during Ha D-LTA1).

as the discovery of a beam balance in Hochdorf (Baden-Württemberg-Germany) (Biel 1997). Such items were used during exchanges, for weighing rare things such as gold, perfumes and medicinal plants (Peake, Séguier 2000). They were also used by the metal craftspeople for producing alloys, as in Singen, where the weights discovered are linked to the waste material of bronze metalworking (Hopert 2003).

Three other functional categories also reveal the complex know-how of the metal smiths: the weapons, in particular daggers and swords; items linked to transport (wagons and harnesses); and precious metals used for jewellery.

As far as the first two categories are concerned, (weapons and transport) (Figure 11), the workshops were composed of metal and wood workers. In his work about weapons, L. Dhennequin clearly showed how the craft progressed between the Ha C and the end of Ha D periods (Dhennequin 2005). He demonstrated how the craftspeople's skills developed with the production of more-complex weapons, consisting of numerous welded decorative pieces, employing the damascening technique. The technique consists of inlaying several materials together such as copper alloys, iron, wood, and sometimes gold. Dhennequin also looked at the production of dagger scabbards, which were made of very fine sheet metal, foreshadowing the Celtic sword. Stretching a fine metal sheet over the length of these scabbards requires a purified metal of very good quality.

Wagons were also difficult to make during the First Iron Age (Egg 1983; Pare 1992) (Figure 11). The craftspeople would weld together metal with different wooden pieces (sometimes up to five different types on one vehicle). The wood required particular characteristics: solidity, elasticity, manageability, and several aesthetic criteria.

Contrary to the production of everyday metal objects, the rarity and relative similarity of objects linked to transport indicate the existence of several workshops that were highly specialised and produced most of these finds. L. Dhennequin, C. Pare and S. Sievers (Sievers 1982; Pare 1992; Dhennequin 2005) showed the large number of wagons and weapons present in few areas of southwest Germany (Baden-Württemberg), especially around the high-status settlements Heuneburg and Hohenasperg, leading us to believe that they were probably the craft production centres of these prestigious objects. As far as these authors are concerned, craftspeople can be viewed as "masters of art", and their skills were probably highly valued. According to C. Pare, craftspeople were able to travel in order to make objects that had been ordered. It is however difficult to prove whether craftspeople made part of an object in their workshops and then moved on to complete it at the site where it had been ordered, or if the object was made entirely in the workshop where it was ordered.

These are questions that also concern gold objects, in particularly torques and bracelets, which have been discovered in some high-status graves (Figure 12).

These objects have been found in 20 graves scattered between southwestern Germany and eastern France. They have a relatively similar morphology, indicating similarity of taste and symbols employed among the elites, but also indicate the probable existence of few workshops that could produce these objects (Eluère 1987). As was the case for weapons and wagon production, gold objects were



*Figure 12: Example of gold objects: bracelets and earrings from the grave of Sainte-Colombe (Burgundy-France) and torques from graves of Apremont (Franche-Comté-France) (Photo: B. Armbruster, ANR West Hallstatt Gold).*



complicated to produce, and this complexity was heightened by the fact that they were made of rare and precious material.

The distinction between everyday and high-status objects is intended to highlight the fact that within the craftspeople's community, there were many different types of skills, which illustrates how many different types of craftspeople there were. Having considered M Berranger's work (Berranger 2009), I raise the question of the hierarchical order of the technical skills, which V. Roux also investigated (Roux 2000) in her work about carnelians. M. Berranger suggested three main levels, which I view as consistent with the end of the First Iron Age.

She distinguished:

- Non-specialised craftspeople: who had a short training period, who did not put their skills into practice and whose skills were not highly valued (illustrated by the production of some jewellery made of copper alloys).
- Specialist Craftspeople: who were specifically trained and who regularly practised their skills and would sometimes specialise in a particular type of craft (illustrated by the production of objects such as fibulae).
- Expert craftspeople: who had a long training period and subsequently had to practice regularly so as not to lose the skills acquired; they had an exceptional level of expertise (illustrated by the production of high-status objects).

Furthermore, in order to understand in more detail the level of the metal smiths' skills and their roles within society, it seems appropriate to complete this study by looking at craft production features—in other words, by looking at the workshop as a workplace, by studying the waste material produced and by looking at the array of tools, all of which allow us to identify these activities.

