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D. W. HARDING

THE IRON AGE ROUND-HOUSE

Later Prehistoric Building in Britain and Beyond



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D. W. HARDING

OXFORD
UNIVERSITY PRESS

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OXFORD
UNIVERSITY PRESS

Great Clarendon Street, Oxford OX2 6DP
United Kingdom

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British Library Cataloguing in Publication Data
Data available

Library of Congress Cataloging in Publication Data
Data available

ISBN 978-0-19-955857-5

To the memory
of
John Abercromby
Fifth Baron Abercromby of Aboukir and Tullibody
(1841–1924)
founding benefactor of the Abercromby Chair of Prehistoric Archaeology,
The University of Edinburgh
(1927–2007)

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Preface

Round-houses built of timber and thatch have been recognized as one of the characteristic structures of the southern British Iron Age since Gerhard Bersu's excavations at Little Woodbury immediately before the Second World War. By the early 1960s they were regarded as a *type fossil* of the British Iron Age in contrast to the prevailing European Iron Age tradition of rectangular buildings. In northern Britain the most developed and monumental counterpart, the brochs of Atlantic Scotland, had attracted the interest of antiquaries from at least the 19th century, being correctly identified as pre-Norse and therefore more questionably being accorded the status of 'Pictish towers'. This equation is now widely recognized as incorrect, with the origins of brochs being assigned to the earlier Iron Age, half a millennium and more before the earliest recorded 'Picts'. In fact, the attribution may not be as misguided as might be assumed. Contrary to popular myth, 'Pict' is not a tribal name like Caledonii or Maeatae. It has two possible origins. The most widely canvassed is that 'Picti' or 'painted ones' was Roman army slang for 'painted savages'. The more academic alternative relates the term 'Pict' to Priteni, a name for the native inhabitants of northern Britain cognate with the Cruithin or Cruithni of Ireland. Either of these versions, as a generalization for the natives of north Britain, could be applied to the occupants of brochs of the earlier Iron Age; only in the misguided belief that Picts were an independent tribal group of the mid 1st millennium AD, mysteriously associated with symbol stones, would its use be meaningless.

Given their prominence in the archaeological record, it is surprising that there has never been a full-length book dedicated to Iron Age round-houses. Like buses, we may expect that after this one several more will follow, which will be no bad thing, since no one study could possibly cover the field more than selectively. My selection is based largely on personal experience, beginning with fieldwork and research into the southern British Iron Age and being committed over the past thirty years as Abercromby Professor in Edinburgh to the northern British Iron Age. Having excavated in two environments as remote and different as Wessex and the Western Isles, I am conscious just how dependent the academic archaeologist is upon the reliability of data recorded in the field and presented in publication. Most researchers will have experienced the depressing reality of the inadequacies of past (and present) excavations. Only someone who has tried to reconstruct the associated finds from a given layer at Maiden Castle, Dorset will appreciate that even the

doyen of stratigraphic excavation did not publish his finds by context, but by interpreted 'levels'. At the same time the site at Gurness in Orkney was being investigated, for most of the time with absentee direction and inadequate on-site supervision and recording. The inadequacies of contemporary excavation arise not from a lack of professionalism on the part of the excavators, but from the circumstances of salvage under which most fieldwork is currently conducted. The limitations of my own excavations I am only too aware of. Working in conditions in which the wind could lift a navy wheel-barrow thirty yards off the ground, or when alternatively we were being bitten to death by midges, is not conducive to concentration upon the niceties of meticulous excavation and recording.

Having been involved in the study of Iron Age round-houses for nearly fifty years, it is impossible to acknowledge all of those colleagues and friends to whom I owe a debt of gratitude for shared ideas and experiences in the field. I can only single out two names in the present context. I met Dr Ian Blake, my co-director of the Pimperne excavation, almost exactly half a century ago as preparatory school teachers in Cheshire in 1959, and we have maintained a lifetime's shared interest in archaeology. Though his research specialism with the late Dame Kathleen Kenyon was on the Neolithic in Palestine, he was for several years Archaeological Correspondent of the *Irish Times* and has retained his interest in British and Irish archaeology. I am especially obliged to him for constructive comment and criticism over many years on a variety of topics covered by the present book, though I hasten to stress that any deficiencies in this work are my responsibility alone. The other friend and colleague for over thirty years whom I wish to acknowledge is the late Dr Peter Reynolds, director of the Butser Ancient Farm, whose professional skills in experimental archaeology and academic knowledge of ancient history and archaeology rightly earned him an international reputation as the foremost British exponent of practical reconstruction of Iron Age houses. This is not to say that his interpretations were invariably ones with which others might agree, but in a field in which increasingly everyone thinks of themselves as experts, he was an outstanding authority whose judgement was rigorously researched.

In the preparation of this book I am happy to acknowledge the invaluable help and support of Avril Stevens and colleagues at the Gullane Public Library. Finally I must record my gratitude to my wife, Carole, for her long-suffering tolerance of my moods and preoccupation with archaeology over the years, and more recently with this particular project.

Gullane, East Lothian

New Year's Day, 2009

Iron Age Britain in its European context

CENTRAL EUROPE AND THE ATLANTIC WEST

For the past hundred and fifty years, since the beginnings of prehistoric archaeology as a serious scientific discipline, the European Iron Age has been classified into two principal stages, named after the type-sites of Hallstatt in upper Austria and La Tène in Switzerland. Significantly, neither of these sites was a settlement in the normal domestic sense. Hallstatt (Kromer, 1960; Peroni, 1973; Hodson, 1990) was a cemetery of the community that worked the adjacent salt mines and doubtless managed cattle herds on which the economic wealth of the region was based; La Tène (Vouga, 1923) was a more enigmatic site on the shores of Lake Neuchâtel, where large quantities of metalwork and other artefacts, together with human remains, have led to speculation regarding the ritual significance of these deposits. Chronologically the two were successive. Hallstatt spanned the end of the Bronze Age and earlier Iron Age to the end of the 6th century BC; La Tène represents the second Iron Age from the mid 5th century, though the type-site itself has relatively little material dating from the last phase of the pre-Roman Iron Age.

The fact that neither type-site was a fortified or non-fortified domestic settlement is no coincidence. Before the advent of absolute dating techniques, dating in the absence of a documented historical framework was solely dependent upon artefacts, and more especially upon the ordering of artefacts into typological sequences that might be correlated stratigraphically or by association with the passage of time. Domestic settlements may not yield great quantities of diagnostic artefacts, and what they do are generally the broken remnants of pots and domestic utensils, from which anything capable of re-use or re-cycling has been salvaged by the occupants. In any event European Iron Age settlements, unlike their counterparts in Middle Eastern *tel* settlements, for example, seldom have deep stratigraphy to provide adequate sequences of successive groups of associated types. Cemeteries, on the other hand, can be shown to have expanded spatially over time, with corresponding changes in the associated assemblage of grave-goods. Ordering of the artefactual assemblages from cemeteries, therefore, provided the prospect of a proxy

chronological sequence, as well as furnishing the burgeoning national and provincial museums of Europe with portable antiquities for their collections. Though the Hallstatt cemetery itself did not include any tombs of the princely *Fürstengräber* class, Ramsauer, the mining engineer who excavated the site in the 19th century, did record nearly a thousand graves that provided the basis for both conventional and quantitative analyses. In the eastern Hallstatt zone, the Duchess of Mecklenburg was responsible for excavating nearly as many in Slovenia. La Tène also produced considerable numbers of artefacts—Paul Vouga estimated that there were around 2,500 items in Swiss and other European museums—though not, of course, in closed association, so that its status as a type-site rests purely on its artefactual inventory.

