La Tène and early Gallo-Roman north-west France

Philip de Jersey — Hertford College, Oxford
D. Phil. thesis — Hilary 1992

Abstract[1]

The basis of this research is the compilation of a gazetteer of sites and finds of the La Tène and early Gallo-Roman periods (c. 475 BC - c. 31 BC) in north-west France. Two aspects of the evidence thus collected are examined in detail: settlement and coinage.

For the early La Tène period, burial evidence provides the only significant source of information, and at present it is not of sufficient quality or quantity to do more than shed light on a few specific aspects of regional development. Similarly, the settlement evidence from the later periods is also relatively scarce. However the introduction of coinage in the middle La Tène, probably via mercenaries returning from service in the Greek world, provides a much more substantial body of information on developments between the third and first centuries BC. Following a consideration of the theoretical aspects of coin use and function, all the major types of coinage in north-west France are examined in detail, and a number of problems of attribution and interpretation are discussed.

It is apparent from the study of settlement and coinage that several traditional interpretations of aspects of the La Tène and early Gallo-Roman periods in north-west France need to be reassessed, in particular questions concerning the development of oppida, and the function of coinage. In the concluding chapter a model of the development of coinage in the region is suggested, illuminated where possible by the application of settlement evidence. The result demonstrates clearly the extraordinarily cohesive nature of this area, which has been termed "greater Armorica", throughout the later Iron Age and into the Gallo-Roman era.

text: c. 86 300 words

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[1] for the General Board of the Faculties

La Tène and early Gallo-Roman north-west France

Philip de Jersey — Hertford College, Oxford
D. Phil. thesis — Hilary 1992

Abstract[1]

The basis of this research is the compilation of a detailed gazetteer of sites and finds of the La Tène and early Gallo-Roman periods (c. 475 BC - c. 31 BC) in north-west France, in the region between the rivers Loire and Seine, sometimes termed "greater Armorica". By far the most significant elements of this evidence are settlement, particularly in the late La Tène, and coinage, and the examination of these aspects of the archaeological record forms the bulk of this work.

For the early La Tène period, the evidence of a small group of inhumation cemeteries in lower Normandy provides the only significant source of archaeological information, and thus at present it is not possible to do more than shed light on a few specific aspects of regional development. Problems such as the nature of the Hallstatt/La Tène interface, which are summarized at the European scale, cannot currently be resolved for north-west France.

The archaeological record improves from the middle La Tène period, primarily as a consequence of developments outside the region - in particular the massive economic and territorial expansion of Rome - and the introduction of coinage, probably brought into the region by Celtic mercenaries returning from service in the Greek world. The interaction between Rome and Gaul, which may be represented by a core/periphery model, is summarized, and key developments - in particular the development of archaic states in central Gaul, and the physical expression of this process in the formation of oppida - are examined before considering the settlement evidence of the late La Tène in north-west France. Much of this evidence is poorly dated and, as with the earlier periods, can only contribute to our understanding of general developments in the region in a few special instances. Fortunately the Celtic coinage of north-west France forms a very substantial and largely untapped source of information. Following a consideration of the theoretical aspects of the subject, which suggests that the traditional approach to the interpretation of Armorican coinage is in need of reassessment, all the major coin types of north-west France are examined in detail, according to the three phase model proposed by Daphne Nash (eg *Coinage in the Celtic World*, 1987); particular attention is paid to the connections between different types, and the traditional attributions to tribes whose boundaries were formulated in the early years of the Gallo-Roman period. A number of these are shown to be very doubtful, and alternative attributions or explanations for the observed distributions are suggested.

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[1] for the Board of the Faculty of Anthropology and Geography

In the concluding synthesis various explanations are suggested to account for the developments in coinage examined in the preceding chapters, from the first imitations of the Philippus through to the coins minted for the payment of soldiers in the Gallic War. Two significant areas of innovation and experiment are identified, in lower Normandy and the lower Loire valley; it is suggested that relationships between the two areas may have been based on the exchange of metal ores from the territory either side of the Loire, and perhaps of Mediterranean imports through the port of Corbilo, with resources (such as slaves) secured by the tribes in Normandy, who relied on military activity for a greater proportion of their wealth than the tribes to the south. This relationship may have been disrupted by the development of a powerful tribal group along the most convenient route between the two areas, possibly originating from the Rhineland; there is a limited amount of archaeological evidence, and some indications in coin design, for this long-distance migration.

Despite the presence of this group, the coherence of the region as a whole is clearly demonstrated by the adoption of the *cheval androcéphale*, or human-headed horse, on virtually all of the second and third phase coins, and in particular on the (predominantly billon) war coinages. The social, economic and political structures of these societies are not entirely clear, but from the archaeological evidence it is suggested that in searching for oppida on the hillforts which form the most visible reminders of the late Iron Age, we may be looking in the wrong place; in addition there were certainly subregional variations in political structure.

The analysis of developments in the immediate post-conquest period is hampered by the lack of precise chronological information, but it is apparent that further resistance to Rome was probably sporadic and short-lived. Trade continued in the west of our area, from the mouth of the Loire across or round the Breton peninsula and on to Britain, but there are already clear signs of the growing dominance of the Seine valley route, beyond the eastern boundary of "greater Armorica", which remained a cohesive and relatively isolated region on the outskirts of the Roman Empire for many more years.

La Tène and early Gallo-Roman north-west France

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D. Phil. thesis

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Abbreviations and conventions

Abbreviations in text:

asl	above sea-level	IA	Iron Age
BN	Bibliothèque Nationale	LBA	late Bronze Age
cl.	class	LLT	late La Tène
EGR	early Gallo-Roman	LT1	La Tène 1
ELT	early La Tène	LT2	La Tène 2
GR	Gallo-Roman	LT3	La Tène 3
Ha	Hallstatt	MLT	middle La Tène
hhh	human-headed horse	var.	variant

Standard metric abbreviations are used throughout.

Certain texts referred to especially frequently are abbreviated as follows:

CAG	*Carte Archéologique de la Gaule*
EH I, II	E. Hucher (1868, 1873), *L'art gaulois ou les gaulois d'après leurs médailles*
EL I, II	E. Lambert (1844, 1864), *Essai sur la numismatique gauloise du nord-ouest de la France*
LT	H. de la Tour (1892), *Atlas de monnaies gauloises*
PLD	P. de Lisle de Dreneuc (1903), *Catalogue du Musée Archéologique de Nantes*

All maps and plans are oriented with north at the top of the page, unless otherwise stated.

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1

Introduction

1.1 Outline of the research

The basis of this research is a synthesis of the information currently available on settlement and coinage in the La Tène and early Gallo-Roman periods in north-west France, presented in the form of a detailed gazetteer of sites and finds. Through the integration and interpretation of these two fundamental aspects of the region's archaeology, it is possible to provide a much more comprehensive account of developments in the later Iron Age and in the years immediately after the Roman conquest than has previously been achieved.

The choice of settlement and coinage as the main themes of the thesis is effectively dictated by the paucity of other forms of evidence. For example, it is currently impossible to construct detailed ceramic typologies, or to identify clear regional traditions in pottery, because there is simply not enough excavated material, either published or unpublished.[1] In contrast, there are several hundred sites known or believed to date from the La Tène period, and many thousands of Iron Age coins. Although the quality of this data varies enormously (see 1.5, 5.1 and 6.2), there is much here deserving of investigation. More details of the development of archaeological and numismatic research in the region will be given below (1.5), but it is worth mentioning here two leading figures in the work that has already taken place, one concerned with settlement and one with coinage, without whom this thesis could not yet be written.

The publication of Mortimer Wheeler's *Hill-Forts of Northern France* in 1957 was a landmark in many respects: in the study of hillforts and similar sites, in its application of modern archaeological techniques, and in its synthesis of archaeological and historical evidence. It remains unsurpassed as the

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[1] the only significant exception is the pottery of north-east Armorica, which has been thoroughly researched (eg Langouët 1978b; Daire 1987), and which occurs in the extreme west of our region (see 1.2 below for the definition of "north-west France").

primary source of information on these sites. There is only one respect in which *Hill-Forts of Northern France* can be said to have been less than successful, and that through no fault of its own: it seems to have had little impact on the moribund state of Iron Age archaeology in much of the region concerned. The traditionally low status of the subject in France has been widely recognized (eg Collis 1984b, 33; Hodder 1991, 20), and certainly in the first two decades following Wheeler's work there were few signs of improvement in the situation. Only in the last fifteen years, and especially in the late 1980s, has there been a significant increase in the number of archaeologists working on the period, in programmes of research, and in publication.

Fortunately, the post-war lethargy in archaeological research has not been replicated in the field of Celtic numismatics. In an extraordinarily prolific career spanning more than forty years, J.-B. Colbert de Beaulieu has investigated virtually every aspect of Armorican Iron Age coinage, and it is his work - in identifying types, researching obscure and distant provenances and so on - which forms the foundation of much of what follows. However, Colbert de Beaulieu's approach has been formulated strictly from a traditional historical and numismatic viewpoint, and there is much to be gained by re-examining the various coinages in the light of developments in numismatic theory (summarized in 6.1), and from a viewpoint more concerned with the archaeology and geography of the region. By combining the numismatic data with that on settlement - which, though still owing much to Wheeler in the north of our area, may be augmented by the recent increase in research throughout most of north-west France, alluded to above - it is possible to present the most comprehensive account so far of the later Iron Age in the region between the Loire and the Seine.

The structure of this thesis is mostly self-explanatory. For convenience's sake, settlement and coinage are considered as separate themes until the concluding discussion (chapter 11); thus coins are not included in the brief discussion of middle La Tène artefactual evidence (3.4), although some of the earliest issues may date from that period. Further information on the spatial and temporal limits of the research is presented in the following two sections.

1.2 The research area

This study focuses on the region of approximately 56 000 km^2 between the river Seine and the river Loire, in north-west France (figures 1 and 2). This area includes parts of three modern administrative regions: Normandy, Brittany and the Pays de la Loire. The departments of Normandy included in the study are Calvados (14),[1] Manche (50) and Orne (61), and those parts of Eure (27) and Seine-Maritime (76) on the left bank (south) of the Seine. The Pays de la Loire departments are Loire-Atlantique (44), Maine-et-Loire (49), Mayenne (53) and Sarthe (72). The final department is Ille-et-Vilaine (35), the easternmost part of Brittany. The Channel Islands have also been included, as they are geographically and archaeologically closely linked to the French mainland. Henceforward, all references to "north-west France" should be taken to refer to the region described above, rather than in the wider geographical sense which would include the three western departments of Brittany; the reasons for their exclusion are detailed below.

In most cases, the modern departmental limits accord remarkably well with suggested Iron Age boundaries (the reconstruction of the Iron Age boundaries is discussed in section 1.4.4). There are two significant exceptions. In the north-east, the borders of Eure and Seine-Maritime bear little resemblance to any natural, or known protohistoric frontiers. In that area the Seine has been used as the limit of the research region, not least because it has often been regarded as the boundary between the Celts and the Belgae (see 4.2.2 below). In the west, the modern departmental boundaries are such that a small area of the Coriosolitae, including the important settlement of Alet (Saint-Malo), is included while most of their tribal area falls outside the region. Otherwise, the inland boundaries of Eure, Orne, Sarthe and Maine-et-Loire all correspond well to the tribal limits suggested for the LLT, and those of Loire-Atlantique only slightly less so (figure 10).

Some explanation is necessary of why these limits have been chosen, beyond their similarity to the situation in the later Iron Age. Links between the tribes of this region have long been recognized. Possibly the best-known is the use of the human-headed horse (*cheval androcéphale*) on the

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[1] the numbers in brackets are the *codes minéralogiques*, used widely in France as shorthand for the department. They will be used throughout this thesis as the first part of each site's reference number in the gazetteer.

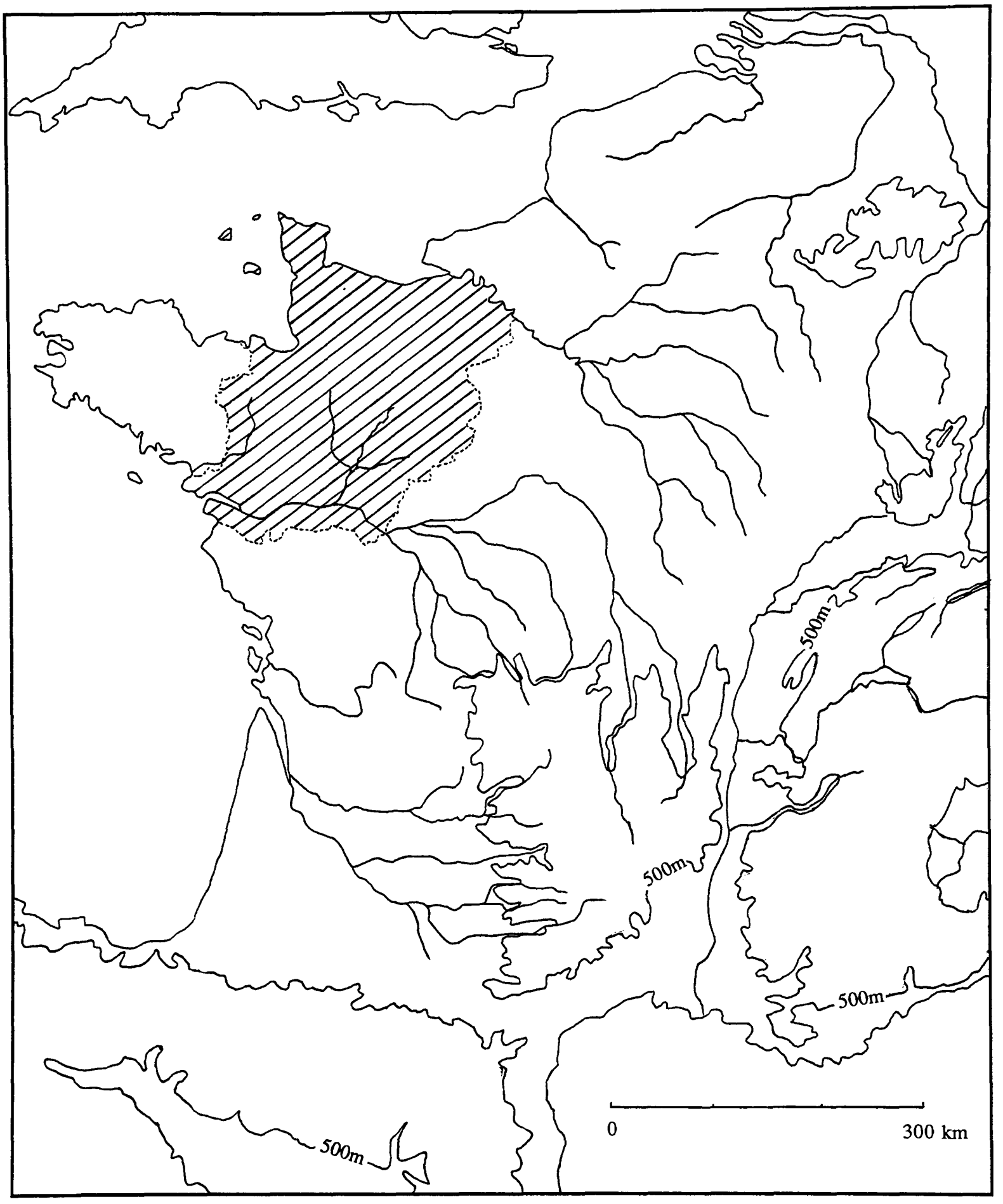

Figure 1. Western Europe, showing the area of research.

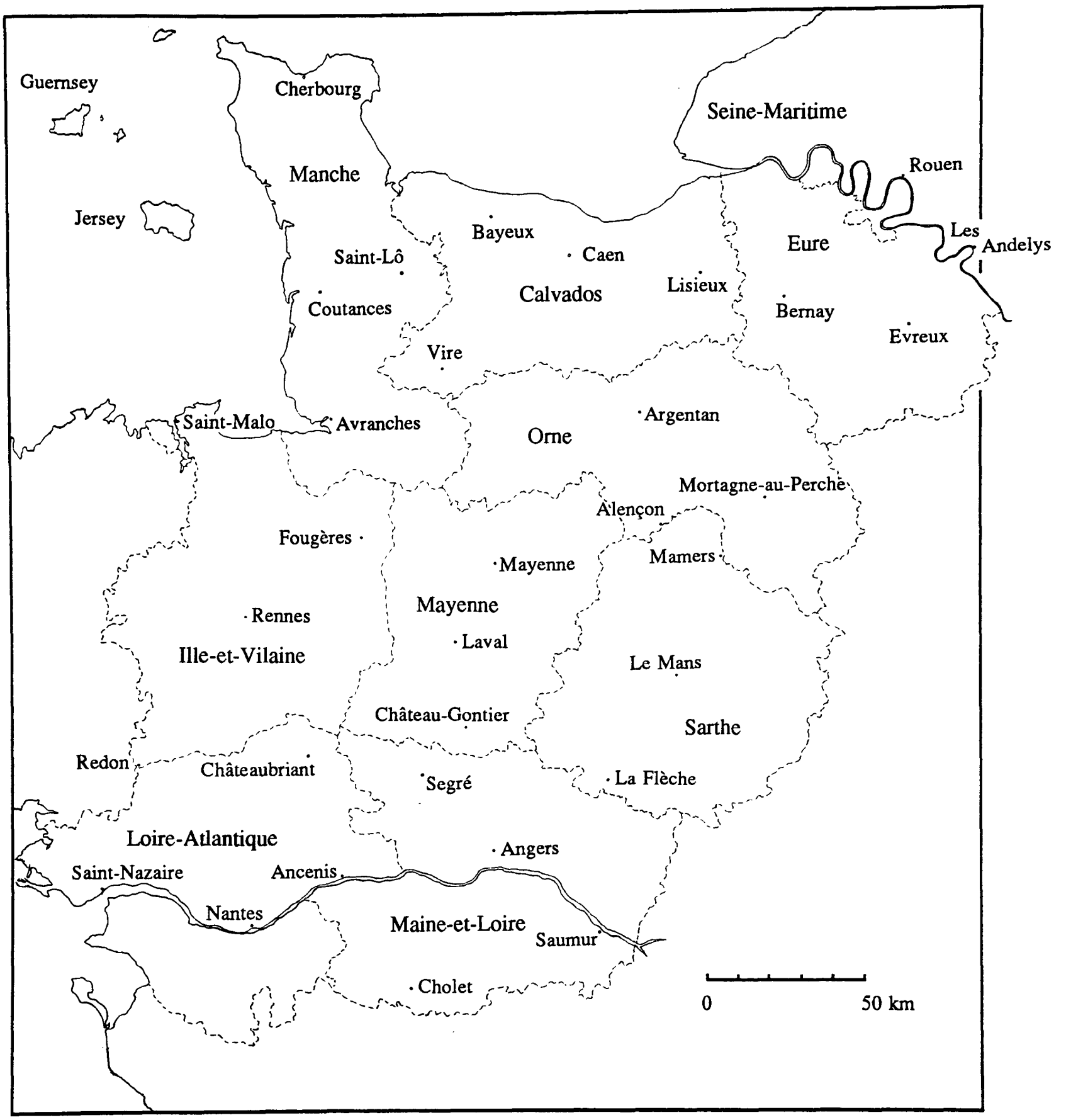

Figure 2. North-west France: the area of research.
Department names and the *chef-lieu* of each *arrondissement* are shown.

reverse of virtually all of their second and third phase coins.[1] Alain Duval (1984a; 1990a) has recently made use of this feature and others in an attempt to define a kind of "greater Armorica", and it can be seen from his maps (1990a, figs. 1 and 2) that the area thus defined corresponds well to our research area, plus western Brittany. Thus in the north-east we have the division between Armorican and Belgic Gaul, or the Celts and the Belgae, mentioned above. The Carnutes and the Turones, who form much of the eastern and south-eastern boundary, are clearly not part of the Armorican group. The situation in the south is rather more complex. There are some elements linking more distant tribes, such as the Bituriges Cubi, to the Armorican group, while the status of the Pictones, at the interface between Armorica and the region to the south, remains to be resolved. However it is almost certainly premature to extend this concept of Armorican Gaul as far south as the Garonne (cf. Duval 1984a, fig. 26). The archaeology of this region has been thoroughly discussed by Nash (eg 1975b; 1978a); she used the Loire as the northern limit of her area of research, and thus it is logical that our region should cease just to the south of the river.

Rather more explanation is needed of the decision to omit western Brittany from this research. There are two main reasons. Firstly, the departments of the Côtes-d'Armor, Finistère and the Morbihan include some archaeological features, in particular souterrains and stelae, which are almost wholly excluded from the fourth Breton department, Ille-et-Vilaine, the western boundary of which thus approximates to a marked discontinuity in the Iron Age culture of the region. The second reason, connected to the first, is that the Iron Age archaeology of western Brittany has always received more attention than that of the area to its east. It is principally in an attempt to go some way towards redressing this imbalance that this thesis will concentrate on the "greater" part of greater Armorica.

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[1] the phases of coinage are discussed in chapter 6. The only significant exception to this observation is the coinage of the Aulerci Eburovices, beyond the Armorican sphere, which bears the human-headed horse in just one late class (8.5).

1.3 Chronology

Some explication is necessary of the chronological limits to this thesis. The terminology developed by Déchelette at the start of this century has been successively refined according to the theories, discoveries and location of numerous archaeologists, to the extent that what is La Tène 3 for one is rarely La Tène 3 for another (Guilaine 1976b; Duval 1990f, 331, 334). There are particular problems at the beginning and the end of the Iron Age. The date of the transition between the Hallstatt and La Tène periods has not been satisfactorily resolved for north-west France (see 2.2), but here a date of c. 475 BC is taken as the dividing line. Similarly, there is no point in attempting to divide the early and middle La Tène periods into smaller units, as has been achieved elsewhere, because the archaeological evidence in its current state simply does not sustain such precision. At the end of the La Tène period, and in the years immediately after the conquest, a variety of terms (eg *pré-Augustéen, gallo-romain précoce*) are in use, partly synonymous, but also representing different "archaeological realities" (Duval 1990e, 21). In the face of these problems it is the responsibility of each archaeologist to make explicit the divisions that he or she is using. Table 1 summarizes the terms, and the suggested absolute dates corresponding to these periods, for this thesis.

	Hallstatt D	
	---------- 475 ----------	
La Tène 1 (LT1)	*or*	Early La Tène (ELT)
	---------- 250 ----------	
La Tène 2 (LT2)	*or*	Middle La Tène (MLT)
	---------- 120 ----------	
La Tène 3 (LT3)	*or*	Late La Tène (LLT)
	---------- 56 ----------	
	Early Gallo-Roman (EGR)	
	- - - - - - - 31 - - - - - - -	

Table 1. Chronological divisions. All dates BC.

It must be stressed that the absolute dates provided, in particular for the start of the period, represent no more than an approximation of reality; as chapter 3 will show, there is simply insufficient evidence to refine the chronology of these periods in north-west France. At the end of the period, the defeat of the Armorican tribes in 56 BC has been taken as the formal cut-off point for the LLT period in north-west France, though it is evident that the indigenous Iron Age culture did not change overnight. Similarly, our nominal cut-off point for the early GR period is 31 BC, when Octavian triumphed over Antony and the civil war in Rome ended, but it is almost impossible to date any aspect of the emerging Gallo-Roman culture in north-west France with such precision, and thus some developments described as EGR may have taken place in that period or in the few decades thereafter. Likewise certain finds, in particular many post-conquest Gaulish coins, cannot yet be accurately dated and so their inclusion here as of the EGR period remains subject to confirmation. While ultimately it would be valuable to be able to provide a precise timetable of developments in the LT and EGR period in north-west France, that is simply beyond the capability of the current data, and so our concern here is primarily with developments at a broad scale rather than with chronological refinement.

1.4 The landscape of north-west France

1.4.1 Geology

North-west France, as defined in this study, consists of two distinct geological entities: the western section of the Paris Basin, and the eastern section of the Armorican Massif (figure 3). The detailed geology and geography of the region is considered below, but broadly speaking, the Paris Basin is characterized by a series of plains and low plateaus, broken by valleys of varying depth, and the Armorican Massif by gently undulating relief, of hard rock interfluves and narrow valleys.

i) the Paris Basin[1]

The Paris Basin is formed of a series of horizontal or near-horizontal beds, occasionally slightly folded or faulted. As one moves out from the centre of the basin, so the rocks become older and generally higher. In the middle are the Palaeogene beds: sequences of clays, marls, sands and sandstones, and marine and freshwater limestones. Chalk appears from beneath these Tertiary deposits, and is followed by another ring of lower Cretaceous rocks. The final band is represented by Jurassic and Liassic limestones and marls, which rest directly on the Hercynian massifs that border the Basin.

The marine sediments in the centre of the Basin, which had begun its most important period of subsidence at the end of the Triassic, were accumulated from the Jurassic period onwards, during a series of marine transgressions and regressions. Later, during the Palaeogene, the area was a shallow gulf, with occasional transgressions leaving some marine deposits, either detrital (sand, clay) or chemical (calcareous). In the Neogene, continental conditions became dominant, so the deposits were either fluvial or geochemical (conglomerates, granitic sands or clays, sandstones). Throughout all of these periods, tectonic movements continued to shift faults and cause subsidence or uplift to differing degrees across the Basin, contributing to the varied geomorphology now visible.

The Normandy part of the Paris Basin is characterized by dissected relief, with valleys between 30m and 150m deep. The plateaus between the valleys are usually covered by the remains of weathering

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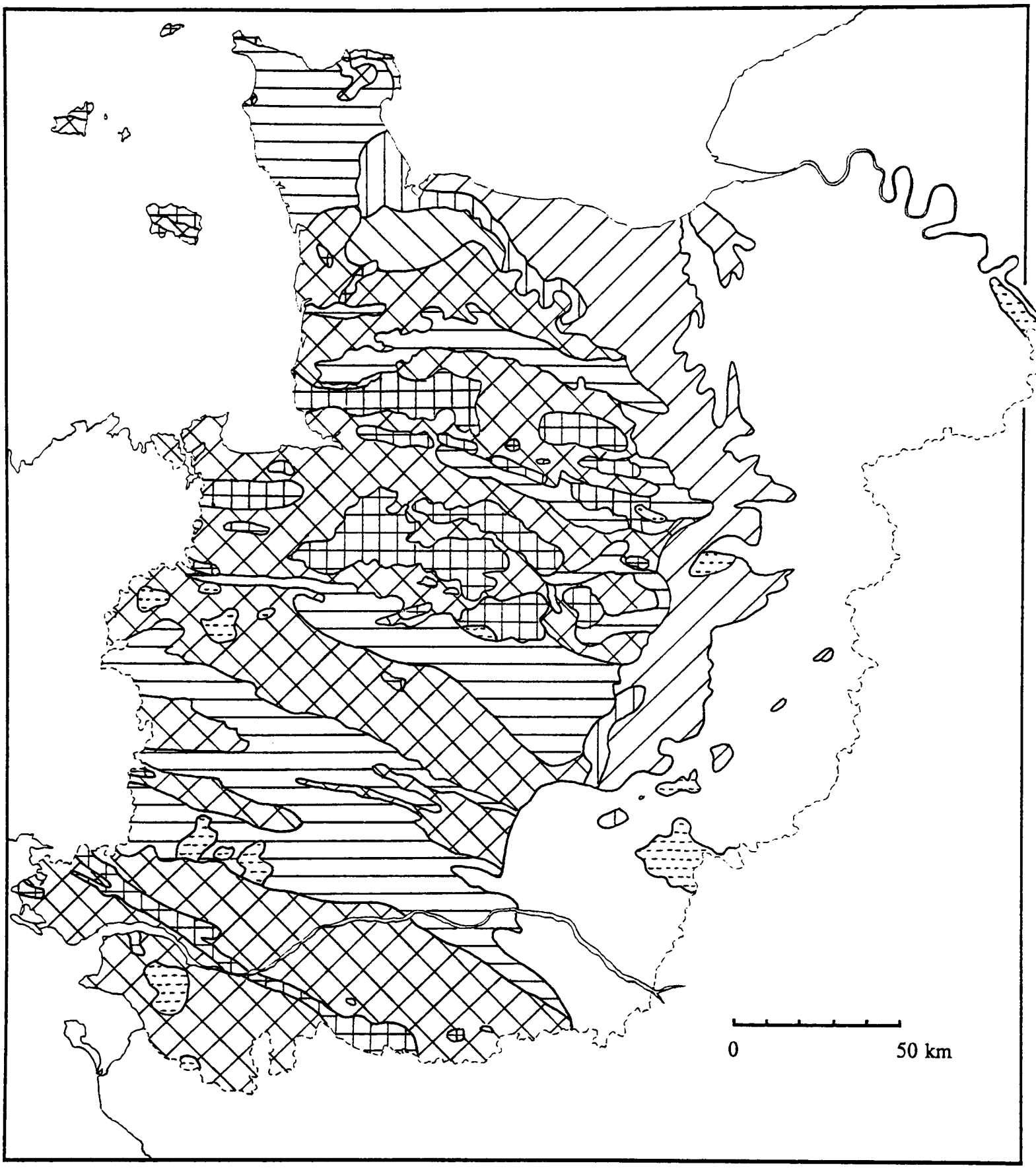
[1] most of the geological information in this section is based on the accounts of Joly (1984, 154-161) on the Paris Basin, and Joly and Embleton (1984, 178-182) on the Armorican Massif. More detailed information is presented by Chauvel and Robardet (1980, 125-178) on Armorica, and by Cavelier et al. (1980, 431-484) on the Paris Basin.



Tertiary
Cretaceous
Jurassic
Liassic
Triassic
Palaeozoic
Precambrian
Granite

Figure 3. The geology of north-west France.
Based on Joly and Embleton 1984, fig. 9.9, and Joly 1984, fig. 8.19.

deposits of clay with flints (*argile à silex*), laid down mostly in the Tertiary period, and sometimes mixed with other formations, including ferruginous sands and gravels, and Quaternary loess. The loess forms a discontinuous layer in the Basin, a few centimetres to several metres thick, but is especially marked on east and south-east facing slopes. It is the product of glacial outwash plains to the north of the Basin, and of beach deposits exposed by lower sea-levels; on the interfluves it has often been decalcified or washed by streams to produce plateau *limon* (see figure 8).

Other evidence for activity during the Quaternary is provided by the river terraces, which show successive incursions of the rivers, separated by phases of aggradation, according to the glacial conditions. The gravels of the terraces are usually coarse and nearly always covered by a mantle of *limon*, in contrast to the finer, more sandy deposits of the present alluvium. Considerable deposits of alluvium have resulted from lower sea-levels during glacial periods, when the valleys were excavated up to 30m below their present level. At the same time, the Basin has continued to move slowly upwards, especially in Normandy.

In lower Normandy the western edge of the chalk plateau, covered by *argile à silex,* is marked by the Auge cuesta, overlooking the valley of the Dives. The edge of the Armorican Massif is marked by a depression in the Liassic clays of the Bessin, extending north-west up to the Cotentin. To the south, between Alençon and Angers, the boundary is less clear, as the situation is complicated by the anticlines and faults of the Massif, creating a landscape of variously tilted blocks.

ii) the Armorican Massif

This region is formed mainly of Precambrian and Palaeozoic rocks, with some large granite intrusions. The Precambrian includes igneous and metamorphic rocks, while the Palaeozoic series consists of slates, shales and sandstones, with some more resistant quartzites and grits. There are also some Mesozoic sedimentary rocks on the borders of the Massif.

The Armorican Massif reflects the influence of successive periods of tectonic activity. The Caledonian orogeny affected the Precambrian and lower Palaeozoic rocks, but then had its effects overprinted by the Hercynian movements of the later Carboniferous and early Permian periods. The resulting general structural pattern is fan-shaped, with the trends diverging in the east. In the southern part of the area, the main trend runs roughly parallel to the coast, through to the narrow granite ridge of

the Sillon de Bretagne. In the north, the main structural direction is west-south-west/east-north-east, towards the Cotentin, with the Channel Islands representing the non-submerged parts of the ridges. Between the two main trends is a synclinoral axis running west/east from Finistère, through the Rennes basin and on towards Laval. The whole area is heavily fractured, mainly by Hercynian faults, although the present landscape is the result of differential erosion rather than of tectonic movements alone.

Subaerial denudation has been the most significant of the erosion processes acting on the region since the Palaeozoic age. The Rennes basin, for example, was periodically invaded by the sea in the early and middle Tertiary, and then occupied by a lake, but most of the marine deposits have been removed by erosion to reveal the Palaeozoic schists, sandstones and shales. There are only a few scattered areas of sedimentation left, although there is a superficial Tertiary mantle of sandy and clayey weathering products throughout most of the region, and some Quaternary head deposits. There is also some Quaternary loess, particularly in the east and on the north coast.

Erosion has also removed most of the Mesozoic strata from the edges of the Massif, and has exposed the more resistant granites and granulites in the anticline cores and in other deep intrusions. These granite masses rise above the schist plateaus to form the most characteristic landscape of the region, while in other places the plateau has been moulded into low undulations. The highest point of the Massif (417m above sea-level) is the Butte des Avaloirs, west of Alençon, in the part of the Massif which experienced the greatest uplift in the mid Tertiary period. To the north of the Normandy uplands are the lowlands of the central Cotentin, covered with Pliocene deposits and recent alluvium. Further north, the Cotentin peninsula is characterized by a low planation surface cut across sandstones, slates and shales, with some granitic intrusions such as the moorland hills and the cliffs of the north and west coasts.

In the south of the region, the Loire leaves the Cretaceous rocks of the Paris Basin a few kilometres above the confluence with the Maine, and crosses an area of lower Palaeozoic slates. It then widens through an outcrop of coal measures, and narrows again as it encounters the Precambrian schists, after which its flow to the sea is impeded only by the granite ridge of the Sillon de Bretagne and a smaller, parallel ridge, at Saint-Nazaire. Below Nantes former bays have been infilled, such as the

Grande Brière, and some former islands, such as le Croisic, have been completely surrounded by sediments and attached to the mainland.

1.4.2 Geography[1]

Relief, soils and river systems are shown in figures 4 to 6 on the following three pages. The map of the soils of the region indicates that the solid geology exerts an important, though not always dominant influence on the landscape: in several places it is completely masked by superficial deposits, especially by *limon* in the Paris Basin. There is a broad correlation, however, between leached soils (*sols lessivés*) in the Basin, and leached brown soils and acid brown earths (*sols bruns lessivés*, *sols bruns acides*) on the Massif. The distribution of *limon* or loess, particularly important for agriculture, is shown on figure 8.

i) the *pays*

For the purposes of a brief regional description, it is convenient to divide north-west France into a number of more or less easily definable areas. Some of these are identifiable as *pays*, the term derived from the Gallo-Roman *pagus*. The concept of the *pays* is much cherished by traditional geographical accounts, such as those of Vidal de la Blache (1908), and still exerts a considerable influence on regional geography:

> ...the notion of frontiers between little *pays*...is still very much alive and has a clear meaning in the minds of country people...farmers can draw such boundaries: across the stream, past the wood, at the foot of the hill, another *pays* begins.
>
> Hervé Fillipetti, quoted in Braudel (1989, 51)

> ...France possesses an incomparable wealth of regional studies. By implication, these studies add fresh support to the widely held view that the *pays* in France impart a strong and possessive sense of place and imbue their inhabitants with a deep and lasting attachment to the homeland.
>
> Prince (1977, 129)

---

[1] no account can substitute for experiencing the landscape at first hand, but there are a number of good descriptions available. The works of Paul Vidal de la Blache, especially his *Tableau de la géographie de la France* (3rd ed., 1908) remain excellent evocations of the landscape. Other useful, though rather more prosaic works include the first volume of the Naval Intelligence Division's guide to France (1942, 8-21) and F. J. Monkhouse (1959, 177-243, 447-482).

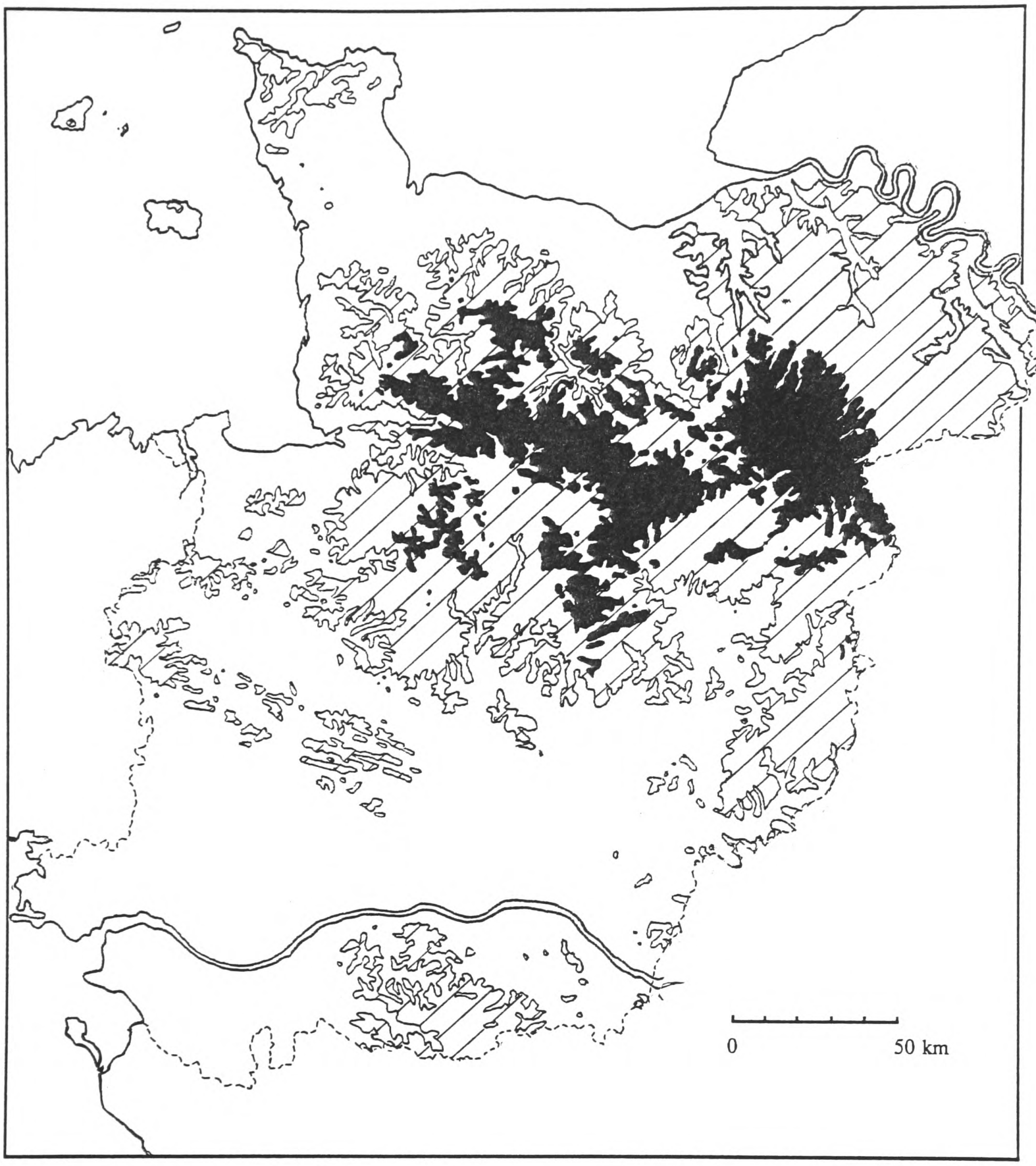


Figure 4. North-west France: relief.

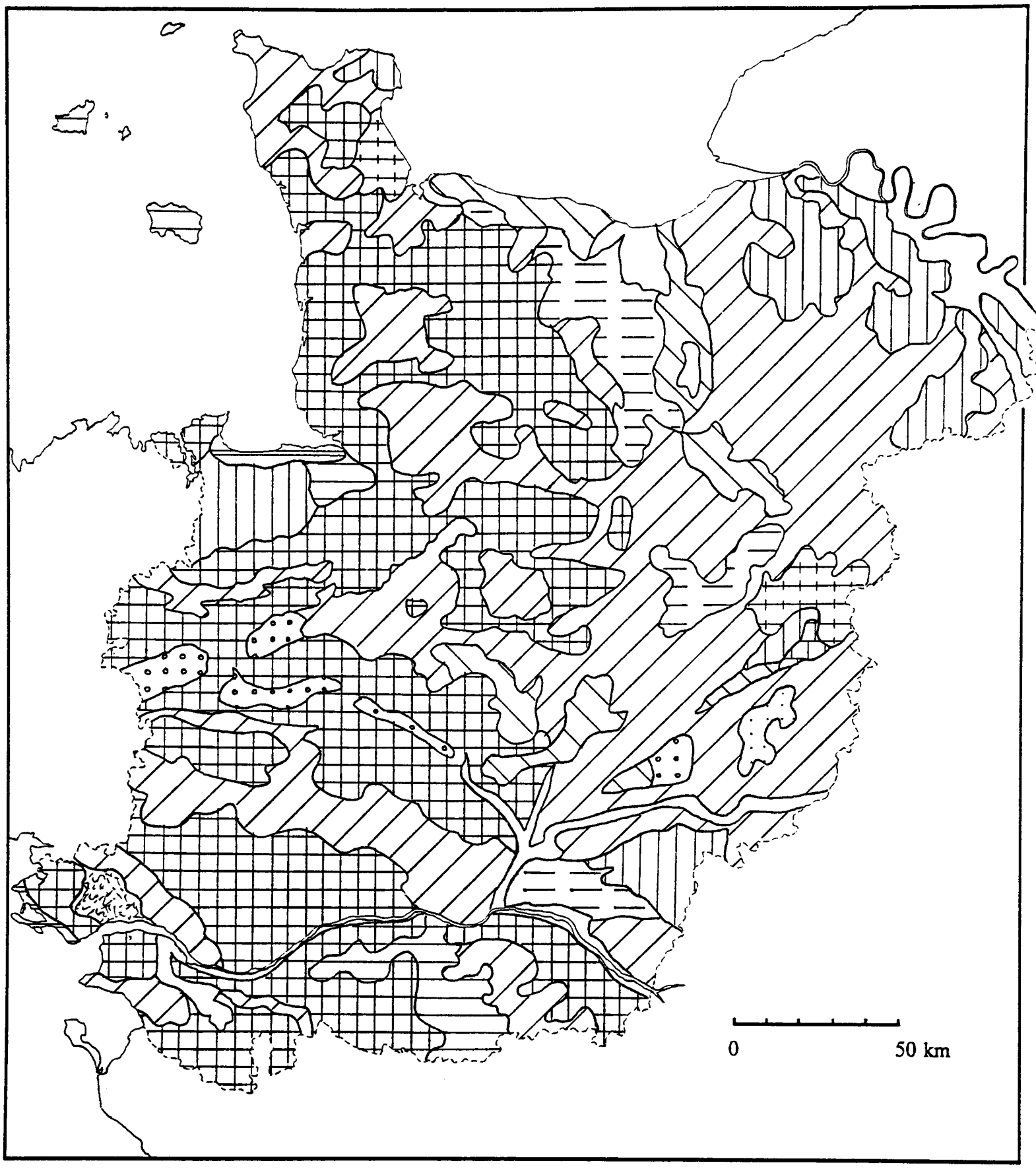


Figure 5. The soils of north-west France.
Based on the *Carte Pédologique de la France* (1: 1 000 000), published by the Institut National de la Recherche Agronomique (1966).

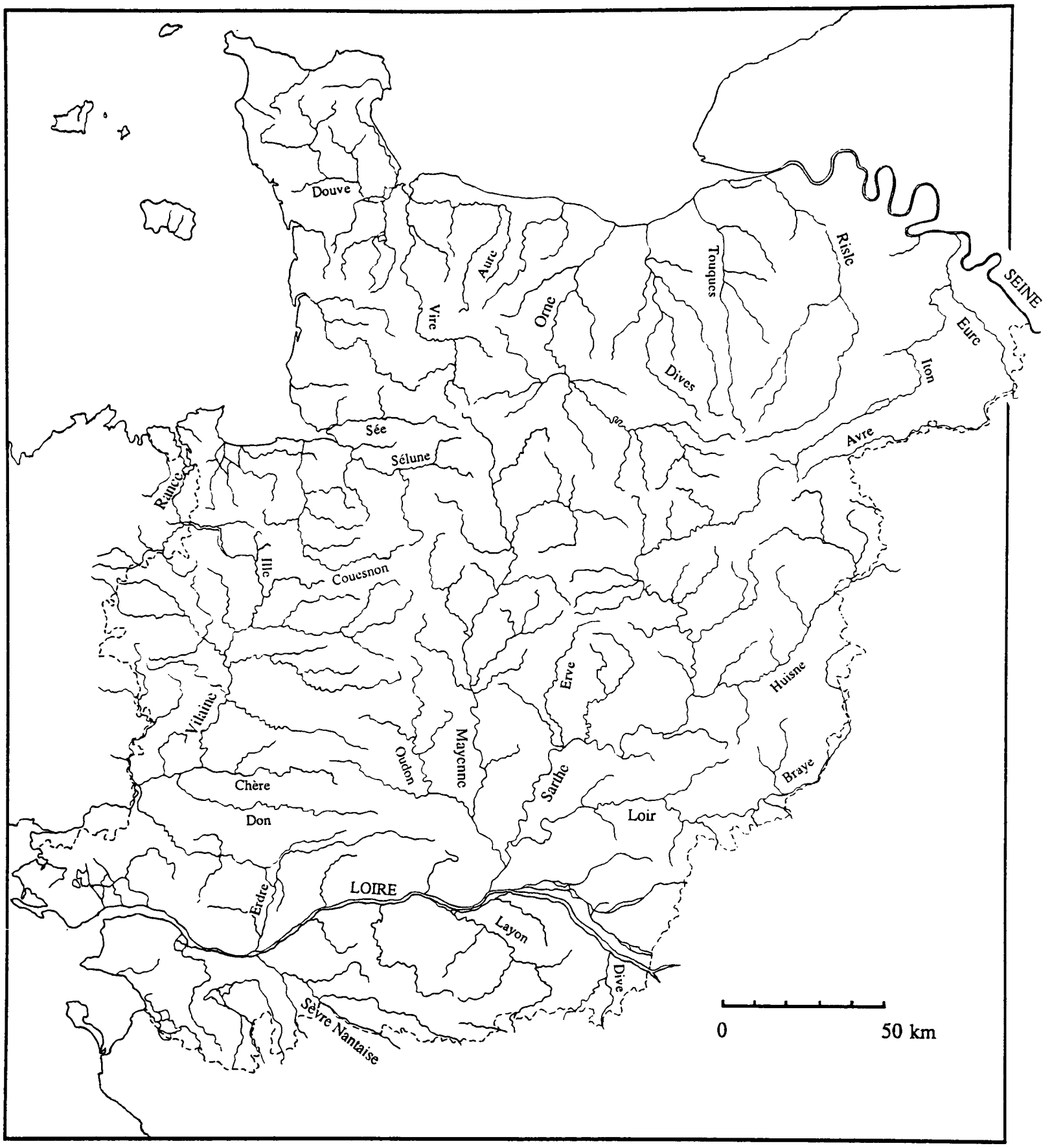


Figure 6. North-west France: river systems.

Other authors have argued that although the *pays* are well-established in some areas, such as Gascony (Braudel 1989, 46-47), in other parts of France they are difficult to delimit and of dubious authenticity:

> ...unlike the other major regions of France, the West is not richly endowed with clearly individualized *pays*. They are only found in certain areas and have only been really significant during certain periods. There have always been serious difficulties in determining their precise limits.
>
> Flatrès (1977, 303)

Where *pays* in the west are definable, they are usually one of two types: those that can be identified back through medieval dioceses to Gallo-Roman (and perhaps Iron Age) *civitates*, such as the Avranchin, and those which reflect agrarian distinctions of a more recent period, such as the campagne de Caen. The terms commonly used in north-west France are shown on figure 7; it must be borne in mind that they vary considerably in usage, the accepted delimitation of their boundaries, and their historical basis. Nevertheless, the terms are convenient for describing the landscape, in particular those regions which cut across the departmental boundaries.

ii) the regional geography of north-west France

Beginning in the west of the region, the Rennes basin is very much a product of the solid geology, as the erosion of Tertiary sediments has exposed the underlying sandstones, quartzites, shales and granites. To the south of Rennes are several ridges of higher ground, extending south-east from the forest of Paimpont, through Bain-de-Bretagne to Châteaubriant. To the north, the solid geology is reflected by less well-defined, low ridges, oriented west/east. The western boundary of the region follows the departmental boundary of Ille-et-Vilaine, cutting across the submerged valley of the Rance a few kilometres below the river's entry into the gulf of Saint-Malo.

Thirty kilometres to the east, across the marshes of the Dol-de-Bretagne, Jersey is visible from the spire of Mont-Saint-Michel as a low eminence rising from the submarine rock platform. The other Channel Islands, further to the north, are of similar height and are all dominated by granite, though with considerable insular variations. The extremes of the tidal range in this "corner" cause huge differences to the coastline according to the state of the tide, which has undoubtedly influenced the preservation of littoral sites (see 1.4.3 below). At present the land is gradually gaining the upper hand, moving slowly northwards as estuarine and marine sedimentation in the *golfe* increase.

Figure 7. Some of the major regions and *pays* of north-west France.

To the east of the gulf of Saint-Malo lies the Avranchin, a relatively well-defined *pays* bordered to the south by the Sélune and to the north by the north-westerly extremes of the collines de Normandie. Here the bocage Normand rises fairly abruptly from the surrounding lowlands. To the north-west of this section of bocage, the Cotentin peninsula can be divided into a marshy central lowland, centred on Carentan, and the northern uplands of la Hague and Saire, which represent the partially exposed granite core of a denuded anticline.

To the east of the Cotentin, in the department of Calvados, are the plains of the Bessin, the campagne de Caen, and the pays d'Auge, mostly 60-90m above sea-level. The pays d'Auge is on a narrow strip of clay between the chalk and Jurassic limestones. As explained in section 1.4.1 above, the Bessin marks the transition between the Armorican Massif and the Paris Basin. The plains are broken by a few north-flowing rivers, notably the Orne. To their south lies the bulk of the collines de Normandie, on the granite of the Massif. The hills extend south-east from the Avranchin, through the bocage Normand and bocage Ornais, to the area north of Alençon, where they are at their highest (above 400m in the forêt d'Ecouves). Further to the east are the chalk plateaus of the Lieuvin and the Roumois, dissected by the Risle and then dropping sharply to the vast meanders of the Seine, 100m or more below. There are other, similar chalk plateaus to the south of Rouen, notably the campagne de Neubourg, once again dissected by several deep valleys, the most important of which are the Eure and the Iton.

South-west of Evreux, the pays d'Ouche straddles the chalk plateau, mostly about 150m above sea-level, and the north-east edge of the collines du Perche, the other major upland region in north-west France. These hills, mostly clay-covered, extend roughly from Vimoutiers in the north-west, through almost to Chartres in the south-east, then turn back slightly to the south, to the eastern boundary of the department of Sarthe. Several important rivers have their sources in the collines du Perche, including the Risle and the Avre, which flow to the east, and the Sarthe, which flows through Alençon, then south to le Mans and ultimately the Loire. There are only isolated outcrops of high ground, usually of limestone, to each side of the Sarthe, most of them around le Mans, where the lower slopes of the Coëvrons on the west and the arc of the Perche on the east combine to narrow the river valley. Below le Mans, the Sarthe flows relatively unimpeded to its confluence with the Loir and then the

Mayenne at Angers. Between the Sarthe and the Loir is the pays Manceau, an area of Cretaceous sands indicated by names such as Sablé-sur-Sarthe.

The Mayenne rises in the north of the Coëvrons plateau and flows south through a deep valley until Laval, after which it broadens; to the west, just beyond Château-Gontier, lie the isolated ridges of the Armorican Massif mentioned at the start of this description. Although the underlying geology of the area around Mayenne is of Palaeozoic rocks, and the pays de la Sarthe of Cretaceous and Jurassic rocks, the thick overlying deposits of clay blur the geological differences and create a very similar bocage landscape in the two areas. This feature is also indicated in the regional name of Maine, one of the pre-Revolution provinces, which is split into Haut-Maine (the basin of le Mans), and Bas-Maine (the Laval basin).

The eastern boundary of the region crosses the Loire just above Saumur. The lower Loire valley is usually considered to begin at les Ponts-de-Cé, a few kilometres above the confluence with the short stretch of the Maine. The course of the Loire has been described in the section above, alternately narrowing and broadening according to changes in the geology. After narrowing at Champtoceaux, the river widens and there are vast and often marshy plains on both sides. To the west of the lac de Grand-Lieu, the pays de Retz is particularly clearly demarcated. Beyond these plains to the south-east, the rocks of the Armorican Massif reappear. The granite ridge crossing the valley at Nantes represents the extension of the Sillon de Bretagne, and continues on to the higher ground of the pays des Mauges, a plateau of Precambrian schists, bordered to the south-west by the Sèvre Nantaise, and to the north-east by lower ground and the valley of the Layon.

1.4.3 The Iron Age environment

There have been few attempts to reconstruct a detailed model of the environmental conditions in later Iron Age north-west France, not least because of the lack of faunal and floral evidence from excavation. However, a reasonable picture of the conditions 2000 to 2500 years ago can be drawn from more general works on the north and west of France, and from studies of the changes in sea-level in the Channel and on the Atlantic coast.

The Iron Age falls into the subatlantic division of the postglacial period, from c. 700 BC to the present day. Vegetational changes throughout the postglacial period have been summarized by de

Lumley et al. (1976, 8-9). Prior to the subatlantic, the subboreal (2500-700 BC) saw a partial retreat of elm and lime in north and west France, and the scattered advance of alder, with the appearance of beech in Normandy. Certainly by the subatlantic, trees in general were in decline as a percentage of the vegetation cover; the increasing level of human action no doubt had a strong influence on the situation (Marguerie 1990, 117).

The climatic conditions during the first millenium BC have been summarized by Lamb (1982, 144-147). It appears that a regime of "unmatched wetness" began on the western edges of Europe between 800 and 400 BC, extending to the rest of north-west Europe towards the end of this period. The temperature during this period was probably about 0.5°C below the present level (figure 9).

Devoy (1990, 17) suggests that in north-west Europe about 2000 BP the sea-level was between 0.5m and 1m below today's mean high water at spring tide, on the open coast. Prigent (1978, 69) has suggested that the level in the Loire estuary was rather lower than this, as has Morzadec-Kerfourn for Armorica (see figure 9). There appears to have been a relatively steep fall between about 350 BC and the beginning of the GR period (also noted by de Lumley et al. (1976, 6), between 2100 and 1900 BP), after which the sea-level rose to reach its present height c. 1000 AD. There were obviously local variations in level which complicate the picture considerably. As with the vegetational changes, man's influence becomes more important throughout the period, for example through processes such as deforestation which increased the level of sedimentation in estuaries.

Other problems in reconstructing the sea-level, particularly in the lower Loire, include the lack of a precise chronology for the briquetage sites, the locations of which have been used as indicators of the sea-level, but which themselves are sometimes dated by their position relative to estimated Iron Age levels. It is clear, however, that fluctuations of perhaps two metres in the later Iron Age, and a subsequent increase of three metres, will have had a considerable effect on the location of settlement and briquetage sites at the time, and on the degree of preservation of those sites in the 2000 years since.

1.4.4 Iron Age boundaries

The problems of reconstructing Iron Age environmental conditions may be paralleled by difficulties in identifying political boundaries at that time. This subject is of particular relevance to the attribution of coin types, but as reference will also be made to the various tribes of north-west France

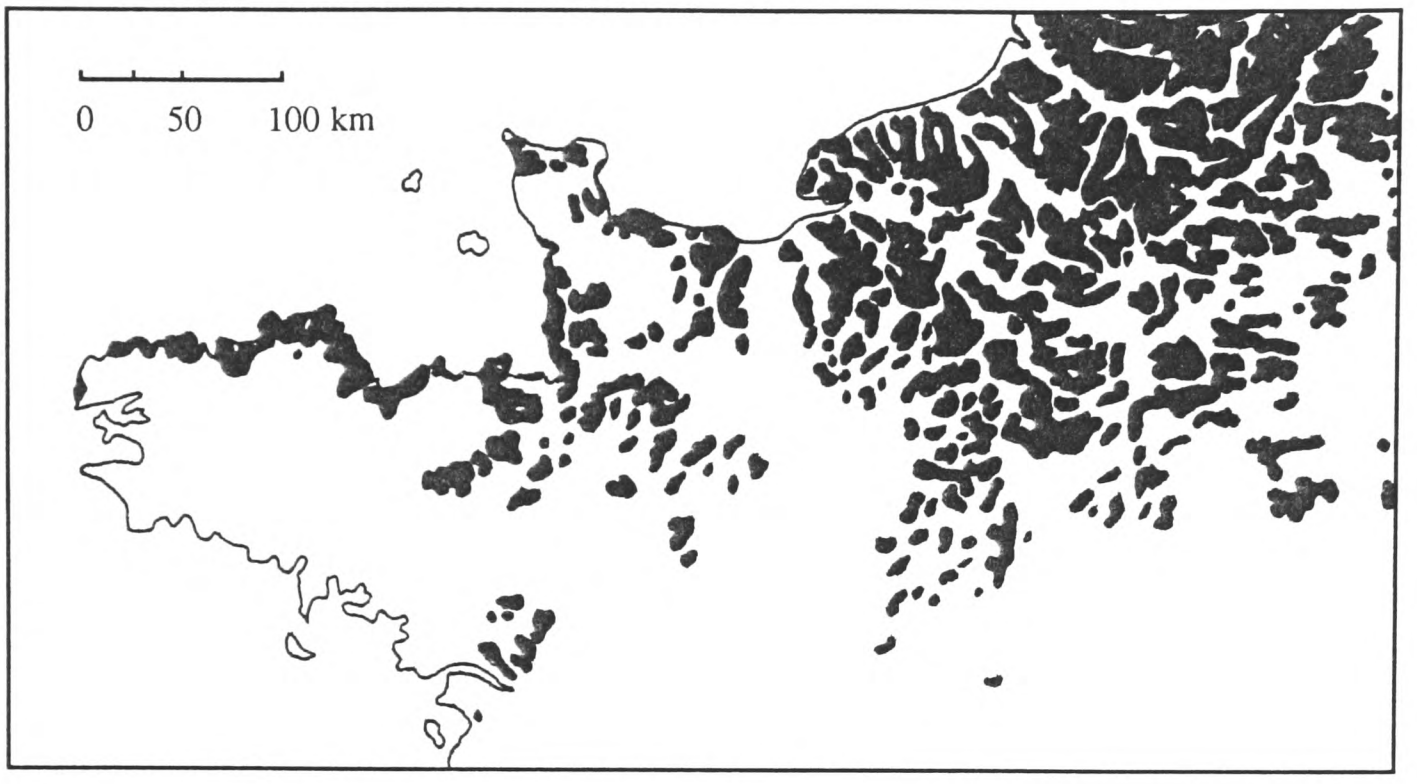


Figure 8. The distribution of *limon* and associated deposits (after Monkhouse 1959, fig. 24).

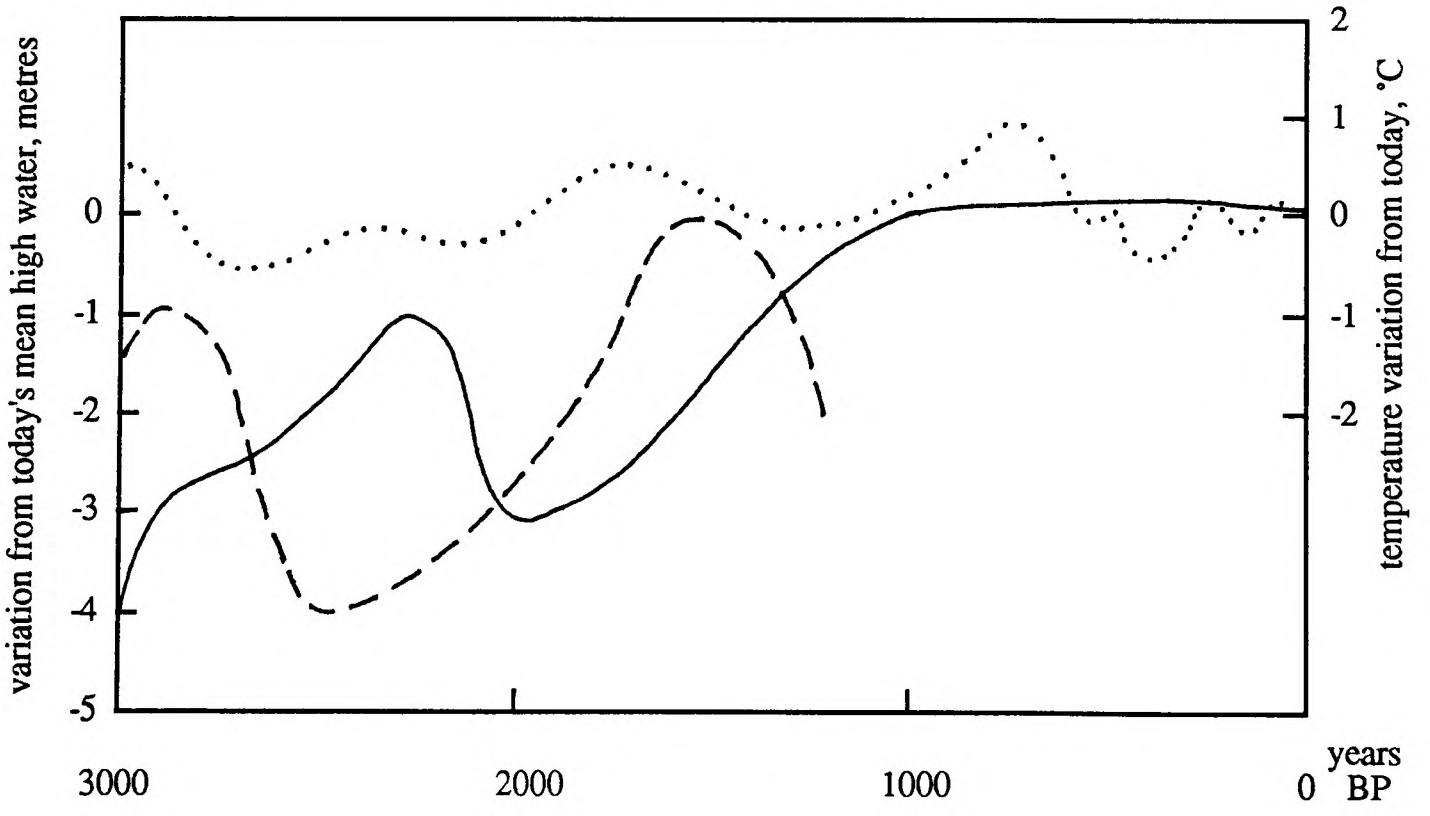


Figure 9. Variations in temperature and sea-level. The solid line and the dashed line represent estimated sea-levels for the lower Loire and Armorica respectively (after Prigent 1978, figs. 21, 22). The dotted line represents the estimated variation in temperature from today's norm, for north-west Europe (after Lamb 1982, fig. 55).

in earlier chapters, this is a suitable point at which to examine the nature and location of the Iron Age boundaries, and some of the problems involved in their reconstruction.

Although it is questionable whether our concept of boundaries as fixed territorial limits can be legitimately applied to late Iron Age Gaul, it is apparent that many generations of historians and archaeologists have attempted to do just that, in an effort to produce maps of frontiers of an accuracy akin to that of the present day. The most detailed early representation of the tribal boundaries and the main source for many decades thereafter was the first plate in Auguste Longnon's *Atlas Historique de la France* (1907). He admitted (ibid., iii) that some people may have been surprised by the accuracy of his map, but argued that this was justifiable on the grounds that the ecclesiastical limits on which he based his work were directly comparable to those of the Gallo-Roman *civitates*. While the basic accuracy of his map has since been confirmed, modern research has indicated that the limits of the dioceses were not always so closely related to the *civitates*, while the frontiers between tribes were rarely so clear-cut.

The location of tribal boundaries in north-west France has been determined almost exclusively from Gallo-Roman and post Gallo-Roman literary and linguistic evidence, and from reconstruction of the early ecclesiastical limits. Archaeology has thus far made very little contribution, partly because of the general lack of information on the Iron Age in the region, and partly because of the lack of comprehensive published detail on numismatic evidence which is of particular use in this field. Literary and linguistic evidence comes from several sources. The primary literary source is Caesar's *De Bello Gallico*, which contains about 20 references to frontiers (Chevallier 1981, 2), including just one (referring to the Unelli, BG III.17) specific to north-west France. He does however refer to the use of natural features - rivers, mountains and forests - as boundaries, and stresses the desire for vast spaces (*déserts*) at frontiers, to demonstrate power over neighbouring tribes and to act as a guarantee of security (BG IV.3, VI.23). The other major classical source is Ptolemy's *Geography*, probably written in the first quarter of the second century AD (Schmitt 1981), and thus already almost 200 years 'out of date' for our purposes. In the absence of written accounts other than *De Bello Gallico* which are actually contemporary to the late Iron Age, much of the information on tribal boundaries has to be obtained from later sources. Yet changes in the pattern of tribal divisions had taken place much earlier, probably under the orders of Augustus in 27 BC (Drinkwater 1983, 104), and although it seems that efforts were made not to divide existing communities, there were certainly cases of large 'states' losing control of

dependent peoples, and on the other hand cases where small *civitates* were combined to form a more efficient unit, or swallowed up by a larger, neighbouring *civitas* (ibid., 94). The details of this process have not been positively identified in most of north-west France, although in the west of the area it has been suggested that the Romans imposed a boundary between the Coriosolitae and the Veneti for administrative purposes, thus extending the territory of the former well beyond the concentration of population revealed by coin distribution and other archaeological features (Langouët and Jumel 1986, 94). The late date of the written evidence also ensures that our knowledge of the early development of the boundaries remains practically nil.

Other written GR evidence is provided by milestones and other inscriptions, and (indirectly) through documents such as the Peutinger Table and the *Notitia Dignitatum*; the former is a thirteenth century copy of a Roman map, and the latter a document concerning the military organization of the Roman Empire in the fourth or early fifth century, surviving in copies of the fifteenth and sixteenth centuries. The relatively late date of both, and the problem of copying errors accumulating over the centuries, mean that attempts to use them to shed light on the Iron Age situation are very difficult.

The two most important sources for the reconstruction of tribal limits in north-west France have been the ecclesiastical boundaries set up at the start of the christianized Gallo-Roman period, and the study of toponyms. The boundaries of the *évêchés* appear to have been set up broadly on the GR and pre-GR divisions, but the lengthy gaps in the process, including the period up until the twelfth century AD from which the earliest records survive, ensure that the information is not always reliable. The usefulness of these records varies across north-west France; those of the diocese of le Mans, for example, are believed to be a fairly accurate representation of the *civitas* of the Aulerci Cenomani (Lambert and Rioufreyt 1981a, 124), while in contrast the diocese of Evreux has contracted markedly from the postulated *civitas* of the Aulerci Eburovices.

The study of toponyms has contributed significantly to the picture of tribal boundaries in the region of the Loire, less so to the north. Of particular importance is **equoranda*, which is believed to have been the root of place-names such as Ingrandes, Ivrande, Guérande and other variants, and which has commonly been interpreted as a water limit or river frontier. Despite the fact that there has been considerable criticism of this interpretation (eg Le Roux 1956, who suggests instead a connection with horse or pilgrimage), this remains the most widely searched-for toponym. Other words that have been

given various meanings associated with frontiers include *fines*, as found on milestones and often associated with **equoranda*; *limes* and *confinum*; Gaulish *magos*, perhaps a frontier market; and descendants of *basilica* (such as Bazouges), although this latter example is considered by some authors to be too late (fourth century AD) for the purposes of identifying the Iron Age situation (Lambert and Rioufreyt 1981a, 123). It seems unlikely that much of the controversy surrounding the interpretation of many of these words and their roots will be satisfactorily resolved, but archaeology at the sites concerned may perhaps provide some guide to their potential accuracy.

The tribal boundaries believed to have existed in north-west France in the late Iron Age are shown on figure 10.[1] It must be stressed that this map is by no means definitive, given the limitations of the evidence utilized in its production, summarized above. The attribution of certain areas remains particularly intractable; the southern boundaries of the Aulerci Eburovices, for example, which extend well beyond the ecclesiastical limits of the succeeding diocese of Evreux (Mathière 1925, 68-72). To the west of that area the problem is compounded by the disputed presence of the Esuvii, listed by Julius Caeasar (BG II.34) as one of the tribes on the Atlantic seaboard, and often assumed to be centred on Exmes in Orne, though so far with scarcely a shred of supporting evidence (Churin 1990a, 39). It has been suggested that the Arvii, mentioned only by Ptolemy in his *Geography* (II.8, 7), were actually the Esuvii (Lambert and Rioufreyt 1981a, 128), but several authors have managed to locate them all the same, often in the southern half of the territory usually assigned to the Aulerci Diablintes (eg Chastagnol 1974). There remains the possibility that they formed a *pagus*, the unit of territory below the *civitas*, of the Diablintes, but here as elsewhere in north-west France there is simply not enough evidence to satisfactorily define the *pagi* that may have been in existence at the time of the conquest.

There are other tribes equally poorly located; the Ambiliati, occasionally confused with the Abrincatui in the Avranchin, have recently been relocated to the region around the Sèvre Nantaise, south of the Loire (Hiernard 1977, 45-46), and the possibility of a maritime branch of the Lemovices in the pays de Retz has been mooted. The Diablintes also feature in another long-running dispute: the

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[1] the sources of information on these boundaries are as follows: Naveau (1988, 5) and Duval (1990a) for general accounts; Roblin (1969, fig. 1) and Beaujard (1981) for the Caleti and Veliocasses; Mathière (1925, 58-82) for the Aulerci Eburovices; Lannier (1985, 207-208) for the Lexovii; Chastagnol (1974), Bouton (1975, 40-41) and Lambert and Rioufreyt (1981a) for the Aulerci Cenomani and Diablintes; Rouanet-Liesenfelt (1980, 48-60) for the Redones; Guennou (1981, 111-120, carte I) for the Coriosolitae; Provost (1988a, fig. 2) for the Namnetes; Dain (1968) and Provost (1981; 1988b, 28-31, fig. 5) for the Andes; Hiernard (1977, fig. 2) and Riquet (1985) for the Pictones; and Audin (1976; 1981) for the Turones.

Figure 10. Reconstructed tribal boundaries in late Iron Age north-west France.
Dotted lines indicate particularly uncertain frontiers. The arrows indicate alternative attributions for the most commonly disputed areas of territory.
For sources, see text.

question of whether they had access to the coast between the Couesnon and the Sélune, a possibility which now seems unlikely (Lambert and Rioufreyt 1981a, 134-135; however, toponyms in the north of Ille-et-Vilaine may indicate a boundary running roughly parallel to the coast (ibid., figs. 4 and 16)). A similar dispute exists for the Aulerci Eburovices, who have sometimes been given coastal access between the Risle and the Seine (eg Guennou 1981, 113), although opinion generally places the Veliocasses in control of this area, in accordance with the ecclesiastical boundaries. Although Caesar famously located the boundary of the Celts and the Belgae along the Seine (BG I.1), and this view is still occasionally recorded (eg R.-C. Duval 1983, 200), most authors now agree that the Belgic tribes extended a short distance south of the Seine; whether there were actual distinctions on the ground between the peoples on either side of this putative boundary remains to be seen.

At first glance it might appear that the boundaries of the tribes occupying what is now Normandy have been more successfully identified than those in the pays de la Loire. In fact this reflects inequalities in research, since where detailed investigation has taken place, it has tended to reveal discrepancies between the various forms of evidence rather than a clearly demarcated boundary. Above all it has become apparent that imposing a precise line on the map is an unrealistic interpretation of the situation in the late Iron Age. Almost all researchers have concluded that forests and areas of waste ground, or unproductive land, played an extremely significant role in delimiting tribal areas - for example the Aulerci Diablintes and Redones frontier (Lambert and Rioufreyt 1981a, 134), with a high incidence of place-names associated with barren land, and the Andes, bounded by a series of forests and no-man's lands (Provost 1981, 198). The use of rivers as a boundary remains in some dispute; the frontiers of the Coriosolitae, for example, have been reconstructed almost entirely along water courses (Guennou 1981, carte I), while elsewhere (most notably the Seine; Beaujard 1981, 102) rivers might have completely different functions. The resolution of these problems would require a thesis in itself, and thus for the time being the situation illustrated in figure 10 must be accepted with reservations, and with no pretence to forming the definitive picture.

1.4.5 Summary

This brief survey of the landscape of north-west France has served to illustrate the diversity that may be found within the region. An appreciation of the factors which created this diversity is

fundamental to understanding how profoundly some of them influenced human activity. Geology, relief, soil, water supply and drainage and climate all influenced, to varying degrees, the choice of settlement location, and consequently the position of tribal boundaries and the pattern of contact between peoples; some of these factors, in particular climate and sea-level change, have continued to influence the pattern of Iron Age settlement and land-use that we can discern today. But even by the late Iron Age, human activity was causing significant changes to the landscape, particularly through deforestation: it has recently been suggested that the traditional image of Iron Age north-west France as heavily swathed in forest, broken only by isolated areas of cultivated ground, needs to be seriously modified to a more realistic picture of a land already much denuded of treees, where cultivated or at least cleared ground formed the dominant landscape (Marguerie 1990, 117).

1.5 Previous research

In this scene of archaeological desolation, the lonely figures of the enterprising few acquire a preternatural stature.

Wheeler and Richardson 1957, 133

Wheeler's own preternatural stature is assured. His research in France occupied a relatively short period of his extraordinary career, but *Hill-forts of Northern France* superceded all the efforts of the antiquaries and archaeologists he listed in its extensive bibliography, and remains the standard text on the fortified sites of the region. But as he recognized, the history of archaeological research in north-west France goes back further than his efforts, to the "lonely figures" of his quotation.

Pre-eminent among these were men such as the abbé Cochet (1812-1875), who devoted many years of his life to the study of the antiquites of his home department, Seine-Inférieure (now Seine-Maritime) (1855; 1857; 1866).[1] In the Channel Islands, and in Guernsey in particular, the Lukis family, more renowned for their interest in the Neolithic, kept careful records of the succession of Iron Age warrior burials discovered in the island in the mid-nineteenth century. The majority of the departments in Normandy saw the earliest excavations take place in the first half of the century, followed by the creation of a learned local society. For example, the first excavation in Orne was directed by Frédéric Galeron in 1830, though it was to be another fifty years before the creation of the Société Historique et Archéologique de l'Orne, with another noted local antiquary, Léon de la Sicotière, as President (Gautier-Desvaux 1990, 10-11). Arcisse de Caumont had created the Société des Antiquaires de Normandie in the early 1830s, one of the very first of these associations. But for most of these men, "l'archéologie constituait une préoccupation assez marginale" (Verron 1990a, 9): their interests lay more in architecture and local history, and their archaeological interests rarely encompassed the Iron Age. This is reflected by the contents of the monumental dictionaries that were published for many of the departments in this period. Of these, Alphonse Angot's *Dictionnaire historique, topographique et biographique de la Mayenne* (1900-09) and Célestin Port's *Dictionnaire historique, géographique et biographique de Maine-et-Loire* (3 vols., 1874-78) are probably the most useful today.

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[1] see the introductory chapters of the *Actes du colloque international d'archéologie* (Rouen, 3-5 juillet 1975), held in his memory, for details of Cochet's life and work.

For the detailed study of nineteenth century coin finds, the two studies by Edouard Lambert (1844; 1864) remain extremely important. His illustrations are particularly useful, as many of the coins he listed have since disappeared. The other major source of information on isolated finds and coin hoards of the nineteenth century is Adrien Blanchet's *Traité des monnaies gauloises* (1905).

In the Pays de la Loire, the middle nineteenth century saw an evolution in archaeological research similar to that in Normandy. In Loire-Atlantique, the enthusiasm of J.-M. Bizeul and others, which led to the creation of the Société des Antiquaires de la Loire-Inférieure, petered out in the following years so that "une sorte de «léthargie archéologique» s'installe au début du XX^{e} siècle en Basse-Loire" (Provost 1988a, 22). In the neighbouring department of Maine-et-Loire, events followed exactly the same course: the efforts of Toussaint Grille, and Victor Godard-Faultrier, who founded the Musée Archéologique d'Angers in 1841 and produced the monumental *Répertoire Archéologique de l'Anjou* (1858-84), seem not to have inspired others to follow suit, and there followed "une longue période d'assoupissement" (Provost 1988b, 26). Provost notes that it was not until the late 1960s that a renaissance in archaeology took place in Angers, and there is much justification in his observation that for Loire-Atlantique, the *léthargie archéologique* is not yet over (1988a, 22).

It is true to say that the archaeology of most of north-west France, and in particular the study of the Iron Age, has suffered to some degree from this lethargy during the twentieth century. One other lonely figure stands out at the start of the century, for his work in Normandy. Léon Coutil (1856-1943) founded the Société Normande des Etudes Préhistoriques in 1893, and was a founder member of the Société Préhistorique Française and the Congrès Préhistorique de France in the first decade of the twentieth century. His work was firmly in the mould of his nineteenth century forebears, but he introduced considerable improvements in the detail recorded about sites and finds, such as providing plans for some of the fortified sites listed in his five volume *Département de l'Eure. Archéologie gauloise, gallo-romaine, franque et carolingienne* (1895-1925). It is testament to Coutil's endeavours, and to the lack of work since, that about 67% of the sites and 88% of the isolated coin finds listed in the gazetteer for Eure were published by him. It is all the more unfortunate, therefore, that his work is riddled with minor errors, especially his recording of coin finds, and some of the innovatory site plans, which display a geometrical precision never present on the ground.

The archaeological lethargy of much of the twentieth century is clearly demonstrated by figure 11 below, showing excavations in north-west France of Iron Age sites or sites with an Iron Age phase, between 1830 and 1989. It is often difficult to decide whether the efforts of the first few decades should be recognized as excavations, or treated as marginally better-informed treasure-hunting. They are almost all very poorly recorded. The excavation of a late Hallstatt or ELT burial at la Cambe (14.13), which started at the unsociable hour of 6am on Monday, 9th September 1850, is the first in north-west France to have been reasonably well published (Charma and Mancel 1851, 123-128). Many excavations, in the form of random pit or trench digging, have undoubtedly gone unrecorded.

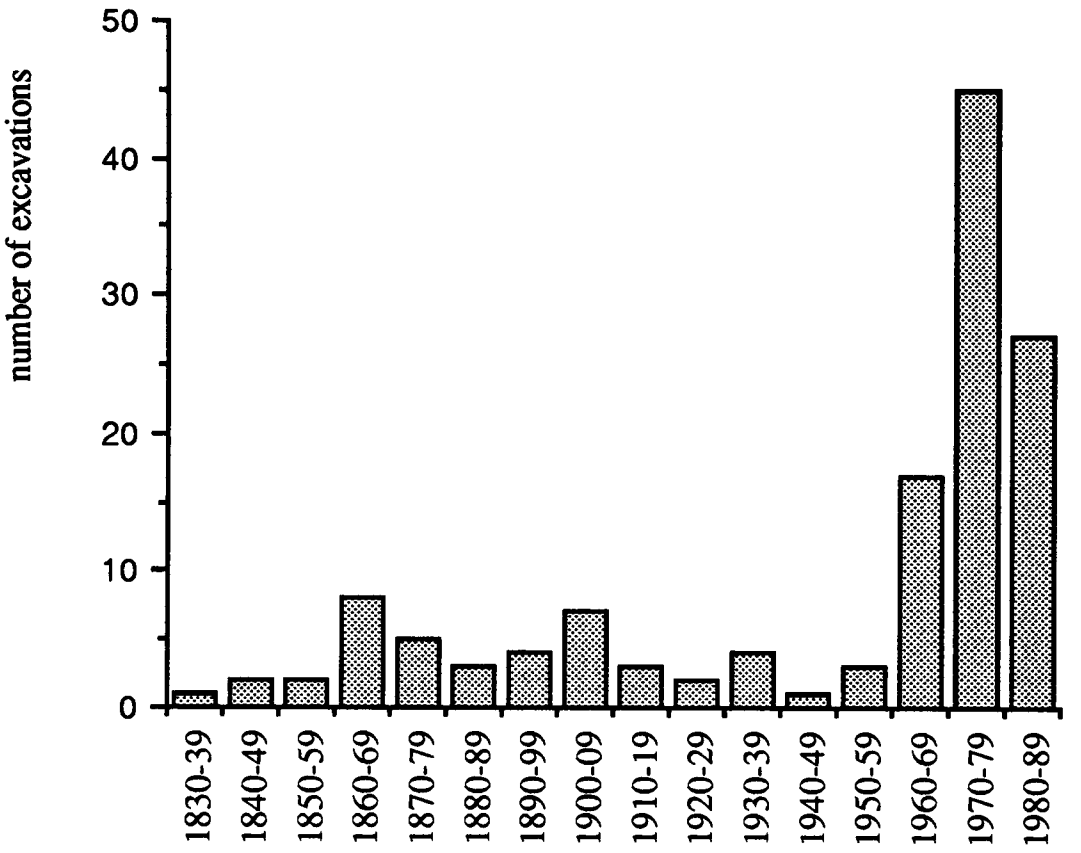

Figure 11. Excavations of Iron Age sites and sites with an Iron Age phase, all departments, 1830-1989. Data from gazetteer.

Other problems include the failure of some excavators to recognise pre-Roman features on Gallo-Roman sites. For example, the current excavation at the temple of Jublains (53.27) has revealed a clear LLT phase, although this was not recorded in the five earlier excavations of the site. Multiple digging of the same site, as in this case, is another feature which must be borne in mind when considering the excavation statistics. Finally, sites such as the LLT cemeteries in Léry (27.44-47) have not been included, since the sites were discovered during agricultural work or sand and gravel extraction,

and rather than being excavated, were picked over by Coutil and others to rescue as much material as possible.

In spite of these qualifications, the graph illustrates the basic trends in Iron Age archaeological research in the region. The table overleaf breaks down the figures for each department. It can be seen that Orne, Sarthe, Manche, Ille-et-Vilaine and Mayenne have fared particularly badly over the whole period, although the latter two staged something of a resurgence in the 1980s. Other qualifications come into play for the more recent period: the figures can be heavily influenced by the research interests or methodology of particular archaeologists (for example the decision to locate more sites by field-walking and air photography, rather than to excavate those already known). To some extent, the excavation record of the last two or three decades is a reflection of urbanization, industrial development, the creation or improvement of roads and railway lines, and other such processes, and so it is no coincidence that the least "developed" departments have had fewer excavations.

Looking at the issue in a wider context, the lack of excavation in north-west France suggested by these figures is confirmed by the survey of Soulier (1984, 51-66). His comparison of official excavation statistics for 1980 from regions throughout France revealed that lower and upper Normandy had fewer excavations of all types than any other part of the country. The Pays de la Loire and Brittany were ranked fifth and ninth lowest respectively, out of 21 regions (ibid., fig. 4).

Aside from Manche, and to a lesser extent in Orne and Sarthe, there has been a marked increase in archaeological activity in both north-west France and the country as a whole, starting in the late 1960s and continuing through the next two decades (Cleuziou et al. 1991, 102ff.). Until 1941, excavation had been entirely unregulated, except for scheduled national monuments, and it was only in the 1960s that the increasingly common destruction of archaeological remains by new development became sufficiently serious to warrant a governmental response (Young 1990, 705). By the end of the 1970s archaeologists were able to exercise far more power in stopping the destruction of sites, and in 1981 the Direction du Patrimoine was created within the Ministry of Culture, with overall control of excavation. These changes, combined with an increase in the availability of funds for archaeology, have ensured that the number of excavations has risen sharply in the last two decades.

Several other events of the last few years, in the fields of research and publication rather than in excavation itself, are of particular relevance to this study of north-west France. The creation of the

dept.	1830-9	1840-9	1850-9	1860-9	1870-9	1880-9	1890-9	1900-9	1910-9	1920-9	1930-9	1940-9	1950-9	1960-9	1970-9	1980-9	total per department
14	-	-	1	-	1	-	-	-	-	-	-	1	1	6	4	3	17
27, 76	-	-	1	1	-	2	2	4	-	-	2	-	-	1	2	4	19
35	-	1	-	1	1	-	1	1	-	-	-	-	-	1	2	4	12
44	-	-	-	1	-	1	-	1	-	-	-	-	-	4	8	3	18
49	-	-	-	-	3	-	1	1	-	-	-	-	-	1	7	2	15
50	1	-	-	3	-	-	-	-	1	-	1	-	-	1	1	-	8
53	-	-	-	-	-	-	-	-	-	-	-	-	-	1	6	5	12
61	-	-	-	2	-	-	-	-	-	-	-	-	-	1	3	1	7
72	-	-	-	-	-	-	-	-	-	-	-	-	1	-	5	1	7
G, J	-	1	-	-	-	-	-	-	2	2	1	-	1	1	7	4	19
total	1	2	2	8	5	3	4	7	3	2	4	1	3	17	45	27	**134**

Table 2. Excavations of IA sites or sites with IA phase, 1830-1989. Excavations of more than one season are listed under their starting date. There are a further four excavations dated only to the nineteenth century: two in Calvados (14), one in Maine-et-Loire (49) and one in Manche (50). Data from gazetteer.

Association Française pour l'Etude de l'Age du Fer (AFEAF) in the mid 1970s provided a forum for debate among Iron Age specialists in France and the rest of Europe. The publications resulting from the conferences, such as the volumes on *Viereckschanzen* and related enclosures (AFEAF 9, 1985, published 1989) and *Les Gaulois d'Armorique* (AFEAF 12, 1988, published 1990) have been important contributions to the study of the Iron Age in France and beyond. The mid 1970s also saw the first stirrings for many years of an interest in the Iron Age in Normandy, with Dominique Bertin's publication of inventories of Iron Age and Gallo-Roman sites throughout the region (1975a; 1975b); her work, though useful, suffers from a completely inadequate bibliography. In the following year, the publication of the second volume of the massive survey *La Préhistoire Française* (Guilaine 1976a), dealing with the Neolithic and protohistoric periods, provided summary accounts of Iron Age archaeology throughout France, including Brittany (Giot 1976, 781-788), Normandy (Verron 1976, 802-815), and the centre-west (Pautreau 1976, 770-780). The Iron Age archaeology of Brittany, touching on the western fringe of the region under study here, was discussed in greater depth in the excellent overview of the subject by Giot, Briard and Pape (1979).

Throughout the 1980s, there has been a gradual but clear increase in publications on the Iron Age in north-west France and beyond. Buchsenschutz's survey of *Structures d'habitats et fortifications de l'âge du fer en France septentrionale* (1984) is an important work but also has an inadequate bibliography. Freidin's research on the early Iron Age in the Paris Basin (1982) is relevant to the early chapters of this study. Much of the increase in our knowledge of Iron Age north-west France, however, has been the result of intensified fieldwork and survey by individuals with a particular interest in the period. Outstanding in this respect is the work of Loïc Langouët and his collaborators at the Centre Régional Archéologique d'Alet, concentrating on the area around Saint-Malo and Dinard, and the efforts of Claude Lambert and Jean Rioufreyt in Maine. The use of aerial photography in these two areas has radically altered our appreciation of the density of pre-Roman settlement. Elsewhere, Michel Tessier in the pays de Retz, Bob Burns in Guernsey, and Jacques Naveau in Mayenne have all transformed the status of Iron Age studies in their respective regions. Most of Normandy has until very recently continued to escape such attentions, although there has been an increase in research in the Seine valley, particularly a reconsideration of the material collected by Cochet and Coutil. One other individual who has, through numismatics, made perhaps the most important contribution of all to Iron Age

archaeology in north-west France is J.-B. Colbert de Beaulieu, whose knowledge of Celtic coinage, particularly in Brittany, is unparalleled. It is no exaggeration to say that without his work of the last four decades, the study of Gaulish coins in much of France would still be in its infancy.