### *The production structures: archaeological features and known material remains*

For several reasons, the metalworking workshops during the First Iron Age have been little known for some time. First, the size of the excavation sites tended to be too small compared with the size of the settlements, and thus archaeologists were unable to study this kind of feature. Furthermore, the remains of these features are not always preserved well enough to determine their function. Indeed, the recognition of these workshop structures is also relatively recent and linked to the metallurgy specialists' progress in the field and to the lab study of the waste materials.

For a long time, only the high-status settlement of Heuneburg (Baden-Württemberg, Germany) allowed us to broach the question of production structures, as it had been excavated over a larger area (Kimmig 1968; Gersbach 1989; Drescher 1995). However, the preservation of workshop structures was not ideal and the remains were found mainly in a secondary context on the plateau, or were extremely eroded. This was the case especially on the outside settlement, which was overlain by a necropolis (Kurz 2000).

Heuneburg aside, remains associated with metalworking have been found in a few other sites, such as Vix-Mont Lassois in Burgundy, France (Joffroy 1960), but the features have never been found in context. It was not until the middle of the 1980s with the Bragny-sur-Saône (Burgundy, France) excavation that investigations could begin once again (Feugère, Guillot, 1986; Flouest 1993). Despite this, 30 years after the excavation, we still have little information on the organisation of the craftsman's workspace on this site. In Germany, the discovery of several features on the Hochdorf site (Baden-Württemberg, Germany) was important (Biel 1990; Modaressi-Tehrani 2004). As with Bragny-sur-Saône, it was shown that the metallurgical activities did not exclusively take place on hillfort sites, but that they also occurred in open-air settlements where the craftsman's work was an important part of the settlement's activities (and not only metal, but also textile crafts, for example). Adding to the study of these settlements dated to the beginning of LTA1 (475-425 BC) was the discovery in 1990 of the Sévaz-Tudinges site in the Canton of Fribourg, Switzerland (Mauvilly *et al.* 1998; Benkert *et al.* 2010). This site updated the information on the craft production structures thanks to the good preservation of the remains as well the development of preventive archaeology, which enabled the discovery of new sites. This was certainly the case in France in the 2000s, when a number of workshops were excavated on different sites, for example in Lyon-Vaise (Rhône-Alpes, France: Cararra 2009), in Bourges (Centre, France: Milcent 2007; Augier *et al.* 2009; Augier *et al.* 2012), and Plombières-les-Dijon / Talant (Burgundy, France: Labaune *et al.* 2013). Thus, it seems interesting to examine how the location of the workshops on these settlements changed over time between Ha D and the beginning of LTA1.



During the earlier periods (Ha D1-Ha D3), most examples of workshops were located on hillfort sites within the ramparts, whereas at the beginning of LTA1, workshops began to appear in the suburbs of the fortified sites, such as on open-air settlements where artisanal crafts, particularly metal working, were important. These changes have been linked to the development of new types of occupation and new ways of managing space, which was characteristic of the beginning of LTA1 (Milcent 2007).

### From Ha D1 to Ha D3

Despite some limitations in its recording, the Heuneburg site remains the most emblematic when studying metallurgical workshops for the considered period. The best example of a workshop dates to the IV period (Ha D1-600 BC) and was discovered on the southeastern corner of the plateau. It was a rectangular building with one extra square room smaller than the rest of the structure (Gersbach 1995) (Figure 13). The main room had three D-shaped hearths arranged in a uniform manner, although each