Settlement sites were not neglected by late 19th-century excavators, but their interest in fortified settlements was very largely directed towards sites that might be correlated with documentary history. In France especially, under the patronage of Napoleon III, campaigns of fieldwork were focused on *oppida*, the fortified centres that featured in Caesar's account of the Gallic campaign, like Gergovia, Alesia, and Bibracte, sites that produced a great deal of evidence of the Gallo-Roman period but rather less from the earlier Iron Age. It was, therefore, largely on the basis of data from cemetery excavations that the classification of the Hallstatt and La Tène Iron Ages was progressed by successive generations of European prehistorians. Among numerous diagnostic artefacts for both periods two classes were dominant: swords, or more precisely for the La Tène period scabbards (de Navarro, 1972), and brooches. Both were well represented in graves, where they were often rightly or wrongly regarded as indicative of male and female burials respectively, and both were amenable to changes in typological detail over time. Even setting aside some of the more splendidly furnished princely tombs of Late Hallstatt, Early La Tène and Late La Tène, comparison of the cemetery assemblages of central Europe with the normal range of material remains from settlements underlines the disparities of archaeological deposition and survival. Where by contrast we are dependent upon evidence from settlements, as for much of the British Iron Age, then the impression inevitably is of a material culture that is provincial and impoverished by comparison with the Continental mainstream. In fact, this image of the European Iron Age is equally partial when the Continental evidence is considered as a whole. In British archaeology especially it has been conventional to study the European Iron Age on a 'selective highlights' basis, ignoring the fact that there are large areas of Europe at various periods in later prehistory where the evidence of settlements or cemeteries and of their material assemblages is as limited or non-existent as it is in Britain. The bias of archaeological survival, therefore, has been compounded by a bias in the focus of archaeological research.

In fact, of course, the Hallstatt–La Tène sequence is essentially a central European system. Hallstatt and La Tène types plainly have a wider European distribution, being well represented in the Champagne especially, but with a distribution that becomes rather more sparse in the west, in Brittany or in Aquitaine for example, and with very few inroads across the Pyrenees. In the north European plain and southern Scandinavia there are some notable Hallstatt outliers, but the influence of La Tène types is very secondary and derivative. In Britain and Ireland there are certainly swords of Hallstatt type or locally-made Hallstatt derivatives, though, like the occasional examples of Italic brooches and other ‘Hallstatt’ types, they commonly lack adequate provenance. La Tène types certainly occur in Britain, though in relatively small numbers and almost entirely of insular manufacture, and their ‘exotic’ status in northern Britain especially makes them an unreliable basis for dating. The La Tène in Ireland (Raftery, 1984) is a uniquely Irish phenomenon, having types like spear-butts, Y-shaped pendants, and pins that are unknown at La Tène and not at all characteristic of La Tène assemblages in Continental Europe in general. Furthermore, Ireland has very few safety-pin brooches or bronze bracelets, types that are distinctive in profusion of Continental La Tène. The distribution of La Tène material in Ireland, restricted to the northern two-thirds of the country, also requires explanation, leaving the non-La Tène Iron Age inadequately defined in terms of its material culture. In sum, the appearance of selected or random examples of La Tène or La Tène-influenced metalwork in Atlantic Europe, from Britain and Ireland to Brittany and Aquitaine and into the Hispanic peninsula, is hardly surprising and could doubtless be explained by a variety of social and economic mechanisms. But they are not an adequate basis for categorizing the Atlantic Iron Age, which constitutes a distinctive if heterogeneous zone of inter-relationships quite distinct from the central European sequence (Henderson, 2007). To highlight the contrast at a macro-level between Atlantic Europe and central Europe is not, of course, to claim that Atlantic Europe is a cultural unity. With the widespread acceptance among prehistorians that the simplistic equation of La Tène material culture and ethnic Celts is largely unfounded, the concept of pan-European Celticism has been replaced by the recognition of regional diversity across Iron Age Europe. Nevertheless, the Urnfield–Hallstatt–La Tène sequence is one that still has an essential utility for central Europe that it has never had for Britain and other regions of the Atlantic west.

It is because only a limited number and range of Hallstatt and La Tène types reached Britain, and those seldom from reliable archaeological contexts, that Hawkes (1931, 1959) devised his ABC system of classification, which, though notionally reflecting successive contacts or colonization from Continental Europe, was based largely upon indigenous artefactual and ceramic types.

As absolute dates became available, problems of calibration notwithstanding, such schemes of classification became redundant. The terms 'Early', 'Middle', or 'Late' may still be convenient to indicate relative order, but for the most part the British Iron Age can be seen as an insular progression from the later Bronze Age. Cross-channel contacts are evident at various times in later prehistory, and it is quite possible that there were even sporadic phases of settlement by cadet groups from kin communities across the Channel. Caesar reported that Diviciacus of the Suessones, according to the Remi, had within living memory ruled over a domain that extended to Britain (*DBG*, II, 4), while he himself remarked that the people of Cantium differed little in their way of life from the Gauls (*DBG*, V, 14). One reason given for invading Britain was that the Britons had been aiding the Gauls in their resistance to Rome (*DBG*, IV, 20), which may suggest the existence of treaty bonds between communities on both sides of the Channel. In fact, the documentary record for protohistoric Europe suggests a good deal of mobility among Iron Age communities, though the capacity of archaeology to detect such movements is extremely limited (Harding, 2007b). In any event, such episodes, if and when they may have occurred, seldom made an unequivocal impact on the archaeological record and therefore are no longer posited as a series of 'horizons' in archaeological classification.

THE MEDITERRANEAN CONNECTION: CORE AND PERIPHERY

Before the widespread application of absolute dating techniques, the acknowledged method of establishing chronology in prehistoric Europe was by cross reference to the historically derived chronologies of the Mediterranean and the Middle East. North Alpine and west central Europe was fortunate in that high-status burials and settlements yielded imports of Mediterranean goods that could provide a dated point of reference for the indigenous assemblages. There were two main periods in the Iron Age when southern imports were notably in evidence. In the Late Hallstatt and Early La Tène phases, Greek pottery and other goods appeared along the shores of the western trading routes, whilst more exotic imports have been found in rich burials as far inland as Burgundy and south-west Germany in Hallstatt D and in the middle Rhine and Champagne in the early La Tène. The Middle La Tène period saw fewer trading imports, perhaps not unrelated to the political instability that was occasioned by historically documented incursions of Gauls into the Greek and Roman world that led to the sack of Rome in 390/387 BC and

Delphi in 279 BC. The second major period of Mediterranean imports was in the later La Tène, when Italic goods appear, again principally in high-status burials, across north-Alpine Europe as far west as Britain, broadly coincident in the west with the progressive expansion of Roman political domination.

The relationship between temperate Europe and the Mediterranean in the Iron Age has been viewed in terms of the trading model of World Systems Theory, in which the Greek or Roman world was the 'core' with north-western Europe as the ultimate 'periphery'. The means of transmission of goods from the Mediterranean was plainly complex over time, with different natural routes of access to the north and west playing disproportionate roles at different times. The Rhône was clearly an important artery in the Late Hallstatt phase, though trans-Alpine passes were probably already important, coming to dominate in the ensuing Early La Tène. The western Mediterranean was being explored by Phoenician and Greek traders by the later 7th century, and Pytheas (Hawkes, 1977; Cunliffe, 2001) was probably not the first explorer to venture well beyond the Pillars of Hercules to discover the Atlantic routes to the north-west, when in the later 4th century he sailed as far north as Ultima Thule. The Greek colony of Massilia had been established at Marseilles around 600 BC and by the 5th century trading posts were in operation further west at Agde and at Ampurias (Emporion) in north-eastern Spain. Distributions of Greek ceramics, amphorae, black-figure ware, and Phocaean grey ware show a markedly littoral distribution along the coast of southern France, with limited penetration up the Rhône and through the Carcassonne gap towards the Garonne, which surely must have been a viable alternative route to the Atlantic west. The occurrence, therefore, albeit sporadically, of Greek goods, some obviously luxury items associated with feasting and drinking, much further north suggests mechanisms for distribution other than commercial trade, in which the barbarian elites commanded significant drawing power.