The French government initiative of the Année de l'Archéologie (1989/90) has brought important benefits to Iron Age studies in Normandy, with the publication in 1990 of *Les Celtes en Normandie* and *Empreintes. L'Orne archéologique*, serving as both exhibition catalogues and summaries of the state of research in the region. The final development of the last few years, though by no means the least important, is the relaunching of the *Carte Archéologique de la Gaule*, almost 60 years after it was initiated, with a volume planned for every department of France. The object of this major project is to

> ...effectuer l'inventaire le plus complet et le plus scientifique possible de toute la documentation et toutes les connaissances acquises sur les sites archéologiques gaulois, du début de l'Age du Fer au Haut Moyen Age.
>
> Provost (1988a, 5)

To date, volumes relevant to this thesis have appeared for Loire-Atlantique (Provost 1988a), Maine-et-Loire (Provost 1988b), and Manche (Pilet-Lemière and Levalet 1989).[1] The first two are excellent, comprehensive accounts of archaeology from the Bronze Age onwards; the volume on Manche is extremely disappointing, based largely on a thesis on the Gallo-Roman period in the department written in 1962, and omitting most of the available information on the Iron Age, even from a site as well-known as le Petit-Celland. It seems that it will be a while yet before some lonely figure makes good the archaeological desolation still evident in Manche.

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[1] volumes have now (January 1992) also appeared for Calvados (Delacampagne 1990) and for Ille-et Viliane (Leroux and Provost 1990).

2

North-west France in the early Iron Age

In order to understand the archaeology of north-west France in the early and middle La Tène periods (c. 475 - c. 120 BC), it is necessary first to be aware of developments at a greater scale, both temporally and spatially, which had some effect on the region. In this chapter, the development of relations between early Iron Age Europe and the Mediterranean will be summarized, followed by a brief review of the evidence for the Hallstatt period in north-west France.

2.1 The early Iron Age in central Europe

Developments in Iron Age Europe between c. 700 BC and the Gallic War have received much attention in the last few years, in the form of detailed studies of particular regions or aspects (such as Freidin 1983, and various papers in *Les Princes Celtes et la Méditerranée* 1988), and more general overviews of the processes that were taking place (Wells 1980; 1985; Collis 1984a; Champion and Champion 1986; Cunliffe 1988). Much of this work has focused on the situation in central Europe during this period, and its relationship with the Mediterranean states. It is now accepted by many archaeologists that a prestige goods economy functioned in the Western Hallstatt zone between c. 600 BC and c. 475 BC (Ha D).[1] The key event in the development of this economy was the creation of the Phocaean colony of Massalia (Marseille) in about 600 BC,[2]

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[1] this concept has not met with universal approval. A detailed critique of the model is beyond the scope of this work, but the various problems are thoroughly discussed by Bintliff (1984, 158ff.), who argues for a much greater role for indigenous development than the prestige goods economy model would allow.

[2] several authors have recently suggested that the date of the foundation of Massalia should be reconsidered in the light of proposed changes in the chronology of Greek material found in southern France (Vickers 1984, 208-211; Nash 1985, 61-63). The alternative date suggested for the foundation is c. 540 BC; this discrepancy is also reflected in the classical accounts. If the later date is correct, the Western Hallstatt zone would have been at its peak between c. 540 BC and c. 480 BC, and the decline in its fortunes related not to the consequences of the battle of Alalia, but to the increase of Greek influence in the Mediterranean following its victories over the Persians in the first half of the fifth century. Massalia's interest in maintaining expensive contacts with the Hallstatt chiefdoms decreased, as resources

a focus for exchange, set in resource-rich territory, able to articulate the complex processes of trade between three spheres: Iberia, the barbarian north, and the states of the central and eastern Mediterranean.

Cunliffe (1988, 22)

The Phocaeans were foremost among the Greeks exploring the western Mediterranean for metal resources in the eighth and seventh centuries BC, in competition with the Carthaginians. The favoured Greek route would have been to follow the northern coast of the Mediterranean; camps were established at several points along the coast, but Massalia was the first colonial settlement (see figure 12). During these centuries the Carthaginians gained control of the Iberian and north African coasts, and the straits of Gibraltar, and thus the Greeks were forced to concentrate their efforts towards obtaining resources from the hinterland of Massalia.

Consequently, luxury items from Greece, Etruria and Massalia itself were exchanged for resources from the Western Hallstatt area; the luxury goods began to appear in number,[1] and radical changes took place in the nature of the society, which had shown little evidence of hierarchization or significant wealth differentiation during the Ha C period. Chiefdoms centred on well-defended hillforts (*Fürstensitze*) emerged in the area between eastern central France and southern Germany, controlling the flow of luxury goods from the south and providing raw materials in exchange. There has been much discussion of the nature of the barbarian exports, many of which may not have been preserved in the archaeological record: wool, hides, honey and other foodstuffs, for example. It seems likely that as in the first century BC, slaves formed a significant part of the trade. Arnold (1988, 181) notes that in the fifth and fourth centuries BC the total slave population in Athens was between 80 000 and 100 000, with demand constant due to the huge number of deaths in mining operations. In addition, the Etruscans had an unknown number of slaves. Classical accounts do not mention a Celtic origin for the slaves, nor is there yet archaeological evidence for the trade, but it remains probably the best candidate for the bulk of the resources that may have been exchanged with the south.

The hierarchical system of the Western Hallstatt zone was maintained by the paramount chief, through control of these exports and the goods obtained in return. He was forced to redistribute goods to

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were available closer to hand, while the Etruscan coastal cities declined in favour of the inland cities with connections to the emerging Hunsrück-Eifel region.

[1] Mediterranean goods were reaching this area via Etruria and the Alpine passes in Ha C, though contact across the Alps has a much longer history than this (Wells 1980, 20). This connection continued in Ha D although the main source of imports was Massalia.

● *Fürstensitze*

W: Western Hallstatt chiefdoms

☆ core areas of ELT development

M: Marne

H: Hunsrück-Eifel

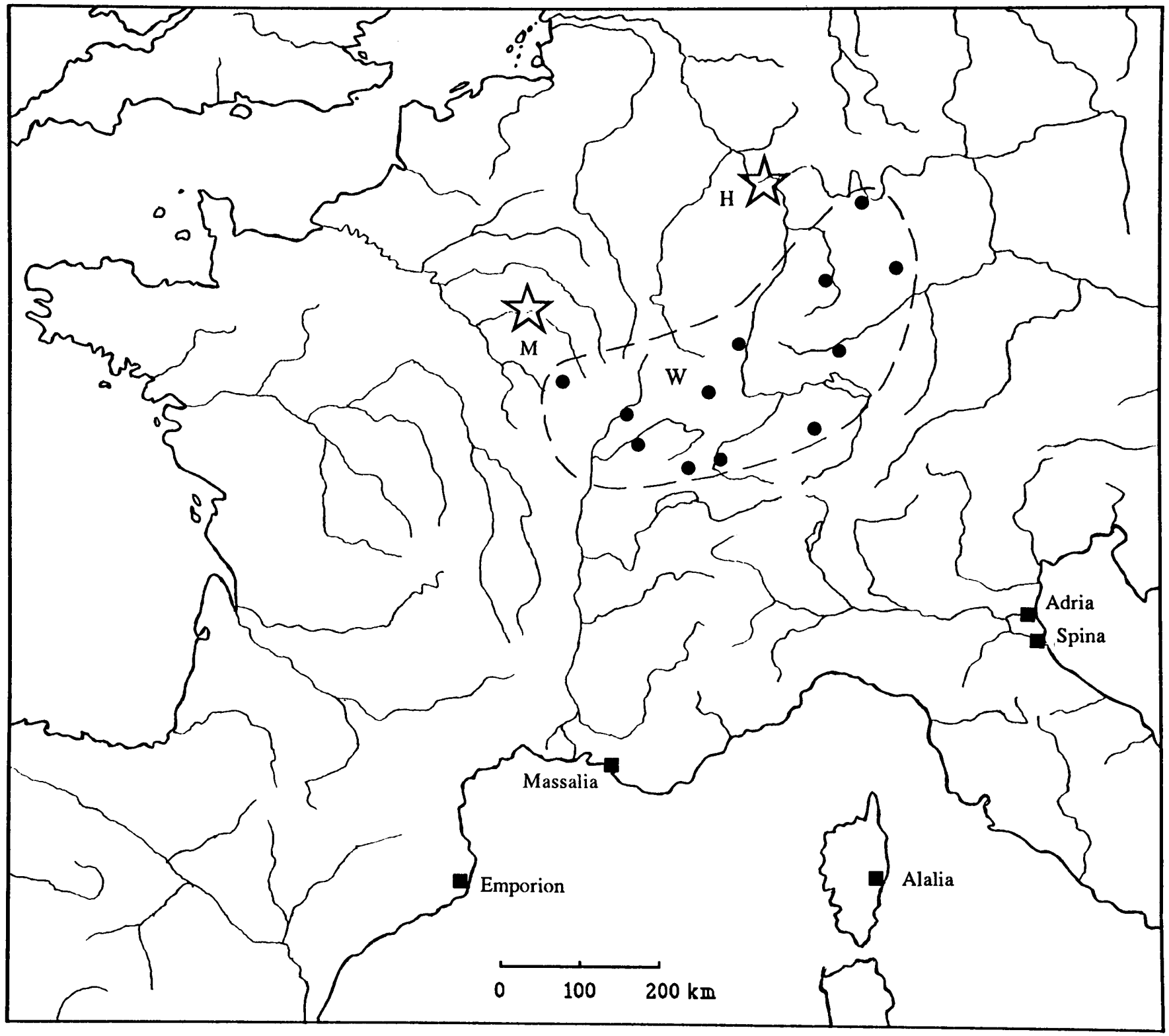

Figure 12. Key sites in the development of Europe during the early Iron Age

the next level of chiefs in sufficient quantity for the latter group to continue the process of redistribution, to a still less powerful level. It seems likely that most of the prestige goods that were exchanged were indigenous products, since the Mediterranean imports are rarely redistributed and often show evidence of curation before their burial (Dietler 1989, 130). It is of course possible that some of the imported items passed down the system were perishable, or were consumed as part of the process.

The means by which the exchange of luxury goods from the south and resources from the north took place are still not fully understood. Some of these problems have recently been addressed by Dietler (1989), who has argued for a crucial role being played by the inhabitants of the lower Rhône basin, in articulating the exchanges and possibly even in initiating them. Direct contact between the Mediterranean Greeks and Etruscans and the Western Hallstatt chiefdoms would have entailed a journey of more than 500km, through many potentially hostile peoples. Dietler argues that even the incentive of ready availability of slaves, which has yet to be demonstrated archaeologically, would not have been sufficient to lure the Greeks into attempting this journey. The strongest support for the argument that at least some Greeks did make the journey is probably the famous wall of the Heuneburg, constructed of sun-dried bricks on limestone footings, and with hollow rectangular bastions without parallel in Iron Age Europe. It has also been suggested that the Vix krater would have needed a Greek craftsman to reassemble it according to the Greek letters scratched on the vessel and the corresponding parts of the frieze (Collis 1984a, 84). On the other hand, Nash (1985, 52) talks of "the goods which the Western Hallstatt Celts brought south", and Wells (1985, 84-85) suggests that there were "highly-organized and relatively large-scale expeditions set up by the principal individuals at the growing communities of central Europe". It seems likely that there was some movement from both ends of the system.

Dietler suggests that the indigenous inhabitants of the lower Rhône could have functioned as middlemen, or improved their own position by trading their products for those of the Mediterranean region. The decline of the chiefdoms could thus be a consequence of the indigenous economy of the lower Rhône area being drawn more and more into relationships with Massalia, rather than being the result of problems at either end of the system.

It is clear, however, that the successful operation of the Western Hallstatt prestige goods economy depended entirely on the uninterrupted flow of goods from the Mediterranean. In about 565 BC, the Phocaeans had founded a colony at Alalia on Corsica, which was strengthened a few years later

(c. 545 BC) by refugees from Persian attacks on Phocaea.[1] In about 537 BC, the Carthaginians and the Etruscans joined forces to attack Alalia, to reduce Greek control in the western Mediterranean. Although the Phocaeans won, their losses were such that they withdrew to found a new colony at Elea (now Velia) in southern Italy. The Carthaginians gained effective control of the Mediterranean and the Etruscans switched their attention to developing trade systems through the north of Italy.

The subsequent decrease in trade through Massalia would have had a major impact on the ability of the Western Hallstatt chieftains to obtain the luxury items necessary to maintain the prestige goods economy. The chiefdoms were also facing problems in the supply of indigenous items. Nash (1985) has argued that these goods, primarily plunder (including slaves) and service as mercenary soldiers, were supplied by the warrior societies on the periphery of the strongest Western Hallstatt chiefdoms, in particular those centred on the Marne and Hunsrück-Eifel regions. The chieftains thus played an intermediary role between the warrior societies and the Mediterranean. Towards the end of the sixth century BC, this system broke down, as the warrior societies became sufficiently powerful to gain direct and independent access to the products of the Mediterranean sphere via Etruria, and thus rapidly deprived the Western Hallstatt zone of its livelihood. It is possible that some of the success of these Celts was based on their exploitation of iron resources, since there is a marked correlation between the ores and their settlement, most of which was probably in valleys, in contrast to the hillforts of the preceding period. Slaves and the services of mercenary soldiers no doubt continued to play an important part in trade. As well as this inter-regional trade, at the intra-regional scale there were undoubtedly connections between the core areas of the Hunsrück-Eifel and the Marne and their peripheries, including Belgium, eastern France and the middle Rhine region (Collis 1984a, 118). The Hunsrück-Eifel region was at the centre of the processes of artistic innovation of the early LT, creating "the first quite definitely Celtic art" (Megaw and Megaw 1989, 51) from the basis of Hallstatt art with classical and oriental influences.

There remains much controversy over the finer points of these events, in particular the question of whether the late Ha and ELT cultures overlapped. Arguments are currently in favour of

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[1] Nash (1985, 62-63) says that Massalia apparently "stood aloof" from events at Alalia, which appears to support the revised date of its foundation: she suggests that the attack on Alalia, in this case the earliest Phocaean colony, was a response to the foundation of Massalia and the threat of increased levels of Phocaean trade in the Mediterranean.

successive rather than synchronic development (Champion, S. 1985, 141; Pauli 1985, 31; Collis 1986a):

> ...dans l'ensemble du domain celtique occidental, l'émergence de La Tène ancienne est en continuité stricte avec le Hallstatt final.
>
> Demoule (1989, 152)

As Demoule and other authors (Gomez de Soto 1989, 178-179; Rozoy 1989, 189) have noted, there were many regional variations in the emergence of the ELT culture. These will remain indistinct until a great deal more research has taken place on sites of this period.

The warrior societies developed strong kingdoms beyond the frontiers of the Mediterranean states, and subsequently beyond the frontier of the Roman Empire. At some point the increase in the population, which appears to have begun in the late Hallstatt period, seems to have reached such an intensity that it became a significant "push" factor in the migration of the Celts over the next two centuries. There were important "pull" factors operating as well: the lure of luxury goods in the south and east is cited by Livy and other classical authors (Pauli 1985, 23-26), and mercenary soldiers were still needed by the Etruscans.

The archaeology of this period is dominated by burials, with settlement evidence rare and hillforts almost unknown. Gravegoods suggest a ranked society, although exotic imports and vehicle burials are known only on the periphery of the LT area. The patterns of trade are also poorly identified. The development of the tribal states based on proto-urban centres, which appeared at the end of this period, will be considered in chapter 4.

The system in operation in Europe in the early Iron Age, discussed above, is frequently described as an example of a core/periphery relationship, with Massalia representing the core and the Western Hallstatt chiefdoms the periphery. As some of the points discussed only briefly above have shown, this is a simplification of the real situation. There are clearly several degrees of peripherality, just as there is not simply one core: Etruria might be regarded as a secondary core. There remains also the question of how the exchanges within the core/periphery relationship were articulated. Nevertheless, the model remains a useful summary of the system as it is currently understood to have operated. In the next section, the developments in the peripheral area of north-west France during the same period will be summarized.

2.2 North-west France in the late Hallstatt period

More than 300km to the west of the Hallstatt chiefdoms, north-west France did not remain untouched by the rapid developments in central Europe, although there was by no means uniform change across the region, and evidence is on the whole scarce. For the Ha D period, Freidin (1983, 76-80) has identified the influence of Massalia "filtering through" via upper Burgundy to the Paris Basin, which in his study included Normandy and the departments of Mayenne and Sarthe. This influence is indicated by the emergence of "central power-centres" and an increasing differentiation in grave wealth in those areas closest to upper Burgundy. The earliest luxury imports from the Mediterranean to north-west France seem most likely to be linked with the tin route along the lower Loire (Galliou 1990, 47-48), and their distribution in France suggests that they came in across the Alps (Freidin 1982, 122-125). These objects, of the seventh and sixth centuries BC, are plotted and listed on figure 13.[1] It should be borne in mind that the provenances of most of these are doubtful, particularly the fibulae around Avranches, and that some of them may be imitations of imported objects.

Later in the Ha D, and at the start of the fifth century BC, the influence of upper Burgundy seems to decline in favour of north-east Champagne, perhaps in part due to the events in the Mediterranean. In a reflection of the situation in the Western Hallstatt chiefdoms, Freidin suggests (1983, 86-87) that power centres in the Paris Basin developed initially as part of an exchange system with the Mediterranean via upper Burgundy, but then set up their own links with the newly dominant Etruscan centres.

Material remains of the early Iron Age period, other than the exotic imports mentioned above, are rare in north-west France. Objects described as "properly Hallstatt" (Verron 1976, 802) are few and far between: they include *Gündlingen* type swords (Ha C) from Bardouville and Oissel (Seine-Maritime) and from Saint-Aubin-sur-Gaillon (Eure), and sixth century antennae-hilted swords from Soumont-Saint-Quentin, Calvados (Freidin 1982, 31) and Crossac, Loire-Atlantique (ibid., 33), the latter of south-west French type.

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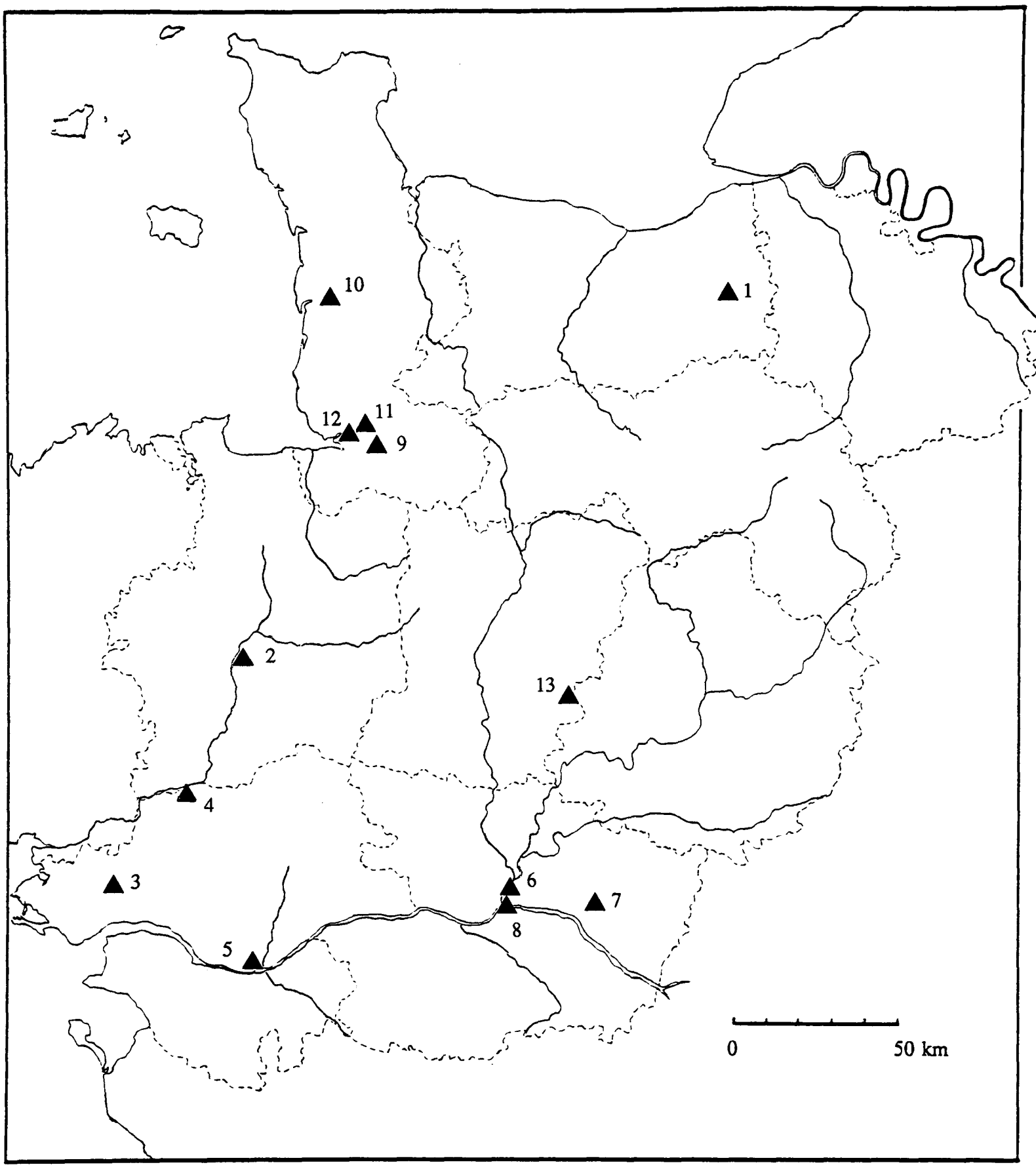
[1] there are a few imports or imitations of imports in north-west France of earlier date, including a C9 or C8 north Italian fibula from Genêts, Manche (Duval et al. 1974, 15), and the C8 helmets on Villanovan models from Bernières-d'Ailly, Calvados (ibid., 46; Gomez de Soto and Pautreau 1988, 59).



1 Lisieux (14): one *a sanguisuga* fibula, N or central Italy or imitation (Freidin 1982, 335)
2 Châtillon-sur-Seiche (35): two bovid statuettes, Etruscan C7 (Gomez de Soto and Pautreau 1988, 61)
3 Crossac (44): situla, perhaps C6 (Bouloumié 1977, 34-36)
4 Masserac (44): one *a sanguisuga* fibula (L'Helgouach and Aubin 1987-88, 144)
5 Nantes (44): one *a sanguisuga* fibula (Duval et al. 1974, 21 fig. 11.4)
6 Angers (49): object with four duck figurines (Cordier 1966, 82 fig. 4.8)
7 Beaufort-en-Vallée (49): Villanovan razor and fibula *a navicella* (Cordier and Gruet 1975, 271-274)
8 Sainte-Gemmes-sur-Loire (49): griffon head, Greek C6 (Cordier and Gruet 1975, 275-276)
9 "Avranchin" (50): two *a navicella* and two *a sanguisuga* fibulae (Freidin 1982, 402-403)
10 Coutances (50): bronze ribbed pail and bronze cauldron? (Verron 1976, 806)
11 Notre-Dame-de-Livoye (50): one *a navicella* and one *a sanguisuga* fibula (Freidin 1982, 403-404)
12 Saint-Senier-sous-Avranches (50): one *a navicella* fibula (Freidin 1982, 404)
13 Thorigné-en-Charnie (53): 3 figurines (2 female, 1 warrior), 2 bovids (Térouanne and Boissel 1966)

Figure 13. Distribution of Mediterranean imports of the seventh and sixth centuries BC.
The provenances of all but nos. 4, 8 and 13 are doubtful.

The marginal situation of north-west France with respect to the "complexe hallstattien" is repeatedly stressed in accounts of the region (Gomez de Soto and Pautreau 1988, 57; Gomez de Soto 1989, 173; Galliou 1990, 47). In the Ha C and as late as the early Ha D, late Bronze Age traditions in funerary practices and other aspects seem to have persisted in Armorica and the west of the region, accompanied by a slower adoption of iron (Pautreau 1976, 770; Freidin 1983, 76). The question of persistance into the LT period of the Ha facies (Ha here in a chronological rather than cultural sense) is complex and difficult to resolve given the paucity of evidence from both sides of the chronological divide. There were clearly variations within north-west France in this phase, but the only major body of evidence comes at the end of the period, from the cemeteries of lower Normandy (see section 3.1.1 below). Settlement evidence for the Ha period proper is limited almost completely to a few defended sites. There are also briquetage deposits and perhaps the earliest Armorican souterrains, both of which are notoriously difficult to date.

It is effectively impossible to draw significant conclusions from such sparse information. For the Paris Basin, Freidin (1982, 246) summarized the key developments of the later Ha C and the Ha D as an increasing social differentiation and a movement towards centralization. The presence of a few luxury goods in north-west France could be indicative of this social differentiation, but indications of centralization will remain absent until a great deal more archaeological research has taken place.

3

North-west France in the early and middle La Tène

In the following sections the evidence for LT1 and LT2 period occupation in north-west France will be considered.[1] As will become apparent, information on these periods is scarce. The most significant evidence comes from the cemeteries of lower Normandy.

3.1 Cemetery evidence

3.1.1 Lower Normandy

There are at least eight flat inhumation cemeteries in lower Normandy, dated to the end of the Hallstatt period or the start of the La Tène, with other possible sites indicated by finds of bracelets and other potential gravegoods (figure 14). Unfortunately almost all of these sites were discovered in the nineteenth century and were poorly recorded. Nevertheless, some useful information can still be gleaned from the published reports, from three sites in particular: la Cambe (14.12, 14.13), Ifs (14.32) and Mondeville (14.45).

At la Cambe, a total of 20 graves were discovered on two separate occasions. The first 18 were found during quarrying operations in 1849. Two of these may have buried in a flexed position, but the dominant rite was of extended flat inhumation, and all the burials were oriented with the head to the north. The gravegoods are described in reasonable detail by the account of the time (Charma and Mancel 1851, 124-125) and there do not appear to have been any objects other than bronze torcs, bracelets and rings in the graves. In the following year, G. Mancel excavated a small area to the south of the first site and found two more inhumations, a child and an adult, placed side by side and again oriented to the north. The child had a small bronze penannular bracelet and the adult a bronze ring. Despite extending

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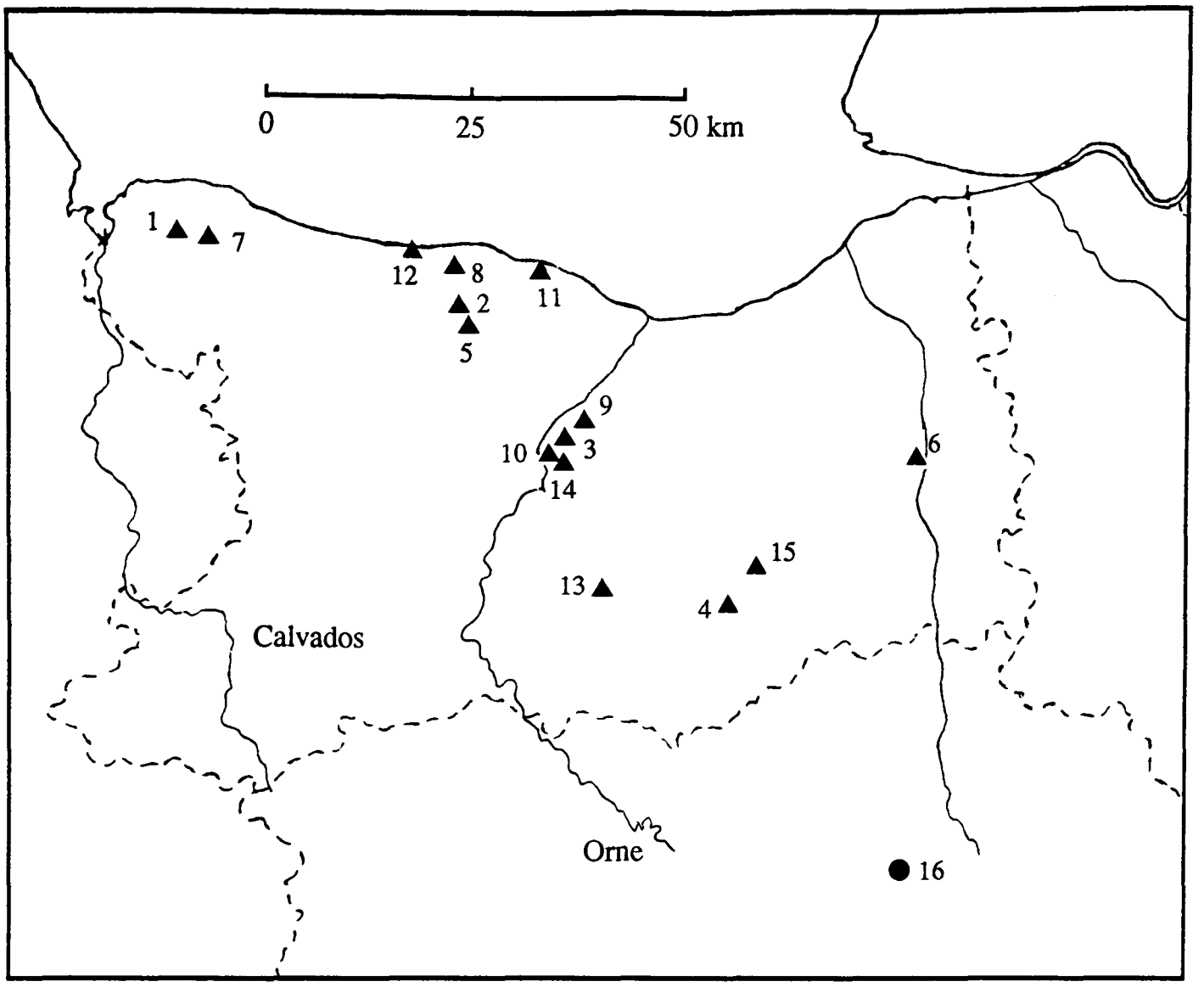
[1] the evidence of coins, the earliest of which can be dated to LT2, will be treated separately in chapter 7.



1	la Cambe	14.12-13
2	Creully	14.23
3	Ifs	14.32
4	Jort	14.34
5	Lantheuil	14.36
6	Lisieux	14.38
7	Longueville	14.40
8	Meuvaines	14.44
9	Mondeville	14.45
10	Saint-André-sur-Orne	14.58
11	Saint-Aubin-sur-Mer	14.61
12	Saint-Côme-de-Fresne	14.62
13	Saint-Germain-le-Vasson	14.66
14	Saint-Martin-de-Fontenay	14.67
15	Saint-Pierre-sur-Dives	14.69
16	Nonant-le-Pin	61.36

Figure 14. Late Hallstatt and early La Tène cemeteries in lower Normandy.

the area of excavation, no more bodies were uncovered and Mancel suggested that the edges of the cemetery had been located.

The site of Mondeville is particularly interesting as the burials appear to be associated with some sort of ditched enclosure. The report of the excavation (de Beaurepaire 1882) is of good quality for its time and includes an accurate plan of the site (figure 15). Work on the Caen/Doluzé railway line in 1878, and quarrying in the same area in the following year, revealed four distinct ditches. The longest ditch (A on figure 15, 257.5m) contained a large number of bones, mostly of cattle, boar and sheep/goats, and apparently a few human bones as well. Along the length of the ditch, at a depth of about 1.6-1.8m, was a near-continuous layer of stone fragments and burnt clay "parcelles". Ditches B (127.5m) and C (50m) appear to form the corner of some sort of enclosure, to judge from the plan, but their contents are recorded as quite different. C is said to be like A, a mixture of human and animal bones in "extraordinary confusion", but also with considerable quantities of coarse pottery. Ditch B contained only human bones, along almost the whole length of the trench, at a maximum depth of 0.8-1m. The final trench, D (77.5m), was only partially excavated and revealed no finds; its orientation and lack of finds suggest that it was probably not associated with the rest of the complex. The excavation report does not give any clues to the stratigraphy at the point where it crosses ditch A.

Between ditches A and B (see figure 15) were a number of isolated burials, of uniform length (c. 1.8m) and width (0.45m), rounded at the ends and all containing a layer of 3 or 4cm of *terre noire* at the base. De Beaurepaire notes that the bodies were oriented with head to the south-west, "comme dans les tranchées" (1882, 515). This suggests that the bones in the trench were far more ordered than he had previously implied. He describes in reasonable detail the contents of the seven graves, most of which had several bronze rings or bracelets, although one was found without gravegoods. All but one of the graves were extended flat inhumations. The exception was apparently buried in a foetal position, reportedly with the lower legs crossed and passed through a single bronze ring of 18cm diameter.

In his summary of the excavation, de Beaurepaire (ibid., 518) states that about 60 burials were "more or less" explored, most without gravegoods. It is impossible to be certain from his text whether there were more than seven isolated burials: it seems as though the seven described represent all the individual inhumations, and indeed the area between trenches A and B would not be large enough to hold many more. That suggests that as many as 53 burials were found in ditch B, which is conceivable

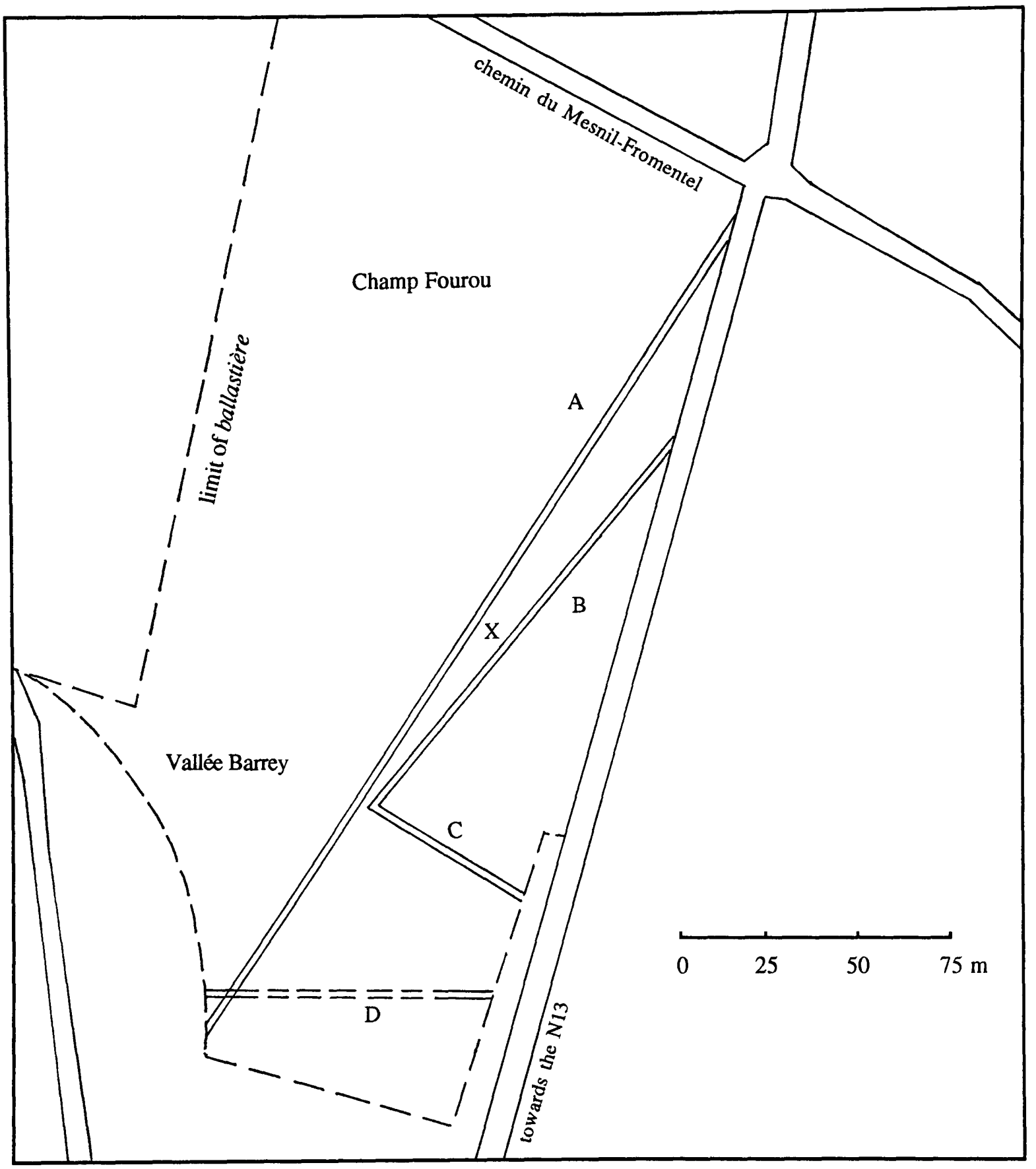


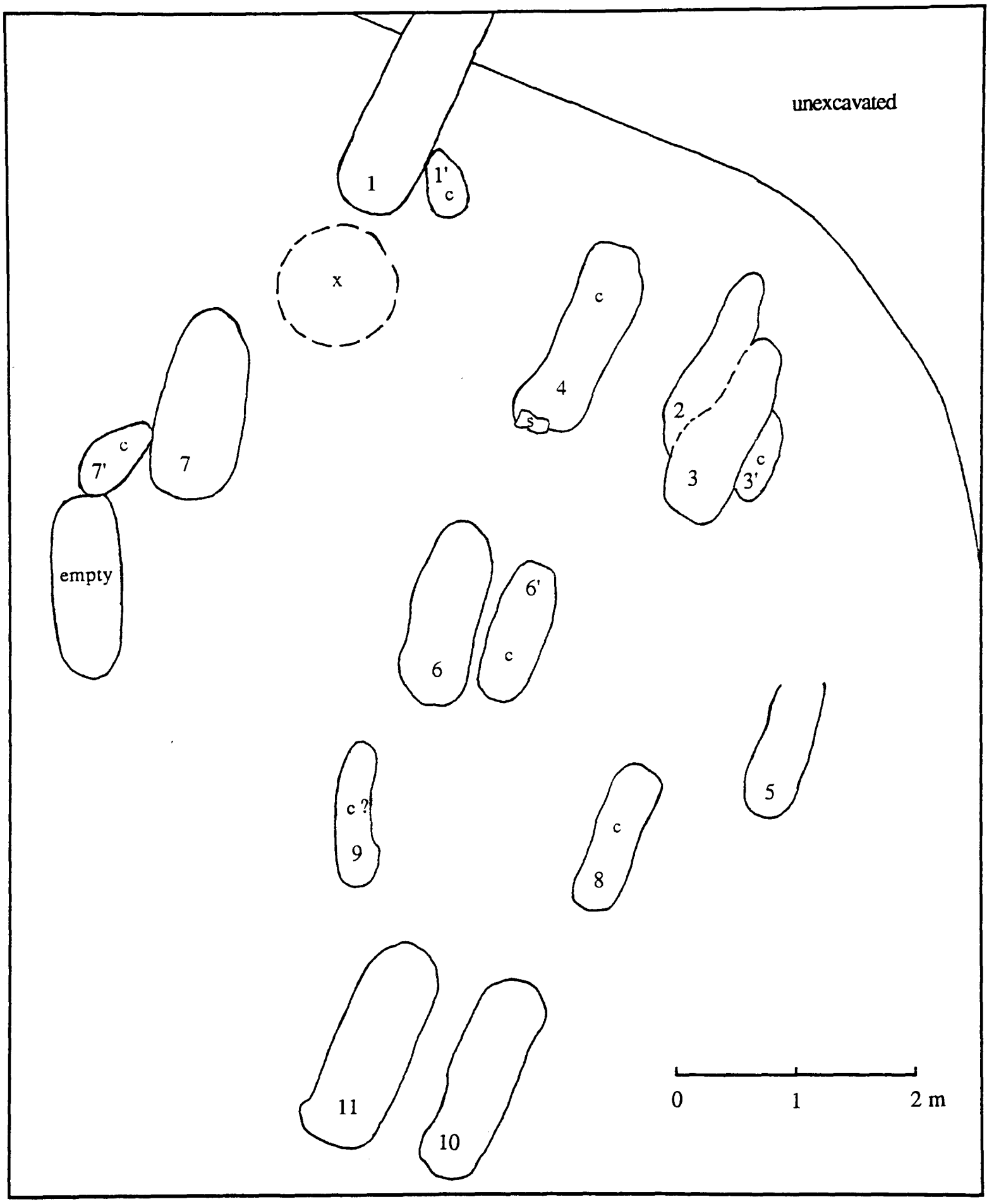
Figure 15. The cemetery at Mondeville, Calvados (14.45).
After de Beaurepaire 1882, 511.

A - D are the four trenches; X marks the area of isolated burials.

given its SW orientation and an excavated length of 127.5m. It is not possible to identify the chronological relationship of the isolated burials and the ditches. Only a few finds are recorded from the latter, including a bronze high-arched fibula either from C or nearby, probably of the same type as the two from Ifs (La Certosa type of Ha D date, with LT1 spring; see below). The material from the inhumations, dominated by undecorated bronze torcs, bracelets and rings, has been dated to the Ha D/LT1. It is unfortunate that the cemetery now lies under the Zone Industrielle Caen-Mondeville, as this effectively precludes any further investigation of the site.

The cemetery at 'la Dronnière', Ifs (14.32), is the only such site to have been excavated this century (Varoqueaux 1966). Sixteen graves were revealed in an area of $75m^2$; one of these was empty and another contained two skeletons (see figure 16). There were seven children or adolescents in the cemetery, buried in a flexed position, while the adults were all buried in an extended position. Six of the burials (including four children) contained no gravegoods at all, and two of the adult graves contained one item each, a flint and a pierced horse-tooth. The remainder contained a variety of bronze and/or iron torcs, bracelets and rings, dated to both the late Ha and ELT periods (see Varoqueaux 1966, 296-310 for full description). Two fibulae of La Certosa type (Ha D) (Déchelette III, fig. 262; Freidin 1982, 90-91) had a spring construction characteristic of LT1 (external bilateral spring of four coils, and external cord). The most interesting graves were nos. 6 and 8, both of adolescents, and both containing glass beads or rings and coral beads. Grave 8 was particularly rich, with a necklace of 48 tiny pink coral beads, three clear green glass rings, a large green glass bead and two amber beads. The excavator has suggested (Varoqueaux 1966, 311) that the majority of the burials were female, since there were no arms or tools in the graves. The limits of the cemetery were reached in every direction except the south and so there could be male burials beyond the excavated area. It is also possible that some of the burials within the area, without gravegoods and frequently with few surviving bones, could be male.

One further site in lower Normandy, recently excavated, should also be mentioned here. The cemetery of 'la Coite', Saint-Martin-de-Fontenay (14.67) was in sporadic use from the Hallstatt period to the seventh century AD (Pilet 1987). The earliest inhumations are provisionally dated to the sixth century BC, although the lack of diagnostic gravegoods makes dating difficult. There were a number of lignite bracelets, and some of the female burials had bronze torcs.



s stele

c child burial

x pit containing sherds of carinated vase

The numbers, which correspond to Varoqueaux's description of the graves, are placed at the position of the head in each burial.
There are two burials in grave 4, a child and a male adult.

Figure 16. The cemetery at 'la Dronnière', Ifs (14.32) (after Varoqueaux 1966, fig. 2).

The remainder of the sites in lower Normandy were discovered in the eighteenth or nineteenth centuries and are uniformly poorly recorded. The cemetery at Meuvaines (14.44) contained eleven inhumations, apparently with their heads surrounded by charcoal, and accompanied by "torcs and bracelets". This simple description of the gravegoods is used for almost all of the sites, with no further details. The number of burials and their orientation are not recorded for any of the other sites.

There are several notable features in the location of these cemeteries in lower Normandy. Of the 15 sites shown on figure 14, 14 are below 100m asl,[1] and all but one are on eutrophic or calcareous brown soils on the Jurassic limestones and marls.[2] Because of the lack of systematic survey in the region it is impossible to place too much significance on these observations, but they do suggest a clear geological and geographical control on the siting of the cemeteries.

Before examining the limited evidence of burials elsewhere in north-west France, one more site in lower Normandy should be considered which has been dated entirely to the early LT. The cemetery at Nonant-le-Pin, Orne (61.36), was discovered during railway construction in 1866. Reports of the time record "hundreds" of skeletons, although only two torcs and a bracelet have been preserved. In 1929 seven or eight new burials were discovered, with more personal objects of very early LT date (Edeine and Jigan 1985). A horse skeleton was revealed with fragments of a helmet and the remains of harness straps, which Verron (1976, 809) has suggested may have been a destroyed chariot burial.

3.1.2 Other areas

In the department of Eure, in upper Normandy, there are a couple of confirmed inhumation cemeteries and two possible sites.[3] Once again, most records are unsatisfactory reports from the nineteenth century. At les Damps (27.24), several inhumations are reported with the customary torcs, rings and bracelets. A vase supposedly from this site is actually much later (LT3) and, if its provenance is correct, could indicate that the cemetery was in use over a long period of time (Coutil II, pl. III.14; *Les Celtes en Normandie* 1990, 76). Elsewhere in Eure, at Jouy-sur-Eure (27.42) and Léry (27.46),

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1 the exception is Saint-Germain-le-Vasson (14.66), which is also distinguished from the other sites by the inhumations apparently being found in a sealed rock cavity.

2 the doubtful record of burials at Lisieux (14.38) is the only exception.

3 the chariot burial of Marcilly-sur-Eure (27.51), which is dated to the end of LT2 or early LT3, will be considered with other similar sites below (5.5.2).

bronze objects are recorded which may have been found on cemeteries. These three sites/finds are all dated to the Ha/LT transition period. The only site recorded to good standards is the very recent excavation at Tournedos-sur-Seine (27.70; Fossé et al. 1989, 194-199). Occupation on this site, in the form of two areas of settlement (see below) and a cemetery, is episodic from the Hallstatt through to the medieval period. The cemetery is a nearly square ditched enclosure, 42m x 45m, containing thirty inhumations, mostly oriented north/south. Five of the burials, which contained iron fibulae, have been dated to the end of the fourth or start of the third century BC. At least seven others are of LLT or EGR date, leaving the majority undated due to the lack of grave goods.

The only burial evidence outside Normandy comes from Aubigné-Racan, Sarthe (72.05) and represents a very different tradition. The excavation of a GR site revealed two tumuli beneath the later settlement, one of which was surrounded by a square double ditch with rounded corners, about 12m x 12m. The inner ditch showed traces of a palisade in its base. The excavators record "an urn and funerary goods" in the centre of this tumulus, dated to the end of the Ha or early LT (Lambert and Rioufreyt 1981b, 54).

3.2 Settlement evidence[1]

In common with other regions during this period, settlement evidence in north-west France is scarce. There are ten sites with some evidence of LT1 or LT2 occupation (figure 17), although only two of these have been fully published. Dates provided by C-14 dating are given in the table overleaf.

Excavations at three fortified sites in north-west France have revealed deposits dated by C-14 to the early or middle LT: the promontory forts of le Pouliguen (44.68) and Merri (61.31) and the Aubigné-Racan hillfort (72.04). At le Pouliguen, C-14 dates for deposits within the site, and from a small pit interpreted as a bronze-working furnace, were not however supported by the finds of micaceous LLT pottery and briquetage fragments. The dates for Aubigné-Racan are more convincing, with evidence for occupation beneath the rampart some 150 years before its construction, perhaps c. 480 BC. At Merri in Orne, the stone rampart on the east of the site is of a similar date, but occupation within the ramparts has been indicated for the early LT (370 ± 100 BC). At both of these sites, the C-14 dates are backed up by pottery finds. There is one other equally early C-14 date from a site in the region: an occupation deposit from the "working area" at Les Huguettes, Alderney (G.02), dated to 490 ± 100 BC. However, the associated finds, including pottery and a LBA razor, suggest that this date is several hundred years too late (Burns 1986, 92).

The only other C-14 dates come from deposits in the ditches of the "camp" at 'le Fougerais', Saint-Michel-Chef-Chef (44.84). There are two dates of 350 ± 100 BC and one of 60 ± 90 AD, but it is not clear which of the "4 to 6" (CAG 44.47) v-shaped ditches provided which date. The ditches contained many finds including several bronze-working crucibles, briquetage fragments, abundant pottery, spindle whorls and loom-weights. They surrounded a small mound on which the only structure was a hearth.

Several other sites in north-west France have evidence of occupation during the Ha/LT transition or the ELT. At 'la Delle Saint-Martin', Mondeville (14.46), episodic occupation from the

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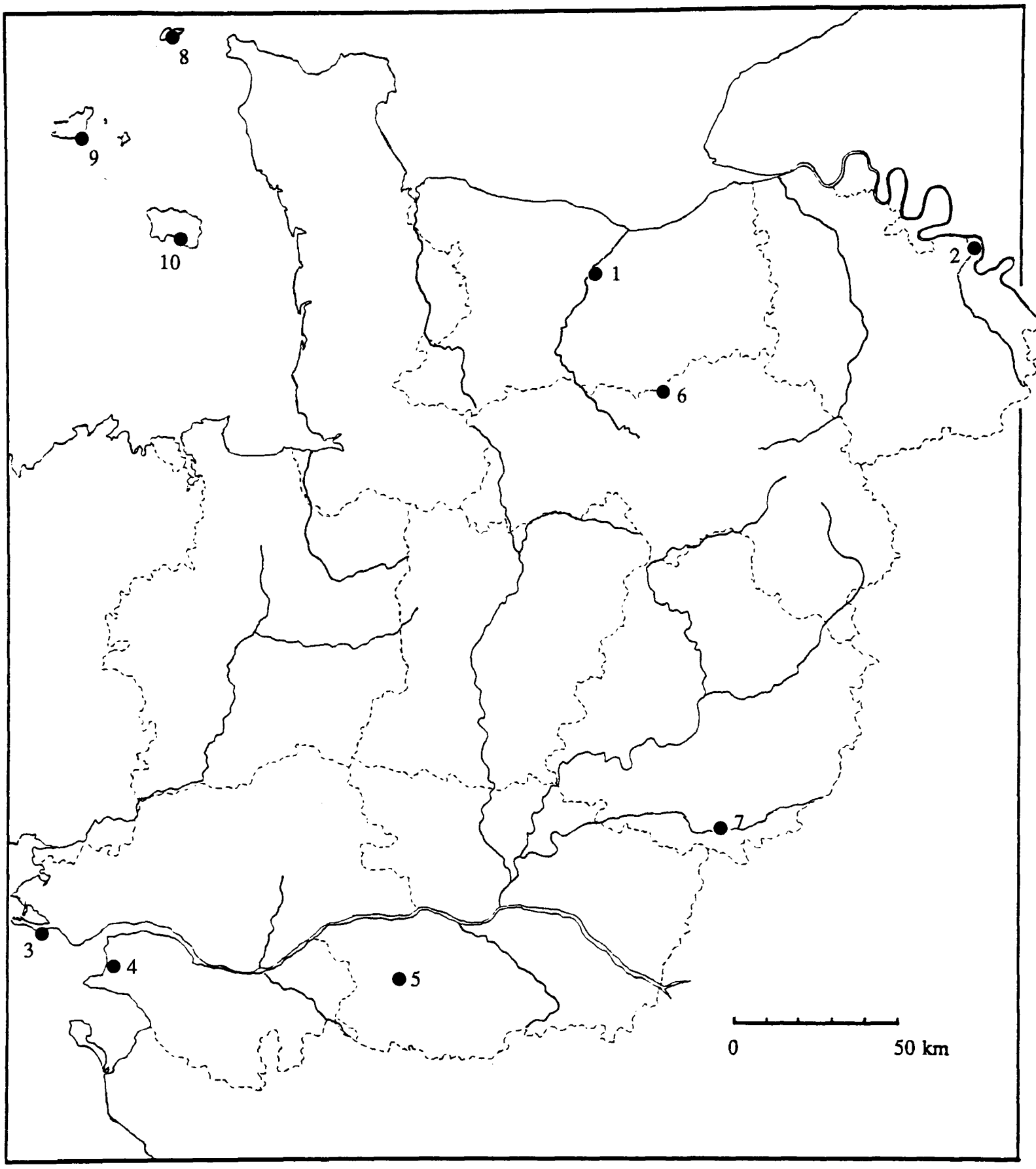
[1] publication of another site possibly of this period (Letterlé, Le Gouestre and Le Meur 1990) appeared too late for inclusion in the gazetteer or the body of this thesis. Excavation at 'Sandun', Guérande (Loire-Atlantique) revealed the postholes of a building 10.5m long and 6.2m wide, forming part of a farm or a hamlet. At some (later) period a v-shaped ditch was dug, probably forming a quadrilateral enclosure around a village or an animal stockade. Deposits in the western corner of the ditch are suggested to have had a ritual function; a C-14 date (Gif 7704) of 460 ± 60 BC from charcoal in these deposits dates the last sequence of occupation and may indicate use in the early La Tène.

site	gaz. no.	description of sample	C-14 date	lab. ref.	reference
le Pouliguen	44.68	charcoal from ditch within promontory fort	440 ± 90 BC	Gif 5452	Rouzeau & R'eau 1986, 191
"	"	charcoal from bronze-working furnace	450 ± 90 BC	Gif 5453	"
Saint-Michel-Chef-Chef	44.84	charcoal from ditch of promontory camp	60 ± 90 AD	Gif 3533	*Radiocarbon* 30, 66 (1988)
"	"	"	350 ± 100 BC	Gif 3534	"
"	"	"	350 ± 100 BC	Gif 3535	"
Merri	61.31	occupation deposit inside west rampart	370 ± 100 BC	Ly 484	Verron 1990b, 28
"	"	charcoal associated with construction of E rampart	550 ± 100 BC	Ly 3725	"
Aubigné-Racan	72.04	hearth beneath rampart	630 ± 100 BC	Gif 4119	L'Helgouach 1979, 576
"	"	rampart construction	480 ± 100 BC	Gif 4117	L'Helgouach 1979, 577
"	"	rampart construction	360 ± 100 BC	Gif 4118	"
Alderney	G.02	occupation deposit	490 ± 100 BC	Birm 277	Wilson 1986, 71

Table 3. C-14 dates relevant to ELT and MLT occupation of sites in north-west France.



1	Mondeville	14.46
2	Tournedos-sur-Seine	27.70
3	le Pouliguen	44.68
4	Saint-Michel-Chef-Chef	44.84
5	Beaupréau	49.12
6	Merri	61.31
7	Aubigné-Racan	72.04
8	Alderney	G.02
9	St Martin	G.10
10	St Helier	J.06

Figure 17. Distribution of sites with evidence of early or middle La Tène occupation.

LBA through to the twelfth century AD includes a hearth and several narrow, shallow ditches, perhaps field boundaries, dated to the Ha/LT period (Decaëns 1982, 312). The site of Tournedos-sur-Seine (27.70), which has already been mentioned for its cemetery, has a similar span of occupation, but has revealed more firm evidence of IA settlement. Two areas of habitation have been identified. The first, partially destroyed by quarrying, includes at least seven buildings, the largest of which measures 8m x 13m; the others are small four or six posthole structures. Associated pits and ditches have not yet clarified the chronological situation since they contain both Ha and LLT pottery. The second area of habitation, about 600m distant, covers 3ha and is dominated by three groups of ditched enclosures, the oldest of which is dated to the Ha period. The associated cemetery (see 3.1.2 above) has some graves dated to the fourth or third century BC and many undated inhumations; it is reasonable to suppose that some parts of the settlement were occupied during the same period.

Middle La Tène dates have been suggested for two excavated though largely unpublished sites. The roughly square (35-40m sides) enclosure of 'le Pinier', Beaupréau (49.12) is delimited by a ditch which contained a fibula and other finds of the early or middle LT (Aubin 1983, 312-313). A small coastal site in St Helier, Jersey (J.06) is suggested to have been occupied from the third century BC (Patton 1987, 134). In addition, pottery picked up from the unexcavated promontory fort on Jerbourg Point, Guernsey (G.10) has been tentatively dated to the early or middle LT (Burns 1988, 59-60).

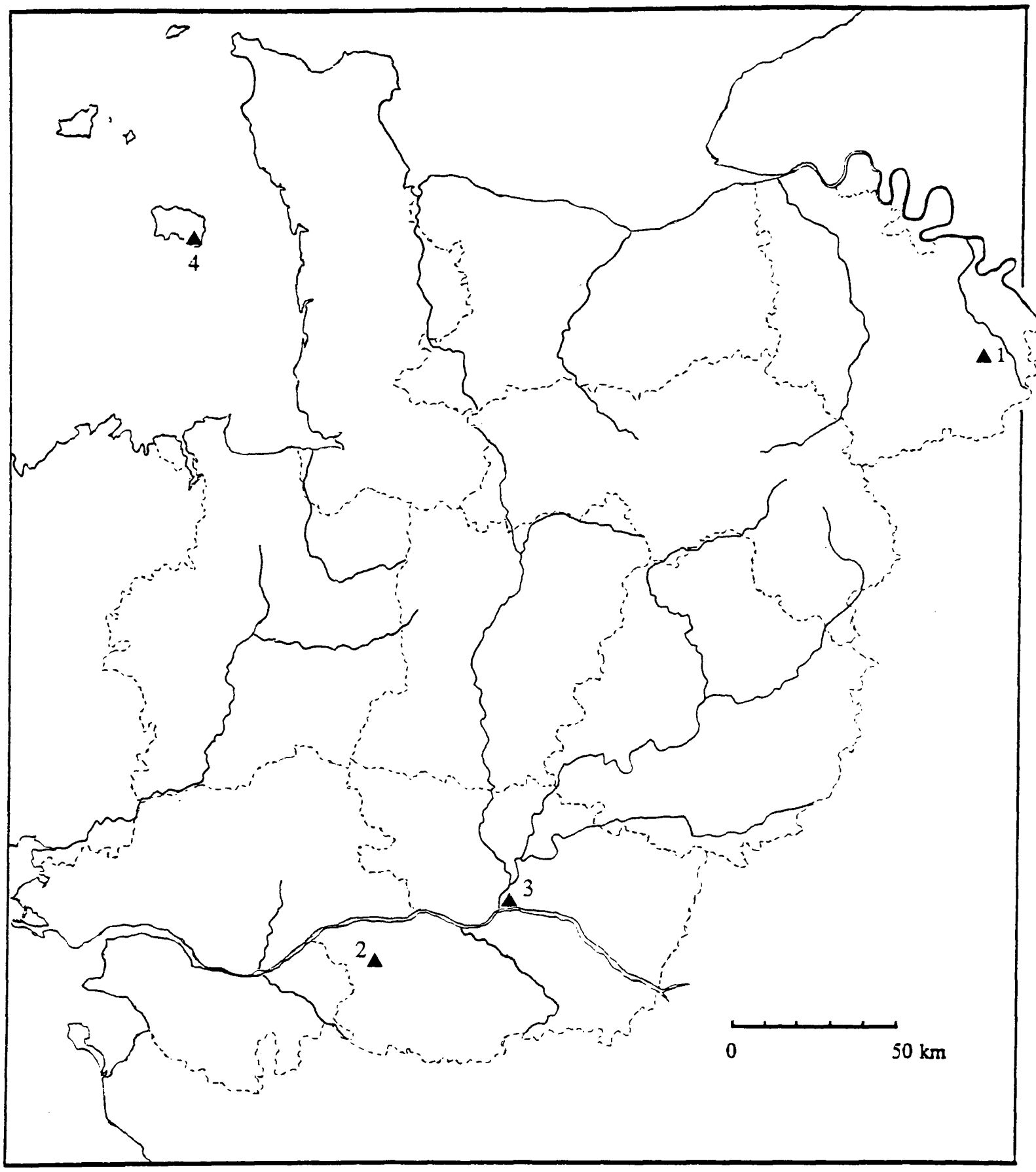
Some of the many briquetage sites identified by Dr Michel Tessier in the pays de Retz have been dated by him to the early part of the LT period. Dating remains problematic, however, due to the lack of associated finds. The briquetage sites of all periods will be considered in section 5.5.1.

3.3 Exotic imports

In contrast to the preceding period (see section 2.2 above), the number of exotic imports drops sharply in the early and middle LT (figure 18). Of the four items, the provenance of one is uncertain (le Vieil-Evreux, 27.80) and one is a Gaulish copy of an Italian object (St Clement, Jersey, J.05). With such a small number of finds it is dangerous to read too much into their distribution, but the two finds from near the Loire suggest that the river retained its importance as a trade route, presumably for tin as has been posited for the Ha period. The objects from near the Loire are from Montrevault (49.84) and Sainte-Gemmes-sur-Loire (49.103). The latter is half of a bronze cauldron handle in the form of a warrior, produced in Etruria from the second half of the fifth century BC, although this example is suggested to be fourth century (Provost 1983, 209-215). Of the same origin is the bronze/lead alloy figure of Hercules found at Montrevault, dated slightly later: probably the end of the fourth or start of the third century BC (Rioufreyt et al. 1977, 163-168).

An Italian figure of Hercules probably provided the prototype for the small bronze figure found near St Clement's church in Jersey. The figurine is difficult to date more precisely than fourth to second century BC (Henig and Wood 1990). The final exotic object is the bronze fifth century Etruscan he-goat found north of the GR sanctuary at le Vieil-Evreux. The circumstances of its discovery are unknown and, along with other items from the temple complex (27.80), it could have been redeposited in the GR period (Boucher and Boucher 1988, 13).

The sword scabbard from Baron-sur-Odon (14.05), which may have been made in the area of Switzerland or further east, is discussed in the section below.



1	le Vieil-Evreux	27.80
2	Montrevault	49.84
3	Sainte-Gemmes-sur-Loire	49.103
4	St Clement	J.05

Figure 18. Distribution of exotic imported goods and imitations of the early and middle La Tène.

3.4 Other finds

The remaining evidence for the early and middle La Tène periods in north-west France is provided by a variety of objects, mostly found without context (figure 19).

3.4.1 Ceramics

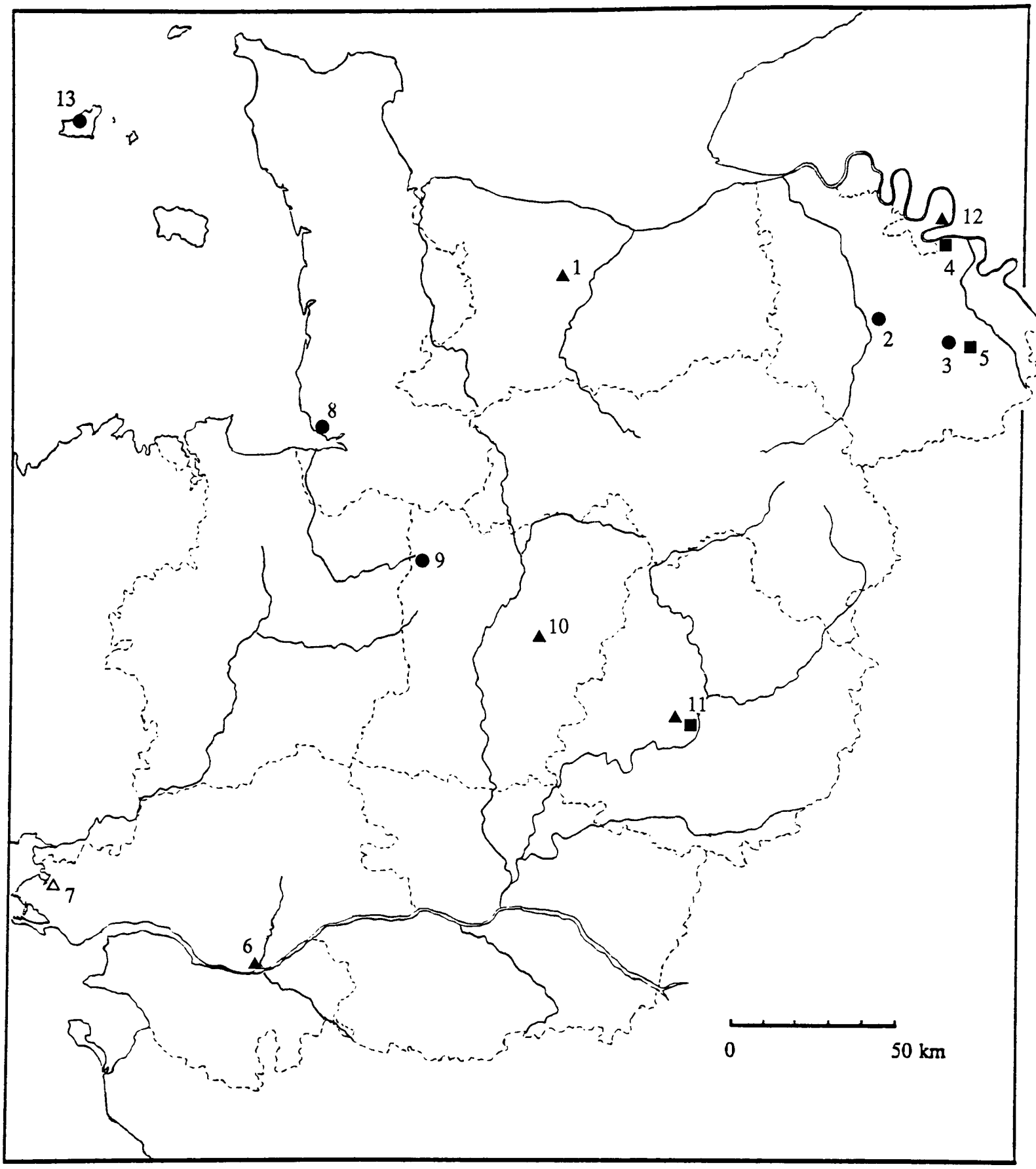
Only one complete profile has been published, for a conical vase tentatively dated to the middle LT, from Combon, Eure (27.19). This provenance is doubtful as it was presented to the Musée d'Evreux in the nineteenth century by an antique dealer who claimed it had been found containing BA weapons (Coutil III, 26-27). From the same department, pottery sherds of the middle LT were found during a sondage in Evreux (27.30), but illustrations have not been published (de Boüard 1972, 342-343).

Other unpublished pottery has been found in the Castel parish, Guernsey (G.04), dated to 500-400 BC (Burns 1986, 94), and at Larchamp, Mayenne (53.34), dated to LT1 though found with GR ceramics (Aubin 1980, 385). Finally, there is a dubious record of two vases from Genêts, Manche (50.07). One is described as a "vase à anse en forme de canthare grec" (Bertin 1975b, 233), and the other as a "vase de type marnien orné de dessins gravés" (ibid.). Bertin suggests that the decoration of the latter is similar to cremation urns from Kerviltré, Finistère (Giot et al. 1979, 256-257), which are dated to the Ha/LT transition.

3.4.2 Metal objects

i) arms

Swords and/or scabbards have been found at Baron-sur-Odon (14.05), Allonnes (72.01), Nantes (44.46) and Neau (53.47). The second two were found in rivers, the Loire and the Jouanne respectively, and thus have no archaeological context. The *Knollenknaufschwert* (nodule-hilted sword), such as the example from Neau, has sometimes been dated to the Ha period, but Freidin (1982, 250-252) has suggested that it should be reassigned to the LLT period. From the Loire are two near complete swords in their scabbards, one with a small area of decoration riveted onto the upper part of the scabbard, and



● pottery ▲ swords/scabbards ■ personal objects △ iron ingots

1	Baron-sur-Odon	14.05
2	Combon	27.19
3	Evreux	27.30
4	Martot	27.52
5	le Vieil-Evreux	27.78
6	Nantes	44.46
7	Saint-Molf	44.90
8	Genêts	50.07
9	Larchamp	53.34
10	Neau	53.47
11	Allonnes	72.01
12	Oissel	76.12
13	Castel	G.04

Figure 19. Distribution of miscellaneous La Tène 1 and La Tène 2 finds.

part of a sword from near the hilt, with a catch-plate (CAG 44.69.55). The scabbards are possibly LT2, and the sword fragment LT1.

Fragments of at least five swords were uncovered in the excavation of the IA and GR temple at Allonnes (van Effenterre 1959, fig. 12). The site remains largely unpublished, however, and there is controversy over the dating of the swords. Lambert and Rioufreyt (1985, 69-72) suggest that they are early or middle LT, but this has been challenged by Delestre (1986) who argues for a LLT date. The dating will remain uncertain until a full excavation report has appeared, confirming whether or not there is good evidence of pre-LLT occupation of the site.

In contrast, the scabbard from the IA/GR temple at Baron-sur-Odon is reasonably firmly dated to the LT1/LT2 transition or perhaps entirely LT2, and was probably manufactured in the area of Switzerland or eastern Europe (Bertin 1974, 243-247; de Navarro 1972, 71-80). The remaining section of decoration on the scabbard is part of Jacobsthal's "pair of dragons" design (Jacobsthal 1944, 45), incised and filled with gold. Unfortunately the scabbard was found on the spoilheap from excavations in the 1950s and so its true context is unknown; the rest of the site is late LT3 and GR and thus it has been suggested that the scabbard was conserved for many generations before its deposition (Bertin 1977, 247).

The final weapon is a spearhead dated to the fourth century BC, dredged from the Seine near Oissel (76.12; Verron 1978, 341-347), with decoration in the early style or early/Waldalgesheim transition. Several swords were also found in the nineteenth century in the same area, but are described simply as "du type marnien" by Coutil (II, 112) and have not survived for further examination.

ii) personal objects

At least one bronze fibula dated to the ELT was recovered from the temple at Allonnes (72.01; van Effenterre 1959, fig. 11; Térouanne 1961, pl. LXIX), but as for the swords above, the precise context of its discovery remains unpublished. Several LT2 fibulae are recorded from another predominantly LLT and GR temple site at le Vieil-Evreux, Eure (27.78; Dollfus 1973, 49). In the same department, at Martot (27.52), two ankle-rings and two smaller rings were found in 1843; they have been dated to the first half of the third century BC (Leman-Delerive 1987, 33-41). It is possible that they came from a burial.

iii) iron ingots

A group of eight bipyramidal iron ingots was found in the late nineteenth century at Saint-Molf, Loire-Atlantique (44.90). They have been dated by P.-R. Giot as LT1 or LT2 (Giot 1964, 51-60), although a wide range of dates has been proposed for similar objects (Freidin 1982, 202-203).

3.4.3 Stelae

Stelae are a quintessentially Armorican phenomenon. Reference to a distribution map (eg Giot et al. 1979, 268) indicates two main areas of concentration, in southern Morbihan and in north-west and south-west Finistère. However there is also a small, well-localized group more than 100km distant, in northern Mayenne (figure 20).[1] These stones, sixteen in all, have recently been discussed by Naveau, Jardin and Mare (1987), and their detailed description will be summarized here.

There are two main types of stele. The commonest is described as linguiform, with a more or less oval horizontal section (one face is often flat), and sides parallel or converging slightly towards the top, which is rounded (figure 21.2). The other (though there are only three examples) is similar, but distinguished by its square or rectangular section (figure 21.4). In addition there are at least four stones of irregular form (eg figure 21.1). All but three stelae are in local granite; the exceptions are in white quartzite. The form and the type of stone are mixed throughout the region. The heights above ground vary between about 1.3m and 2.4m; there seems to be about 0.4m in the soil in most cases.

The dating of these stones is very uncertain. Giot et al. (1979, 273) suggest that the Armorican examples are from the early La Tène, perhaps petering out by the end of the fourth century BC. There is very little contextual information on the Mayenne group: one (Jublains, 53.30), of an unusual type (figure 21.1) has been found in excavation, in a ditch filled not before the late second century AD, and another, also at Jublains (53.31), was found alongside the wall of a second century theatre (Bonaventure 1988). Giot et al. (1979, 269) have suggested that the Mayenne examples may be late or distant imitations, probably of the Finistère group of *stèles hautes*, but it is impossible to judge when the Mayenne stones were raised. There may be another clue to their date in the distribution of the

[1] the stone at Alençon (61.04), sometimes included in this group, is considerably bigger (4.2m) and seems extremely unlikely to be an Iron Age stele.

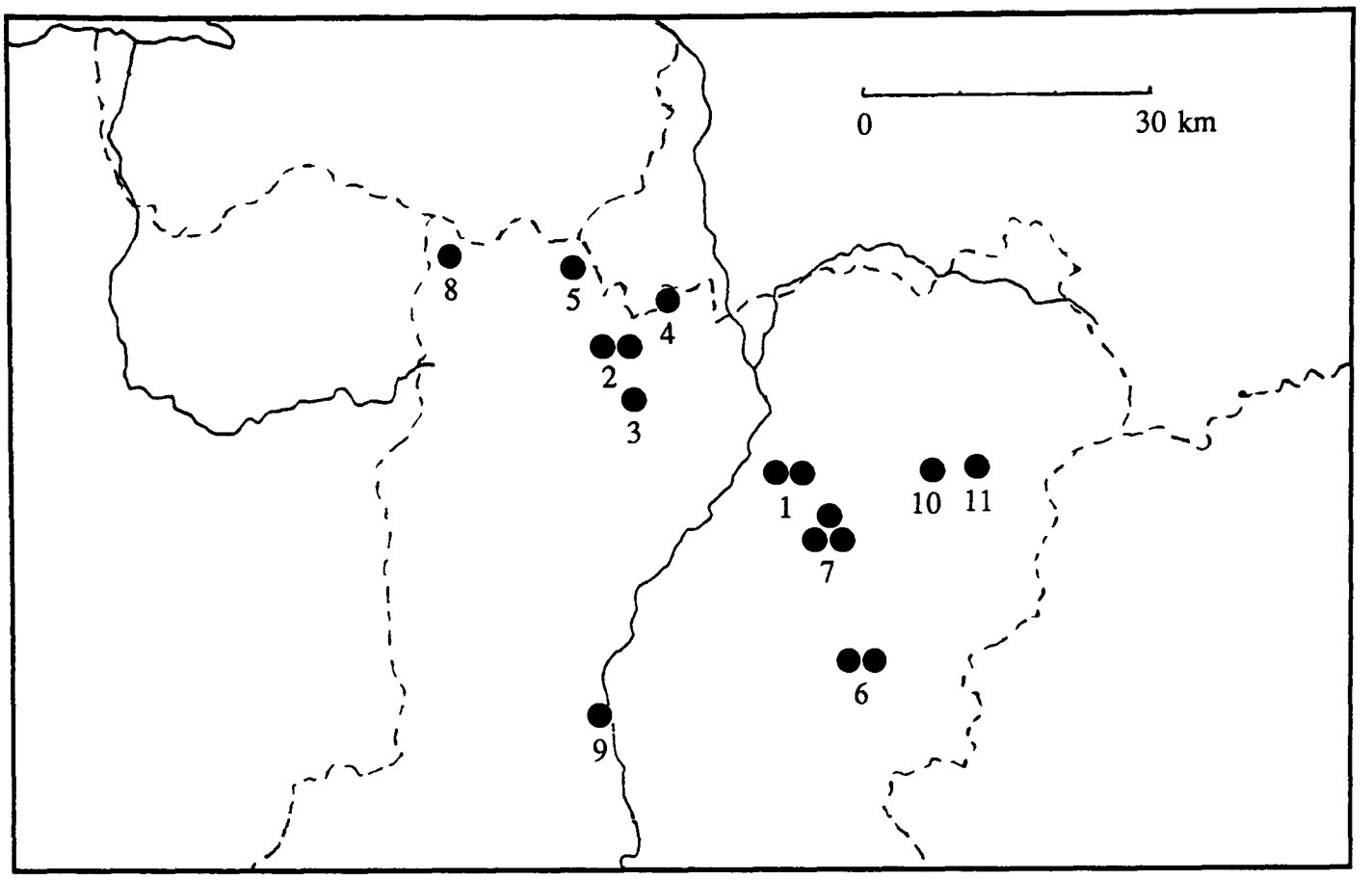


Figure 20. Distribution of stelae in northern Mayenne.
Key to sites below.

gaz. no., commune			stone	height	type/remarks
1	53.01	Aron	quartzite	1.3m	linguiform; one side smooth
	53.02	Aron	granite	1.5m	pseudo-linguiform; ditto
2	53.04	Brécé	granite	1.95m	rectangular
	53.05	Brécé	granite	1.7m	linguiform; one side smooth
3	53.11	Châtillon-sur-Colmont	granite	(2.4m)	irregular; Aurelius inscription
4	53.13	Couesmes-Vaucé	granite	(2.4m)	rectangular; horiz. gouge
5	53.15	Désertines	granite	1.85m	irregular; christianized
6	53.22	Evron	granite	1.5m	linguiform; 1 flat face, notch
	53.23	Evron	granite	-	two fragments, rectangular
7	53.29	Jublains	granite	1.9m	linguiform; polished
	53.30	Jublains	granite	-	rounded top in GR ditch
	53.31	Jublains	granite	0.7m	rect.; 3 flat faces; gouge
8	53.33	Landivy	granite	(1.7m+)	linguiform
9	53.37	Laval	granite	0.9m	linguiform; incomplete; gouge
10	53.39	Loupfougères	quartzite	1.22m	linguiform
11	53.64	Villaines-la-Juhel	quartzite	1.54m	linguiform

Table 4. Stelae in northern Mayenne.
'Height' refers to the height above ground, except for the examples in brackets, where the total length of the stele is given.

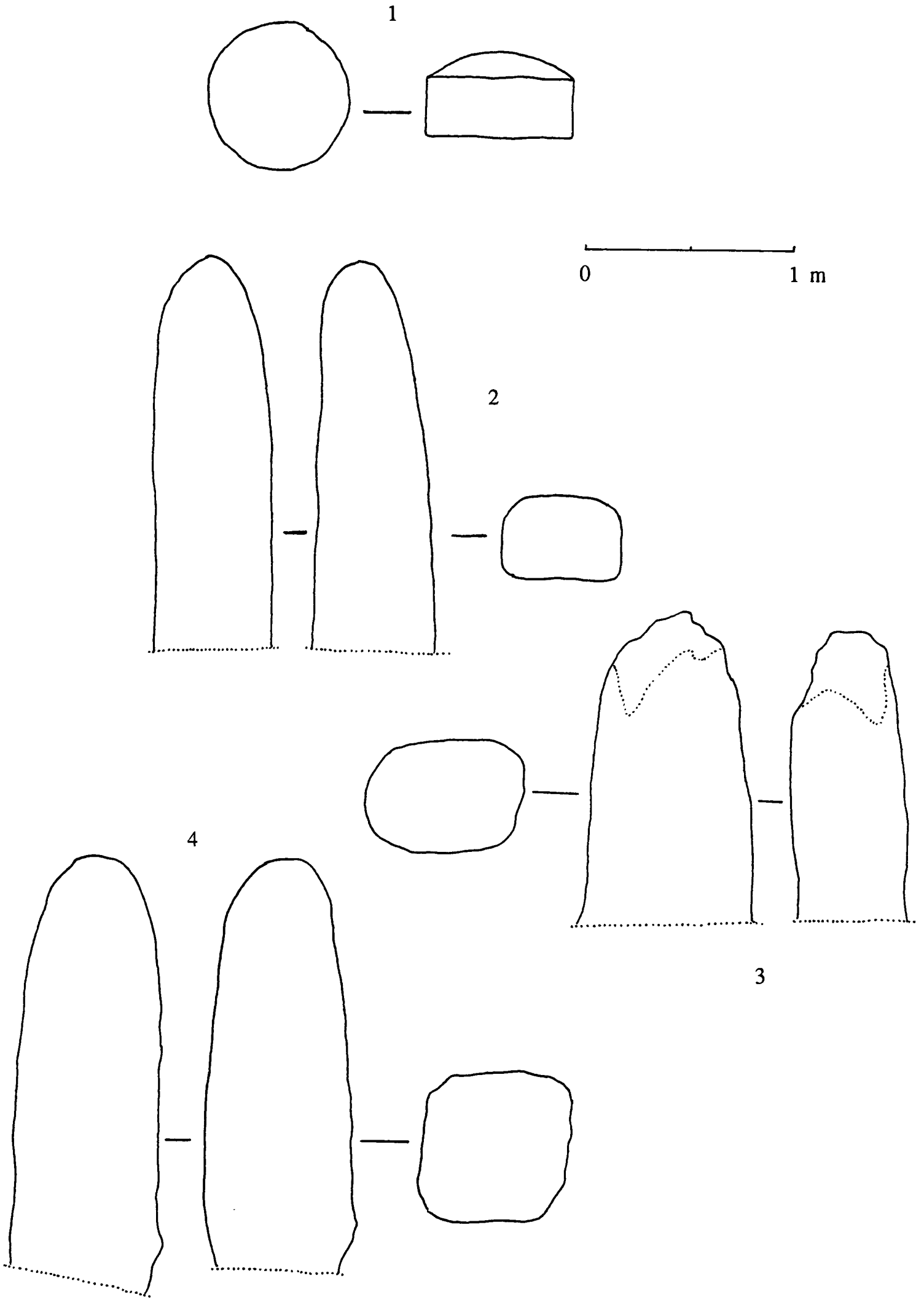


Figure 21. Stelae in northern Mayenne.

1: Jublains (53.30; irregular); 2: Jublains (53.29; linguiform); 3: Aron (53.02; pseudo-linguiform); 4: Brécé (53.04; rectangular).
After Naveau et al. 1987, pls. 2 and 5.

gold coins (LT XXIII 6804), commonly attributed to the Aulerci Diablintes (section 8.4.1; figure 73), which occupy almost precisely the same region; they are probably of the late second century BC. But one cannot assume contemporaneity between the stones and the coins, and thus their dating must remain something of a puzzle.

3.5 Summary

The lack of archaeological evidence of the early and middle LT periods in north-west France makes it difficult to reconstruct even the vaguest outline of developments during this phase. The value of the cemeteries of Calvados is severely limited by the inadequacy of almost all of the published data, which gives little scope for useful analyses of differentiation in grave wealth, for example. The only exception is the cemetery at Ifs (14.32), where there were quite marked differences in the amount of gravegoods, varying from empty graves to two with coral beads, although it has been observed that this exotic import "was available to everyone who merited interment" (S. Champion 1982, 71) in this period, in Switzerland and north-east France at least. There is a clear difference between this cemetery and that at Saint-Martin-de-Fontenay (14.67), dated to the period immediately preceding the Ha/LT transition, where there are no imported objects and very little evidence of differentiation between graves. In the south of the Paris Basin the adoption of the custom of burial in flat inhumation cemeteries seems to have been slower (Freidin 1982, 212), as is also suggested by the tumuli of Aubigné-Racan (72.05), of the same period as the lower Normandy cemeteries. The site of Mondeville (14.45) is especially interesting as it appears to include a ditched funerary enclosure, and so it is all the more unfortunate that the published details are not more informative and that further excavation on the site is unlikely.

The small size of these cemeteries suggest that they were used by groups of no more than a few families, although without more precise details on the length of use of the sites and their physical limits this cannot be confirmed. The excavation of the settlement at Tournedos-sur-Seine (27.70), with one major building accompanied by six or seven storage structures or silos, and the relatively small cemetery, suggests a similar population. The most striking feature, however, of the lower Normandy cemeteries is their clear relationship to the most favourable geological and pedological conditions for that type of burial rite. Systematic survey across north-west France might reveal whether such controls were exercised in other areas.

The C-14 dates for rampart construction at the fortified sites of Aubigné-Racan (480 ± 100 BC; 360 ± 100 BC) and Merri (550 ± 100 BC) suggest building at the very end of the Ha period or in early LT1, though as both of these sites have evidence of occupation before and after these dates, this

should be regarded as a phase in a much longer process of development. The remaining settlement evidence is simply not of sufficient quantity or quality to enhance this picture.

The number of exotic imports is barely enough to provide information on the long distance trade routes operating in this period. The burials at Ifs have shown that coral from the Mediterranean was reaching the most distant parts of north-west France, and although it is not possible to be sure of its route into the region, introduction across the Alps remains the strong favourite (S. Champion 1985, 142). The north Italian origin of the luxury objects and the prototypes of the imitations also favours this route, continuing the pattern established in the Ha period and earlier (see chapter 2). Although found on the right bank of the Seine and thus outside the scope of this study, the magnificent helmet from Amfreville-sous-les-Monts (Eure) also supports this route, as it is suggested to have been based on the Montefortino type helmet from the north of Italy (Duval and Gomez de Soto 1986, 241).[1] The distribution of the objects within north-west France seems to support the theory of trade along the Loire, presumably for tin, although there is still precious little archaeological evidence of this. It is possible that the iron ingots from Saint-Molf (44.90), near the coast to the north of the Loire estuary, were connected with this trade.

Processes and patterns of internal trade remain almost completely unknown in the absence of any recognized ceramic typology or chronology for any part of north-west France, and the very limited number of other finds. The preservation of fine objects such as the Baron-sur-Odon sword (14.05) does not necessarily indicate that such items were particularly rare in north-west France, given the lack of archaeological investigation of this period in the region. The limited evidence summarized above is little to go on when attempting to reconstruct the nature of trade and exchange in north-west France in the early and middle LT; it is equally difficult to define the area's relationships with other parts of Europe. North-west France seems to have remained very much on the periphery of the developments outlined in the preceding chapter, and was perhaps one of the areas that was plundered by the warrior societies to the north of the Western Hallstatt chiefdoms in the Ha D period. Although it was physically closer to the new core of development in Champagne, its peripheral status seems to have

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[1] discussion of the origin and date of this helmet can be found in several recent articles, including Kruta 1976-78, 405-424, Duval and Gomez de Soto 1986, 239-244, and Nicolini and Bouchet 1990, 67-77. Other major references are Viollet le Duc 1862, 225-227, pl. V; Coutil 1911, 193-207; and Eluère 1987, 141-146, pls. 91 and 99.

been maintained. This picture may change with the improvement of archaeological research in the region.

It is probably pointless to try to define a precise date for the transition from the Ha to the LT, given the marginal position of north-west France with respect to the Hallstatt culture and the relatively imprecise dating furnished by the material from the cemeteries of the transition period. It seems likely that if there was

> une survivance possible des faciès hallstattien en Normandie à une époque où, plus à l'Est, la civilisation de La Tène s'était déjà imposée
>
> Verron (1976, 805)

then it did not last through the first half of the fifth century BC.

of the associated costs". There were two principal beneficiaries of this process. One was the oligarchy itself, formed of a small and disproportionately powerful elite (relative to the ruling-class), who held a monopoly on military leadership. However, they were forbidden to own large sea-going ships and to take part in commercial activity; though in practice they could do this through intermediaries (Crawford 1978, 60). The other main beneficiaries were the wealthiest families outside the Senate, including the *publicani*, members of the upper ranks of the equestrian order, who managed companies fulfilling state contracts in the provinces. This situation was mutually beneficial. The Senate's sources of revenue were limited almost wholly to the products of military activity, whether plunder, the sale of plunder or captives, and so on. Military activity was also hugely important for the accumulation by individual Senators of personal wealth and prestige, and in particular for the huge honour of a triumph on return to Rome. This required that the general have added territory to Rome's possessions, and thus there was considerable incentive for more and more fighting, as the principal means to acquiring wealth and prestige (Rawson 1986, 423). But such was the level of this activity in the late third and early second centuries that the Senate was forced to borrow heavily from other citizens in order to finance its expenditure, and then had difficulty repaying these sums. The *publicani*, meanwhile, could remove some of the burden from the Senate by developing economic interests in the provinces, profiting themselves but at the same time running the associated risks which the Senate avoided.

At the heart of this system, therefore, was the need for military activity to procure the bulk of the state's income. During the second century the "associated costs" of this expansionist policy, both financial and social, became increasingly problematic. Although military costs rose and more armies were created, there was a simultaneous decline in the number of potential recruits, not least because the continual warfare was exacting a great loss of life. But more complex reasons were also involved. The long years of war, beyond Italy (where the Roman soldiers were usually able to return home annually), meant that when the soldiers returned home they were often without a livelihood, either because their estates had fallen into disrepair, their families were in debt, or they had been forcibly dispossessed and replaced by large, labour-intensive agricultural estates (using a workforce of slaves, the procurement of which demanded either military activity and/or the involvement of allies in economic exploitation overseas). The landlessness of the soldiers had several important consequences. In the first place it meant that they were not eligible for military service, thus compounding the recruitment problem. But

it also meant that they had little alternative but to move into the cities, which increased the Senate's civic expenditure, so that by the 140s it was rivalling military costs.