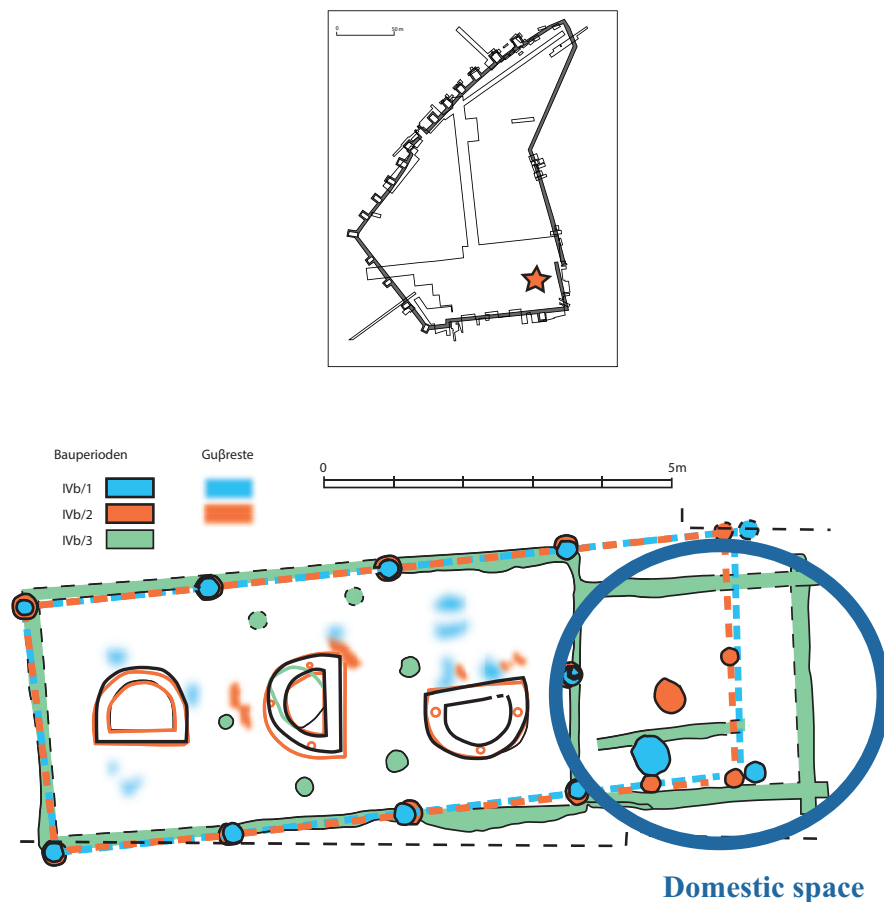
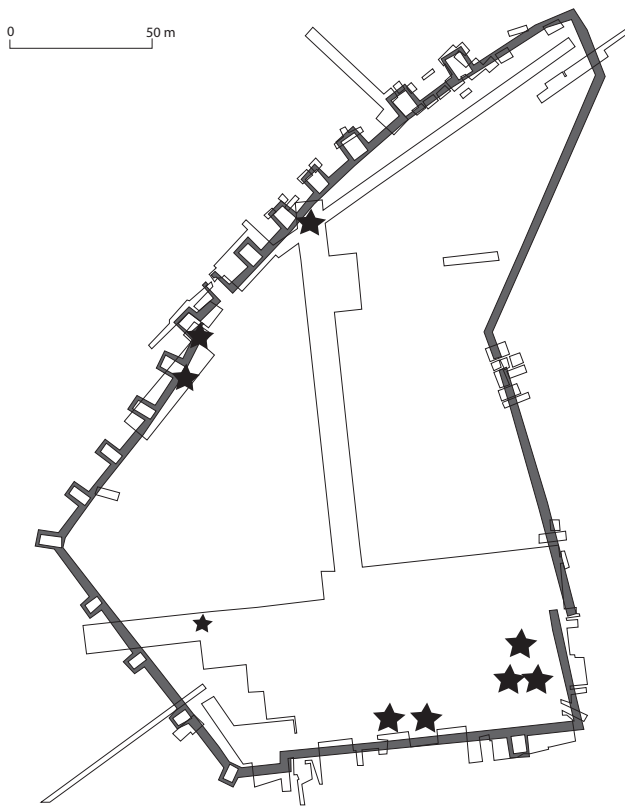


Figure 13: Examples of metal workshop features in Heuneburg citadel (Baden-Württemberg-Germany). After Kurz 2010. Illustration: E.Dubreucq.



- ★ Main area of concentrations of metallurgical vestiges and structures:
- ★ localisation of workshops in Citadel  
(after Drescher 1995, Kurz 2010 : Period IV-Ha D1)

Figure 14: Probable locations of metal workshops in Heuneburg citadel (Baden-Württemberg, Germany). Illustrations: E. Dubreucq.

had a different orientation. There were a number of used moulds or casting waste, indicating the building's function in metalworking of copper alloy. The adjacent room was interpreted as being domestic in nature (Kurz 2010).