The nature of this exchange and its role in sustaining Late Hallstatt and Early La Tène elites has been the subject of protracted debate (Frankenstein and Rowlands, 1978; Dietler, 1990). The role of prestige goods and the control of their import and re-distribution may well have been important in maintaining the power base of the political elite in the eastern Hallstatt world around the head of the Adriatic and among the Late Hallstatt chieftains of south-west Germany. Conventionally, following Kimmig (1969) and others (Härke, 1979), Late Hallstatt fortifications were ordered into a hierarchy, at the apex of which were fortified citadels (*Fürstensitze*) with corresponding wealthy burials (*Fürstengräber*) in close proximity, as in the Heuneburg/Hohmichele model. One of the defining characteristics of a *Fürstensitz* was the presence of Greek imports, and subsequent analysts suggested that it was

the exclusive control and redistribution of exotic imports and locally-produced high status goods that underwrote the authority of the ruling elite. Doubts regarding this model surfaced with the discovery of black-figure pottery indicative of Greek trading imports at Bragny-sur-Saône on a site that was not a princely hilltop stronghold. More recently excavations in proximity to the Hochdorf burial have revealed an undefended lowland settlement of rectangular houses, dating from Hallstatt D1 to La Tène A (Biel, 1997), with a material assemblage that included Greek imports at least at the later end of this span in the form of red-figure pottery, suggesting that it might have been a contemporary settlement of the community whose chief was buried in the princely tomb. The equation of *Fürstensitze* and *Fürstengräber* is thus not incontrovertible, and the model of elite control of exotic imports itself may prove to be an over-simplification. How far the Greek way of life was adopted with their table service is much more doubtful; in fact, residues from the wine service have suggested that much of the time local brews may have been consumed rather than imported wine. In hillforts and settlements in southern France, stone construction obviously reflects contact with the classical world, while the use of mud-brick construction at the Heuneburg in Period IVb, as opposed to the temperate European technique of timber-lacing to which the builders reverted in Period 3, has been taken to indicate the involvement of a Greek architect or engineers. Such contacts might well have been instrumental in disseminating Greek metrology among Iron Age communities in north-Alpine Europe. The end of dominance of the Heuneburg domain appears to have been fairly abrupt in the opening years of the 5th century. The final gateway of the citadel has been dated by dendrochronology to 520 BC and it was burnt not long after that, thus accounting for the absence of La Tène artefacts from the site.

Mediterranean imports continued to cross the Alps in the ensuing Early La Tène period, though now the principal beneficiaries appear to have been the princes whose rich burials are concentrated especially in the middle Rhine and Hunsrück–Eifel region. Perhaps the most pervasive influence of the Greek world upon Iron Age Europe, however, was the subtle adoption and adapting of Greek plant models, palmette and lotus, into the earlier styles of La Tène art, a process that can be studied in its early faltering steps on the open-work gold bowl from Schwarzenbach in the Saarland (Harding, 2007a, Fig. 3.3). In the ensuing La Tène B phase, further impulses from the Greek repertory, notably the tendril and lyre motifs, are transformed into a fully developed free-hand, curvilinear style that typifies the highest accomplishment of the La Tène ornamental style. This style, sometimes named after the grave-group from Waldalgesheim, Mainz–Bingen, is represented widely on metalwork, including scabbards, helmets, bracelets, and brooches, but also makes a

notable impact on funerary ceramics of the 4th and early 3rd centuries BC in the Champagne and Ardennes. Though La Tène art is best witnessed archaeologically from grave-goods, it is hard to believe that it would not equally have embellished the mud-plaster walls of buildings, and indeed the bodies of their inhabitants too at festivals and on ceremonial occasions.

Metalwork associated with the wine service continues to dominate Mediterranean imports of the later La Tène phases, as preserved in the elite burials in north-western Europe, like Goebingen–Nospelt (Thill, 1966, 1967) or Clemency (Metzler *et al.*, 1991) in Luxembourg, or Aylesford (Evans, 1890) and the Welwyn series in Britain. In fact, graves seldom contain more than selected items, suggesting a token adoption of Roman drinking practices. The distribution of wine amphorae across western Europe and into southern and south-eastern Britain nevertheless indicates that there was a ready market for Mediterranean wine and for the high-status associations of wine consumption, even amongst native communities that were politically resistant to Romanization. The adoption of coinage is generally equated with development towards a market economy among the later Iron Age communities of temperate Europe. But how far this period also saw the emergence of more complex, state societies in temperate Europe with the centralization of authority in proto-urban settlements is an issue that still remains unresolved from the evidence of archaeology.

FROM HILLFORTS TO *OPPIDA*

For much of the 20th century, since Christopher Hawkes' pioneer excavations in Hampshire, hillforts were seen as archetypal of the British Iron Age. After Pitt-Rivers there had been relatively little investigation of these 'British camps', with the Curwens in Sussex and J. P. Williams-Freeman in Hampshire as notable exceptions (Hawkes, 1976, 61–2). Hawkes' own fieldwork in the 1930s represented a major advance in southern British hillfort excavation. At Quarley Hill (Hawkes, 1939) he pioneered the concept of hillforts as central places within the wider landscape, though limited financial resources and an essentially amateur workforce constrained the scale of operations. Rampart sections to establish the basic defensive sequence were dangerously narrow by modern standards, and uncovering the entrance structures was just about attainable. Area excavation of the interior by hand to expose houses and other settlement evidence on anything more than a sample basis was a practical impossibility. By the 1960s the urgent need for more extensive stripping of

hillfort interiors in order to gain a better understanding of the character of the site's occupation was widely recognized, but it was not until the twenty-year campaign at Danebury was launched that this ambition was finally realized.

By the late 1960s it was becoming evident that hillforts in Britain had their origins in the later Bronze Age, as in Continental Europe, where sites like the Wittnauer Horn (Bersu, 1945) had long been cited as evidence for the earlier origins of hill fortifications. Among the first hillforts in which a Late Bronze Age horizon was recognized were Ivinghoe Beacon, Bucks (Cotton and Frere, 1968) and Dinorben in Denbighshire (Savory, 1971), while Bronze Age occupation of the interior, if not construction yet of the defences, was attested at Mam Tor in Derbyshire (Coombes and Thompson, 1979). In effect, hillforts were built at any time from the end of the 2nd millennium, coincident with a period of industrial and social change (Harding, A., 1994), perhaps with climatic deterioration adding to pressure on good agricultural land.

The term 'hillfort' was always a shorthand for hilltop settlements enclosed by earthworks that could have served a variety of purposes, some showing clear evidence of habitation, whether permanent or seasonal, some probably also communal centres for periodic gatherings such as markets, festivals, or religious ceremonies. Excavation of defences and gateways, nevertheless, has demonstrated, through evidence of internal timber-lacing and external dry-stone facing, the immense volume of materials that was needed for such a monumental exercise in public building. A defensive role is certainly suggested by the complexity of hillfort entrances and by the presence of caches of sling-stones, as for example at Maiden Castle, Dorset (Wheeler, 1943; Sharples, 1991). The vast multiple ramparts of a site like Maiden Castle may indeed have been a statement of status rather than a practical defence; despite Wheeler's arguments about 'defence in depth' it is hard to see quite how multivallation could work in practice. Whilst the defensive or military role of hillforts, therefore, may have been just one of their purposes and doubtless for much of the time not even the primary purpose, it seems perverse to deny such a role altogether. The so-called 'war cemetery' at Maiden Castle may have been located close to where there had been previous burials around the eastern entrance, but it is hard to explain the wounds inflicted on the skulls of the dead or the Roman ballista bolt in the spine of one victim as other than the result of an attack upon the defences. Wheeler, of course, veteran of two World Wars—he was a subaltern at Passchendaele and a Brigadier in the Eighth Army at El Alamein—with his propensity for publicity, made much of the storming of Maiden Castle by Vespasian's Second Augustan legion. But he was well aware that a hillfort was much more than a military stronghold, listing somewhat optimistically, given the resources available, the uncovering of 'some part of the town plan' (*ibid.*, 4) as one of his principal objectives.