Various possibilities for reform of the system suggested themselves, some of which were attempted during the later second and first century BC.[1] Thus in 133 BC Tiberius Gracchus proposed to limit the size of holdings of public land and to redistribute the surplus to the people (Crawford 1978, 109-114; 1986, 411-412), but his plans were stubbornly resisted by the oligarchy and he was eventually murdered, with many of his supporters. Some reforms were made to the army by C. Marius at the end of the second century: these extended eligibility for service to the largest but poorest section of the citizenry, who were landless and thus able to serve for long periods, but who were therefore completely dependent on the state, and in addition expected a grant of land at the end of their long service (Crawford 1978, 126-127). For some time Rome had contrived to avoid these sort of costs by its policy of compulsory recruitment of soldiers from its allies in Italy, who formed more than half of the army until 70 BC. They were provided with subsistence and a share of spoils, but were actually paid salaries by their own communities - to the obvious benefit of Rome. Although some of these alliances with Greek and Italian communities were technically equal, by the end of the second century most had become unequal, including those with overseas communities (Nash 1987c, 95-96).[2] The allies thus contributed significantly to winning land, but were excluded from Roman citizenship, from access to the Senate or senior miltary command, and consequently from government of that land. As their involvement grew, not only with military endeavours but also with the subsequent economic exploitation of the newly-acquired territory (again with the allies bearing most of the costs and risks involved), so they became increasingly frustrated by their exclusion from government, until they rose in rebellion in 91 BC. The so-called Social War was concluded in Rome's favour in 89 BC, but at enormous cost. The allies were subsequently enfranchised at Rome - a course of action which had been

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[1] Crawford (1978, 76-83) discusses the measures taken by the oligarchy early in the second century to alleviate the problems amongst themselves: these included regulations on the holding of office (the formalization of the *cursus honorum*), on the expense of personal entertainment, and on the status required to hold a triumph; the development of more responsible rule in the provinces; and stricter controls against bribery. As the years passed, however, the reluctance of the oligarchy to change either itself or the system increased (ibid., 89).

[2] the case of Massilia is instructive here. In 154 BC, as an equal ally, she appealed for Roman help against the threat of the Oxybii and the Deciates; Rome dealt with the problem, and correctly gave the territory of the tribes to Massilia to protect. But in the late 120s her independence was gradually eroded, following another appeal for help against the Salluvii and their allies, when Rome's conquests in the Rhône valley and establishment of the Province separated her from central and northern Gaul, and thus from a most important source of revenue (Nash 1987c, 103 n.14).

suggested nearly half a century earlier (Crawford 1978, 118; see below) - although they received no tangible benefits of citizenship until 70 BC, when they were included in the census.

This of course had a number of important repercussions for the Senate, and for what action the Senate could take to assuage its problems. Once the Italian allies were enrolled as Roman citizens, the Senate could no longer exploit them in the same fashion as they had before the Social War. Instead it was forced to expand - to satisfy the need for land to settle veteran soldiers, to obtain the crucial military revenues and so on - with each step extending the rights associated with equal (or unequal) alliances to the provincial areas beyond the heartland, from where they were still able to recruit soldiers on an advantageous basis. Much of the economic activity in the provinces was carried out by allied communities, who encouraged the development of industrial processes not only in the provinces, but in alien communities close to the frontier: trading centres such as Tolosa (Toulouse) and Narbo Martius (Narbonne) were particularly important in this respect (Nash 1987c, 97). The alien communities were in some instances able to form mutually beneficial relationships with Rome: Rome gained access to commodities, slaves and frontier taxes, and in addition benefited from the formation of a buffer-zone of "foreign friends" on its provincial boundary, while the friends received goods and gained prestige in return. But unlike the allies, the friends could in no way rely on Rome to come to their defence, and indeed it is arguable that by creating these zones Rome was simply biding time, waiting for the right moment to strike; for enemy territory was regarded "almost as a reserve of potential Roman possessions, exploited indirectly in the short term, but perpetually threatened with conquest in the longer term..." (ibid., 100; cf. Stevens (1980, 88) commenting on Julius Caesar's reasons for invading Gaul). The right moment might be when the administrative structure of the enemy territory was sufficiently developed, for example in its ability to collect taxes, to make such a move a profitable one (see Rawson 1986, 428-430 for further discussion of "the reluctance to annex").

We must backtrack here to record some more of the key events that took place at the heart of the system, Rome, in the later second and early first centuries. A few years after the murder of his brother, C. Gracchus attempted to introduce a number of reforms, partly inspired by those of Tiberius Gracchus, but ranging over much wider issues including the rights of Italians to Roman citizenship, the distribution of provincial governorships, corn subsidies in Rome, and many other matters (Crawford 1978, 118-123). The proposal to give citizenship to the Latins proved to be his downfall,

and having failed to be re-elected as tribune in 121, he took up arms rather than have his measures repealed and likely meet the same fate as his brother, but was rapidly defeated and killed. However, the period of Gracchan reforms in many respects formalized the division in the Senate between the *optimates* (roughly speaking the traditionalists) and the *populares*, defined as politicians who "used and defended the powers of the popular assemblies and the popular office of tribune as a counterweight to senatorial authority and/or championed such economic measures as land distribution, debt cancellation, and subsidized corn" (Griffin 1986, 464), a division which would become increasingly important during the course of the first century.

In the last years of the second century Rome had to deal with five years of war (112-107) with Jugurtha of Numidia, in north Africa, followed by the considerable threat of the Cimbri and the Teutones, who had invaded northern Italy; both campaigns were successfully concluded by C. Marius, who as we have seen extended eligibility to serve in the army to the landless poor. Immediately after the Social War, mentioned above, came the first civil war. L. Cornelius Sulla marched on Rome in 88 following the loss of his command against Mithridates, who had invaded Asia in 89, and in addition because of his opposition to the measures of P. Sulpicius and C. Marius (Crawford 1978, 146-147); having regained his command and after killing some of his enemies, Sulla returned to the east, and at the end of the next year (87) C. Marius and L. Cornelius Cinna recaptured Rome. But when Sulla returned to Rome in 84 he met with little resistance from its citizens, only from the Samnites and the Lucanians, of whom he slaughtered thousands, in addition to those Romans killed in the ensuing proscriptions. Following the conferment of his dictatorship (which he resigned at the end of 81), Sulla doubled the size of the Senate, to approximately 600, recognizing that the expanding Empire needed a larger governing class. But retaining only two consulships at the top of the system, he thus increased competition within the body. This required legislative control, in particular through the *cursus honorum*, which was designed to ensure that those commanding armies and provinces would already have sat in the Senate for twenty years, "learning to set a high value on oligarchic cohesiveness" (Griffin 1986, 462).

In the years following Sulla's brief dictatorship Rome's problems continued to multiply. At home, migration to the city continued; the corn supply was frequently threatened, and violence in the streets increased. Competitiveness within the Senate led to widespread bribery and still more

corruption, and debt amongst all classes reached new levels. In the military sphere, Rome faced further action from Mithridates, and from a slave-revolt in Italy led by Spartacus; piracy was also rampant in the eastern Mediterranean, while Spain was out of Senatorial control from 80 to 73. The resolution of most of these problems depended on the conferment of a "special command" on the general sent to deal with it, which meant that the Senate effectively surrendered control of the situation (Crawford 1978, 155). This allowed these individuals to gain enormous power, wealth and prestige while pursuing both Roman and personal objectives, a situation which was understandably resisted by the oligarchy in Rome (ibid., 156; Rawson 1986, 429). Two major characters emerged in this period, both benefiting from prolonged special commands: first Cn. Pompeius (including Spain from 78, against the pirates in 67 and against Mithridates from 66 to 62), and then C. Iulius Caesar (Cisalpine Gaul and Illyricum, then Transalpine Gaul from 58).

In 60 these two and M. Crassus combined to ensure that Caesar was elected to the consulship for 59, despite intense opposition from the oligarchy, who feared the power he would gain with the *plebs*, the *equites* and the veterans. He could then revise the contract between the Senate and the *publicani* in Asia to one of direct collection, so cutting out the "tax-farmers", and also provide for the settlement of Pompeius' veterans. Thus the informal first triumvirate was formed, with the participants making vague agreements to support each other once this initial programme was complete. But strains soon began to show. In 55 Caesar had his command in Gaul renewed for another five years, while Crassus and Pompeius too gained provincial commands, evidence of their "jittery insecurity" (Crawford 1978, 181; Crassus was killed fighting the Parthians in the same year). Pompeius governed Spain from Rome, where he became more closely aligned with the core of the oligarchy, led by Cato, who signally failed to impress his will and that of the oligarchy on Caesar. Thus in 49 the Senate voted 370 to 22 that both Caesar and Pompeius should disband their armies; this order was ignored. Caesar meanwhile had claimed that he could stand for a consulship (and subsequently another provincial command) in that year in his absence, as the mandate he had been given by the people implied that he would still be in his province in the summer of 49. The *optimates* disapproved of such a command, given by the people, and attempts were made to recall him a year early. But Caesar, fully aware that he would certainly face

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prosecution on his return to Rome,[1] led his army into Italy to open almost two decades of intermittent civil war.

Although Pompeius was soon defeated, at Pharsalus in 48, and assassinated shortly afterwards, the war continued as a feud between his heirs and Caesar, until 45 when the latter effectively became a king; he was soon made *dictator perpetuus*. But there was little time for Caesar to implement measures of reconstruction before he too was murdered, in March 44, by a motley coalition of Pompeius' supporters, "Republicans", and some from his own side fearful of his power.[2]

From the succeeding near-anarchy emerged the second triumvirate: M. Antonius, M. Lepidus, and C. Iulius Caesar Octavianus - the great-nephew of Caesar, who in the latter's will became his adopted son. Antony rapidly gained control in Italy and the three soon realized that "they must all hang together or hang separately" (Stockton 1986, 532). Their first move was to issue death-warrants for about 300 Senators and 2000 *equites*, thus avoiding Caesar's mistake of showing *clementia* to his enemies. Thereafter Lepidus was left to control Italy, while Antony and Octavian destroyed the last "Republican" leaders, Brutus and Cassius, at Philippi in Macedonia. Antony was then left to put the east in order, while Octavian attempted to settle about 100 000 discharged soldiers in Italy. Antony's wife, Fulvia, and his brother Lucius attempted to exploit unfavourable feelings in Rome towards Octavian, but were driven from the city; when Antony returned civil war was again threatened, but the legions were tired of fighting and the relationship was patched up in the Treaty of Brundisium (40). Lepidus got the short straw of Africa, and before he returned to the east, Antony was married to Octavia, the sister of Octavian.

For a brief period it seemed that peace had finally arrived, but such hopes were short-lived. Pompeius's son, Sextus, gained control in the central and western Mediterranean and thus posed a considerable threat to the security of the corn-routes. He was temporarily held off by the conferment of a proconsular command in Sardinia, Corsica, Sicily and Greece, but following M. Agrippa's securement of Gaul, Agrippa and Octavian combined with Lepidus to defeat Sextus in September 36, in

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[1] cf. the comment of Suetonius, *Divus Julius* 30, quoted by Crawford (1978, 182), that "M. Cato often said and even swore on oath that he would bring Caesar to trial, as soon as he had disbanded his army...it was widely asserted that if he returned as a private individual he would...have to plead his case before the jurors with troops stationed round about."

[2] the most significant of his achievements were the enfranchisement of Cisalpine Gaul, and the settlement of veterans and the poor in overseas colonies; he made few successful reforms to the system of government (Griffin 1986, 475-476).

a sea-battle off the north-west coast of Sicily. In 37 the triumvirs had renewed their legal dictatorship for another five years, but after Sextus' defeat Lepidus challenged Octavian; unfortunately for him his troops preferred to back Octavian, and he was stripped of his powers.

Meanwhile Antony had been busy in the east, where he had become increasingly dependent on the wealth of Egypt and of Cleopatra in particular. In 37 he sent the pregnant Octavia back to Italy, and acknowledged that he had twins by Cleopatra; in the following year he took the extraordinarily provocative step of announcing that Cleopatra's son Caesarion was the legitimate heir of Julius Caesar, and furthermore parcelled out much of Egypt to Caesarion, Cleopatra and the twins. Octavian could hardly fail to respond to such behaviour, and following Antony's claim to the title of and powers of triumvir, though the agreement had not been renewed at the end of 33, the stage was set for a final showdown between the two. Despite Antony's powerful forces, he was defeated at sea off Actium in 31 by Agrippa, and fled to Egypt. Octavian closed in for the kill in 30, but Antony famously committed suicide on being mistakenly informed of Cleopatra's death. For the next three years, Octavian tidied up some loose ends, before surrendering his supremacy and thus restoring the government to the Senate and people in 28/27, when he was given the name Augustus.

This necessarily brief summary of nearly two centuries of Roman activity has served to demonstrate the fundamental need for military expanison to drive the economy; when problems developed in the system, the usual recourse was to more military activity, which was in the short-term interests of the oligarchy, but which in the longer term merely exacerbated the problems. In the face of persistent resistance to any significant reform, there was little chance that a violent conflict could be avoided. In the end it was the dominant figure of the *populares*, Julius Caesar, who destroyed the system by successfully exploiting it beyond its capabilities of change or resistance.

4.2 Developments in the periphery: the Celtic world

At several points in the preceding discussion attention has been drawn to developments in Gaul, beyond the core of Roman territory. In this section two major, interrelated themes in these processes will be examined: the development of oppida, and the formation of "archaic states" in the zone immediately north of the Province. There is space here only to summarize these subjects, which (in the case of oppida in particular) have generated more discussion in the last few years than any other aspect of Iron Age society.[1]

Mention was made above of the formation of a buffer-zone of "foreign friends" on Rome's provincial boundary, which brought benefits - economic and otherwise - to both sides. The annexation by Rome of the north Mediterranean hinterland, and consequent effects on neighbouring parts of Gaul, were obviously highly significant factors in the development of archaic states and oppida, but some consideration must first be given to the nature of the Celtic society, for that conditioned possible responses to outside influences.

The structure of Celtic society has been thoroughly discussed by Crumley (1974) and Nash (eg 1975b, 344ff. and 1984, 95-101), and although in some respects their interpretations of the evidence - predominantly textual[2] - differ (Haselgrove 1987b, 108-109), aspects of the society are clear. Certainly by the middle La Tène there were formalized class divisions. At the top was the dominant ruling-class of the warrior aristocracy, with power based ultimately in the ownership of land, who patronized a learned class including the Druids and artisans. Below them were the mass of agriculturalists and slaves (cf. Caesar's description, BG VI.13). Through the system of clientage (Nash 1975b, 412-420), the warrior class obtained the agricultural surplus necessary to feed itself and the learned class, and thus

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[1] the fullest single treatment of oppida is Collis (1984b). Other works examining different aspects of the subject, and illustrating the development of ideas over the past forty years, include Vetters (1956), Buchsenschutz (1971; 1990), Duval (1975a; 1981), Neustupny (1975), Cunliffe and Rowley (1976), and Bintliff (1984, 195-199). The concept of archaic states in central Gaul is presented in Nash's thesis (1975b) and developed by her in a series of papers (1976a; 1978b; 1981).

[2] the most important texts are Caesar's *De Bello Gallico*, and the ethnography of Posidonius, lost but preserved in part by the later writings of Athenaeus, Diodorus Siculus and Strabo (see Tierney 1960, and the reassessment of Nash 1976b). Virtually all the classical references to Celtic society are collected by P.-M. Duval (1971); most traditional French studies of various aspects of the Iron Age start with a detailed analysis of passages relevant to the subject, before considering the archaeological evidence. Those relevant to north-west France include (for Armorican tribes) Guennou (1981, 3-7), Pape (1978, 23-36) and Rouanet-Liesenfelt (1980, 10-17), and (for frontiers) Chevallier (1981) and Schmitt (1981). The various Irish cycles of the first millennium AD are discussed by Jackson (1964) and summarized by Le Roux and Guyonvarc'h (1990, 46-52).

divested both these classes of the need to pursue agricultural activities; instead they were able to engage in pursuits specifically associated with their position in society, including warfare and raiding, giving feasts, and controlling the trade in luxury goods. Some sectors of the agricultural producers would also have been required to provide military service for the warrior class. In return, they enjoyed some degree of protection from the aristocracy, and benefitted from the warriors' successes in raiding, through the redistribution of plunder and the conferment of prestige.

The nature of this system was such that large, politically stable alliances were unlikely to develop, or at least to survive for long periods. There was no overriding political authority above the warrior nobles (or at most a council of elders with a consultative function), and given that success in the system required warfare and the prestige associated with a large retinue, competition must always have threatened to disrupt relationships and alliances. The size and nature of the warrior communities at this period is uncertain, but it seems likely that they were clan-based, with little political or social centralization, probably occupying territory of the order of the *pagus*. They had a considerable degree of independence which persisted throughout the first century BC in some areas (see below; cf. BG IV.22).

The influence of Rome on this system increased considerably from approximately the middle of the second century BC. Rome's growing domination in the Mediterranean world severely curtailed the opportunities for Celts to serve as mercenaries, with the consequence that they were forced to direct a greater proportion of their aggression - necessary for the survival of the warrior/agriculturalist system - against other Celtic groups. Towards the end of the second century BC, the annexation of the Province intensified the contact between Rome and the neighbouring tribes, who were thus well-placed to receive greater quantities of luxury goods (including wine and other products stored in amphorae, the most visible archaeological evidence of this trade) in exchange for commodities and, although archaeological evidence is still poor, slaves. They could obtain these goods either through peaceful exchange with other peoples, or through military activity; the incentive to increase the latter, with the prospect of gaining more luxury items and greater prestige, must have been considerable.

The capability of the land (and the social system) to sustain these processes of expansion was not infinite. The restriction of warrior activity effectively to within the confines of Gaul would eventually have a damaging effect on the peoples concerned, as crops and herds were destroyed, and men killed or captured and traded (ultimately out of the system, thus further depleting resources). At the

same time, natural population growth meant that there was little good agricultural land left to be newly occupied, and the traditional remedy to overpopulation and resource depletion - large-scale migration - was no longer a viable option (cf. the Helvetii, BG I.2).

The responses to this situation are complex and not entirely understood. Presumably there came a crisis point, when the problems summarized above became so great that remedial action other than migration was necessary to ensure the survival of the society. Nash (1975b, 450) has suggested that the logical development from this situation was a decrease in the number of nobles or ruling groups - either through competition, and thus survival of the fittest, or through treaties with weaker rulers - so that in general the territories became larger, while the surviving warrior nobles gained control of greater quantities of agricultural surplus, and augmented their personal followings. In view of the enlargement of territory and these consequences, it became necessary to institute some form of state administration, to consolidate power and to perform functions such as collecting taxes, controlling the agricultural surplus and so on. These institutions - notably magistracies and senates - also served to control the activity of the warriors, which threatened to destroy the system that encouraged the selfsame activity. The *civitates* of central Gaul which Nash has suggested developed aspects of the archaic state before the Gallic War include the Bituriges, the Arverni, the Aedui, the Sequani and the Helvetii, and perhaps the Pictones, the Lemovices and the Lingones (1978b, fig. 1).

The best-known example of the development of magistracies is provided by the Aedui, who "elected" (see below) the *Vergobretos* for one year, during which time he was required to remain in the *civitas*. In addition, his family were not permitted to hold high office during his lifetime, thus forestalling the formation of strong dynasties (Le Roux 1959). Senates are mentioned by Caesar on several occasions, and it seems reasonable to assume that they were the main form of *civitas* government in central Gaul in the first century BC, composed of the aristocracy and perhaps all the warriors or large landowners (Nash 1975b, 390-392). In neither case (senates or magistracies) is there any evidence that the plebs had the right to vote; this was probably restricted to the warrior nobles or the upper levels of the armed population (ibid., 388). The composition of the senate with respect to the different parts of the *civitas* is not altogether clear. In the most politically advanced *civitates*, it is

possible that there were representatives from each *pagus*, but otherwise the smaller units retained much of their earlier independence, for example in electing magistrates.[1]

The introduction of these reforms must have been a complicated process, since in many respects they were contrary to the interests of the warrior nobles, and it seems certain that there was resistance from some quarters. The precarious stability of the new system is best illustrated by the advance of Vercingetorix during the Gallic War. He managed to circumvent the mechanisms limiting the development of *regnum*, with sufficient resources - of wealth and followers - behind him; there must have been many other attempts to do this in the course of the late second and first century BC.

The development of the archaic state organization - including the processes mentioned above, such as the coalescence of larger areas of territory as single political units, and the introduction of senates and magistracies - found physical expression, probably from the middle of the second century BC, in the occupation of large nucleated settlements, the most important of which were oppida. The problems of defining and characterizing an oppidum have generated considerable debate in the archaeological literature, and space must be given here to a summary of some current views on the topic.

The basis of many of the problems appears to be an almost complete lack of agreement over the nature and function of the oppidum: "la notion d'*oppidum* reste encore en France pour beaucoup de personnes très floue" (Guillaumet 1984, 277). Many archaeologists, faced with a serious absence of excavated data, have been forced to use simple measures of area as a means of defining oppida, but there is little agreement on a threshold size. Thus Collis (1984b, 8) suggests that 20 to 25ha is the dividing line between hillfort and oppidum, but elsewhere uses the figure of 30ha or relaxes the limit to include smaller sites (ibid., 10, 186). Duval (1984b, 280) states that an oppidum must be at least ten hectares, while Langouët (1980; 1987d, 47) lists a number of sites in the territory of the Coriosolitae as oppida,

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[1] the problem of translating *civitas* has been addressed by Nash (1975b, 292-294, 430ff; 1978b, 463). She points out that Caesar used it to mean 'state' or 'government', or 'people' or 'nationality' - in other words it is not specific to one type of government, and could be used to describe various arrangements encountered by Caesar in different parts of Gaul. Translation as 'state' is probably only applicable to the most advanced polities of central Gaul, late in the Iron Age, to describe an "effective administrative entity with coercive powers" (1975b, 431). Translation as 'tribe' is common, but possibly inappropriate in the first century BC, since it carries implications of kinship- rather than territorially-based social identity (ibid., 293). A looser term, such as the Greek *ethnos*, would probably be more appropriate for general use in Gaul. As Nash suggests (ibid., 439), it is probably wrong to desire "exactness in terminology in Gaul", and we must be satisfied with an appreciation of the possible interpretations of *civitas*, rather that a single definitive translation.

some of which are only one or two hectares in size. The problem with all these attempts at definition, and it is evident in the range of figures suggested, is that size alone cannot indicate the nature of the social organization in which the oppidum functioned, nor does it reveal the role of the oppidum in that system.

Some indication of the roles of the oppidum has already been given. Nash (1978b, 457-459) has summarized these as follows:

i) defended refuges in a warrior society

ii) the site of tribal (*civitas*) and local administration

iii) market centres for regional and long-distance exchange

iv) production centres for regional and long-distance distribution

v) residences of a tribal nobility

These functions are broadly similar to those described by Sjoberg (1960, 87-91) in his classic work on the preindustrial town. The question of whether oppida may be legitimately described as towns has generated as much debate as the problem of definition, and arguably as little enlightenment. At one extreme are the views of Wells, who stresses the effects of industrialization at the oppida in the second and first centuries BC (eg 1988, 214); most authors, however, have expressed a far more cautious view of the degree of industrial activity at the majority of oppida, warning against forming generalizations from the anomalous evidence of Manching and post-conquest development on French sites (Bintliff 1984, 196). Bintliff stresses that the key to urbanization lies in the development of "an effective power structure" (Sjoberg 1960, 76); in the case of oppida, emphasis should thus be placed on the sites as residences of the ruling elite, who performed a variety of roles including the manipulation of production and trade:

> ...might we not suggest that the true source of the economic wealth and political power of these elites...may lie more in the relationship of the oppidum and its nobles to the agricultural wealth and dispersed raw material sources of the large territory associated with the oppidum, than in the craft products made in, or trading shipments arriving in that defended focus?
>
> Bintliff (1984, 196)

This view in some respects echoes the theory of Nash, in that political and social aspects of the oppidum are stressed - in particular the relationship between the nobles there resident, and the sources

of the agricultural wealth in the surrounding territory - although Bintliff places less emphasis on the importance of the site as a centre for long-distance exchange.

Archaeological evidence for many of these functions is still generally poor, and several authors remain reluctant to accept the concept of a class of oppida, "as opposed to suggesting that individual sites may display a range of features sufficient to merit the epithet 'urbanized' " (Ralston 1988, 788). Certainly in many areas the social system described above, and the associated occupation sites, did not develop, and pan-European definitions of concepts such as oppida are likely to oversimplify the real situation (Haselgrove 1988a, 77; Ralston 1990, 162). We should not necessarily expect, therefore, to recognize these features in outer peripheral areas such as Belgic Gaul (Wightman 1985, 24; Haselgrove 1990, 48), where the social structure in the second and first centuries BC developed from different preconditions and in response to different influences than were the case in central Gaul, and where processes of centralization had not progressed as far as in the zone immediately north of the Province.

In central Gaul, the development of the archaic state was interrupted by the Gallic War. The *civitates* of the region were overcome relatively quickly; some (the "foreign friends") certainly had treaties with Rome, which must have 'softened up' the ruling-classes in the years before the War. In the section below, we shall briefly consider what the text of *De Bello Gallico* reveals about the tribes of north-west France at this period.

4.2.1 The Gallic War in north-west France

This is not the place for a detailed account of Caesar's campaigns in Gaul between 58 and 50 BC, which can best be obtained from *De Bello Gallico* itself and a commentary such as Holmes (1911).[1] However, it is worth noting the passages relevant to the tribes of north-west France and the key events in the region, not least because of the attempts of archaeologists and numismatists, until very recently, to correlate most of the observed archaeological traces with events described by Caesar (Ralston 1984, 147): "Que de sites sont datés en fonction du passage en 55 ou 52 avant J.-C. des armées de César!" (Duval 1984c, 57). A couple of good examples of this tendency are Wheeler's suggestion (also made by earlier authors) that the hillfort of le Petit-Celland in Manche "is another

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[1] references to *De Bello Gallico* (abbreviated BG) are taken from the Loeb Classical Library Edition (1917), translated by H. J. Edwards. The names of the tribes (eg in table 5) have been spelled in forms currently in common usage. I am grateful to Daphne Nash for advice on translation.

product of organized Gaulish resistance to Caesar in 56 BC, and that it may reasonably be referred to the activities of Viridovix" (Wheeler and Richardson 1957, 43), and the assumption that the Jersey coin hoards were necessarily deposited by refugees from this battle.

The reasons for the interest of Rome, and in particular of Caesar, in Gaul have been outlined above (4.1). The crucial events as far as north-west France is concerned took place in 57-56 BC (figure 22). In 57 BC, Caesar defeated several tribes in Belgica while his legate, Publius Crassus, forced the Armorican tribes to submit, apparently without difficulty (BG II). Most of his legions were left to winter in Gaul, including the VII under P. Crassus, popularly supposed to have camped at the confluence of the Maine and the Loire (BG III.7). In the following year the Armorican tribes rebelled, led by the Veneti. Caesar sent forces to different parts of Gaul to suppress dissent and prevent reinforcements from reaching Armorica (eg Quintus Titurius Sabinus, who was sent to the territory of the Unelli, Lexovii and Coriosolitae (BG III.11)), while he joined the newly constructed fleet on the Loire. The ensuing sea-battle on the southern coast of Brittany is one of the most famous episodes in *De Bello Gallico* (III.14-16; Le Roux and Guyonvarc'h 1954; Merlat 1981, 50-69).

Caesar was not directly involved in north-west France in the remaining years of his campaign, although legions were maintained to keep order in the territories of the Carnutes and the Lexovii. The lack of detail in *De Bello Gallico* on events in north-west France at this period may reflect the strained personal relationship between Caesar and Crassus, rather than any lack of resistance on the part of the Armorican tribes (Nash, pers. comm.). Immediately east of our region, the Carnutes remained a particular thorn in the Roman side, and ultimately led other tribes of central and northern Gaul to revolt in 52 BC (BG VII.2), before command passed to Vercingetorix of the Arverni. Despite Caesar's impressive victory at Alesia, sporadic resistance continued in the north and the west in the following year (BG VIII.4-5, 7, 26).

One of the chief uses made of Caesar's text has been to provide indications of the alliances that operated between tribes in Gaul (Duval 1990a, 279-281). Those relevant to north-west France are set out in table 5. There are three main lists of tribes in the region (BG II.34, III.9 and VII.75), described (in two cases) as states bordering the ocean or as "Aremorici" (literally "maritime people"). In the light of this translation we should not be too concerned at the inclusion of the distant Morini and Menapii with the Armorican tribes (cf. Duval 1990a, 280), since these tribes and others (eg the Caleti) could be

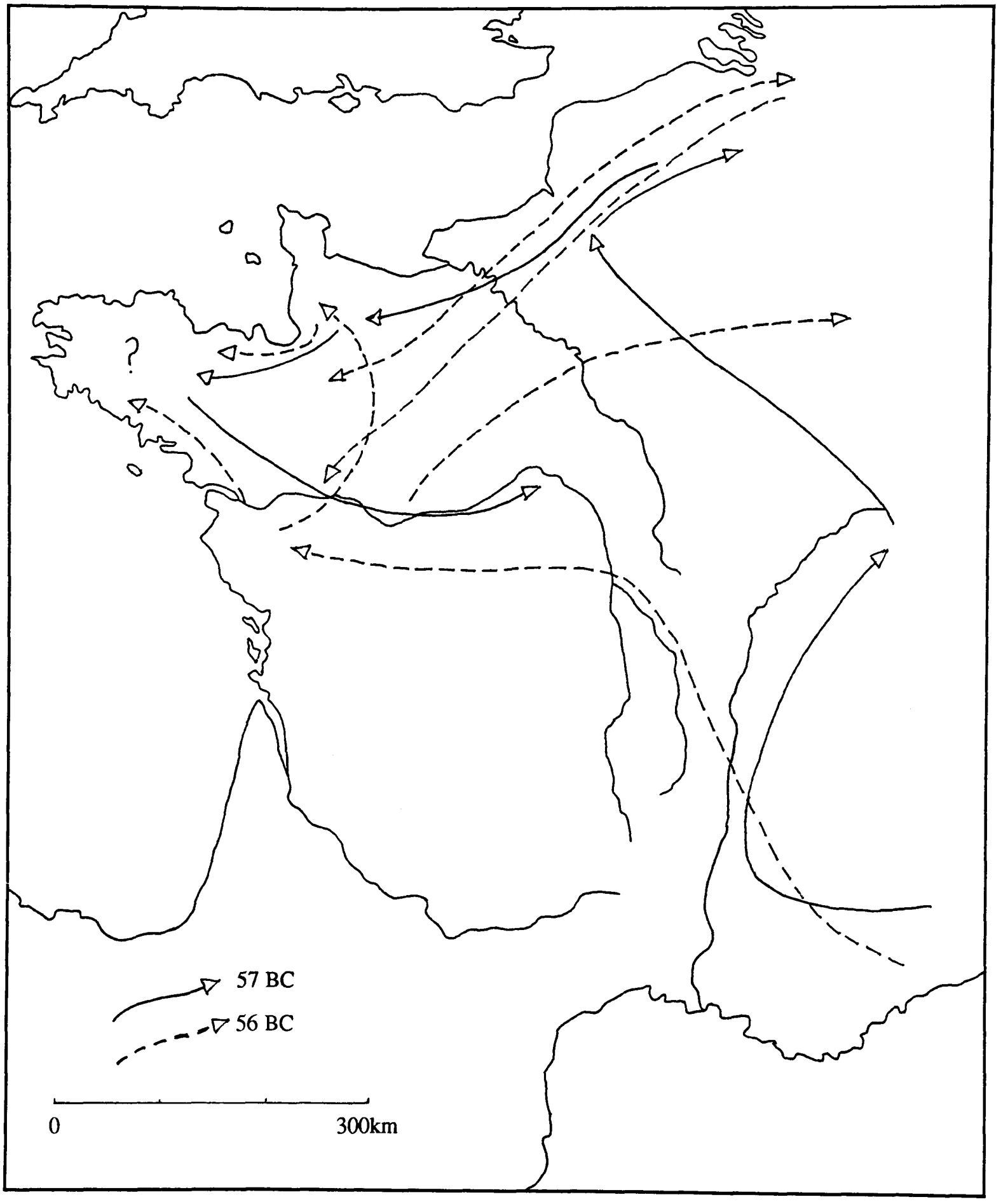

Figure 22. Roman campaigns in Gaul, 57-56 BC (after Cunliffe 1988, fig. 46).

BG reference	summary of text
II.34	P. Crassus was sent with one legion against "the Veneti, Unelli, Osismii, Coriosolitae, Esuvii, Aulerci and Redones, the maritime states which border upon the Ocean...[he] reported that all those states had been brought into subjection to the power of Rome."
III.7	"Publius Crassus...with the Seventh legion had been wintering by the Ocean in the country of the Andes. As there was a lack of corn in those parts, he dispatched several commandants and tribunes into the neighbouring states [Esuvii, Coriosolitae, Veneti] to seek it."
III.9	"As allies for the war [the Veneti] took to themselves the Osismii, the Lexovii, the Namnetes, the Ambiliati, the Morini, the Diablintes, and the Menapii; and they sent to fetch auxiliaries from Britain, which lies opposite these regions."
III.11	Sabinus was sent with three legions to isolate the rebel Unelli, Coriosolitae, Lexovii
III.17	Sabinus "reached the border of the Unelli. Their chief, Viridovix, held the supreme command of all the revolted states...in the last few days the Aulerci Eburovices and the Lexovii, after putting their senate to death because they refused to approve the war...joined Viridovix."
VII.4	Vercingetorix "speedily added to his side the Senones, Parisii, Pictones, Cadurci, Turones, Aulerci, Lemovices, Andes, and all the other maritime tribes..."
VII.75	the number of troops demanded from each tribe at Alesia included "...eight thousand each from the Pictones, Turones, Parisii, and Helvetii...[5000] from the Aulerci Cenomani...three [thousand] each from the Veliocasses, Lexovii, and Aulerci Eburovices...thirty thousand in all from the states touching the Ocean, who commonly call themselves Aremoricae, among whom are the Coriosolitae, Redones, Ambibarii, Caleti, Osismii, Veneti, Lemovices, and Unelli."
VIII.7	the Bellovaci were aided in rebellion by the Ambiani, Aulerci, Caleti, Veliocasses and Atrebates
VIII.26	"...Duratius [pro-Roman leader of the Pictones] was shut up in Lemonum and attacked by Dumnacus, chief of the Andes, with many thousand men."
Passing reference to tribes of the north-west is also made at II.35, III.29, V.24, V.53 and VIII.31	

Table 5. References to the tribes of north-west France in *De Bello Gallico*.

ethnically Belgic, but at the same time part of a maritime group dominated by Armorican tribes, as we now understand the term. The status of some tribes, in particular the Aulerci, remains unclear, since distinctions are not always drawn between the Diablintes, the Cenomani and the Eburovices. Other groups, including the Esuvii and the Ambibarii, have yet to be satisfactorily identified, and we shall have to wait for archaeological or epigraphic evidence to clarify their location. It is difficult to place a value on this aspect of Caesar's evidence, or to determine whether our understanding of the archaeology of the region would be diminshed without it. In some cases archaeological evidence apparently contradicts the comments of Caesar (most famously in the claim (BG III.8) that the Veneti were dominant in trade across the Channel), but in matters of tribal alliances and the like, non-literary evidence is currently too scanty to confirm or refute his assertions, and an attitude of healthy scepticism is perhaps the best response at present.

One further aspect touched on by Caesar, relevant to the discussion above (4.2), is worth mentioning here. At BG III.14, he makes it clear that as he attacked the Veneti, they were able to regroup in a succession of strongholds. They are thus contrasted to (for example) the tribes of central Gaul, where Caesar was effectively able to conquer the people through the destruction of their key oppidum. In other words, the political centralization suggested (above) to have been proceeding apace in central Gaul, and the relative lack of the process in the tribes of the outer periphery, are here reflected in the different settlement systems of the two regions.

4.3 Summary: the core/periphery relationship

The developments in Roman and Celtic society in the second and first centuries BC, summarized above, have thus far been treated essentially as two separate processes. In fact the points of contact between them are many, and of great importance to the development of both sides.

The core/periphery concept, based on the world systems theory of Immanuel Wallerstein (summarized by Champion 1989, 5-9; see also Rowlands 1987), has increasingly been recognized as a useful model of the processes that took place in Europe in the later Iron Age (eg Nash 1975b; Haselgrove 1987b; Cunliffe 1988). The establishment of the system with which we are concerned may be recognized in the expansion (economic and otherwise) of the core, Rome, in the second century BC, driven by the fundamental importance of military activity as the prime source of state revenue and personal wealth and prestige. The region exploited by the core in order to fulfil its various economic and social needs - the periphery - was not a single entity, but may be split into several zones characterized by different relationships with the core, which changed (both the zones, including the core, and the relationships) over time. Thus in 4.1 above, we saw how Rome forged alliances with Italian communities, who were forced to bear the brunt of the expense of Rome's expansion, and who usually articulated exchange with the communities of the outer periphery (including southern Gaul, until the late second century BC). When southern Gaul was annexed, and thus became part of the core - which needed to expand to survive - there were corresponding adjustments in Gaul. The *civitates* of central Gaul, some of which had almost certainly entered into treaties with Rome from an early date, formed a buffer-zone beyond the core, performing an important role as a "semi-periphery" (Champion 1989, 16). These groups protected the core from the outer periphery and, as had happened at earlier stages with different groups, articulated exchange between the core and the periphery, and bore many of the core's costs.

The effects of Rome on central Gaul have been summarized above (4.2). In response to the Roman demand for resources, the polities of this region intensified processes of trade and exchange, and probably warfare and raiding, with the communities of the outer periphery (Haselgrove 1987b, 111-

112), which included Belgica, and parts of north-west France and southern Britain.[1] This maintained and indeed reinforced the existing Celtic social hierarchy, as the ruling classes were able to obtain more luxury goods (such as the contents of amphorae), but in return needed to provide ever greater quantities of primary products (eg slaves and mineral ores).

In both Roman and Celtic systems, the importance of military activity as a prime source of wealth and prestige caused intolerable pressures on the social structure. In the case of Rome, these were eventually resolved by the Civil War. For those parts of Celtic Gaul which formed the semi-periphery, expansion into other parts of Gaul (forced in part by the curtailment of mercenary opportunities and partly by natural population growth) was ultimately self-defeating. But unlike Rome, it appears that attempts made to reform the system in central Gaul met with rather more success (though opposition from many quarters must have been intense); these processes are reflected in the political centralization which finds its most visible archaeological expression in the oppida, and may be recognized as development towards an archaic state:

> The constitution of the state represents, in effect, both a mundane solution to the complexity of the new scale of polities in maximising the efficiency with which tribute could be mobilised and surplus extracted from the subject territory, and a permanent alliance in the self-interest of the successful groups holding power to ensure the reproduction of their position, both by preventing the emergence of challenges from other groups gaining access to new forms of wealth, and in precluding their own subjugation by a group even more powerful than themselves.
>
> Haselgrove (1987b, 110)

However, the course of events in central Gaul was interrupted by a further stage in the annexation processes of the core, which repeated previous episodes of the incorporation of the semi-periphery into the core proper through military conquest, in this case the Gallic War. There followed a period of some years as the scale of the system changed yet again; parts of the periphery (such as north-west France) "moved" inwards, becoming more closely associated with the core, while some of the areas that had previously been outermost (eg Britain) were in effect prepared for annexation at a later date.

The core/periphery concept is a useful one, and it can clearly provide a framework for understanding economic and social development in Rome and Gaul in the protohistoric period. But as Champion (1989, 18) notes, analysis at this scale should not blind us to "subtleties of regional

---

[1] links between the south, central Gaul and outer peripheral areas undoubtedly existed in earlier periods, but they became considerably more intense in the late La Tène.

variations within the system", and thus in the following chapters we shall try to identify some of the processes taking place within one particular region, north-west France.

5

Late La Tène and early Gallo-Roman settlement

In this chapter we will examine the settlement archaeology of the late Iron Age in north-west France. There are three main types of site: 113 fortified sites, 102 confirmed or possible open settlements,[1] and 78 quadrilateral enclosures.[2] The problems of definition, identification and so on which are specific to each type will be examined in the relevant sections below, but there are a number of problems which apply across the range of sites and which will be discussed first.

5.1 Problems with the data

5.1.1 Site identification

The pattern of sites now visible in north-west France is largely the result of haphazard observation and accumulation of information over more than two centuries (see section 1.5). Only very recently have efforts at the systematic survey of parts of the region had a measurable impact on the record of late IA sites. These surveys have greatly increased our knowledge of the settlement pattern in certain areas, but at the same time give rise to possible misinterpretations of the picture in the region as a whole. Figure 23 shows the areas where these surveys have taken place.[3] Comparison with the general distribution maps (figures 24, 41 and 47) shows clearly that they correspond to areas with the greatest density of sites. The potential of this approach to alter our conception of the IA landscape is great; smaller surveys (also shown on figure 23) have also indicated a much greater number of sites

---

1 this figure does not include the ditched enclosures in Mayenne and Sarthe identified from air photography by Lambert and Rioufreyt (1981b), listed in appendices to the two relevant departmental gazetteers, nor the massive numbers of enclosures identified in Calvados and Ille-et-Vilaine and published (in Delacampagne 1990 and Leroux and Provost 1990 respectively) after the completion of this chapter.

2 other evidence of settlement, such as briquetage sites, will be considered at the end of this chapter. The three types of site listed here provide by far the bulk of the evidence; information on settlement from features such as pottery scatters is almost completely unknown, due to the lack of systematic fieldwalking programmes in the region.

3 in addition to the areas marked on figure 23, the settlement record of western Calvados has now benefitted from intensive aerial survey (Delacampagne 1990).

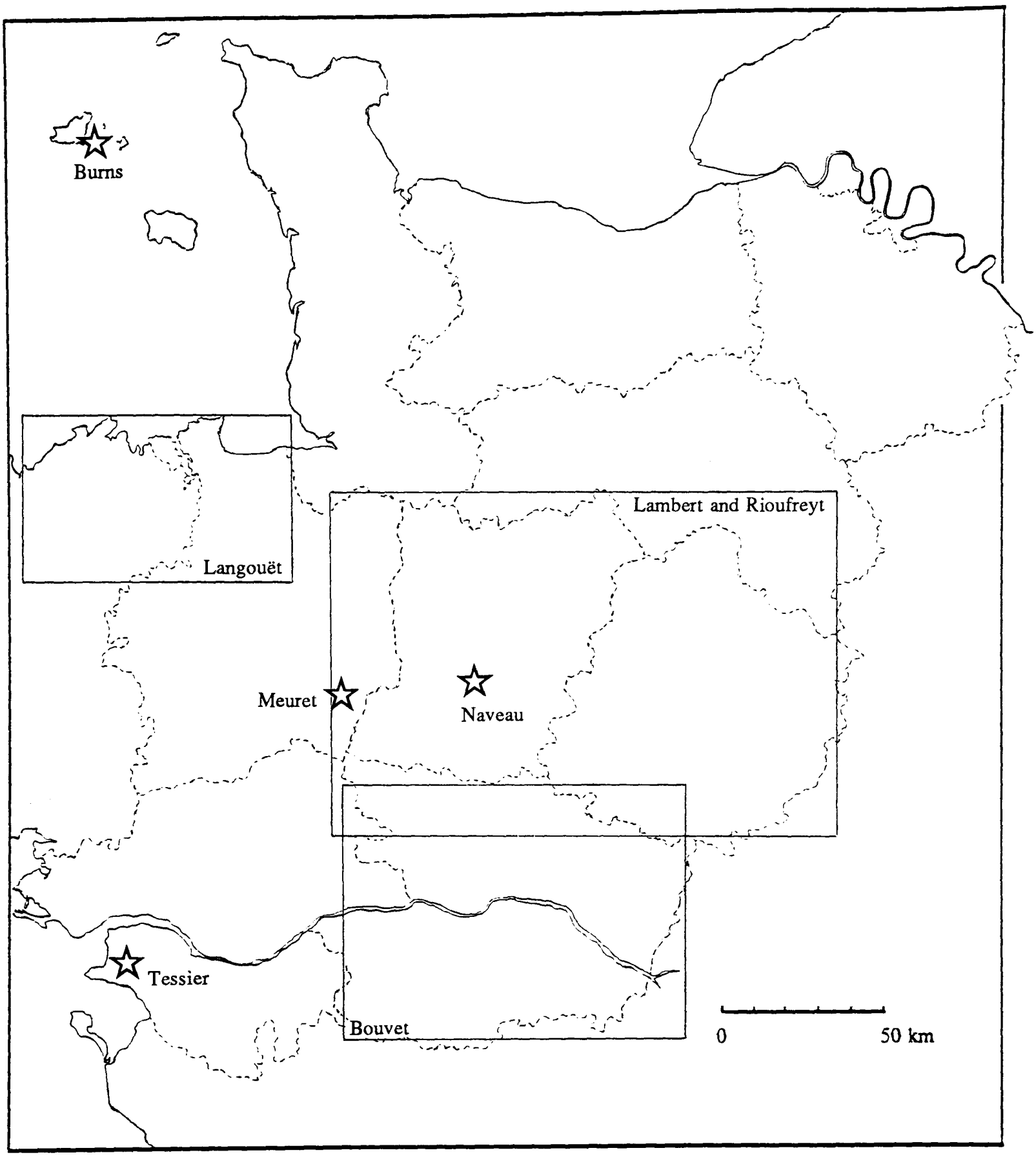

Figure 23. Areas of intensive settlement survey in north-west France.
Survey boundaries are approximate.

than was previously recognized or expected. Examples of this include Meuret's observations in the forêt de la Guerche (Ille-et-Vilaine), where at least twelve quadrilateral earth structures have recently been identified (Meuret 1989, 371), and research in the area within 3km of the fortified site of Entrammes (Mayenne), where a similar number of enclosures has been located (Naveau 1982a, 22-23). For most of the region, however, this approach remains rare or unknown, and so there are areas such as the Cotentin peninsula with what is almost certainly a misleadingly low number of recorded sites. The identification of new sites remains mostly a process of pure chance, dependent upon destructive human activities such as urbanization, quarrying and road and rail development; the extension of the TGV line to Brest, promised for many years, could have an important impact on the picture of Iron Age settlement in our region. Those parts of north-west France least touched by systematic survey, in particular the departments of Manche and Orne, have also escaped most of these attentions, thus reinforcing the existing disparity in observed settlement density.

5.1.2 Site location and description

Following the identification of a site, it is vital that its location be accurately recorded and published. In many cases this does not take place, and no more precise information is available than the fact that it is in a particular commune. As communes in the French departments cover on average between 7 and 20km^2, this has clear implications for the examination of spatial relationships between sites. It also has an important bearing on considerations of the influence of geology and geography on site location; this point will be expanded below.

The ideal method of recording site location is through a system such as the six-figure grid reference in use on the Ordnance Survey maps in Britain. A similar system exists in France; the *cordonnées Lambert*, however, are more complicated, and are marked only on the most detailed maps. The only major work to have made extensive use of this system is Buchsenschutz's survey of Iron Age structures in northern France (1984). Equally detailed locational information can be provided by reference to the cadastral system (utilized chiefly by Langouët in his intensive survey of northern Ille-et-Vilaine and the Côtes-d'Armor), but this level of detail is not usually available to the researcher. The French archaeologist is also ill-served by the lack of archaeological information on the maps of the Institut Géographique National, in contrast with the Ordnance Survey. For example, even on the most

detailed maps (in this case IGN carte 1315 est, 1:25000), the hillfort of le Petit-Celland (Manche), arguably one of the best-known sites in north-west France, is unmarked.

In the absence of a simple grid reference, detailed description of both the site and its situation are the ideal; again, the reality usually falls far short. Wheeler and Richardson's survey (1957) provides an excellent model of this approach. Buchsenschutz (1984) includes some useful details on the physical characteristics of the sites, but falls short in its poor referencing. Otherwise, published accounts are generally simply lists of sites (eg Bertin 1975b; Lambert and Rioufreyt 1981a) which, though useful, are of limited value in analyzing the nature of the site.

The published description is often an inadequate basis on which to gain a clear picture of a site, or to compare it with other similar structures. Particular aspects of this problem will be considered in each of the three main sections below, but some general comments apply. The vast majority of all types of sites in north-west France lack a plan of any sort. Many of the surveys made in the early part of this century (notably Coutil's work on the quadrilateral enclosures in Eure) are highly inaccurate, altering dimensions to regularize the site and 'improve' its orientation with respect to the cardinal points. Once again there is a clear need for intensive survey to redress this problem. In the meantime, even thumbnail sketches such as those used in the *Chroniques de prospection...* of the Centre Régional Archéologique d'Alet (eg Langouët and Faguet 1977; 1978 and in successive years) are of value in shedding light on some of the commonly-used phrases such as "ditched enclosure" or the "camp gaulois".

The lack of precise information has considerable repercussions on analyses relating site location to factors such as geology, soils and drainage (figures 3-6). While distribution maps of sites may show evidence of correlation with some aspects of these factors, the information on micro-topographical features which is ideally required is lacking (Knight 1984, 275; Modderman 1988, 62). This problem is compounded if the location of the site is itself uncertain. The remedy, of intensive field survey of relief, surface geology, pedology, water resources and the other factors which make up the landscape, is clearly impracticable in this case, and so the maps at a broad scale must suffice. Although the problem does not particularly arise here, save perhaps in some coastal areas, consideration should also be made of the environmental changes that have taken place since the late Iron Age (section

1.4.3). In north-west France the increasing degree of deforestation is probably the most significant such change, rather than any fundamental environmental alteration.

5.1.3 Site excavation and publication

The number of excavated Iron Age sites in north-west France is undoubtedly low. Table 6 shows the proportion of each type of site that has been dug since 1830; it takes no account of the extent and quality of excavation, or its publication (see below).

	excavated	unexcavated	total
fortified sites	27 (23.9)	86 (76.1)	113 (100)
open settlements	33 (32.4)	69 (67.6)	102 (100)
quadrilateral enclosures	6 (7.7)	72 (92.3)	78 (100)
total	66 (22.5)	227 (77.5)	293 (100)

Table 6. Proportion of excavated and unexcavated settlement sites in north-west France. Figures in brackets are percentages. Data from gazetteer.

It was noted above that the identification of sites now depends largely on human interference ı the region, be it through housing development, road improvement, quarrying or other such action. or the most part the decision to excavate is made in response to the threat of destruction, subject to ıe constraints of time and money. This usually means that only part of a site can be satisfactorily ıcavated, which has implications for our comprehension of the site and consequently for interpretation : its relationship with others. In north-west France, the numbers of rescue excavations (*sauvetages ·ogrammés* or *urgents*) and programmed excavations (*fouilles programmées*) in the post-war period are ughly similar for the three categories of site to be considered in this chapter (table 7), illustrating the lative lack of urban and industrial development in the region.

This is not, however, the whole story; an unpublished site is of little academic value, and a ;h proportion - almost two-thirds - of the excavated sites in north-west France have not been fully ːumented, as table 8 shows. This causes yet more problems in interpretation, given that the number excavated sites is low in the first place.

dept.	rescue excavations	programmed excavations	total
14	4	4	8
27, 76	4	0	4
35	1	3	4
44	1	4	5
49	3	3	6
50	1	0	1
53	5	3	8
61	1	3	4
72	0	4	4
G	1	1	2
J	1	4	5
totals	22	29	**51**

Table 7. Post-war excavations of settlement sites in north-west France (data from gazetteer).

dept.	fully published	interim report	mostly unpublished	total
14	4	2	2	8
27, 76	0	4	0	4
35	1	3	0	4
44	2	3	0	5
49	1	3	2	6
50	0	0	1	1
53	4	4	0	8
61	2	2	0	4
72	0	3	1	4
G	1	1	0	2
J	3	1	1	5
totals	18 (35.3%)	26 (51.0%)	7 (13.7%)	**51**

Table 8. Post-war excavation of settlement sites: record of publication (data from gazetteer).

.1.4 Site chronology

It must be stressed from the outset that the chronological evidence from these sites is very ɔor, given the lack of excavation and publication identified in the section above. As less than one-ıarter of all the sites have been excavated (table 6), and the published chronological information is of al value in about three-quarters of these, this reduces the size of the well-dated, useful sample further ıll, to about 50 sites from the original tally of 293. For the remainder of the sites the assumption

that they too are of the LT3 or EGR period is quite clearly unlikely to be justified in many cases. Assuming contemporaneity on the basis of similarity in form is dangerous given the existence of close parallels in many other periods (for example medieval quadrilateral enclosures; see section 5.4.1 below). Likewise there is a considerable problem of re-use and re-occupation of sites, in particular some of the smaller fortifications, which were undoubtedly constructed in the Neolithic and successively re-occupied. There is simply no way around this problem, other than to increase the number of excavations. In the meantime it must be borne in mind throughout the succeeding analyses that the chronological basis is not strong.

5.1.5 Summary

There are clearly major problems at every stage of the process of site identification, description, excavation and publication, and especially in the assumption that these sites can all be safely dated to the late La Tène, which itself assumes that development was constant both spatially and temporally through the seventy year period. This undoubtedly reduces the suitability of the data for detailed analysis, but fortunately not to the point where such an approach becomes worthless. In the following sections an attempt will be made to extract the maximum possible amount of information from the data we have.

5.2 Fortified sites

5.2.1 Introduction

i) identification

Fortified sites have traditionally received more attention than other aspects of Iron Age settlement simply because of their greater visibility on the landscape, and thus Wheeler and Richardson (1957, 138) traced descriptions of hillforts back to the comte de Caylus (writing in the mid-eighteenth century), before they themselves contributed to this long history of investigation. Despite this lengthy period of research, it is clear from recent surveys (in particular Lambert and Rioufreyt 1981a; 1981b) that there remain many fortified sites still to be found, particularly of the small inland promontory fort type (see definitions below). The 113 sites mapped on figure 24 thus display the usual spatial variations resulting from inequalities in fieldwork coverage (see 5.1.1 above). Table 9 lists the known morphological details of these sites.

ii) definition

The most important feature of the fortified site is the presence of one or more defensive banks, usually accompanied by ditches.[1] Fortified sites have traditionally been divided by French archaeologists into three types: the *éperon barré* (promontory fort), the *enceinte du contour* (hillfort), and the *enceinte sur un rebord de plateau* (plateau-edge site) (Buchsenschutz 1984, 213; Guillaumet 1984, 277). The majority of sites make use of positions that already have a reasonable degree of natural protection, which can be enhanced with relatively simple defence works; the coastal promontory fort, protected on three sides by cliffs and the sea, and on the fourth, landward side by a bank and ditch across the narrow neck of land connecting it to the mainland, is the classic example. In reality the situation is rather more complex. For the purposes of this research, fortified sites have been divided into four types: the coastal promontory fort, the inland promontory fort, the hillfort and the low-lying confluence site.

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occasionally ditched sites (without banks) are listed as fortifications, although in most cases they would probably be better described as open settlements. This is a particular problem in the pays de Retz, where Tessier has identified many examples of what he calls the *camp gaulois*, which have no defensive works other than shallow ditches that are more likely to have served perhaps as boundary indicators or animal stockades. The lack of published information on these sites and some others in north-west France, and the wide range of meanings conveyed by terms such as *camp*, has in some cases made it difficult to distinguish the sites that can truly be said to have been fortified.

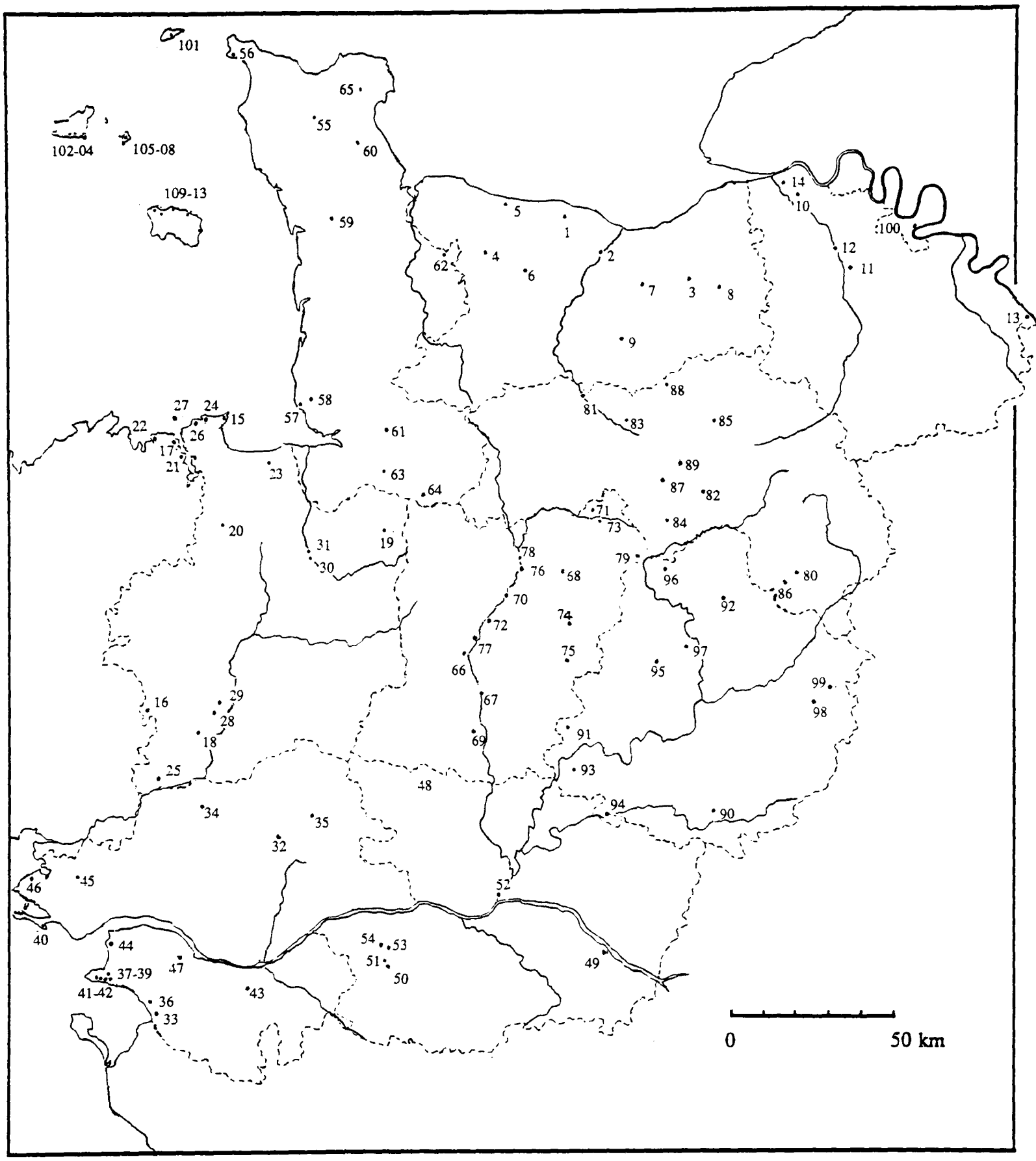


Figure 24. Distribution of fortified sites of all types.
Key to sites overleaf.

fig. no.	commune	gaz. no.
1	Banville	14.03
2	Blainville-sur-Orne	14.09
3	Cambremer	14.14
4	Castillon	14.16
5	Commes	14.22
6	Hottot-les-Bagues	14.31
7	Moult	14.47
8	Saint-Désir	14.64
9	Soumont-Saint-Quentin	14.74
10	Bouquelon	27.10
11	Brionne	27.12
12	Freneuse-sur-Risle	27.34
13	Saint-Pierre-d'Autils	27.66
14	St-Samson-de-la-Roque	27.67
15	Cancale	35.10
16	Comblessac	35.13
17	Dinard	35.16
18	Guipry	35.27
19	Landéan	35.29
20	Meillac	35.33
21	Pleurtuit	35.44
22	Saint-Briac	35.56
23	Saint-Broladre	35.59
24	Saint-Coulomb	35.61
25	Sainte-Marie-de-Redon	35.63
26	Saint-Malo	35.68
27	Saint-Malo	35.69
28	Saint-Malo-de-Phily	35.74
29	Saint-Senoux	35.85
30	Vieux-Vy-sur-Couesnon	35.89
31	Vieux-Vy-sur-Couesnon	35.90
32	Abbaretz	44.01
33	Bourgneuf-en-Retz	44.11
34	Guémené-Penfao	44.25
35	Moisdon-la-Rivière	44.38
36	les Moutiers	44.40
37	la Plaine-sur-Mer	44.54
38	la Plaine-sur-Mer	44.55
39	la Plaine-sur-Mer	44.58
40	le Pouliguen	44.68
41	Préfailles	44.69
42	Préfailles	44.70
43	Saint-Aignan-Grandlieu	44.74
44	Saint-Brevin-les-Pins	44.76
45	Saint-Lyphard	44.80
46	Saint-Molf	44.89
47	Vue	44.102
48	Châtelais	49.33
49	C'hutte-Trèves-Cunault	49.40
50	le Fief-Sauvin	49.52
51	le Fief-Sauvin	49.53
52	Sainte-Gemmes-sur-Loire	49.101
53	Saint-Pierre-Montlimart	49.108
54	Saint-Rémy-en-Mauges	49.112
55	Brix	50.03
56	Jobourg	50.11
57	Jullouville	50.12
58	Jullouville	50.13
59	Lithaire	50.14
60	Montebourg	50.17
61	le Petit-Celland	50.20
62	Saint-Jean-de-Savigny	50.29
63	St-Laurent-de-Terregatte	50.31
64	Savigny-le-Vieux	50.33
65	le Vast	50.40
66	Changé	53.08
67	Entrammes	53.16
68	Hardanges	53.24
69	Loigné-sur-Mayenne	53.38
70	Moulay	53.46
71	la Pallu	53.49
72	Sacé	53.52
73	Saint-Calais-du-Désert	53.53
74	Sainte-Gemmes-le-Robert	53.54
75	Sainte-Suzanne	53.55
76	St-Fraimbault-de-Prières	53.56
77	Saint-Jean-sur-Mayenne	53.58
78	Saint-Loup-du-Gast	53.59
79	Saint-Pierre-des-Nids	53.62
80	Appenai-sous-Bellême	61.05
81	Bréel	61.10
82	la Chapelle-près-Sées	61.14
83	la Courbe	61.18
84	Cuissai	61.19
85	Exmes	61.22
86	Igé	61.26
87	la Lande-de-Goult	61.29
88	Merri	61.31
89	Montmerrei	61.33
90	Aubigné-Racan	72.04
91	Auvers-le-Hamon	72.07
92	Courgains	72.11
93	Courtillers	72.12
94	Cré	72.13
95	Domfront-en-Champagne	72.14
96	Gesnes-le-Gandelin	72.17
97	Saint-Jean-d'Assé	72.31
98	Semur-en-Vallon	72.33
99	Vibraye	72.35
100	Orival	76.13
101	Alderney	G.01
102	Forest	G.05
103	Forest	G.06
104	St Martin	G.11
105	Sark	G.22
106	Sark	G.23
107	Sark	G.24
108	Sark	G.25
109	St John	J.11
110	St Martin	J.12
111	St Ouen	J.15
112	St Ouen	J.16
113	Trinity	J.19

		type	alt.	area	1	2	3	4	5	6	7	comments
14.03	Banville	2	1	2.2ha	b+d x2	-	-	-	-	-	-	possible *murus gallicus*?
14.09	Blainville-sur-Orne	2	1	-	>1b, d	-	-	-	-	-	-	-
14.14	Cambremer	2	3	2.4ha	b+d	-	5m	10m	-	20m	-	-
14.16	Castillon	3	2	44ha	b+d	3.5m	-	-	18m	7m	1.6m	modified Kelheim rampart
14.22	Commes	2	1	3.2ha	b+d	-	4m	5m	-	-	-	-
14.31	Hottot-les-Bagues	2	2	3.25ha	b+d	-	3.6m	6m	-	-	1m	flat-bottomed ditch, mostly filled
14.47	Moult	3	2	-	b+d	-	3.3m	5m	-	-	-	bank much reduced
14.64	Saint-Désir	3	3	162ha	b+d	4-5m	-	-	10-13m	-	-	substantial ditch; *murus gallicus*?
14.74	Soumont-Saint-Quentin	2	3	3.25ha	b+d	<2m	-	-	-	-	-	bank reduced; dated to LBA
27.10	Bouquelon	2	3	2ha	b+d	-	1.7m	2.3m	-	-	-	-
27.12	Brionne	2	3	2ha	b+d	-	-	16-18m	-	35-40m	6m	secondary b+d to SE
27.34	Freneuse-sur-Risle	3?	3	-	2b	1.75-2m	-	-	3m	-	-	-
27.66	Saint-Pierre-d'Autils	2	2	10ha	b+d	-	4m	8m	-	30m	-	Fécamp type; inturned entrance
27.67	Saint-Samson-de-la-Roque	2	3	97ha	b+d	3-4m	-	5m	-	-	-	-
35.10	Cancale	1	1	1ha	3d?	-	-	-	-	-	-	-
35.13	Comblessac	2	2	5.5ha	b+d	-	6m	-	-	20m	-	inturned entrance; *murus gallicus*?
35.16	Dinard	1?	1	3ha	-	-	-	-	-	-	-	-
35.27	Guipry	2	2	c. 2ha	2b	-	-	-	-	-	-	-
35.29	Landéan	2	3	20ha	b+d	-	-	-	-	-	-	*murus gallicus*?

Table 9 (continued overleaf). Fortified sites in north-west France.

Explanation of columns:

type:
1: coastal promontory fort
2: inland promontory fort
3: hillfort
4: low-lying site at river confluence

altitude:
1: <50m asl
2: 50-100m asl
3: 100-200m asl
4: 200-300m asl
5: >300m asl

site morphology, columns 1-7:
1: number of banks (b) and ditches (d)
2: height of bank (where it is unclear whether this figure is measured from ground surface or ditch)
3: height of bank above site interior
4: height of bank above bottom of ditch
5: width of bank at base
6: width of ditch
7: depth of ditch

gaz. no., commune		type	alt.	area	1	2	3	4	5	6	7	comments
35.33	Meillac	?	1	-	2b, d	-	-	-	-	-	-	destroyed
35.44	Pleurtuit	1	1	-	b	-	-	-	1.5m	-	-	possible second bank
35.56	Saint-Briac-sur-Mer	1	1	2ha	-	-	-	-	-	-	-	-
35.59	Saint-Broladre	2	1	0.2ha	b+d	1m	-	-	-	-	-	-
35.61	Saint-Coulomb	1	1	16ha	b+d	-	-	-	-	-	-	*murus gallicus*?
35.63	Sainte-Marie-de-Redon	2	1	4ha	b+d	-	-	-	-	-	-	-
35.68	Saint-Malo	1	1	-	b	-	-	-	7.5m	-	-	-
35.69	Saint-Malo	?	1	-	-	-	-	-	-	-	-	-
35.74	Saint-Malo-de-Phily	2	2	c. 1ha	2b	2.5m	-	-	-	-	-	-
35.85	Saint-Senoux	2	2	>2ha	2b	3m	-	-	-	-	-	-
35.89	Vieux-Vy-sur-Couesnon	2	2	c. 18ha	b+d?	8m	-	-	-	-	-	-
35.90	Vieux-Vy-sur-Couesnon	2?	2	-	-	-	-	-	-	-	-	-
44.01	Abbaretz	?	2	-	b+d?	-	-	-	-	-	-	-
44.11	Bourgneuf-en-Retz	?	1	-	-	-	-	-	-	-	-	-
44.25	Guémené-Penfao	2	2	-	-	-	-	-	-	-	-	-
44.38	Moisdon-la-Rivière	?	1	-	-	-	-	-	-	-	-	destroyed
44.40	les Moutiers	?	1	-	b?	-	-	-	-	-	-	-
44.54	la Plaine-sur-Mer	?	1	-	2d	-	-	-	-	-	-	-
44.55	la Plaine-sur-Mer	?	1	-	>3d	-	-	-	-	-	-	-
44.58	la Plaine-sur-Mer	?	1	-	-	-	-	-	-	-	-	-
44.68	le Pouliguen	1	1	c. 7ha	b+d x4	3m	-	-	-	-	-	-
44.69	Préfailles	1	1	-	2b	-	-	-	-	-	-	-
44.70	Préfailles	?	1	-	b+d	-	-	-	-	-	-	-
44.74	Saint-Aignan-Grandlieu	2?	1	-	-	-	-	-	-	-	-	-
44.76	Saint-Brevin-les-Pins	?	1	-	2d	-	-	-	-	-	-	-
44.80	Saint-Lyphard	?	1	-	-	-	-	-	-	-	-	-
44.89	Saint-Molf	?	1	-	>1d	-	-	-	-	-	-	-
44.102	Vue	2	1	-	b	3m	-	-	9m	-	-	*murus gallicus*?
49.33	Châtelais	3	2	30ha	b, 2d	3m	-	-	-	4, 2m	1.5, 1.5m	

Table 9 (continued). Fortified sites in north-west France.

gaz. no., commune		type	alt.	area	1	2	3	4	5	6	7	comments
49.40	Chenehutte-Trèves-Cunault	2	2	9ha	b+d	4-7m	-	-	30m	-	-	-
49.52	le Fief-Sauvin	2	2	3ha	b	-	-	-	-	-	-	*murus gallicus*
49.53	le Fief-Sauvin	2	2	c. 15ha	b	-	-	-	-	-	-	-
49.101	Sainte-Gemmes-sur-Loire	4	1	700ha?	b	5-6m	-	-	7-8m	-	-	-
49.108	Saint-Pierre-Montlimart	?	2	-	-	-	-	-	-	-	-	-
49.112	Saint-Rémy-en-Mauges	3?	3	12ha	d	-	-	-	-	-	-	circular enclosure
50.03	Brix	2?	2	-	b	6m	-	-	-	-	-	-
50.11	Jobourg	1	3	c. 8ha	b+d	-	-	5m	-	-	-	-
50.12	Jullouville	1	2	6.8ha	b+d	-	1.7m	3.3m	-	-	-	inturned entrance
50.13	Jullouville	?	2	-	-	-	-	-	-	-	-	-
50.14	Lithaire	3	3	18ha	b+d	5m	-	-	-	10m	c. 3m	inturned entrance
50.17	Montebourg	3?	2	1.5ha	b+d	3m	-	-	-	-	-	-
50.20	le Petit-Celland	3	3	20ha	b+d	2m+	-	3m	6m+	6m	1m	some b+d x2; inturned entrance; *mg*
50.29	Saint-Jean-de-Savigny	2	3	5.6ha	b+d	6.5m?	-	-	-	-	-	*murus gallicus*?
50.31	Saint-Laurent-de-Terregatte	?	3	40ha	-	-	-	-	-	-	-	-
50.33	Savigny-le-Vieux	?	3	0.5ha	b	4-5m	-	-	-	5m	-	-
50.40	le Vast	3	2	3ha	b+d	-	1.1m	-	-	-	-	-
53.08	Changé	2	3	3ha	b	4m	-	-	-	-	-	-
53.16	Entrammes	4	2	55ha	b+d	-	-	-	-	-	-	-
53.24	Hardanges	?	3	-	-	-	-	-	-	-	-	-
53.38	Loigné-sur-Mayenne	2	2	c. 12ha	b	-	-	-	-	-	-	-
53.46	Moulay	3	3	11.6ha	b+d	6m	-	-	20m	-	-	some 2b?
53.49	la Pallu	2	2	0.38ha	b	-	-	-	-	-	-	-
53.52	Sacé	2	3	-	b	-	-	-	-	-	-	destroyed
53.53	Saint-Calais-du-Désert	2	4	1ha	b	5-6m	-	-	12m	-	-	stone bank
53.54	Sainte-Gemmes-le-Robert	?	3	-	-	-	-	-	-	-	-	-
53.55	Sainte-Suzanne	2	3	1ha	-	-	-	-	-	-	-	-
53.56	Saint-Fraimbault-de-Prières	2	3	c.0.6ha	b+d	2m	-	-	22m	-	-	flat-bottomed ditch
53.58	Saint-Jean-sur-Mayenne	3	3	1ha	b	-	-	-	-	-	-	-

Table 9 (continued). Fortified sites in north-west France.

gaz. no., commune		type	alt.	area	1	2	3	4	5	6	7	comments
53.59	Saint-Loup-du-Gast	?	3	-	-	-	-	-	-	-	-	-
53.62	Saint-Pierre-des-Nids	2	3	<1ha	-	-	-	-	-	-	-	-
61.05	Appenai-sous-Bellême	2	3	0.9ha	b+d	2m	-	-	-	-	1.5m	-
61.10	Bréel	?	2	-	-	-	-	-	-	-	-	-
61.14	la Chapelle-près-Sées	3	4	1.5ha	b+d	-	-	-	-	-	-	*murus gallicus*?
61.18	la Courbe	2	3	2.85ha	b+d x5	-	4m	5m	-	-	-	figures for main bank
61.19	Cuissai	3?	5	0.5ha	2b	-	-	-	-	-	-	-
61.22	Exmes	?	5	13ha?	-	-	-	-	-	-	-	-
61.26	Igé	2	3	<0.3ha	b+d	2m	-	-	-	8m	0.5m	-
61.29	la Lande-de-Goult	3?	5	c. 4.2ha	-	-	-	-	-	-	-	-
61.31	Merri	2	3	4.1ha	-	7m	-	-	-	40m	-	figures for main enclosure
61.33	Montmerrei	3	4	4.85ha	b	-	6m	7m	-	-	-	inturned entrance
72.04	Aubigné-Racan	3	2	3.15ha	b	1.2m	-	-	8m	-	-	-
72.07	Auvers-le-Hamon	2	2	c. 1ha	b	-	-	-	4-5m	-	-	-
72.11	Courgains	?	3	5-7ha	b	-	-	-	-	-	-	-
72.12	Courtillers	3	2	55ha	b	2-3m	-	-	10-12m	-	-	-
72.13	Cré	?	1	50ha+	-	-	-	-	-	-	-	destroyed
72.14	Domfront-en-Champagne	2	3	2.18ha	b	3m	-	-	-	-	-	-
72.17	Gesnes-le-Gandelin	2	3	3.26ha	b	8-10m	-	-	-	-	-	-
72.31	Saint-Jean-d'Assé	2	2	0.5ha	b+d	-	-	-	-	-	-	-
72.33	Semur-en-Vallon	3?	3	-	2b	-	-	-	-	-	-	much damaged
72.35	Vibraye	?	3	-	-	-	-	-	-	-	-	-
76.13	Orival	3	3	-	b+d	-	1.1m	4m	-	-	-	inturned entrance; flat-bottomed ditch
G.01	Alderney	?	2	-	b	-	-	-	-	-	-	-
G.05	Forest	1	2	-	2b	-	-	-	-	-	-	-
G.06	Forest	1	2	-	b	5m	-	-	-	-	-	-
G.11	St Martin	1	2	-	2b	-	-	-	-	-	-	-

Table 9 (continued). Fortified sites in north-west France.

gaz. no., commune		type	alt.	area	1	2	3	4	5	6	7	comments
G.22	Sark	?	2	-	b	-	-	-	-	-	-	-
G.23	Sark	1	2	-	b+d	-	-	-	-	-	-	-
G.24	Sark	?	2	-	b+d x2	-	-	-	-	-	-	-
G.25	Sark	?	2	-	b	-	-	-	-	-	-	-
J.11	St John	1	3	-	b+d	-	-	-	7m	4.5m	3.1m	-
J.12	St Martin	3	1	-	b	-	-	-	-	-	-	-
J.15	St Ouen	3?	2	-	2b, d	-	-	-	-	-	-	-
J.16	St Ouen	1	2	-	b+d	-	-	-	-	-	-	-
J.19	Trinity	1	3	26ha	2b	6m	-	-	-	-	-	-

Table 9 (concluded). Fortified sites in north-west France.
Key to columns on first page of the table.

The proportion of fortifications of each type in any one region is to a large extent a function of the varying physical geography, and thus the *enceinte du rebord de plateau* is almost unknown in north-west France. Similarly, only a few stretches of coastline are suited to the creation of coastal promontory forts (see 5.2.2 below). Approximately 15% of the fortified sites are of this type. The inland promontory fort is by far the commonest type of defensive site (38%), often making use of high ground at the confluence of a stream and a larger water-course (see Mytum 1988, 72-81 for a discussion of this type of site in west Wales). Other locations which come under the heading of this type include ridges cut off by fortifications at each end, with natural defences on each side, such as Landéan in Ille-et-Vilaine (35.29), and those making use of the land within river meanders, such as Blainville-sur-Orne, Calvados (14.09).

The hillfort (19% of the sites) is usually distinguished by the presence of one or more banks around the perimeter of the site, although occasionally promontories may also have this feature while some hillforts have markedly discontinuous defences. The defence works, in particular the entrance, tend to be more complex on hillforts, perhaps because a greater degree of development is required to make the site defensively viable, but perhaps for political or social reasons too; this point will be considered in section 5.2.6 below.

The final type of fortified site occurs at low-lying confluences and, although some earthworks are present, appears to be located primarily for non-defensive reasons such as trade. This type is rare in north-west France (2%), but a classic example is provided by Entrammes (53.16), at the confluence of the Mayenne and the Jouanne.

These morphological defintions are not mutually exclusive, but serve to break down the sites into four reasonably coherent groups, with the proviso that each may exhibit some features usually associated with another. In 29 cases (25%) it has proved impossible to satisfactorily define the site type, due to the lack of published information or the destruction of much of the enclosure.

iii) excavation and publication

The excavation statistics for the settlement sites have been presented above (5.1.3). Less than one quarter of the 113 fortified sites (27, or 23.9%) have been excavated. Table 10 summarizes the

nature of these excavations and the degree of publication. Once again the useful sample is whittled away still further; only three sites in the region (Moulay (53.46), Saint-Fraimbault-de-Prières (53.56) and la Plaine-sur-Mer (44.55), the latter probably not truly fortified) have had significant sections of the interior excavated. A further seven sites have had some sondages dug within the enclosure, while 13 have had only the bank and/or ditch examined. This is a poor sample from which to draw meaningful generalizations on the status and function of fortified sites in late IA north-west France.

gaz. no., commune		type of excavation	publication	LT3 evidence
14.03	Banville	?	none	yes (mg?)
14.16	Castillon	bank and ditch	full	yes (mg)
14.74	Soumont-Saint-Quentin	bank	full	no
27.34	Freneuse-sur-Risle	bank	interim	no
27.66	Saint-Pierre-d'Autils	bank	full	no
44.54	la Plaine-sur-Mer	?	interim	no
44.55	la Plaine-sur-Mer	interior, ditches	full	yes
44.68	le Pouliguen	ditch, interior sondages	full	yes
44.80	Saint-Lyphard	bank and ditch	interim	no
44.102	Vue	bank	interim	yes (mg)
49.40	Chênehutte-Trèves-Cunault	bank, interior sondages	full	yes
49.52	le Fief-Sauvin	bank	interim	yes (mg)
49.101	Sainte-Gemmes-sur-Loire	interior sondages	interim	no
50.12	Jullouville	sondages	none	no
50.14	Lithaire	?	none	no
50.20	le Petit-Celland	b+d, interior sondages	full	yes
53.16	Entrammes	survey	interim	yes
53.46	Moulay	bank, interior	full	yes
53.56	Saint-Fraimbault-de-Prières	bank, interior	full	yes
61.14	la Chapelle-près-Sées	bank, entrance	interim	yes
61.18	la Courbe	bank and ditch	interim	yes
61.26	Igé	bank and ditch	full	yes
61.31	Merri	bank	full	yes
72.04	Aubigné-Racan	bank, interior sondages	interim	yes
J.11	St John	bank	full	no
J.12	St Martin	bank	full	yes
J.19	Trinity	bank, interior sondage	interim	no

Table 10. Excavated evidence for LT3 occupation of fortifed sites in north-west France.
The final column does not include evidence found outside excavation (for example, isolated coin finds).
mg: *murus gallicus*
Data from gazetteer.

iv) dating

Table 10, above, incorporates information on the evidence for LT3 use or occupation of the fortified sites which have been excavated. Positive evidence of a LT3 phase for the site is present in 17

out of 27 cases (63%). There are a number of important points to be considered at this juncture. The presence of LT3 evidence does not rule out occupation during other periods both before and after the first century BC; this has indeed been confirmed in a number of cases. Even if the construction of the rampart, for example, is securely dated to the LLT, it is possible that the site was occupied, either undefended or defended in a fashion now archaeologically invisible, prior to the late Iron Age. Conversely, the lack of excavated evidence does not necessarily rule out occupation or use in that period, given the very limited nature of most of the archaeological investigation that has taken place. The usual caveats about the techniques and recording standards of early (and, unfortunately, some more recent) excavations apply here as well. Even on modern excavations, the evidence is frequently not of sufficient quality or quantity to provide clear information on what form the use or occupation of the site took, or for how long *within* the LT3 period the site was in use - whether it was constructed in the late second century BC, for example, or as a response to the pressures generated by the Gallic War some 60 years later.

In addition to the 17 sites with excavated evidence of LT3 occupation, a further 14 have yielded material of this period outside excavation. These sites are listed in table 11. It is of course not necessarily the case that an isolated find of this date proves occupation, but where finds are numerous or the *murus gallicus* has been identified it suggests that the site was in use for at least some of the LLT.

gaz. no., commune		nature of evidence
14.09	Blainville-sur-Orne	LT material picked up
14.64	Saint-Désir	*murus gallicus*?
35.13	Comblessac	*murus gallicus*?
35.29	Landéan	*murus gallicus*?
35.44	Pleurtuit	LLT pottery within ramparts
35.89	Vieux-Vy-sur-Couesnon	hoard and other coins
44.40	Les Moutiers	"IA sherds"
44.58	La Plaine-sur-Mer	briquetage sherds
44.76	Saint-Brevin-les-Pins	briquetage sherds
49.33	Châtelais	LIA quern perhaps of Grand-Mesnil type
50.03	Brix	coins (possible hoard)
53.38	Loigné-sur-Mayenne	LLT pottery in bank; isolated coin
61.22	Exmes	numerous sherds of Dr Ia amphorae
76.13	Orival	Belgic LLT pottery in bank and on site

Table 11. Non-excavated evidence for LT3 occupation of fortified sites in north-west France. Data from gazetteer.

These two tables list 31 sites with some evidence of LT3 use and/or occupation. Only in a few cases is the dating refined to the point where it is possible to recognize changes within the LLT period, and thus the suitability of this data for gauging the progress of Romanization is limited. The remaining 82 sites include ten where excavation has taken place but with inconclusive results, and 72 where no investigation has occurred. Almost 73% of the sample are thus completely undated, and this fact must be considered throughout the anaylses which treat the fortified sites as a coherent, contemporaneous group.

5.2.2 Coastal promontory forts

i) morphology

Figure 25 shows the plans of five of the 17 coastal promontory forts, and figure 26 the distribution of this type of site. The areas of these sites range from about 1ha (Cancale, 35.10) to 26ha (Trinity, J.19), according to the form of the promontory. In most cases the defensive works are situated on the narrowest section of land, in order to minimize the effort involved in construction and maximize the defensive potential. The earthworks themselves are usually simple: eight sites have a single bank (with or without a recognizable ditch), while a further five are double-banked or include sections of a secondary bank (as at Trinity, and Pleurtuit (35.44)). The two exceptions to this are Cancale, where fortifications recorded as "trois fossés" have been almost completely destroyed, and le Pouliguen (44.68), where there were until early this century four sets of bank and ditch. The recent excavations at 'Le Câtel de Rozel', Trinity (J.19) have indicated that the main bank was probably constructed between 400 and 100 BC, covering an earlier (perhaps Neolithic or early Bronze Age) and much smaller rampart (Cunliffe, forthcoming).

ii) evidence of occupation

The limited amount of excavation at le Pouliguen (Rouzeau and Rouzeau 1981) has indicated that the site was occupied in the early LT (see section 3.2 above) and probably in the LLT, on the basis of pottery found within the ramparts. The presence of multiple banks might indicate phases of expansion or contraction of the inhabited sector of the site, but without dating of the banks this is impossible to confirm. The two innermost banks (see figure 25) are so close together that this option

Cancale (35.10)
after Langouët 1987d, 47

Saint-Coulomb (35.61)
after Langouët 1987d, 51

St. John (J.11)
after Johnston 1981, 78

Le Pouliguen (44.68)
after Rouzeau and Rouzeau 1981, fig. 4

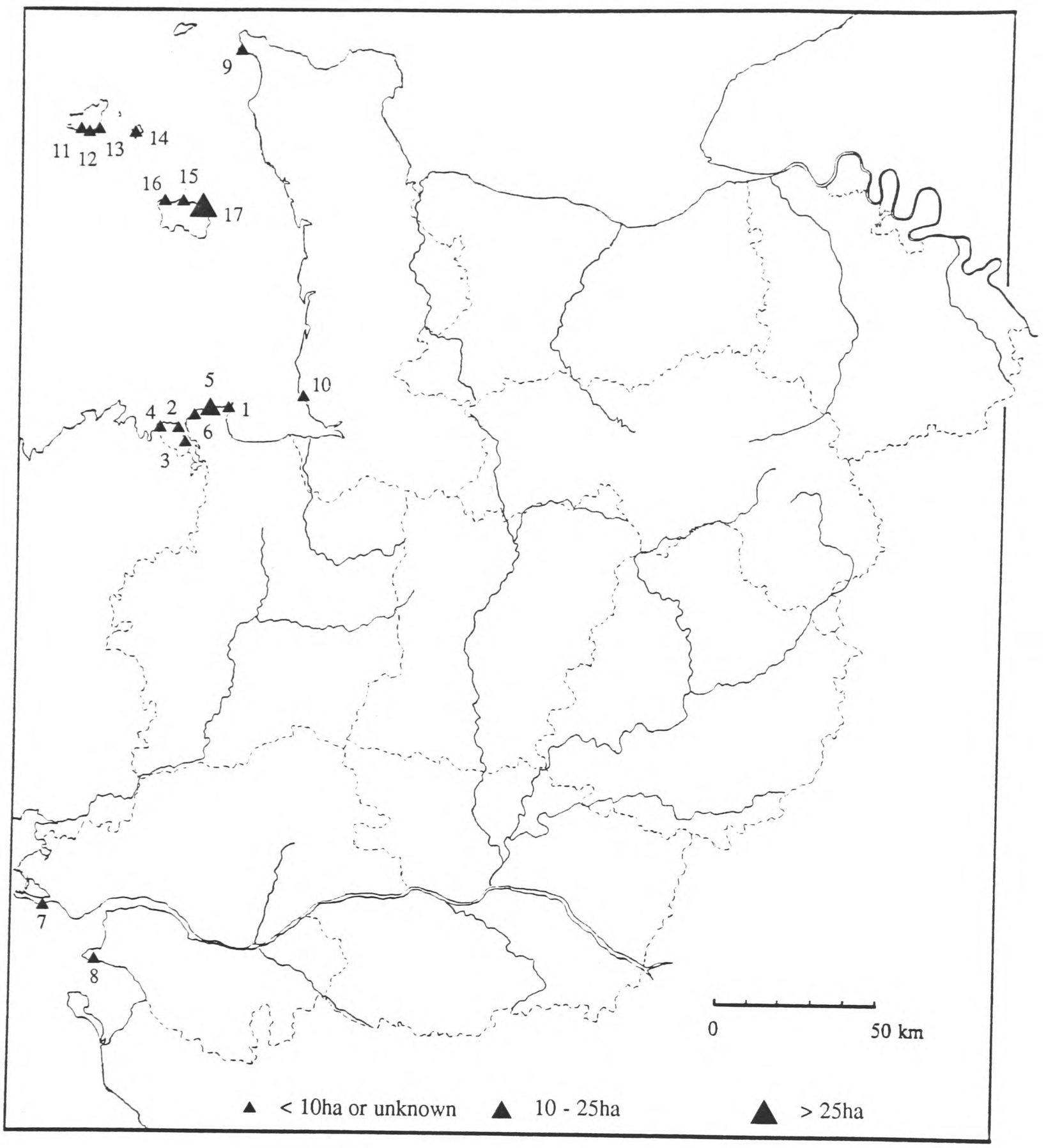
Trinity (J.19)
after Mathews 1986, figs. 1, 3

spring

?

0 500 metres

Figure 25. Coastal promontory forts: plans



1	Cancale	35.10	10	Jullouville	50.13
2	Dinard	35.16	11	Forest	G.05
3	Pleurtuit	35.44	12	Forest	G.06
4	Saint-Briac	35.56	13	St Martin	G.11
5	Saint-Coulomb	35.61	14	Sark	G.23
6	Saint-Malo	35.68	15	St John	J.11
7	le Pouliguen	44.68	16	St Ouen	J.16
8	Préfailles	44.69	17	Trinity	J.19
9	Jobourg	50.11			

Figure 26. Distribution of coastal promontory forts.

seems unlikely, and it is possible that the site was simply better defended than other promontory forts. Why this should be so remains uncertain in the absence of further excavation, but the location of the site in a dominant position at the mouth of the Loire is perhaps indicative of some importance.