Apart from this well-conserved example, other metalworking structures were not clearly identified on the plateau. However, their distribution was assumed from the concentration of archaeological finds: elements related to hearths, metal or pottery waste (moulds, melting pots, etc.) (Drescher 1995). The hearth features have different forms. H. Drescher has used some of these features to reconstruct complex structures with “closed bell” shapes (Drescher 1995). Other hearths have been reconstructed in the shape of a semicircle and consist of a construction made of clay. However, it is difficult to understand the internal organisation of the workshops, as the location of the working area (workbench, anvil) has not been determined. The iron and copper alloys were worked on the site, but it is not possible to precisely place these activities: Were they polymetallic workshops

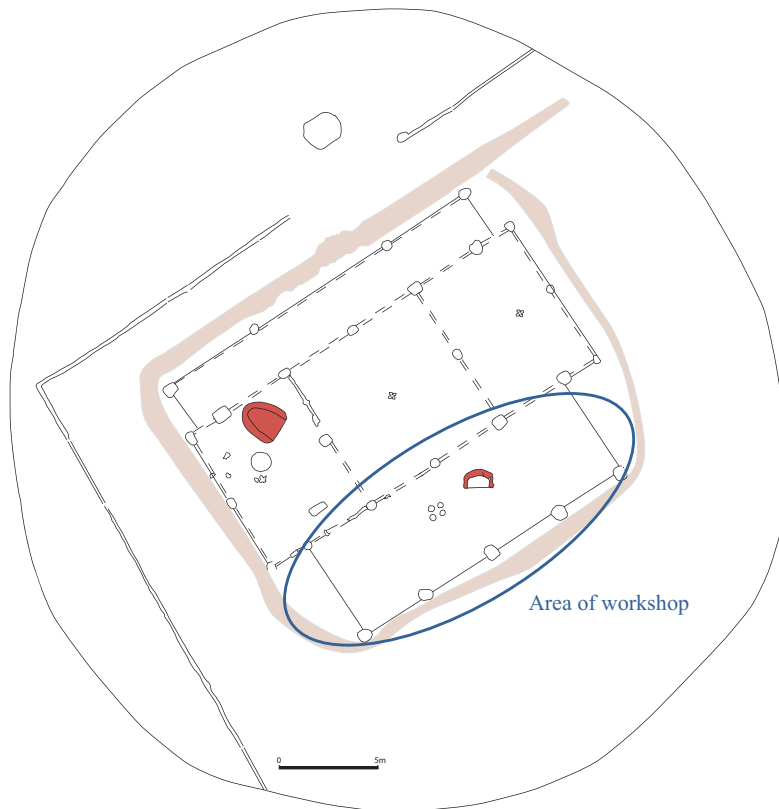


Figure 15: Area of metal workshops in “Outside settlement” of Heuneburg (Baden-Württemberg, Germany). After Kurz 2000. Illustration: E. Dubreucq.

where both metals were worked, or were there two different workshops next to each other? There is still a lack of information on the precise organisation of craft activities on this site.

As far as the location of settlements is concerned, three zones can be distinguished in the citadel (Figure 14). The first was at the southeast corner of the plateau, along the rampart and near the entrance of the site. The second was to the south of the site, also along the edge of the fortification. The last was situated to the northwest of the plateau, also along the ramparts.

Outside the hillfort, another particularly well-conserved workshop was discovered. The building was located behind the large building associated with a palatial function and previously described. This workshop contained a very large hearth and had a chimneystack system for evacuating the smoke (Figure 15). The analyses of the large quantity of metallurgical waste products showed that the workshop would have produced bronze ware and some luxurious objects, such as metal vessels (Kurz 2010). The large palatial building destroyed by fire was reconstructed in order to house a very large workshop. In each main room there were several hearths and, according to the large quantity of finds discovered, different materials were being worked: metal, lignite, bone and possibly even amber (Kurz 2000).

Except for the Heuneburg structures, metalsmithing features have not generally been preserved on other settlements dating from Ha D1 to Ha D3 (Dubreucq 2013). Only the remains of a few waste products from bronze or iron working have been observed during some excavations, but such finds could not be placed into context.