What Wheeler failed to achieve in this regard has been in substantial measure remedied by Cunliffe's excavations of the multivallate hillfort at Danebury in Hampshire (Cunliffe, 1984a, 1984b; Cunliffe and Poole, 1991a, 1991b; Cunliffe, 1995).

Continental hillfort studies through much of the 20th century were likewise concerned with ramparts and entrances. Dehn's (1939) excavations at Preist near Bitburg resulted in its rampart becoming a model for timber-framed construction of the earlier La Tène, whilst the more complex later La Tène *muris gallicus* construction (Dehn, 1960) was contrasted with the Kelheim type, representative of revetted dump ramparts east of the Rhine (Collis, 1975, Figs. 7 and 9). Entrances, too, and their perceived connections with Mediterranean styles of fortification, were a productive field for research (Dehn, 1961), and have continued to attract attention in more recent major research excavations (Ralston *et al.*, 1999). Evidence for an orderly layout of rectangular buildings was uncovered in the south-east corner of the Heuneburg *Fürstensitz* (Gersbach, 1995), but otherwise earlier Iron Age hillforts hardly displayed proto-urban characteristics. There was some evidence for grouping of houses and ancillary buildings in the later Hallstatt phase at the Goldberg, and segregation of part of the interior into separate compounds at both the Goldberg and in the Middle La Tène occupation at the Altburg von Bundenbach (Schindler, 1977), which could indicate social ranking. At the Altburg, buildings within the compound were larger in area than the four-posters and other oblong structures in the rest of the enclosure, but this could reflect a difference in function rather than any hierarchy of houses. In the Late La Tène *oppida*, there is certainly evidence of segregation into separate compounds and activity areas, though even here the assumption of incipient urbanization has been challenged.

The resource implications of hillfort construction are even greater for the vast *oppida* of Late La Tène central Europe, like Manching in Bavaria (Krämer and Schubert, 1970), where the perimeter defences extended around 7 km of walling. In one phase this was achieved in the *muris gallicus* technique, so named from Caesar's detailed description of such a rampart at Avaricum (Bourges) (*DBG*, VII, 23). His report that the longitudinal timbers were generally 40 feet (12 m) in length and nailed to the laterals to create a solid framework for the rubble core, rendering the wall impervious to the battering ram and less vulnerable to firing, was surely based on personal observation. Excavation at the Mont Beuvray (Bibracte) near Autun has shown that the iron spikes that were used at the intersection of horizontal and lateral timbers could be a foot long, so that immense quantities of iron would be consumed in the manufacture of the thousands of spikes needed for the ramparts of a major *oppidum*. Earlier Iron Age hillforts in Britain and Europe were not

conceived on quite this scale, but even so the resources required implies a commanding authority to marshal the skilled craftsmen and massive labour force necessary to carry it out. In Britain as in Europe it is difficult from available archaeological evidence to assess the scale and nature of pre-Roman occupation on sites that subsequently became Gallo-Roman or Romano-British towns. In northern Britain certainly there was no obvious progression towards incipient urbanization, and Iron Age communities remained essentially dispersed until the early historic period in the 1st millennium AD.

BURIAL AND RITUAL

The contrast between the absence of formal burial rites for much of the British Iron Age and the presence of distinctive funerary monuments in Continental Europe should not be allowed to obscure the great diversity of practice in the European Late Bronze Age and Iron Age. This is hardly the place to embark upon a review of all the variant forms of burial practices attested archaeologically from eastern Europe to the Pyrenees and beyond. To begin with, we would have the problem of defining burial. Hygienic disposal of the dead was plainly a necessity for any society, but archaeological remains of burials often manifestly express a great deal more about the social and ritual conventions of Iron Age society than the simple need for disposal. A fundamental problem, as with most periods and regions in prehistory, is that the number of known cemeteries and burials could not possibly account for the total population, even allowing for factors of archaeological survival, so that we are inevitably drawn to the inference that the surviving remains result from an element of selectivity, though on what basis, and what became of those who were not so selected, remains obscure. Deposition in the ground was probably only the final act in a more complex ritual, of which the greater part will have made no impact archaeologically, so that if instead of interment the final act had been cremation and scattering, no trace whatsoever would survive in the archaeological record.

Interpretation of funerary remains has conventionally been based upon the associated grave-goods, often with the implicit assumption that these in some way 'belonged' to the deceased. Hence a burial with weaponry was that of a warrior, one with rich jewellery would be that of a princess. The common assumption that weapons betoken a male burial and personal ornaments female might now be regarded as sexist and could simply be wrong. Equally facile may be the assumption that grave-goods indicate social rank or relative wealth. Some burials, like the Late Hallstatt tomb at Hochdorf, are extremely

lavishly furnished; others, like the majority of Hallstatt cemeteries in Bavaria (Kossack, 1959), are more modestly or even minimally equipped. Inevitably archaeologists have concluded that this reflects the social status of the deceased, which is not impossible, but begs important questions regarding the role of grave-goods and what their inclusion might tell us about social conventions and the communities who made the deposition, rather than about the individual buried. The massive tumulus mound at the Hohmichele (Riek and Hundt, 1962), for example, is often cited in reference to the wagon-burial in Grave VI, accompanied by a range of weapons, personal ornaments, pottery, and bronze utensils. This is not, of course, the central grave, which was robbed in antiquity, though from surviving remains that too appears to have been lavishly equipped in its wooden chamber. Grave VI was one of the satellite burials, though not quite as peripheral as some. Among the more modest inventories Grave III yielded a trace of bronze, possibly from a brooch, fifteen hazelnut shells, and the impression of three oak leaves. In terms of material wealth this hardly amounts to a prince's ransom, but inclusion in such a tumulus at all surely betokens significant status. The allusion to the oak especially may have had supernatural significance in view of its alleged association with the druids in Pliny's account (*Historia Naturalis*, XVI, 249). Viewed in the context of 'normal' Hallstatt cemeteries, the Hohmichele and its neighbours in the vicinity of the Heuneburg must all be ranked as 'special', like the Neolithic megalithic monuments of the Boyne Valley and elsewhere, sites where the disposal of the dead was surely secondary in significance to the ritual of their burial.