Evidence of use and/or occupation on the other coastal promontory forts is scarce. Their location, particularly exposed to the elements and usually on rocky, thin soils does not lend itself to the preservation of archaeological features, and the sites have not generally attracted much attention. Very limited excavation at St John (J.11) and Jullouville (50.12) yielded no evidence of occupation at any period, while at Pleurtuit (35.44) LT3 pottery has been found within the bank (Langouët 1987d, 50). The problem of poor preservation of archaeological contexts may be compounded, as at Trinity, by heavy agricultural use of the site which has destroyed most evidence of stratigraphy. Nevertheless Cunliffe's excavations at a number of locations within the bank have revealed several areas of middle or late IA occupation (Cunliffe, forthcoming).

5.2.3 Inland promontory forts

i) morphology

This type of site represents the commonest form of fortification in north-west France (38% of all sites), distributed widely throughout the region (figure 27). As with the coastal promontory forts, the locations usually selected couple good natural protection with simple bank and ditch defences at the point(s) of easy access, to produce a strong, defendable site. Locations at the junction of streams and rivers were particularly favoured, as at Vieux-Vy-sur-Couesnon (35.89; figure 28), or in the meanders of rivers (eg Blainville-sur-Orne, 14.09). Other sites occupied high ground largely surrounded by marsh, such as Vue (44.102) and Saint-Samson-de-la-Roque (27.67; figure 28). Most of the sites were defended by a single bank and ditch (70%; the ditch has not yet been recognized on one-third of the sites), although in a few cases[1] the site is double-banked, for all or part of its length, or there are traces of a secondary bank and ditch at some distance from the main fortification. The site of la Courbe (61.18) stands out as having five banks with four ditches, although two of the banks are likely to be medieval (see below).

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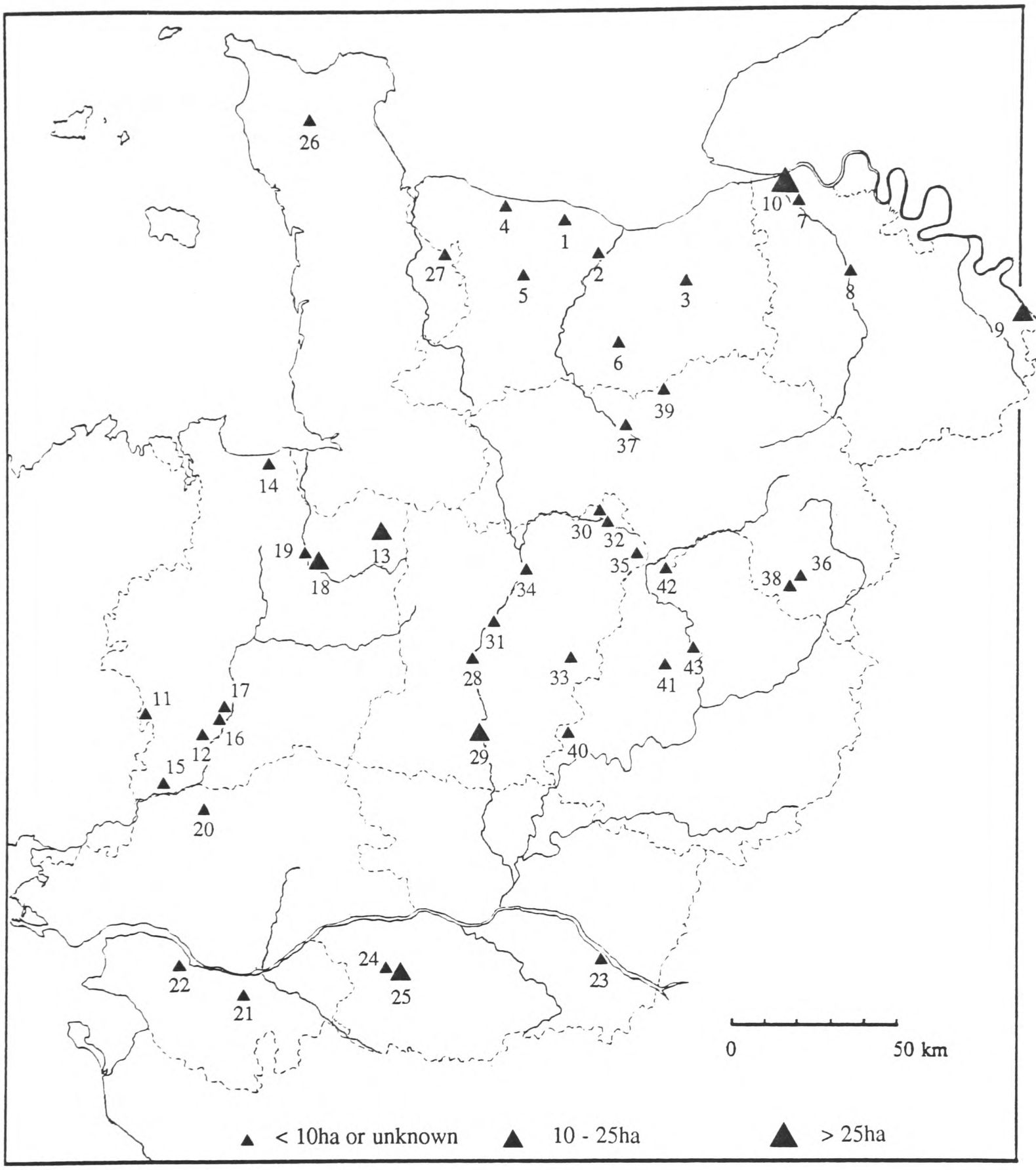
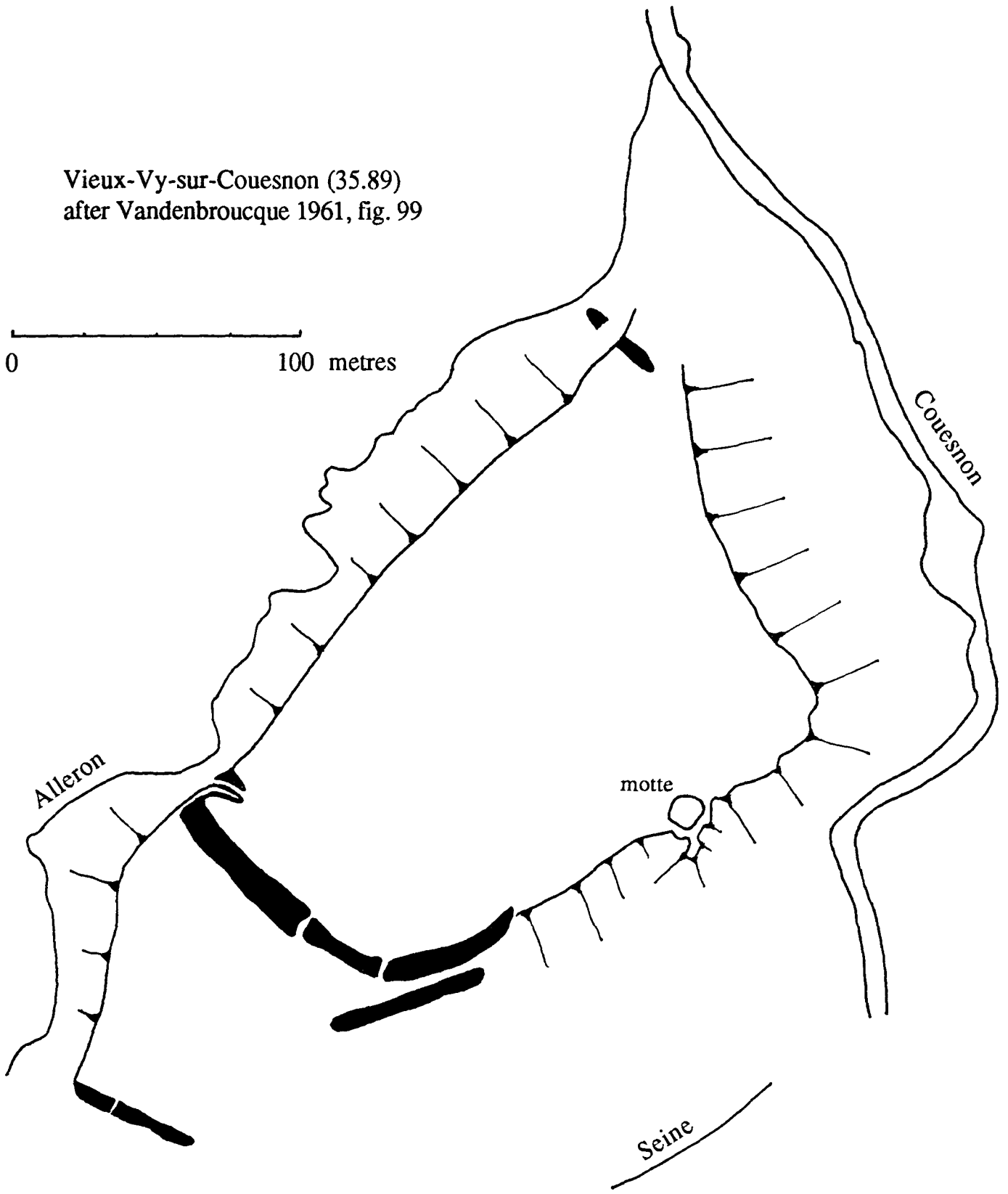
[1] Banville (14.03), Blainville-sur-Orne (14.09), Brionne (27.12), Guipry (35.27), Saint-Malo-de-Phily (35.74), Saint-Senoux (35.85) and Vieux-Vy-sur-Couesnon (35.89).



1	Banville	14.03	16	St-Malo-de-Phily	35.74	30	la Pallu	53.49
2	Blainville-sur-O.	14.09	17	Saint-Senoux	35.85	31	Sacé	53.52
3	Cambremer	14.14	18	Vieux-Vy-sur-C.	35.89	32	St-Calais-du-D.	53.53
4	Commes	14.22	19	Vieux-Vy-sur-C.	35.90	33	Sainte-Suzanne	53.55
5	Hottot-les-B.	14.31	20	Guémené-Penfao	44.25	34	St-Fraimbault	53.56
6	Soumont-St-Q.	14.74	21	St-Aignan-G'lieu	44.74	35	St-Pierre-des-Nids	53.62
7	Bouquelon	27.10	22	Vue	44.102	36	Appenai-sous-B.	61.05
8	Brionne	27.12	23	Chênehutte-T.-C.	49.40	37	la Courbe	61.18
9	St-Pierre-d'A.	27.66	24	le Fief-Sauvin	49.52	38	Igé	61.26
10	St-Samson	27.67	25	le Fief-Sauvin	49.53	39	Merri	61.31
11	Comblessac	35.13	26	Brix	50.03	40	Auvers-le-Hamon	72.07
12	Guipry	35.27	27	St-Jean-de-Savigny	50.29	41	Domfront-en-C.	72.14
13	Landéan	35.29	28	Changé	53.08	42	Gesnes-le-G.	72.17
14	Saint-Broladre	35.59	29	Loigné-sur-M.	53.38	43	St-Jean-d'Assé	72.31
15	Ste-Marie-de-R.	35.63						

Figure 27. Distribution of inland promontory forts.

Vieux-Vy-sur-Couesnon (35.89)
after Vandenbroucque 1961, fig. 99



Saint-Samson-de-la-Roque (27.67)
after Coutil V, 54

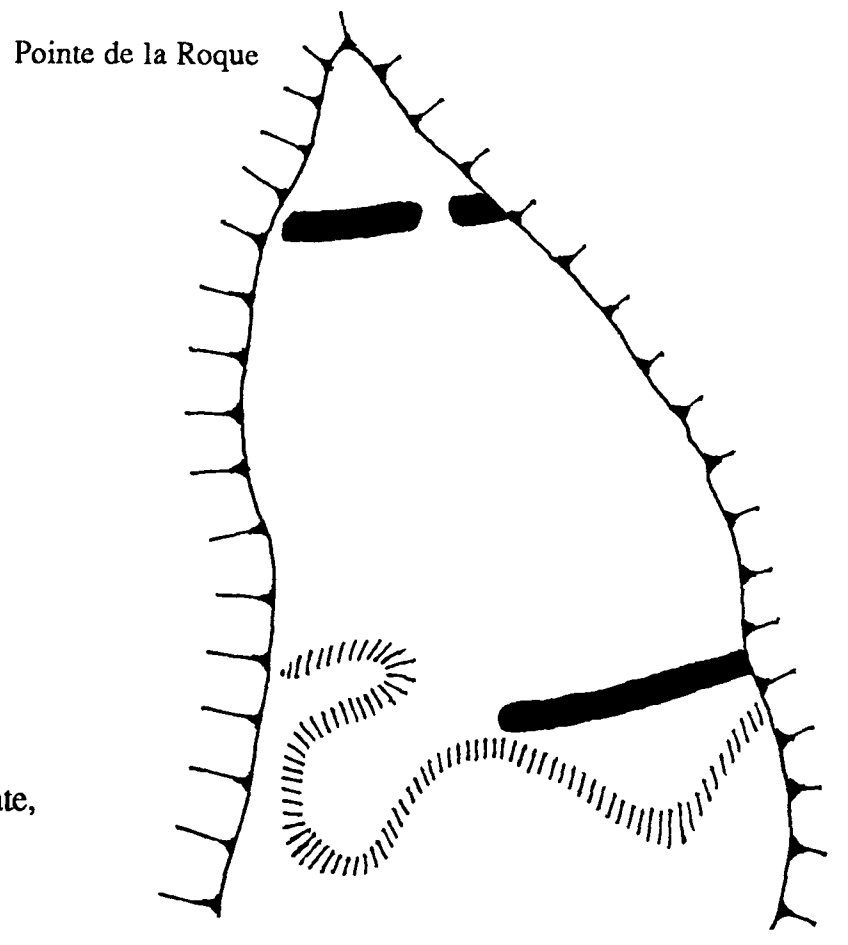


Figure 28. Inland promontory forts: plans.
The scale for Saint-Samson-de-la-Roque is approximate, as Coutil does not provide one with his plan.

The size of the sites is once again a reflection of the chosen promontory, ranging from less than one hectare up to 97ha for Saint-Samson-de-la-Roque, although Coutil's plan of the defences (see figure 28) marks another bank and ditch closer to the point, cutting off about 7ha. Only four other sites exceed 10ha and the median value of the 33 known areas is 2.4ha.

ii) evidence of occupation

Excavation of two small areas at la Courbe has revealed the first rampart to be a Neolithic earth structure with a ditch recut on several occasions. A dry-stone bank is probably LT in date, apparently destroyed by fire (Peuchet 1990a, 43; 1990b). The site was demonstrably used or occupied in the Neolithic, late Iron Age and medieval periods. A very similar picture has been obtained from the excavation at Saint-Fraimbault-de-Prières (53.56), where a medieval rampart sits on top of Neolithic and LT use and/or occupation (Foucher 1982). Investigation of the interior of the site has not yet taken place at la Courbe, while at Saint-Fraimbault there were no traces of structures in the excavated stretch of 110m within the rampart.

The only other inland promontory fort where any investigation of the interior has taken place is Chênehutte-Trèves-Cunault (49.40; figure 29), where a sondage by G. Boisbouvier revealed ditches, hearths and associated finds dated to the late LT3, beneath a stone-made road. Evidence of Neolithic, Bronze Age and intensive Gallo-Roman occupation is also present on the site (Cordier and Gruet 1975, 181-182; CAG 49.69). For the remainder of north-west France, it is the same old story of minimal excavation on a few banks and ditches. While this may provide useful information on chronology, it does not much advance our understanding of the structure and function of the site. At Soumont-Saint-Quentin (14.74), the quartzite and fired clay rampart has been dated to the LBA (Edeine 1966), and the only LT finds so far have been picked up elsewhere on the site. LBA occupation was also present at Merri (61.31), together with Ha evidence beneath an earth bank containing LLT sherds. The innermost dry-stone rampart is dated to the Neolithic (Verron 1990b, 28-29). The excavation in the first decade of this century of the large rampart, associated with a 30m wide ditch, at Saint-Pierre-d'Autils (27.66) did not yield clear evidence of the date of the bank, constructed of earth and flint blocks, although considerable quantities of GR material were found at its western end. At Igé (61.26), material suggesting Ha and LLT occupation was found in the 1860s and 1870s, but precise details of the

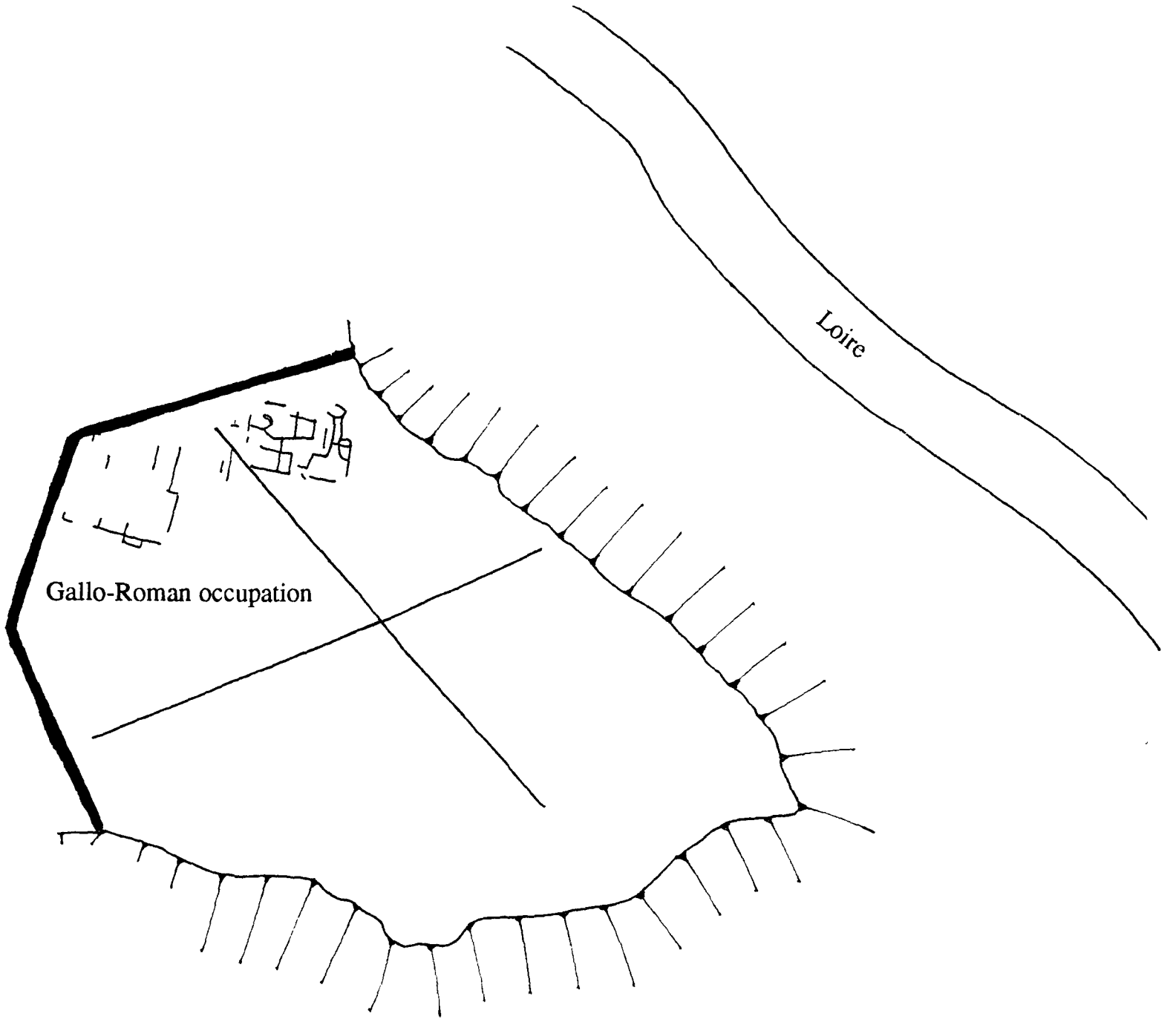


Figure 29. Chênehutte-Trèves-Cunault (49.40) (after Collin and Delestre 1984, fig. 1).
See also Provost (1988b, pl. 1) for a plan showing more recently recognized Gallo-Roman occupation.

excavation were not published; it would be hoped, more than a century later, that this no longer happened, but no information has appeared in print on investigations in the late 1970s at Banville (14.03; Verron 1979, 110).

Other evidence for LLT occupation is supplied by the *muri gallici* at Vue (44.102) and le Fief-Sauvin (49.52), and at several other sites where the presence of this rampart remains to be confirmed by excavation (see 5.2.6 below). At Loigné-sur-Mayenne (53.38), LT3 pottery has been recovered from the eroded bank of this large (c. 12ha) site. Finally, "structures de pierre" (Rémy-Watté 1990b) are reported from Saint-Samson-de-la-Roque (27.67), although their date is unknown.

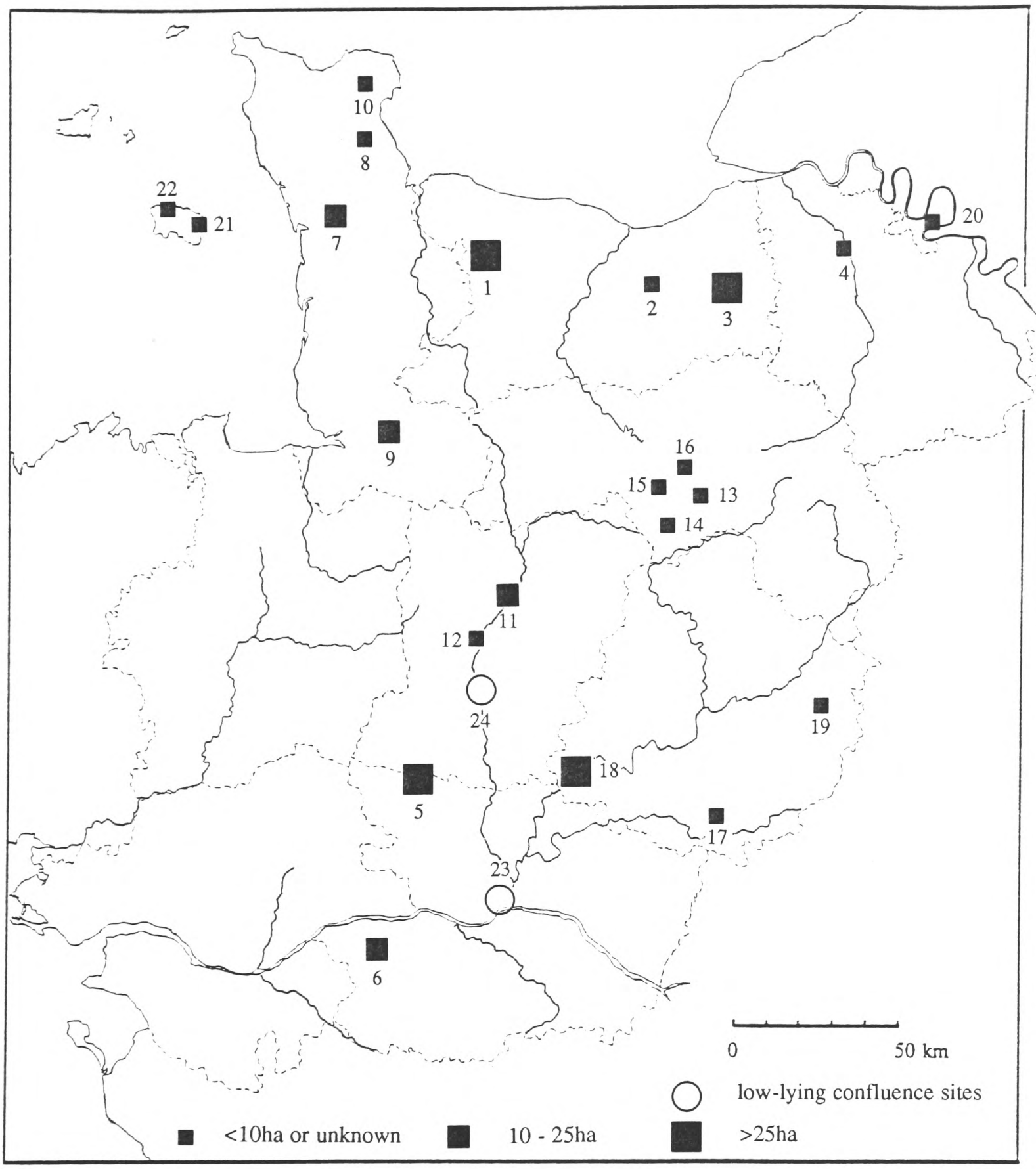
5.2.4 Hillforts

i) morphology

The 22 hillforts in north-west France (mapped on figure 30) represent the third main class of Iron Age fortification and include among their number those sites which have attracted the greatest archaeological attention. They range in size from a few small examples around 1ha in area, to very large sites such as Castillon (14.16) at 44ha, Courtillers (72.12) at 55ha, and Saint-Désir (14.64) at 162ha. The median value of the 16 known areas is 8.2ha.

The single bank and ditch is once again the predominant form of defence, present on 15 (68%) of the sites (including five examples where a ditch has not been identified). Compared to the promontory forts, the defences of this type of site are generally more extensive and thus represent a considerably greater investment of time and labour. Several hillforts also have more complex entrances than are found on the promontories. Use of natural features, such as the steep slopes down to a river or stream, is as before an important element of the defences of most sites, and there is clearly an overlap in some cases with the definition of the inland promontory fort. Nevertheless, the hillforts show a uniformly greater contribution of human effort, adding earthworks where the natural defences might conceivably suffice, and occasionally choosing less well-defended locations that require a correspondingly greater degree of 'improvement'.

Nowhere is the combination of both man-made and natural elements better demonstrated than at Moulay, in Mayenne (53.46; figure 31). The main earthwork is a massive bank averaging 6m high and 20m wide, originally 380m long, with an associated ditch (unexcavated, but believed to be flat-



1	Castillon	14.16	13	la Chapelle-près-Sées	61.14
2	Moult	14.47	14	Cuissai	61.19
3	Saint-Désir	14.64	15	la Lande-de-Goult	61.29
4	Freneuse-sur-Risle	27.34	16	Montmerrei	61.33
5	Châtelais	49.33	17	Aubigné-Racan	72.04
6	Saint-Rémy-en-Mauges	49.112	18	Courtillers	72.12
7	Lithaire	50.14	19	Semur-en-Vallon	72.33
8	Montebourg	50.17	20	Orival	76.13
9	le Petit-Celland	50.20	21	St Martin	J.12
10	le Vast	50.40	22	St Ouen	J.15
11	Moulay	53.46	23	Sainte-Gemmes-sur-Loire	49.101
12	Saint-Jean-sur-Mayenne	53.58	24	Entrammes	53.16

Figure 30. Distribution of hillforts and low-lying confluence sites.

bottomed) and an entrance at its northern end. On the other sides of the site the steep slopes down to the rivers Aron and Mayenne are reinforced by dry-stone ramparts. There is also a *porte en chicane* on the west side, protected by a square bastion. More details of the defences of this site will be given below (section 5.2.6).

Other defensive features common to this group of sites include the inturned entrance, present at la Chapelle-près-Sées (61.14), Lithaire (50.14), le Petit-Celland (50.20) and Orival (76.13), and, as at a few of the promontory forts, stretches of double bank: le Petit-Celland and Orival again, as well as Semur-en-Vallon (72.33) and Cuissai (61.19). The presence of the *murus gallicus* will be considered below, with more details on methods of rampart construction throughout the range of sites. Mention should also be made of the more unusual form of the defences of Châtelais (49.33) and Saint-Rémy-en-Mauges (49.112), the former a bank with a ditch on either side, and the latter a circular ditched enclosure, perhaps not of the LLT, although listed in Buchsenschutz's survey of Iron Age structures (1984, 112 no. 503).

ii) evidence of occupation

While many of the larger sites of this category are relatively well-known in comparison to other less impressive fortifications in north-west France, they have fared little better in terms of archaeological investigation. Although eight of the 22 sites have been excavated, a greater proportion than any other type, investigations at Freneuse-sur-Risle (27.34) and Lithaire (50.14) in the nineteenth century revealed no evidence of Iron Age occupation, while the excavation at Aubigné-Racan (72.04) has indicated an ELT date for the rampart, although the presence of amphorae sherds on the site suggests possible LLT occupation.

Of the five remaining hillforts, Moulay (53.46) stands out as providing the best evidence of occupation in the LLT. Excavations on the site between 1972 and 1976, although not extensive, sampled many of the important features of the 12ha site (figure 31). Unfortunately the average depth of the acidic soil across the enclosure is about 0.2m, and consequently (the central area of the *ancien bourg* being unavailable for excavation) the only occupation traces have been preserved in the slightly deeper soil alongside the main earth rampart and the secondary dry-stone rampart. Next to the former were three pits interpreted as inhumations, oriented NW/SE, but without gravegoods or skeletal remains, the

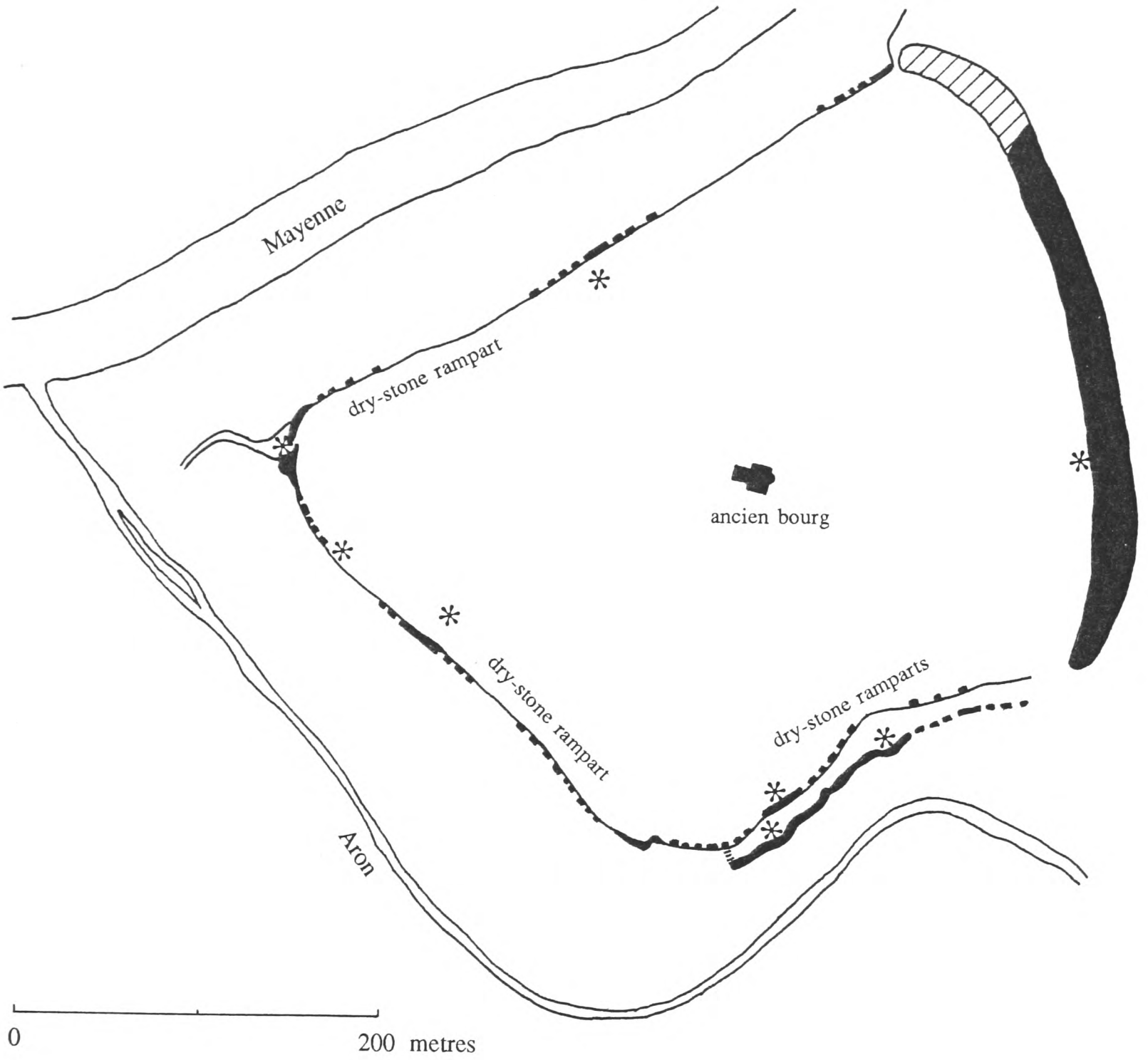


Figure 31. Moulay (53.46) (after Naveau 1975-76, pl. I).
The asterisks and the hatched section of the main bank indicate the areas of excavation.

latter at least a consequence of the acidic soil (Boissel, Diehl and Naveau 1972, 19-21). A fourth possible inhumation on the same orientation was located in the rampart itself, cut into the continuous deposit of "hearths" at the base of the bank, and beneath the main stone layer (see section 5.2.6 and figure 35). Once again there were no bones in the grave, which was 1.6m long and 0.7m wide with rounded corners. The LLT sherds and an amphora fragment in the fill were not gravegoods, but were introduced into the grave when it was filled, perhaps following a "repas funéraire" (Naveau 1973a, 15); unlike the vast majority of sherds on the site, all those in the grave were wheel-made.

Alongside the dry-stone rampart on the south of the site two areas of habitation and traces of a third hearth were revealed in sondages dug during the 1975 season (Naveau 1975-76, 63-67). The most complete included a hearth, approximately 2.5m long and between 0.5 and 1.2m wide, with several stones set around its edge, and an unexplained circular feature of pure clay, 0.8m in diameter and 0.15m deep, set near the hearth. It is sad to record that this insubstantial $5m^2$ remains the only published evidence of settlement structures on a late Iron Age fortified site in north-west France.

Wheeler's excavations at le Petit-Celland (50.20) concentrated on the defences, but he also examined ten very small areas within the hillfort. None of these showed evidence of structures, save for a possible hearth. The finds included a few sherds, a clay spindle whorl, an iron socket and two coins (Wheeler and Richardson 1957, 42), and it is probable that a more extensive investigation of the interior would yield more positive results.

The more recent excavations at la Chapelle-près-Sées (61.14) and Castillon (14.16) were also concerned primarily with the defenceworks, and no interior structures are recorded. At la Chapelle a hearth and sherds of a small LT vessel were located beneath one of the arms of the inturned entrance. At Castillon, Gourvest's excavation revealed useful details of the bank construction (see section 5.2.6), but the only finds were five unidentifiable sherds and nails from the rampart. Finally, a by-product of the investigation of Mont Orgueil castle, in St Martin, Jersey (J.12) was the discovery of characteristic LLT pottery (Cunliffe in Barton 1984b, 232-237), associated with a section of rampart of earth and dry-stone construction, perhaps of the late IA; it has recently been suggested that the bank may be Neolithic (Cunliffe, forthcoming). Intensive use of the site in the medieval period undoubtedly destroyed most of the evidence of Iron Age settlement structures.

5.2.5 Low-lying confluence sites

i) morphology

Two sites have been excluded from the main categories of fortification by virtue of their location and their relatively poor defences: Sainte-Gemmes-sur-Loire (49.101; figure 32) and Entrammes (53.16). In both cases an insubstantial bank cuts off a very large area of land at the confluence of two rivers, but unlike the inland promontory forts which utilize the same technique, the land thus enclosed is little higher than the surrounding water. There do not appear to be any defences on the long stretches of riverbank at Sainte-Gemmes, and the low, steep slopes on the south and south-east of Entrammes are not reinforced by any man-made features. It seems likely, in view of the area that would need to be protected, and the token efforts at bank construction (neither rampart stretches between the two rivers), that these sites were never intended to be effectively defended.

ii) evidence of occupation

Both sites have attracted considerable archaeological interest, although Iron Age evidence is scarce, particularly at Sainte-Gemmes-sur-Loire. Excavations on the 700ha site have included investigations of the second century AD baths, and a theatre and possible temple have also been located. However, the only Iron Age objects found are several isolated coins and a possible hoard; no settlement evidence has yet been identified.

At Entrammes, excavation within the destroyed bank and ditch has focused on the Gallo-Roman temple of le Port (53.18). The *fanum*, of traditional indigenous form, was constructed at the end of the first century BC or the start of the first century AD, accompanied by a rectangular building interpreted as a guardian's dwelling or a hostel. The finds included five potins and pottery largely of LT, rather than GR forms. Naveau suggests (1977b, 2) that the *fanum* may have succeeded a LLT construction, perhaps alongside or nearby, but not on the same site. In the nineteenth century a quern was found within the bank, probably of the Grand-Mesnil type recovered at several other points in the commune. Thus as at Sainte-Gemmes, evidence of Iron Age settlement structures is still lacking.

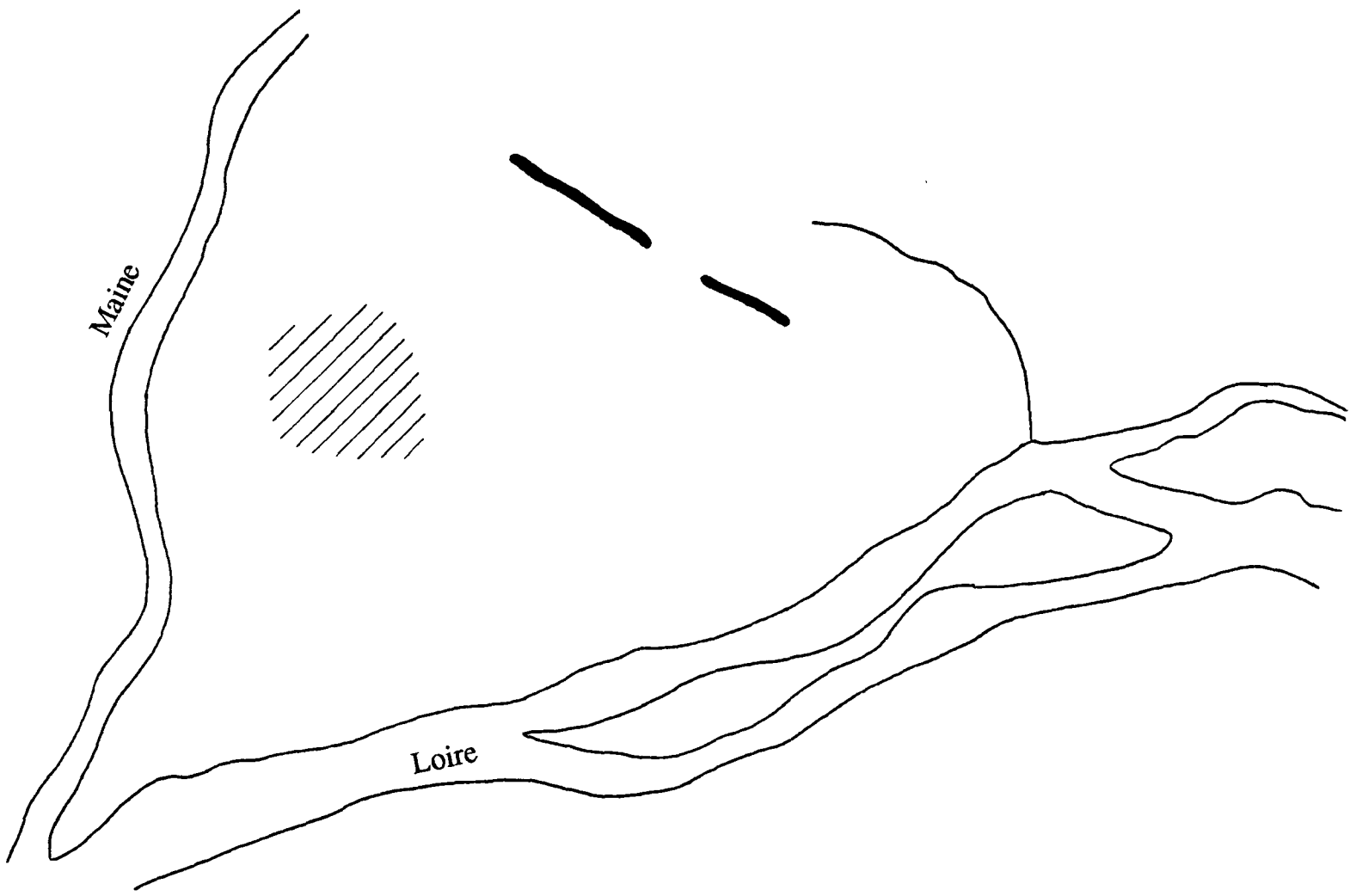


Figure 32. Sainte-Gemmes-sur-Loire (49.101) (after Provost 1983, fig. 1).
The hatched area indicates the position of the Gallo-Roman baths, theatre and ?temple.

5.2.6 Techniques of defence: the bank and ditch

i) rampart studies: major themes

As the descriptions above have made clear, the bank is the key defensive element of the late Iron Age fortified site. The bank has traditionally attracted attention because of its usefulness in determining the chronology of the defences, and thus in contrast to the interior of the site a reasonable amount of archaeological data is available for some of the ramparts in north-west France. The various types of rampart constructed with wood (*remparts à poutrage interne*), earth and often stone have been described by several authors and their summaries will not be repeated here (Collis 1975, 11-36; Collis and Ralston 1976; Buchsenschutz and Ralston 1981, 26-27). Most of these types have yet to be recognized in north-west France,[1] but one in particular has attracted considerable attention: the *murus gallicus.*

The *murus gallicus* was famously described by Caesar in *De Bello Gallico* (VII.23) from his observation of the defences of Avaricum (Bourges), and first recognized in excavation at Murcens in the Lot in 1868. After initial interest the subject received little further attention until the synthesis of information by Molly Cotton, produced as an appendix to *Hill-Forts of Northern France* following the discovery of this rampart at Huelgoat and le Petit-Celland (Cotton in Wheeler and Richardson 1957, 159-225). At that time a close association was posited between the development of the *murus gallicus* and the Gallic War, although Wheeler did recognize that the rampart might have been constructed earlier in the first century BC (ibid., 176). Excavations in the years since have confirmed that by the time of the War the *murus gallicus* had often been abandoned, in favour of the dump rampart with or without the wide Fécamp ditch, identified by Wheeler following his investigations at the Camp du Canada in Fécamp, Seine-Maritime. At the time no examples had been recognized beyond the valley of the Seine (Wheeler and Richardson 1957, 11) and thus the type was initially considered to be exclusively Belgic (P.-M. Duval's *type Belge* (1959, 39)). Since then fortifications with the characteristic rampart and wide, flat-bottomed ditch have been identified elsewhere in Gaul. Wheeler had indeed noted a dump phase on part of the *murus gallicus* at Huelgoat, "carried out shortly after the first building of the

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[1] Ralston (1981, 90-91) notes that the small excavation at Castillon (14.16) revealed a modified Kelheim-type rampart - modified in the sense that square section iron nails, characteristic of the *murus gallicus*, were found in some of the postholes for the vertical timbers on the front of the rampart. Postholes for vertical timbers were also present in the eastern entrance of le Petit-Celland (50.20) (ibid., 99; Wheeler and Richardson 1957, pl. XVIII).

camp" (Wheeler and Richardson 1957, 31). The reasons behind this change are not altogether clear, although the wider ditch undoubtedly provided better protection against the Roman siege machine (BG II.12; Buchsenschutz 1984, 227), and it has been suggested that the Fécamp bank and ditch style was a "logical alternative to multivallation" (Collis and Ralston 1976, 144). The inspiration for this style has occasionally been credited to southern British influence (ibid., 146; Collis 1984b, 109); the presence and date of true Fécamp ramparts in England are subject to debate, but it appears that the few confirmed examples are of the last couple of decades of the first century BC (Cunliffe 1978, 283; 1991, 366).

The inspiration for the *murus gallicus* was originally thought to have come from the Mediterranean world, but Collis and Ralston have argued (1976, 135, 142) that the impetus for development came from within temperate Europe. The presence of massive quantities of iron nails in the rampart is regarded as strong evidence for the "technological expansion" of the late LT and does not necessarily stem from Mediterranean influence. The rampart itself is absent from the area annexed by Rome in 121 BC, where the relative lack of timber would undoubtedly have mitigated against its widespread implementation. Outside the Province, the 36 examples currently recognized are concentrated in the Centre and Lorraine in France, with outliers to the east (in Germany and Switzerland) and the north (Belgium).[1]

In addition to the *murus gallicus* and the Fécamp type defence, another major theme in the study of fortified sites has been the question of vitrification of the rampart. Argument has centred on whether deliberate firing was part of the method of construction, to consolidate the rampart, or whether it took place at a later date, as part of a destructive process. The latter explanation is now widely accepted, but problems remain in determining how and when this was achieved. Experiments by Ian Ralston (Buchsenschutz and Ralston 1981) confirmed that considerable quantities of wood would be necessary to maintain a fire sufficient to vitrify the stones of a timber-laced rampart, to the extent that it is very unlikely that such an action could have been successfully completed during an attack on a site. Instead it is suggested that vitrification was the product of the systematic destruction of a rampart with a significant timber content, perhaps after a successful attack or as part of a deliberate move to

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[1] this figure is given by Buchsenschutz (1984, 230); it does not include several possible sites in north-west France and, presumably, elsewhere in France.

prevent the use of the site by an enemy (Ralston 1981, 84-85; Buchsenschutz 1984, 228), or to mark the "ritualised abandonment of the site" (Bowden and McOmish 1987, 79).

Several recent studies have discussed the degree to which the defences of a site were constructed primarily to impress rather than to be especially resistant to attack, particularly in light of the relative lack of evidence for hillforts actually coming under attack (Ralston 1981, 79-80; Bowden and McOmish 1987, 78). The latter authors suggest that the multivallate enclosure of Maiden Castle, which looks hugely impressive from outside the hillfort, has limitations which are apparent from within, such as the isolating effect of the inner ditches on defenders of the outer ramparts (ibid., 77). It has also been suggested that the construction of stone ramparts further emphasizes the prestige status of the site and, in addition, a degree of social isolation (ibid.), rather than improving the defensive qualities of the earthworks. Thus Buchsenschutz (1984, 230) questions whether the role of the *murus gallicus* "n'est pas plutôt de marquer les limites de l'habitat que d'assurer sa défense". This is perhaps supported by the evidence that the *murus gallicus* was rapidly replaced by a dump rampart when a real threat of attack developed.

ii) the rampart in north-west France

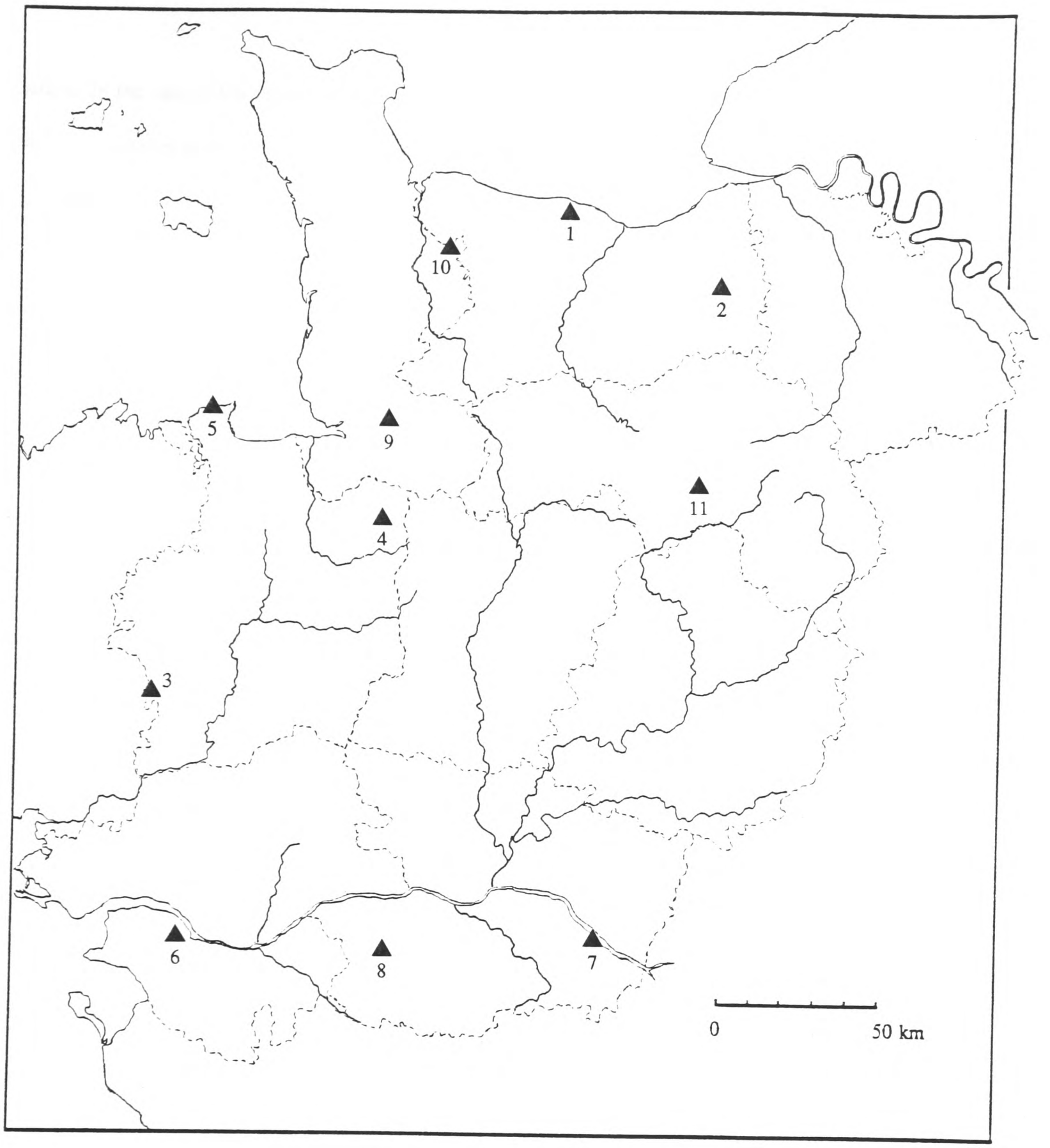
Some of the major themes outlined above can be discussed with reference to sites in north-west France, although there is a fairly small sample to work from. Table 10, above, listed the excavated fortified sites in the region. It shows that 21 sites have seen some investigation of their defences; usually just the bank, although in two cases (la Plaine-sur-Mer (44.55) and le Pouliguen (44.68)) only the ditch has been examined, and in five cases (Castillon (14.16), Saint-Lyphard (44.80), le Petit-Celland (50.20), la Courbe (61.18) and Igé (61.26)) both bank and ditch have been studied. Not all of these are of real value: many of the reports give only a brief description of the rampart, and section drawings are almost unknown. In addition to the excavated evidence, some surface observations (table 11) also relate to the bank and/or ditch, in particular the possible presence of the *murus gallicus*.

Figure 33 shows the distribution of *muri gallici* in north-west France. Of the eleven sites only two can be said to have provided convincing evidence of the rampart, in the form of timbers, nails and stone revetment in the classic form (eg Buchsenschutz and Ralston 1981, 27). At le Petit-Celland, Wheeler's section through the rampart near the main entrance revealed the classic *murus gallicus*,

modified slightly near the entrance by the presence of vertical posts on the external facing (Wheeler and Richardson 1957, 41 and pls. XVII, XVIII). At le Fief-Sauvin (49.52) the nineteenth century excavation was reasonably well recorded: some 112 iron nails, between 0.25 and 0.32m in length, were placed every 0.8m in a stretch of dry-stone wall. Of the remaining nine sites, three are included only by virtue of the discovery of iron nails in or near the rampart. These sites are Banville (14.03), where "rows of large hooked nails" are recorded; Saint-Désir (14.64), where nails were observed in the rampart core; and Vue (44.102), where simply the presence of iron nails is noted. The bank at Saint-Désir has mostly been destroyed, but the surviving sections indicate that it was probably not constructed wholly with the material from the ditch, as the bank is of a yellowish marl while the ditch is cut into the natural pebbly conglomerate. The presence of a few nails within this bank is not really convincing evidence of the *murus gallicus*, but such "proof" has been widely accepted in the past. It is perhaps time to be a little more cautious in using such inconclusive information to define the rampart type, particularly given the presence of nails in variations of other types - such as the Kelheim at Castillon (14.16) - and the realization that rather than conforming to simple types, many ramparts show a combination of constructional techniques related to a multitude of factors including resource availability and the desire for a potent symbol of prestige.

Still less conclusive evidence is present for the other six purported *muri gallici*. At Comblessac (35.13) and Landéan (35.29) stretches of dry-stone external revetment have been observed, while in the same department at Saint-Coulomb (35.61) there are patches of burnt wood on the inner face of the rampart, which is apparently constructed of beach stones backed by earth. There is a similar record of burnt carpentry for the bank at Chênehutte-Trèves-Cunault (49.40). None of these banks have been excavated. Despite excavation at la Chapelle-près-Sées (61.14), which revealed parallel horizontal slots at the base of the rampart, the presence of a *murus gallicus* remains to be confirmed. Finally, Duval (1959, 43) has suggested that an earth and schist bank at Saint-Jean-de-Savigny (50.29) may mask a *murus gallicus*, indicated by the core of an external stone revetment present within the rampart. This might perhaps represent the replacement of the *murus gallicus* by the dump rampart, as discussed above, but in the absence of dating evidence this is by no means certain.

With so few confirmed sites it is probably unwise to speculate on possible patterns in the observed distribution (figure 33). Nevertheless the map demonstrates an apparent lack of the *murus*



1	Banville	14.03	possible (nails present)
2	Saint-Désir	14.64	possible (nails present)
3	Comblessac	35.13	possible (nails not present)
4	Landéan	35.29	possible (nails not present)
5	Saint-Coulomb	35.61	possible (nails not present)
6	Vue	44.102	possible (nails present)
7	Chênehutte-Trèves-C.	49.40	possible (nails not present)
8	le Fief-Sauvin	49.52	probable
9	le Petit-Celland	50.20	confirmed
10	Saint-Jean-de-Savigny	50.29	doubtful
11	la Chapelle-près-Sées	61.14	doubtful

Figure 33. Distribution of *muri gallici*.

gallicus in the east of the region of study. There is no marked preference for a particular type of site (one coastal promontory fort, seven inland promontory forts and three hillforts), nor for a particular size, although the rampart has traditionally been associated with large enclosures (Buchsenschutz 1984, 230). In north-west France the ten known areas range from 1.5ha to 20ha (median: 5.6ha; mean: 8.6ha), which is again simply not a large enough sample on which to base any more general conclusions.

The lack of ditch excavation means that it is also not possible to compare the distribution of the *murus gallicus* with types such as the Fécamp bank and ditch. The *murus gallicus* at le Petit-Celland was associated with a shallow v-shaped ditch (6m wide but only 1m deep) which supports the contention that in this instance the ditch was regarded more as a source of material for the bank than as an integral part of the defences. The only other reasonably well-excavated ditches are at le Pouliguen (44.68) - four v-shaped between 2.4 and 2.6m below the present ground surface - and Castillon (14.16), where the modified Kelheim rampart is associated with a relatively small flat-bottomed ditch, 1.6m deep and 7m wide. A true Fécamp ditch, 30m wide, was observed in the excavation at the start of this century at Saint-Pierre-d'Autils (27.66), associated with a rampart of earth and flint blocks. In Mayenne, Naveau (1986a, 16) has suggested that the unexcavated ditch at Moulay (53.46) is flat-bottomed, while the presence of just such a ditch has been confirmed 10km to the north at the much smaller site of Saint-Fraimbault-de-Prières (53.56), where the excavator suggests a resemblance to the "Belgic" ditch type (Foucher 1982, 7).

The dangers of assigning a LLT date to unexcavated fortified sites are well illustrated by details of the few other sites in north-west France which have had more than a cursory examination. At the Camp de Bierre in Merri (61.31; figure 34) excavation of a section through the main eastern rampart (A on figure 34) has shown that the currently visible revetment is a repair made since the construction of the initial dry-stone wall (dated to 550 ± 140 BC), perhaps in the LLT for which there is evidence of occupation within this rampart (Verron 1990b, 29). Neolithic occupation is also present - it is suggested (ibid., 28) that the earth rampart (B) cuttting off the promontory is of that period - and LBA activity has been identified beneath and within the dry-stone enclosure. The outer rampart (C) remains undated. Also in Orne, the earth rampart at la Courbe (61.18) is dated to the Neolithic, while the northern dry-stone wall is suggested to be late IA in date (Peuchet 1990a, 43). This latter rampart is

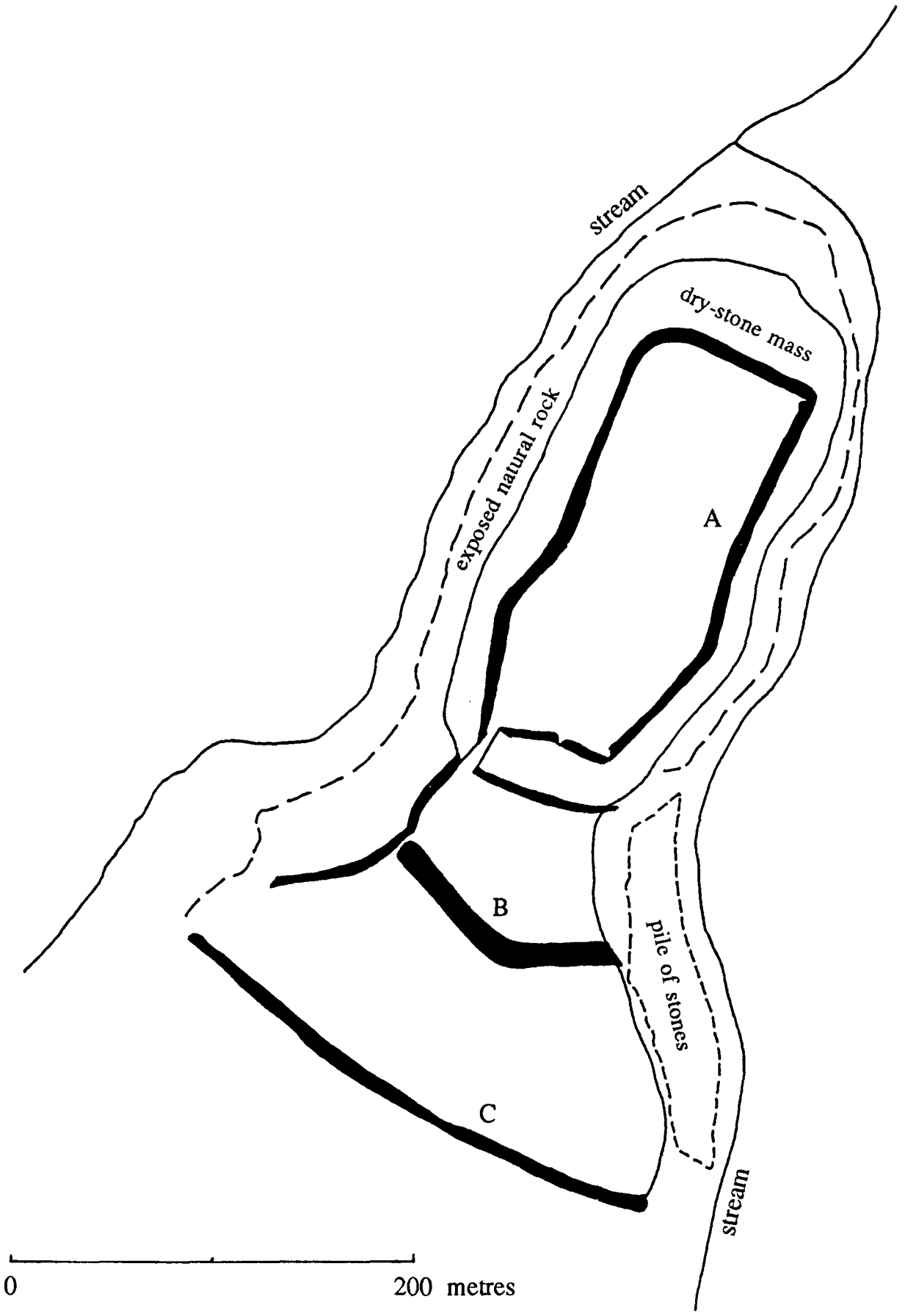


Figure 34. Merri (61.31) (after Edeine 1965, fig. 1).

vitrified; the excavator reports experiments showing that the schist blocks would have been heated to between 1000 and 1200°C to produce this effect (ibid.).[1] An ELT date has been determined for the earth and stone bank at Aubigné-Racan (72.04; see section 3.2), which covered two small dry-stone walls set four metres apart. At Soumont-Saint-Quentin (14.74) the externally revetted rampart was shown to have a quartzite and fired clay core; it has been dated to the late Bronze Age.

The only exception to this run of sites built, rebuilt and occupied in many different periods is Moulay (53.46), which has seen the most significant excavation of any Iron Age fortified site in north-west France in the post-war period. The section through the main rampart (figure 35) has revealed much information on its construction, although the earliest phase is still something of a puzzle. This first phase is represented by a small clay talus backed by a deposit of burnt red clay, the whole measuring 3-3.5m at the base and between 0.8 and 1m high (Naveau 1973a, 11). The excavators have suggested (Boissel, Diehl and Naveau 1972, 18) that this was a technique of consolidation for the base of the rampart, and yet such a function would seem to be much better served by the mass of stones which were then deposited to a depth of a metre or more on top of the clay talus and across almost the entire width of the bank (18m). It appears that the small talus runs for the entire length of the main bank (originally 380m) although in the absence of further excavation this cannot be confirmed. One grave, an inhumation but without surviving bones, was found cut into the red clay and covered by the mass of stones. It contained sherds of fine LLT pottery, though apparently not from gravegoods (see 5.2.4 above). Following the deposition of the schist stones over the grave and the width of the rampart, a layer of sandy clay was added to the central part of the bank, with a small deposit of stones on the hillfort side. The materials used for this were almost certainly obtained from within the enclosure, while the succeeding massive layer of *arène granitique* is undoubtedly from the ditch. This was topped off at the rear by a consolidatory layer of stones which perhaps rejoined the dry-stone wall forming a vertical external face on the upper part of the rampart, at the top of the bank. The uniformity of finds in all parts of the rampart suggests that it was constructed in a single phase (Naveau 1986a, 16).

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[1] confirmed examples of vitrification in north-west France are rare; in addition to la Courbe, a nineteenth century report from Freneuse-sur-Risle (27.34) suggests that the earth and flint block rampart there may have been burnt. Other possible examples are Vieux-Vy-sur-Couesnon (35.89), Loigné-sur-Mayenne (53.38), Sainte-Suzanne (53.55) and Saint-Jean-sur-Mayenne (53.58).

1: clay talus

2: "hearths"

3: stone mass

4: layer of sandy clay

5: *arène granitique* (from ditch)

6: upper layer of stones

7: vertical stone face of rampart

8: modern turf cover

Figure 35. Moulay (53.46): section through the main rampart (after Naveau 1975-76, pl. XI).

At the same time, secondary ramparts were constructed on the naturally-defended sides of the site (figure 31). These were uniformly dry-stone, up to 3m in height. Of particular interest is the section of double rampart on the south-east face of the hillfort: two dry-stone walls, one on the summit of the slope and the other 10-20m below, run roughly parallel for c. 110m towards the destroyed entrance at the south end of the main rampart. This part of the site has strong natural defences, and there is no trace of double ramparts anywhere else on the perimeter. Naveau has suggested (1975-76, 69) that the proximity of the main entrance may be the reason behind the double rampart, but it is also worth considering its position with respect to the surrounding landscape. This part of the site would have been especially visible from the route north up the valley of the Mayenne, and thus perhaps there is an element here of the desire for a symbol of prestige over and above the real defensive need.

The evidence gathered above can only illuminate a few aspects of the archaeology of fortified sites in north-west France, simply because of the lack in both quality and quantity of excavation. Thus any patterns in the distribution of *muri gallici*, and their relationship with the Fécamp bank and ditch - co-existence, or replacement of one by the other - must remain undetected for the time being. The structure of the main rampart at Moulay indicates that it was created *ex nihilo*, and while exhibiting some characteristics associated with the "Belgic" type, also has features of its own, notably the burnt clay talus and the dry-stone wall at the top of the bank. That individual sites could display their own variations of common forms is further illustrated by the adaptation of standard rampart facing at Castillon and le Petit-Celland, and it must be accepted that searching for a particular type of rampart over a large area is likely to turn up further idiosyncracies in design rather than a clear demonstration of the widespread adoption of a type in that region.

The few excavated fortifications amply illustrate the risks inherent in assigning an IA or specifically LLT date for many sites simply on the basis of their form; most show evidence at least of use if not of occupation in several other periods, and as Buchsenschutz (1984, 225) has noted, there is still a strong case for the excavation of ramparts to aid in establishing the site chronology. The extent to which (for example) the pattern of LBA or Ha fortified sites influenced the choice of location in the LLT is beyond the scope of this work, and in any case is probably unanswerable given the present state

of knowledge. When there is clear evidence of an original use of a site, as at Moulay,[1] it has usually not been possible to refine the chronology beyond the first half of the first century BC; the excavator has suggested (for Moulay) that the site was perhaps constructed in response to the Cimbric and Teutonic threat in the last decade of the second century BC, rather than being closely associated with the Gallic War, although it was undoubtedly abandoned about the time of the conquest.

5.2.7 Spatial distribution

Interpretation of the distribution of fortified sites can be obtained visually to some extent, and in certain cases refined by the application of certain statistical techniques. These take two forms: those relating the location of sites to each other, and those relating the location of sites to environmental factors. Both of these ideally require that the dating of the sites has been clearly established, which the preceding sections have shown is not usually the case. For the purposes of many of these tests contemporaneity has had to be assumed in order to make the process viable, since the sample of excavated and closely-dated sites is too small for most statistical applications. This assumption must be borne in mind throughout the following analyses; the results obtained represent the ideal rather than the reality, but they can still be used to shed some light on the spatial distribution of the fortified sites.

i) inter-site relationships

Several techniques developed primarily in the fields of geography and ecology have been adapted in the past two decades for use with archaeological data (see Hodder and Orton 1976). These may be used to investigate patterns of points and are thus ideally suited to the analysis of the distribution of sites across a landscape. In addition to the problem of contemporaneity mentioned above, other factors must be taken as constant in the absence of full archaeological information, such as the assumption that the sites performed the same function. This too is unrealistic but necessary for the working of the tests. Other problems specific to particular tests will be discussed in the relevant sections.

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[1] a few Neolithic flints were discovered during the excavations at this site, but there was no evidence of occupation in any period prior to the LLT (Naveau, 1975-76, 87).

a) the nearest neighbour statistic

This simple measure of the degree of randomness of site location in a given area has been widely used on a variety of archaeological data-sets, at scales from a few metres (floor areas) to hundreds of kilometres (hillforts). The process has been fully described elsewhere (Hodder and Orton 1976, 38-51; Knight 1984, 284-286) and will only be summarized very briefly here. The nearest neighbour statistic, R_n, is given by the formula

$$\bar{r}_o/\bar{r}_e$$

where $\bar{r}_o$ is the observed mean distance between every site and its nearest neighbour, and $\bar{r}_e$ is the expected mean distance. $\bar{r}_o$ is given by

$$\Sigma r/n$$

where r is the distance from each point to its nearest neighbour, and n is the number of points. $\bar{r}_e$ is given by

$$1/2\sqrt{p}$$

where p, the density of sites, is given by (n-1)/A (A = area of region studied).

The value of R_n will lie between 0 (all points clustered at one location) and approximately 2.15 (regular distribution of points), with 1.0 representing a random distribution. The difference between $\bar{r}_o$ and $\bar{r}_e$ can then be tested for statistical significance by several methods, according to the size of the sample (Whallon 1974, 19-20; Knight 1984, 285).

There are several limitations to this analysis. The presence of boundaries both natural and human, beyond which measurements cannot be made, tends to increase the value of the observed mean (Hodder and Orton 1976, 41). This problem can be partially solved by restricting analysis to those sites closer to their nearest neighbour than they are to the boundary, although this in turn may exaggerate the importance of small values of r (Diggle in Hodder and Orton 1976, 246). In addition the test is not able to detect (for example) regular spacing within a clustered pattern, and it may mask significant subregional variations; nor can it explain *why* any particular pattern exists.

In order to minimize the distorting effects of boundaries, an area within north-west France was chosen satisfying the conditions above. It covers 32511km^2 (figure 36) and includes 56 of the 113 fortified sites. Using the formulae above, $\bar{r}_o$ was calculated as 9.839km and $\bar{r}_e$ as 12.162km; the nearest neighbour statistic, R_n, is 0.81. This appears to show a slight inclination away from a random

distribution towards clustering; this can be confirmed (or rejected) by testing for a significant difference between the observed and expected means. In this case n is too small for a simple calculation of the standard deviate (z) and thus it must be obtained by the formula

$$2\pi p \sum d^2$$

which is distributed as X^2 with 2n degrees of freedom. When 2n is large (as in this case, 112), X^2 can be converted to the normal standard deviate by the formula

$$\sqrt{(2X^2)} - \sqrt{(2df - 1)}$$

where df = degrees of freedom. In this example the value of z is 1.548, which is just below the 10% level of significance on a two-tailed test, and thus the difference between the observed and expected means is rejected as statistically insignificant.

Although the statistical tests are inconclusive, if there is indeed a tendency to clustering in the settlement pattern, at least two explanations suggest themselves. The first is that the clustering is a product of varying degrees of research across the region, with concentrations of sites corresponding to the areas investigated by particular archaeologists. This seems not to be the case, as the most prominent clusters (around Saint-Malo and in the pays de Retz) are outside the zone used for calculation of the nearest neighbour statistic. Instead, the distribution of sites may reflect the core areas of tribes, separated by zones of no-man's land (see section 1.4.4). However there is still no real agreement on the extent of these zones - Lambert and Rioufreyt's "essais d'interpretation" (1981a, fig. 16) for the Aulerci Cenomani and Diablintes, the only significant consideration of this topic in north-west France, includes boundary zones between 5 and 30km in width - and thus it is difficult to distinguish those sites which would form part of a core and those which might be associated with the protection of boundaries. As ever there is a real need for much more archaeological investigation to shed some light on this problem.

The distribution of the sites within recognized tribal areas is not generally suited to analysis by the nearest neighbour statistic, because the relatively small number of sites in each (to a maximum of 12 in the Aulerci Diablintes) is further reduced by the boundary effects mentioned above. The limitations of this approach are thus evident, both at the regional level and in the identification of subregional patterns.

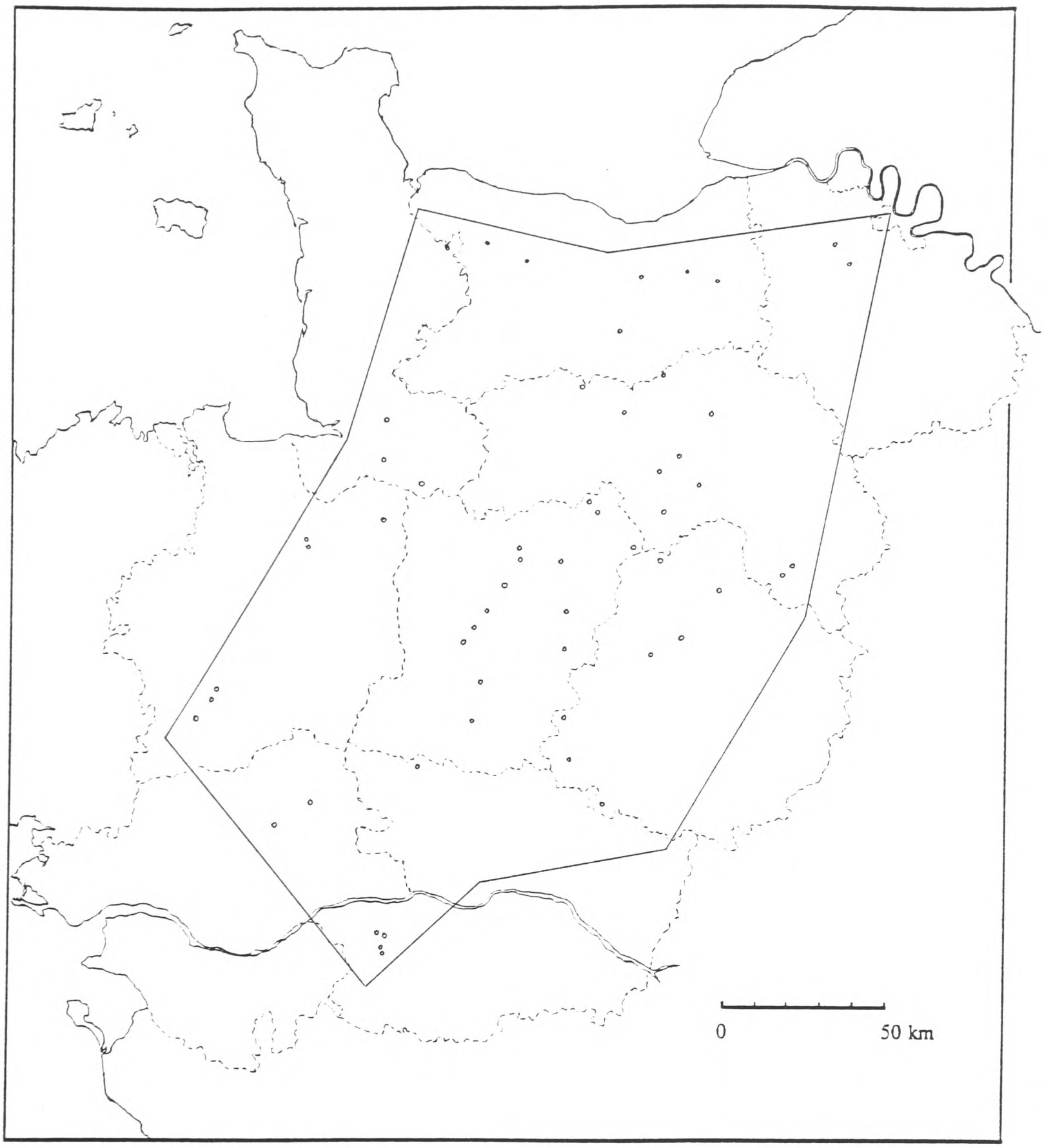

Figure 36. Area and sites used for calculation of the nearest neighbour statistic.

Perhaps the most clearly non-random pattern which is statistically concealed although visually obvious is the distribution of sites along the Mayenne river, within the territory of the Aulerci Diablintes. An adaptation of the test used above, the linear nearest neighbour statistic, has been developed to analyse this type of pattern (Stark and Young 1981; Wilson and Melnick 1990, 406-407 (with incorrect formulae)). The problems associated with this test are very similar to those of the NNS: the sites should be contemporaneous, they should be differentiated functionally, and a relatively large sample is required (Stark and Young 1981, 290). The LNNS in this example is Stark and Young's type IA (ibid., 287), where the line length and end points are known (the north and south boundaries of the Diablintes crossing the Mayenne are taken as the end points), and is given by

$$1/L \quad (M_1 + M_2 + \ldots M_n)$$

where L is the length of the line and M is the distance to the nearest neighbour for point M_1, M_2 and so on. For the eight sites along the Mayenne, the value of the LNNS is 0.608. Stark and Young (ibid., 296) warn that samples of ten or below are unlikely to be illuminated by application of this test, unless especially regularly distributed or clustered, and indeed this figure is statistically insignificant. There do not appear to be any other samples in north-west France to which this test is better suited, primarily because of the small number of sites on stretches of river, coastline and so on.

b) Central Place Theory and settlement hierarchies

In the absence of more satisfactory results from the nearest neighbour analyses, certain other methods may be used to investigate the pattern of settlement. In recent years attempts have been made to contrast the settlement patterns of certain areas with those envisaged by Central Place Theory (CPT) (for a summary and criticism of some of these attempts, see Grant 1986, 13-19 and Haselgrove 1986). CPT was developed by the geographer Walter Christaller in the 1930s, from his work in southern Germany, to provide a model of settlement location for three different types of society, arranged for optimum spatial efficiency at marketing (k = 3; see explanation below), transport (k = 4) and administration (k = 7). The model has been fully described elsewhere (eg Haggett et al. 1977, 146-148) and only the key points will be mentioned here.

The hierarchies developed by Christaller were for fixed k values; k is the total number of settlements, including itself, served by each central place, and it remains constant through all levels of

the settlement hierarchy. The hierarchy in each case follows a regular geometrical progression: for k = 3 it is 1, 3, 9, 27...; for k = 4 it is 1, 4, 16, 64...; and for k = 7 it is 1, 7, 49, 343... In the first case, k = 3, the hierarchy operates on the marketing principle, so that the supply of goods from the central places is as near as possible to the dependent places. The k = 4 system optimizes transport costs and ensures that as many important places as possible lie on one transport route between the larger centres. The k = 7 model stresses administrative control, as all six of the nearest dependent places are connected to the central place.

At the heart of CPT are a number of important assumptions. The first is that the theoretical landscape must be an unbounded isotropic plane with a homogeneous distribution of purchasing power. Secondly, central goods must be purchased from the nearest central place. The third assumption is that the trade areas completely fill this plane. The fourth requires that the movement of consumers must be minimized, and the fifth and final assumption is that no excess profits are earned by any central place. In order to satisfy the second, third and fourth assumptions the plane is split into the characteristic hexagonal format.

In his paper on various methods of simulating the growth of hierarchies, Hodder (1979) discusses the suitability of using CPT to predict site size. This can be done if one takes the size of the largest site as s, and then divides s by the number of second, third....nth level centres; thus for the k = 3 hierarchy there would be one first level centre of size s, three second level centres of s/3, nine third level centres of s/9 and so on. Hodder tested this idea against a wide variety of archaeological data-sets, but found that in most cases the data was subject to fewer constraints than envisaged by CPT. However he did observe that the process worked slightly better than expected for multivallate Iron Age hillforts in south-west England, and commented that "...the nature of late Iron Age society indeed leads one to expect a constrained, nonrandom, settlement hierarchy" (ibid., 135). In all cases the k = 3 model provided the best fit and the k = 7 the worst, which was to be expected as none of the data-sets had the centralized administrative control associated with the latter.

Application of the CPT to the Iron Age situation in north-west France can only be very limited. In the first place it is probably not legitimate to use the whole region as a basis on which to model a single system (ie to begin with Sainte-Gemmes-sur-Loire as the largest site), since this implies that contacts were possible in all directions across the region, and that sites as far apart as the

mouth of the Loire and, say, the pays Roumois were functioning as part of the same system; to say nothing of the usual problems associated with site contemporaneity and function. The CPT must therefore be applied at a smaller scale, and in the absence of more concrete information on the inter-tribal alliances that may have operated, the only sample of sites that may be used is that of the individual tribe. But as with the tests discussed above, only a very few tribes have enough sites to make this process worthwhile. These are examined below.

The graphs in figure 37 are all plotted against the data expected with k = 3 CPT. The greatest resemblance between the observed and expected plots is found in the case of the Aulerci Diablintes, where there appear to be three distinct levels of settlement size. At the other extreme, the Baiocasses and Aulerci Cenomani graphs show very little resemblance to the theoretical plots, which suggests that their settlement hierarchy had not evolved beyond the basic stage of one very large or primate site surrounded by a number of much smaller sites.

It is certainly not a good idea to place too much faith in these reconstructions. In addition to the problems of contemporaneity and the assumption of similar functions for the fortified sites, it is arguable that CPT simply cannot be applied to the settlement pattern of a population so distant, in every respect, from that on which the model was based:

> It is a dangerous exercise to force the fleeting shadows of a once-vibrant human landscape onto the theoretical rack of a geometric lattice, and one should approach with trepidation the reconstruction of central place relationships for now-vanished people from hypothetical spatial forms whose own assumptions may lack both logical and conceptual coherence.
>
> Evans and Gould (1982, 284)

Elsewhere (ibid., 298) they go further and suggest that attempts to reconstruct settlement patterns using these "artifical constructs" can never be valid. This view is effectively unarguable; the application of CPT to areas in north-west France clearly does not provide convincing evidence to the contrary.

While the hierarchies of settlement predicted by the CPT are plainly not compatible with the archaeological data from north-west France, it is still a valuable exercise to consider the rank/size relationship of the sites in different tribal areas (Hodder and Orton 1976, 69-73; Haggett et al. 1977, 111-115). This approach has been utilized recently by Ralston (1988), who has argued that characteristics of the so-called archaic states band of central Gaul were in fact present in other *civitates* more distant from the Roman Province. As part of the evidence for this argument he illustrates the rank/size relationships of three *civitates*: the Bellovaci in northern Gaul, and the Bituriges and

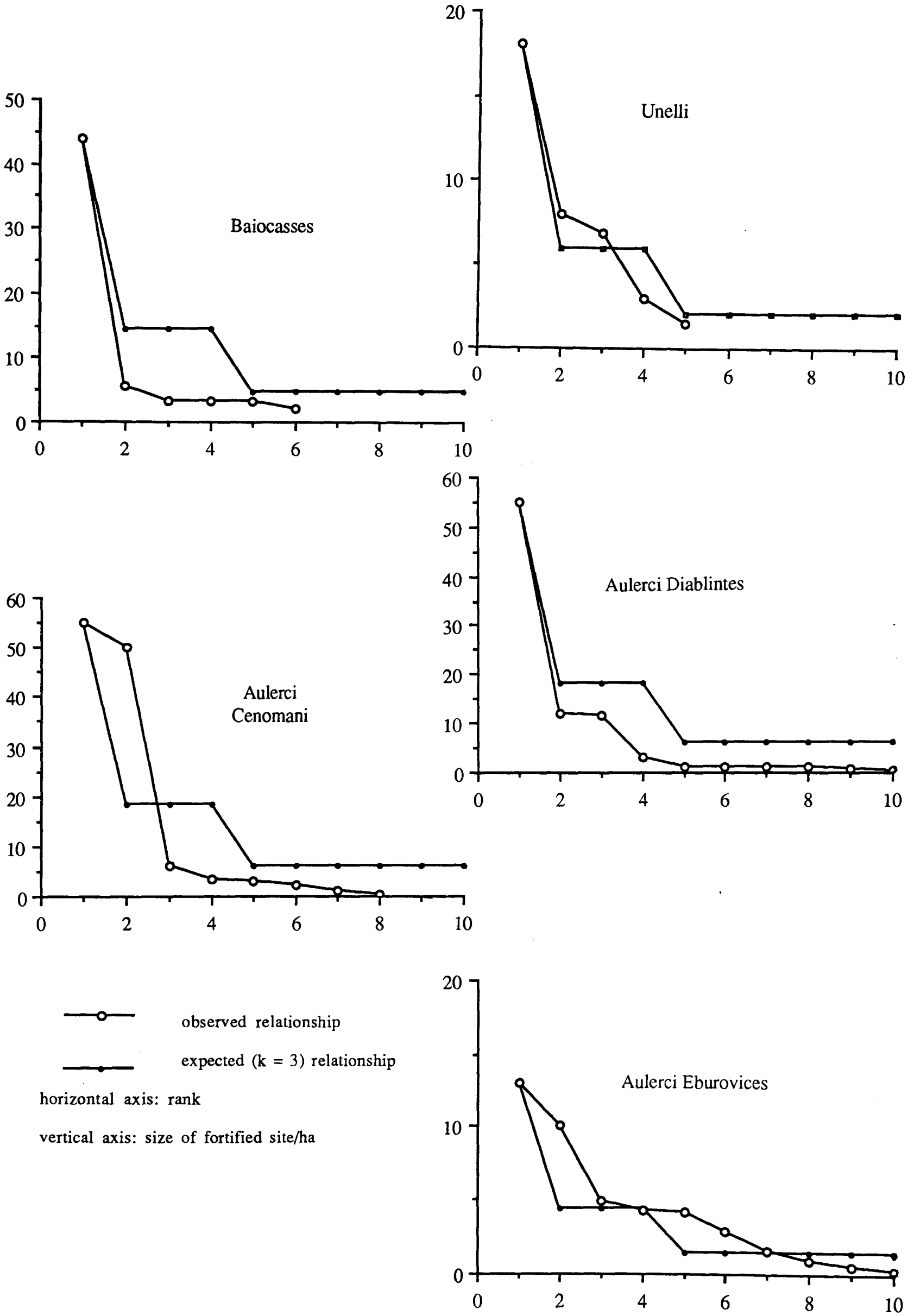

Figure 37. Comparison of tribal rank/size relationships with expected relationships obtained from k = 3 Central Place Theory.

Lemovici in central Gaul (ibid., fig. 4). The graphs suggest the development of a stepped settlement hierarchy for both the Bellovaci and the Bituriges, although the former tribe was far north of the suggested archaic states band, while the Lemovices hierarchy is rather more primate. Of course this is only one aspect of the evidence that needs to be considered in attempting to differentiate between the settlement development in different tribes, and not too much weight should be placed on information obtained solely from the sizes of a collection of sites when the function and contemporaneity of many of these are in doubt. Nevertheless the examination of rank/size relationships may at least provide some useful hints on inter-tribal variations.

The graphs in figure 38 have been plotted in the same style as Ralston's. The three Aulerci graphs seem to show rather more evidence of the development of a stepped hierarchy than those of the Baiocasses and the Unelli. Once again it is the Aulerci Diablintes which stand out as the most "advanced"; it remains to be seen whether other evidence can be found, particularly from the coins, to support this view.

c) Thiessen polygons

In the analyses of settlement evidence attempted above, the tribal boundaries used to delimit groups of sites have been those obtained primarily from the linguistic evidence (in particular toponyms) and reconstructions based on the medieval ecclesiastical limits (see section 1.4.4). It is also possible to construct theoretical boundaries on the basis of the settlements themselves, through the formation of Thiessen polygons. This simple technique has been used on a variety of archaeological data-sets, including hillforts (Cunliffe 1971, 59; Slapsak 1988, 99-100; see also Bekker-Nielsen (1989, 11-13) for application to part of north-west France in the Gallo-Roman period).

The construction of unweighted Thiessen polygons simply requires that each site is linked to each of its neighbours by a straight line, which is then cut at its mid-point by a perpendicular line forming the boundary (Hodder and Orton 1976, 59-60; Haggett et al. 1977, 436-438). In addition to assuming contemporaneity, this method considers all points of equal weight; it may also treat as equal sites which in reality had very different roles. A few attempts have been made to remedy one of these problems, that centres are equally weighted, through the use of weighted Thiessen polygons (eg Hogg

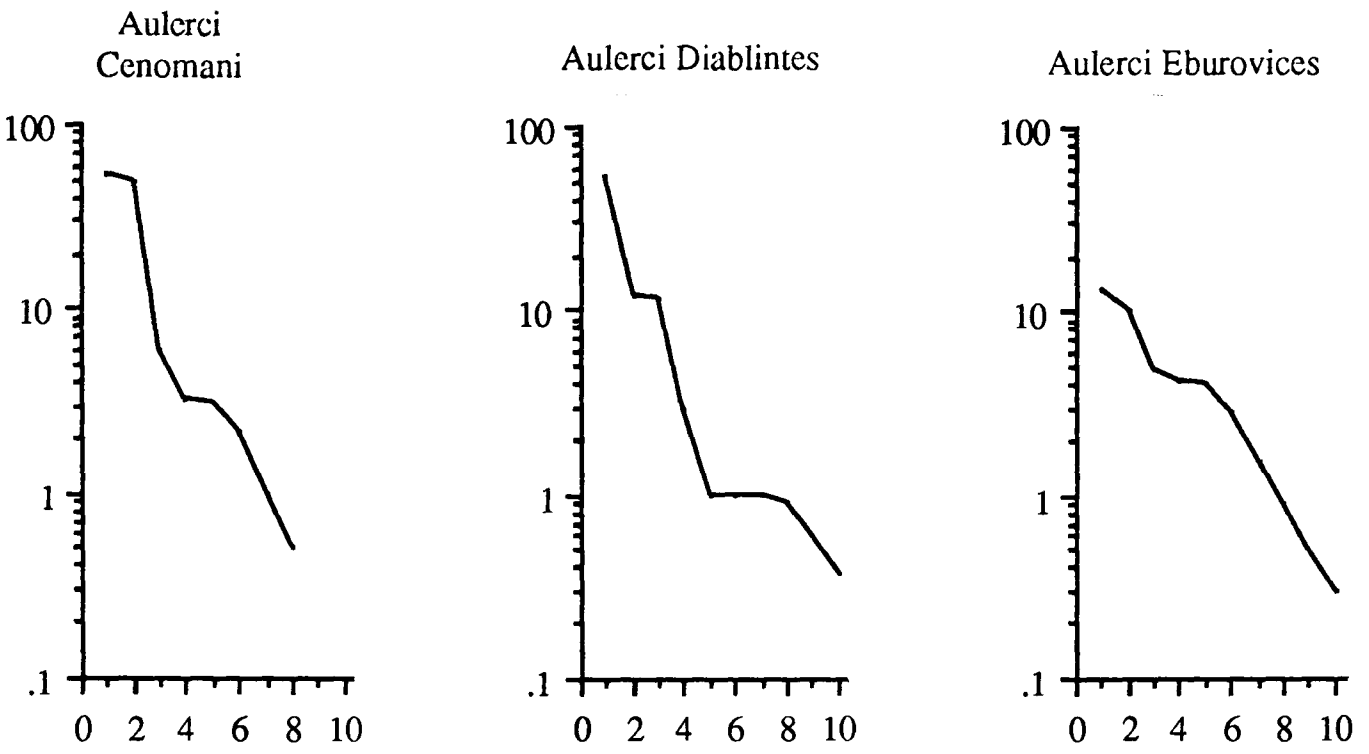

Figure 38. Tribal rank/size relationships.