### During LTA1 period

The site at Sévaz-Tudinges (Canton of Fribourg, Switzerland) has been closely studied and is particularly interesting in terms of the features discovered, dating to the LTA1 period (Mauvilly *et al.* 1998; Benkert *et al.* 2010). The excavated area was divided into three zones representing different activities: the western zone, which was associated with metallurgical activities; a central zone, rich in waste material (domestic and craftwork-related); and an eastern zone, associated with habitation. It is, in fact, the organisation of the western zone, which is most interesting (Figure 16). It covers an area of about 40 m<sup>2</sup> where there were a number of cut features grouped together and a number of structural elements. Features 1 and 2 are two large pits situated next to each other, subcircular in shape, with diameters of 1.8 m and 1.9 m and depth of around 0.9 m – 1 m.

The edges of these features are vertical except at the break of the slope towards the bottom, where the edges are concave. It seems certain that feature 2 was a working pit where the blacksmith would have stood, using the edge of the pit as a bench for his work. From the waste material discovered, it seems that iron was the metal being worked here (Mauvilly *et al.* 1998). Among the other features associated with metallurgy is feature 13, a fire pit, with remains of clay only present on the eastern side, suggesting the existence of some sort of standing structure (low protection wall or a dome perhaps) probably built to protect the fire pit. The presence of a melting pot and the absence of iron waste would suggest that it was used to produce copper alloys. Several stone blocks were discovered—some were in situ, for example on the edge of feature 3, and some were sealing the pits. They could be viewed as working and striking benches used as a type of anvil. In the Sévaz workshop, several working areas were constructed for bronze and iron craft working, and they were grouped together in the same building.

The Lyon-Vaise area in the Rhône-Alpes region of France also contains interesting examples of workshop features. Thanks to a number of preventive archaeology excavations, remains associated with metal crafts are now better understood (Cararra 2009). Among the types of features often found within many workshops are large circular pits with a diameter of between 2 m and 2.4 m and a depth of between 0.3 m and 0.5 m (Cararra 2009). They are generally filled with metallurgic waste and are similar to the pits discovered in Sévaz, Bragny-sur-Saône (Feugère, Guillot 1986), Bourges (Milcent 2007; Augier *et al.* 2012) and Plombières-les-Dijon / Talant (Labaune *et al.* 2013) (Figure 17). They were probably constructed to create workspaces, which are not greatly understood because of the lack of preservation of the workshop floor surfaces.

In summary, our current understanding of workshop structures remains relatively incomplete for the periods between Ha D1 and Ha D3. The organisation of the metalsmith's workplace cannot yet be understood in detail.