For the British Iron Age the absence, with two notable regional exceptions, of a regular and recurrent mode of burial has long been remarked, making comparison of material artefacts and assemblages with those of Continental Europe much more difficult. One notable exception was the series of Late La Tène cremation cemeteries of south-eastern England, flanking the Thames estuary from Kent through Essex to Hertfordshire and Cambridgeshire. The rite of cremation with wheel-thrown pottery, including tall, pedestalled vases, accorded with the Late La Tène cemeteries of adjacent parts of northern France and Belgium, and for many years was mistakenly explained as the product of intrusive settlement by Belgae alluded to by Caesar (*DBG*, V, 12). Since virtually none of these cemeteries, and certainly none of the rich burials of the Welwyn series that display the closest affinity to Continental Late La Tène burials, can be dated prior to Caesar, his remarks, if reliable, must relate to some other episode of migration, perhaps into central southern England, where the name Belgae was preserved in the Romano-British town of Venta Belgarum (Winchester). The other exception dates from an earlier horizon, perhaps from the 4th to 2nd centuries BC, in eastern Yorkshire, where a

distinctive series of burials within square ditched barrows bears a striking resemblance to those from the Early La Tène period in Champagne (Stead, 1965, 1979, 1991). As in Champagne and the Ardennes, burials with a two-wheeled cart or chariot occur in eastern Yorkshire, though with some significant local differences in deposition. It is hard to believe that the relatively dense and compact Yorkshire distribution was not the result of colonization from the Continent, though it is difficult in terms of detail to point to a convincing region of origin. Furthermore the Yorkshire material assemblage lacks obvious imports, and the ceramic repertory in particular is crude by comparison with funerary ceramics in the Champagne.

The Early La Tène cemeteries of the Champagne region, like those of the Hunsrück–Eifel and middle Rhine regions, have attracted disproportionate attention since the 19th century on account of a limited number of wealthily furnished graves, some with the remains of a two-wheeled cart or chariot. Most of the early discoveries were poorly excavated, and of perhaps ten or fifteen thousand graves only a limited number is amenable to classification on the basis of reliable associations. Nevertheless, the volume of material enabled Hatt and Roualet (1977) to devise a detailed sequence of chronological phases on the basis of grave inventories. An alternative approach to social interpretation was proposed by Sankot (1977), who identified warrior graves on the basis of weaponry among the grave-goods, ‘cavalier’ burials on the basis of items of horse-gear, together with graves that were characterized by ornaments, notably bracelets or torcs as well as more functional items such as brooches. These identifications are certainly open to challenge, but the disposition of grave-goods, especially ornaments, about the person, whether around the wrist, ankle, or shoulder, right or left, single or multiple, might well reflect some significance in terms of the individual’s status in the social group.

Apart from some localized groups of cemeteries, like the cist-burials of the extreme south-west of England or the late ‘Durotrigian’ cemeteries in Dorset, the evidence for organized burial in Britain, apart from the two localized groups identified above, is sparse in the extreme (Whimster, 1981). It is hard to believe that circumstances of survival or the bias of research could account for this absence, when so much is recovered by chance or exposed by commercial development. The alternative is to imagine a mode of disposal that leaves no trace in the ground, like cremation and scattering. In fact, burials are not completely absent from settlement sites in southern Britain, as the occurrence of inhumations in pits within settlements like Gussage All Saints, Dorset (Wainwright, 1979b) demonstrates. Pits for the disposal of rubbish always seemed superfluous for societies that did not use tin cans or bottles, and it seems unlikely that human remains were regarded as rubbish.

These pit deposits therefore were presumably intentional and reflect an important if ill-understood aspect of Iron Age activity (Hill, 1995). Interestingly, the same practice of burial within pits has now been recorded at a number of sites in northern France (Delattre, 2000).

Nevertheless, graves should surely tell us something about the lives of those who made the burials or who were buried in them. As Anthony Harding remarked in the context of Bronze Age burials, 'like Neolithic long barrows and long-houses, round-houses and round barrows may have been viewed as two aspects of the same thing—houses for the living and houses for the dead' (Harding, A., 2000, 28–30). In Iron Age Europe there is no immediately obvious correlation between the layout in plan of domestic houses and that of tombs, though in the case of tumulus IV of the Giessübel–Talhau cemetery by the Heuneburg (Schiek, 1959) the tomb had been placed directly over an earlier rectilinear building and its palisaded enclosure. The fact that the burial chamber was located almost centrally over the preceding building, which had then been burnt before the erection of the mound directly over it, led to the suggestion that the house had been the residence of the individual buried in the chamber. The wooden chambers that frequently accommodated the interments and grave-goods of the *Fürstengräber* of the Late Hallstatt phase are lavishly furnished with textile drapes and even imported silks, in a fashion in which we might imagine the rooms of aristocratic domestic buildings to have been furnished.

Among the lavishly furnished burial chambers of the Late La Tène, that at Clemency in Luxembourg (Metzler *et al.*, 1991) was sealed in conditions sufficiently damp to conserve the traces of timber construction. Of particular interest, since it was a technique almost certainly used for flooring of rectangular domestic buildings, was the survival of floorboards across the bottom of the chamber, supported on a framework of wall-plates. The walls themselves were clad externally and internally with vertical and horizontal boards respectively. The artefacts associated with the cremation, a bronze vessel, iron griddle, amphorae, and numerous pottery vessels, were all indicative of feasting and drinking, and the assemblage also included the remains of four boar. Considerable quantities of artefactual remains and animal bones were found in the area of the funerary enclosure, and these were presumably the product of ritualized feasting or related ceremonies. A similar emphasis on feasting and drinking is evident in the late pre-Roman Iron Age and early Roman Iron Age aristocratic burials in south-eastern England, though the burial chamber itself is seldom so well preserved. Also frequently included, as at Welwyn in Hertfordshire (Stead, 1967) and at Stanway, Colchester, Essex (Crummy *et al.*, 2007) in the recently-excavated doctor's grave, are gaming boards and pieces, indicative of the pastimes of the Iron Age social elite.

Ritual sites, as we shall see, are notoriously difficult to identify with certainty outside urbanized or state societies, where formalized religion may be expressed in terms of recurrent and recognizable architectural forms. In the case of the so-called Celto–Ligurian sanctuaries of southern Gaul, typified by sculpted images of the human head or double-heads and cross-legged figures in squatting posture, the boundary between religious dedications and veneration of ancestral heroes is not at all clear. Both could equally have triggered the apparent intensity of suppression by Roman forces indicated at the sanctuary site in the *oppidum* at Entremont in Provence. Elsewhere in non-Mediterranean Europe, structural evidence for ritual *foci* is more ephemeral, some being identified principally from concentrated deposits of artefacts in watery locations, like the Duchcov hoard in north-western Bohemia (Kruta, 1971), at the source of the Seine (Deyts, 1983), or at Chamalières near Clermont-Ferrand, or indeed at the type-site of La Tène itself. Nevertheless the sheer scale of gruesome deposits from Gournay-sur-Aronde (Brunaux *et al.*, 1985; Brunaux and Rapin, 1994; Lejars, 1994) and Ribemont-sur-Ancre in Picardy defies explanation in any other terms. In Britain there is nothing comparable, though there are certainly sites and individual discoveries like bog bodies (Turner and Scaife, 1995) that have clear ritual overtones.

Debate has likewise surrounded the interpretation of the *Viereckschanzen* of the Middle and Late La Tène, the distribution of which is concentrated in southern Germany between the Inn in the east and the Rhine in the west, but with outliers or related enclosures beyond that core. Based on research by Schwarz (1962) at Holzhausen in Bavaria, the accepted wisdom was that these quadrangular enclosures were ritual in function, partly because of the apparent absence of normal domestic debris and partly because of the supposedly ritual shafts and ‘shrine’ found around the perimeter of the Holzhausen enclosure. Other sites with what appear to be votive deposits like Fellbach–Schmidden (Planck, 1982) seemed to endorse this view. More recently, however, the alternative case for *Viereckschanzen* as settlement sites has been advanced on the basis of sites like Ehningen, in which several square or oblong structures, post-built and defined by trench foundations, are not so different from those found on domestic sites (Wieland (ed.), 1999). Once again it seems probable that ritual and secular were part and parcel of Iron Age life.