1971, 118-122; the method is unfortunately not clearly explained). One approach may be to use an equation developed to calculate the breaking point between the service areas of two adjacent towns:

$$D_{xj} = \frac{D_{ij}}{1 + \sqrt{(P_i / P_j)}}$$

where i and j are the two centres, D_{xj} is the distance from the breaking point to centre j, and P_i and P_j are the population sizes of the centres. However, as Hodder and Orton warn (1976, 188), the applicability of this method to archaeological data, with size substituted for population, has not been tested and it may prove invalid to extend it too far from its original use in studies of trade areas.

Both methods have been applied to the map of hillforts over 10ha in north-west France (figures 39 and 40). The choice of this size is effectively arbitrary, although any lower figure would include too many sites for viable plotting of the polygons and anything higher, such as the 25ha limit sometimes used in oppida studies (Collis 1984b), would leave vast swathes of the region without any sites at all. The two reconstructions both provide useful information on aspects of the tribal boundaries. In Normandy, the polygons correspond remarkably well to the areas believed to have been occupied by the Unelli, Baiocasses/Viducasses, Lexovii and Veliocasses (the latter split into two by a line which may be interpreted as the theoretical representation of the Seine). To the west the Redones are also quite well demarcated, although a possible frontier inland from the baie de Mont-Saint-Michel is suggested, a possibility also recorded by Lambert and Rioufreyt (1981a, 134) on the basis of toponymic evidence. To the immediate north-east the situation of the Abrincatui is complicated by the site of Saint-Laurent-de-Terregatte (50.31), which splits the tribe's territory, creating (particularly in the weighted example) a corridor of land stretching east to the Aulerci Diablintes that recalls the disputed territory between the Couesnon and the Sélune (see section 1.4.4).

It is interesting to note that in the weighted polygons example, this leads to an area of some confusion created by the lack of a large site in western Orne. It can be no coincidence that this region includes some of the highest and most dissected terrain in north-west France, and thus would be a prime candidate for the no-man's land believed to have separated many tribes. A similar zone is identifiable on the western boundary of Mayenne, which again has been recognized from linguistic evidence (ibid., 134).

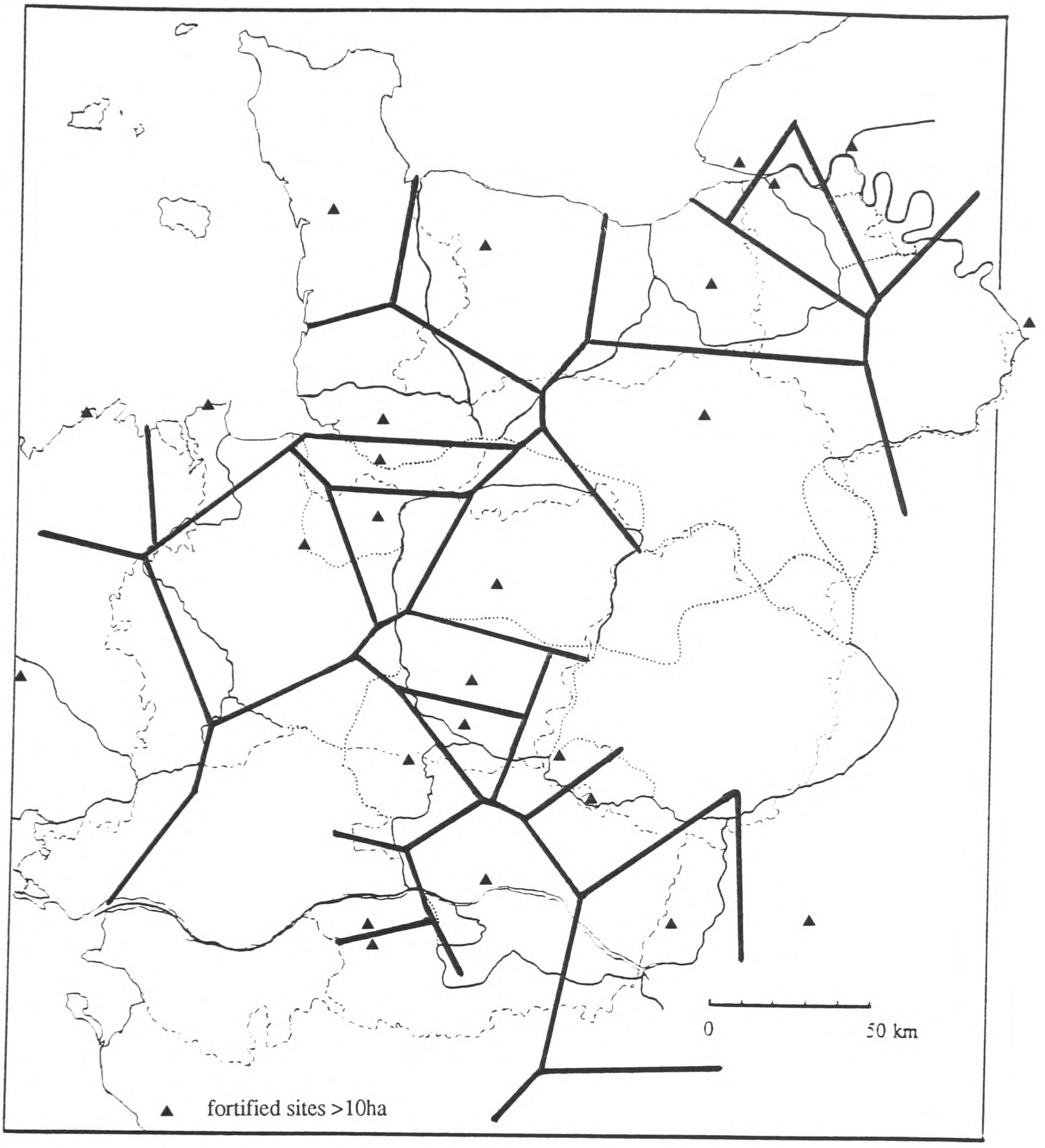

Figure 39. Comparison of unweighted Thiessen polygons with tribal boundaries.
Tribal boundaries are drawn in thin black lines, dotted in areas of greatest uncertainty. The Thiessen polygons are indicated by heavy black lines.
Data on fortified sites outside north-west France from Buchsenschutz (1984).

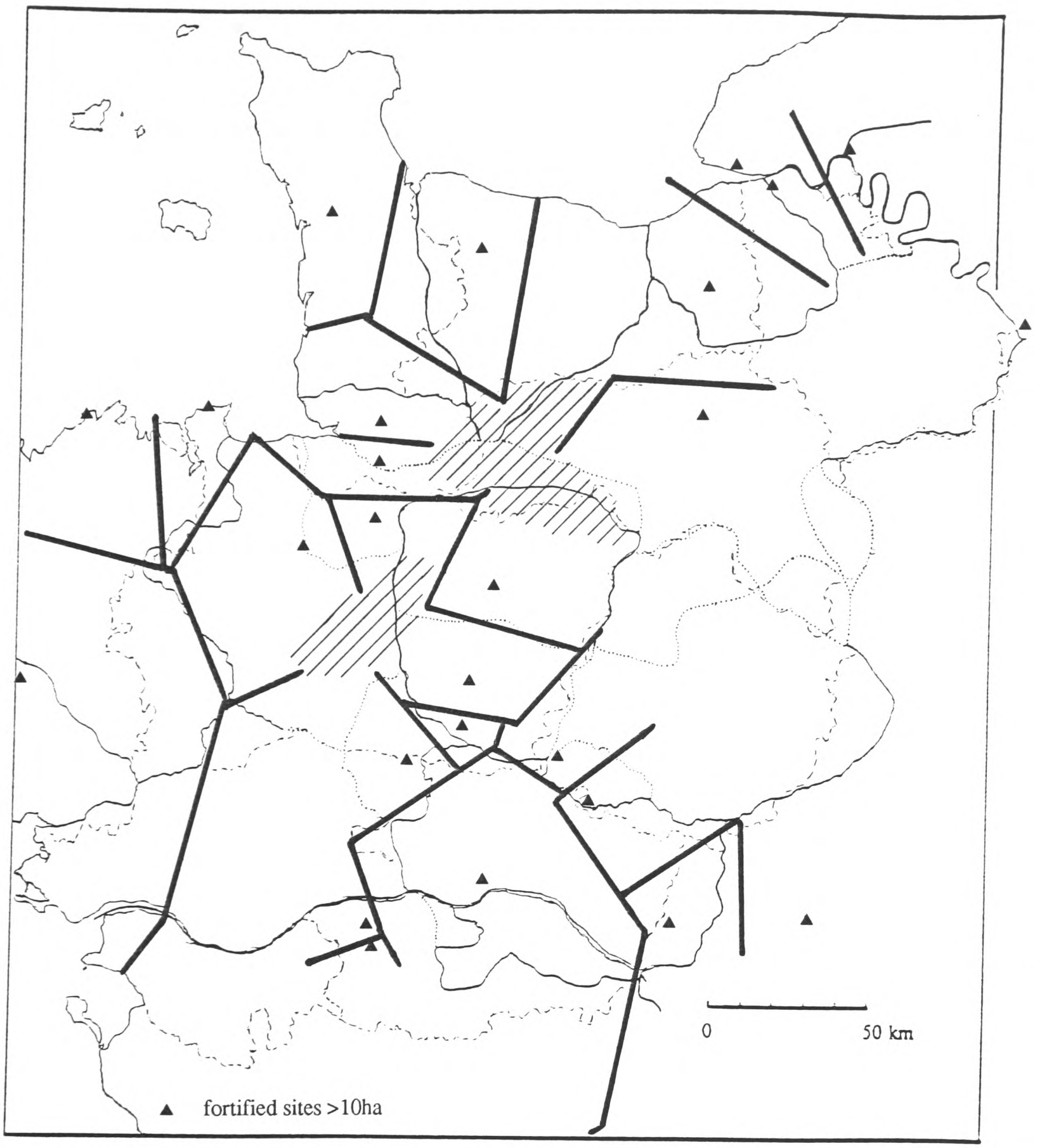

Figure 40. Comparison of weighted Thiessen polygons with tribal boundaries.
Tribal boundaries are drawn in thin black lines, dotted in areas of greatest uncertainty. The Thiessen polygons are indicated by heavy black lines.
Hatching indicates areas where the polygons cannot be satisfactorily constructed.
Data on fortified sites outside north-west France from Buchsenschutz (1984); no size is available for Vernon (Eure), on the north bank of the Seine, and thus the site is not used in the construction of the polygons.

In Mayenne itself the picture is complicated by the presence of three sites over 10ha, at Moulay (53.46), Entrammes (53.16) and Loigné-sur-Mayenne (53.38). The theoretical boundary between the first two corresponds well to the suggested northern frontier of the Arvii (see section 1.4.4), but that putative tribal area is further split by the third site. In a similar fashion, the fortification of Landéan (35.29) in the north-east of Ille-et-Vilaine creates another small region for which archaeological evidence of independent existence is currently lacking. There is no reason to suggest that this was a small *pagus*, although such a possibility has been mooted for the Arvii (Chastagnol 1974, 377). To the south of this area the Andes are relatively well-defined in the theoretical figures, although the weighted version shows a considerably larger and in fact more accurate territory, with the size of the huge site at Sainte-Gemmes-sur-Loire (49.101) taken into account.

The picture in much of the rest of north-west France is confused, primarily because of the lack of large sites around which the polygons are constructed; this is particularly so on the eastern border, where there is no indication of the position of the Aulerci Cenomani nor, unfortunately, anything which might shed light on the situation in the south-east of Orne, at the meeting-point of the Cenomani, the Aulerci Eburovices and the Carnutes - and perhaps the Esuvii. A possible location for this enigmatic tribe is suggested by assuming that the very dubious records for a defended site at Exmes (61.22) are correct. The boundary between the Esuvii and the Aulerci Eburovices indicated by the Thiessen polygons is unreliable due to the lack of sites in Eure and Eure-et-Loir. The same problem exists in the south-west of the region, with the Namnetes especially poorly defined.

In general the construction of boundaries with the use of weighted polygons seems to offer the best parallels to the situation suggested by linguistic and historical evidence. Although this technique would appear to produce a picture quite close to that indicated by current evidence, at least in the case of north-west France, this is to some extent fortuitous. There remain many problems with the choice of sites on which to base the polygons; the majority of those used in these reconstructions have revealed little or no evidence of intensive LLT occupation, and in the case of Exmes there is scarcely evidence even for a site. Size alone is not a satisfactory basis on which to choose the sites, since it allows the inclusion of large promontory forts such as Saint-Coulomb (35.61) which quite clearly did not function as major settlement centres, as the model requires, while the real centres from which polities ought to be predicted remain unidentified - or not included in this category because of the lack of recognized

defences (such as Alet). But taking these reservations into account, what overall picture is presented by the Thiessen polygons? The *civitates* of modern Normandy are characterized by just one large site in each area, which along with the graphical representations above (figure 38) of rank/size relationships might indicate a slightly lesser degree of development than those further south, such as the Aulerci Diablintes. In view of the problems outlined above this can only be a suggestion at this stage, but it is worth bearing in mind throughout analyses of the other settlement forms and of coinage in the following chapters.

ii) fortified site/environment relationships

It seems reasonable to suggest that of the many factors that must have influenced the choice of settlement location, variations in the landscape - of geology, relief, soil cover and so on - must have had some effect on the decision. Although statistical tests cannot be used to explain why a particular association between (for example) a type of site and an environmental variable should exist, and nor can they explain why certain variables (both environmental and socio-cultural) should exert a dominant influence, they can at least demonstrate where a significant association exists, for which reasons can then be suggested.

The test utilized in the following sections is the X^2 statistic. It has been described in great detail elsewhere (eg Knight 1984, 287-288; Shennan 1988, 64-76) and only the basic steps of its calculation will be given here. Put simply, the test compares the observed and expected distributions of sites across mutually exclusive categories of land: different soil types, classes of altitude and so on. The simple one-sample test compares a sample to a specified theoretical population; it can be adapted for cross-classified data, for example where the fortified sites are split into different categories. The expected distribution of sites is obtained simply by allotting the same proportion of the number of settlements to each category (eg podzols, or land below 100m) as the category occupies of the total area. Thus for example if there are 60 sites and 20% of the area is occupied by podzolic soils, then the expected number of sites on podzols would be 12, if all soil types were equally attractive to settlement location. The value of X^2 is given by

$$\sum \frac{(O_i - E_i)^2}{E_i}$$

where O_i is the observed number of cases in category i, and E_i is the expected number of cases in the same category.

The main problems with the X^2 test are associated with the number of examples in each category. If only two categories are used there must be at least five examples in each, and if more than two categories are involved, at least 80% must have five examples or more; in addition no single expected value must be below one. In common with the tests applied to the inter-site relationships, contemporaneity is assumed for the fortified sites, as the archaeological evidence is not yet of the quality or quantity to differentiate the sites more precisely. It should also be borne in mind that only basic geological and pedological details are available for most sites, and therefore some may have been chosen to take advantage of local conditions which are not recorded on the sources in use here.

a) geology

The table below shows the proportion of the region covered by each geological type (see figure 3 for the relevant map).

	km^2	%
Tertiary	1118	2.0
Cretaceous	15098	27.0
Jurassic	5312	9.5
Liassic	895	1.6
Triassic	671	1.2
Palaeozoic	10681	19.1
Precambrian	17783	31.8
Granite	4362	7.8
	55920	100.0

Table 12. Geological cover in north-west France.

The first X^2 test applied is the one-sample test, to assess the relationship between fortified sites as a single group and the geology (table 13). Jurassic, Liassic and Triassic have been combined in order to avoid the problem of categories with too few sites, mentioned above. The cross-classified test is then applied to the same data (table 14). There are fewer observations in the second analysis because 29 of the fortified sites identified in north-west France have not been described in sufficient detail to define their type.

	observed n	expected n	$(O - E)^2/E$
Tertiary	0	2.26	2.26
Cretaceous	13	30.51	10.05
Jurassic, Liassic and Triassic	15	13.90	0.09
Palaeozoic	20	21.58	0.12
Precambrian	45	35.93	2.29
Granite	20	8.81	14.21
			$X^2 = \mathbf{29.02}$

Table 13. One-sample X^2 test: fortified sites/geology.

	Cretaceous	J / L / T	Palaeozoic	Precambrian	Granite	totals
coastal pfs	0 (2.57) 2.57	0 (2.57) 2.57	1 (3.86) 2.12	12 (6.21) 5.40	5 (2.79) 1.75	18
inland pfs	7 (6.00) 0.17	10 (6.00) 2.67	9 (9.00) 0	11 (14.50) 0.84	5 (6.50) 0.34	42
hillforts	5 (3.43) 0.72	2 (3.43) 0.60	8 (5.14) 1.59	6 (8.29) 0.63	3 (3.71) 0.14	24
totals	12	12	18	29	13	84
					$X^2 = \mathbf{22.11}$	

Table 14. Cross-classified X^2 test: fortified sites/geology.
The figures on the upper row of each site type are the observed number of sites, followed by the expected number (in brackets). The figure on the lower row of each type is the calculation of $(O - E)^2/E$. The two low-lying confluence sites have been included with the hillforts.

The X^2 value for the first test, 29.02, is significant at the 0.1% level, and the value for the cross-classified test (22.11) is significant at the 0.5% level. The null hypothesis, that the fortified sites are equally distributed across all geological types, can thus be rejected. By examining the tables of observed and expected values, some idea of why this is so can be obtained. The biggest discrepancies between the observed and expected distributions are on the Cretaceous rocks and on granite. The latter, rather than indicating a strong preference for granite, is more likely to be the result of biases in research; ten of these sites are in the Channel Islands, one of the areas identified previously (section 5.1.1) as subject to an above average intensity of fieldwork. However the lower than expected number of sites on Cretaceous rocks is a genuine observation, unaffected by biases in fieldwork. It can be explained largely by the nature of the landscape: although there are deep valleys such as the Risle and the Eure in the Cretaceous rocks of the east of the region, there is also a higher proportion of flat, plateau type lands unsuited to the construction of fortifications. In contrast the dissected relief associated with the Precambrian rocks provides a better basis for the development of fortified sites, and the coastal promontory forts are particularly biased towards this geological type. Unfortunately once again a note of caution must be sounded about this apparently strong relationship, as a disproportionate number of coastal promontory forts have been identifed by Langouët and others on the Precambrian rocks around the mouth of the Rance.

b) soil

The same tests can be applied to the distribution of fortified sites across the soil types of the region. The proportion of each type is listed overleaf (table 15).

As with the geological classes, certain types of soil have to be combined to satisfy the requirements of the X^2 test. In tables 17-18, "other brown soils" includes calcareous, eutrophic and leached brown soils, and "others" includes podzols and podzolic soils, rendzinas, peat, fluvial and alluvial soils, and calcareous brown soils and red rendzinas.

The one-sample test (table 17) demonstrates once again the problem of bias in fieldwork. Although the X^2 value of 82.24 seems to show an extraordinarily significant relationship between the location of fortified sites and certain soil types, closer examination of the figures indicates that this is entirely due to the (relatively) very high number of sites on acid brown earths, 13 of which are in the

Channel Islands. If the Channel Islands are removed from the analysis, the resulting X^2 value for the one-sample test is 2.68, which is statistically insignificant. The same bias is evident, although somewhat diluted by the exclusion of poorly defined sites, in the cross-classified test (table 18). Thus although the X^2 value of this test, 24.09, is significant at the 0.5% level, it is possibly incorrect to argue from this that there is a clear preference for one or more types of soil for the location of fortified sites in north-west France.

	km^2	%
acid brown soils	1286	2.3
calcareous brown soils	2460	4.4
eutrophic brown soils	1733	3.1
leached brown soils	3914	7.0
leached soils	20858	37.3
leached brown soils and acid brown earths	21082	37.7
podzols	224	0.4
podzolic soils	839	1.5
fluvial alluvial soils	2069	3.7
marine alluvial soils	280	0.5
peat	224	0.4
rendzinas	839	1.5
calcareous brown soils and red rendzinas	112	0.2
	55920	100.0

Table 15. Soil cover in north-west France.

c) relief

Relief has been split into three categories for these tests:

	km^2	%
<100m	32378	57.9
100 - 200m	18230	32.6
>200m	5312	9.5
	55920	100.0

Table 16. Altitude classes in north-west France.

	observed n	expected n	$(O - E)^2/E$
acid brown soils	17	2.60	79.75
other brown soils	14	16.38	0.35
leached soils	34	42.15	1.58
leached brown soils and acid brown earths	38	42.60	0.50
others	10	9.27	0.06

$X^2 = \mathbf{82.24}$

Table 17. One-sample X^2 test: fortified sites/soil.

	acid brown	other brown	leached	lbs and abe	others	totals
coastal pfs	7 (2.43) 8.59	0 (2.23) 2.23	2 (5.26) 2.02	7 (5.26) 0.58	1 (1.82) 0.37	17
inland pfs	2 (6.29) 2.93	10 (5.76) 3.12	14 (13.62) 0.01	14 (13.62) 0.01	4 (4.71) 0.11	44
hillforts	3 (3.29) 0.03	1 (3.01) 1.34	10 (7.12) 1.16	5 (7.12) 0.63	4 (2.46) 0.96	23
totals	12	11	26	26	9	84

$X^2 = \mathbf{24.09}$

Table 18. Cross-classified X^2 test: fortified sites/soil.
The figures on the upper row of each site type are the observed number of sites, followed by the expected number (in brackets). The figure on the lower row of each type is the calculation of $(O - E)^2/E$. The two low-lying confluence sites have been included with the hillforts.

Tables 19 and 20 give the details of the one-sample and cross-classified X^2 tests. The result of the first is statistically insignificant, but the second is significant at the 5% level. Two factors have combined to produce this result. Firstly, and self-evidently, the coastal promontory forts are concentrated in the zone below 100m, which is hardly surprising given the paucity of coastline higher than 100m. Secondly and more interestingly, the hillforts show a slight tendency towards occupying higher ground in preference to the lower areas. The second test suggests that the distribution of fortified sites was influenced by the relief, but the test statistic cannot recognize that the coastal promontory forts could not occur on higher ground, and thus it would be wise not to place too much emphasis on this result.

	observed n	expected n	$(O - E)^2/E$
<100m	70	65.43	0.32
100 - 200m	37	36.84	0.00
>200m	6	10.73	2.08
			$X^2 = \mathbf{2.40}$

Table 19. One-sample X^2 test: fortified sites/relief.

	<100m	100 - 200m	>200m	totals
coastal promontory forts	14 (9.92) 1.68	3 (6.07) 1.55	0 (1.01) 1.01	17
inland promontory forts	24 (25.08) 0.05	18 (15.36) 0.45	1 (2.56) 0.95	43
hillforts	11 (14.00) 0.64	9 (8.57) 0.02	4 (1.43) 4.62	24
totals	49	30	5	84
			$X^2 = \mathbf{10.97}$	

Table 20. Cross-classified X^2 test: fortified sites/relief.
The figures on the upper row of each site type are the observed number of sites, followed by the expected number (in brackets). The figure on the lower row of each type is the calculation of $(O - E)^2/E$. The two low-lying confluence sites have been included with the hillforts.

5.3 Open settlements

5.3.1 Introduction

i) identification

Open settlements in north-west France have been identified almost exclusively as the result of two late twentieth-century archaeological activities: the monitoring of urban development, and (more importantly) the use of aerial photography. The pattern of sites (figure 41) shows this very clearly. There is a small cluster of sites around Caen, but the biggest concentrations correspond exactly to the spheres of interest of several archaeologists: the pays de Retz (Tessier), Entrammes (Naveau), Maine-et-Loire (Bouvet) and above all Saint-Malo (Langouët). These concentrations stand out in the apparent emptiness of much of north-west France, broken only by isolated discoveries found as a result of agriculture, road improvements and the like.

ii) definition

Open settlements are defined in this instance as areas of habitation which are effectively undefended. In fact some sites may show evidence of boundary ditches or palisades which could arguably have functioned as simple defences, but defence was clearly not the primary consideration in the location of the site. The use of banks is practically unknown, and these settlements are thus contrasted to the fortified sites where the bank or rampart is an essential component. For the purposes of describing the morphology of the open settlements, a division has been made between sites recognized simply as ditched enclosures, and habitation sites. The latter are distinguished by the presence of features including posthole structures, hut circles, wells, grain silos and so on. This is a highly artificial division, basically reflecting the difference between survey and excavation, since excavation of some ditched enclosures will certainly reveal features of the other type, but it is used here simply to split the data into manageable proportions, rather than to suggest a clear difference in function. As the following discussion will show, it is equally unrealistic to treat the ditched enclosures as a single undifferentiated group. In addition to these two types, there are a large number of sites where such a small area has been excavated that it is not possible to guess at the nature of the settlement of which it may have been a part.

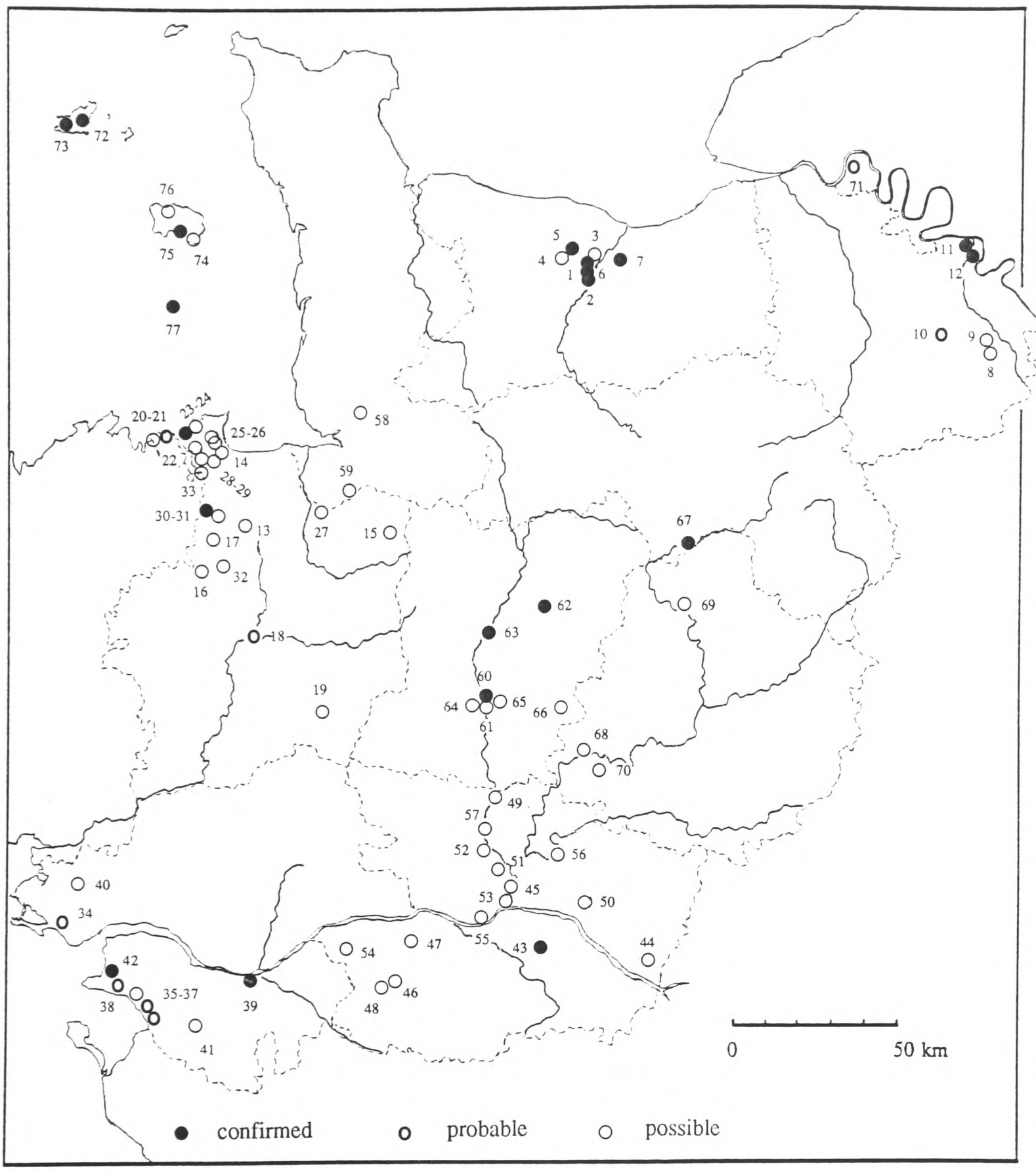

Figure 41. Distribution of open settlements.
Key to sites overleaf.

fig. no.	commune	gaz. no.	fig. no.	commune	gaz. no.
1	Caen	14.10	40	Saint-Lyphpard	44.81
2	Fontenay-le-Marmion	14.27	41	Saint-Même-le-Tenu	44.82
3	Hérouville-Saint-Clair	14.29	42	Saint-Michel-Chef-Chef	44.84
4	Rots	14.56	43	les Alleuds	49.01
5	Saint-Contest	14.63	44	Allonnes	49.02
6	Saint-Martin-de-Fontenay	14.67	45	Angers	49.05
7	Sannerville	14.72	46	Beaupréau	49.13
8	Boisset-les-Prévanches	27.08	47	Beausse	49.15
9	Caillouet-Orgeville	27.16	48	la Chapelle-du-Genêt	49.29
10	Evreux	27.28	49	Marigné	49.73
11	Léry	27.48	50	Mazé	49.76
12	Tournedos-sur-Seine	27.70	51	Montreuil-Juigné (x3)	49.83
13	Combourg	35.14	52	Pruillé	49.95
14	la Gouesnière	35.25	53	Ste-Gemmes-s-Loire (x2)	49.102
15	Landéan (x5)	35.30	54	St-Laurent-des-Autels (x2)	49.105
16	Miniac-sous-Becherel	35.34	55	Savennières (x2)	49.116
17	Pleugueneuc	35.42	56	Seiches-sur-le-Loir (x2)	49.119
18	Rennes	35.49	57	Thorigné	49.123
19	Retiers	35.52	58	Plomb	50.21
20	Saint-Briac-sur-Mer	35.55	59	Saint-James	50.28
21	Saint-Briac-sur-Mer	35.57	60	Entrammes	53.17
22	St-Jouan-des-Guerets (x4)	35.66	61	Entrammes (x6)	53.19
23	Saint-Malo	35.67	62	Jublains	53.26
24	Saint-Malo	35.71	63	Montflours	53.44
25	Saint-Meloir-des-Ondes	35.76	64	Nuillé-sur-Vicoin (x3)	53.48
26	St-Meloir-des-Ondes (x2)	35.77	65	Parné-sur-Roc	53.50
27	Saint-Ouen-la-Rouairie	35.78	66	Saulges	53.63
28	St-Père-Marc-en-Poulet	35.79	67	Alençon	61.02
29	St-Père-Marc-en-Poulet	35.80	68	Juigné	72.20
30	Saint-Pierre-de-Plesguen	35.81	69	Saint-Germain-sur-Sarthe	72.30
31	St-Pierre-de-Plesguen (x2)	35.82	70	Vion	72.36
32	Saint-Symphorien (x2)	35.86	71	Vatteville-la-Rue	76.14
33	la Ville-es-Nonais	35.91	72	St Peter Port	G.12
34	la Baule-Escoblac	44.06	73	St Saviour	G.15
35	la Bernerie	44.07	74	St Clement	J.05
36	les Moutiers	44.41	75	St Helier	J.06
37	les Moutiers	44.42	76	St Mary	J.14
38	Pornic	44.63	77	Les Minquiers	J.24
39	Rezé	44.71			

Key to figure 41.

The map of the sites (figure 41) differentiates between confirmed, probable and possible sites: the first category includes those with recognized areas of structures and firm dating; the second includes small sections of (for example) ditches with associated LLT material, or early GR sites which have revealed LLT finds probably associated with an earlier, indigenous habitat; and the third category, of possible sites, includes unexcavated ditched enclosures, and isolated finds of features such as pits and concentrated pottery scatters.

iii) excavation, publication and dating

Table 6 above showed that 33 of the 102 open settlements of all types have seen some degree of excavation. However of this figure, only nine have been fully published;[1] there are interim reports for approximately a further 20, but this leaves over 70 sites which are uninvestigated and undated, save by comparison with excavated sites of a similar form. This is a particularly hazardous method of dating ditched enclosures, for example, where only a cropmark exists and fieldwalking has not taken place. Although some authors have noted a change in these enclosures from curvilinear to more regular forms in the LLT and EGR periods (Lambert and Rioufreyt 1981b, 57), this progression is hardly likely to have been regular and the details of its development are largely unknown. As with the fortified sites, the LLT date of many of these sites remains in doubt.

5.3.2 Habitation sites

Table 21, overleaf, lists the sites included in this category. As indicated in the section above, it is likely that some of the ditched enclosures are habitation sites, and could thus be added to this list after confirmation by excavation.

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1 these are Hérouville-Saint-Clair (14.29), Saint-Contest (14.63), Saint-Malo (35.67), Azé (53.03), Entrammes (53.17), Jublains (53.26), Montflours (53.44), St Saviour (G.15) and Les Minquiers (J.24).

gaz. no., commune		suggested dates of occupation
14.10	Caen	late LT3
14.27	Fontenay-le-Marmion	late LT3/GR
14.63	Saint-Contest	c. 56 BC
14.67	Saint-Martin-de-Fontenay	late LT3 (spans C6 BC to C7 AD)
14.72	Sannerville	late LT3 (site to C6 AD)
27.08	Boisset-les-Prévanches	LLT?
27.16	Caillouet-Orgeville	LLT/GR
27.48	Léry	C1 BC to C3 AD (concentration to early C1 AD)
27.70	Tournedos-sur-Seine	Ha to C1 AD; chronology confused in places
35.49	Rennes	Augustan; possibly earlier
35.55	Saint-Briac-sur-Mer	LT3?
35.67	Saint-Malo (Alet)	c. 80 BC to c. 20 AD
35.81	Saint-Pierre-de-Plesguen	late LT3
44.71	Rezé	second half of C1 BC
49.01	les Alleuds	late C2 BC (?) to c. 56 BC
49.05	Angers	from end of first century BC
53.26	Jublains	c. 56 BC on
53.44	Montflours	late LT3
53.63	Saulges	late first century BC?
61.02	Alençon	LLT/GR
G.12	St Peter Port	c. 80 BC on
G.15	St Saviour	c. 50 BC to c. 80 AD
J.06	St Helier	C3 BC to C1 BC?
J.24	Les Minquiers	LLT?

Table 21. Habitation sites.
Suggested dates of occupation are those of the excavators.

Of these sites, Alet (Saint-Malo) and les Alleuds stand out in terms of size, complexity and importance. Alet has been the subject of much discussion concerning possible late Iron Age trading links across the Channel, particularly with Hengistbury Head (eg Langouët 1984; Cunliffe 1987, 340-341). The evidence for LLT occupation is worth considering in some detail. Structural evidence is relatively scarce - there are a few postholes, ditches, hearths and grain storage pits, but not in sufficient quantity to reconstruct the form of the settlement (Langouët 1978b, 57; 1987c, 91, fig. 56) - and thus analysis of the site and its role depends largely on the many finds (Langouët 1984, 67-68). From these Langouët has argued (ibid., 72) that the site was founded c. 80 BC. However there are several reasons to suggest that this date is rather too early. Throughout the excavation report (Langouët 1987c), which includes only very limited information on the finds, Langouët refers to a *pre-Roman* layer, which however includes a small number of exotic imports firmly dated to the early years of the first century AD (Langouët 1984, 71-72), and a worn *as*, minted between 10 BC and 21 AD (Langouët 1978a, 25).

In addition, the so-called "installation métallurgique, ruinée" (Langouët 1987c, 91), which he suggests might be connected with the production of Coriosolitae coinage, was discovered in a trench quite clearly cut through from the top of the pre-Roman layer and thus presumably no earlier than c. 20 AD, the date suggested by the imports in that layer (ibid., fig. 48).

The argument for an early date thus appears to rest largely on the presence of three cl. V Coriosolitae staters and two cl. V quarter staters in the pre-Roman layer (Langouët 1978a, 23-24), and on the amphorae. With regard to the coins, two of the staters were found with two quarter staters (one each of cl. III and cl. V; all were tested with a single cut on the R/) in a "petit enfouissement" in area EF7 (Langouët 1987c, 65), which was much disturbed by GR construction. The presence of the cl. III coin may push the date of deposition slightly closer to the conquest than would be indicated by the presence of cl. V coins alone. With regard to the amphorae, there are sherds of three Dr Ia, two or three Dr Ib, and nine Dr I (variety unspecified), all apparently from the pre-Roman layer along with the sherds of two Pascual I (Sanquer 1978). Galliou (1984) has suggested that most Dr Ia amphorae arrived in Armorica between c. 80 BC and c. 50 BC, which would allow for deposition at Alet rather later than 80 BC, although this view has been challenged by Fitzpatrick (1985, 315-316) who suggests a less "compressed chronology". The presence of Pascual I amphorae in this layer, which did not appear until the last quarter of the first century BC, is further evidence that the pre-Roman tag needs to be critically examined. While it seems likely that there was some indigenous occupation at Alet in the LLT, its extent may not have been as great as is currently perceived, and the flourishing occupation indicated by the "couche gauloise" may perhaps be shifted to the period following the conquest.

The large (7ha) settlement of 'les Pichelots', les Alleuds (49.01) is arguably the most important site of any type to have been excavated in north-west France in the last twenty years. It is all the more disappointing therefore that only very brief summaries of the form of the settlement and the multitude of finds have so far appeared (Gruet 1986; Gruet and Passini 1986; CAG 49.77). The only published plan (Gruet and Passini 1986, 18) does not do justice to the hundreds of recognized features, including 33 wells, 18 hearths and several rectangular buildings, which lie within a palisade ditch. In view of the heavy agricultural use of the site it seems likely that many of the shallower features, such as hearths, have been destroyed. However the wells are relatively intact, nearly all 5.6m deep in order to

reach the water table, and usually lined with planking. The grain silos are up to 1.7m deep and 2.3m in diameter, with overhanging walls that are occasionally clay-lined.

The settlement was clearly divided into zones: immediately within the small palisade ditch there is a concentration of postholes and hearths, separated from a zone of silos and wells closer to the centre of the site by a narrow empty corridor, with the central area itself also apparently empty. Despite the zoning of the settlement there is no evidence of a significant variation in the number and type of finds across the site. These include a huge number of Dr Ia amphorae: rim sherds of at least 130 have been discovered, and as they represent the only form of amphora on the site, can be taken as a firm indication of the abandonment of the settlement in the middle years of the first century BC. Other objects from outside the immediate hinterland of the site include Besançon type vases and briquetage debris, possibly from the pays de Retz, and two potins attributed to the Bituriges Cubi (BN 4303), also found at Levroux, Indre. The quantity of amphorae, however, is unmatched by any other import, and puts into shade sites such as Alet and Quimper (Galliou 1990, 49) which have traditionally been seen as the key points in the LLT distribution network. While not wishing to argue against that view - one might expect more amphorae at les Alleuds, given the size of the area excavated - it is clear that a reassessment may be needed of the volumes of amphorae that were transported through the region in the late second and early first centuries BC.

Two potentially large areas of settlement have recently been identified in the valley of the Seine, at Léry (27.48) and Tournedos-sur-Seine (27.70). Approximately 1000m^2 of the largely destroyed settlement at Léry has been excavated, revealing a number of features including about 20 pits (one of which is unusually large, 7m x 8.5m x 2.7m deep), a hearth, a well and drainage ditches, and a small inhumation burial. The pottery and most of the coins have yet to be published, but it is suggested that the site was occupied from the early first century BC (Fossé et al. 1989, 191-194; Lepert and Carré 1990). The site at Tournedos has already been mentioned in the context of Ha or ELT settlement (see 3.2). A small cemetery separates the early settlement from a second group of enclosures and structures covering 3ha, which are believed to range in date from the Ha through to the LLT and GR. One enclosure includes a structure of more than 90m^2, with a well set 10m away (Fossé et al. 1989, 194-199; Carré 1990a).

The two other large areas of settlement are both in Guernsey. At the Tranquesous in St Saviour (G.15; figure 42) at least nine circular huts have been identified within a boundary ditch; finds included briquetage fragments and Dr I sherds (Burns 1977). Circular huts were also discovered at King's Road, St Peter Port (G.12), enclosed within a ditch with an entrance gateway. Part of the settlement was identified as an area for textile weaving. There was also a cemetery some 150m to the south, and more of the settlement undoubtedly remains to be excavated (Burns, pers. comm.).

The six habitation sites discussed above include the most important examples of the type so far excavated in north-west France. The remainder of the sites listed in table 21 have generally revealed evidence of LLT occupation on a much smaller scale, for example in the form of small posthole structures. There is not the space here to list the details of all the sites, which can be found in the gazetteer. However, a few stand out as being of particular interest. Saint-Pierre-de-Plesguen (35.81; figure 43), which is the first published LIA settlement structure in Ille-et-Vilaine, illustrates the problem of summarily dividing ditched enclosures and habitation sites, as it was originally recognized as an example of the former type (Langouët and Faguet 1988, 87). A number of these settlements have been discovered following excavation of Gallo-Roman structures which reveal indigenous occupation beneath. This is the case for Rennes (35.49), Rezé (44.71) and Angers (49.05) where the indigenous occupation is likely to have been on a scale greater than excavation currently suggests, and also for Jublains (53.26), Montflours (53.44), Saulges (53.63) and Alençon (61.02), where LLT occupation is present beneath early GR villas or other structures. The precise dating of many of these remains uncertain, and so it is not always clear whether the site was first occupied before or after the conquest.

5.3.3 Ditched enclosures

This category includes the bulk of the open settlements. In addition to the 68 listed below, a further 72 enclosures in Mayenne and 29 in Sarthe have been identified by Lambert and Rioufreyt (1981b; see figure 46).[1] They are listed in appendices to the relevant departmental gazetteers, as save for a couple of sites (Villers-Charlemagne (53.65) and Poillé-sur-Vegre (72.40)) only a simple description of their form has been published. Almost all of them are undated and it seems likely that at

[1] also unlisted are the several hundred enclosures identified by air photography in Calvados and Ille-et-Vilaine, mostly in the summer of 1990, which were published after the completion of this chapter (Delacampagne 1990 (for Calvados) and Leroux and Provost 1990 (for Ille-et-Vilaine)).

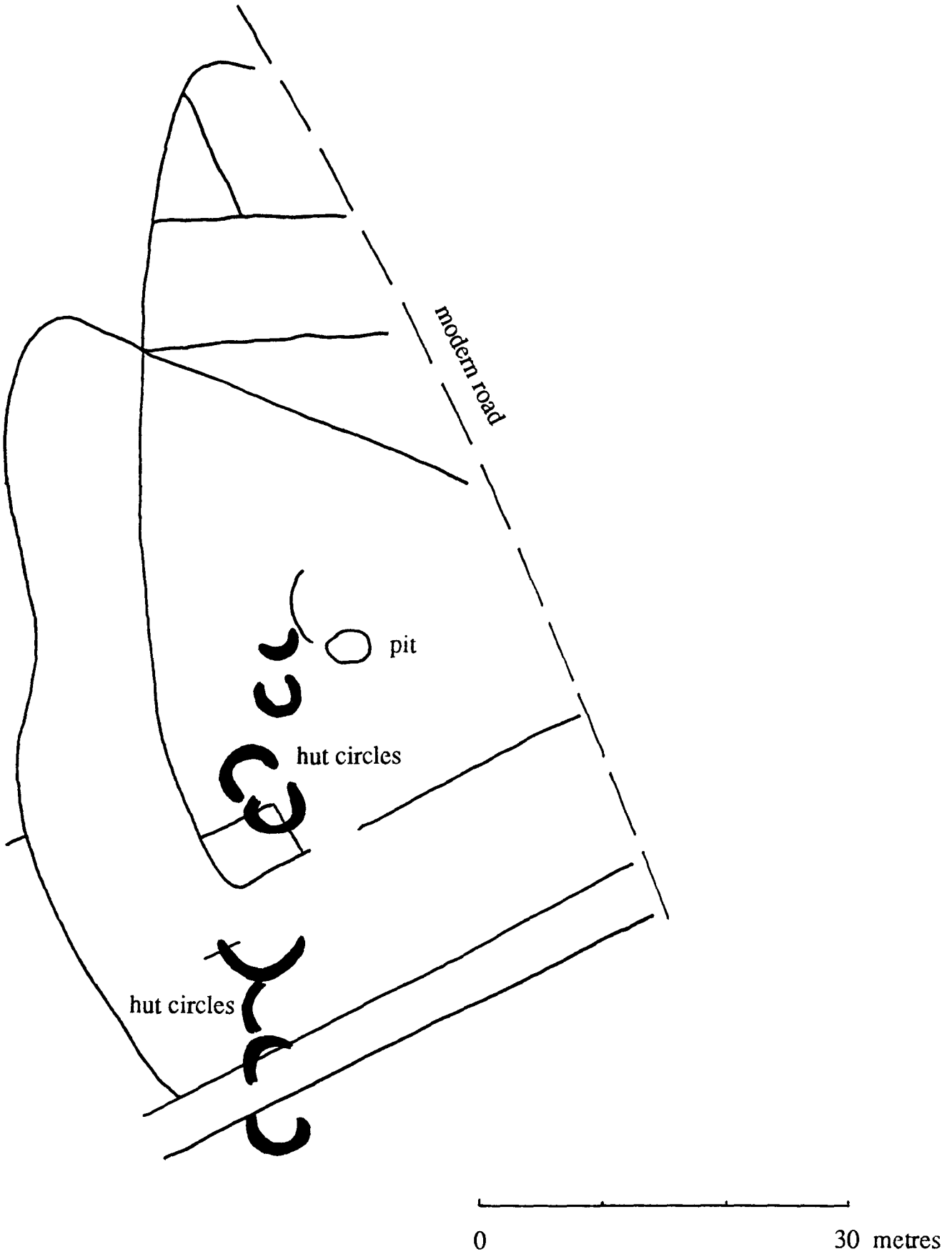


Figure 42. St Saviour (G.15) (after Burns 1977, figs. 1c and 2).
The thin lines represent ditches.

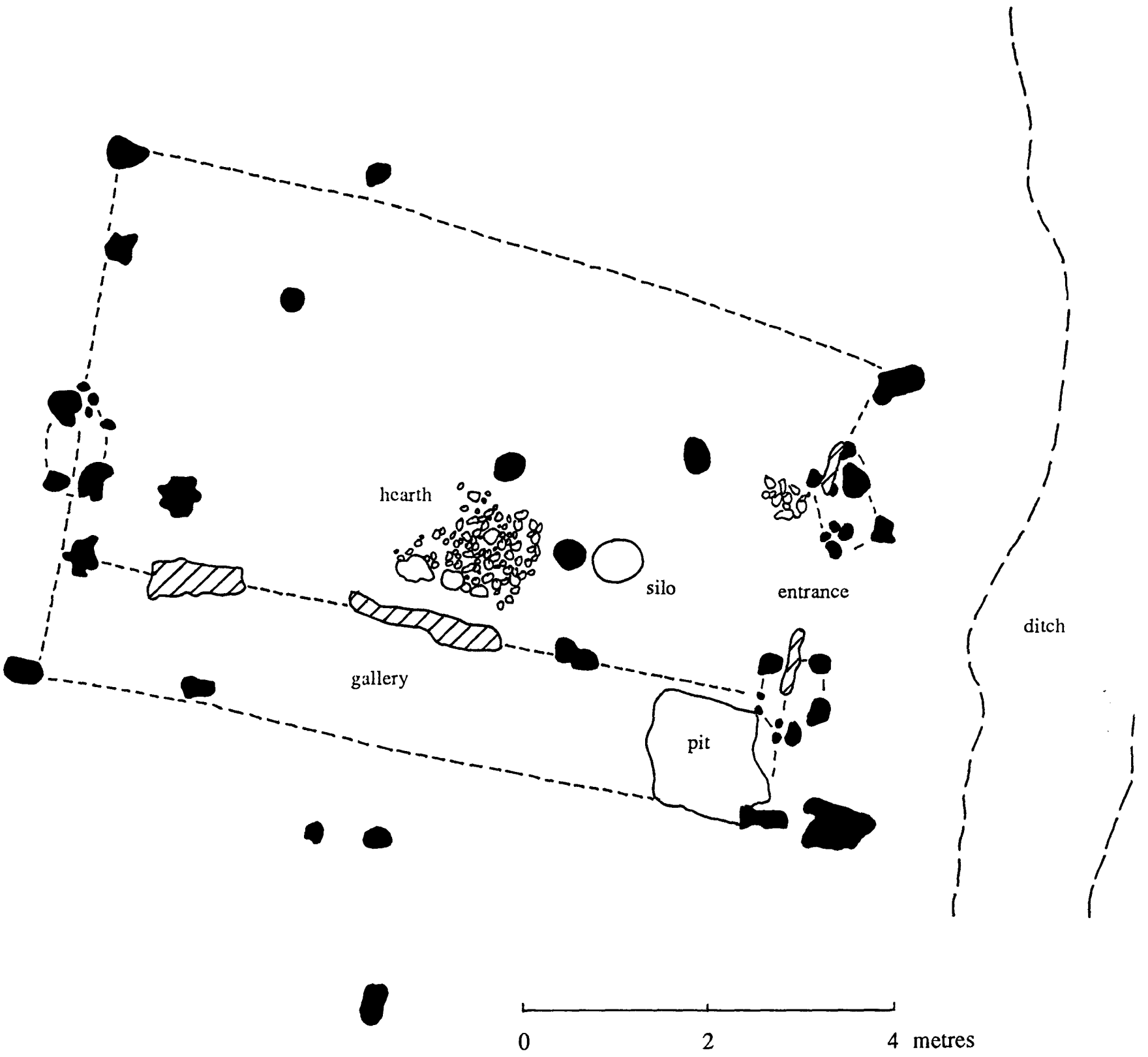


Figure 43. Saint-Pierre-de-Plesguen (35.81) (after Leroux 1988, 32).

postholes

cloissonnements (traces of partitions)

least one type, the small square enclosure, is considerably earlier than the LLT (see for example Aubigné-Racan (72.05), a tumulus surrounded by a small square double ditch with rounded corners, dated to the late Ha/ELT).

14.56	Rots
35.14	Combourg
35.25	la Gouesnière
35.30	Landéan (x5)
35.34	Miniac-sous-Becherel
35.42	Pleugueneuc
35.52	Retiers
35.57	Saint-Briac-sur-Mer
35.66	Saint-Jouan-des-Guerets (x4)
35.70	Saint-Malo
35.71	Saint-Malo
35.76	Saint-Meloir-des-Ondes
35.77	Saint-Meloir-des-Ondes (x2)
35.78	Saint-Ouen-la-Rouairie
35.79	Saint-Père-Marc-en-Poulet
35.80	Saint-Père-Marc-en-Poulet
35.82	Saint-Pierre-de-Plesguen (x2)
35.86	Saint-Symphorien (x2)
35.91	la Ville-es-Nonais
44.07	la Bernerie
44.41	les Moutiers
44.63	Pornic
44.81	Saint-Lyphard
44.82	Saint-Même-le-Tenu
44.84	Saint-Michel-Chef-Chef
49.13	Beaupréau
49.15	Beausse
49.29	la Chapelle-du-Genêt
49.73	Marigné
49.83	Montreuil-Juigné (x3)
49.95	Pruillé
49.102	Sainte-Gemmes-sur-Loire (x2)
49.105	Saint-Laurent-des-Autels (x2)
49.116	Savennières (x2)
49.119	Seiches-sur-le-Loir (x2)
49.123	Thorigné
50.28	Saint-James
53.03	Azé
53.17	Entrammes
53.19	Entrammes (x6)
53.48	Nuillé-sur-Vicoin (x3)
53.50	Parné-sur-Roc
72.20	Juigné
72.30	Saint-Germain-sur-Sarthe
72.36	Vion

Table 22. Ditched enclosures in north-west France.

The plans of some of these sites are shown on figures 44 and 45. Only four have been excavated: Saint-Michel-Chef-Chef (44.84), Azé (53.03), Entrammes (53.17) and Vion (72.36). The first, in the pays de Retz, consisted of a series of concentric v-shaped ditches set around a small mound, enclosing a central area of about 0.5ha. The only structure identified in this area was a hearth, but the contents of the ditches suggest a more intensive use of the site: three bronze-working crucibles, briquetage debris, two spindle whorls and nine loomweights, metal slag and abundant pottery. The occupation of the site is dated from c. 350 BC to c. 60 AD, but it is not clear if this was continuous, or indeed which phase of this period provided the finds, although as they were found in the ditch fill they presumably represent the final stages of the site (Aubin 1980, 405).

The excavation of the quadrilateral double-ditched enclosure at Vion yielded very different results. In this case the large v-shaped ditches were found to be completely devoid of archaeological

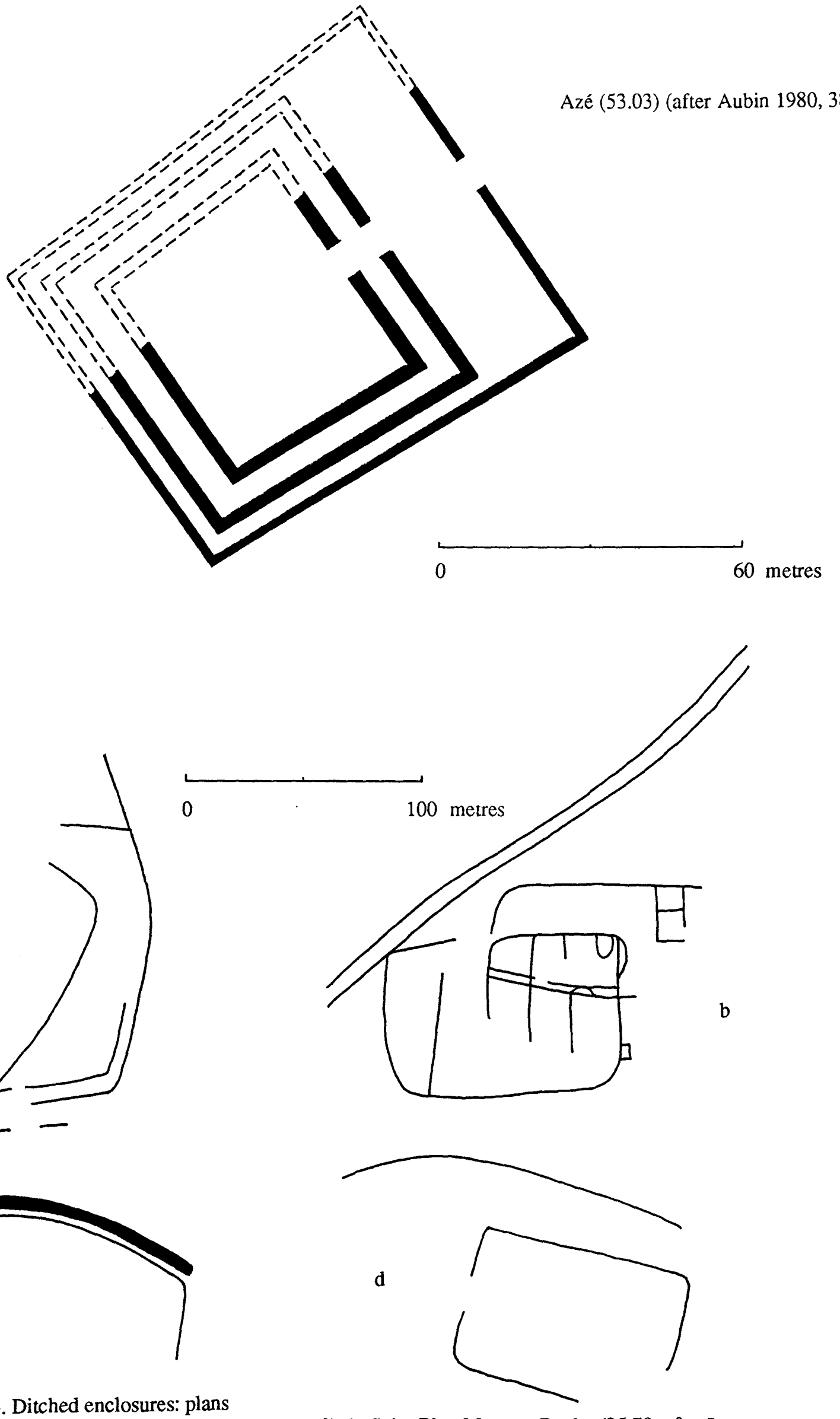
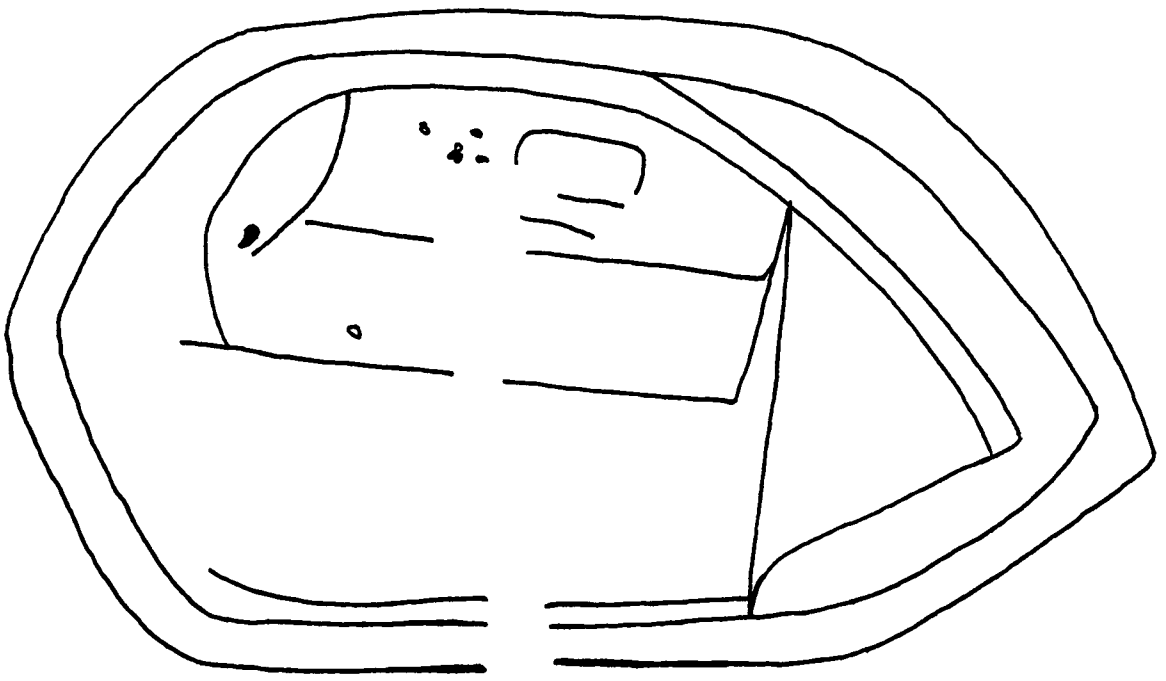
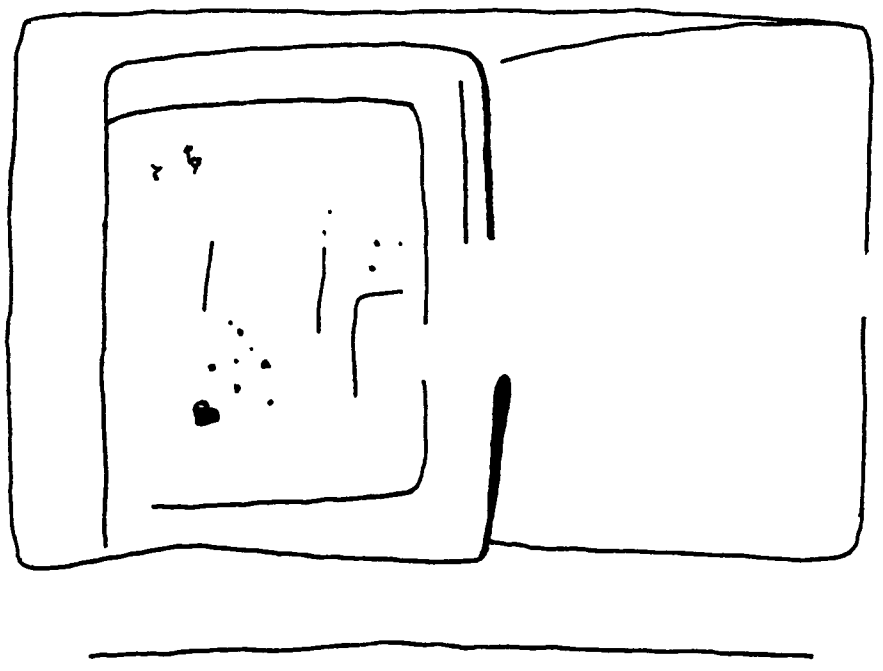


Figure 44. Ditched enclosures: plans
a: Pleugueneuc (35.42; after Langouët 1987a, 19); b: Saint-Père-Marc-en-Poulet (35.79; after Langouët 1987a, 20); c: Saint-Méloir-des-Ondes (35.76; after Langouët 1987a, 20); d: Saint-Pierre-de-Plesguen (35.82; after Langouët and Faguet 1988, 87).



Parné-sur-Roc (53.50)



Saint-Germain-sur-Sarthe (72.30)

Figure 45. Ditched enclosures: plans (after Lambert and Rioufreyt 1981b, fig. 8). No indication of scale or orientation is given with the original plans.

material and the site is still effectively undated (Lambert and Rioufreyt 1975-76, 33-38). There is a tendency to assume in this situation that the site had some sort of ritual function, but that remains to be convincingly demonstrated. A similar explanation has been suggested, with rather more reason, for the enclosures at Azé and Entrammes. At the latter a 10m section of ditch was excavated, oriented 2° 30' from geographic north, and hence the excavator has suggested it was part of an enclosure, perhaps with some sort of ritual function (Naveau 1977b), as the contents of the ditch (fragments of hearths, late LT3 pottery and five sherds of Dr Ia amphorae) had been deposited on one occasion. The enclosure at Azé, formed of three concentric ditches (see figure 44) between 1.4 and 2.1m deep and 1.6 and 2.7m wide, has an entrance oriented to within half a degree of the summer solstice (Lambert and Rioufreyt 1975-76). Once again there is evidence that the ditch fill, including homogenous LLT pottery and a few briquetage fragments, was deposited on one occasion, presumably in the middle of the first century BC. The site was apparently undisturbed until the second century AD, when a shallow ditch was cut across the earlier enclosure.

One further enclosure, though unexcavated, deserves special note. A double-ditched enclosure of 3ha at Saint-Meloir-des-Ondes (35.76; figure 44c) has a particularly wide outer ditch, and although it may have been for agricultural purposes, a defensive or refuge function has also been suggested on account of the ditch and the site's position on a small hill in the marais de Dol (Langouët 1987d, 53).

The five enclosures described above reveal very different functions and periods of use and/or occupation. It is clear that the term "ditched enclosure" covers an unsatisfactorily wide variety of sites, but until many more of the large number in north-west France have been excavated, attempts at more detailed differentiation on the basis of their surface appearance are likely to be flawed.

5.3.4 Other open settlement evidence

14.29	Hérouville-Saint-Clair	49.76	Mazé
27.28	Evreux	50.21	Plomb
44.06	la Baule-Escoblac	76.14	Vatteville-la-Rue
44.42	les Moutiers	J.05	St Clement
49.02	Allonnes	J.14	St Mary

Table 23. Other possible open settlement sites.

This category includes miscellaneous settlement evidence of several types. At Hérouville-Saint-Clair and Vatteville-la-Rue excavation of GR sites has revealed finds of LLT date, but no indication of indigenous structures. Isolated finds of late Iron Age material which may be related to a settlement have been made at Evreux, la Baule-Escoblac, les Moutiers, Allonnes, Plomb, St Clement and St Mary, although none of these sites have revealed features other than pits. The evidence for settlement at Mazé is unclear, but appears to be simply the presence of possible cropmarks.

5.3.5 Spatial distribution

There is no point in attempting to apply the same statistical tests to the open settlements (as a single regional group) as were used in the section on fortified sites, for the simple reason that the observed distribution is so much a product of differing intensities of fieldwork that any relationship so discovered would likely be completely spurious. For example, application of the nearest neighbour statistic to the region as a whole would indicate a markedly clustered settlement pattern, and the X^2 test would suggest a strong correlation between Precambrian rocks and settlement and a remarkably thorough avoidance of Cretaceous geology, simply as the result of the uneven concentration of research. There is one area, however, where the use of some tests is valid: part of the territory of the Aulerci Diablintes and Cenomani, occupying what is now Mayenne and Sarthe, and where sufficient research has taken place to provide a large sample of sites. Figure 46 shows the enclosures identified, almost all from air photography, in this region.

Unfortunately Lambert and Rioufreyt (1981a; 1981b) do not specify the exact area which was subject to intensive air survey. It it thus not clear whether survey took place in (for example) south-west Mayenne, where there are no recorded sites, or indeed whether the whole of the Sarthe was examined; there are concentrations of sites in the north and the south-west, but much of the central area is empty. The choice of a boundary to the sites clearly has an important effect on the operation of statistics such as the X^2 test, where the expected distribution of sites will be radically altered by changes in the proportion of land types. In the face of these problems it has been decided to use the southern half of the Aulerci Diablintes territory, sometimes allotted to the Arvii, as the basis for the following calculations; it seems more sensible to adopt a frontier that may have existed in the late Iron Age rather than one such as the modern departmental boundary, which quite clearly did not, and there

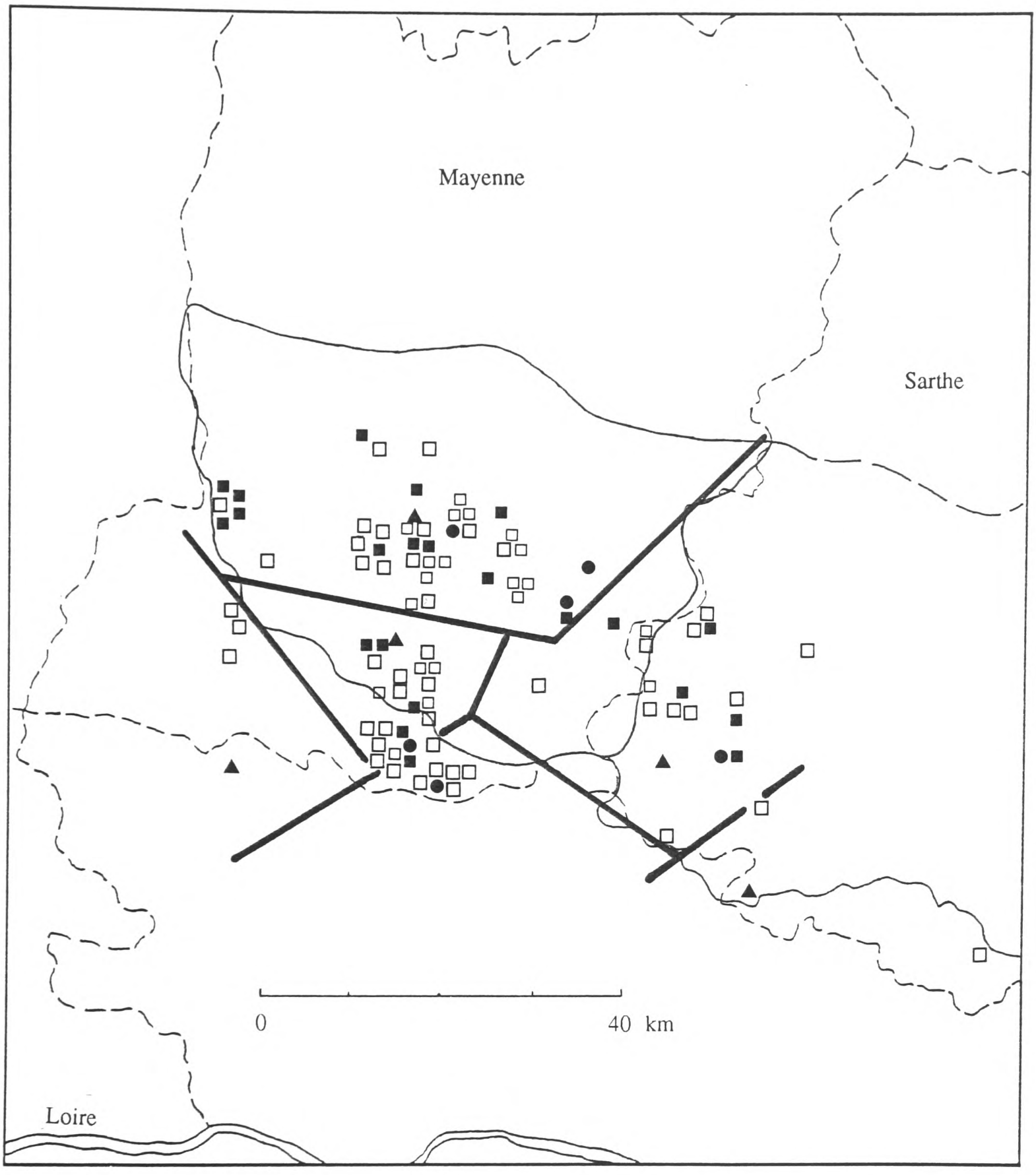


Figure 46. Distribution of ditched enclosures in the south of Mayenne and Sarthe.
Data from Lambert and Rioufreyt (1981b). Enclosures are not accurately positioned within communes.
Thin black lines represent tribal boundaries, and thick black lines the weighted Thiessen polygons.

also appears to be a uniformly good survey coverage of this area. It includes 41 recognized enclosures: 22 simple quadrilateral, 16 complex quadrilateral, and 3 curvilinear. Small square enclosures, which seem likely to be Ha or ELT in date, have been excluded from this analysis.

i) inter-site relationships

The application of the nearest neighbour statistic is impractical on this occasion, primarily because the position of the enclosures relative to others in the same commune is generally not known. However some useful information may be gained from considering the position of the ditched enclosures in relation to the main fortified sites.

In the section on fortified sites (5.2.7), details were given of the construction of Thiessen polygons, based on the largest (>10ha) fortified sites. The weighted version appeared to offer the best model of the situation in north-west France, with respect to the boundaries that have been suggested from the limited archaeological, historical and linguistic evidence. In Mayenne the polygons are constructed around the sites of Entrammes (55ha), Loigné-sur-Mayenne (12ha) and Moulay (11.6ha). These do not correspond especially well with the boundaries currently believed to have been present in the area, mainly because the inclusion of Loigné splits into three an area commonly divided into territories centred on Entrammes and Moulay. The only evidence for LLT occupation at Loigné comes from an isolated coin find and sherds of pottery recovered from the eroded rampart, and thus it may be premature to treat it as some kind of central place on a par with Entrammes and Moulay, where the archaeological evidence for such a role is rather more convincing. However a comparison of the weighted Thiessen polygons with the ditched enclosures identified by Lambert and Rioufreyt perhaps reveals more evidence for the existence of the boundaries, in some form or other, indicated by the polygons (figure 40).

The enclosures mapped on figure 46 appear to be divided neatly into two main groups, centred on Entrammes and Loigné, with a few outliers on the modern southern boundary of Mayenne. It is tempting to see each as a group of settlements associated with the fortified central place, separated from each other by narrow areas of no-man's land which correspond in some respects to the theoretical boundaries. On the other hand, it is also possible that the distribution might simply reflect the desire to be near the river Mayenne, for reasons of trade or landscape conditions, and hence the lack of sites in

south-east Mayenne. The archaeological research which might support either of these contentions has yet to take place. There is clearly a need for better definition of the roles of these sites, since (for example) the group which on the polygons map appear to be associated with the fortified site at Courtillers, Sarthe (72.12), appear instead to be linked to the frontier between the Diablintes and the Cenomani on the 'real' map. Likewise the nature of the frontiers themselves needs further investigation. Nevertheless these observations demonstrate the value of intensive survey, and the importance of considering features such as fortified sites and ditched enclosures as interrelated aspects of the landscape of settlement, rather than as wholly separate manifestations of occupation.

ii) open settlement/environment relationships

The data on the ditched enclosures is better suited to the analysis of site/environment relationships, although there are still limitations to what can be achieved. The application of the X^2 statistic has been described above (section 5.2.7). Both one-sample and cross-classified tests are used here.

a) geology

The geological cover of this region is split simply between Precambrian (34%) and Palaeozoic rocks (66%). Combining all three types of enclosure, the one-sample test of the observed distribution (19 sites on Palaeozoic and 22 on Precambrian) against the expected distribution (27.06 on Palaeozoic and 13.94 on Precambrian) gives a X^2 value of 7.06, which is significant at the 1% level. However if the enclosures are split into three types, the cross-classified test gives a value of 4.44, which is statistically insignificant. While the first figure suggests a preference for the Precambrian rocks, the assumption that all enclosures may be treated equally may not be borne out by further investigation, though on the other hand nor may the current typological division which has yielded the insignificant result above.

b) soils

Soil cover in the south of Mayenne is split three ways, between eutrophic brown (29.3%), leached soils (40.2%), and leached brown soils and acid brown earths (30.5%). The observed

distribution of ditched enclosures is respectively 9, 2 and 30. The one-sample test gives a X^2 value of 37.92, which is significant at the 0.1% level. The application of the cross-classified test is unfortunately impractical, because the values in two categories (leached soils, and curvilinear enclosures) do not satisfy the requirements outlined above (5.2.7). In view of doubts concerning the validity of treating the ditched enclosures as a uniform group, not too much weight should be placed on this result, but it does seem to indicate a very clear preference for leached brown soils and acid brown earths, and a marked dislike of leached soils.

c) relief

The land in this area is divided into 37.2% above 100m, and 62.8% below 100m. Seven of the sites are in the higher category, and 34 on the lower ground. The one-sample test comparing this distribution with the expected distribution gives a X^2 value of 7.10, which is significant at the 1% level. However as with the soils, the cross-classified test cannot be applied because of the low number of sites in some categories. Nevertheless there appears to be a preference for lower ground in the location of ditched enclosures.

5.4 Quadrilateral enclosures

5.4.1 Introduction

This section examines the evidence of quadrilateral banked enclosures, sometimes known as *Viereckschanzen*. The validity of this latter term will be considered in ii) below.

i) identification

The distribution of the quadrilateral enclosures (figure 47) is in part a reflection of genuinely significant variations in the density of this feature across the region, and in part a consequence of fieldwork bias. Until very recently the cluster of enclosures in Eure was accompanied only by a few outliers, such as the sites in Calvados and Loire-Atlantique. However the research of J.-P. Bouvet (unpublished, but incorporated into CAG 49) has demonstrated that many more sites exist in Maine-et-Loire. Does this suggest therefore that a similar density of sites will eventually be recognized across the region? This seems unlikely. The intensive researches of archaeologists including Langouët, Naveau and Tessier have not revealed any sites of this type in their areas, and it is likely instead that there are clusters of quadrilateral enclosures in a few parts of the region and considerable expanses where this structure was unknown. Possible reasons for this will be examined below (5.4.5).

ii) definition

Quadrilateral enclosures have until recently received less attention than most of the other aspects of Iron Age settlement, in part because they do not have the pan-European distribution of features such as the oppida. Interest in the subject has been greatest in the areas where most of the sites are found: the German-speaking world and primarily Bavaria, where the first excavation took place in 1892. The term *Viereckschanze* was coined by Paul Reinecke in 1910, and the subject studied by Bersu in the first quarter of this century, but interest then waned until the post-war period (Mansfeld 1989, 28-30). It was rekindled by the pioneering efforts of archaeologists including Schwarz (1962) and Zürn (1971), and is now exemplified by comprehensive syntheses of the sites in particular regions (eg Bittel, Schiek and Müller 1990), and by detailed accounts of large-scale excavations (eg Planck 1982; Schiek 1984). Outside this core area, research into the quadrilateral enclosure has been sporadic, usually in the

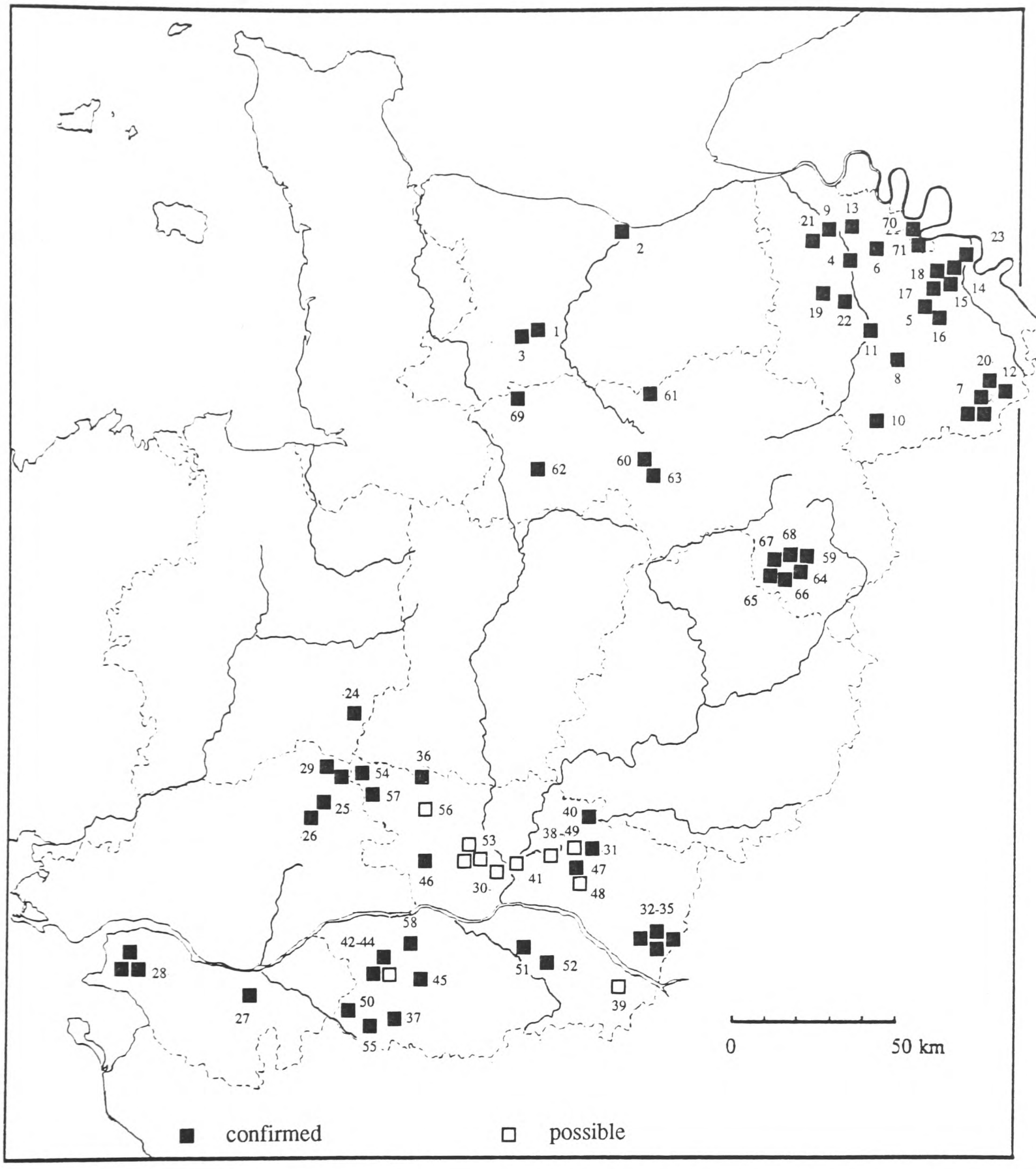


Figure 47. Distribution of quadrilateral enclosures.
Key to sites overleaf.

fig. no.	commune	gaz. no.	fig. no.	commune	gaz. no.
1	Campandre-Valcongrain	14.15	36	Châtelais	49.34
2	Ouistreham	14.49	37	Cholet	49.41
3	le Plessis-Grimoult	14.52	38	Corzé	49.45
4	le Bec-Hellouin	27.04	39	Distré	49.47
5	B'ville-la-Campagne	27.05	40	Durtal	49.49
6	Bosguerard-de-M'ville	27.09	41	Ecouflant	49.51
7	Champigny-la-F'laye (x3)	27.17	42	le Fief-Sauvin	49.54
8	Conches-en-Ouche	27.20	43	le Fief-Sauvin	49.55
9	Condé-sur-Risle	27.22	44	le Fief-Sauvin	49.56
10	Francheville	27.33	45	Jallais	49.65
11	Grosley-sur-Risle	27.35	46	le Louroux-Beconnais	49.69
12	l'Habit	27.37	47	Lué-en-Baugeois	49.70
13	Illeville-sur-Montfort	27.40	48	Lué-en-Baugeois	49.71
14	Incarville	27.41	49	Marcé	49.72
15	Louviers	27.49	50	Montfaucon	49.80
16	le Mesnil-Fuguet	27.54	51	Notre-Dame-d'Allençon	49.86
17	le Mesnil-Jourdain	27.55	52	Noyant-la-Plaine	49.87
18	Montaure	27.56	53	le Plessis-Macé (x3)	49.89
19	Plasnes	27.58	54	Pouancé	49.93
20	Saint-André-de-l'Eure	27.62	55	la Romagne	49.98
21	Saint-Martin-St-Firmin	27.65	56	Ste-Gemmes-d'Andigné	49.100
22	Serquigny	27.68	57	St-Michel-et-Chanveaux	49.106
23	le Vaudreuil	27.73	58	Saint-Quentin-en-Mauges	49.110
24	Rannée	35.45	59	Bellême	61.07
25	Erbray	44.20	60	Boucé	61.09
26	Moisdon-la-Rivière	44.38	61	Brieux	61.11
27	Pont-Saint-Martin	44.62	62	Champsecret	61.13
28	Saint-Père-en-Retz (x3)	44.93	63	Francheville	61.23
29	Soudan (x2)	44.99	64	la Gué-de-la-Chaine	61.24
30	Avrillé	49.10	65	Origny-le-Butin	61.37
31	Beauvau	49.16	66	Origny-le-Butin	61.38
32	la Breille-les-Pins	49.21	67	la Perrière	61.40
33	la Breille-les-Pins	49.22	68	St-Martin-du-Vieux-B'ême	61.43
34	la Breille-les-Pins	49.23	69	Saint-Pierre-d'Entremont	61.44
35	la Breille-les-Pins	49.24	70	la Londe	76.06
			71	la Londe	76.07

Key to figure 47.

form of brief regional surveys of sites which may be of this type (eg André (1960) on the Morbihan, Cotton (1961) on Berkshire, Cotton and Frere (1961) on sites in Corrèze, Waldhauser (1975) on the type in Czechoslovakia, and Wyss (1975, 77) on Switzerland). Studies of the feature in all areas, but especially in France, have recently taken an important step forward with the publication of the ninth conference of the AFEAF (Châteaudun, 1985), devoted to the subject.

The opening paper in the AFEAF volume is fittingly concerned with the definition of the quadrilateral enclosure or *Viereckschanze* (Buchsenschutz 1989). This topic is worth examining in some detail, since there remains considerable disagreement over just what a *Viereckschanze* is. Buchsenschutz lists a number of characteristics (ibid., 6-8), not all of which are found on any one site, which may be summarized as follows:

i) the surface area is about 1ha;
ii) the form is quadrilateral, with banked sides of roughly equal length; corners are slightly elevated and usually slightly rounded (Mansfeld (1989, 28) disputes this latter point);
iii) the ditch is not very deep or wide, and is uninterrupted at the entrance;
iv) the entrance, usually to the west or east, is normally a simple interruption of the bank;
v) the flat internal surface is sometimes raised in comparison to the exterior;
vi) the enclosure is on a flat or gentle slope; there is no use of natural features;
vii) the sites are often on poor soils or in forest;
viii) the sites appear to be very irregularly distributed;
ix) traces of occupation are scarce; material is found principally in the ditch or outside the enclosure;
x) structures on the site are of three types: palisades preceding the construction of the bank, wells of varying depth, and one or more buildings often of original form;
xi) the enclosure is often associated with other features, such as funerary mounds or oppida.

This list of characteristics covers most of the morphological variations among the *Viereckschanzen*, but it provides little information on the more intractable problem of defining the function of this type of site. The predominant role assigned to the *Viereckschanzen* is as some kind of cult or ritual site (Brunaux 1988, 11). This has been based largely on the observation in some Bavarian enclosures of 'ritual' pits, shafts or wells. The distinction between these three, and between what is ritual and what is rubbish, is far from simple. Thus for example at Fellbach-Schmiden, Planck (1982, 149) has suggested that despite the presence of several highly unusual pieces of carved wood in its fill,

the 20m deep shaft was first and foremost a well; though that does not rule out some kind of ritual function for the enclosure itself. Mansfeld (1989, 31-32) has argued that the function of the shaft is dependent simply on its depth, with the shallower examples likely to be "puits de sacrifice" and the deeper wells. But the dividing line between the two is not specified, and it is clear that the same shaft could have served more than one purpose in different periods.

At Ehningen in Baden-Württemberg, total excavation of the site demonstrated the absence of any shaft or well (Schiek 1984), although there appeared to have been methodical infilling of the ditch. This included large quantities of pottery and animal bones, and the remains of a human skull, and recalls the Belgic sanctuary type of Brunaux (1988, 11-34). Further evidence for a ritual function has been garnered from the orientation of the sites: the majority are oriented with the main entrance to the east or west, and observation of all manner of solstices, equinoxes and mid-season sunrises and sunsets has been claimed depending upon the position of the site (Lambert and Rioufreyt 1975-76, 27-28).

The apparent lack of structures within most of the enclosures has also been cited in support of a ritual explanation. At Ehningen there were several small four-post structures, one of which was aligned with the enclosure's entrance, while at Holzhausen Schwarz (1975) found the traces of two buildings in the north-east corner, but no indication of an occupation layer. Similar findings are reported from the recent excavation of two quadrilateral enclosures in the forêt de Saint-Arnoult in Yvelines, just outside the region of north-west France (Baray 1989a). A structure of six postholes, in two parallel lines of three, formed a "building" approximately 6.4m long and 5m wide. Finds were scarce, dated to the third quarter of the first century BC. In this latter case the lack of material has been used as evidence *against* a ritual function (ibid., 91), and Brunaux (1989, 13) similarly argues that despite the monumentality of Holzhausen, the absence of a single animal bone from the hearths, and the nearly sterile wells, mitigate against such an explanation, since in his view "les restes cultuels sont le seul élément déterminant dans la reconnaissance du lieu de culte". Despite this criticism, Brunaux believes that Schwarz's interpretation is probably correct; the problem lies in extending this interpretation out from the coherent group of sites in southern Germany, to explain similar structures across all of Europe. Brunaux (1988, 36-37) makes the important point that none of the *Viereckschanzen* in France seem to have been reoccupied in the manner of some of the German sites and the Czech *Viereckschanzen*, with an *Umgangstempel* within the enclosure (Waldhauser 1975, 238),

in which respect the central and eastern European sites are more closely allied to the Belgic sanctuary type, where reoccupation by Gallo-Roman sanctuaries is the norm (Collis 1989, 16). It is possible therefore that the *Viereckschanzen* in France were not cult sites at all, but places for assembly or ritualized exchange.