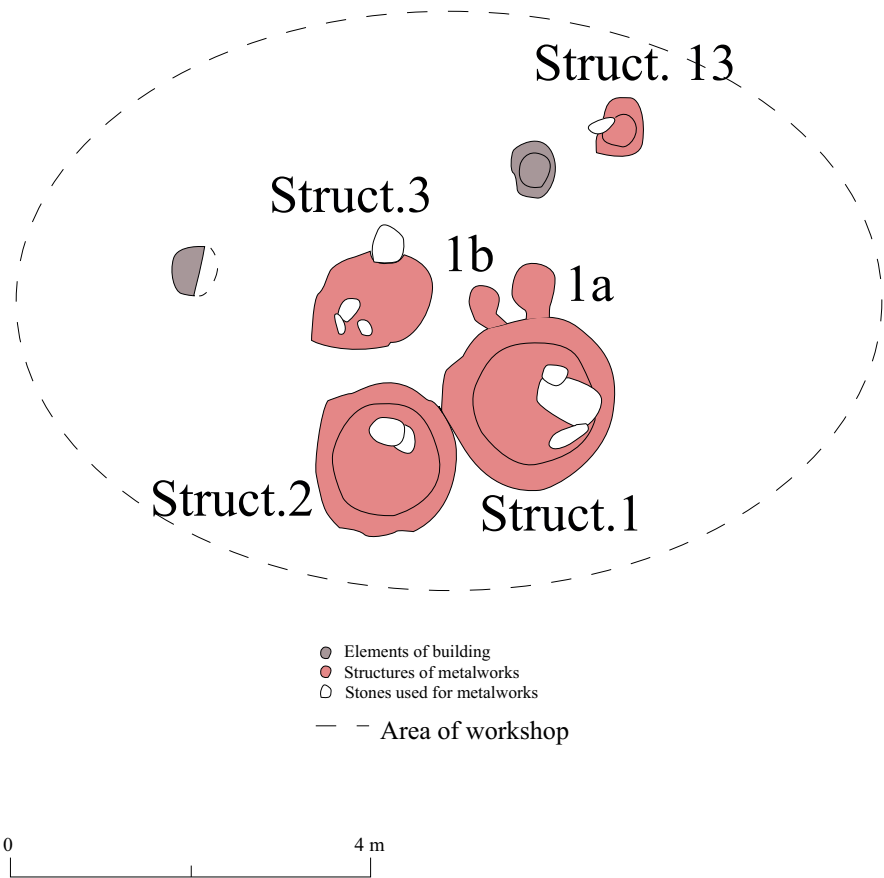


Figure 16: Workshop features of Sévaz-Tudinges (Canton of Fribourg- Switzerland). After Mauvilly et alii 1994. Illustrations: E. Dubreucq.

At the beginning of LTA1, workshops are generally constructed around a fairly deep pit, which would have allowed room for a stool or an installation adapted to the various types of work a craftsperson needed to carry out. Depending on what s/he was making, a craftsperson might have been able to work standing up (especially when forging larger pieces) seating or kneeling. Nevertheless, many questions remain about the various aspects of how the workshop was organised—for example, what kind of surface was used to hammer and work the metal? These elements have rarely been found. There are also further questions about the devices used to circulate the air such as “tuyères” bellows, as well as questions concerning fuel storage pits (for coal). Compared with the Celtic or Roman workshops, work still needs to be done on improving the documentation and understanding of the subject.

Putting these workplaces aside, the study of waste material and the tools used nevertheless enables us to complete our understanding of craft production structures. The waste generated by craftspeople in the metallurgy trade provides us with a wealth of information. Some waste was recycled in part (e.g., copper alloys that can be re-melted), allowing us to study the technical process and to

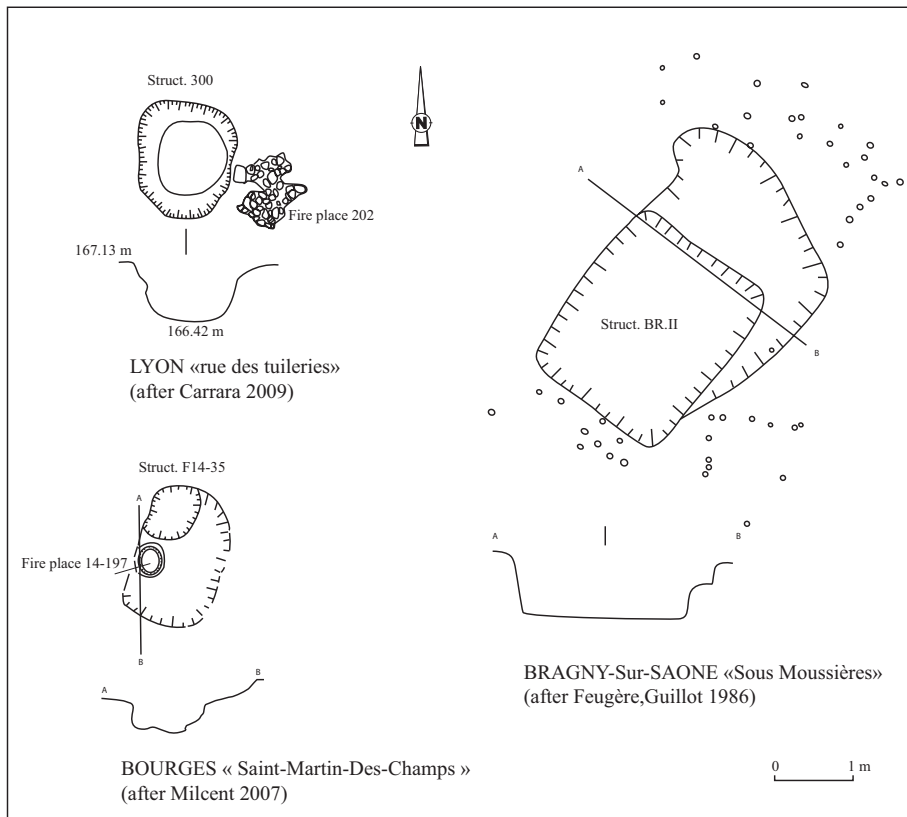


Figure 17: Other examples of workshop feature finds in LTA1 in France. Illustrations: E. Dubreucq.