SETTLEMENTS AND HOUSES

For many years it was axiomatic in British archaeology that insular Iron Age houses were circular in ground-plan whilst those of Continental Europe were

rectangular. This generalization was affirmed notably by Hodson (1964, 102–3) in his interpretative scheme for the British Iron Age, in which he chose the ‘permanent round-house’ as his leading ‘type-fossil’ for the Woodbury Complex. Round-houses, he observed, occurred only in one other ‘extremely peripheral area’, the *castro culture* of the north-west of the Hispanic peninsula, where excavated stone-built examples were invariably of late date. So unequivocal was the evidence for rectangular plans as diagnostic of the European Iron Age that Hodson felt able to assert that it was ‘not likely now that this fairly distinct continental pattern will be seriously changed by future discoveries’. The counter point of view saw the issue as far less clear-cut, since the ‘Continental’ tradition of rectangular building really referred to the central and northern European convention, rather than to areas bordering on the Atlantic or the Channel, where excavated evidence was less definitive (Harding, 1973, 46–7). Occasional circular plans had been identified in France, though not always altogether convincingly (Villes, 1983), and it was not until the 1990s that circular houses, comparable to the British series, were excavated in Normandy. The problem remains that circular building in France is often associated with funerary monuments, and it is not always possible to demonstrate that plans supported a roofed, domestic building.

These recent discoveries nevertheless may help to resolve an apparent anomaly in the classical sources. Caesar (*DBG*, V, 12) does not actually say what shape the houses were that he observed in Britain, merely that they were much the same as those in Gaul, which could mean that he had seen round-houses in Gaul or was referring to rectangular houses in Britain. Strabo (IV, iv, 3), on the other hand, probably drawing on Posidonius’ observations from the early 1st century BC, states very clearly that the houses of the Belgae were large round-houses, built of planks and wicker-work and roofed with a dome of thatch. In so far as we have archaeological evidence of domestic settlements for the later pre-Roman Iron Age in Belgic Gaul, the houses are predominantly rectangular in plan. Though the description sounds like an authentic Iron Age round-house, the context is generally one that casts the Gauls into the barbarian stereotype, and we may well wonder whether the image of the barbarian as one who lives, not in a rectilinear, stone-built house roofed with tiles, but a round, timber and thatched building, is not part of that stereotype. In much the same way Caesar equates barbarians with pastoralists, whether in the *interior pars* of Britain or in Germania, when his readers would certainly have regarded agriculture and cultivation as a hallmark of civilized societies. More puzzling, however, is evidence from the column of Marcus Aurelius in Rome, commemorating his victories of the late 2nd century north of the Danube (Fig. 1). The buildings of the hapless natives that the Roman soldiers are firing are most frequently depicted as round-houses, a detail that



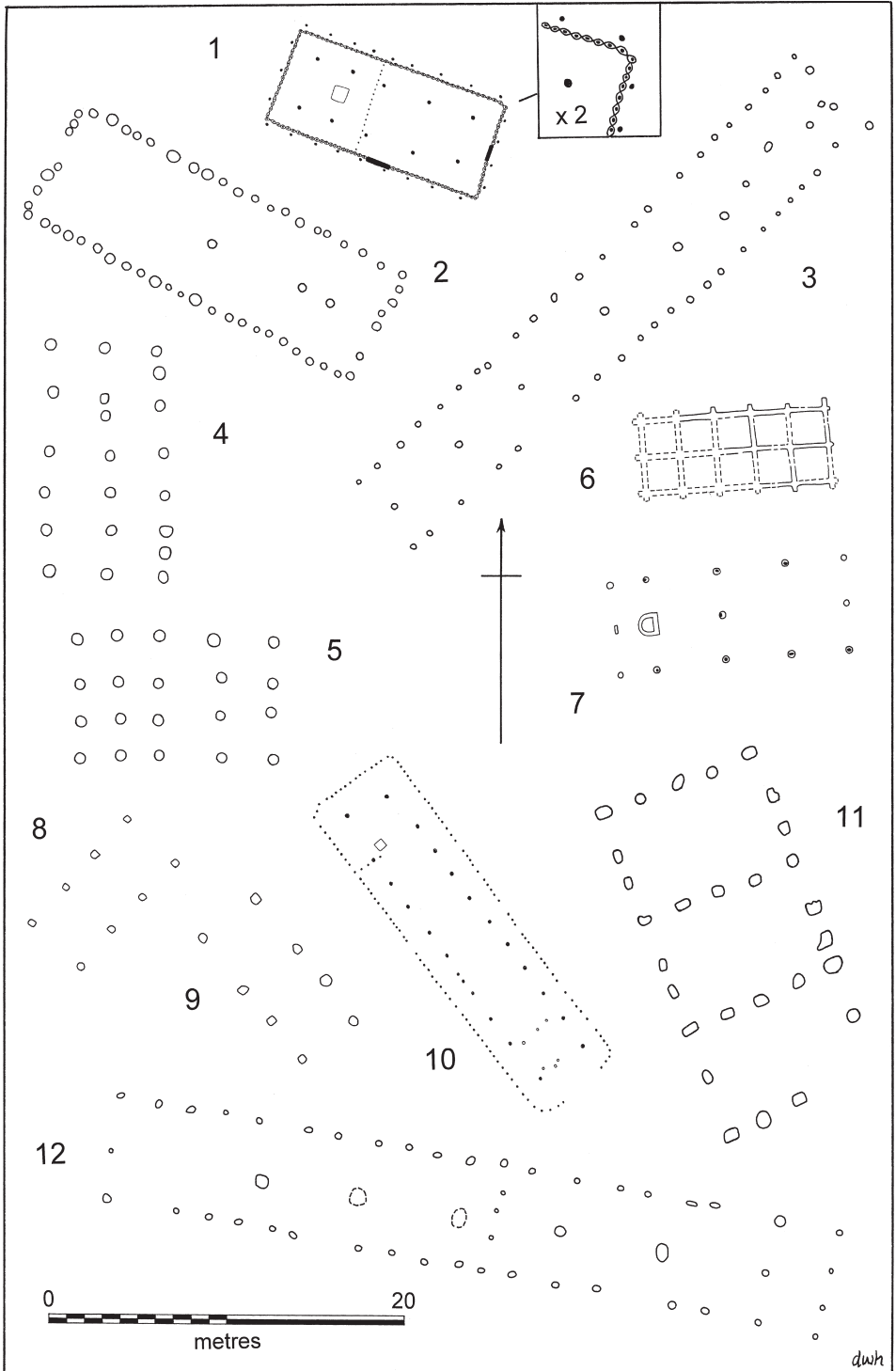
Fig. 1 Native round-houses in the middle Danube, attacked during the Roman wars of AD 167–80, depicted on the column of Marcus Aurelius in Rome. After Bellorius, 1704, photographs by R. L. Wilkins.

must surely have represented credible reality, even if exaggerated once again to stress the triumph of civilization over barbarism.

Round-houses archaeologically are certainly best represented in Continental Europe in the *castro culture* of northern Spain and Portugal, where they occur in considerable numbers in major walled hilltop settlements like the Citânia de Briteiros (Plate 1a) or the Citânia de Santa Luzia at Viana do Castelo (Plate 1b). The extant stone foundations that typify these proto-urban sites date mainly from the Augustan period, and the distinctive porch or ante-room with extended radial walls in particular is a relatively late feature of the 1st century AD. More recent research, nevertheless (Queiroga, 2003), suggests that the round-house has earlier origins, certainly from the Late Bronze Age at the Citânia de S. Julião, Vila Verde, for example (Martins, 1988), where houses around 5 m in diameter were built of clay and more perishable materials, with a reinforcement of stone around their foundations. The layout and enclosure of the round-houses within the *castro* settlements became progressively more organized under Roman occupation. The round-house tradition in the Peninsula is important, therefore, in that it represents a late survival of a form of settlement that had disappeared from the Mediterranean at the end of the Bronze Age. Viewed from the point of view of Pytheas and his fellow explorers, the Hispanic Peninsula, far from being an 'extremely peripheral area', must have been the fulcrum between the two great sea routes, the Mediterranean and the Atlantic seaways.