Many other possible functions for the sites in peripheral areas have been suggested. Cotton managed to cover virtually every possibility with respect to the enclosures in Berkshire, which could be interpreted as

> ...works of a purely military kind, as fortified farmsteads or occupied cattle kraals, as structures for an unknown religious purpose, and as Iron Age prototypes for the later Gallo-Roman *temenos*.
>
> Cotton (1961, 22)

A similar gamut of possibilities was suggested by Cotton and Frere (1961, 53-54) for the *Viereckschanzen* in Corrèze, while in Morbihan André (1960, 20) has suggested that the structures were animal or agricultural enclosures modified (ie the defences were improved) to cope with invasion after the fourth century AD. Several authors have postulated a connection between the quadrilateral enclosures and deposits of metallic ores (eg Couderc 1989, 72). This possibility has been raised for some of the sites in north-west France and will be considered with other functions in section 5.4.5 below.

It has generally been assumed that the *Viereckschanzen* are a late Iron Age phenomenon. This has received significant support from excavations such as Ehningen, where the ditch was filled c. 50 BC (Schiek 1984, 193), and in particular from Fellbach-Schmiden, where the earliest pottery belongs to the region's early LT D phase, c. 100 BC, and where seven of the oak planks lining the lower reaches of the well-shaft provide a felling-date of 123 BC (Planck 1982, 147). In Czechoslovakia, Waldhauser (1975) has suggested that the development of the *Viereckschanzen* from the early or mid-second century BC marked a centralization of *Kultpraktiken*, from scattered "naturally sacred" sites (Brunaux 1988, 41-44) such as springs and caves, to a form that appears to be closely associated with oppida or large settlements such as Závist and Cesov (Drda et al. 1971). Some of the *Viereckschanzen* in Bohemia have revealed dating evidence much earlier than this, such as Markvartice (a C-14 date of 375-245 BC) and Libenice (fourth century BC), althought the association of the finds with the use of the site is often doubtful (Waldhauser 1989, 46). This point is reiterated by Venclova (1989, 39), following recent excavations at Msecké Zehrovice, in which a complete late Ha vase was found in the

ditch fill. Although this might indicate a long tradition of use of the site, it is equally possible that the vase was a fortuitous production of a much later period, or that the ditch was cut through an earlier cremation cemetery.

A longer period of development has also been suggested for some of the French enclosures, such as la Villeneuve-au-Châtelot in Aube, which was in use from LT2 until the GR period (Baray 1989b, 131). Baray suggests (ibid., 133-135) that the quadrilateral enclosure in this region appeared in the late Ha period; small enclosures for individual use were the norm throughout LT1 and early LT2, and then the majority of the region's quadrangular enclosures appeared in the course of the LT2 period, followed by a few larger enclosures at the end of the LT, "des lieux de culte collectif".

It must be borne in mind here that we are again in danger of extending the interpretation obtained from the south German evidence beyond its limits, and that there are certainly regional differences in the dating of these enclosures just as there are discrepancies in function. Several authors have noted that some of these structures are considerably later; Brunaux (1988, 36) states that "each time [*Viereckschanzen* in northern France] have been investigated, [they] have turned out to be constructions of the early Middle Ages", although he provides no evidence for this. Cucarull (1989, fig. 5) illustrates a medieval site at Liffré (Ille-et-Vilaine) which is very similar in form to the standard *Viereckschanze*, although slightly smaller. The same problem has been discussed by Lelong (1989), who points out that aerial survey is not sufficient to distinguish LT from medieval enclosures. Some forms of the Roman military camp may also be confused with the *Viereckschanzen* (Reddé 1989). Clearly the function of the structures in north-west France cannot safely be predicted solely on the basis of morphological parallels with the Bavarian sites, but as we shall see there is precious little other evidence to go on at the moment. In the meantime it is probably advisable not to use the term *Viereckschanze* for the sites in north-west France, since it carries with it too many unconfirmed implications on the function of the site, and thus these structures will be referred to simply as quadrilateral enclosures.

iii) excavation, publication and dating

The quadrilateral enclosures have received considerably less archaeological attention than either the fortified sites or the open settlements. In north-west France there have been only six excavations

(7.7% of the total number of sites): at Incarville (27.41), Rannée (35.45), Erbray (44.20), Cholet (49.41), le Gué-de-la-Chaine (61.24), and la Londe (76.07). Of these six, only Rannée has been dug this century, and the value of the late nineteenth century accounts of the other investigations is virtually nil (see below). Yet again we are faced with a situation where sites are almost entirely dated by parallels to other areas, which as the section above has shown is not always an accurate method. The only other evidence has come from isolated finds of material on the sites, which are not sufficient to date basic events such as the construction of the enclosure and the duration of use or occupation. More than any other aspect of Iron Age settlement in north-west France, the study of quadrilateral enclosures really needs a considerable increase in excavation if any sense is to be made of this group of structures.

5.4.2 Quadrilateral enclosures in north-west France: morphology and function

Table 24 lists the details of the 78 quadrilateral enclosures in north-west France. The plans of a number of these are shown on figure 48. They have been split into three types: the classic quadrilateral site, with a single bank and ditch; the complex quadrilateral enclosure, with more than one bank and/or ditch or with internal divisions; and the irregular enclosure, in a form other than quadrilateral. The first type is predominant: there are only four examples of type 2, and three of type 3 (a further 13 are undefined due to destruction of the site or inadequate publication). It must be stressed that this division is essentially for convenience's sake. It is not definitive, nor does it suggest any parallel division in function. And indeed according to authors such as Buchsenschutz (see above), the sites in categories 2 and 3 should not even be included with the 'true' *Viereckschanzen*. Nevertheless the similarity of form, and the uncertainty that any of these sites are true *Viereckschanzen* anyway, seem sufficient reason to warrant consideration of the few more unusual sites alongside the classic forms.

Of the various measures of site morphology, only the area has been recorded for a significant number of sites. The graph (figure 49) shows the predominance of sites between 0.5ha and 1.25ha. The average size is 1.03ha; the median value of 0.81ha indicates a tendency to slightly smaller sites. This accords well with the first of Buchsenschutz's characteristics, listed above. In the few cases where they are known, the other measures also agree reasonably well with the definition of the *Viereckschanze*; the bank and ditch are very rarely of a size or strength that would normally be expected of a fortified site.

gaz. no., commune		type	alt.	area/ha	1	2	3	4	5	6	7	comments
14.15	Campandre-Valcongrain	3	5	0.5	-	-	-	-	-	-	?	two entrances, sides unknown
14.49	Ouistreham	1	1	1.2	1.2-5	-	-	-	-	-	-	mostly destroyed; *tegulae* found
14.52	le Plessis-Grimoult	1	5	0.65	3	-	-	-	-	-	E, W	on highest point in region
27.04	le Bec-Hellouin	1	2	1.16	-	-	2.1-3.75	-	-	-	E	"old lake" in SE corner
27.05	Berengeville-la-Campagne	1 (no d)	3	-	-	-	-	-	-	-	-	in forest
27.09	Bosguerard-de-Marcouville	1	3	0.68	-	-	-	-	-	-	N?	two more possible sites destroyed
27.17	Champigny-la-Futelaye (x3)	1?	3	-	-	-	-	-	-	-	-	three sites
27.20	Conches-en-Ouche	1	3	0.75	-	-	-	-	-	8	-	in forest; GR ruins within site
27.22	Condé-sur-Risle	3	3	2.45	-	-	3-4	-	2-3.5	5-6	E	trapezoidal, with circular structure in centre and cavity in NE corner
27.33	Francheville	1 (no d)	3	1.12?	-	-	-	-	-	-	E	in forest; W side destroyed, SE elevated
27.35	Grosley-sur-Risle	2	3	1.5	1.7	-	-	-	-	-	E	no ditch on E; secondary bank outside ditch; connected to irregular banks
27.37	l'Habit	?	3	-	-	-	-	-	-	-	-	-
27.40	Illeville-sur-Montfort	1	3	0.48	-	-	-	-	-	-	E, S	in forest; corners elevated

Table 24 (continued overleaf). Quadrilateral enclosures in north-west France.

Explanation of columns:

type:
1: quadrilateral site, single bank and ditch
2: complex quadrilateral site, more than one bank and/or ditch
3: irregular enclosure

altitude:
1: <50m asl
2: 50-100m asl
3: 100-200m asl
4: 200-300m asl
5: >300m asl

site morphology, columns 1-7 (all figures in metres):
1: height of bank (where it is unclear whether this figure is measured from interior or ditch)
2: height of bank above interior
3: height of bank above bottom of ditch
4: width of bank at base
5: depth of ditch
6: width of ditch
7: sides with original entrances

gaz. no., commune		type	alt.	area/ha	1	2	3	4	5	6	7	comments
27.41	Incarville	1 (no d)	2	0.4	-	-	-	-	-	-	-	in forest; *tegulae* found, near GR ruins
27.49	Louviers	1	2	-	-	-	2.25	-	-	-	E	only E and part of S banks preserved
27.54	le Mesnil-Fuguet	1 (no d)	3	1.8?	-	-	-	-	-	-	-	mostly destroyed
27.55	le Mesnil-Jourdain	1	3	0.7	3	-	max 8	3	2	5	-	in forest, interior elevated; b+d to W
27.56	Montaure	1 (no d)	3	-	-	-	-	-	-	-	-	mostly destroyed
27.58	Plasnes	1	3	0.8	0.5-2	-	-	max 8	1-1.5	6.5	-	mostly destroyed
27.62	Saint-André-de-l'Eure	?	3	-	-	-	-	-	-	-	-	-
27.65	Saint-Martin-Saint-Firmin	?	3	-	-	-	-	-	-	-	-	in forest
27.68	Serquigny	1	3	0.8	-	1.2-2.8	2.1-5.6	-	-	8	NW	in forest; small bank outside ditch
27.73	le Vaudreuil	1 (no d)	1	0.47	-	-	-	-	-	-	SE	in forest
35.45	Rannée	2	3	2.5	-	1	2.2	4-8m	c. 2m	3-5m	N, W	in forest; smaller encl. within
44.20	Erbray	1	2	1.38	-	-	-	-	-	-	-	burial in bank? *tegulae* found nearby
44.38	Moisdon-la-Rivière	1	2	4.5?	-	-	-	-	-	-	-	destroyed
44.62	Pont-Saint-Martin	?	1	-	-	-	-	-	-	-	-	near ford
44.93	Saint-Père-en-Retz i)	?	1	-	-	-	-	-	-	-	-	on highest point in region
	Saint-Père-en-Retz ii), iii)	?	1	-	-	-	-	-	-	-	-	on edge of marsh
44.99	Soudan i), ii)	1 (no d)	2	-	-	-	-	-	-	-	-	-
49.10	Avrillé	1?	1	-	-	-	-	-	-	-	-	internal division
49.16	Beauvau	1 (no d)	2	-	-	-	-	-	-	-	-	some Gaulish and >300 Roman coins
49.21	la Breille-les-Pins	1	3	1.08	max 2	-	-	-	-	-	?	in forest; "oriented E-W"
49.22	la Breille-les-Pins	1	3	1.53	-	-	-	-	-	-	-	in forest; "oriented E-W"
49.23	la Breille-les-Pins	1	3	0.25	-	-	-	-	-	-	-	in forest; "oriented E-W"
49.24	la Breille-les-Pins	1	3	0.33	-	-	-	-	-	-	-	in forest; "oriented E-W"

Table 24 (continued). Quadrilateral enclosures in north-west France.

gaz. no., commune		type	alt.	area/ha	1	2	3	4	5	6	7	comments
49.34	Châtelais	1?	2	-	-	-	-	-	-	-	-	rounded corners
49.41	Cholet	1	3	0.9	1.4-1.95	-	-	-	-	7.5	-	GR finds nearby
49.45	Corzé	?	1	-	-	-	-	-	-	-	-	-
49.47	Distré	?	1	-	-	-	-	-	-	-	-	-
49.49	Durtal	1	2	-	-	-	-	-	-	-	-	-
49.51	Ecouflant	?	1	-	-	-	-	-	-	-	-	-
49.54	le Fief-Sauvin	2	2	0.98?	-	-	-	-	-	-	?	in forest; double bank; one entrance
49.55	le Fief-Sauvin	1	2	0.58	-	-	-	-	-	-	?	in forest; one entrance
49.56	le Fief-Sauvin	1?	2	-	-	-	-	-	-	-	-	-
49.65	Jallais	1	2	-	-	-	-	-	-	-	-	-
49.69	le Louroux-Beconnais	1	2	1.69	3	-	-	5	4-5	-	-	rounded corners
49.70	Lué-en-Baugeois	1	2	0.5	-	-	-	-	-	-	?	single entrance, side unknown
49.71	Lué-en-Baugeois	1?	2	-	-	-	-	-	-	-	-	"nearly square"
49.72	Marcé	?	C	-	-	-	-	-	-	-	-	"square structure with trace of encl."
49.80	Montfaucon	1	2	1	5	-	-	-	-	-	-	in forest
49.86	Notre-Dame-d'Allençon	1	2	0.6	2	-	-	-	-	-	?	single entrance, side unknown
49.87	Noyant-la-Plaine	1	2	-	-	-	-	-	-	-	-	in forest
49.89	le Plessis-Macé (x3)	?	2	-	-	-	-	-	-	-	-	-
49.93	Pouancé	1	2	-	-	-	-	-	-	-	-	in forest
49.98	la Romagne	2	3	1.69	5	-	-	-	-	3, 12	W	prominent site; double ditch; Dr Ia
49.100	Sainte-Gemmes-d'Andigné	?	2	-	-	-	-	-	-	-	-	-
49.106	Saint-Michel-et-Chanveaux	1	2	0.72	-	-	-	-	-	-	-	-
49.110	Saint-Quentin-en-Mauges	1	3	0.64	-	-	-	-	-	-	?	in forest; one entrance, side unknown
61.07	Bellême	?	4	-	-	-	-	-	-	-	-	in forest
61.09	Boucé	1?	3	2.7	-	-	-	-	-	-	-	mostly destroyed
61.11	Brieux	1?	3	2.2	-	-	-	-	-	-	-	-
61.13	Champsecret	1?	4	0.8	-	-	-	-	-	-	-	-
61.23	Francheville	1?	4	0.8	-	-	-	-	-	-	-	3m "well" with bones etc in corner

Table 24 (continued). Quadrilateral enclosures in north-west France.

gaz. no., commune		type	alt.	area/ha	1	2	3	4	5	6	7	comments
61.24	le Gué-de-la-Chaine	1	3	1	max 3	-	-	-	4	3	?	in forest; GR structures and finds
61.37	Origny-le-Butin	1?	3	-	-	-	-	-	-	-	-	in forest
61.38	Origny-le-Butin	1?	3	0.6	1	-	-	-	-	-	-	in forest; corners elevated
61.40	la Perrière	1?	3	0.77	-	-	-	-	-	-	-	in forest
61.43	Saint-Martin-du-Vieux-Bellême	1	3	1	max 4	-	-	-	-	-	?	in forest
61.44	Saint-Pierre-d'Entremont	3	3	1	4	-	-	-	-	-	-	in forest; irregular enclosure
76.06	la Londe	1?	3	0.97	-	-	-	-	-	-	NW	in forest
76.07	la Londe	1	3	0.81	-	-	-	-	-	-	?	in forest; openings on all sides

Table 24 (concluded). Quadrilateral enclosures in north-west France.
Key to columns on first page of table.

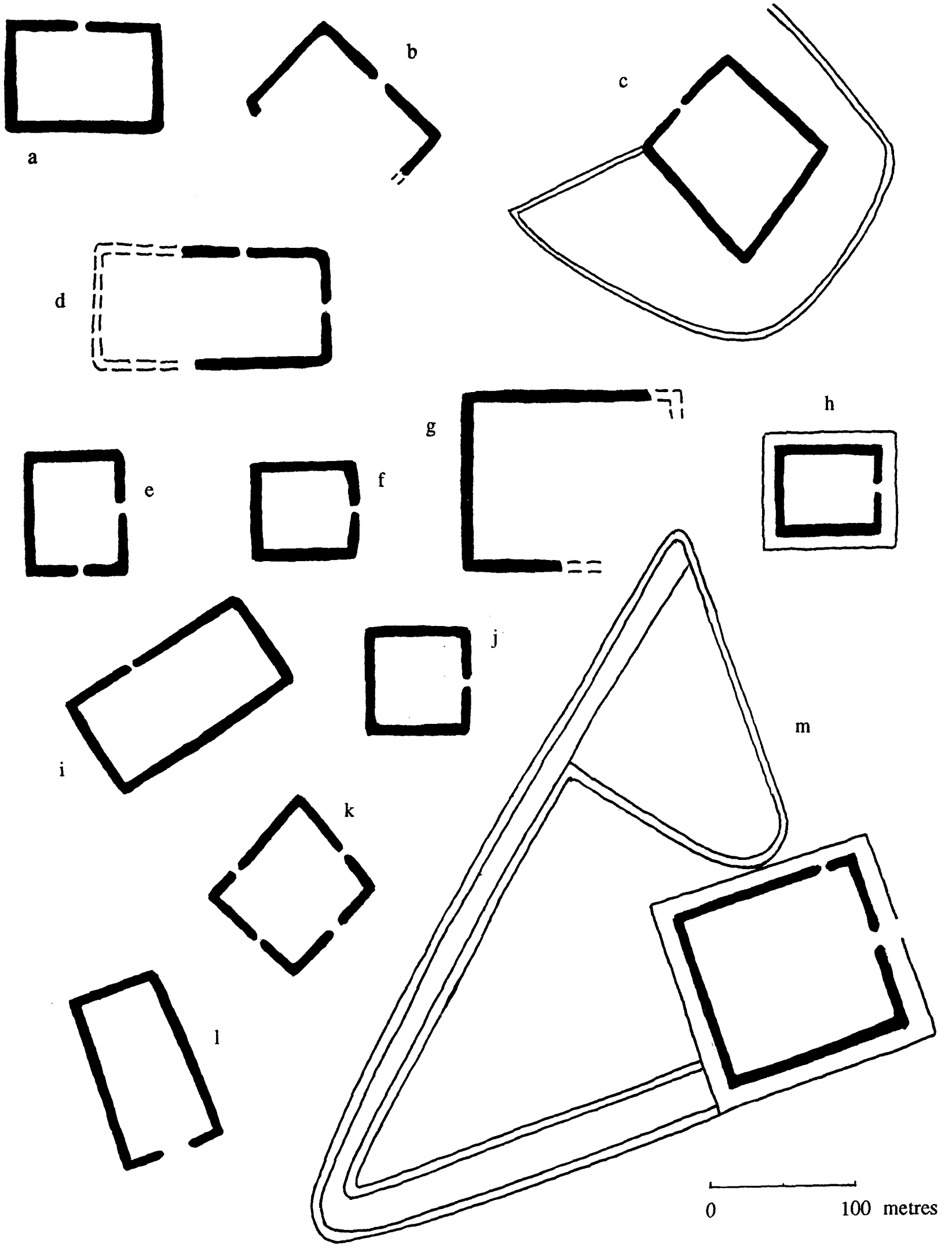


Figure 48. Quadrilateral enclosures: plans.
a: Bosguérard-de-Marcouville (27.09; after Coutil V, 101); b: Conches-en-Ouche (27.20; after Coutil IV, fig. 148); c: Serquigny (27.68; after Deglatigny 1927, pl. XV); d: Francheville (27.33; after Coutil IV, fig. 147); e: Illeville-sur-Montfort (27.40; after Coutil V, 78); f: Incarville (27.41; after Deglatigny 1925, pl. XIII); g: Le Mesnil-Fuguet (27.54; after Coutil IV, fig. 54); h: Le Mesnil-Jourdain (27.55; after Coutil II, 305); i: La Londe (76.06; after Deglatigny 1925, pl. XII); j: Le Vaudreuil (27.73; after Deglatigny 1925, pl. XIV); k: La Londe (76.07; after Schwarz 1962, Abb. 17); l: Saint-Martin-du-Vieux-Bellême (61.43; after Schwarz 1962, Abb. 18); m: Grosley-sur-Risle (27.35; after Coutil III, fig. 10).

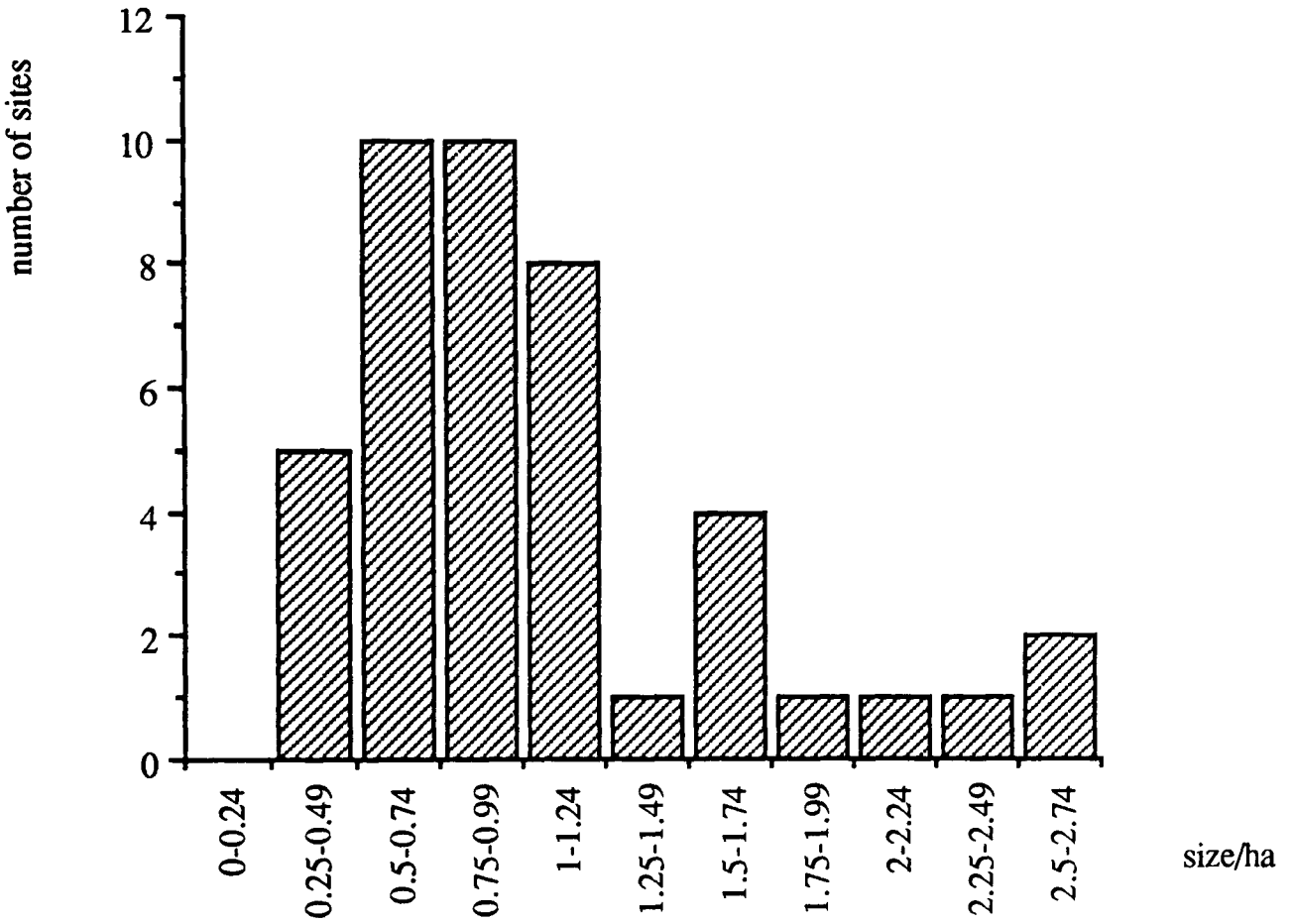


Figure 49. Quadrilateral enclosures: known surface areas.

The position of the entrance(s) is only definitively recorded for a dozen enclosures. The main problem here lies in distinguishing between original entrances and later cuts, which is particularly difficult given that in most cases the genuine entrances appear to have been little more than simple interruptions of the bank. This is just one of the many problems that can only be solved by excavation. Of the specified entrances, there are seven (50%) to the east, three to the west, two to the north-west and one each to the south-east and to the north. These figures are not of the necessary quality to support any hypotheses on the preferred orientation of the sites.

Most of the other characteristics listed by Buchsenschutz find support from one or more of the enclosures, but regrettably most of this evidence is little better than anecdotal. Only the more significant points will be mentioned here; there is little point in listing all the combinations of characteristics present on the sites when almost all are completely undated. For example, we have a few reports of features such as elevated (eg Origny-le-Butin, 61.38) and rounded corners (eg Châtelais, 49.34), and an elevated interior (le Mesnil-Jourdain, 27.55), but no real indication of whether these characteristics are shared by the majority of sites in north-west France. Information on the interior morphology of the enclosures is almost non-existent, because of the lack of excavation. However there are a few tantalizing references to pit or shaft type features on several sites. At le Bec-Hellouin (27.04) and Condé-sur-Risle (27.22) there are pits in the south-east and north-east corners respectively, but it is not clear if these are natural features. At Erbray (44.20), Goudé (1868, 153-159) recorded the presence of square holes about 3m deep, possibly walled with flat stones, but containing no archaeological material. At the same site, the local farmer told him that in a destroyed section of the bank there had been an entire human skeleton in an upright position, accompanied by other human bones. This sort of record needs to be treated with considerable caution; likewise the report of a 3m deep "well" in one corner of the site at Francheville (61.23), supposedly containing bones, helmets and sword fragments (Churin 1990c, 42). Mention should also be made at this point of the quadrilateral (30m x 30m) ditched enclosure at 'les Sept Pertuis', Saint-Malo (35.70) which has been classified as an open settlement, but which has a large pit in the centre.[1]

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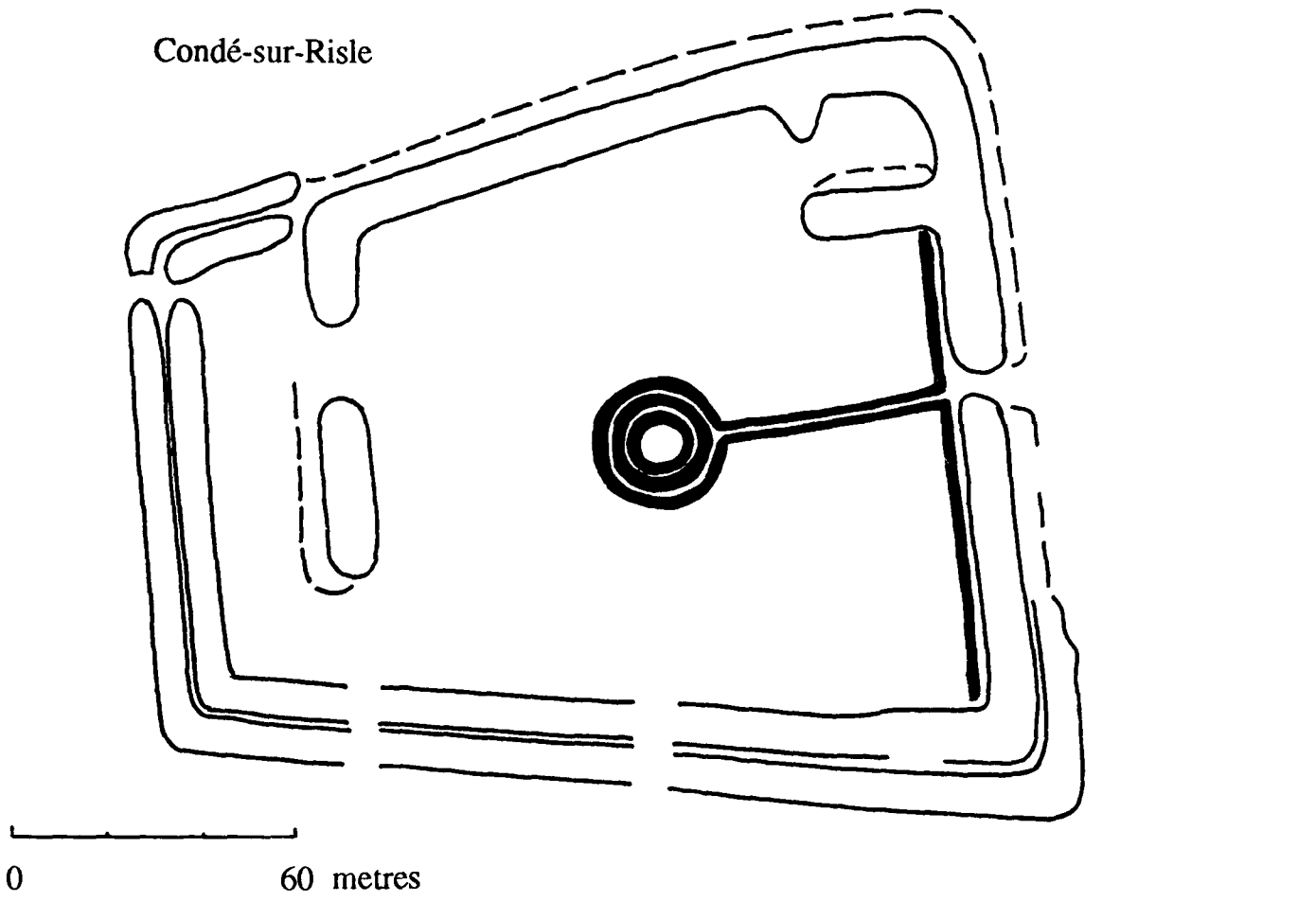
[1] a summary of the excavation of this site has recently appeared in the CAG volume for Ille-et-Vilaine (CAG 35.288). The excavators suggest that it was a Gaulish sanctuary abandoned in the Augustan period.

The excavated evidence, other than Rannée (see below), is singularly unhelpful. No finds are recorded from Cholet (49.41), la Londe (76.07) or Incarville (27.41), though Gallo-Roman *tegulae* were picked up within the latter enclosure. At Erbray, Goudé dug a trench in the field next to the enclosure, where Roman bricks (*tegulae*, from description) had been found, and discovered more of the same. Dagoury's excavations at le Gué-de-la-Chaine (61.24) also yielded *tegulae*, but with sufficient other material to suggest intensive GR use of the site: some sections of wall, coarse pottery, Samian ware and amphorae. Outside the enclosure the discovery of a dozen socketed axes and seven or eight other bronze axes perhaps suggest utilization of the site if not the enclosure in a much earlier period.

Some evidence of use in the GR period has been noted on at least six other sites; in nearly every case it is simply the presence of *tegulae*. At la Romagne (49.98), a rare example of possible evidence for Iron Age use is present, in the form of Dr Ia sherds. This site, which is classed as type 2, is relatively large (1.69ha), has a double ditch (one of which is 12m wide), and is situated on prominent ground between the rivers Moine and Sèvre, so the possibility of a defensive function cannot be ruled out.

Other type 2 sites are Grosley-sur-Risle (27.35), le Fief-Sauvin (49.54) and Rannée (35.45). The first two are distinguished by the presence of two banks; Grosley is also connected to other irregular banks. At Rannée, an internal bank encloses a small area (0.62ha) within the main 2.5ha structure (figure 50). This site is currently being excavated by J.-C. Meuret, and has already demonstrated the clearest evidence yet of a specific function for any of the north-west French enclosures. Although no positive traces of habitation have yet been revealed, considerable quantities of characteristic LT3 pottery have been recovered from the bank and ditch of both parts of the enclosure. In addition, two crucible bases have been found, one containing very small droplets of gold, and the excavator has suggested that the site saw some sort of industrial process, possibly the production of coins. This is perhaps backed up by the discovery of a hoard 200m from the enclosure (35.46), of 28 coins of the Namnetes, including five gold staters (Fischer 1983, 7-11; Musée de Bretagne 1985), although the chronological relationship of the hoard and the enclosure is not yet well-defined. The position of this site with respect to metal ores will be considered below.

The three type 3 sites are Campandre-Valcongrain (14.15), Condé-sur-Risle (27.22) and Saint-Pierre-d'Entremont (61.44). Campandre-Valcongrain is recorded only by a small plan in the BSPF



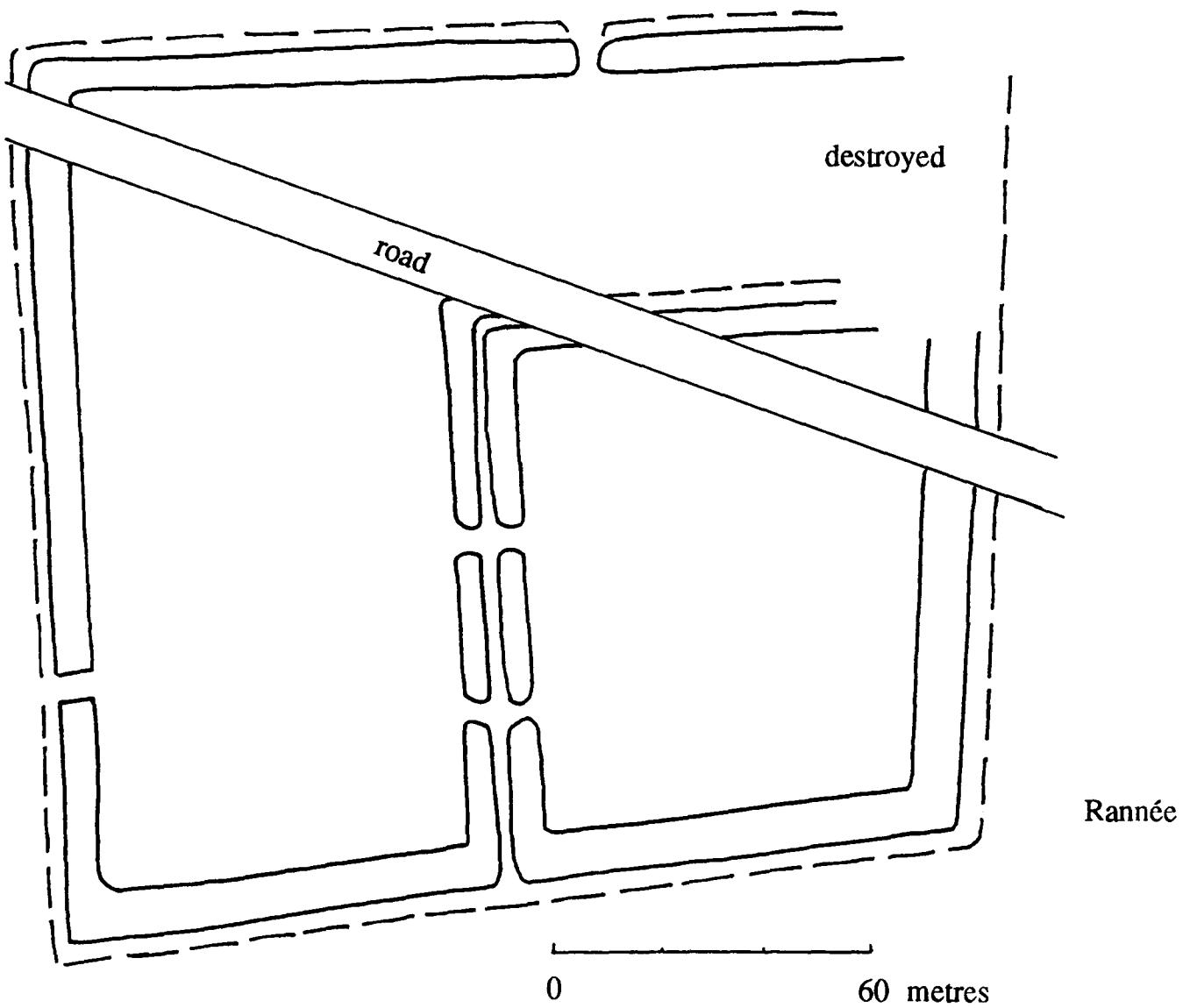


Figure 50. Condé-sur-Risle (27.22; after Schwarz 1962, Abb. 20) and Rannée (35.45; after Meuret, pers. comm.).
Solid lines, and blocked in lines for the structure within Condé, indicate banks. Dashed lines indicate ditches.

survey from the first two decades of this century, and information on the site at Saint-Pierre is even scarcer. However Condé was one of the sites planned by Schwarz (1962, Abb. 20). The enclosure is remarkable not only for its trapezoidal form, but also for a circular feature in the centre of the site. This measures 22m in diameter, and is formed by low (0.5m) concentric banks (figure 50). A path leads from it to the (main?) east entrance, with the same small banks on either side. In the absence of excavation it is impossible to confirm whether this interior structure is of the same phase as the enclosure proper. It has been suggested that this site and others with the distinctive circular feature are precursors of the indigenous *fana* (eg Lambert and Rioufreyt 1975-76, 28, 42-46). This argument will be considered in more detail below (5.4.4).

This section has shown above all that the evidence of surface morphology alone is not sufficient to determine the role of these sites. It is equally apparent that they do not form a coherent regional group, uniform in function. Some more light may be shed on their role by considering their spatial distribution.

5.4.3 Quadrilateral enclosures in north-west France: spatial distribution and function

Analyses of the spatial distribution of the enclosures are complicated by uncertainty about the accuracy of the map of sites, in particular whether the markedly clustered distribution is a genuine reflection of the Iron Age situation, or a product of differential fieldwork. In the absence of intensive survey in many areas, it is probably not wise to treat the map as an especially authoritative record of the sites, and thus statistical tests which treat the region as a single entity will not be applied. Instead the tests will mostly be based on the 24 sites in Eure and Seine-Maritime, and the 31 sites in Maine-et-Loire. In both cases there has been reasonably intensive survey which can be reckoned to have located most of the sites in each department. One problem with the survey in Maine-et-Loire is that 11 of the sites are insufficiently described to be certain that they are banked enclosures; some may be ditch complexes and thus ought to be classified as open settlements. As with the other types of sites, the assumption of contemporaneity is likely to be shown by excavation to be unrealistic, but until that investigation takes place this assumption must be made to perform the statistical tests.

i) inter-site relationships

a) the nearest neighbour statistic

The application of the NNS was described in detail in section 5.2.7 above. Following the same procedure here, the observed average nearest neighbour distance for 23 sites in Eure and Seine-Maritime (one, Francheville, is excluded as being nearer to the study boundary than its nearest neighbour) is 5.07km. The expected value is 7.56km, and hence the NNS (R_n) is 0.67. In Maine-et-Loire, rather more sites (10) have to be excluded because of their position near the boundary. The observed average nearest neighbour distance of the remaining 21 is 3.62km. The expected average distance is 9.22km, which gives the value of R_n as 0.39. It must be noted that in both cases the density of sites (used in the formula for the expected distance) has been obtained from the total area of the relevant department (5264km^2 for Eure and Seine-Maritime south of the Seine, and 7152km^2 for Maine-et-Loire), rather than from the area enclosing only the sites sufficiently within the boundary for the statistical test. Adjustment (a reduction in area) to a rather more accurate figure would have only a marginal effect on the resulting NNS, in both cases increasing the value of R_n by c. 0.05.

These figures, especially the Maine-et-Loire value, show a clear tendency away from a random pattern towards a clustered distribution, confirming the visual impression gained from figure 47. The major clusters in Eure are in the south-east (in the area of Champigny-la-Futelaye) and the east, between Incarville and Le Mesnil-Jourdain. There are three notable concentrations in Maine-et-Loire, at le Fief-Sauvin, la Breille-les-Pins, and le Plessis-Macé. This distribution bears out Buchsenschutz's general observation (1989, 6) that the sites are irregularly spaced and often grouped in twos, threes or fours.

b) quadrilateral enclosures in relation to other types of site

Eure and Seine-Maritime are unfortunately not good areas to test any association of enclosures and other sites, in particular oppida, because of the distinct lack of fortifications, let alone major sites, in the region. This is in itself interesting, and it is tempting to suggest that in Eure at least the quadrilateral enclosures substituted in some way for the normal fortified site. In Maine-et-Loire north of the Loire, quadrilateral enclosures again appear to fill a gap in the distribution of fortified sites, although there are a couple of instances where one or more enclosures are found in the same commune

as a large fortified site, at Châtelais and le Fief-Sauvin. There are however many other large areas in north-west France equally lacking in fortifications which are not filled by these enclosures, and as we have already seen, the defensive capability of most of the enclosures is very limited. This hypothesis therefore seems unlikely. Further evidence against some kind of special relationship between quadrilateral enclosures and oppida is perhaps suggested by strong links between enclosures and fortified sites which are traditionally regarded as considerably less important; the prime example of this is in south-east Orne, where six enclosures are clustered within 5km of the two very small promontory forts of Appenai-sous-Bellême (61.05) and Igé (61.26). Of course it is possible that the two types of site (both in this instance and with the putative oppida) are not contemporaneous, and that the spatial relationship between the two is no more than coincidental. This aspect of the subject would obviously become a little clearer if we had good dating evidence from the sites involved.

c) quadrilateral enclosures in relation to tribal boundaries

There is no very obvious relationship between these enclosures and the reconstructed tribal boundaries. Figure 51 shows the frequency of sites in relation to distance from the nearest frontier. Although 32% of the sites are within 5km and could thus have had some function associated with the frontier, such as a market or meeting-place, this was clearly not the prime function of many of the quadrilateral enclosures. There are several other interesting points revealed by comparison of the boundaries with the distribution map of the enclosures: these will be considered in the discussion section below (5.4.5).

ii) site/environment relationships

There are no statistically significant relationships between soil and geology and the location of quadrilateral enclosures in Eure and Maine-et-Loire; the X^2 values for the one-sample test of the association between soil and site location are 0.14 and 4.08 respectively. The test for geology can only be applied to Maine-et-Loire, because all but a very small area of Eure is on Cretaceous rocks. The X^2 value is 2.35, which is again insignificant.

The values of the X^2 tests for the relationship of relief and site location are equally insignificant (0.30 for Eure and 0.68 for Maine-et-Loire). However it is also worth looking at the

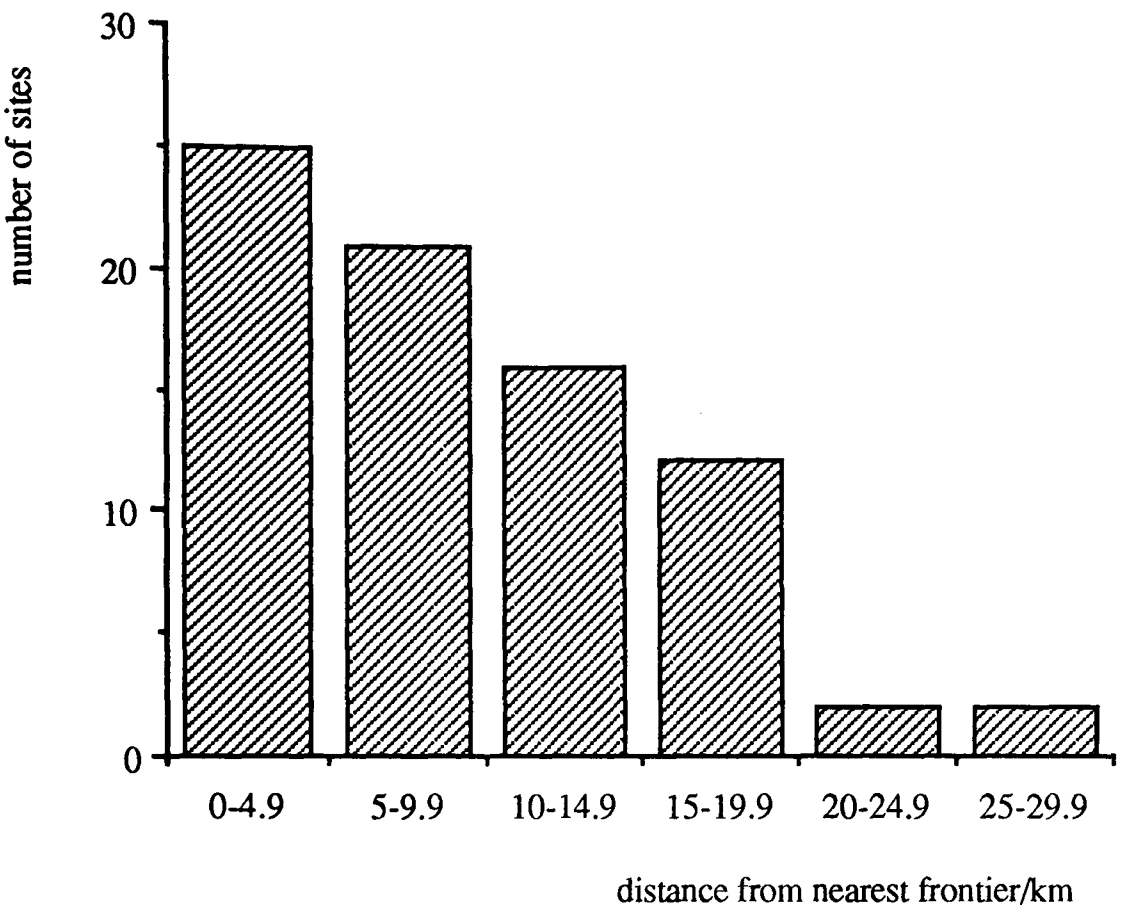


Figure 51. Quadrilateral enclosures: distance from the nearest frontier.

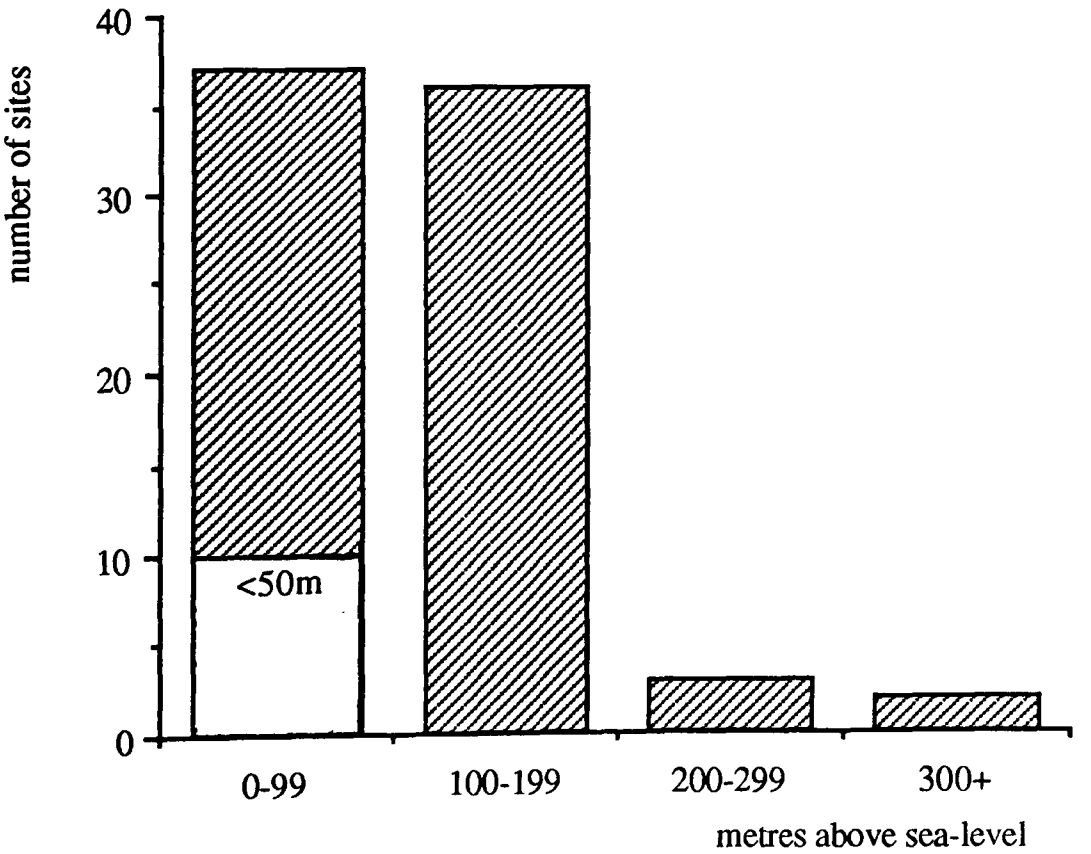


Figure 52. Quadrilateral enclosures: relationship to relief.

distribution of the sites across the whole region. Figure 52 shows the extent to which low ground, below 50m, was not favoured for this type of structure; of the ten sites in that category, it should also be noted that only two are confirmed examples of a banked quadrilateral enclosure. There are also few sites on particularly high ground, although insufficient data is available on the relative heights of enclosures to their immediate region, which might be more useful - there are at least three records of sites occupying a dominant position over the surrounding area (le Plessis-Grimoult (14.52), Saint-Père-en-Retz (44.93) and la Romagne (49.98)). Whether this was for defensive purposes, or for other reasons, remains to be seen.

The tendency for this type of site to be located in forest has been widely noted. There is very little evidence available to attempt a reconstruction of the extent of forest cover in late Iron Age north-west France, and in view of this it is not practical to try and assess what proportion of the sites now seen were under forest when constructed. Of the 78 quadrilateral enclosures in the region, at least 29 (37%) are now in heavily wooded areas. This is a much higher proportion than one would expect were the sites randomly distributed (Eure has the greatest forest cover in the region, approximately 20% of the department), but this figure must be viewed with caution given the possibility that sites in non-wooded areas, more amenable to agriculture, have been destroyed.

Finally in this section, it was noted above that some metallurgical function has been suggested for the enclosure at Rannée, in Ille-et-Vilaine, following discoveries of crucibles and metal slag on the site. It seems possible that a similar role was played by several other quadrilateral enclosures which are situated near sources of metal ores, in particular iron and tin. These include the group in the north-west of Maine-et-Loire and the north-east of Loire-Atlantique, and the sites in the Mauges in south-west Maine-et-Loire. The enclosure of Champsecret (61.13) is also in an area still providing iron ore. There is obviously a need for excavation to confirm whether or not finds and structures associated with metallurgical processes are present.

5.4.4 *Fana* in north-west France

The possibility of a religious or ritual function has been much favoured as an explanation for the *Viereckschanzen* or quadrilateral enclosures. At this point it seems appropriate to consider the archaeological evidence from sites with a genuine religious role: the Gallo-Roman *fana*. A huge

number of these structures have been identified since Wheeler (1928) was able to list some 70 in Britain, France and neighbouring parts of the continent, and the predominance of the simple quadrangular form of the *cella* and the surrounding ambulatory is now well-established, although circular and polygonal structures are also known.[1] The development of the *fanum* is believed to represent the fusion of Gaulish tradition and Roman constructional techniques, combining to create the archetypal Gallo-Roman small rural sanctuary (Wait 1986, 179-180). Lambert and Rioufreyt (1975-76, 42) have suggested that certain Gaulish quadrilateral enclosures, including Condé-sur-Risle (27.22) and Saint-Martin-du-Vieux-Bellême (61.43), were the indigenous prototypes of the *fanum*, primarily on the basis of similarities between parts of the Gaulish structures and parts of the classic *fanum* (see for example the circular feature in Condé (figure 50)). This point will be considered further below (5.4.5). However, convincing evidence for the Gaulish antecedents of the *fanum* is still scarce, throughout the area of its distribution. This is a result of at least three major factors: the transient nature of the Celtic structures, which were often in wood and hence are rarely preserved; the poor standard of almost all but the most recent excavations, and their preoccupation with the structural elements of the *cella* and ambulatory at the expense of features such as the *temenos*; and, as ever, the lack of detailed publication of many of the excavated sites.

North-west France is no different to other areas in this respect. Figure 53 shows the location of *fana* in the region, and highlights those which have revealed some evidence of protohistoric antecedents. The number of sites would probably increase dramatically if areas such as Manche and Orne were subject to the level of aerial photography that has led to the identification of 35 sites in the Maine (Lambert and Rioufreyt 1982, 153).

Investigations at seventeen *fana* in north-west France have produced some indication of use of the site in the immediate pre-Roman period. Of these, only le Vieil-Evreux (27.78) and Allonnes (72.01) have revealed actual structures, in the form of isolated stretches of wall, which are thought to be pre-Roman. At several sites (Saint-Aubin-sur-Mer (14.59), Mauves-sur-Loire (44.35), le Fief-

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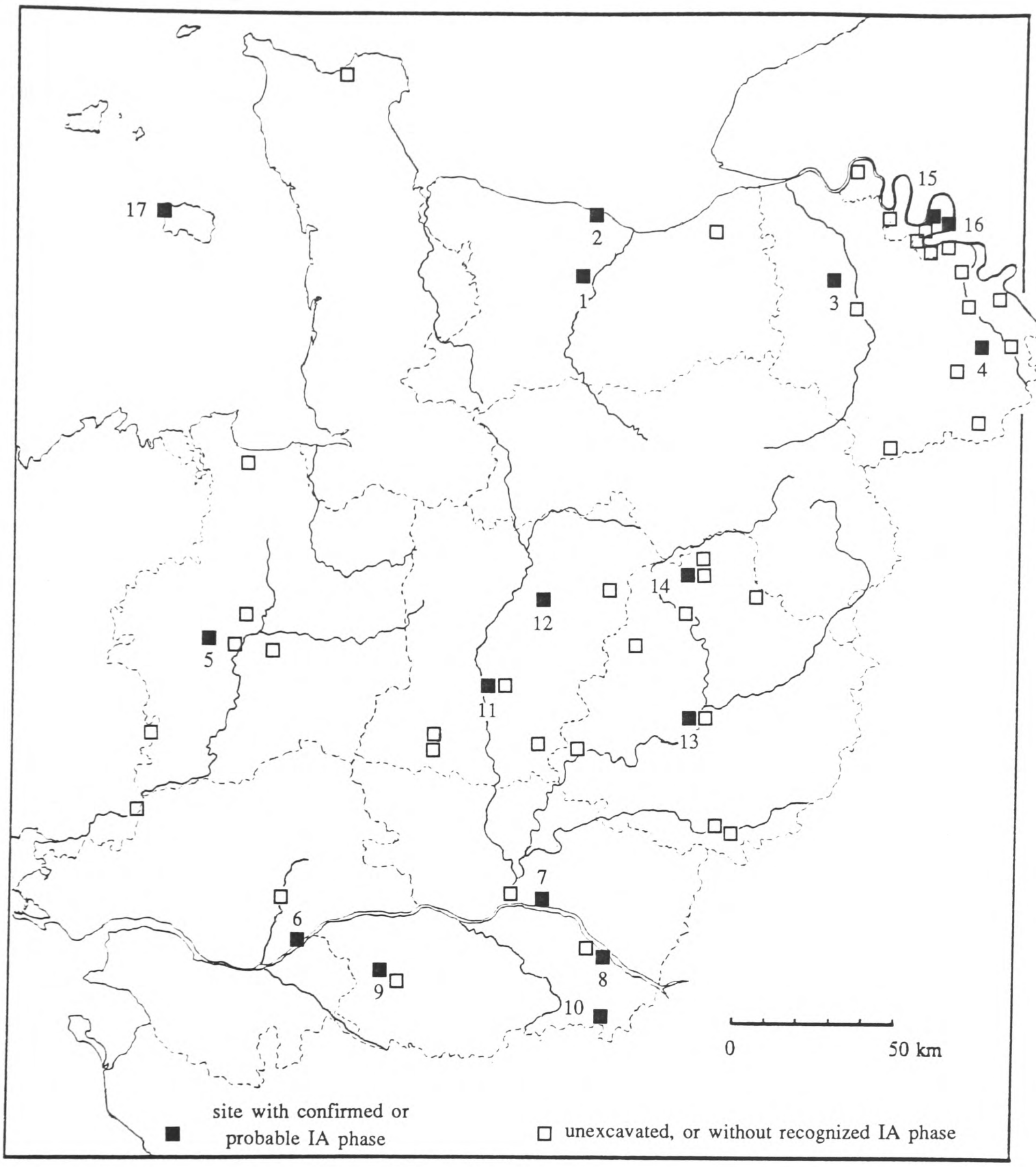
[1] there is no single work on the *fana* in Gaul. Detailed descriptions of the type, with reference to sites in north-west France, can be found in Grenier (1958, 464-467; 1960, 740-813). Other useful sources dealing primarily with structural characteristics include Guilloit (1973), Wilson (1975) and Horne and King (1980). Regional surveys include the classic work of Léon de Vesly (1909) on Normandy (see also Harmand 1973); Leday (1980, 404-406) on *fana* in central Gaul; Galliou (1983, 200-206) on Armorica; and Wait (1986, 178-188) on the type in Britain.



1	Baron-sur-Odon	14.05	10	Montreuil-Bellay	49.82
2	Saint-Aubin-sur-Mer	14.59	11	Entrammes	53.18
3	Berthouville	27.07	12	Jublains	53.27
4	le Vieil-Evreux	27.78	13	Allonnes	72.01
5	Mordelles	35.35	14	Oisseau-le-Petit	72.27
6	Mauves-sur-Loire	44.35	15	Grand-Couronne	76.05
7	Andard	49.03	16	Oissel	76.10
8	Chênehutte-Trèves-C.	49.40	17	St Ouen	J.17
9	le Fief-Sauvin	49.57			

Figure 53. Distribution of *fana*.
Sources: gazetteer; Grenier (1960); Lambert and Rioufreyt (1981a; 1981b); Langouët (1987b); Le Maho (1990); Leroux and Provost (1990).

Sauvin (49.57) and Jublains (53.27)) the presence of indigenous use is inferred from postholes or robbed foundation trenches beneath the earliest phase of the *fanum*, in some cases (the latter two sites) backed up by finds, usually of pottery, although broken weapons have been found at Jublains and at Allonnes (see section 3.4.2). At Mordelles (35.35), the unusual hexagonal *cella* and square gallery may have replaced a Gaulish sanctuary, indicated by the presence of a Redones billon stater, LLT pottery and sherds of Dr Ia amphorae. Similarly, the unusual structure at Baron-sur-Odon (14.05), ten-sided and without a *cella*, yielded no trace of pre-Roman structures but did reveal considerable quantities of late LT3 pottery (and evidence of pre-Roman settlement about 100m from the temple). At Andard (49.03), the square *fanum* built at the end of the Augustan period was located in a *temenos* of 360m^2, apparently at the side of an Iron Age enclosure indicated by two parallel ditches and a series of postholes; this, and the settlement near the temple at Baron-sur-Odon, illustrates the need for extensive excavation of the surrounding area, not just of the *fanum* itself.

The remainder of the evidence for late Iron Age occupation ranges from the plausible to the downright unconvincing. Most of it is in the form of coin finds, but the vast majority of these (at Berthouville (27.07), Chênehutte-Trèves-Cunault (49.40), Montreuil-Bellay (49.82), Entrammes (53.18), Oisseau-le-Petit (72.27), Grand-Couronne (76.05) and Oissel (76.10)) are post-conquest issues. Allonnes is the only site to have provided a reasonable number of pre-conquest Gaulish coins; a single cl. II Coriosolitae stater from St. Ouen (J.17) in an uncertain context is not sufficient to prove LLT occupation.

This is not the place for a detailed study of the implementation of *fana* in north-west France, which would require a great deal more investigation of the many sites in the area which have so far revealed no evidence of Iron Age antecedents, but there are a few points which need to be raised. Wait (1986, 183) has noted for Britain that "the existence of an active Celtic shrine was instrumental in the siting and establishment of only one-fifth of the Romano-Celtic temples". About one-third of the excavated north-west French sites have revealed reasonable evidence of LLT occupation of the site beneath the *fanum*, though not necessarily of the same function. The investigation of a greater proportion of the structures, to a higher standard, might have a significant impact on that figure, but at present it seems broadly to back up Wait's contention.

The precise dates for the construction of the *fana* are rarely available, but there seems to be a wide variation in the time that elapsed between the conquest and the construction of the Gallo-Roman temple. Thus at Jublains, where evidence is best, the LLT phase is not followed by the first phase of the GR temple until the time of Nero (c. 60 AD). At Mauves-sur-Loire and Andard, and probably at Baron-sur-Odon, the *fana* were not constructed until the end of the Augustan period (c. 14 AD). This begs the question of whether the sites were still in use in the intervening period, and if so, what form this use took, and why the length of time before Gallo-Roman intervention varied so much between sites. None of the evidence excavated so far is sufficient to provide answers to these questions; even at Jublains, only $10m^2$ of LLT occupation has been revealed.

There has been considerable debate on the location of *fana* with respect to tribal boundaries, with opinion ranging from those clearly in favour of a close association between the two (Braemer 1973, 147; Lambert and Rioufreyt 1982, 153) to the opposite view (Agache and Bréart 1981, 53). Comparison of the distribution map (figure 53) with the posited tribal boundaries (figure 10) does not resolve this question, as support for both opinions can be gathered from the *fana* in different areas. It has been suggested (Wait 1986, 184) that Celtic shrines nearest the boundaries were most likely to be "converted" into Gallo-Roman temples, but aside from Mordelles, which is precisely on the reconstructed boundary of the Coriosolitae and the Redones, the north-west French examples do not provide particularly strong support for this view. At Entrammes and le Fief-Sauvin, and also at Orival in Seine-Maritime (76.13), *fana* were located on or very near large fortifications often described as oppida; in other cases there seems to be a clear association with a physically imposing location, as at Baron-sur-Odon and St Ouen (Grenier 1960, 740). The degree of isolation of the *fana* seems to vary a great deal, and although it is generally recognized as a rural sanctuary (eg Leday 1980, 404), the number of sites in areas such as the lower Seine valley would suggest a fairly high population density, as does the presence of the large LLT cemeteries in that area (see section 5.5.2). As Leday has pointed out (ibid., 387), the *fanum* may be associated with several other structures, including isolated villas, *vici* and similar large population centres, and the large rural religious complexes known as *conciliabula* (Ferdière 1973, 66-67; Aeberhardt 1985). This recalls the problem with the *Viereckschanzen*, that similarity of form is extended to "prove" similarity of function; it is not precisely the same, because evidence suggests that the *fana* all performed much the same role, but they could perform that role in

very different contexts. There were undoubtedly differences in why the *fanum* was constructed in any particular place, and we should not expect the reasons for the choice to be uniform across Gaul. It must be noted at this point that in common with the vast majority of quadrilateral enclosures in other parts of Gaul, there are no known instances in north-west France of the implementation of a *fanum* on this type of site, which must surely weigh against a possible religious function for the quadrilateral enclosure, at least in the years immediately before and after the conquest (Brunaux 1988, 36-37).

5.4.5 Discussion

The dismal excavation record of the quadrilateral enclosures in north-west France gives precious little information on which to base interpretation of these enigmatic structures. In the absence of hard evidence of function save perhaps for the single site at Rannée, we can only speculate on the purpose of the remainder. Some of these speculative thoughts will be considered here, bearing in mind all the while that they may be disproved by excavation.

In the first place there is not yet a single convincing piece of evidence from the sites in north-west France for the kind of ritual function assigned to the true *Viereckschanzen* in Bavaria. Reports of features such as shafts and wells are all of very dubiuos quality, and until excavation suggests otherwise it seems that a role as a kind of pre-Roman religious enclosure must be ruled out, though it is conceivable that a few enclosures such as le Plessis-Grimoult (14.52) may have been located on "naturally sacred" sites. However the most influential evidence against a ritual function is surely the absence of Gallo-Roman development on virtually all of these sites, and specifically the lack of *fana*. If the quadrilateral enclosures were where the population gathered for the observation of rituals, then one would surely expect the *fana* to be found in the same place, rather than in entirely different locations. If sites such as Condé-sur-Risle provide the prototypes of the *fana*, then it is in the form and not the function. The *fana* were sometimes constructed on top of pre-Roman occupation, and it is in those scarce indigenous features that the real antecedents of the Gallo-Roman temples are to be found. Further indication that the banked enclosures were not the precursors of the *fana* is provided by the excavation at Andard (49.03), which revealed traces of a late Iron Age ditched enclosure alongside the temple. It remains to be explained why some sites (such as Azé (53.03) and Saint-Malo (35.70)), which appear to have had a ritual function, were untouched, while others were replaced by *fana* at some point in the

century after the conquest. This might reflect varying degrees of antipathy to Roman interference. Alternatively, it is possible that the most important indigenous sites were the first to gain Gallo-Roman temples; Alain Duval (1989, 164) has recently suggested a division in ritual sites based on the status of the population using the site, perhaps with the *Viereckschanzen* as foci for local farmers, and with sanctuaries such as Brunaux's Belgic type associated with the warrior or aristocratic classes, which were the first to be modified to the Gallo-Roman ideal. In the absence of any decent chronology for the quadrilateral enclosures, it must be conceded that they could have had a ritual function earlier in the late Iron Age, which had disappeared or at least significantly diminshed by the time of the conquest, thus directing attention towards the sites that were in use for ritual purposes in the mid-first century BC.

If a ritual explanation can be ruled out, what then was the true function of the quadrilateral enclosures? Firstly, it is unwise to generalize for north-west France as a whole. There is a strong case for a link between the sites in the triangle between Abbaretz (Loire-Atlantique), Segré (Maine-et-Loire) and la Guerche (Ille-et-Vilaine) and the presence of valuable ores, in particular iron and tin, and also gold. A function associated with metallurgical or small-scale industrial processes may also have existed in several other areas. But it seems unlikely to explain the concentration of sites in Eure, which is not a metalliferous area. A possible link with frontiers has been mooted for these enclosures nearly as often as the ritual explanation - could it apply to the sites in Eure? On the basis of the reconstructed tribal boundaries, this apparently coherent group is actually split between the Aulerci Eburovices, the Veliocasses and the Lexovii. However the four sites in the territory of the Lexovii, and four of the five in the Veliocasses area, are all within 5km of the frontier with the Aulerci Eburovices, and given the uncertainty over the extent of the no-man's land believed to have existed between tribes, it is possible that these sites too could have been on the territory of the Eburovices when constructed.

There is only one quadrilateral enclosure in the south-west of Eure, hardly indicative of a frontier, and thus the vexed question of a boundary with the Esuvii, the Aulerci Cenomani and the Carnutes is not made any simpler. Consider though the remaining 20 quadrilateral enclosures in (modern) Normandy. There are two groups of six, one cluster in south-east Orne and the other around Champigny-la-Futelaye in south-east Eure, which must surely be associated with the complex frontier of this area. Of the other eight, two are actually irregular enclosures (Campandre-Valcongrain (14.15) and Saint-Pierre-d'Entremont (61.44)). Boucé (61.09) and Brieux (61.11) are both unusually large

(2.7ha and 2.2ha respectively). Ouistreham (14.49) and le Plessis-Grimoult (14.52) are similar in size to the 'normal' quadrilateral enclosure, but are distinguished by their unusual locations; the former is very close to the coast, and the latter is at the highest point in the region. Only Champsecret (61.13), which is in an area particularly rich in iron ore, and Francheville (61.23) in central Orne conform well to the classic enclosure typified by almost all the examples in Eure; and they are both (along with Brieux) in the area attributed to the Aulerci Eburovices if the admittedly poorly-founded case for the location of the Esuvii is discarded. Is it possible that the enclosures were originally associated with the Aulerci Eburovices alone, and on a very few occasions were imitated by neighbouring tribes, or even (given the small number involved) echoed with no thought to imitation but purely by chance?

This still leaves open the question of what purpose was served by the enclosures in Eure. Some function connected with the frontier - possibly as a market, or as a recognized meeting-place perhaps on neutral ground - seems likely for the several sites on the northern boundary of the Aulerci Eburovices. Figure 54 perhaps gives some idea of the function of many of those in the east of the department. There are nine quadrilateral enclosures situated within a few kilometres of the left bank of the rivers Iton and Eure, from le Vaudreuil in the north to Francheville in the south. These sections of the two rivers are not generally recognized as frontier zones; the southern boundary of the Eburovices is usually taken to follow the approximate course of the modern departmental limit, along the river Avre, before briefly joining the Eure and then linking up with the Seine. But the possibility that the Iton and then the Eure functioned as a boundary is by no means unlikely. The concentration of sites, three on either side of the confluence of the Eure and the Iton, might reflect a higher population density in that region and consequently a greater interaction between tribal groups, if one accepts the hypothesis of a market function for the sites. Alternatively, the enclosures might have acted as look-out posts or as small forward defences, if relations between tribes in this area were less cordial.

These possibilities remain unconfirmed in the absence of excavation; it can only be hoped that some efforts are made in the near future to understand this most neglected of structures.

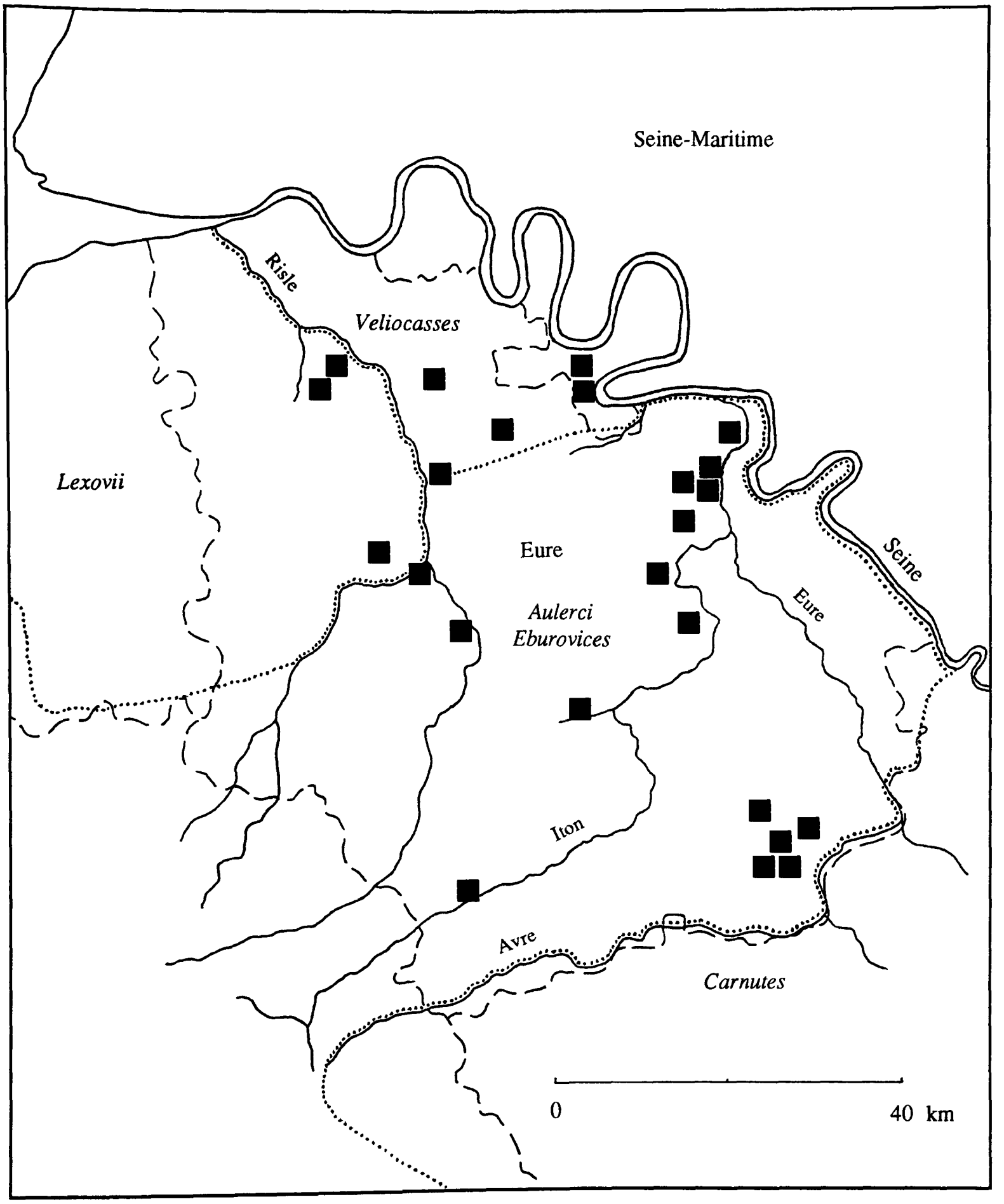


Figure 54. Quadrilateral enclosures in Eure and Seine-Maritime in relation to rivers and tribal frontiers.
Key to the sites with figure 47.
Dashed lines mark the departmental boundaries; dotted lines represent the tribal boundaries as currently reconstructed.

5.5 Other settlement evidence

5.5.1 Briquetage sites

> ...un briquetage est un établissement de traitement du sel (marin ou géologique) par la chaleur artificielle d'un foyer. Typiquement il comporte un ou plusieurs foyers (fosses ou fours), comportant des structures de briques plus ou moins complexes (variables selon les régions ou les époques) destinées à soutenir au-dessus du foyer des récipients, ou moules à sel tous semblables (augets, barquettes, cornets ou gobelets cylindriques).
>
> Gouletquer (1970, 10)

Gouletquer's thesis on Armorican briquetage sites revitalized the study of prehistoric salt production on the coasts of Brittany and adjacent parts of north-west France, which had been comparatively neglected since the initial efforts of the nineteenth and early twentieth century. He provided the first comprehensive account of the types of installation encountered, drawing on the important series of excavations he directed with Michel Tessier, and made the first serious attempts at unravelling the complex evolution of the salt production process in Armorica. In more recent years Tessier has continued his intensive survey of the pays de Retz, identifying dozens of new sites, and providing a chronology based on changes in the form of the various components of the process, and associated ceramics. The main types of site will be summarized here; full descriptions of variation in form and function can be found in Gouletquer (1970), Tessier (1980; 1986) and Rouzeau (1986).

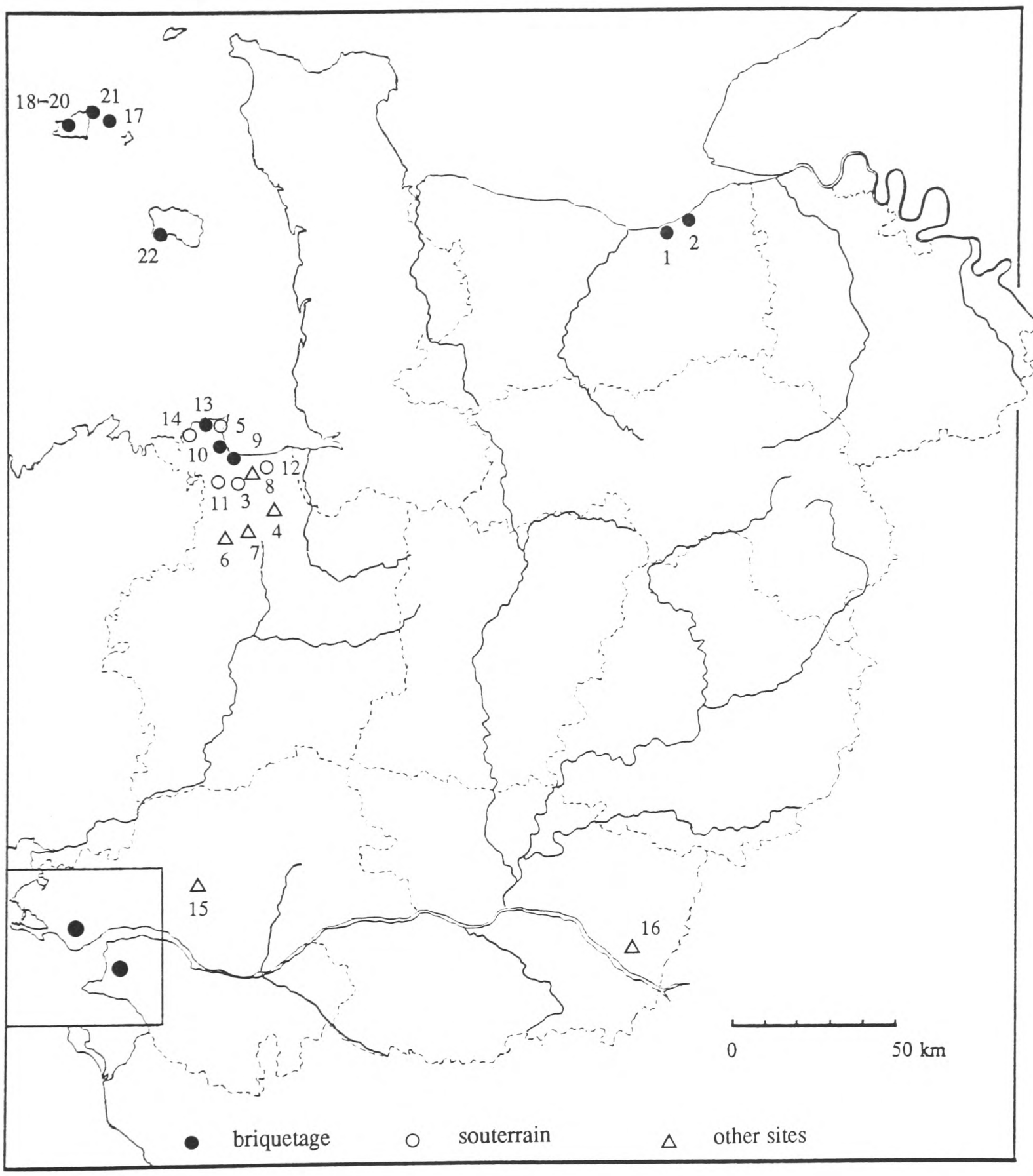
The earliest phase (I) of the salt production process in southern Brittany and the pays de Retz is represented by the *fours à piliers* (eg Tessier 1980, pl. 1). Pillars set in a combustion pit support flat stones on which rest the *godets* containing seawater. This type of site is generally dated to the LBA, although C-14 dates have indicated use as late as 350 ± 100 BC. The second phase (II) of the briquetage sequence is represented by the *fours allongés à ponts* (ibid., pl. 3B). In this case a narrow ditch, approximately 0.5m wide and 0.5m deep, is excavated for about 4m. Small 'bridges' of stone or brick are then set across the ditch, resting on stones set into the walls on each side. The *augets*, containing the water, are then placed lengthways, spanning the gap between the bridges, and are heated from beneath. The chronology of this phase is uncertain, though some associated pottery has decoration typical of LT1 or LT2 (ibid., 29).

The final phase (III) in the sequence is the *four à grille*, which is almost impossible to describe without reference to a good diagram (eg Gouletquer 1970, pl. 16). Basically a series of parallel

arches (*voûtins*) span a shallow rectangular combustion pit, up to about $3m^2$, with cross-pieces (*entretoises*) between each arch. The *augets* are then placed lengthways between the *entretoises*. This structure is generally dated to the LLT.

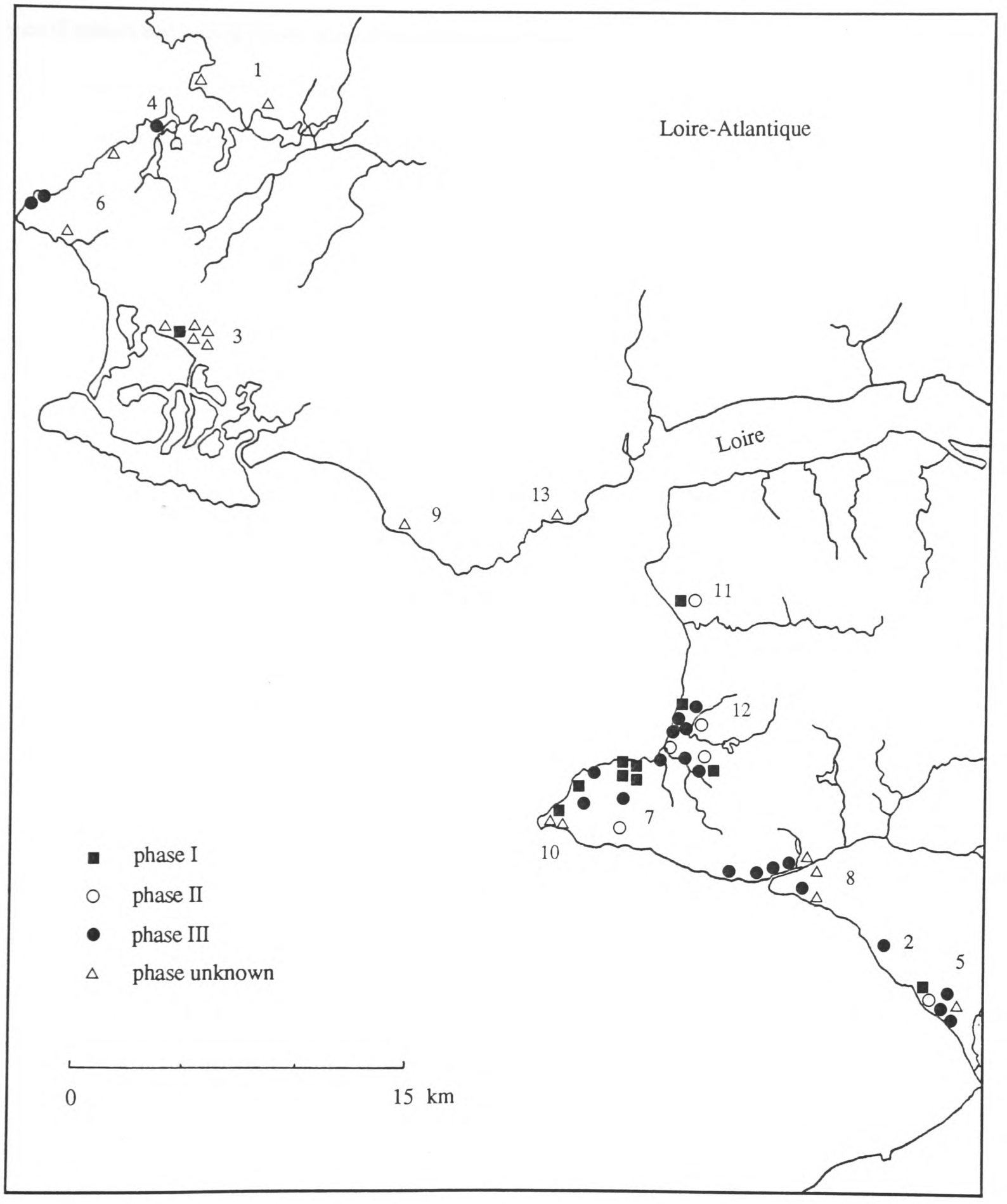
Tessier has attempted to refine the chronology of the series, and in particular phase III, by identifying changes in the form of the *augets*, from long and shallow (c. 10 ad?) through to deeper forms (c. 160 ad?), but the inaccuracy of the few C-14 dates does not yet confirm that this is a valid approach. The other chronological evidence is provided by associated material, often local pottery, which is generally not well dated. There is certainly a risk of developing a circular argument for the dating: a certain type of briquetage is dated on the basis of a few sherds of coarse pottery, and when that briquetage type is encountered elsewhere, associated material is given that date and used to back up the chronology of the briquetage. Some doubts have recently been expressed with regard to the chronology of the first phase, the *fours à piliers*. Gallais et al. (1987, 53-60) excavated a site at 'Kerné' in Guérande, which contained this classic form, but have argued that it should be dated to the early or middle LT (ibid., 59). Sherds of Gallo-Roman coarsewares and fragments of *augets* typical of Tessier's phase III were also recovered from the site. This illustrates a further problem: given the intensive use of the coastline of the pays de Retz for salt production, some sites were re-occupied in later periods, not necessarily using the same structures but certainly depositing later material and complicating the chronological picture. For example, Tessier (1983, 223) notes that the site at 'le Fougerais', Saint-Michel-Chef-Chef (44.84) revealed pottery of LLT form, but sherds of *augets* dated to the early LT.

In view of the disputed chronology of these sites, the distribution maps (figures 55 and 56) show all the recognized sites rather than just those currently dated to the LLT or EGR periods. The sites outside Loire-Atlantique can be dealt with rapidly. Three concentrations of briquetage material have recently been identified on the northern coast of Ille-et-Vilaine, including one (la Gouesnière, 35.26) associated with Iron Age and Gallo-Roman pottery and tentatively dated to the beginning of the first century AD (Langouët et al. 1982, 11), and another (Saint-Coulomb, 35.62) found with GR material (Langouët et al. 1983, 19). Details of the six sites in the Channel Islands are sparse, but the presence of 'hand-bricks' at Vale, Guernsey (G.27) (Kendrick 1928, 160-161) links the island sites with those on the north coast of Brittany, Gouletquer's "briquetages du Trégor" (1970, 117-125). The two sites in Normandy, at Periers-en-Auge (14.50) and Villers-sur-Mer (14.79) also show affinities to this



1	Periers-en-Auge	14.50	12	Saint-Broladre	35.60
2	Villers-sur-Mer	14.79	13	Saint-Coulomb	35.62
3	Baguer-Morvan	35.04	14	Saint-Malo	35.72
4	Broualan	35.08	15	Fay-de-Bretagne	44.22
5	Cancale	35.11	16	Vivy	49.127
6	la Chapelle-aux-F'méens	35.12	17	Herm	G.08
7	Combourg	35.15	18	St Pierre du Bois	G.13
8	Dol-de-Bretagne	35.17	19	St Saviour	G.20
9	la Fresnais	35.23	20	St Saviour	G.21
10	la Gouesnière	35.26	21	Vale	G.27
11	Plerguer	35.41	22	St Brelade	J.03

Figure 55. Distribution of other settlement evidence.
See figure 56 for the briquetage sites around the mouth of the Loire, and figure 57 for cemetery and burial sites.



1	Asserac	44.03	8	Pornic	44.63-64
2	la Bernerie	44.07	9	Pornichet	44.67
3	Guérande	44.27	10	Préfailles	44.69
4	Mesquer	44.37	11	Saint-Brevin-les-Pins	44.76
5	les Moutiers	44.41-44	12	Saint-Michel-Chef-Chef	44.84-87
6	Piriac-sur-Mer	44.52-53	13	Saint-Nazaire	44.91
7	la Plaine-sur-Mer	44.54-59			

Figure 56. Briquetage sites in Loire-Atlantique.

type (Caillaud and Lagnel 1964); mention should also be made of the site at Lion-sur-Mer, dated to the LBA or Ha period, but possibly of the ELT (Edeine 1962).

The briquetage sites on either side of the mouth of the Loire fit comfortably into the southern Armorican series. The later *fours* in the pays de Retz are perhaps distinguished from those to the north of the Loire by the absence of *tortillons*, twists of clay which were probably used to separate *augets* stacked for drying (Gouletquer 1970, 102-103; Prigent 1978, 157), but these very small objects could easily have been missed in early excavations. Most of the sites in Loire-Atlantique north of the rivermouth are poorly understood, having been identified by the sterling efforts of Henri Quilgars (1902) and since lost (eg Mesquer, 44.37). Those more recently excavated, including 'Ile de Brambel', Piriac-sur-Mer (44.52), are of the typical *four à grille* type, as are the phase III sites in the pays de Retz.

Although the detailed map suggests a considerable increase in the number of briquetage sites in the LLT, there are several reasons to adopt a cautious view of this apparent surge in activity. In the first place, the slightly lower sea-level during the LBA and Iron Age periods (see figure 9), and the formation of dunes after the LBA, have probably combined to hide some of the earlier sites, which are now underwater or under sand. On the other hand, later phases of dune formation, particularly in the medieval period, may have hidden some of the LLT sites (Prigent 1978, 66-67). Secondly, the imprecision of the dating is such that many of these sites could have been in use at any time between the late second century BC and the second century AD. Tessier (1986, 190) notes that nine of the twelve protohistoric "camps" in the pays de Retz have revealed evidence of Roman occupation, and it seems very likely that salt was produced from the late Iron Age through into the early years of the Gallo-Roman period without an appreciable pause. There is not yet sufficient evidence to show a marked increase in production in the LLT commensurate with the industrialization supposedly taking place in this period. The organization of the production process remains uncertain: it was possibly maintained by family groups, with the briquetage sites used on a seasonal basis, and the population actually living in slightly more hospitable areas further inland. It is not clear whether sites could be reused in following years, or whether a new *four* had to be constructed at the start of each season. Nor is it clear what proportion of the salt was transported beyond the immediate area of production. Exchange certainly took place, since Dr I amphorae sherds have been found on some sites, and

briquetage fragments possibly from the pays de Retz have been recovered in excavation at (for example) les Alleuds (49.01) and Azé (53.03), 120-140km distant. This does suggest that a well-developed network of distribution and exchange may have been in place by the LLT. So far only a small proportion of the observed sites have been excavated, and it is to be hoped that investigation of some of the others will shed a little more light on these problems.