understand the craftspeople’s skills (Armbruster 2000). Furthermore, the waste material is essential for the identification of the types of crafts made in the workshops. The study of waste with a metallographic point of view also brings a wealth of information on techniques used by craftspeople and degrees of skills (Drescher 1995; Madaressi-Tehrani 2004; Berranger 2009; Filipini 2012). About iron objects, M. Berranger and A. Filipini have shown the very good quality of metal, well-purified by the technique of currying by successive folds. They have also shown that craftspeople deliberately combined the steel and the “soft” iron to obtain various qualities of metal, and especially to obtain the flexibility and resistance necessary for the functioning of objects.

Studying the range of tools used also helps us to understand the metalsmiths and their skills via another avenue of enquiry. With the appearance of iron, the tools, which were already advanced and specialised by the end of the Bronze Age, were henceforth also made of iron (Dubreucq 2013) (Figure 18) because of its technical qualities. As iron is stronger, it can be recycled by plastic shaping.



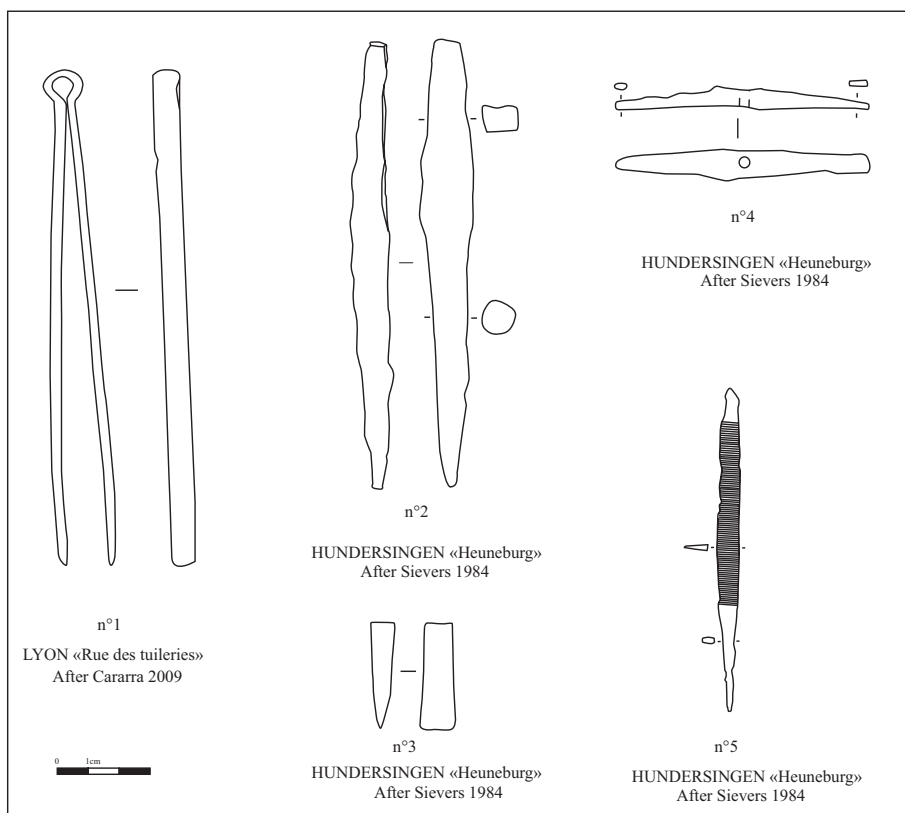


Figure 18: Different types of iron tools from metal workshops (n°1: plier, n°2: anvil; n°3: chisel, n°4: hammer, n°5: file). Illustrations: E.Dubreucq.

If we have increased our understanding of craft production structures at the end of the First Iron Age, it is especially the study of the crafts and the material finds associated with them (such as waste material and tools) that enables us to better understand the role of the metalsmiths in society.