Rectangular buildings in Continental Europe display a range of sizes and constructional techniques, and most do not attain the length, for example, of the long-houses of the Late La Tène at Manching, Bavaria (Fig. 2, 12). Those that are founded on earth-fast timber posts have commonly been classified by the number of their post alignments, or the number of aisles thus created. The simplest type, with two external parallel walls, is a one-aisled house. From the later Bronze Age through the Iron Age, especially west of the Rhine, these can be relatively simple, oblong cabins of no great size or elaboration. A central alignment, generally assumed to support the ridge-beam, creates a two-aisled house, but again these need not be very much longer than they are wide. A more complex construction is the three-aisled house, in which the two internal post-alignments are typically closer to the external walls than to the central axis, so that the central aisle is wider than the two flanking it. Whilst it might be tempting to see these in a progressional sequence, reality seldom accords with simplistic models of development.

One of the oldest and most widespread traditions of rectangular house construction up to the later Bronze Age was the two-aisled house, in which the roof rafters were attached to a ridge-beam, itself supported by the line of uprights along the long axis of the house. The rafters were apparently erected



with their root-end uppermost, so that a truncated side branch could be hooked over the ridge-beam, whilst the lower end rested on the wall-plates of the lateral rows of posts (Audouze and Büchenschütz, 1991, Fig. 27). Cross-ties at lintel level may have braced the two side walls at either end of the building. This type of construction (in German: *Rofendach*) seems extraordinarily primitive in its lack of use of proper joints and in its dependence instead upon hooks derived from lateral branches. It belongs in the same class of workmanship as the forked upright, used to support a ridge-beam in lieu of a mortise-and-tenon joint. We must surely be sceptical that this crude level of construction is representative of anything beyond a Boy Scout's Survival Manual, except perhaps for temporary buildings in a transhumance settlement, where the full range of joinery equipment was not at hand.

The *Rofendach* technique differs fundamentally from the other principal type of roof-construction, using rafters (in German: *Sparren*; in French: *chevrons*) that are erected in opposed pairs, so that they are mutually supporting, while tie-beams (German: *Spannbalken*; French: *entrails*) link the load-bearing uprights to prevent them from bulging outward under the weight of the roof. This is the standard form in the single-aisled house, in which the ridge-beam lends rigidity to the structure but is not otherwise weight-bearing. Where there are post-holes at the mid-point on the shorter ends of the building, it is generally assumed that the roof was gable-ended. Where these are not in evidence, it is more likely that a *hipped* roof was deployed, in which the roof slopes inwards at either end, thereby reducing the danger of the end wall leaning outwards under pressure.

The most developed form of rectangular building is the three-aisled (German: *dreischiffig*; French: *à trois nef*) house, i.e. one with four rows of earth-fast posts, two external and two internal. The assumption here is that the two internal rows of uprights are joined by wall-plates longitudinally and by cross-ties laterally to form a solid framework over which the rafters rest. The outer rows, likewise joined with lintels, were also load-bearing, while the roof could be gabled, with the provision of support in the end walls, or hipped otherwise.

Fig. 2 Rectangular houses in Continental Europe. 1, Ezinge, Netherlands, House K; 2, Lovčičky, Moravia, House E; 3, Lovčičky, Moravia, House AS; 4, Goldberg, Baden-Württemberg, House 5; 5, Goldberg, Baden-Württemberg, House 8; 6, Heuneburg, Baden-Württemberg, Period IVa, House 3; 7, Heuneburg, Baden-Württemberg, Period IVb, House 1; 8, Altburg von Bundenbach, Rheinland-Pfalz, structure 48; 9, Altburg von Bundenbach, Rheinland-Pfalz, structure 84; 10, Zeijen I, Netherlands, Phase 3a; 11, Manching, Bavaria; 12, Manching, Bavaria. Redrawn by the author after van Giffen, 1930, 1936; Říhový, 1982; Parzinger, 1998; Gersbach, 1995; Schindler, 1977; Waterbolck, 1977; and Krämer and Schubert, 1970.

It has sometimes been suggested that the inner double post-row might have been carried up higher than the pitch line of the outer roof, with an independent inner roof at a higher level, allowing the possibility of an upper internal mezzanine level. Otherwise internal support for the roof was not strictly necessary in terms of structural engineering. The fact that the central aisle is sometimes wider than the two flanking aisles, notably in the northern European long-houses, may suggest that the aisled divisions have more to do with functional or social division of space than they have with structural necessity.

All three of these building variants occur in a range of sizes in the Late Bronze Age settlement at Lovčičky in Moravia (Říhovsky, 1982). Two-aisled and three-aisled houses of relatively modest scale are here clustered around two larger, rectangular buildings, one 21 m in length, defined by close-set post-holes with a complex internal pattern of posts (Fig. 2, 2), the other even longer at 35 m, being a two-aisled hall with posts at less frequent intervals (Fig. 2, 3). The plan of this extended building has prompted the suggestion that it might in fact represent several structures in alignment (Harding, A., 2000, 50), though different functional units might provide an alternative explanation. Some functional differentiation is presumably implied by this stark contrast, the larger buildings being for public or communal purposes, perhaps for the mundane but vital role of food storage, rather than indicating distinctions on this scale in the units of social occupancy.

The *Herrenhof* at the Goldberg (Fig. 3A), the hillfort of a local chieftain in southern Germany, excavated by Bersu from 1911 to 1929, likewise included each of the basic types of post-built, rectangular houses in its Late Hallstatt phases of occupation (Jope, 1997; Parzinger, 1998). Most of the buildings are oblong rather than long, rectangular houses; those that are longer, Jope assigned to a secondary IVb phase of construction. A major puzzle posed by the site is the apparent size and close spacing of the upright timbers, principally from the earlier of the two phases of building. Bersu claimed on the basis of the undifferentiated filling of the post-pits that these were between 0.7 and 1.2 m across and sunk up to 1.5 m into the ground, almost contiguously around the building. Their massive girth has led to suggestions that they could have supported an upper floor level, as indeed they could had the builders had the inclination or capacity to manipulate their colossal weight into position. Even timbers half that thickness would surely have required post-pits of this size to permit their erection and, without discrediting Bersu's undoubted skills as an excavator, we must surely question the credibility of such enormous timbers. The layout of the Goldberg settlement certainly suggests a concentration of buildings into clusters, which invite interpretation as social units (Zippelius, 1956). The idea that different types of construction