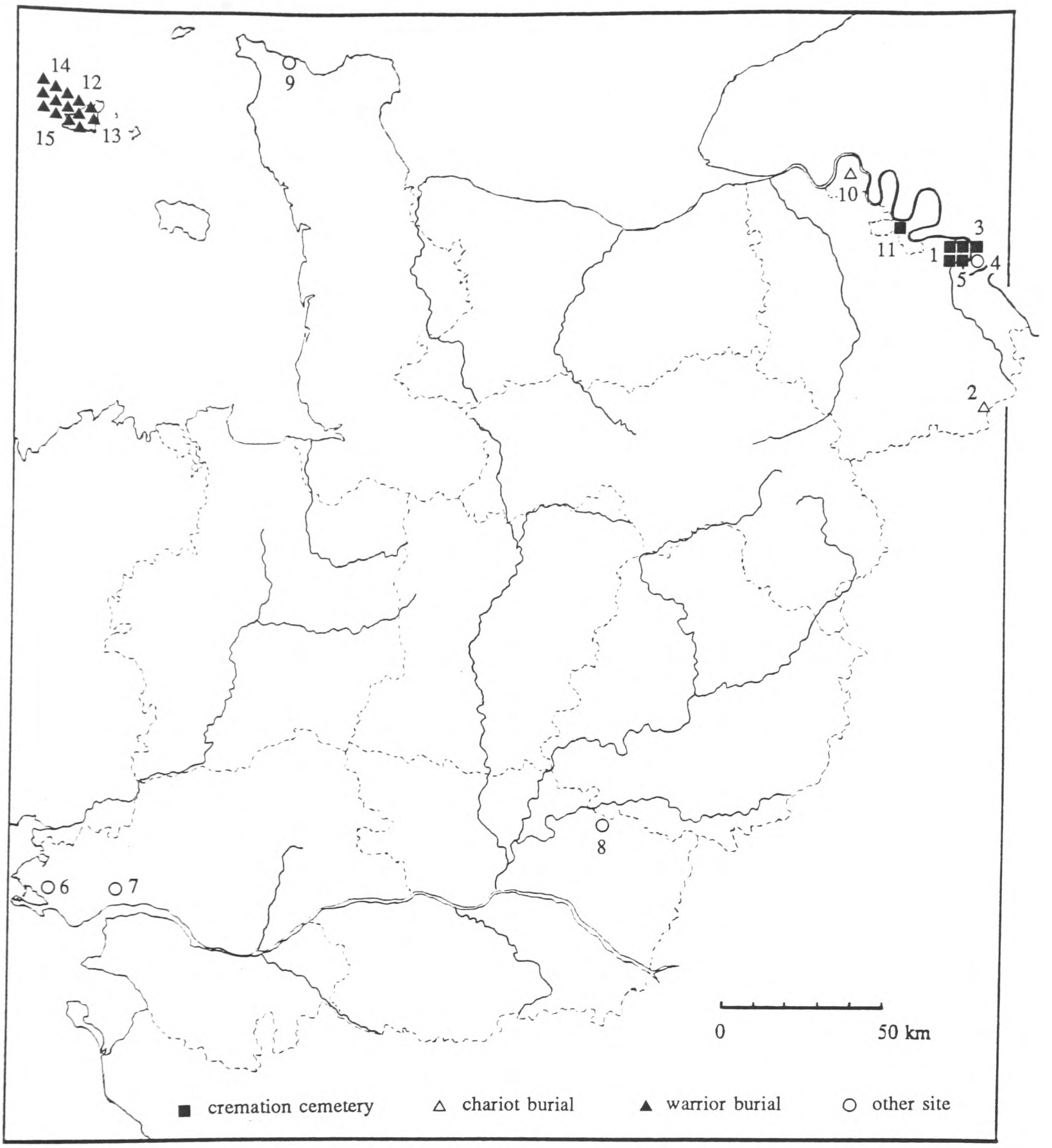
5.5.2 Cemetery and burial evidence

There is a very limited amount of indirect evidence for human settlement in the LLT of north-west France provided by cemeteries and/or isolated burials, but such is the absence of this material from virtually everywhere but the fringes of the region that we must consider the possibility that the dominant burial rite in the LLT was a process such as excarnation. The sites mapped on figure 57 form distinct subregional traditions, of three main categories: the cremation cemeteries of the lower Seine valley, the so-called chariot burials bordering on the same area, and the warrior burials from Guernsey.[1]

The cremation cemeteries in the bends of the lower Seine are known mostly by unsatisfactory reports from the nineteenth and early twentieth centuries. The sites in north-west France (figure 57) form the southern part of a marked concentration around the junction of the rivers Eure, Andelle and Seine (Duval 1975a, fig. 2), demonstrating very clearly that this part of the Seine did not represent a significant cultural or political boundary while the cemeteries were in use. But the actual dates of their use are not altogether clear. Although there seems to be LT3 evidence from almost every site, there is some indication of earlier use from Léry (27.47) and le Mesnil-de-Poses (27.53), and possibly from others. Collis (1977, 8) has suggested that these "North Gallic" burials, found in several regions in northern France, Germany, and south-east England (ibid., fig. 3), appeared at the end of the middle LT (perhaps between 150 and 100 BC) in the east, and spread westwards during the LLT, but some of the Normandy group seem to have been in place at least as early as those in the east. It is clear, however, that in almost every case there was unbroken use through into the Gallo-Roman period. In one instance

---

[1] the other sites include several inhumations at Guérande (44.27), each covered by a few blocks of granite, tentatively dated to the LLT/GR period; an isolated cremation urn of LLT style at Montoir-de-Bretagne (44.39), with fibulae which may suggest a date as late as 90 AD; a burial (cremation?) containing a sword broken into three pieces at Fougère (49.60); and two inhumations, one (a child) in a tree-trunk, at Urville-Nacqueville (50.38), the dating of which is uncertain. In additon there are a number of poorly-dated inhumations in the square enclosure associated with the settlement of Tournedos-sur-Seine (27.70), some of which may be LLT.



1	Léry	27.44-45, 47	9	Urville-Nacqueville	50.38
2	Marcilly-sur-Eure	27.51	10	la Mailleraye-sur-Seine	76.08
3	le Mesnil-de-Poses	27.53	11	Moulineaux	76.09
4	Tournedos-sur-Seine	27.70	12	Castel	G.03
5	le Vaudreuil	27.74	13	St Peter Port	G.12
6	Guérande	44.27	14	St Pierre du Bois	G.14
7	Montoir-de-Bretagne	44.39	15	St Saviour	G.16-19
8	Fougère	49.60			

Figure 57. Distribution of late La Tène cemeteries and burials.

(le Mesnil-de-Poses) there is evidence of different areas in use at different periods, but mostly there appears to be a mixture of Gaulish and Roman tradition in the late first century BC: thus folded or broken swords are found alongside imported Roman pottery (eg Léry, 27.44), or Roman coins with Gaulish ceramics (eg le Vaudreuil, 27.74). Only the modern excavation of one of these sites will provide more satisfactory chronological information.

Two chariot burials are present just within north-west France: at Marcilly-sur-Eure (27.51) and la Mailleraye-sur-Seine (76.08). They represent south-westerly examples of the group scattered throughout Belgica, identified by Duval and Blanchet (1974) and dated to the end of LT2 or the start of LT3. Both are more correctly described as burials containing elements of chariots. At Marcilly, a rectangular pit contained a cremation burial, several wheel rims and other iron hoops (probably from barrels), a broken sword and an umbo, and many other pieces of metalwork, almost exclusively of iron. There were sherds from numerous vessels, dated to late LT2 or early LT3. At la Mailleraye the pit burial contained eight wheel rims and a wide range of objects deposited in a precise and methodical fashion: these included broken fire-dogs, a bronze cauldron, spearheads and three swords, and (containing the cremation) a glass vessel made in Cyprus (Lequoy, pers. comm.). A date in the LLT seems likely, though it is difficult to be more precise within that period. This burial clearly includes rather more exotic goods and weapons in greater quantity than that at Marcilly, but apart from the date they have at least one other factor in common: both are set back slightly from rivers, on relatively high ground. In this sense they are differentiated from the cremation burials in the river valleys, and though the chariot burials are perhaps a little older than the cemeteries (Duval 1975b, 161), it seems certain that the difference in burial method and location reflects different social strata of the same group of people.

A very different group of warrior burials is confined to the island of Guernsey, where at least 13 stone cists were revealed, mostly by quarrying operations, in the mid-nineteenth and early twentieth centuries. The graves are commonly about 2m long and 0.5m wide, with sides (and covering) of small stones set directly onto the natural surface. The acidic soil means that there is rarely any preservation of skeletal material, but various objects were recorded, primarily from the Lukis excavations of the nineteenth century. Details of the finds, as far as are known, are recorded in full in the gazetteer; typically, each grave contained one or occasionally two iron swords, an iron spearhead and one or more iron knives or daggers, presumably the basic equipment of the warrior. A few other personal items are

occasionally noted, in particular from the Castel (G.03), where they included a number of small bronze rings and six beads, of glass, jet and amber. Pottery is rare, or at least rarely recorded, but again from the Castel there are a few sherds of Armorican fine wares of the LLT (Daire 1987 I, pl. XXXIII.1, 3 and pl. LXVIII.5-6).

These burials are all near the west coast of the island, on the slopes up to the higher ground in the south and east, and it seems likely that they were deliberately located in view of the setting sun. This is one of the factors which differentiates them from the other warrior burial in Guernsey, associated with the settlement at 'King's Road', St Peter Port (G.12). This burial was in a coffin, within a four-post structure, rather than being in a stone cist. It included a sword, knife and spearhead, as in the others, but in addition an umbo, a fibula, bronze and iron rings, an amber bead and a pair of shears in a leather bag. While the presence of these other items may indicate a difference in the status of this burial to those on the west coast, the nature of the nineteenth century discoveries - all by chance, and disturbed before even cursory excavation - means that some objects may have been missed or removed without record. It is possible that the different style of the grave reflects a different date of burial within the LLT period, but it is not currently possible to refine this chronology.

5.5.3 Other settlement evidence

Five souterrrains scrape into the region, in the north-west of Ille-et-Vilaine (figure 55). In common with most examples of this quintessentially Armorican phenomenon, no archaeological material has been recovered from those that have been excavated, and thus they may fall anywhere in the period between the LBA and the LLT (Giot 1990, 53). It is now generally accepted that the souterrains were associated with settlements (ibid., 58), perhaps functioning as grain stores before being replaced by above-ground storage structures in the LLT (Le Bihan et al. 1990, 268). Two of the sites are in the territory assigned to the Redones, but it is possible that this area was in Coriosolitae hands when the souterrains were constructed, since the feature is unknown further east, despite the requisite geological conditions persisting well into the territory of the Redones. Giot also notes that this structure is lacking from the south-east of the Coriosolitae territory as delimited at the time of the conquest; these two points serve as useful reminders that the Gallo-Roman boundaries may not always provide an accurate guide to the late Iron Age situation.

Also in the north of Ille-et-Vilaine, surveys by the CRAA have identified three "iron-working sites" associated with Iron Age pottery, and Langouët has suggested that a relict Gaulish field system is present at 'la Chapelle Cobat', Dol-de-Bretagne (35.17).

The final settlement evidence comes from two enigmatic structures at Fay-de-Bretagne (44.22) and Vivy (49.127). At the former, a wooden construction apparently of stakes, about 1.15m^2, contained sherds of more than 60 pottery vessels. The pottery was mostly hand-made, of very uniform type and dated to the LLT; a sherd of Dr I amphora handle and a spindle whorl were also found. Although the excavator suggested that it was the store of a potter, it has recently been ascribed a ritual function (Daire 1987 I, 262). The site at Vivy is similar in that sherds of late LT3 and EGR pottery were found with wooden structure, but only brief details have been published (CAG 49.118). In neither case were the surrounding areas examined for the evidence that might have confirmed the presence of a settlement.

5.6 Summary

The common thread to examination of the three major types of settlement evidence discussed in this chapter - fortified sites, open settlements and quadrilateral enclosures - is, unfortunately, the lack of a substantial body of excavated information. Without this information it is very difficult to formulate meaningful generalizations on the nature of settlement in the late La Tène and early Gallo-Roman periods, and (particularly in the case of fortifications) we are forced to use non-excavated evidence, such as the size of the site or its similarity of form to excavated examples, as indicative of the function of the site and by extension of its role in wider social and political systems. This is unsatisfactory, and likely to lead to misrepresentation of the real situation, for example in the apparently developed settlement hierarchy of the Aulerci Diablintes, discussed above (5.2.7); we shall return to this point in the concluding chapter.

In the meantime, we may mention here a couple of the more important features which the limited amount of excavation has revealed. Chief amongst these must be the size and complexity of the settlement at les Alleuds (49.01), which far surpasses any other site in north-west France or Brittany, including Alet (35.67), where as we have seen (5.3.2) much of the occupation may post- rather than pre-conquest. It is to be hoped that full publication of les Alleuds is not long in coming; what we have at present is inadequate for detailed discussion of the site, but it is plain that in contrast to Alet the development there is confined to the pre-conquest period. In the absence of extensive excavation of any fortified site, we may wonder whether the true central places of this society - the oppida, perhaps - were located with trade as the primary consideration, rather than defence. In some instances, such as Moulay (53.46), the two functions may have been conveniently combined, though we should remember that evidence of settlement at this fortification is still very limited.

The statistical evidence on settlement location with respect to environmental factors is of variable quality. In most cases it is not possible to distinguish between genuine site/environment relationships and those which are the product of variations in the intensity of fieldwork, but it seems that relief may have been the dominant environmental influence. More detailed information on (for example) the precise geological and pedological conditions associated with each site will in turn allow us to be more certain of how these factors influenced the pattern of settlement.

6

Iron Age coins: introduction

who, minter of medallions,
casting or striking, caused me so
to speak with double voice in bronze,
I may not help and cannot know

Terence Tiller, *Reading a Medal*

Before examining the evidence of Iron Age coins in north-west France, there are a number of more general issues which need to be considered. Chief amongst these is the function of coinage in Iron Age society; it is also important to be aware of the limitations inherent in current techniques of analysis. In this section, the model for the discussion of the coins in north-west France in the following chapters will also be outlined.

6.1 Theoretical considerations

The use of coins in archaeological research has undergone considerable re-evaluation during the past twenty years. At the heart of this process has been a move amongst most archaeologists away from the traditional formalist or historical approach, to a functionalist perspective on coin studies.

The formalist approach, typified in Britain by the work of Derek Allen and on the continent by Jean-Baptiste Colbert de Beaulieu, attempts to recognize historical events in the archaeological record, using the distribution of coins to delimit tribal areas or (particularly in the case of British coins) identify areas of invasion (Cunliffe 1981, 29; Haselgrove 1988a, 69). It has been argued that this approach makes several crucial and arguably unsupportable assumptions in its methodology (Collis 1981b, 53; Haselgrove 1987a, 17-18). At its base is a view of society, and in particular of its social and economic systems, which draws heavily on the modern situation. Thus it is assumed that coins have the same predominant function, of commercial exchange, in all societies. This leads in turn to

assumptions about the nature of the market system, such as the belief that individuals must have been in competition, and that they were able to increase their wealth through profitable monetary exchange. Certain other aspects of current systems are also presumed to have been present in the Iron Age, notably centralized control of coin production taking place solely at major settlements.

Dissatisfaction with these presumptions was made manifest in the 1970s, with the publication of a series of papers arguing for the adoption of a functionalist approach (Collis 1971; 1974; 1981a; 1981b). This has influenced coin studies essentially in two ways: prompting a reconsideration of the function of socio-economic systems of the later Iron Age and the development of coinage within those systems, and questioning traditional methods of interpreting the pattern of finds.

In attempting to reconstruct the late Iron Age socio-economic structure, it is evident that application of the concepts of "a rational *Homo Economicus*" (Haselgrove 1987a, 18) is likely to be inappropriate outside our own capitalist market economy. Haselgrove (ibid.) has summarized the differences between the modern system and the late prehistoric structures: principally, economic activity in the latter is inextricably linked to social organization, with the distribution of goods and services controlled by methods of transaction very different to our own, such as reciprocity and redistribution, and with competitive price-fixing markets absent (though they may be present on the periphery of the "less-developed" society). It is equally important not to confuse modern conceptions of money with its possible forms and functions in earlier societies. Thus today's "general purpose" money, used almost exclusively in commercial transactions, is contrasted to "special purpose" money, where several different objects may perform one or more functions of money (principally as a means of payment, an exchange medium, a standard of value, or as wealth storage; see Haselgrove 1987a, 19) and where money is defined as *any* quantifiable object used for these purposes.

Here we are concerned with the use of coinage as money. However it cannot be assumed, as the formalist approach would have it, that its primary use was as a means of exchange, and nor is it certain that coins had the same function in every context. In an attempt to shed some light on the functions of Iron Age coinage, Haselgrove (ibid., 20-21) suggests two possible approaches. The first, and less successful, is to examine it through "the particular context of its adoption", which suffers from the fact that as a symbol, coinage may change its meaning completely between different cultures, while retaining the same physical form; for example, the changes in function between the Macedonian staters

of Philip II and their Celtic imitations. The second approach is to use data from other pre-industrial societies. To this end, Haselgrove draws on the work of Dalton, who has defined three main classes of "money-stuff" in these societies:

> i) primitive valuables, which are used to acquire status and power in stateless societies;
>
> ii) primitive money, which includes easily imitable objects such as salt bars that can be used in transactions in societies with small market sectors;
>
> iii) early cash or coinage, which is much more rigorously controlled, used for exchange and to meet obligations (such as taxes), and is restricted to early state societies.

Although closest, this latter type by no means provides an ideal match to the situation in Gaul in the late Iron Age, primarily because not all the coin-issuing societies were states. This was most clearly the case for the early phases of Gaulish coinage, and persisted in most areas until the conquest. In addition, the degree to which the production of coins was rigorously controlled has been questioned, since it appears that any individual with the requisite skills and available resources could have issued coinage (see below). Therefore in certain aspects, coins in Gaul at some stages are likely to have shown the characteristics of primitive money:

> Many Celtic coins types were probably produced and used in ways closely akin to primitive valuables or primitive money in the stratified, but relatively decentralised societies of Middle Iron Age Europe. Later on, some coinages were perhaps used more like early cash, but many of these were only struck after the Roman conquest of Gaul and thus under the increasingly direct influence of the Roman monetary economy.
>
> Haselgrove (1987a, 22-23)

It can be argued that the early precious metal coinage in the Celtic world was simply the latest form of valuable, which rapidly gained ground over other objects because of its versatility and convertibility (ibid., 26-27; 1988a, 74).

This is a suitable point at which to consider alternative theories of coinage development in Gaul, which have also been reappraised in the last two decades. The fundamental alteration in this aspect of coin studies has been a move towards a long chronology, away from the rather shorter period of development favoured by Colbert de Beaulieu (1973a) and the much more abrupt development envisaged by Castelin (discussed by Scheers 1978b). Castelin's framework suffers considerably from his assumptions that imitation of the stater of Philip II began when it appeared in Rome in the early second century BC, and that the weight of the imitations then decreased at a fixed rate until the

conquest. Colbert de Beaulieu (1973a, 170) allows a rather longer period of development, beginning near the end of the third century BC, but assigns the first 100 years or so of this development in Gaul to the Arverni, which has been shown to be unnecessary and inaccurate (Nash 1975a). At the heart of his argument is the assumption that by the late third century BC, the Arverni formed a *monopole monétaire* controlling and maintaining trade and the production of coinage (1973a, 173-176). This economic control is supposed to have persisted - presumably backed up by considerable military force - throughout Gaul as far as the north-west fringes and Belgica (ibid., 176-180), until the annexation of the Province by Rome in 121 BC, after which the right to issue coins spread first to regional and then local mints.

Nash (1975a) has convincingly refuted this theory. There is no archaeological evidence for the existence of this hegemony, nor for the production of a large number of coins commensurate with the *monopole monétaire*, spread widely over Gaul - unless one assumes, as Colbert de Beaulieu, that typologically and geographically distinct coinages were all produced by the Arverni. His theory also requires that *civitates* were issuing coinage from *civitas* capitals at least by the first century BC, which is open to doubt, and that trade was conducted primarily through the exchange of coinage, for which there is equally little evidence. Other evidence against this chronology is listed by Haselgrove (1987a, 77), including independent dating to the third century BC of hoards in the 'silver belt' of southern Gaul, and gold coins in middle La Tène graves.

Despite this apparently convincing array of evidence against the existence of the Arvernian hegemony and the chronology of Colbert de Beaulieu, French archaeologists and numismatists have proved extraordinarily reluctant to abandon the theory. In a recent general work on Gaulish coins, Katharine Gruel comments that

> Aucune étude de nouvelle trouvaille n'est venue confirmer, ou infirmer, la thèse proposée par Colbert de Beaulieu: le peuple arverne aurait été le diffuseur de la monnaie en Gaule.
>
> Nos connaissances actuelles ne permettent pas de récuser cette thèse, et certaines faits peuvent toujours être interprétés dans son sens.
>
> Gruel (1989, 33)

and elsewhere (ibid., 29) suggests that his model of the evolution of Gaulish coinage remains fundamentally "parfaitement admis". In the works of non-coin specialist archaeologists, and indeed

some numismatists, the Arvernian hegemony is still uncritically accepted (eg Lhussier-Laigaux 1987, 584; *Les Celtes en Normandie* 1990, 11).

As suggested above, the alternative theory of Nash proposes a longer development of Celtic coinage, split into three distinct phases, roughly paralleled by developments in Celtic society. This division will serve as the basis for the discussion of north-west French coinages in the following chapters; the main points relevant to Celtic society as a whole will be examined here. The first phase in western Gaul, including north-west France, saw the close imitation of the Greek prototypes, in particular the stater of Philip II (359-336 BC, but produced for forty years or more after his death), but also (primarily in Belgica) the Tarentine and Syracusan coins of a similar period (Allen 1980, 18-21; Scheers 1981b, 18; Nash 1987a, 17-19; 1987b). It appears that the prototype coins were introduced as a 'group' (Haselgrove 1987a, 77), probably in the early third century BC. The influx of these coins is now believed to have been closely associated with the payment of Celtic mercenaries for services to Carthage (Nash 1987a, 18), Tarentum and Syracuse (Colbert de Beaulieu 1973a, 198-199; Kruta 1982, 81; Scheers 1978b, 445; Nash 1987a, 17-19; 1987b, 658), services which were abruptly halted by Roman conquest of, or alliance with these territories by c. 260 BC. This may then explain the lack of early Celtic imitations of later Greek or Roman coinages, as the Greek sources were no longer available and the Romans did not employ mercenaries.

The first phase coins were close imitations of the Greek originals, in design and in weight and alloy. They will be discussed in chapter 7. Nash suggests (1981, 15; 1987a, 49) that these coins were produced in a society dominated by wealthy chieftains, possibly recognizing some ethnic or tribal links, but without the socio-economic structure necessary to produce a unified coinage.

The second phase of Celtic coinage saw the first production of types independent of the Greek prototypes, probably beginning in the late third century BC or the early years of the second century BC, when the supply of Greek coins had ceased, but the model was still familiar to the producers of the Gaulish coins. There was a slight reduction in weight and gold content, but the Celtic staters were usually above 7.6g and of good alloy. The distribution maps of this phase of coinage in many parts of Gaul show rather more cohesion than the earliest phase, and it is suggested (Nash 1987a, 50-51) that this reflects the development of a more complex hierarchy, with a smaller number of more powerful chiefs in each tribal territory striking coinage than in the first phase. At this stage coinages from

different tribal areas were still compatible, which appears to support its use as primitive money or a primitive valuable, thus accounting perhaps for some of the 'outliers' in geographical distributions.

The second phase seems to have persisted (in north-west France) until the last few decades of the second century BC. It was followed by a final phase of local development, characterized by greatly increased output and associated decline in the weight and precious metal content of the coins (Nash 1975a, 209). In Nash's model of coinage and societal development, the details of this phase have proved the most contentious (see for example the criticism by Haselgrove 1988a, 76-78). She has argued that by the end of the second century BC, the most advanced tribal societies were paramount kingdoms, issuing a single high-value prestige coinage (usually in gold), accompanied by one or more lower value coinages (usually in silver or silver alloy) issued either from the paramount centre or from tribal areas exercising a degree of autonomy. The cost of maintaining a paramount kingdom was so great that in some cases they appear to have collapsed, for example possibly in Belgica in the late second century BC (Nash 1987a, 111). In other areas, principally among the tribes closest to the Province, Nash suggests that the kingdoms developed the characteristics of primitive oligarchic states during this period, with the traditional noble hierarchy replaced by a government of noble families in collective rule. These states seem to have deliberately emphasized their separate identities, producing a much greater range of coin types and developing significant differences in the weight and alloy of coins even between neighbouring *civitates* (Nash 1981, 10).

Clearly not all coinages will fall conveniently within one of these phases, but the distinctions are on the whole valid and will be used in the following chapters as the basis for a consideration of the indigenous coin production of north-west France.

Although of only peripheral concern to the development of coinage in north-west France, the early years of the third phase saw the start of potin production in Gaul, principally in the eastern and central areas, imitating bronze coins of Massalia with a butting bull on the reverse (Allen 1971a, 130). Although Colbert de Beaulieu has argued (1973b) for a much later development of this type of coinage, close to the Gallic War, there is now sufficient archaeological evidence to support the longer chronology (Haselgrove 1987a, 96-100; Duval (1987, 345-347) shows some modification to the predominant French view, suggesting development from c. 75 BC). Further indication of an early date is supplied by some sites in north-west France (see chapter 10).

After the conquest of Gaul, the indigenous coinages underwent rapid and fundamental change. The production of gold coinage, a relict of earlier types of society (and in particular of the right to maintain an army and therefore issue a precious metal coinage: Nash 1981, 12), ceased almost immediately, followed soon by native silver coinages. In their place came a number of silver issues struck to the standard of the Roman quinarius and strongly Romanized in their design, possibly struck exclusively by tribes favoured by Rome, and used primarily for official purposes and the payment of troops. At the same time there was a rapid increase in the production of bronze coinage for local needs, to the extent that Nash suggests (1987a, 35) that "most settlements of any size issued at least some cast or struck bronze coinage". The production of these coinages, both silver and bronze, declined following the Augustan reorganization of 27 BC and finally ended in c. 16 BC and c. 10 BC respectively, although the use of native bronze continued until well into the first century AD.

The use of the later coinage in Iron Age Gaul and Britain has been addressed in particular by Collis (1974; 1981a; 1981b), who has stressed the possibility that coins of different metals had different social and economic functions. (This will have influenced the pattern of deposition and consequently must be considered when analysing distribution patterns - see below). Although there appears to have been a "metallic hierarchy" in the late Iron Age (suggested in the third phase of Nash's model; Haselgrove 1987a, 27), it is not safe to assume that Celtic coinage paralleled the unified Roman system, with fixed relationships and convertibility between denominations (Reece 1981, 24). Thus Collis has suggested (1974) that potin coinage in Britain was downgraded in the middle of the first century BC, from a status perhaps similar to that of small silver coins, to a value more like that of the bronze coinage. Inextricably linked to these processes are questions of the development of a market system, and the use of coinage predominantly as a medium of exchange. It should be noted that even in the Roman economy, gold and silver coinage seems to have been struck primarily as a means of paying soldiers, and bronze coinage for soldiers and civilian payments (Crawford 1974, 633; 1985, 174), rather than in the first place as a medium of exchange (Haselgrove 1988a, 72-74). We must expect a range of functions for coinage in the Celtic societies of the middle and later Iron Age, and the possibility of changing relationships between coinages of different metals. It is no longer appropriate to see coinage as created predominantly for the purpose of commercial exchange, and its adoption as a sure sign of the development of a market economy.

Although the techniques of manufacture are reasonably well understood (eg Allen 1980, 33-36; Tournaire et al. 1982, 429-432; Barral and Veillon 1987), the "rules" governing the production and issue of coins are still mostly unclear. The traditional approach posited an overriding association between tribes, their major defended site(s) and the issuing of coinage, but it has become increasingly evident that areas much smaller than the tribe or *civitas* issued coins, certainly at the level of the *pagus* and perhaps too for use in and around certain oppida (as suggested by Nash (above); see also the theoretical distributions suggested by Collis 1981a, 123-127). Collis notes elsewhere (1981b, 53) that only about 40% of (so-called) coin moulds have been found on major defended oppida. This has considerable repercussions on the interpretation of distribution patterns (see below). A common extension of the historical approach has been the uncritical assumption that the "capital" of a *civitas* and the single site of its coin production were one and the same, for example at Rennes (Leroux and Provost 1990, 178), where there is not yet a shred of archaeological evidence to confirm such a view. Place-names recorded on later inscribed coins are not necessarily where the coin was minted, and it seems likely that some were manufactured in more than one location. The processes by which these coins were then distributed are still basically unknown. Haselgrove (1987a, 29-30) has noted that rather than being a continuous process, the production and distribution of coins was probably sporadic, related to many factors including the availability of raw materials and the political and economic situation of the issuers. This has clear implications for the dating of coin series and by extension their archaeological contexts, since it is possible that coins were stockpiled and released at intervals after being struck.

Some of these problems may be made a little less intractable by the application of very detailed die-studies. But as we shall see, the prospects for this approach in north-west France with the current database are not good. Before turning to the evidence from north-west France, there are a few general points to be considered concerning the analysis of coin finds.

The most important of these is without doubt the reliability of the data. Haselgrove (1987a, 42-43) distinguishes four types of data, in descending order of quality:

i) stratified excavation finds

ii) probable finds (general location reliably recorded, at the level of parish or commune)

iii) possible finds (located at (for example) canton level, but perhaps unreliable data)

iv) rejected finds (forgeries, or mistaken provenances).

Ideally first order finds should constitute the bulk of the data for analysis, but in reality (certainly for north-west France) they are usually in the minority. Most of the finds discussed in the following chapters fall into the category of second order data; where this is not so, attention will be drawn to the possibility that the information is more or less reliable than usual.

These variations in the recovered sample of coins come about in two ways: through factors affecting the formation of the archaeological record, and factors affecting the retrieval of the coins. The first influences the type of coins found; for example, gold coins are rare on sites since their value probably ensured that when dropped, they were more carefully searched for than coins of less precious metal. If the suggestions of Collis (above) are accepted, then certain coins are unlikely to be found on some types of settlement in any case. The second includes a whole panoply of situations and circumstances which may influence the pattern of recorded finds, discussed in a much quoted paper by Rodwell (1981). He has argued that the problems of inadequately or incorrectly recorded findspots, the possibility of excavators and finders not reporting discoveries, and the biases caused by antiquarians and modern research, are so great that

> Clusters and voids within...distribution patterns, particularly for metals other than gold, must be discounted as meaningless unless they can be shown to be other than accidents of antiquarianism and excavation.
>
> Rodwell (1981, 52)

Although other authors hold a rather more optimistic view (eg Collis 1981b, 54; Sellwood 1984, 202-203), it is undeniable that these factors may combine in some instances to seriously distort the small sample of coins preserved in the archaeological record (see Haselgrove 1987a, fig. 3:1 for the processes by which a small number of coins become "recorded archaeological data").

These problems must therefore be borne in mind in interpreting distribution maps, along with the functional differences in coinage that may have influenced the pattern of deposition. In the face of these difficulties, what validity does the distribution map have? The historical approach has tended to use gross plots of coins to delimit tribal (ie political) boundaries, which may hide socio-economic distinctions of the kind sought by Collis and Haselgrove, and several authors have suggested that they are at best an unreliable tool (eg Cunliffe 1981, 29; Nash 1981, 10). Sellwood (1984, 199), though

referring in particular to the problems of identifying boundaries, makes the more generally valid point that plots of coins by class, perhaps at first sight more useful, are still hampered by the proportion of finds which come from post Iron Age contexts, and consequently has suggested that the gross plot is the most detailed representation that the current evidence allows. Along similar lines, Haselgrove (1987a, 37-38) cautions against the interpretation of individual classes on a "static framework", which assumes that coins were deposited before being replaced by the next type, when the real composition of the coinage in circulation would probably have changed much more gradually (ibid., fig. 3:2). It is generally assumed that distribution maps show the territory of origin at the time of issue, but the variable length of time in circulation of coin classes will have influenced the diffusion of those coins from their point(s) of origin.

Distribution maps will be used a great deal in the following chapters, not least because (except for a very few coinages) no good maps of the findspots exist, and whatever their disadvantages it seems necessary to have the maps at least as a record of the distribution of the coins. It will become apparent that the problems outlined above have certainly exerted some influence on the pattern of coins in north-west France, and as far as possible this will be taken into account in interpreting the maps.

6.2 The nature of the evidence

The table overleaf shows that at least 60 000 Iron Age coins have been found in north-west France since the first recorded discovery, a hoard at Coulimer, Orne (61.17) in 1586. The real total must be considerably higher, but such are the problems of estimating the number of coins in circulation and the percentage that have been recovered, that there is little point in guessing at the true number of discoveries.

This would seem at first to be a fine database on which to build a picture of the development of coinage in Iron Age north-west France, but the number of coins is deceptive. Various factors combine to reduce the useful sample to (at most) 30% of this figure.[1] Over half of the total is made up by the hoard found in 1828 at the pont de la Chalouère (or Chaloire) in Angers (49.07), which consisted of an estimated 25 000 small silver coins of three related types, and perhaps 6000 potins, mostly *à la tête diabolique*. However only about one hundred of these coins have been preserved. A further 12 000 of the total number of coins are effectively unidentified, almost all from hoards which were dispersed before any record of the contents was made. This leaves us with about 17 000 identified and provenanced coins - of which approximately 13 500 are Coriosolitae issues, mostly found in the hoards on Jersey and on the mainland around the golfe de Saint-Malo. The 3500 coins found in the rest of north-west France include about 620 isolated finds, 760 from excavations, and 2100 from hoards in the region. The number of coins found in excavation appears to be good, but again this figure is somewhat misleading. More than 600 of these were recovered from excavations at the *fana* of le Vieil-Evreux (27.78) and Allonnes (72.01). Although full details of the coins from the former have been published (Scheers 1981a), their archaeological context was not clearly recorded. And regrettably, much information on the excavation and coins from Allonnes remains unpublished, more than thirty years after the archaeological investigations and ten years after the death of the excavator. Stratified excavation finds, therefore, classed by Haselgrove (see above) as first order data, account for only about

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[1] 'useful' is defined here as described or illustrated in sufficient detail to confidently identify the type of coin (eg by reference to the BN catalogue (Muret and Chabouillet 1889) or the illustrations of de la Tour (1892)). It does not assume that features such as the weight or the die orientation are known. To do so would reduce the number of 'useful' coins to only a few hundred, as the vast majority of coins were imprecisely recorded in the nineteenth century and have long since disappeared (see below). This lack of precise detail for many coins precludes the use of techniques such as detailed die-studies for all but a few series of coins, which is unfortunate, but unavoidable given the nature of our information.

dept.	min. no. of isolated finds	min. no. of hoards	min. no. in hoards	min. no. in excavations	totals
14	97	6	568	3	668
27, 76	103	3	900	202	1205
35	57	17	4634	36	4727
44	82	8	296	0	378
49	130	11	33000	61	33191
50	31	13	3500	33	3564
53	44	1	30	10	84
61	19	3	?	4	23
72	40	3	134	411	585
G	2	1	17	0	19
J	11	8	16000	1	16012
totals	**616**	74	**59079**	**761**	**60456**

Table 25. Numbers of Iron Age coins found in north-west France.
Data from gazetteer.

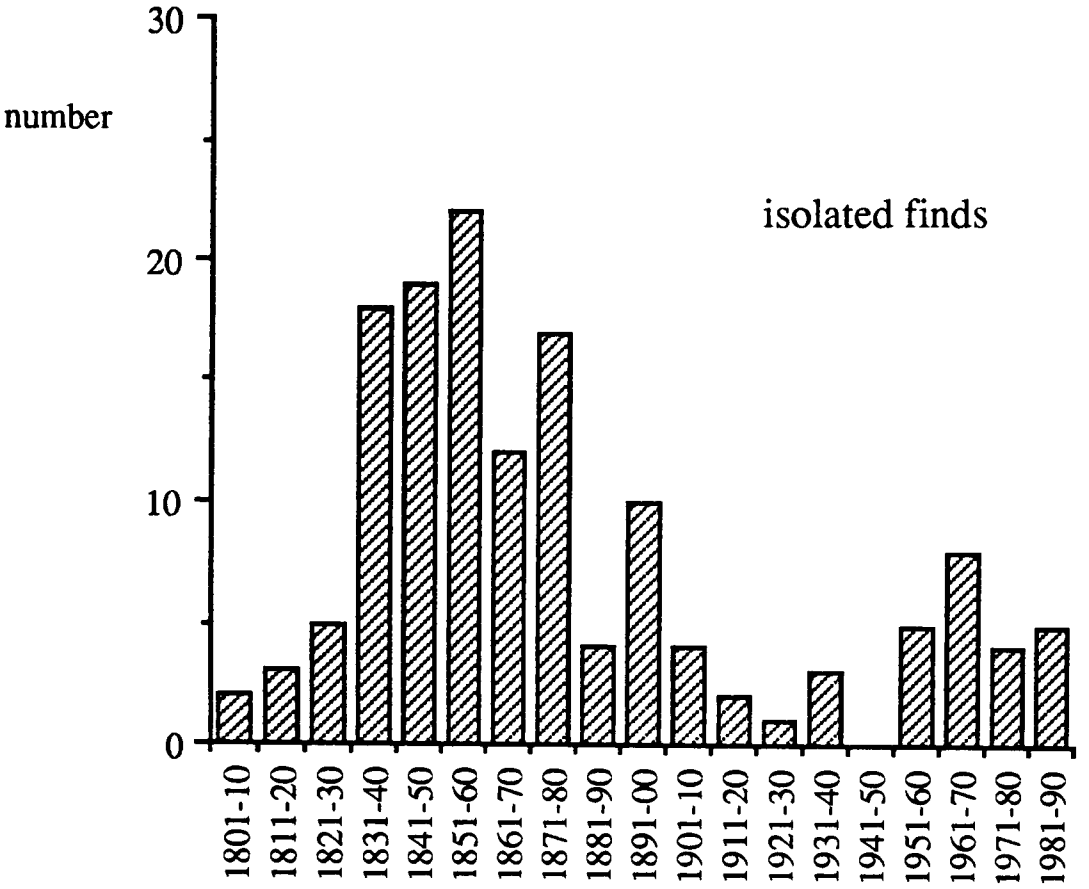
Concentrations of coins at temple sites are counted as hoards, although where they have been excavated the number of coins is included in the total of excavation finds rather than in the total of coins in hoards.

1% of the 17 000 identified coins. In consequence, second order data must provide the bulk of our information.

How reliable are these data? Rodwell (see above) has commented on the bias in distribution patterns caused by antiquarian research. In north-west France, the record of coin finds is in large part a consequence of antiquarian interest. The graphs overleaf show how the frequency of dated finds peaked in the mid-nineteenth century, corresponding to the surge in urbanization and industrialization of that period. However the concentration of finds also corresponds to the *floruit* of Edouard Lambert, who was responsible for the two most valuable records of early discoveries in north-west France (*Essai sur la numismatique gauloise du nord-ouest de la France* 1844; 1864). Lambert was based in Bayeux and there is certainly a slight bias in his work towards finds in that area, but whether that was a result of his simply having better knowledge of local discoveries, or the result of coins being brought to him and acquiring a Bayeux provenance, is now virtually impossible to determine. However where cross-checking is feasible, for example with finds now in the MDASM, Rouen, his provenances appear to be genuine.

The same cannot be said for the other main antiquarian source of information in Normandy. The various works of Léon Coutil (in particular the five volumes on Eure, 1895-1925, and the inventory of finds in Calvados, 1927), are without exception riddled with errors. The same coin may be given up to three provenances, types are frequently assigned on the slightest resemblance to the illustrations of Henri de la Tour, and attributions are made without a hint of convincing evidence. All of these problems are combined in a style so careless and contradictory that at times it is impossible to extract the genuine information. However there is reason to be grateful that, however frustrating, at least these records exist, since the whereabouts of most of the coins recorded by Coutil and others are now unknown. Many were undoubtedly destroyed, lost or stolen during the Second World War and its aftermath.

The southern parts of the region had no equivalent to Lambert in the nineteenth and early twentieth century, although some areas benefitted from the interests of individuals including Pître de Lisle de Dreneuc (in and around Nantes) and Eugène Hucher (the Sarthe). The museums and their collections suffered less in the War, but the most important collections remain unpublished. This situation is shortly to be improved by the publication of the collection at Nantes (Santrot, pers.



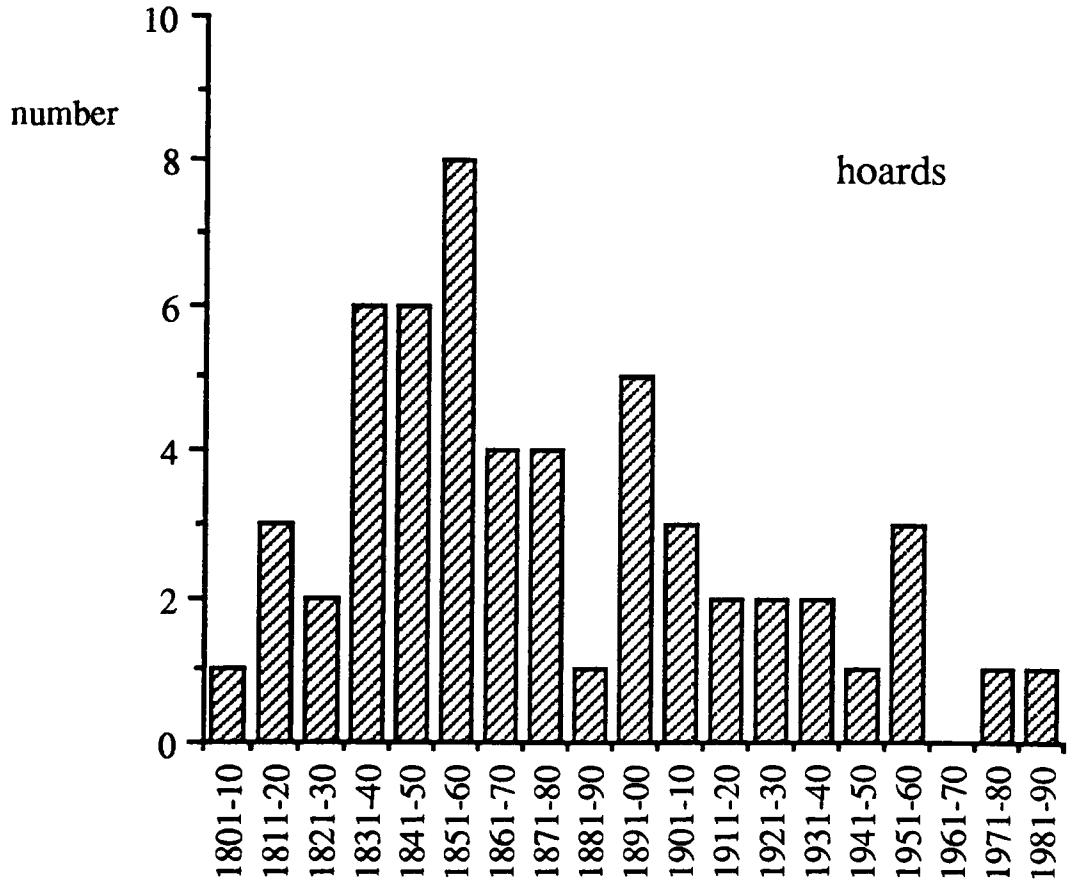


Figure 58. Frequency of coin finds, 1801-1990.

comm.). Some of the coins from Angers have been published (Aubin 1982a) and a small proportion of the remainder are accessible, but the collections of the Musée du Mans and the Musée de Mayenne have been unavailable to researchers for many years.

The consequence of this predominance of finds from the nineteenth century and the lack of modern publication is that the archaeologist must often rely on old information. Haselgrove (1987a, 11-12) stresses that "both archaeological context and cultural context are fundamental to the interpretation of *every* coin find"; we are a long way from that state of knowledge, but must make the best of what we have. Wherever possible, inconsistencies have been resolved, but in some cases this has not proved feasible. Therefore it is necessary to be aware that some provenances may not be genuine, and that some descriptions may be motivated more by the desire to see a certain image rather than the real presence of that image. These problems fortunately do not appear to be so great in north-west France that the following analyses are without reasonable foundation.

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7

Coins of the first phase

7.1 The prototypes

The first coins in north-west France were imitations based almost exclusively on the gold stater of Philip II of Macedon (359-336 BC), which was issued chiefly by his son, Alexander the Great (336-323 BC), and by his successors, Philip III Arrhidaios (323-316 BC) and Cassander (316-294 BC). This well-known coin shows on the obverse the wreathed head of Apollo, and on the reverse a two-wheeled chariot (*biga*) pulled by two prancing horses, driven by a charioteer holding a whip. In the exergue is the legend ΦΙΛΙΠΠΟΥ. The coin usually weighs between 8.5 and 8.6g, in gold of c. 95% purity. The most important issues appear to be those struck at Amphipolis (with a trident on the reverse) and Pella (with a *cantharos*) between about 323 and 315 BC (Le Rider 1977, 1).

As suggested in the previous chapter, the Philippus seems likely to have entered Gaul in the very late fourth or early third century BC, in the hands of mercenaries returning from service with the Greeks in the Mediterranean world. The distribution of the genuine article in Gaul is very limited,[1] which requires explanation, since the coin was clearly the source of inspiration for imitations several hundred kilometres from any known findspot. It does not appear in hoards, and its absence from most areas suggests that it was perhaps melted down for conversion into other "primitive valuables". There are really too few findspots to speculate on the distribution, although Scheers (1981b, 18) notes that three have been found near the coast (see Hiernard 1982, carte 8) and thus assumes that they could have come in through trading contacts with the Mediterranean and in particular Massilia. Otherwise the Danube may have been the route by which the stater entered Gaul, bearing in mind the concentration of early imitations in southern Germany and northern Switzerland (Allen 1974, 44; see below).

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1 the seven known findspots are Pons (Charente-Maritime), Méry-sur-Cher (Cher), Saint-Sylvain-Montaigut (Creuse), Landerrouat (Gironde), Avène (Hérault) and Buzançais and Feusines (Indre) (Hiernard 1982, 567-570). In addition, Allen (1974, 61) lists an original half-stater from Surat (Puy-de-Dôme).

There are a very few examples in north-west France of the use of early prototypes other than the stater of Philip II. Chief among these is a gold coin similar in design to the Philippus,[1] struck for Agathokles in Syracuse in the late fourth century BC. Nash (1987b) has discussed this coin and its earliest imitation, the "Western Gallic" stater BN 6422 (there are no known provenances; Nash 1978a, 108-109), and its influence on a group of later east Armorican coinages (BN 6418-6428; see section 7.2.4 below). Once again the prototype is likely to have been introduced through mercenary activity beyond Gaul (Nash 1987b, 658).

The same process of introduction has been posited for the Tarentine staters which provided the inspiration for the earliest coins in Belgica. The imitations seem to have been influenced by the Philippus or its imitations, particularly in the presence of the pseudo-legend; their slightly lower weight also suggests a rather later date than the stater of Philip II (Scheers 1981b, 18-20). None of these coins, or their derivatives, have yet been found in north-west France.

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1 the Syracusan coin has the wreathed head of Apollo on the obverse, and on the reverse a similar *biga* with a *triskeles* beneath it, and the legend SYRAKOSION in the exergue.

7.2 The imitations

7.2.1 Copies of the Philippus

Scheers (1981b, 23 n.10) has conveniently summarized the seven recognized areas in which the earliest imitations of the Philippus were produced. The five reasonably well located regions are in eastern France (with the AP monogram, thunderbolt, or ear of corn), in Jura and Doubs (with the Ammon-horned head), in central Gaul (AP monogram and bust), near the mouth of the Garonne (trident), and in southern Germany and northern Switzerland (mostly AP monogram and *cantharos*; Allen 1974). In addition there are two series with the *cantharos* of the Pella mint, "too widespread to be localized". These coins are characterized by their weight (above 8.10g) and their close resemblance to the Philippus. Small differences occur in the design and particularly in the reproduction of the legend, which is only rarely copied in its correct form.

There are nine provenanced examples of these earliest imitations in north-west France (table 26; figure 60.1-3).[1] They weigh between 8.28g and 8.50g and in most cases retain the design of the prototype (including the various symbols on the reverse), differing mainly in the copying of the legend. These coins do not form a coherent regional group, of the type listed by Scheers, but indicate that several varieties of the Philippus entered the region or were imitated there. The stater from Saint-Philbert-de-Grandlieu (44.95) is in fact the most northerly example of the Garonne estuary group (Nash's Sainte-Eanne gold group; 1978a, 64-67), with the trident on the reverse. The distribution of these coins (figure 59) shows two distinct groups, in Normandy and along the Loire; the implications of this will be discussed below (7.3).

The dating of the earliest imitations remains largely a matter for conjecture. If we are right in assuming that the Philippus mostly entered Gaul in the hands of returning mercenaries, it could have appeared soon after the earliest issues in the late fourth century BC. However if it is the case that it was

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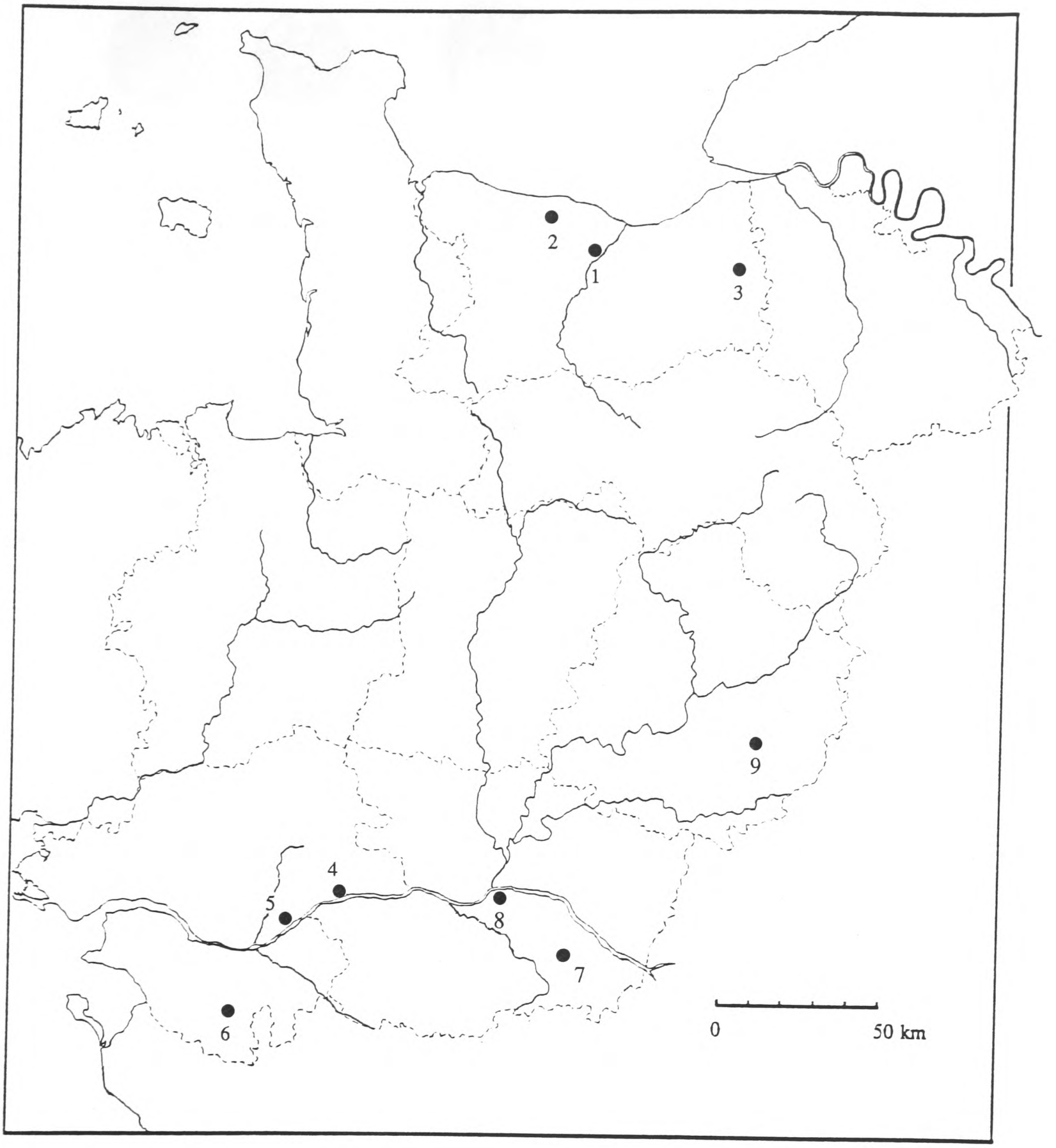
[1] a number of coins, mostly nineteenth century finds, are recorded simply as imitations of the Philippus. They are not included here because this label was often used to describe coins where the original inspiration of the stater of Philip II was recognized, but which were actually much later issues. However, for the sake of completeness, and bearing in mind that some may have been genuinely early imitations, the findspots are as follows: Beaufort-en-Vallée (49.11; no details); Beaupréau (49.14; no details); Chênehutte-Trèves-Cunault (49.40; electrum-plated coin, c. 3g); Juigné-sur-Loire (49.67; gold quarter stater). In addition, Bertin (1975b, 233) records a gold stater of Philip II from Ponts (50.22). This coin is not recorded elsewhere and given the unreliability of much of Bertin's information, could be a mistaken reference to the Philippus from Pons in Charente-Maritime.



1	Caen	14.11	6	St-Philbert-de-Grandlieu	44.95
2	Creully	14.24	7	Louresse-Rochemenier	49.68
3	Hermival-les-Vaux	14.28	8	Murs-Erigné	49.85
4	Ancenis	44.02	9	le Grand-Lucé	72.18
5	Mauves-sur-Loire	44.36			

Figure 59. Distribution of copies of the Philippus.

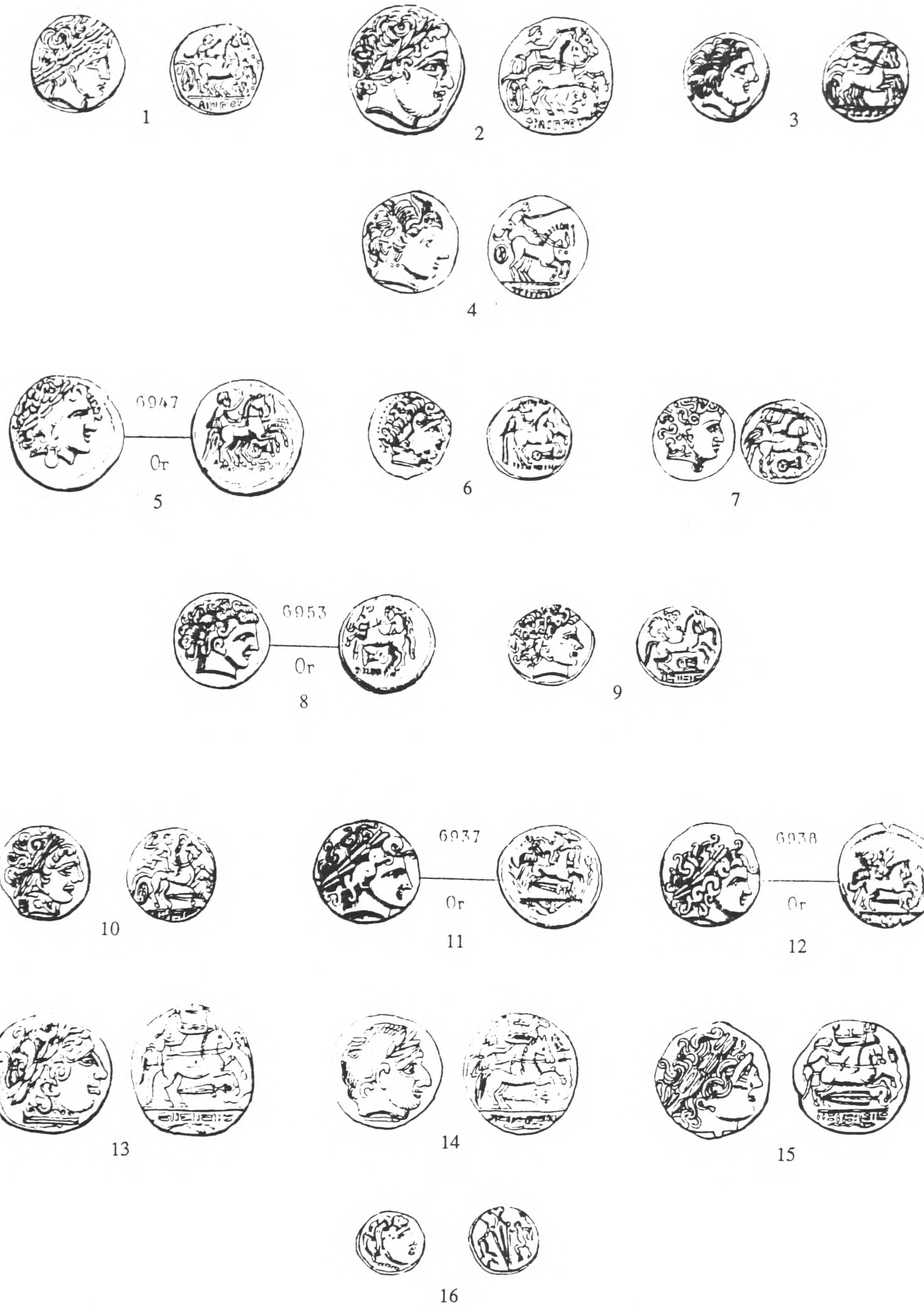


Figure 60 . Copies of the Philippus, and first phase coins of the Normandy group.

Philippus copies:	1: Caen (14.11; EL I, pl. XIbis.3); 2: Creully (14.24; EL II, pl. II.1); 3: Hermival-les-Vaux (14.28; EL II, pl. III.1).
transitional coin:	4: Bernay (27.06; EL I, pl. II.7).
lyre group:	5: Bayeux (transitional coin) (14.06; LT XX 6947); 6: Caen (14.11; EL I, pl. II.26); 7: Sommervieu (14.73; EL I, pl. II.5); 8: Beaumont-le-Roger (27.03; type LT XX 6953); 9: Le Lorey (50.15; EL I, pl. II.28).
transitional sword coin:	10: Le Mesnil-Mauger (14.43; EL II, pl. III.2).
double sword type:	11: Pouancé (49.94; type LT XX 6937); 12: Lisieux (14.39; type LT XX 6938).
ship and sword type:	13, 14: Etreville-en-Roumois (27.27; EL II, pl. II.13-14); 15: Silly-en-Gouffern (61.46; EL I, pl. II.25).
Falaise sword type:	16: Falaise (14.26; EL I, pl. II.17).

imitated only when the original became scarce, following the curtailment of opportunities for mercenary activity in about 260 BC, then a date in the second half of the third century seems more likely. It is currently impossible to say precisely when this occurred.

gaz. no., commune		denomination	weight	remarks
14.11	Caen	half stater	4.16g	*cantharos*? ΛΙΠΠΟΥ
14.24	Creully	stater	8.28g	AP; +ΙΛΙΠΠΟΥ
14.28	Hermival-les-Vaux	quarter stater	-	stylized legend
44.02	Ancenis	stater	8.50g	AP; thunderbolt ΦΙΛΙΠΠΙΟΙΥ
44.36	Mauves-sur-Loire	stater	-	legend present, not recorded
44.95	St-Philbert-de-Grandlieu	stater	8.35g	trident; +ΙΛΙΠΠΟΥ
49.68	Louresse-Rochemenier	stater	-	ΦΙΛΙΠΠΟΥ
49.85	Murs-Erigné	quarter stater	2.10g	single horse; remains of legend
72.18	le Grand-Lucé	stater	8.32g	stylized corn ear; ΛΙΠΠΙΝΟ

Table 26. Copies of the Philippus in north-west France.

7.2.2 The Normandy group

Within the small group of coins discussed above as the earliest imitations of the Philippus, there are already signs of development away from the prototype. For example, the quarter stater from Hermival-les-Vaux (14.28; figure 60.3), though retaining the two horses of the prototype, shows a stylized legend with no resemblance to the original inscription, and may legitimately be classed among the earliest "Second-Generation Copies" (Allen 1980, 71). These developments appear to have been concentrated in what is now lower Normandy. Three other coins from this area may also represent the transitional phase towards a design which, though echoing the Philippus, began to include new or modified motifs. The half staters from Bayeux (14.06; figure 60.5) and Bernay (27.06; figure 60.4) are slightly lighter, at 4.05g and 4.04g respectively, than the first phase of imitations. On the Bernay coin the legend has become heavily stylized, and the details of the charioteer and the horses are less precisely rendered. The reverse of the Bayeux coin is more faithful to the Philippus, but marks a new development with the incorporation of a lyre beneath the horse, and apparently another at the base of the neck on the obverse. The third transitional coin is a quarter stater from le Mesnil-Mauger (14.43; figure 60.10), weighing 2.07g. This is a fairly accurate reproduction of the Philippus, but the legend is

very stylized and rather than a lyre, there is a horizontal sword beneath the horse. Several types featuring these motifs occur in Normandy (table 27).

i) the lyre type (LT XX 6949, 6953-6954) (figure 60.6-9)

The motif of the lyre can be used to identify a group of half and quarter staters clearly localized in lower Normandy. At least six of these coins have been found in Calvados, Eure and Manche. The quarter staters weigh between 1.91g and 2.02g, with most examples at the upper end of this range; the BN example (6949), at 1.67g, is unusually light. On the obverse the laurel wreath has largely disappeared. On the reverse the legend becomes a decorative arrangement of dashes, or disappears altogether, while the horizontal lyre maintains its position beneath the single horse. The treatment of the charioteer varies. In two cases (Beaumont-le-Roger and le Lorey) he squats above the back of the horse, while on the other four coins the figure is closer in style to the original, but holds an object sometimes termed a key (*à la clef* - eg Scheers 1984, 377) above his head. This motif recurs later in the development of coinage in this region (section 9.9).

ii) the sword types (figure 60.11-16)

The development of the sword motif is considerably more complex. There are at least three varieties of early coins in the Normandy region which feature this motif, but their typological relationships and relative chronology are far from clear. If we are correct in viewing the quarter stater from le Mesnil-Mauger (14.43; figure 60.10) as a transitional coin, one of the very earliest designs showing independently introduced elements, then succeeding issues might be expected to show some of the characteristics of this design while declining slightly in weight.[1] The best candidates for such an issue are the gold staters BN 6937 and 6938 (3.95g and 4.21g respectively), which show a purely decorative motif in the exergue, the sword in the same position beneath the horse, and another short sword in the right hand of the charioteer. These coins are described here as the double sword type (figure X2.11-12). Two examples have been found in north-west France, at Lisieux (14.39; type LT XX 6938) and Pouancé (49.94; type LT XX 6937), unfortunately without recorded weights. The weights of the

[1] the BN example of this type, 6932, is equivalent to a stater of 8.40g, which provides further support for the early date of this coin.

gaz. no., commune		denomination	weight	remarks
transitional coins:				
14.06	Bayeux	half stater	4.05g	with lyre; LT XX 6947
14.43	le Mesnil-Mauger	quarter stater	2.07g	with sword; type LT XX 6932
27.06	Bernay	half stater	4.04g	stylized legend
lyre type:				
14.11	Caen	quarter stater	1.91g	with key; type LT XX 6949
14.51	Planquery	quarter stater	1.96-2.02g	with key; type LT XX 6949
14.73	Sommervieu	quarter stater	1.96-2.02g	with key; type LT XX 6949
27.03	Beaumont-le-Roger	half stater	-	type LT XX 6953
50.15	le Lorey	quarter stater	2.02g	type LT XX 6954
50.25	Sainte-Marie-du-Mont	quarter stater	-	with key; type LT XX 6949
double sword type:				
14.39	Lisieux	stater	-	type LT XX 6938
49.94	Pouancé	stater	-	type LT XX 6937
ship and sword type:				
14.11	Caen	half stater	-	type BN 6927-6929
14.48	Norolles	half stater	-	type BN 6927-6929
27.27	Etreville-en-Roumois	half stater	3.56g	type BN 6927-6929
27.27	Etreville-en-Roumois	half stater	3.82g	type BN 6927-6929
61.46	Silly-en-Gouffern	half stater	3.61g	type BN 6927-6929; silver
Falaise sword type:				
14.19	Cesny-Bois-Halbout	quarter stater	-	type LT XX 6943
14.26	Falaise	half stater	4.18g	BN 6942
14.26	Falaise	quarter stater	2.07g	type LT XX 6943
61.45	Sevigny	quarter stater	-	type LT XX 6943
bird and cauldron type:				
14.11	Caen	half stater	4.15g	type LT XX 6950
14.11	Caen	quarter stater	2.03g	type LT XX 6951

Table 27. Provenances of the Normandy group of early coins.

BN examples are too disparate to be of much assistance in determining the relative chronology of this small group; we shall return to this problem after examining the other sword types.

Close in style to the preceding group are a number of half staters which share the sword beneath the horse, but which show the charioteer holding a ship in his right hand (hence to be recognized as the ship and sword type; figure 60.13-15). This typologically clearly differentiated group show a disarmingly wide range of weights, from 3.32g (BN 6929) to 4.05g (BN 6927); the three examples with known weights in north-west France are 3.56g, 3.61g and 3.82g. The heaviest coin, corresponding to a stater of 8.10g, has the remains of the legend of the prototype (LT XX 6927), suggesting that this was another of the early second generation copies. However the range of weights, and the fact that one coin (Silly-en-Gouffern (61.46), 3.61g) is recorded as silver (EL I, 121 pl. II.25), suggest that production of this type took place for much longer than the first phase alone; the weights of all the coins except for BN 6927 correspond to staters of 6.64-7.64g, which places these issues early in the third phase of coinage. However the designs do not show the degree of development which would normally be expected over such a long period of production; even the silver coin retains the decorative 'legend' in a form very similar to earlier gold coins (eg the unprovenanced example illustrated by Lambert: EL I, pl. II.23). Various explanations may be suggested to account for the development of this type. It has been suggested that some of the early Normandy coinages were produced to the weights of Syracusan coins (30, 40 or 50 litrae pieces between about 2.10g and 2.90g, or the drachm at c. 4.25g), rather than the Philippus or its divisions (Nash 1987b, 657). This implies a slightly lower starting weight for imitations, which is appropriate to the BN 6927 coin, but is insufficiently dissimilar from the weights of the stater divisions to provide a better explanation for the much lighter coins later in the series. However the possibility that units other than the stater or its divisions were in use is worth bearing in mind with respect to many of the coins discussed in this chapter.

Perhaps the most likely explanation is that the bulk of the coins are later imitations of the heavy BN 6927 example, itself produced in the first phase of coinage. The gap in weights between this coin and the remainder may thus reflect a gap in production; it seems very unlikely that the type was produced continuously, with so little typological development, between the late first phase (early second century BC?) and the early first century BC suggested by the lower weights. In the absence of

useful information on relative chronology furnished by hoarded examples,[1] the suggested development of this type remains to be confirmed.

The third variation of the sword type is a curious group of quarter and half staters, clearly localized in the region of Falaise in southern Calvados and thus termed the Falaise sword type.[2] These coins are characterized by a reverse dominated by a vertical sword, accompanied to the right by a figure holding an undulating line, and to the left by a complex motif of lines sometimes interpreted as a horse harness (figure 60.16). The weights of two provenanced examples are known, equivalent to staters of 8.36g and 8.28g (both from Falaise, 14.26; examples in the BN are equivalent to staters of 8.06g (6941), 7.36g (6943) and 8.20g (6944)). This suggests early production, perhaps beginning around the same period as the transitional coin from le Mesnil-Mauger (above). The few known weights of these two varieties are too close to be of real use in determining their relative chronology, and resolving whether one type inspired the other or whether both were produced at much the same time. However a date late in the third century BC seems likely for this type. The design on the reverse will be encountered again, in another well located group of early coins from along the lower Loire (7.2.3).

iii) the bird and cauldron type (LT XX 6950-6951) (figure 62.1-2)

A further type of coin probably of the first phase may have been produced in Normandy. A half stater and a quarter stater are recorded from Caen, both now in the BN: 6950 (4.15g) and 6951 (2.03g) respectively. Both coins show a detailed imitation of the head on the obverse, apparently without a wreath; on the reverse the charioteer has been replaced by a bird perched on the back of the horse, beneath which is an object, perhaps a cauldron. There is a stylized legend in the exergue. The style of the reverse, in particular, may be linked to an unprovenanced gold stater (LT XXVII 6421A) which Nash has suggested (1987b, 658) to be inspired by a coin of the Syracusan king Agathokles, issued in the late fourth century BC. The two coins from Caen are perhaps slightly later than BN 6421A, given that there is no attempt to replicate the Syracusan legend imitated on the latter coin.

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[1] the silver Silly-en-Gouffern (61.46) coin was reputedly found in a huge hoard of Roman coins, dated between 54 and 192 AD; the other examples are all isolated finds.

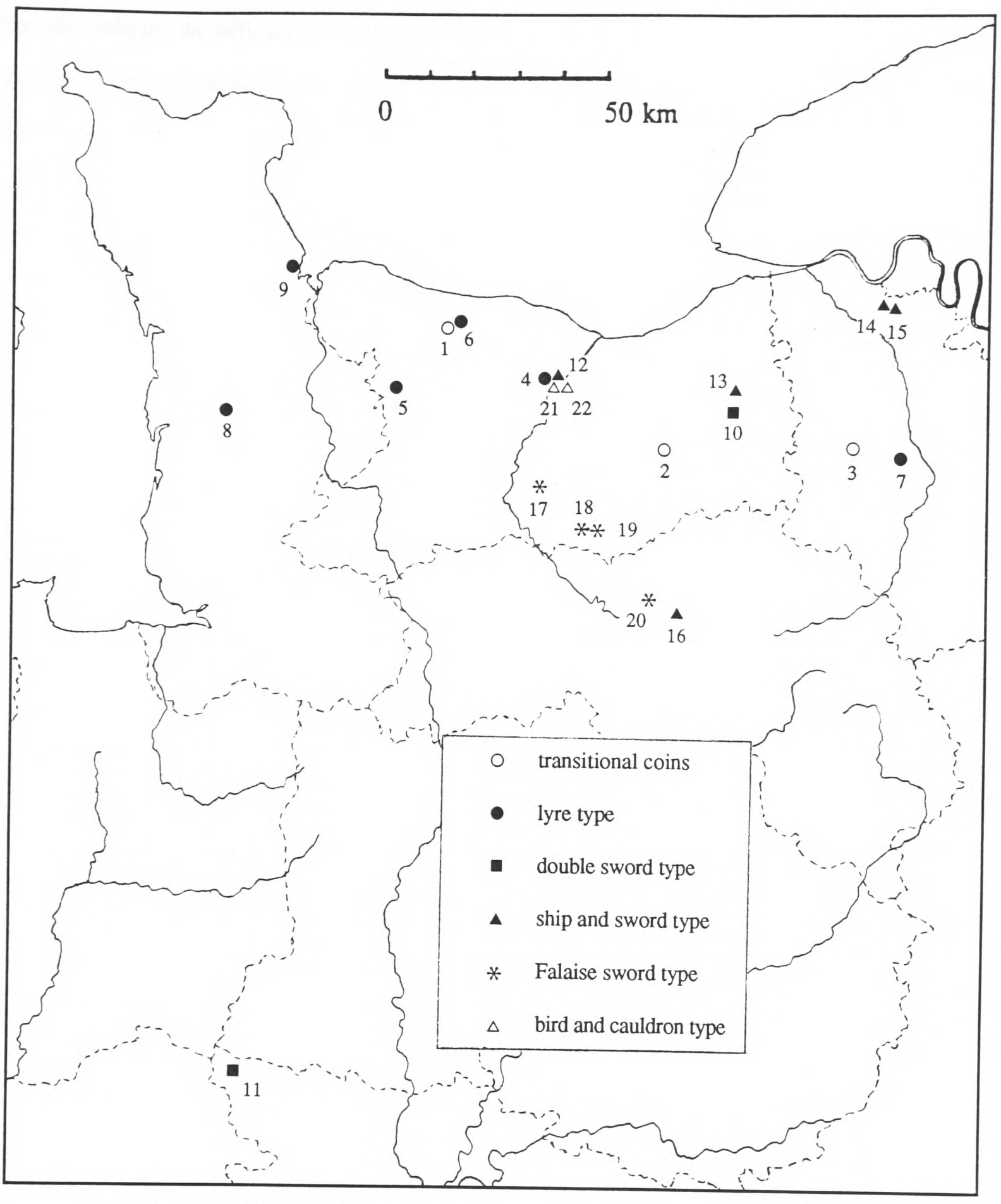
[2] in most cases it is probably not wise to define a type such as this by a place-name, since this suggests that that place was the origin of the coins. However in this instance the distribution around Falaise is so marked that it seems a logical term for the type; it is not intended to suggest that the coins were necessarily produced there.

Nash has observed (ibid.) that details of these early imitations were carried over to later east Armorican coinages (BN 6418-6428); at least two examples are recorded in north-west France (see 7.2.4 below). The attribution of the bird and cauldron type rests solely on these two coins from Caen; it is not clear exactly how this type fits in with the other early Normandy coinages, but the weights suggest that it was another very early independent development away from the Philippus. A possible link to the sword types exists through LT XX 6931 (unprovenanced), which portrays the cauldron, horse and simulated legend in a style very similar to LT XX 6950, but has the more familiar charioteer holding a sword.

The table below compares the frequency of weights for the varieties of the Normandy coinage described above, and by way of comparison the group of close imitations of the Philippus found in north-west France.

	A	B	C	D	E	F	G
8.50-8.59g	/						
8.40-8.49g	/			/			
8.30-8.39g	///					/	/
8.20-8.29g	/	/	//			//	
8.10-8.19g	//				/		/
8.00-8.09g			/			/	
7.90-7.99g			//	/			
7.80-7.89g							
7.70-7.79g							
7.60-7.69g			/		/		
7.50-7.59g							
7.40-7.49g					/		
7.30-7.39g						/	
7.20-7.29g					/		
7.10-7.19g					/		
7.00-7.09g							
others			6.68g		6.64g		

Table 28. Distribution of weights of close imitations of the Philippus and coins of the Normandy group.
A: first imitations of the Philippus
B: transitional coins
C: lyre type
D: double sword type
E: ship and sword type
F: Falaise sword type
G: bird and cauldron type
/represents one coin. Weights of half staters have been doubled, quarter staters quadrupled. The column for imitations of the Philippus includes the weights only of coins with a north-west French provenance. The other columns include provenanced north-west French examples and other coins of the same type in the BN, without provenances.



1	Bayeux (lyre transition)	14.06	12	Caen	14.11
2	le Mesnil-M. (sword tr.)	14.43	13	Norolles	14.48
3	Bernay	27.06	14	Etreville-en-Roumois	27.27
			15	Etreville-en-Roumois	27.27
4	Caen	14.11	16	Silly-en-Gouffern	61.46
5	Planquery	14.51			
6	Sommervieu	14.73	17	Cesny-Bois-Halbout	14.19
7	Beaumont-le-Roger	27.03	18	Falaise	14.26
8	le Lorey	50.15	19	Falaise	14.26
9	Sainte-Marie-du-Mont	50.25	20	Sevigny	61.45
10	Lisieux	14.39	21	Caen	14.11
11	Pouancé	49.94	22	Caen	14.11

Figure 61. Distribution of the Normandy group of first phase coins.

The table indicates the difficulty of resolving the relative chronology of most of these series. Only the ship and sword type stands out as being significantly later than the other varieties, which seem to have flourished at roughly the same period - perhaps in the last quarter of the third century BC, or the early years of the second century BC. Some support for this may be present in the pattern of finds (figure 61), which suggests mutually exclusive distributions for the lyre type (six out of seven examples, including the transitional lyre coin, in north-west Calvados and east central Manche), the Falaise sword type (already mentioned) and, although it is suggested to be rather later, the ship and sword type (eastern Calvados, northern Orne and the western part of Eure). For the time being the nature of the societies that produced these coins remains unknown; the similarities in design, particularly among variations of the sword motif, indicate that contact took place between the groups or individuals that issued them. There is certainly no justification in attempting to attribute them to tribes present two centuries later.

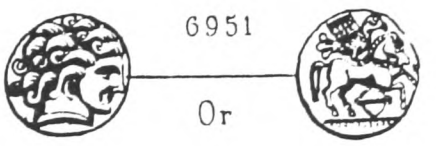
7.2.3 The Loire group (LT XX 6721-6722) (figure 62.3-4)

Outside lower Normandy, coin production in the first phase seems to have been confined almost exclusively to the region of the lower Loire (figure 63). At least ten examples of these remarkable gold quarter staters have been discovered in this area, from Craon in southern Mayenne to Cholet on the southern border of Maine-et-Loire (table 29).

gaz. no., commune		denomination	weight	remarks
44.02	Ancenis	quarter stater	2.12g	BN 6721
44.02	Ancenis	quarter stater	2g	type LT XX 6721
44.02	Ancenis	quarter stater	2.04g	near type LT XX 6721
49.27	Challain-la-Potherie	quarter stater	-	type LT XX 6721; in hoard?
49.39	Chemillé	quarter stater	-	type LT XX 6722
49.42	Cholet	quarter stater	-	type LT XX 6722
49.88	le Pin-en-Mauges	quarter stater	-	type LT XX 6721
49.118	la Seguinière	quarter stater	-	type LT XX 6721
49.121	la Tessouale	quarter stater	-	type LT XX 6722
53.14	Craon	quarter stater	-	type unknown

Table 29. Provenances of the Loire group of first phase coins.

1



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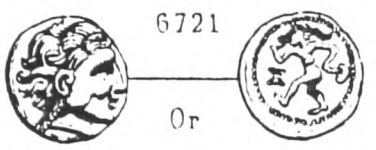

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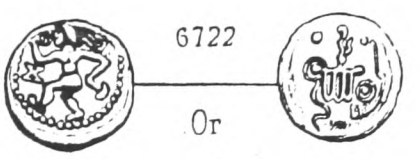

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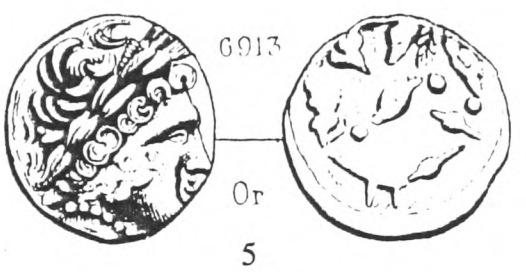

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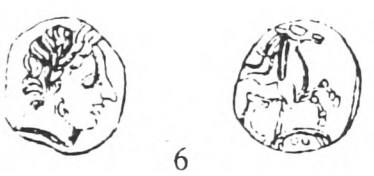

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Figure 62. First phase coins from the lower Loire and other areas.

bird and cauldron type: 1: Caen (14.11; LT XX 6950); 2: Caen (14.11; LT XX 6951).
Loire type: 3: Ancenis (44.02; LT XX 6721); 4: type LT XX 6722.
other types: 5: Angers (49.08) and Craon (53.14): type LT XXIV 6913; 6: 'Anjou' (49.129, type LT XX 6424; EL I, pl. II.16); 7: Falaise (14.26; EL I, pl. II.22); 8: Bayeux (14.06; EL I, pl. II.27); 9: Ecouché (61.20; EL I, pl. II.3); 10: Le Mans (72.22; EL I, pl. VI.18).

There are two types. The more common, LT XX 6721, has on the obverse the wreathed head of Apollo, and on the reverse a naked figure running to the left, holding a sort of baton in its right hand and an object in its left which may be a knife, hammer or razor. In front of this figure is a symbol, X, sometimes interpreted as an altar or an anvil, but which has recently been accorded an entirely different meaning, discussed below. On the less common variety of this coin (LT XX 6722), the head is replaced by a motif which bears an extraordinary resemblance to the design on the reverse of the Falaise sword type (see above). On these coins the image has degenerated slightly: the elements of the sword handle have separated into dots, and the design of the blade has developed from a realistic interpretation into a motif in which the hilt is still visible, but where the blade has been shortened and rounded. To the right of the sword the figure on the Falaise type has been replaced by a circle, but the undulating line on the extreme right, common also to all the varieties of the Normandy sword types, remains. To the left of the sword the possible harness is much the same on both types.

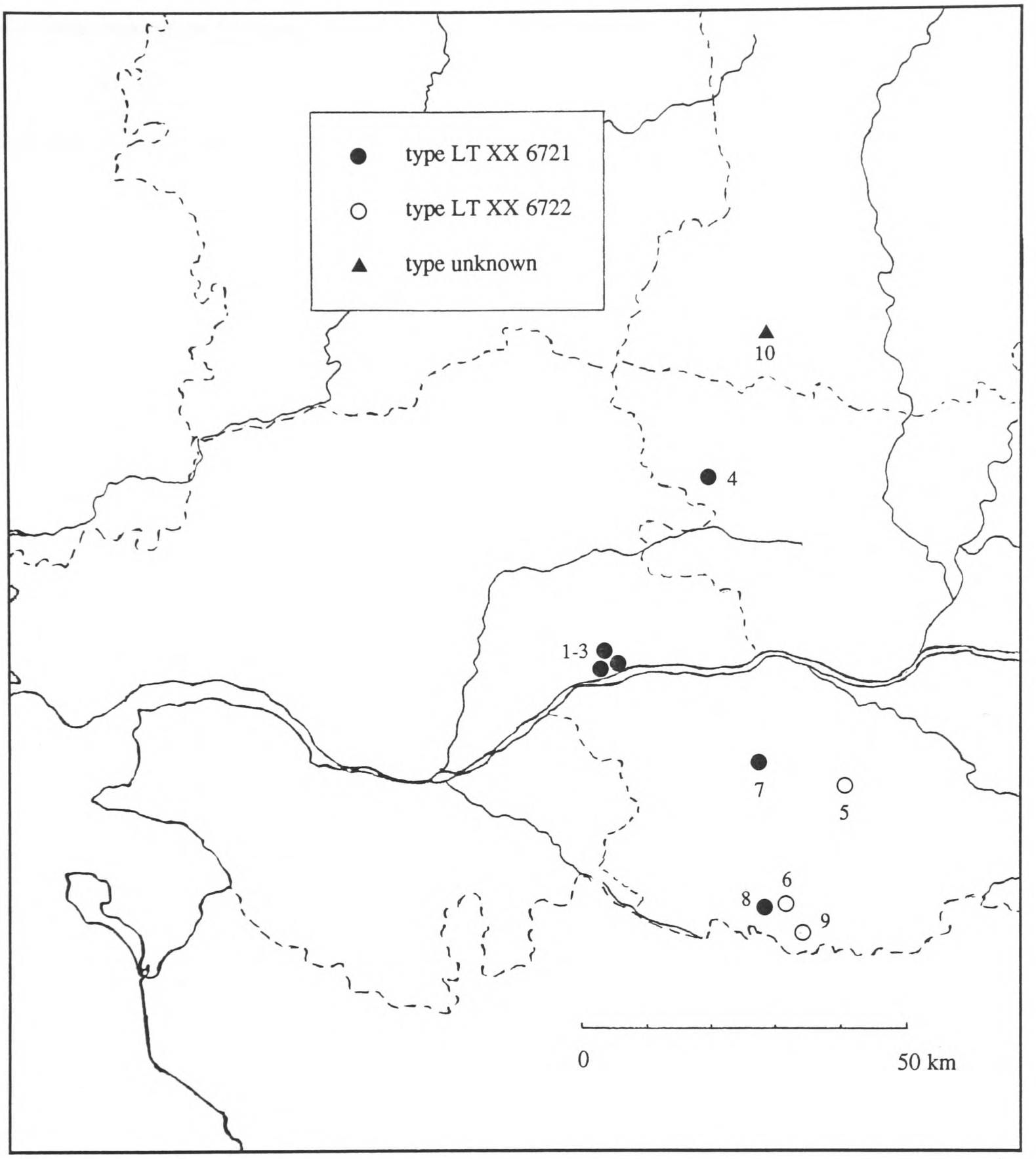
Only three of these coins have recorded weights (plus the unprovenanced BN 6722, at 1.96g), all of which indicate an early date of production. The source of inspiration for the running figure remains uncertain, since no definite parallels have been discovered (Hiernard 1982, 515; but see 7.2.4 below), and thus it is possible that it was an entirely indigenous development. The similarity between the sword motif of LT XX 6722 and the Falaise sword type is such that one must either search for a common prototype, which has not yet been recognized, or assume that there was at some point some interaction between the two production areas. The nature of this interaction is uncertain, but a number of options may be suggested. At this period of the Iron Age, the possibility of a small-scale migration cannot be ruled out, presumably from the Normandy area to the south, since although the weights of the coins are very similar, the Loire group appear to show a degenerate version of the Falaise sword. Such a movement need not have originated in Normandy; coins could have been brought to the south by another group with access to them, either by passing through Normandy or neighbouring areas, or obtaining them in exchange. It is perhaps in processes of exchange that the more likely reason for the development of the Loire design lies. At some point, presumably after the production of the LT XX 6721 type,[1] valuable goods may have been exchanged by chieftains in the different regions, including

[1] although there are only a few examples of type LT XX 6722, and the single BN weight of 1.96g, it seems that either 6722 followed 6721 in production, or they may have been contemporary.

coins or dies, inspiring the reproduction of a new design in the region of the lower Loire. That some exchange took place between these two areas is supported by the find in Pouancé (49.94) of the only example of the early Normandy coinage to be found outside that region; Pouancé is within the sphere of distribution occupied by types BN 6721-6722.

These coins have recently been discussed by Hiernard (1982, 511-516), who has associated them with the enigmatic port of Corbilo, mentioned in Strabo's *Geography* (IV, 2, 1: "Formerly there was an emporium on this river [Loire], called Corbilo...") which he suggests from the distribution of this type was located at Ancenis or on the opposite bank of the Loire, perhaps at Liré (Maine-et-Loire). This remains to be confirmed by archaeology. Hiernard (ibid., 514) has suggested that the coins themselves were issued for "l'usage exclusif et local des habitants..." by Gaulish merchants from Narbonne, who set up a trading post here probably connected with the importation of tin from south-west England. He argues, admittedly with reservations, that the symbol in front of the running figure is the Iberian letter ko, the initial of Corbilo, and that this appeared on the coins as the result of the presence of traders from Narbonne in the lower Loire region, who were familiar with the Iberian script. A great many objections to this view can be raised. In the first place, Hiernard's argument is effectively circular: the presence of the coins is used as evidence for the existence of Corbilo, which provides the raison d'être for the coins. There are no other examples of Iberian script further north than Landes and Aude (ibid., 513), and the functions of the traders from Narbonne could have been performed by local inhabitants. In addition, the idea that the coins were created for the use of the inhabitants of this *comptoir* (literally a foreign exchange or bank, or trading agency) runs counter to most conceptions of the function of coinage during this early period (see 6.1 above). The association with Corbilo is attractive, but there are considerable difficulties in accepting such a link on the basis of the present evidence, with regard to both the functions of the coins and to the archaeology, which has yet to provide any indication of the existence of this settlement.

Hiernard suggests (ibid., 527) a date in the second half of the third century BC for this type. With so few weights it is difficult to estimate the relative chronology, but it could equally be early in the second century BC.



1-3	Ancenis	44.02	7	le Pin-en-Mauges	49.88
4	Challain-la-Potherie	49.27	8	la Seguinière	49.118
5	Chemillé	49.39	9	la Tessouale	49.121
6	Cholet	49.42	10	Craon	53.14

Figure 63. Distribution of the Loire group of first phase coins.