As far as the craftspeople's social status is concerned, it is clearly a difficult subject to broach as they were rarely represented in the funerary world. Nevertheless, by studying the features on settlement sites, particularly refuse pits associated with the workshops, it is possible to imagine what their quality of life might have been like. Refuse pits have been found most commonly on sites dating to the LTA1 period, and it seems that metal craftspeople did have a good quality of life, which is highlighted by the presence of imported wine vessels (Marseille's amphorae, Attic ceramic) (Collet, Flouest 1997; Mauvilly *et al.* 1998; Milcent 2007; Cararra 2009; Augier *et al.* 2012) and other precious objects (perfumes, glass) (Collet, Flouest 1997). On some sites evidence for the consumption of quality meats has also been found (Flouest 1993; Augier *et al.* 2012).

## The Hallstatt aristocrats and craftspeople

Based on the diversity of the available archaeological records, it appears for the most part that the Hallstatt craftspeople had workplaces that could double as homes, which were different from the buildings reserved for the elite. The clear spatial division, especially at the Heuneburg site, suggests that the elite were not the people working in the workshops.

However, the site that lies outside this hillfort does not answer our questions quite so clearly, as the workshop is located within a building that has been interpreted as an aristocratic residence (Verger 2008). Bearing this in mind, we can assert that the elite became wealthier and took control of the production of bronze wares; these would have been produced in large quantities in the palace workshop, where prestigious goods, such as metal dishes, would have been crafted. However, it is more difficult to establish whether it was the elite who worked in those places themselves, or if they had the specific skills needed for the crafting of these luxurious goods.

Although we have some good evidence of workshops during the LTA1 period, remains linked to the upper class are less well documented on settlement sites. What conclusions can we draw from the discovery of luxurious goods in the rubbish pits next to the workshops? According to P.-Y. Milcent, it could suggest that the elite and the craftspeople lived in the same districts (Milcent 2007). On the other hand, these clues could also suggest that the artisans played an increasingly important role in the economy at the time, particularly on open-air sites where craft production was the main activity. It seems reasonable to wonder whether the craftspeople themselves did not also become wealthier due to the success of their work. Furthermore, access to luxurious goods would have been made easier in open settlements, because those were probably the centres of trade, where many lavish commodities arrived before anywhere else. As certain objects such as fibulae suggest, it appears that the artisans were totally integrated into the exchanges and contacts network (Cararra *et al.* 2013). They may well have taken advantage of these products, which initially had only been meant for the aristocrats.

Although the craftspeople had a decent quality of life around LTA1, it seems, according to S. Kurz, that some of the workshops depended upon a chieftain who would probably have overseen the type of work carried out (Kurz 2010). In that case, it is all the more true that the elite were the main commissioners of luxury goods, suggesting a strong technological and symbolical implication. Metal was of strategic importance, and it seems certain that the elite controlled access to the raw materials and their trade.

## Conclusion

During the Hallstatt period, the link between the elite and the artisans is still not an easy subject to analyse, as research into artisans and their workshops is only recent and not yet well documented. Despite the restricted level of recording, it seems that near the end of the First Iron Age the elite and the artisans were not one and the same but two sections of the community, with both contributing to the society that had started to become more complex from the end of the Bronze Age onwards.

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## Artisans versus nobility?

In prehistoric Europe hierarchic societies arose and developed technological systems and processes in the production of objects related to everyday use, on the one hand, and items of religious and symbolic character emulating prestige and luxury, on the other, while both types of objects may not always be clearly distinguishable.

This volume deals with questions of how artisans and other social groups, involved in these productive processes and social practices, reacted to and interacted with the demands connected with elites identities formation, affirmation reconfirmation practices. Innovations and the development of new technologies designed to satisfy the needs of ostentatious behaviour and achieving prestige are key issues of this volume. For example, how can we identify the consequences of such processes, how can we define the role(s) that the craftspeople played in such contexts, and are these always as clear-cut as usually portrayed? The book's common aim is to investigate the economic, socio-political, as well as the technological contexts and backgrounds of the make-up of material culture and technologies in these periods. We examine which role(s) artisans may have played in status and identity formation processes, in rituals and in symbolic performances, in other words, in each aspect of life and death of selected Chalcolithic, Bronze and Iron Age populations in Europe. Many aspects of the social interaction patterns between the different groups of people in those periods have not been adequately discussed and investigated, especially the artisans' important role(s). This volume aims to redress these imbalances by investigating how social groups interacted with each other, and how we may recognize such interactions in the material remains.

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