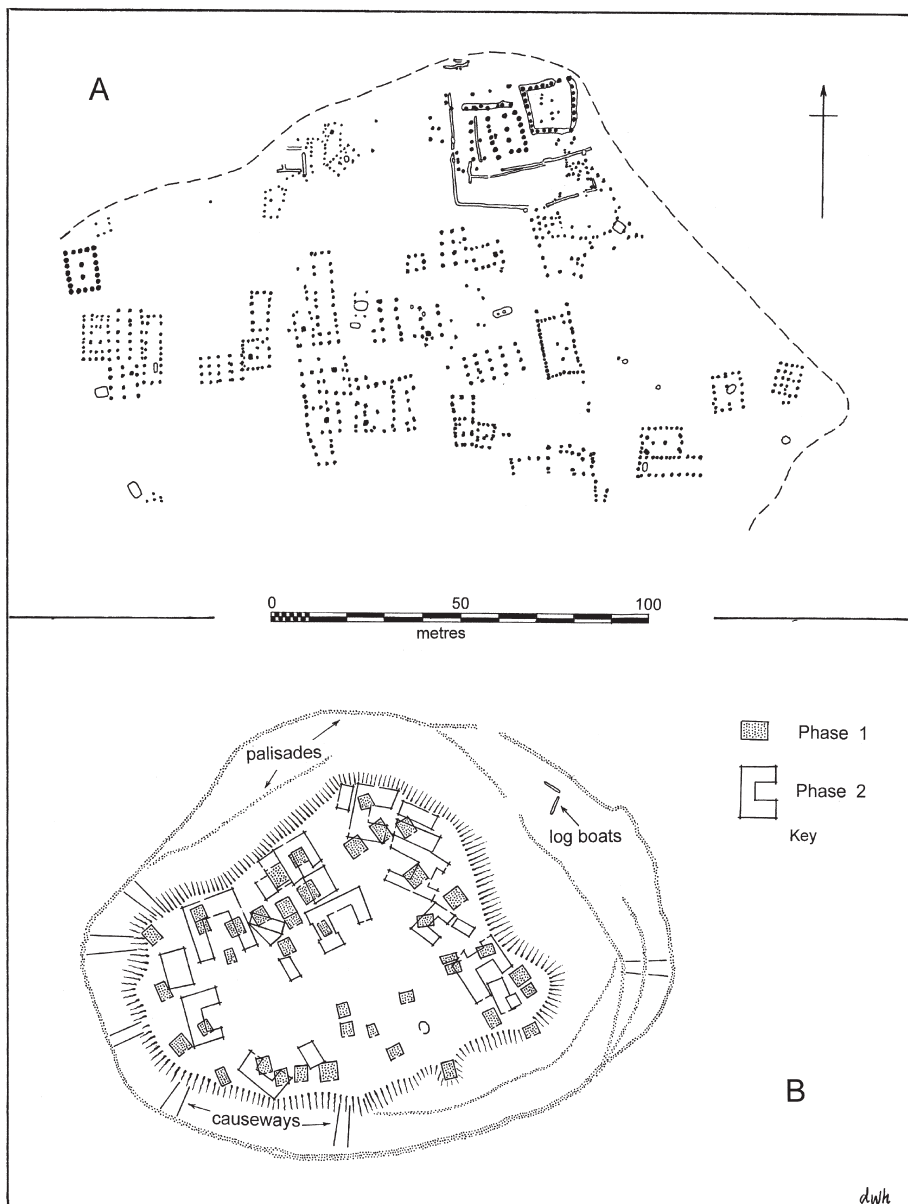


Fig. 3 Late Bronze Age fortified settlements in Continental Europe: A, Goldberg, Baden-Württemberg; B, the 'Wasserburg' Buchau, Baden-Württemberg. Redrawn by the author after Bersu, 1930 and Parzinger, 1998 (A); and after Reinerth, 1928 and Kimmig, 1992 (B).

reflected different functions—two-aisled buildings with hearths as domestic dwellings, the long, single-aisled buildings as byres and the three-aisled structures as barns—is attractive, though the roles of the single-aisled and three-aisled structures might be reversed. Jope, however, working on the basis of long acquaintance and discussions with the excavator, insisted that the long buildings were secondary, which need not completely invalidate the idea of family homestead units.

One variant on the rectangular house that appears at least from the later Bronze Age at Dampierre-sur-le-Doubs (Pétrequin *et al.*, 1969) is the apsidal-ended house, of which there are also broadly contemporary examples at Changis-sur-Marne (Lafage *et al.*, 2006). One of the earliest instances of an apsidal-ended house is from the Early Bronze Age settlement at Nonant in Normandy, where the excavator interpreted the ground-plan as divided into four compartments, from an anteroom in the east to the largest, apsidal room in the west. In some Iron Age examples the apse is reduced in plan to a single post, effectively moving the single post of a gable end outward to permit the construction of a more structurally stable roof end.

Certainly substantially built, though not necessarily leaving commensurate earth-fast traces, is the *Blockbau* or log-cabin technique of construction, in which heavy, horizontal timbers are laid upon each other, overlapping at each corner. Where they overlapped, the timbers were cut with notches so that they could be jointed together to ensure a good, weather-tight fit. With this kind of construction there need be no earth-fast posts whatever. Sometimes the entire framework is set on sill-beams that may be sunk into the ground to provide a level foundation, but even then the surviving archaeological traces may be extremely ephemeral. Even under favourable conditions of survival it is often only the sill-beams that remain, and it is not always easy archaeologically to infer the nature of the superstructure. In some cases the presence of hurdles suggests that the walls could have been of wattle and daub rather than solid timber. The fact that this type of building does not require earth-fast foundations means that it is difficult to assess how extensive its use in temperate Europe may have been. Not surprisingly, the best evidence comes from wet or marshy environments, as in the Swiss lakeside villages, among which, for example, Zug (Ruoff, 1984) was dated to the early Urnfield period. The lakeside ‘Wasserburg’ settlement at Buchau in Baden-Württemberg (Fig. 3B; Reinerth, 1928; Kimmig, 1992), spanning much of the Urnfield Late Bronze Age, comprised initially a fortified village of relatively simple, single-roomed buildings, 4–5 m in length and 3–4 m in width, some with surviving evidence of timber flooring made up of tightly-packed rounded timbers levelled with sand and clay. Only one house stood out as having two rooms, or an anteroom, and was nominated by the original excavator as the

chieftain's house. Built over the earlier village were the unusually complex buildings of the later settlement, showing winged plans with ranges up to 10 m in length, suggesting a rather different social order of occupancy. At Biskupin in Poland a variant form of construction was used, in which the horizontal timbers or heavy planks were slotted by tongue-in-groove technique into vertical timbers at the corners or midway along walls to create a similar timber cabin effect, but dependent upon a minimal number of upright posts. Here the Hallstatt C Lausitz culture houses were arranged in barrack-like alignments between corduroy streets within the fortified, lakeside settlement. Each unit, at around 9×8 m, had an anteroom, a main room with hearth and loom, with a loft above for storage and possibly sleeping as well, accessible by ladder.

The sill-beam technique also seems to have been used at the Heuneburg in the Period IV (Gersbach, 1995) buildings in the south-east corner of the citadel, though seemingly here as the foundations for the carefully-jointed house framework and floor (Fig. 2, 7). Some of the buildings were two-aisled and some may have had hipped roofs, but essentially they are simple, oblong cabins arranged in regular rows. One at least seems to have served as a workshop for bronze-working and, allowing for the fact that only a small proportion of the interior has been excavated, it is possible that the settlement was divided into different activity areas and that major buildings existed elsewhere. In the ensuing Phase III (Gersbach, 1996), in the south-east quarter the earlier cabins were replaced by a larger, rectilinear building with several rooms, not unlike the buildings recovered from the external settlement, particularly the structure under Tumulus IV of the Giessübel-Talhau cemetery. This fairly radical change led Arnold (1995) to suggest that political control had been taken over by a 'secondary elite' group, perhaps a more plausible explanation than Pauli's (1985) image of a proletarian revolution bringing about the ultimate destruction of the 'hated princely residences' at the end of Hallstatt D. If the earlier buildings were indeed residential, then certainly some major change in the social system must be indicated by the change in building size and layout.

Quite widely distributed in Continental Europe from the later Bronze Age and through the Iron Age are four-poster and six-poster structures, of the kind that, since Gerhard Bersu's (1940) classic excavations at Little Woodbury in Wiltshire, have been interpreted in Britain as upstanding granaries, complementing the storage of grain in underground pit-silos. Relatively modest in floor area for domestic habitation, it certainly seems more plausible to regard them as serving some ancillary domestic or agricultural purpose. They occur from the later Bronze Age, as for example at Changis-sur-Marne, and seem to be a recurrent component of habitation sites throughout the Iron Age in