7.2.4 Other coins of the first phase

A few less well-understood coins are recorded from north-west France, which to judge by their weight and/or their design, probably belong to the first phase of coinage (table 30).

gaz. no., commune		denomination	weight	remarks
14.06	Bayeux	half stater	4.09g	electrum; three axes on R/
14.26	Falaise	half stater	4.04g	figure with sword on R/
44.17	Clisson	quarter stater	2.08g	type LT XXVII 6424
49.08	Angers	stater	8.38g	type LT XXIV 6913
49.129	'Anjou'	quarter stater	1.96g	type LT XXVII 6424
53.14	Craon	stater	7.97g	type LT XXIV 6913
53.14	Craon	stater	8.20g	type LT XXIV 6913
53.14	Craon	stater	-	type LT XXIV 6913
61.20	Ecouché	quarter stater	2.02g	-
72.22	le Mans	quarter stater	2.02g	-

Table 30. Provenances of other first phase coins.

i) type LT XXIV 6913 (figure 62.5)

Four examples of this gold stater have supposedly been found in north-west France, at Angers (49.08; Aubin 1982a, 4) and near Craon (53.14), but the provenances of all are doubtful, and in particular the three from Craon (Aubin 1984, 51 no. 15). The obverse shows a reasonably good imitation of the head of Apollo, but is distinguished by the presence of a wavy line running from the back of the neck across the cheek to the area between the nose and the lips. This feature has also been noted on a group of staters from Switzerland (Allen 1974, 46), although it is more finely drawn on this latter group. Interpretations offered range from a cracked die, to an elm twig or a snake, to some kind of symbolic barrier shielding the face from direct view. The weights of the examples in north-west France (8.38g for Angers; 7.97g and 8.20g for two of the Craon coins) indicate an early date; the reverse is of little use in confirming this dating since no design is visible, but instead an indecipherable pattern of dots and streaks. The reverse of the similar coins discussed by Allen shows an early imitation of the Philippus, with the remains of the legend still present. It is not clear if the obliterated reverse of the north-west French coins was deliberate, or the product of a damaged die. As with the Swiss examples, sone of these coins are much lighter than the typical first phase coin (eg BN 6913, 7.00g), and must be regarded as later issues; the presence of the same reverse suggests that its indecipherability was

intentional. There are not enough findspots to suggest an attribution or a place of origin for these coins.

ii) type LT XXVII 6424

This type is one of a series of early east Armorican coinages, of which only a few provenanced examples are known. In north-west France, the only finds are one or possibly two quarter staters from Clisson (44.17), and another recorded simply as from Anjou (49.129; figure 62.6). The ultimate inspiration for this type may be the Syracusan issues discussed by Nash (1987b, 658); the weights of these examples, corresponding to staters between 7.84g and 8.32g (the BN examples correspond to 7.80g and 8.08g), suggest that they were produced in the first phase of coinage, perhaps at the end of the third century BC or early in the second century BC. No attribution is feasible on the basis of so few findspots.

iii) unidentified types

At least four coins are recorded in Lambert's first *Essai* (1844) which by their weights should belong to the first phase, but are of unrecognized types (figure 62.7-10). Potentially the most significant is a gold half stater from Falaise (14.26), weighing 4.04g, which may provide another link between the Falaise sword type and the coins from the lower Loire (BN 6721-6722). This coin (figure 62.7) has an early imitation of the head of Apollo on the obverse, and on the reverse a figure running to the right with the characteristic Normandy sword apparently turned on itself (in Lambert's drawing (I, pl. II.22) this part of the design is obliterated; Hucher (I, pl. 4.2) illustrates the same coin in a considerably more flamboyant and probably rather less realistic style, in which the whole sword is visible). Branching from the hilt of the sword are the equally characteristic wavy lines, terminating in what appear on Hucher's drawing to be buds or leaves. The interpretation of the right hand and its contents is difficult. On Lambert's drawing there appears to be some sort of curved object in the hand, similar to the design on BN 6721-6722, while Hucher has portrayed the hand as holding the final twist of the figure's long, flowing hair. The portrayal of the hair is another feature linking the coins of the two areas.

The Falaise coin, now lost, appears to be the only known example of the type. Its weight is proportionately slightly lighter than the coins from the lower Loire, but there is no reason to suggest influence operating in the opposite direction to that surmised above (7.2.3); the wreath disappears on the BN 6721 type, and the complex pattern of hair lock and earring on the Falaise coin may have been simplified into the ear on the Loire coins.

The other coins are still less well understood. A half stater from Bayeux (14.06; figure 62.8), weighing 4.09g according to Lambert and 3.87g according to Hucher, described as electrum, may be of the first phase of imitations. The two illustrations (EL I, pl. II.27 and EH I, pl. 11.2) differ considerably, with Lambert's suggesting a much more carefully engraved design; it is possible that at least two examples existed (Colbert de Beaulieu 1973a, 181-182 n.242; Lambert (EL I, 156) also records a half stater from Planquery (14.51) with a reverse described as a rider holding an axe, which may be of this type). The obverse is a good imitation of the head of Apollo, possibly with a wavy line beneath the neck. On the reverse the charioteer, drawn in the style of other early Normandy coins, carries an axe in his right hand; there are two more axes, in front and beneath the horse. There is no sign of any legend or other decoration beneath the horse and lower axe. No similar coin has been recognized; the motif of the axe does not appear again on coins in Normandy or elsewhere in north-west France. The possibility remains that this coin, the whereabouts of which are unknown, is not genuine.

The final two coins are both gold quarter staters, each weighing 2.02g. From Ecouché (61.20; figure 62.9) is a coin with an apparently late design of the head - the lips are in the form of dots, and the hair represented by several long strokes - and on the reverse a horse heading right, but with its head and neck turned back over its shoulder, facing left. Once again there are no recognized early parallels. From le Mans (72.22; figure 62.10) is a quarter stater with a good imitation on the obverse, and on the reverse a winged horse with a curiously spiky head, and a circle with a dot in its centre beneath the horse. The significant features on this coin are the winged horse, which appears on later coins from this region, often attributed to the Aulerci Cenomani (section 8.2.1), and the "head of Helios" motif beneath the horse, which has parallels to early coins from the region of Switzerland and southern Germany (Nash, pers. comm.).

7.3 Summary

The most striking feature of the first phase coinages in north-west France is undoubtedly the presence of two very clearly demarcated areas of distribution, in lower Normandy (in a region defined to the south by the collines de Normandie in the west, and the hills of the Perche in the east), and in the zone between Craon and Cholet, mostly in western Maine-et-Loire. This polarized distribution is present from the very first stage of development - the close imitations of the stater of Philip II - and persists throughout the phase, as new motifs are introduced and the style becomes characteristically Celtic. Several reasons may be suggested to account for this pattern.

If the hypothesis of mercenary activity as the primary conduit of the Philippus and a few other types of coin into Gaul is correct, then it follows that the areas in which these coins are found supplied the mercenaries; these may have been warrior societies, although Nash (1987a, 102) has suggested that the lower Normandy inhabitants were oriented primarily towards trade - witness the coins portraying a ship. However one can equally argue that adoption of the sword motif, which is common to most of the early Normandy coinages, could be indicative of a concern with military activity - as could the ship. The hypothesis of trading activity as the spur for coinage development is probably more appropriate for the Loire group of early coins, despite the current lack of archaeological evidence for the existence of Corbilo or any other significant settlement of the period.[1] In both regions it seems unlikely that the coins were used in trade or exchange, given their clearly demarcated and relatively limited areas of distribution; instead they may have functioned predominantly as a means of storing and distributing wealth. Nevertheless it seems almost certain that there was contact of some sort between the two areas, in particular between the Falaise region and the lower Loire. The presence of one Normandy coin amongst the Loire group is not sufficient to confirm this link, but the reproduction of the sword on the later Loire issue (BN 6722), and perhaps even the inspiration for the running figure, seem to have come from the Falaise coins.

Quite how these connections came about, and how they functioned, remains very unclear. Perhaps there was exchange of gifts between chieftains of these areas - not necessarily of coins, but

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[1] Hiernard (1982, 569) records two possible Greeks coins from le Fief-Sauvin (49.52) and Saint-Quentin-en-Mauges (49.111) which may be further indication of a trading connection in this period.

perhaps of dies, or simply a situation in which coins could have been examined and later imitated. The possibility of migration from one area to the other cannot be ruled out. It is equally unclear why groups in other areas of north-west France, including those on the route between the north and the south - perhaps the valley of the Mayenne - did not adopt coinage during this phase. Presumably these societies were oriented differently, probably without extensive external trading contacts and without the same tradition of mercenary supply as the groups to the north; differences must have also existed in the choice of means to store wealth, exchange gifts and so on, and at this stage coinage was simply not chosen as a viable means of performing these functions.

The dating of this phase is extremely difficult, mainly because the introduction of the Philippus into Gaul could have occurred over a span of forty years or more, and there is little evidence on the date of the first imitations. If we accept that these were produced after the cessation of most mercenary activity, then they are likely to date from c. 250 BC. The remaining first phase issues may have been produced entirely within the second half of the third century BC, but could have persisted into the early second century BC. Most of the types in Normandy were perhaps produced at roughly the same period by competing chieftains, in the later third century BC; the Loire group and the ship and sword type were probably the latest issues in this phase.

8

Coins of the second phase

The coins of this phase retain some of the basic elements of the stater of Philip II, in particular the head and the horse, but at the same time introduce and develop new motifs, and begin to portray the designs in an entirely Celtic style. The weights decline slightly, to a level usually between about 7.60g and 8.00g, as the proportion of metals other than gold in the alloy increases. Several of the regional groups present in north-west France at this period continue into the third phase; the later issues will also be discussed in this chapter, rather than being inconveniently split into two artificially divided phases.

8.1 East Armorican armed rider coinages

These coins have recently been discussed by Scheers (1984), and in view of this will only be summarized here. She has identified four main classes sharing (in various forms) the horserider on the reverse bearing one or more weapons: the series *au foudre* (thunderbolt), and three varieties of the series *à la lyre*. Her classification will be followed in this brief discussion of the types; full details of the small differences in design of the lyre types can be found in her paper. The distribution of these coins will be considered at the end of this section.

8.1.1 The series *au foudre* (LT XXII 6756)

This type is distinguished primarily by the ornament beneath the horse, commonly termed a thunderbolt. The naked female horserider carries an oval shield in her left hand, and a spear in her right (figure 64.1-2).[1]

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[1] Scheers (1984, 360) interprets a globule at the base of the stomach of the rider, coupled with the breasts, as evidence that the figure is hermaphroditic. However the globule need be no more than a rounded belly (see EH I, pl. 53.1).

Figure 64. East Armorican armed rider coins.
type *au foudre*: 1: Tigné (49.124; Aubin 1982a, pl. IA); 2: unprovenanced (EL II, pl. II.16).
lyre *à la tête nue*: class I: 3: Saint-Marc-le-Blanc (35.75; EL II, pl. II.17); 4: 'Cotentin' (50.41; EL I, pl. II.18); 5: Saint-Hilaire-du-Harcouët (50.27; EL II, pl. II.20); class II: 6: Saint-Malo (35.73; EL II, pl. II.15).
lyre *à la boucle d'oreille*: class I: 7: Saint-Hilaire-du-Harcouët (50.27; EL II, pl. II.18); 8: la Fontenelle (35.21; EL II, pl. II.19); class II: 9: Saint-Aubin-du-Perron (50.24; EL I, pl. II.21); 10: Bayeux (14.06; EL I, pl. II.24).
lyre *au bouclier orné*: class I: 11: Fougères (35.22; EL II, pl. II.21); 12: Saint-Pierre-des-Landes (53.61; EL II, pl. II.22); class II: 13: Antrain (35.03; EL II, pl. II.23); 14: Rennes (35.51; EL II, pl. II.24); 15: Avranches (50.01; EL II, pl. II.25); 16: Saint-Hilaire-du-Harcouët (50.27; EH II, 20 fig. 24).

8.1.2 The lyre series

i) type *à la tête nue*

The weights and design of this type suggest that it is another very early issue. The class I reverse on one of these coins ('the Cotentin', 50.41; figure 64.4) shows a semi-circular ornament which appears to derive from the legend on the Philippus; on another of the same type (Saint-Hilaire-du-Harcouët, 50.27; figure 64.5) it has been reduced to a series of dots. The horserider is less obviously female than on the thunderbolt series, and carries the shield in her right hand and a sword in her left. Beneath the horse is a vertical lyre, with two to four chords. On the class II issue, the obverse is portrayed in a similar style, but the horserider holds the shield in her left hand and the sword in her right (figure 64.6); the lyre is horizontal, and there is an undulating cordon from the exergue up in front of the horse. The only example of this type appears to be from Saint-Malo (35.73), variously given as 7.50g (EH) or 8.02g (EL); Colbert de Beaulieu (1973a, 228 n.372) gives its weight as 8.01g and comments that this is too high, but that need not be so.

ii) type *à la boucle d'oreille*

This type, close in design to the previous, is differentiated primarily by the three bead earring on the obverse, and by the decoration at the base of the lyre on the reverse (figure 64.8). There is also a square object with beads at each corner and in the centre, in front of the horse. Scheers (1984, 365-366) divides this type into two classes according to the size and stylization of the designs (figure 64.7-10).

iii) type *au bouclier orné*

The final type maintains the same basic form as the previous examples. However in both classes the size of the laurel wreath is much greater (up to 5mm wide), and on the reverse the outline of the shield is represented by either two concentric lines (class I) or a beaded line (class II). In addition, on the class II reverse there is a cross on either the left or both sides of the lyre (figure 64.11-16).

Table 31 shows the range of weights of these four types. The series *au foudre* is firmly located between 7.80g and 8.10g, but the other three types are much more varied and consequently more difficult to interpret. It seems that the lyre type *à la tête nue* may, initially at least, be

contemporaneous with the thunderbolt series; the average weights are almost identical (including unprovenanced examples and the few coins from outside north-west France, the means are 7.96g and 8.00g for the thunderbolt and lyre type respectively: Scheers 1984, 379), although the range of weights for this lyre type suggest that it may have been produced for a longer period. The distribution map (figure 65) may support this view, with the thunderbolt type concentrated in the south and the heaviest lyre type in the north, but the findspots are too few to be certain. The distributions of the lyre types *à la boucle d'oreille* and *au bouclier orné* are thoroughly mixed and it seems likely that they were issued in this order, probably with some overlap.

	t'bolt	lyre A	lyre B	lyre C
8.20-8.29g		/		
8.10-8.19g	/	/		
8.00-8.09g	////	//		
7.90-7.99g	////	/		
7.80-7.89g	////	/		/
7.70-7.79g			//	
7.60-7.69g		/	///	///
7.50-7.59g			//	///
7.40-7.49g		/	///	/////
7.30-7.39g				/
7.20-7.29g				
7.10-7.19g			/	
7.00-7.09g	/			//
6.90-6.99g				
6.80-6.89g	/*			/
others				6.53g

Table 31. Distribution of weights of the east Armorican armed rider coinages.
lyre A: *à la tête nue*
lyre B: *à la boucle d'oreille*
lyre C: *au bouclier orné*
/ represents one coin. * indicates a worn coin.
Weights of quarter staters have been quadrupled.
Columns include all coins listed by Scheers (1984), plus further examples in north-west France.

These coins have traditionally been regarded as Redones issues. For the thunderbolt series in particular, there is little justification for this attribution, and one must be wary of the habit of basing attributions on the findspots of second century BC coins plotted on tribal boundaries defined in the early Gallo-Roman period. The later lyre types do not fit the reconstructed Redones territory (figure 10)

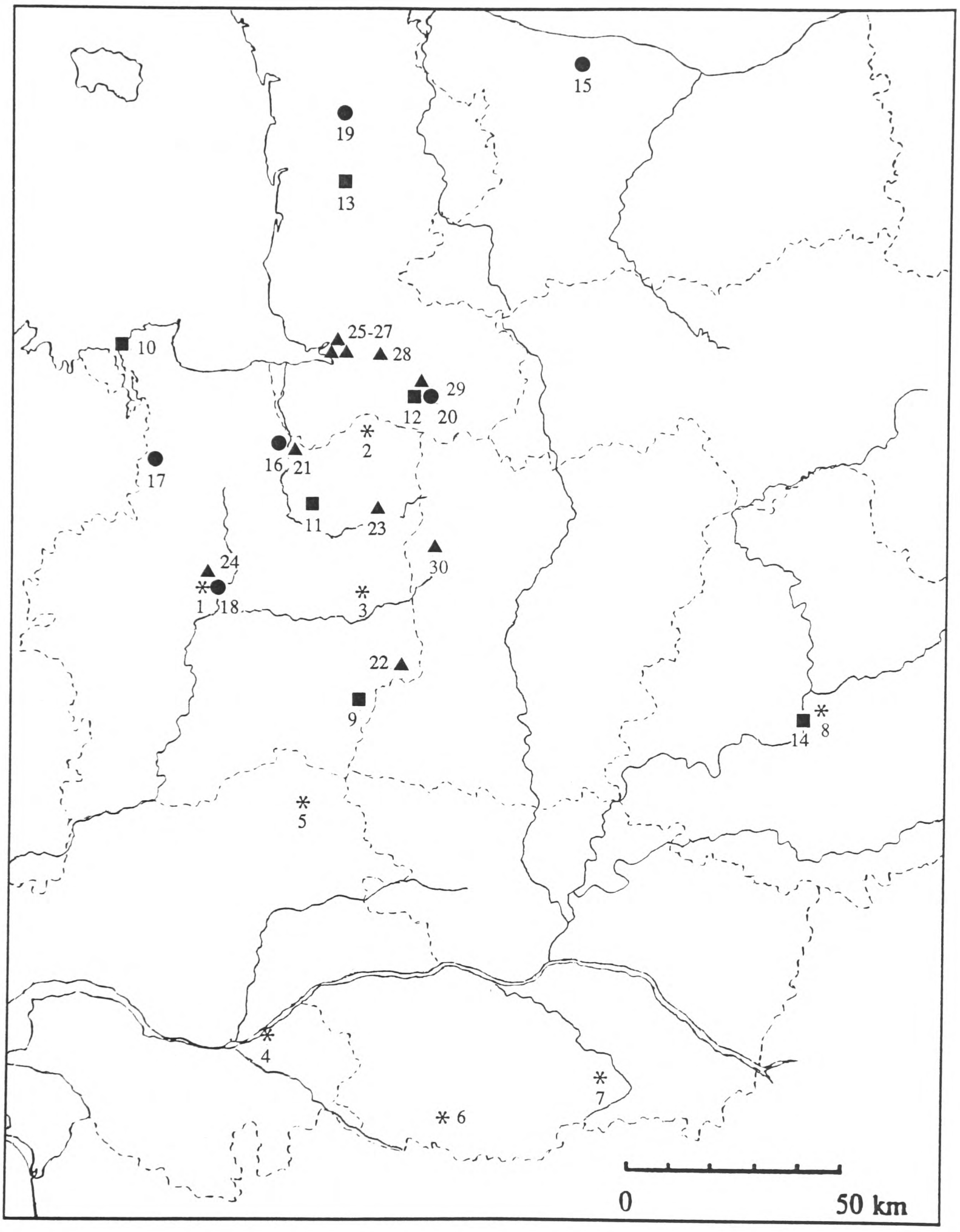

Figure 65. Distribution of the east Armorican armed rider coinage.
Key to sites overleaf.

	gaz. no., commune		denomination	weight	remarks
	type LT XXII 6756 (*au foudre*):				
1	35.51	Rennes	stater	7.95g?	-
2	35.64	St-Georges-de-R'bault	stater	-	doubtful provenance
3	35.92	Vitré	stater	7.95g?	-
4	44.04	Basse-Goulaine	stater	7.85g	two O/ countermarks
5	44.15	Châteaubriant	stater	7.95g?	-
6	49.118	la Seguinière	stater	-	-
7	49.124	Tigné	stater	-	-
8	72.22	le Mans	stater	-	-
	lyre series; type *à la tête nue* (LT XXII 6763):				
9	35.47	Rannée	quarter stater	1.71g	cl. ? very worn O/
10	35.73	Saint-Malo	stater	8.02g?	cl. II
11	35.75	Saint-Marc-le-Blanc	quarter stater	1.91g	cl. I
12	50.27	St-Hilaire-du-Harcouët	quarter stater	2.07g?	cl. I
13	50.41	'the Cotentin'	stater	-	cl. I
14	72.01	Allonnes	quarter stater	-	cl. ?; from *fanum*
	lyre series; type *à la boucle d'oreille* (LT XXII 6762):				
15	14.06	Bayeux	stater	7.64g	cl. II
16	35.21	la Fontenelle	stater	7.48g	cl. I
17	35.43	Pleugueneuc	stater	7.60g	cl. I; R/ countermark
18	35.51	Rennes	stater	7.12g	cl. I
19	50.24	Saint-Aubin-du-Perron	stater	7.43g	cl. II
20	50.27	St-Hilaire-du-Harcouët	quarter stater	1.91g	cl. I
	lyre series; type *au bouclier orné* (LT XXII 6759, 6761):				
21	35.03	Antrain	stater	7.01g	cl. II
22	35.07	Brielles	stater	-	probably this type
23	35.22	Fougères	quarter stater	1.86g	cl. I; rider to left
24	35.51	Rennes	stater	6.53g	cl. II
25	50.01	Avranches	quarter stater	1.91g	cl. II
26	50.01	Avranches	quarter stater	-	cl. unknown
27	50.01	Avranches	stater	7.67g	cl. II
28	50.09	le Grand-Celland	stater	-	cl. II?
29	50.27	St-Hilaire-du-Harcouët	stater	7g	cl. II
30	53.61	Saint-Pierre-des-Landes	stater	7.54g	cl. I

Table 32. Provenances of the east Armorican armed rider coinage.
The number in the first column refers to figure 65.

especially well either, with almost half the territory (in the south-west) devoid of finds, but a marked concentration in the north-east and beyond, in the Avranchin. For the time being it is appropriate to retain the simple geographical term used for these coins.

Scheers (1984, 383) has dated this group to the last quarter of the second century BC, but bases this view on Castelin's weight-loss model, in which staters between 8.20g and 8.00g were struck between 120 and 100 BC. Arguments against this have been mentioned above (6.1), and it seems more likely that the thunderbolt and lyre *à la tête nue* series are early second century BC coinages, on account of their weights and the retention of a very stylized legend on the latter type. The later lyre types are perhaps from the middle and later second century BC.

8.2 The recumbent figure coinages (BN 6818-6901)[1]

These coins, characterized by a winged and/or armed figure beneath the horse on the reverse, were all attributed to the Aulerci Cenomani by nineteenth century authors (eg LT XXIII-XXIV), not least because Eugène Hucher wished to claim all the best gold coins for his home department of Sarthe. Colbert de Beaulieu examined them anew in the 1950s (1954e; 1957c; 1959b) and identified two distinct types within this group (A and B in the key 1954 paper), distinguished by several features of the design:

O/: on group A there is an earring usually of three beads at the end of a lock of hair, not present on B; beaded cordons around the head, sometimes ending in small heads, are always present on B, but do not occur on A.

R/: the human-headed horse on group A is nearly always winged, but is wingless on group B; the recumbent figure on group A is nearly always armed, but never carries weapons on group B.

Colbert de Beaulieu concluded that group A were indeed issues of the Aulerci Cenomani, with a distribution centred strongly in the Sarthe, but that group B should be considered as products of another tribe (1954e, 20-21). The distribution of the two groups bears out the division on the basis of design (figure 66). Colbert de Beaulieu suggested (ibid.) that group B could have been issued by the Namnetes and/or the Veneti, and for a variety of reasons attributed these coins to the Veneti. This attribution has become widely accepted (eg Gruel's general distribution map: 1990b, fig. 2), but it is perhaps time to reconsider these coins, their distribution and the arguments used by Colbert de Beaulieu to associate them with the Veneti. First, though, the group attributed to the Aulerci Cenomani, which aside from the paper by Allen (1971c) considering links with the Treveri (see 8.2.3 below), has not yet been the subject of detailed study.

8.2.1 The Sarthe recumbent figure coinages

This series of gold (occasionally plated) staters and quarter staters may be split into six classes, according to design and weight, described in table 33 and illustrated on figure 67.

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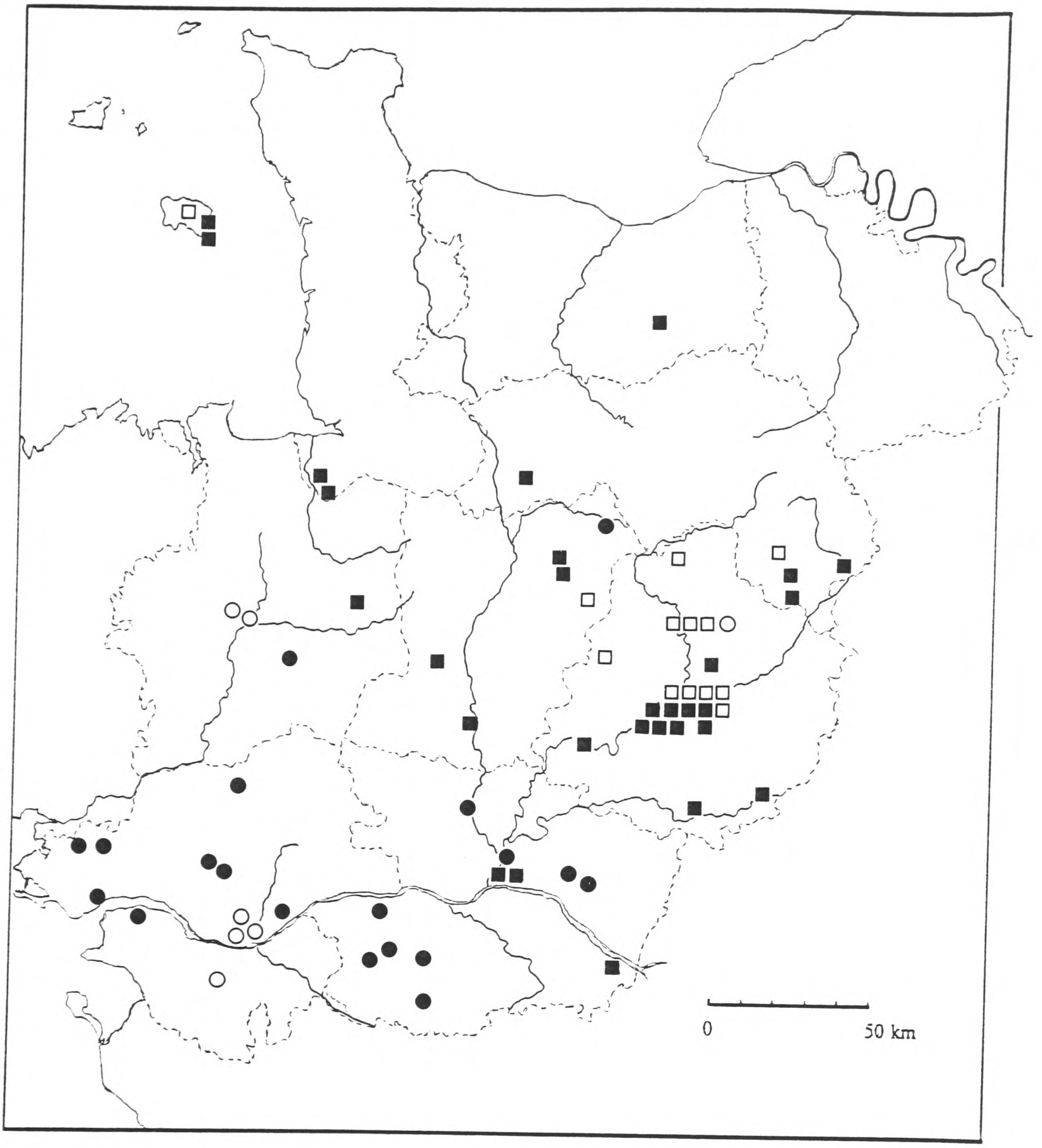
[1] all of the coins in this range are commonly treated as a group (eg Colbert de Beaulieu 1973a, 31), but aside from the two major types discussed in this section, BN 6897-6901 are rather different issues; BN 6897, and 6898-6900, with provenances in north-west France, will be discussed below (8.6.2 and 8.3.3 respectively).



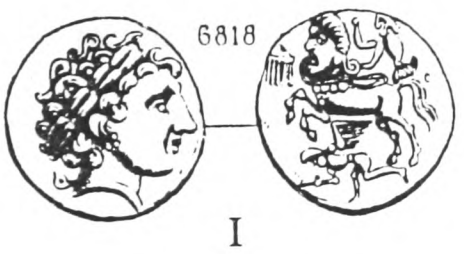
■ Sarthe armed figure coins

● "Veneti" winged figure coins

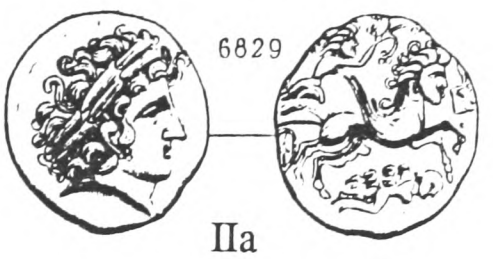
Figure 66. General distribution map of the BN 6818-6896 series.
Outline symbols indicate imprecise provenances and coins found in the environs of towns.

class	description
class I (BN 6818-6822):	O/: head to right; wreath of four pairs of elongated leaves; earring of three small beads on line of jaw or on cheek. R/: hhh galloping to the left; charioteer holds reins in left hand and in right hand a line to the vexillum. Beneath the horse the recumbent figure has a winged left arm and holds a sword or a lance in its right.
class II variant a (BN 6829):	O/: head to right; wreath of three long pairs of leaves; earring of same style as class I. R/: winged hhh galloping to the right; charioteer holds ?mistletoe branch in right hand leading to vexillum; recumbent figure is winged.
class II variant b (BN 6823-6824):	O/: head to right; wreath of three long pairs of leaves; earring of three beads at end of line projecting between locks of hair (not present on quarter staters). R/: winged hhh galloping to the right; charioteer holds reins in left hand and line to vexillum in right. Both arms of the recumbent figure are winged.
class II variant c (BN 6825):	as above, but reverse in particular more loosely rendered.
class III (BN 6844-6851):	O/: head to right; wreath of three short pairs of leaves is barely distinguishable from locks of hair. One lock detached, in front of forehead. Earring motif (not present on quarter staters) of four globules (two on left are locks of hair) with bead at centre right. R/: winged hhh galloping to the right; charioteer holds reins and vexillum in left hand, right hand trailing behind. Recumbent figure holds round object (?head) in left hand and a spear or lance in its right.
class IV (BN 6852-6857):	O/: head to right; wreath of small pairs of leaves, of same form as locks of hair; one lock detached, in front of forehead. Earring of two L-shapes back to back, with bead at end of each long side. R/: winged hhh galloping to the right; charioteer holds vexillum in right hand and reins in left. Recumbent figure has short curved sword in its left hand and a sword or lance in its right.
class V variant a (BN 6858-6859):	O/: head to right; hair and wreath indistinguishable. Large eye and pointed nose; lips in form of two beads. Earring of two L-shapes, back to back, with two or three beads at end of long sides. R/: winged hhh galloping to the right; charioteer holds reins in right hand and vexillum in left. Recumbent figure holds short stick or sword in left hand and lance or spear in right.
class V variant b (BN 6869-6874):	as above, but both sides facing the left. Quarter staters without earring.
class V variant c (BN 6860-6866):	O/: head to right; hair in elongated globules; large eye and pointed nose. No earring. R/: hhh galloping to the right; charioteer holds reins in right hand and vexillum in left. Recumbent figure holds short stick or curved sword in left hand and lance or spear in right.
class VI (BN 6875-6876):	O/: head to left; style as cl. Vb but without earring. R/: winged hhh to the left; style as cl. Vb but with six-spoked wheel with beaded rim beneath the horse.

Table 33. Classes of Sarthe recumbent figure coinage.
See text for discussion of possibility that class I is not a Sarthe production.

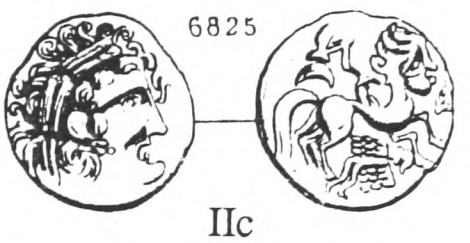


I



IIa

IIb



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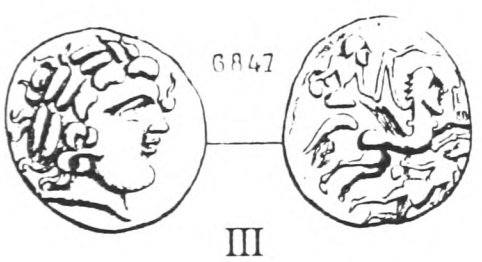

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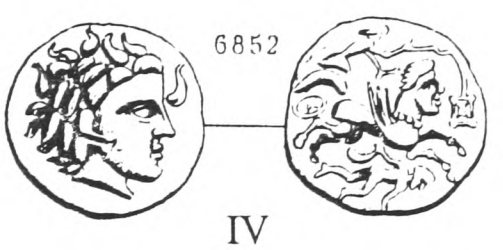

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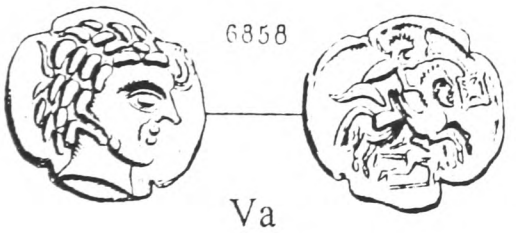
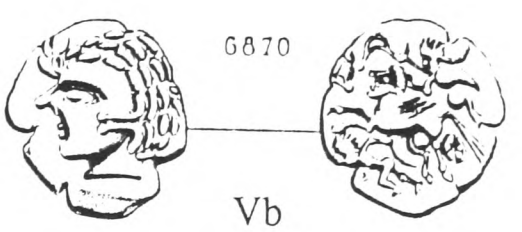
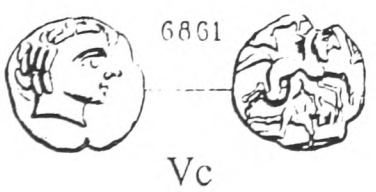


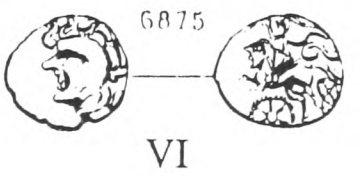
Va



Vb



Vc



VI

Figure 67. Classes of the Sarthe recumbent figure coinage.

Table 34, plotting the distribution of weights of these coins, indicates that the division into classes on the basis of design is mostly justified by the weights of each class. Interpretation of the first two classes, however, remains difficult. The design of class I suggests that it is an early production, although most of the few recorded weights suggest precisely the opposite. The only provenanced example of this class in north-west France is a stater from Jersey (J.25) in the British Museum, which may have come from one of the hoards on the island. Colbert de Beaulieu (1973a, 28 n.47 and 220 n.34) has discovered that the BN example, 6818, unprovenanced in Muret and Chabouillet (1889, 153), is actually from Nijmegen in the Netherlands. He suggests that this type should not be associated with the Sarthe series, but with production in the east (there are examples of the same type from Meurthe-et-Moselle and Lorraine). This is borne out by reference to Allen (1971c, fig. 1.1), whose "winged-manikin" type of the Treveri is very close in style to BN 6818.

Class IIa is known only by the BN example (6829, 7.83g), from the Coëvrons area (on the border of Mayenne and Sarthe), illustrated by Hucher (EH I, pl. 6.1) and de la Tour (LT XXIII 6829).[1] The weight and design suggest that this must be the earliest coin in this series. Classes IIb and IIc are only slightly less rare. There is a clear degeneration in design and a drop in weight between the two related types, but little more can be said on their chronological position with respect to the other issues on the basis of so few examples.

The information on the remaining classes is rather more satisfactory. Class III, with an average weight of 7.47g (excluding BN 6850, 4.95g, a bronze core which has lost its plating), seems to be the oldest issue. Class Va, which is close in design to class III, particularly on the reverse, has an average weight of 7.43g and must have been issued at the same time or shortly afterwards. Class IV, at 7.31g, and classes Vb and Vc at 7.25g and 7.09g respectively, are later still. Finally, class VI, at 6.96g, is known only by two coins from Allonnes (72.02), and while retaining the characteristic style of the head, adopts the new motif of a six-spoked wheel on the reverse. This may be indicative of contact with the Redones to the west, who are usually credited with the late series of billon coins featuring a wheel beneath the horse (section 9.6).[2]

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[1] the illustration purportedly of this coin in Allen (1980, pl. 14.187) is actually a class III coin of this series.

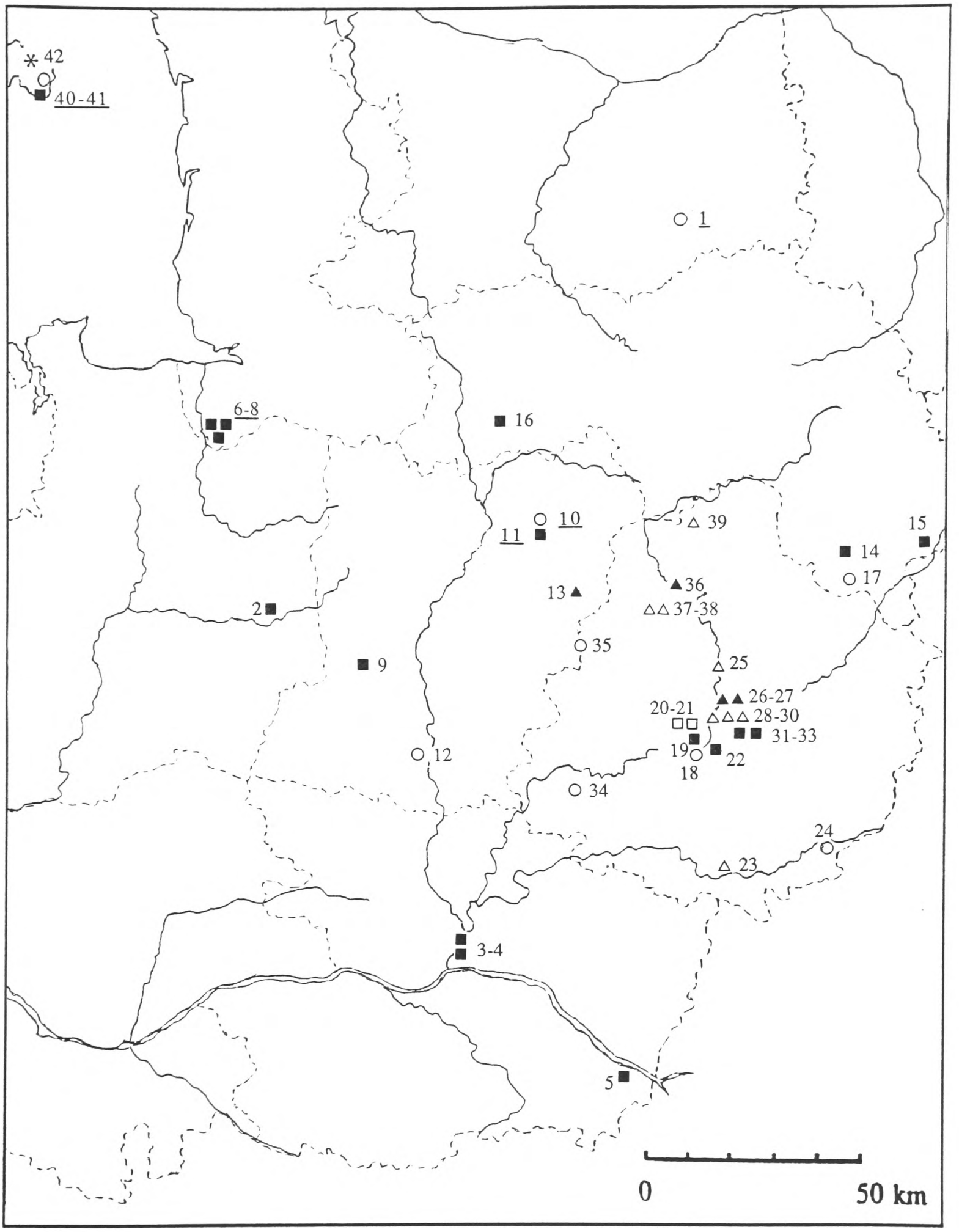
[2] the 1903 catalogue for the Musée de Nantes lists a gold stater, 7.60g, from Saint-Nazaire (44.92), described as having a human-headed horse on the reverse with a six-spoked wheel below (PLD 220 no. 560); another example from the same place is recorded in CAG (44.87). In the absence of better

weight/class	I	IIa	IIb	IIc	III	IV	Va	Vb	Vc	VI
7.80-7.89g		/								
7.70-7.79g									/	
7.60-7.69g	/		//		///					
7.50-7.59g					////	/	/			
7.40-7.49g					/	///	//	/		
7.30-7.39g	/*					///	//	//		
7.20-7.29g	/				//	//		////	///	
7.10-7.19g				/		//		/		
7.00-7.09g			/†					/	//	/
6.90-6.99g						/				/
6.80-6.89g	/									
others	4.97g*				4.95g*			4.50g*	6.20g	

Table 34. Distribution of weights of Sarthe recumbent figure coinage.
/ represents one coin. Weights of quarter staters have been quadrupled.
* indicates a plated coin. † indicates a corroded coin.
Columns include all examples in the BN and from north-west France with recorded weights.

The distribution map (figure 68) provides some more useful information on this coinage. Finds of classes II and III are confined to the department of Sarthe (plus the coin from the Coëvrons, which could have come from Mayenne or Sarthe), and are all isolated finds. In contrast, coins of classes IV and V are found much more widely, to the north, west and south of Sarthe, and in the north are usually found in hoards: at Saint-Pierre-sur-Dives (14.70), Montanel (50.16), Hardanges (53.25) and Grouville (J.01). In two cases, Montanel and Hardanges, there are no recorded post-conquest issues in the hoards; it is worth noting that the only other coins recorded well enough for identification from Montanel are three Redones coins (types LT XXIII 6783 and 6792), with the wheel on the reverse shared by our class VI. At Saint-Pierre-sur-Dives and Grouville, the class IV and class V staters are in hoards dominated by post-conquest silver and bronze and by late Armorican billon respectively; the examples with recorded weights from Grouville are within 0.04g of their class average, while the Saint-Pierre class IV coin (7.12g) is 0.19g below average, perhaps indicating a longer period of circulation before deposition or a late issue within the class. The presence of class IV and Vc coins at the *fanum* of Allonnes (72.01) may also suggest a date of deposition after the conquest, although the lack of published information on the stratigraphic associations of the coins on this site means that this cannot be confirmed.

description it is not possible to shed any further light on either the coin or this particular motif, but the weight of this stater suggests production at a similar period to the type discussed here.



*	class I	○	class IV
▲	class II	■	class V
△	class III	□	class VI

Figure 68. Distribution of the Sarthe recumbent figure coinage.
Key to sites overleaf.

Coins found in hoards have the site number underlined.

	gaz. no., commune		denomination	weight	class, remarks
1	14.70	Saint-Pierre-sur-Dives	stater	7.12g	IV; in hoard
2	35.92	Vitré	stater	7.27g	Vb
3	49.08	Angers	stater	-	Va
4	49.08	Angers	stater	-	Vb
5	49.114	Saumur	stater	-	Vb
6	50.16	Montanel	stater	7.54g	Va; in hoard
7	50.16	Montanel	stater	7.33g	Va; in hoard
8	50.16	Montanel	stater	7.22g	Vb; in hoard
9	53.07	la Brûlatte	stater	7.38g	Va
10	53.25	Hardanges	stater	-	IV; in hoard
11	53.25	Hardanges	stater	-	Vb; in hoard
12	53.38	Loigné-sur-Mayenne	stater	7.19g	IV
13	53.66	'Coëvrons'	stater	7.83g	IIa; BN 6829
14	61.08	Bellême	stater	-	Vb
15	61.16	Condé-sur-Huisne	stater	-	IV
16	61.28	Juvigny-sous-Andaine	stater	7.05g	Vb
17	61.42	St-Germain-de-la-Coudre	stater	7.36g	IV
18	72.01	Allonnes	stater	-	IV; on *fanum*
19	72.01	Allonnes	quarter stater	-	Vc; on *fanum*
20	72.02	Allonnes	quarter stater	1.75g	VI; BN 6875
21	72.02	Allonnes	quarter stater	1.73g	VI; BN 6876
22	72.03	Arnage	stater	7.47g	Vb
23	72.06	Aubigné-Racan	-	-	III
24	72.10	la Chartre-sur-le-Loir	stater	7.55g	IV
25	72.19	Joué-l'Abbé	stater	7.24g	III
26	72.22	le Mans or environs	stater	7.62g	IIb
27	72.22	le Mans or environs	quarter stater	1.75g	IIb; corroded
28	72.22	le Mans or environs	stater	7.59g	III
29	72.22	le Mans or environs	stater	7.49g	III
30	72.22	le Mans	quarter stater	1.82g	III; BN 6851
31	72.22	le Mans	stater	7.44g	Va
32	72.22	le Mans	stater	7.32g	Vb; BN 6869
33	72.22	le Mans or environs	stater	7.20g	Vb
34	72.29	Parcé-sur-Sarthe	stater	7.20g	IV
35	72.38	'in the Maine'	stater	7.38g	IV
36	72.38	'in the Sarthe'	stater	7.70g	IIb
37	72.38	'in the Sarthe'	stater	7.60g	III
38	72.38	'in the Sarthe'	stater	7.60g	III
39	72.38	'in the Sarthe nr. Alençon'	stater	7.20g	III; BN 6848
40	J.01	Grouville	stater	7.35g	IV; in hoard
41	J.01	Grouville	stater	7.21g	Vb; in hoard
42	J.25	'Jersey'	stater	-	I

Table 35. Provenances of the Sarthe recumbent figure coinage.
Numbers in the first column refer to figure 68.

Two examples of class IV (without recorded weights) have been found outside north-west France, at Plélan-le-Petit (Côtes-d'Armor) (Colbert de Beaulieu 1954e, 13).

These assorted pieces of information may be combined to form some idea of the development of this coinage. The earliest issues - class IIa, and, perhaps, other class II types - may be placed by their weight at the end of the second phase of coinage, perhaps in the middle second century BC. They were followed - either directly or with a gap of some years, and with what interval between classes, it is almost impossible to say - by classes III and Va, IV, Vb, Vc and VI. Class III is not found outside the region tentatively identified as the area of production: basically the department of the Sarthe, with small extensions into eastern Mayenne and the south-east corner of Orne. The presence of a few examples of classes IV and V in hoards in the north of our region suggests that these issues were still in circulation at the time of the Gallic War, though it is possible that their relative scarcity indicates production significantly earlier in the first century BC.

Support for this view is perhaps provided by the lack of billon coins of this series. It has been suggested that BN 6523 and 6524 (both 6.55g), the latter found at Mamers (72.21), are coins of the Aulerci Cenomani (Colbert de Beaulieu 1952c, 35; 1954e, 13; 1959b, 42), on account of the close resemblance of the obverse to the issues described above. In the absence of other provenanced examples this is impossible to confirm.

Before leaving this coinage mention must be made of a number of records, predominantly from the nineteenth century, of isolated finds of "Aulerci Cenomani" coins (table 36). In these cases it is impossible to confirm whether the coins are of the classes discussed above. The distribution of most is not incompatible with that of the securely identified examples of this series.

27.64	Saint-Georges-Motel	61.40	la Perrière
35.84	Saint-Rémy-du-Plain	61.41	Saint-Ceneri-le-Gerei
49.120	Seiches-sur-le-Loir	72.02	Allonnes
49.128	Yzernay (x2)	72.08	Beillé
53.43	Meslay-du-Maine	72.24	Mayet
61.01	l'Aigle	72.34	Vancé
61.03	Alençon (>1)	J.01	Grouville (in hoard)
61.26	Igé		

Table 36. Unconfirmed finds of "Aulerci Cenomani" coins.

8.2.2 The "Veneti" winged figure coinage

We shall return now to the other group of coins contained within the BN 6818-6901 series, originally attributed to the Aulerci Cenomani. Colbert de Beaulieu (1954e, 21) attibuted this group (his group B) to the Veneti, for several reasons, the most significant being his assumption that the Veneti were the most powerful tribe in the region, and consequently the first to strike coinage after the fall of the Arvernian hegemony:

> ...les *Veneti*, en Armorique, qui semblent avoir exercé depuis longtemps à cette époque une suzeraineté sur un vaste territoire, comprenant au moins les *Osismii*, les *Coriosolitae*, les *Redones* et les *Namnetes*, purent fonder un atelier, et, grâce à leur or, continuer d'exploiter leur avantage économique, en s'efforçant sans doute de retarder l'institution d'officines chez leurs protégés.
>
> Colbert de Beaulieu (1973a, 266)

As we have seen the existence of the Arvernian hegemony can be discounted, and the evidence for the dominance of the Veneti in Armorica is limited almost entirely to Caesar's comment that they were the strongest tribe on the coast (BG III.8). However, of particular concern here is the assumption that these coins are productions of the Veneti, when the geography of the findspots simply does not correspond to the recognized boundaries of the tribe (figure 10). This point will be considered following a summary of the coin types.

The basic characteristics of this series are, on the obverse: the head facing right, often supported on a kind of decorative pedestal, surrounded by cordons of beads usually with small heads at each end. The reverse is very similar to the Sarthe group, but the recumbent figure is always winged rather than armed, while the human-headed horse never has wings. Colbert de Beaulieu (1954e, 14-20) has identified eight classes of stater within this group, plus a number of rare quarter staters of uncertain position within this scheme. There is no point in repeating his descriptions of the coins here, but figure 69 shows a representative example from each class.[1]

Table 37 shows the range of weights for each class. Classes V (average 7.77g) and I (average 7.71g) appear to be the earliest, although production of the latter seems to have continued over a relatively long period. Class VII comes next, very close in style to class I, but with a slightly lower average weight of 7.63g. There are fewer examples of the other types with which to establish their relative chronology, but classes IV (average 7.48g) and VI (average 7.35g) probably followed next in

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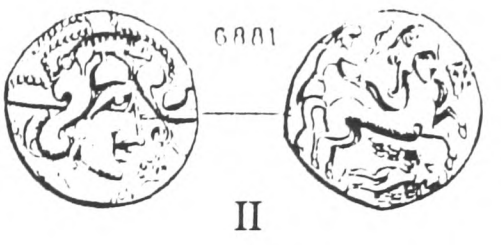
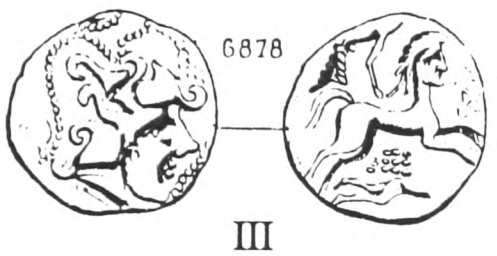
[1] the classes are made up as follows: I: BN 6826-6827, 6838-6839; II: BN 6881; III: BN 6878; IV: BN 6882-6885; V: BN 6879-6880; VI: BN 6828; VII: BN 6830-6836; VIII: BN 6837; quarter staters: BN 6840-6842, 6867-6868, 6886-6895.

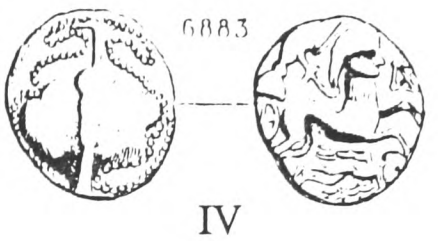
I



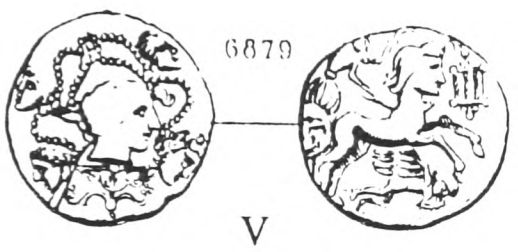
II



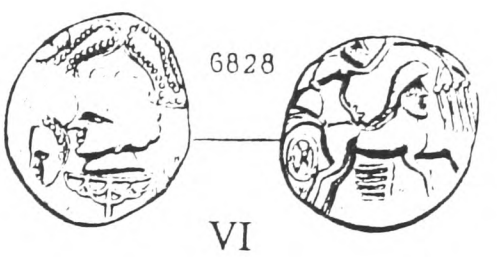
III



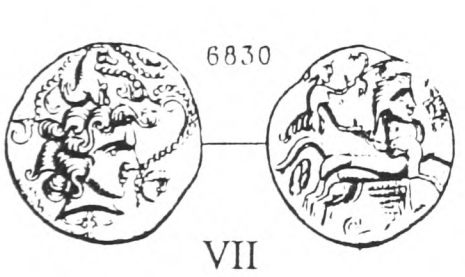
IV



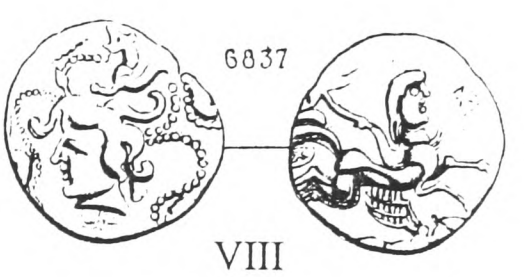
V



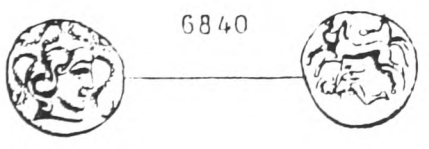
VI

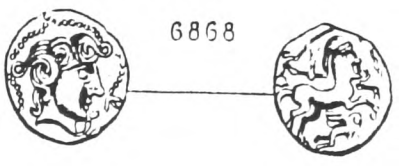


VII

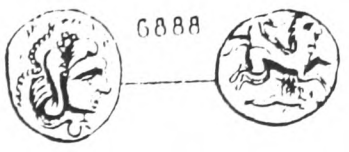


VIII





quarter staters



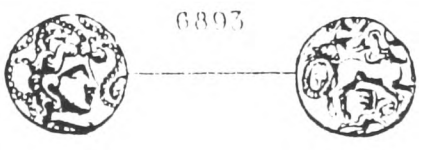


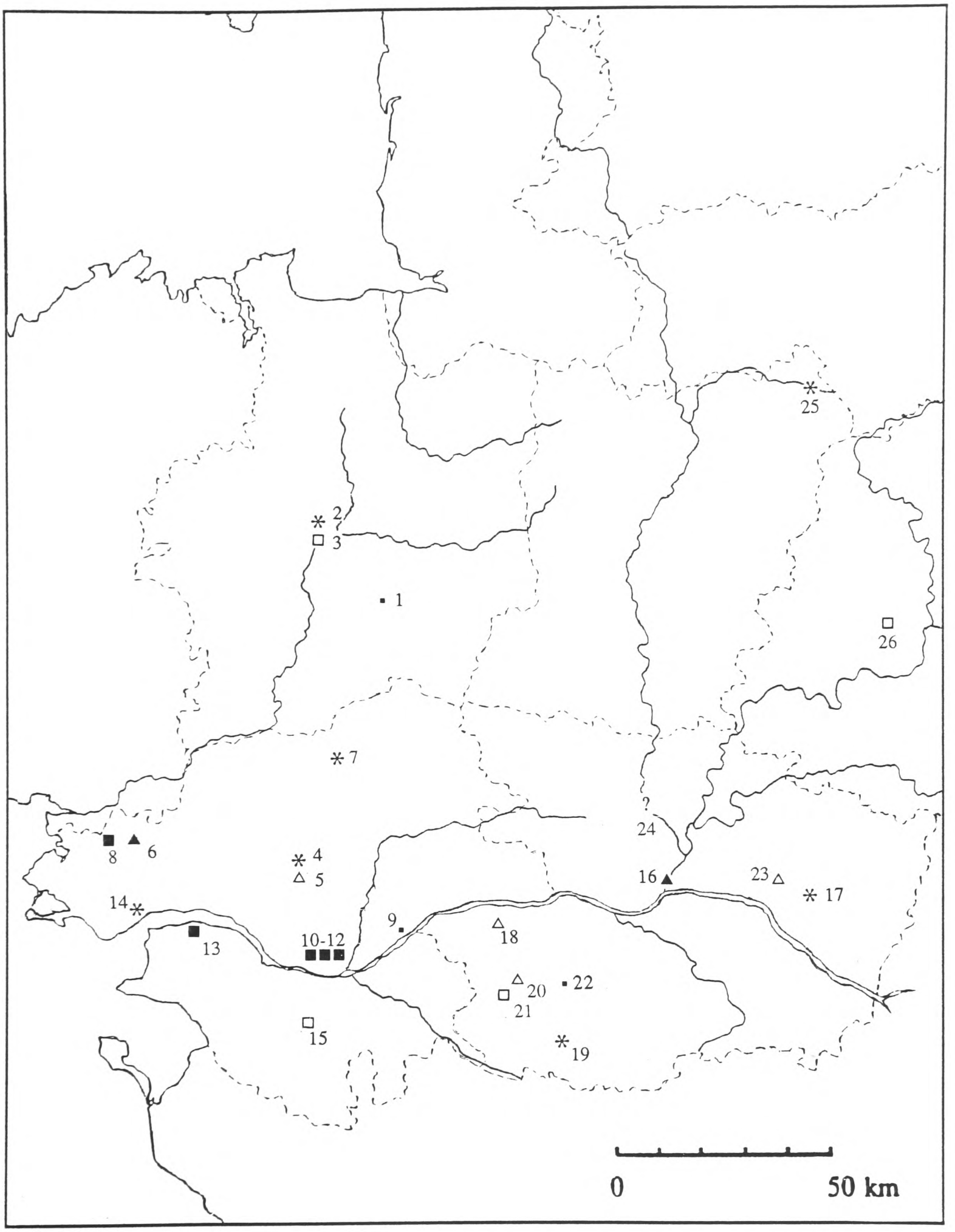
Figure 69. Classes of "Veneti" winged figure coinage.

the series. This group of coins clearly began earlier than the Sarthe series - perhaps in the second quarter of the second century BC - because the first four classes are all heavier than the heaviest Sarthe coinage (class III, at 7.47g; Sarthe class II coins may be slightly earlier but there are too few examples to obtain a meaningful average), and there do not appear to be the plated examples associated with the Sarthe group. It seems reasonable to assume that some contact between the two clearly demarcated areas (figure 66) took place in the second century BC, leading to the adoption of a similar type of coinage in the Maine. But just where the "Veneti" coins were produced remains a problem.

weight/class	I	II	III	IV	V	VI	VII	VIII	quarters
7.90-7.99g	/								/
7.80-7.89g	//				//		/		/
7.70-7.79g	/						///		//
7.60-7.69g	//				/		///		/////
7.50-7.59g	//			//		//	//		
7.40-7.49g	//	/		//				/	///
7.30-7.39g						/	/		
7.20-7.29g			/			//			///
7.10-7.19g									
7.00-7.09g									/
6.90-6.99g									
6.80-6.89g									/
6.70-6.79g									/

Table 37. Distribution of weights of the "Veneti" winged figure coinages.
/represents one coin. Weights of quarter staters have been quadrupled.
Columns include all examples in the BN, north-west France and others listed by Colbert de Beaulieu (1954e).

The distribution of these coins is plotted on figure 70. There do not appear to be any significant patterns in the distribution of individual classes. The most striking feature, however, is the concentration of coins along both banks of the Loire, in other words at a considerable distance from the territory commonly assigned to the Veneti (figure 10). Colbert de Beaulieu (1954e, 35) has argued that "l'aire de dispersion est considérable, mais assez visiblement dépendante d'un centre situé au pays des Vénètes", but it is difficult to support this contention on the evidence of the findspots. It is important to recall that outside north-west France, there are four coins of this series from Vannes (Morbihan), about 20km west of the mouth of the Vilaine, another from Landerneau (Finistère), and one each from Vendée and Deux-Sèvres, to the south of the main area of distribution. Thus only four coins have been



* class I

■ class VI

▲ class IV

□ class VII

△ class V

▪ quarter staters

Figure 70. Distribution of the "Veneti" winged figure coinage.
Key to sites overleaf.

	gaz. no., commune		denomination	weight	class, remarks
1	35.28	Janzé	quarter stater	1.91g	-
2	35.51	Rennes	stater	7.48g	I
3	35.51	Rennes	stater	7.59g	VII
4	44.09	Blain	stater	-	I; identical to 6827
5	44.09	Blain	stater	7.85g	V
6	44.13	la Chapelle-des-Marais	stater	-	IV
7	44.19	Derval	stater	7.75g	I
8	44.31	Herbignac	stater	-	VI
9	44.36	Mauves-sur-Loire*	quarter stater	1.90g	6892 var., or 6899?
10	44.45	Nantes or environs	stater	7.30g	VI
11	44.45	Nantes or environs	stater	7.50g	VI
12	44.45	Nantes or environs	stater	7.50g	VI
13	44.50	Paimboeuf	stater	7.25g	VI
14	44.92	Saint-Nazaire	stater	7.65g	I
15	44.104	'near lac de Grandlieu'	stater	7.60g	VII
16	49.08	Angers	stater	7.50g	IV; BN 6883
17	49.11	Beaufort-en-Vallée	stater	7.55g	I
18	49.31	la Chapelle-St-Florent	stater	-	V
19	49.42	Cholet†	stater	-	I
20	49.52	le Fief-Sauvin	stater	-	V; R/ to left
21	49.62	Gesté	stater	-	VII
22	49.66	Jallais	quarter stater	-	-
23	49.77	Mazé	stater	-	V
24	49.96	Pruillé	stater	7.85g	I or VII
25	53.51	Pré-en-Pail	quarter stater	-	I
26	72.38	'in the Sarthe'	stater	7.70g	VII

Table 38. Provenances of the "Veneti" winged figure coinage.
Numbers in the first column refer to figure 70.

* Two gold quarter staters, recorded simply as coins of the Veneti, have also been found at Mauves-sur-Loire.
† A gold quarter stater, recorded simply as a coin of the Veneti, has also been found at Cholet.

Colbert de Beaulieu (1954e, 14-20) lists seven coins of this series from outside north-west France: class I staters at Lorigné (Deux-Sèvres) and Vannes (Morbihan); the only examples of class II and class III staters, found together at Vannes; one class V stater from Caden, near Vannes; and two quarter staters from Montournais (Vendée) and Landerneau (Finistère).

found on the territory of the Veneti, and if we accept that isolated finds provide a reasonable indication of the territory of the issuing authority, we cannot but conclude that this series was produced along the lower Loire, in the region later (and then?) occupied by the Namnetes.

It is of course possible that we are wrong to limit the territory of the Veneti at this period to the region west of the Vilaine, and that they actually exercised control over a much greater area, stretching perhaps even as far down the Loire as Angers. The lack of these gold coins in Armorica, aside from those at Vannes and the outlier near Brest, surely indicates that the Veneti (if the coins are theirs) did not exercise control over the lower Loire and Armorica, as suggested by Colbert de Beaulieu (1973a, 266). And if the distribution along the Loire (and perhaps along the Vilaine, although the evidence for that is considerably less certain) is, as Colbert de Beaulieu has suggested (1954e, 28), indicative of the much-vaunted trading contacts of the Veneti, one must question why the coins occupy such a restricted area, and why they have not been found (for example) further along the southern coast of Brittany, or as far north as Saint-Malo.

It would be easy here to become bogged down in debate on territorial extents and the identity of the producers of these coins, but as neither archaeological nor historical evidence is currently in a position to shed any more light on the subject, this would be particularly meaningless. What matters, and perhaps what this pattern of finds does indicate best, is that regardless of what tribe or figure issued these coins, a coin-using society functioned in the lower Loire region in the second century BC, which provided the inspiration for several series of later Armorican coinages - firstly the Sarthe group discussed above, but also the Veneti billon series (section 9.4) and the coins of the Namnetes (section 9.2). This society seems likely to have been closely associated with - probably controlling - trade near the mouth of the Loire, although the restricted distribution of the coins themselves indicates once again that they were probably not a part of the external trading processes. The spectre of the trading port of Corbilo looms into view again here, but attractive as it may be, we still cannot firmly associate these coins and those of the earlier phase with any specific site.

8.2.3 Summary

The distinction within the BN 6818-6901 series made by Colbert de Beaulieu (1954e) on the basis of differences in design is strongly validated by the distribution of the two types of coin, which

are almost completely mutually exclusive. The group along the lower Loire - which, for the time being at least, should not automatically be associated with the Veneti - are slightly earlier, though it is still effectively impossible to give an absolute date for either series. One further point remains to be considered. Allen (1971c) examined the links in design between the Sarthe group and coins of the Treveri, from the area between Luxembourg, Trier and Saarbrücken, and concluded, albeit tentatively, that the German coins were produced first (ibid., 100). However the "Veneti" coins are almost certainly earlier still, and thus one must juggle the respective influences on the Sarthe coins from their near neighbours to the west, and from a considerable distance to the east. That some connection with the Treveri existed seems virtually certain, such is the similarity of design between the two types, but the finer details of this interaction remain hidden. Given that the producers of the Sarthe coins are likely to have gained inspiration from their south-western neighbours, to judge from the relative weights quite soon after the beginning of production in the latter area, then it is possible that the direction of influence suggested by Allen should be reversed.

8.3 Types closely related to the "Veneti" winged figure coinage

8.3.1 The BN 6765-6769 type (LT XXII 6767-6768) (figure 72.1-2)

The obverse of this type is very similar to BN 6826 ("Veneti" class I), while the reverse of one of these coins, from Angers (probably BN 6765), has been described as a perfect replica of the class I stater from Beaufort-en-Vallée (49.11; Colbert de Beaulieu 1954e, pl. IIA (figure 72.4 here)), with the winged figure replaced by a four-spoked wheel (ibid., 26-27). The portrayal of the obverse stays nearly constant throughout the small group in the BN; chief modifications on the reverse are an eight-spoked wheel beneath the horse and a branch, described as holly by Muret and Chabouillet (1889, 151), in the hand of the charioteer on BN 6768 and 6769. Six examples of this type have been found in north-west France (table 39).

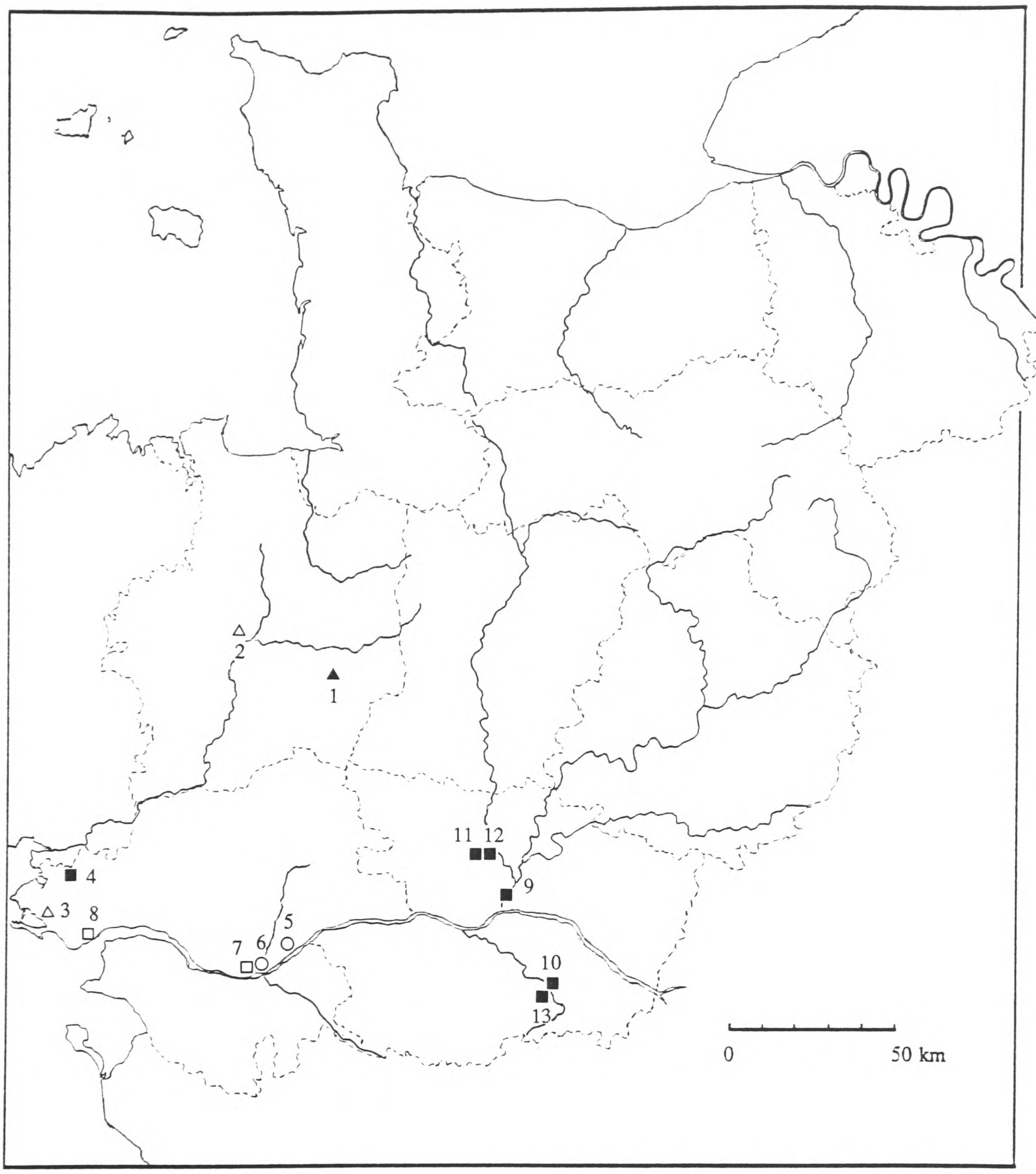
gaz. no., commune		denomination	weight	remarks
44.31	Herbignac	stater	7.70g	possibly 2 examples
49.08	Angers	stater	7.70g	probably BN 6765
49.25	Brigné	stater	-	type BN 6768
49.96	Pruillé	stater	7.7g	type 6768; in hoard
49.96	Pruillé	stater	7.66g	type 6767; in hoard
49.124	Tigné	stater	-	type BN 6768

Table 39. Coins of the BN 6765-6769 type.

The weights (with examples in the BN, in the range 7.66g - 7.85g) and the close resemblance to the "Veneti" class I indicate that these staters were probably issued in the same period as the earliest winged figure coinage. There are too few findspots to comment satisfactorily on the distribution (figure 71), although it is tempting to suggest (from finds in eastern Maine-et-Loire and BN 6769, found in Poitou) that these coins were issued to the east of the main region of winged figure coin production.

8.3.2 The LT XXIII 6805 type (figure 72.3)

This is a very rare quarter stater, with a single provenance of Bais (35.05; no recorded weight). The BN example (1.88g) has the characteristic beaded cordons on the obverse, but the style of the face is more akin to class II of the "Veneti" coinage than class I, unlike most of the examples in this



■ BN 6765-6769

▲ LT XXIII 6805

○ BN 6898-6900

△ LT XXIV 6905

□ LT XXIV 6911

1	Bais	35.05	8	Saint-Nazaire	44.92
2	Rennes	35.51	9	Angers	49.08
3	Guérande	44.29	10	Brigné	49.25
4	Herbignac	44.31	11	Pruillé (in hoard)	49.96
5	Mauves-sur-Loire	44.36	12	Pruillé (in hoard)	49.96
6	Nantes	44.45	13	Tigné	49.124
7	Nantes	44.45			

Figure 71. Distribution of types related to the "Veneti" winged figure coinage.

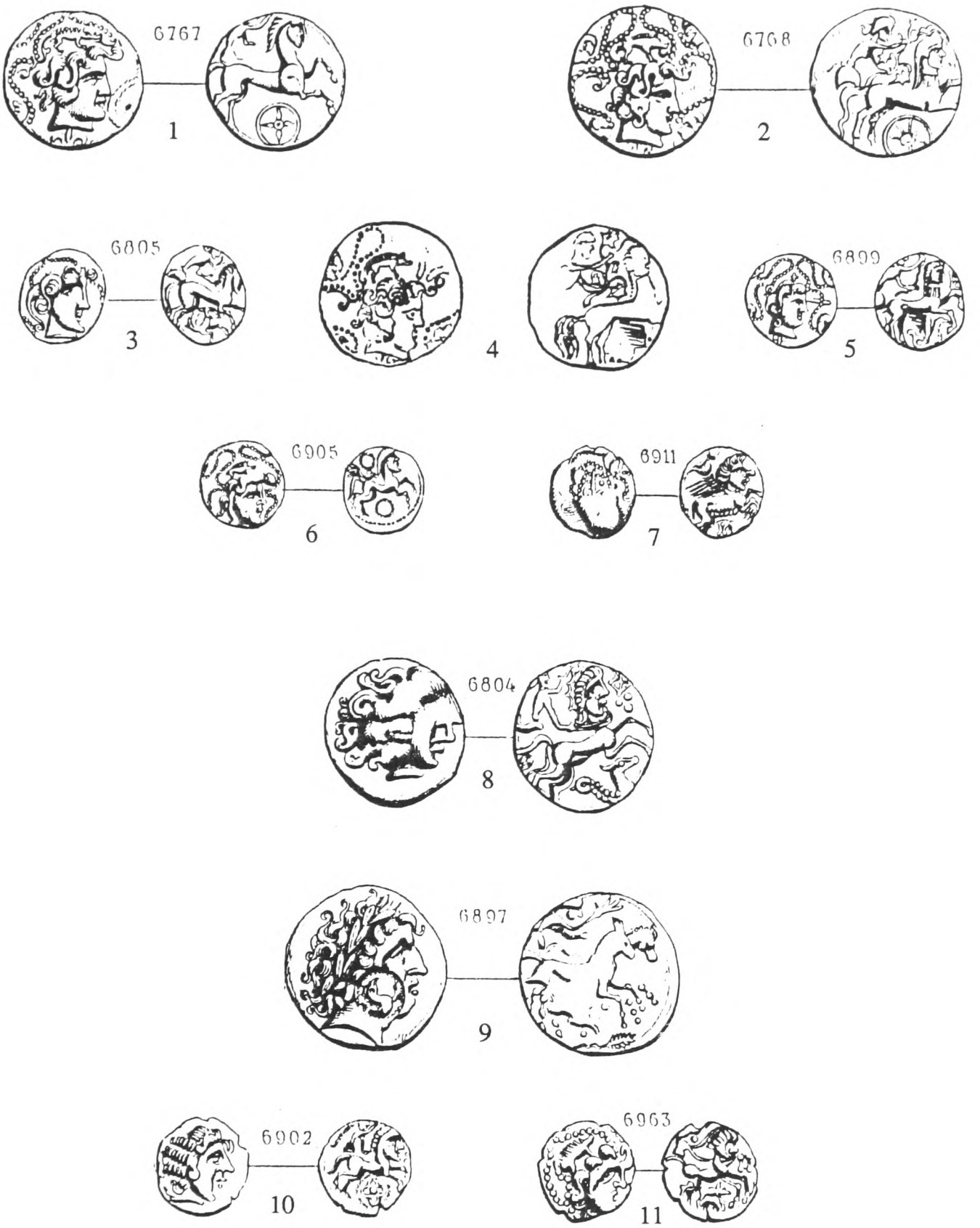


Figure 72. Miscellaneous second phase coins.

1-7: types related to the "Veneti" winged figure coinage (4 is a "Veneti" stater from Beaufort-en-Vallée (Colbert de Beaulieu 1954e, pl. IIA; see section 8.3.1).
8: hippocampus type (LT XXIII 6804).
9-11: other types (LT XXIV 6897, LT XXI 6902, LT XXV 6963).

section. On the reverse there is a hippocampus under the human-headed horse. The presence of this motif has led to the suggestion that it may be a production of the Aulerci Diablintes (Colbert de Beaulieu 1957f, 32), related to LT XXIII 6804; coins of this series will be discussed below (8.4).

8.3.3 The BN 6898-6900 type (LT XXIV 6899) (figure 72.5)

These coins are commonly grouped with the Sarthe and "Veneti" series, but differ in two main respects: the presence of a sort of baton (BN 6898) or a very small cross (BN 6899-6900) in place of the boar above the head, and on the reverse a hippocampus in place of the winged figure beneath the horse. Examples in north-west France are from Nantes (44.45; 1.78g) and possibly from Mauves-sur-Loire (44.36, 1.90g; Colbert de Beaulieu 1954e, 19), a coin already listed above as a variant of BN 6892 (PLD 228 no. 623); the description in the Nantes catalogue is not sufficiently detailed to confirm the type of this coin. The BN examples weigh 1.85g, 1.99g and 2.02g, indicating that this is another early variant either produced by or inspired by the group issuing the winged figure coinage, perhaps in the region around Nantes.

8.3.4 The LT XXIV 6905 type (figure 72.6)

This quarter stater is probably rather later than the other types described here, but is included on the basis of the very close resemblance of the obverse to the "Veneti" class I coins. On the reverse there are beaded circles above and below the human-headed horse. No weights are recorded for the two north-west French examples, from Rennes (35.51) and Guérande (44.29), but the coins in the BN of this type and similar issues range from 1.76g to 1.87g (plus an unusually low 1.43g), corresponding to staters of 7.04g to 7.48g. Once again the link with the early winged figure coinage is very clear.

8.3.5 The LT XXIV 6911 type (figure 72.7)

This small group of quarter staters has recently been summarized by Boissel (1987). On the obverse the head is surrounded by beaded cordons, and on the reverse there is a winged human-headed horse; the parts of the design in front and below the horse are always off the flan. Boissel (ibid.) has catalogued nine examples of this type, including two with possible north-west French provenances: from Nantes (44.45; 2.05g) and Saint-Nazaire (44.92; 1.94g). The only other provenanced example is

from Rumengol in Finistère. Weights range between 1.91g and 2.05g, corresponding to staters of 7.64g to 8.20g, indicating that this is another type which must be considered in conjunction with the earliest "Veneti" coins. The presence of the winged horse, however, is a distinctly non-Venetic feature. Boissel (ibid., 105) has suggested that it may be an imitation by the Osismii or the Namnetes, but there is precious little evidence to support or deny this.

8.4 The hippocampus series

The motif of the hippocampus, or sea-horse,[1] has already been observed on several coins (on the obverse of BN 6830, "Veneti" class VII, and on the reverse of the BN 6898-6900 and BN 6805 types). However it is particularly associated with a small and well-localized series from the north of Mayenne, traditionally attributed to the Aulerci Diablintes.

8.4.1 The LT XXIII 6804 type (figure 72.8)

The obverse of this type shows a very clear affinity to the Sarthe recumbent figure coins, discussed above, and in particular to class IIb of that group (see figure 67). The three bead earring is present, as is the wreath of three long double leaves, each oriented in the same direction as on the Sarthe coinage. Some details of the reverse show just slight modification from the Sarthe coins, notably the mane of the human-headed horse and the vexillum, but the key feature is the replacement of the armed figure by the hippocampus.

At least nine staters of this type have been found in north-west France (table 40). The known weights of the provenanced examples vary between 7.53g and 7.71g, though there are a couple of other examples (including BN 6804) at just below 7g.

The type has recently been discussed by Lambert and Rioufreyt (1987), in association with a later group of coins also traditionally attributed to the Aulerci Diablintes (see section 9.8). This attribution seems to be generally accepted (eg Aubin 1981a, 106). The findspots (figure 73) are within the reconstructed territory of the Aulerci Diablintes (figure 10), save for the two in north-east Ille-et-Vilaine, in the problematic area between the Couesnon and the Sélune (see section 1.4.4). The presence of these two coins is not sufficient to confirm that the Aulerci Diablintes, if it was they that issued this type, occupied this corridor of land and thus had the maritime aspect suggested by Caesar (BG II.34); furthermore there are a large number of east Armorican armed rider coins also present in this area (figure 65).

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[1] as Colbert de Beaulieu has noted (1954b, 65-67), the animal thus described sometimes appears to have the head of a dog, and other features not usually associated with the classical hippocampus. However this term is the most convenient and widely-used.

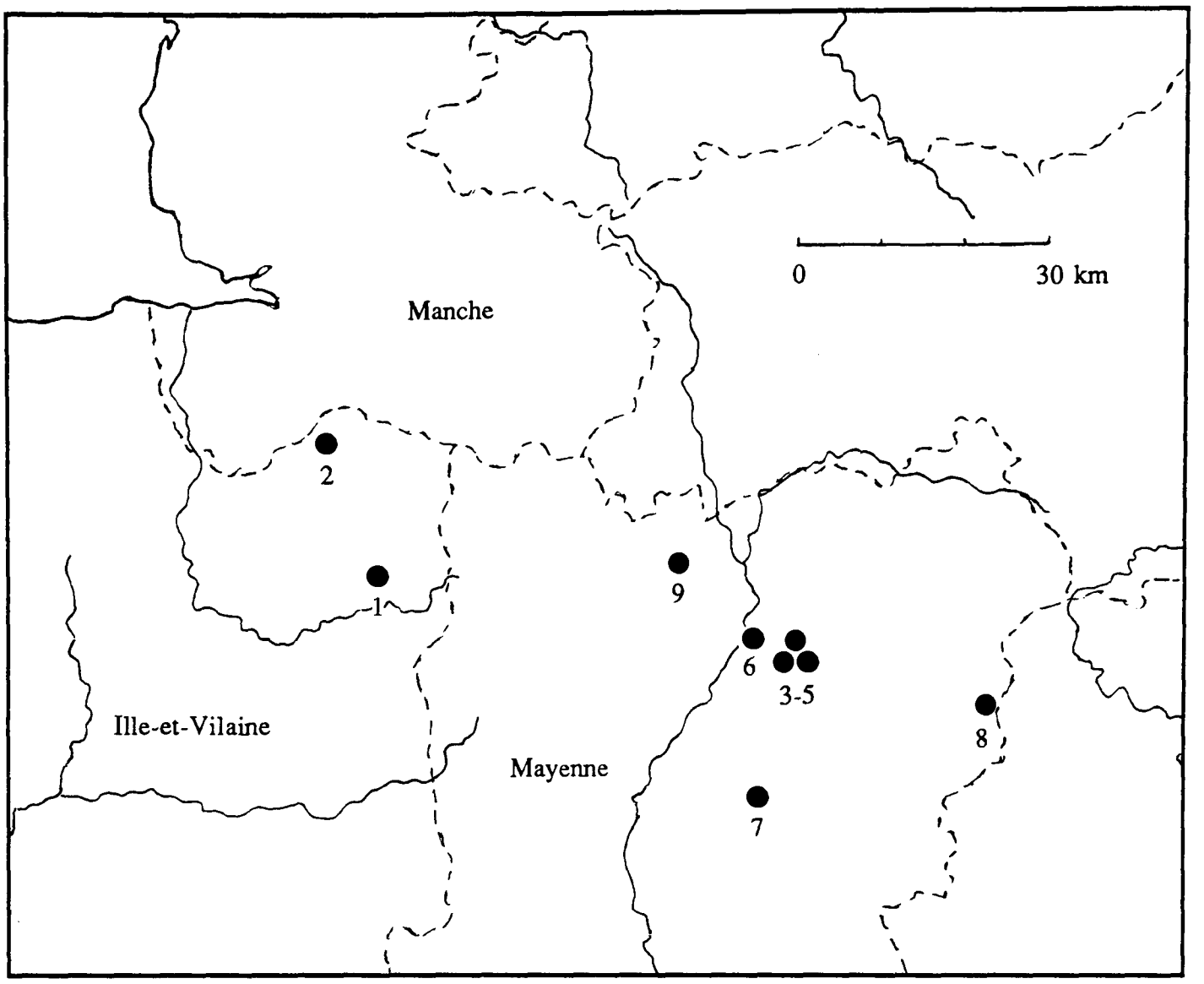

Figure 73. Distribution of the LT XXIII 6804 type.
See table below for key to sites.

	gaz. no., commune		denomination	weight
1	35.22	Fougères	stater	7.63g
2	35.64	Saint-Georges-de-Reintembault	stater	7.54g
3	53.28	Jublains	stater	-
4	53.28	Jublains	stater	-
5	53.28	Jublains	stater	-
6	53.41	Mayenne	stater	-
7	53.45	Montsûrs	stater	7.63g
8	53.57	Saint-Germain-de-Coulamer	stater	7.71g
9	53.60	Saint-Mars-sur-Colmont	stater	7.53g

Table 40. Provenances of the LT XXIII 6804 type.

The date of these coins may be in the mid-second century BC. There were clearly close links between the producers of this type and the Sarthe group; associations with the "Veneti" group, through the adoption of the hippocampus motif, are less certain as it is not clear whether the motif was employed with a particular symbolic meaning, or simply as one of a number of possible decorations in the repertoire of the engraver (Aubin 1990, 292).

8.5 The Aulerci Eburovices gold coinage

This small group of coins has been exhaustively researched by Scheers (1980a), and thus will only be summarized here. It is quite clear that despite some links, detailed below, these coins are very different in design from virtually all the other coinages in north-west France; their near exclusive use of the half stater as the usual denomination also marks them out from all but a few issues in the region.

Scheers (ibid.) identified two series of coins: the series *au loup et au sanglier*, and the series *au fleuron*. The former is further divided into four types: BN 7170, BN 7015, LT XXVIII 7017-7020 (*au visage tatoué et au loup*, divided into three classes), and BN 7016A-G (*au sanglier*, divided into three classes). There are two subdivisons of the latter series: LT XXXII 7895 and BN 7896-7898 (divided into five classes). There is no point in repeating Scheers' detailed description of each variation, but a brief outline of the types follows (see also figure 74):

BN 7170 (Scheers IA):	O/: laurelled head to the right; single bead earring R/: horse to the right, ridden by figure leaping on rump. Beneath the horse is a wolf, apparently biting the horse's front legs
BN 7015 (Scheers IB):	O/: bearded head to the right; hair is divided by a bar, represented in dots above the bar and locks below R/: horse to the left, with rider wearing skirt. Beneath the horse is a wolf with its mouth open; there are stars in front of the horse, and above and below its tail. In the exergue is a simulated legend of short vertical strokes
LT XXVIII 7017-7020: (Scheers IC)	O/: head to the left, increasingly stylized through classes I to III (eg triangular eye socket). On the cheek is a tattoo: three beads arranged in a triangle on cl. I, and a pair of parallel lines sometimes with a zig-zag line between them on cl. II and III (described as wolf's teeth by Scheers) R/: horse to the right, increasingly stylized through classes I to III. On cl. I the rider is leaping on the horse's rump; beneath the horse is a wolf with its mouth open. In front of the horse is a star and and undulating cord, with an open knot at the level of the horse's head, which descends below the wolf and up behind the rider. Cl. II is very similar, but behind the rider is a small cross. On cl. III the horse has a naked rider; the familiar wolf runs to the right beneath. In front of the horse is a large beaded cross, and on some examples a motif resembling the vexillum on Armorican coins.
BN 7016A-G (Scheers ID):	O/: stylized head to the left, hair represented by globules. Beneath the face is an upside-down boar. Classes I, II and III are virtually identical. R/: stylized horse to the right (classes I and II) or left (class III). Charioteer wears a skirt. There is a beaded circle with a centre point

	in front of the horse; beneath its legs is a boar to the right (left on class III)
LT XXXII 7895 (Scheers IIA):	O/: realistic head to the right, with "monumental" hair divided into two parts by a bar R/: horse with realistic body but stylized head ridden to the left by a rider wearing a striped skirt; under the horse is a double *fleuron* motif, and in the exergue a scroll or foliage pattern
BN 7896-7898 (Scheers IIB):	O/: head to the right, increasingly stylized in classes II and III-V (cl. V has head to the left); "monumental" hair divided into three triangular sections, of elaborate design; possible tattoo on cheek of classes III-V R/: horse to the left (classes I, II and IV) ridden by figure jumping on the rump. Under the horse's stomach is a double *fleuron*, and there are scrolls in the exergue. Class III is a more degenerate version, facing right. Class IV has a star or volute beneath the horse's stomach, and in front of the horse a square divided by a cross. Class V is very different: a hhh to the right, with charioteer holding vexillum; beneath the horse is a recumbent winged figure

Scheers (ibid.) identified various stylistic affinities in these types to other coinages in north-west France and Belgica. These include the figure leaping on the back of the horse (on types IA, IC cl. I and II, and IIB cls. I-IV), which is familiar from the sword type of the Normandy group of first phase coins (LT XX 6932; see figure 60.10); there are also resemblances to the Normandy group in the design of the obverse (Scheers 1980a, 3), and in the use of the half stater. There is also a hint of a resemblance to the second phase Sarthe recumbent figure coinage, through the earring on type IA, and type IB cl. V stands out with its reverse of an Armorican human-headed horse, although it is perhaps closer in style to the similar Treveri coinage (ibid., 32; Allen 1971c, fig. 1.1). But the most significant links on the heaviest and thus earliest coins are to some issues of the Ambiani - again through the use of the half stater denomination, and through similarities in design on certain types: IB, which incidentally has no provenanced examples, recalls Ambiani half staters with a bearded head (Scheers 1977, 224-228, pl. I.12-17), and the later large flan type (ibid., 242-266, pl. II-III.51-80), while IC is unusually large, again recalling the later Ambiani type. ID is very different, and Scheers has suggested (1980a, 26-28) that it represents the "war money" of the Aulerci Eburovices, with the adoption of the boar indicating closer links with Armorica and with the Baiocasses in particular. We shall return to this question, and associated problems of chronology, below.

The typological links within the coinage have also been fully investigated by Scheers (1980a). Thus elements such as the wolf and the leaping rider link IB to IA, while IC shows features drawn from

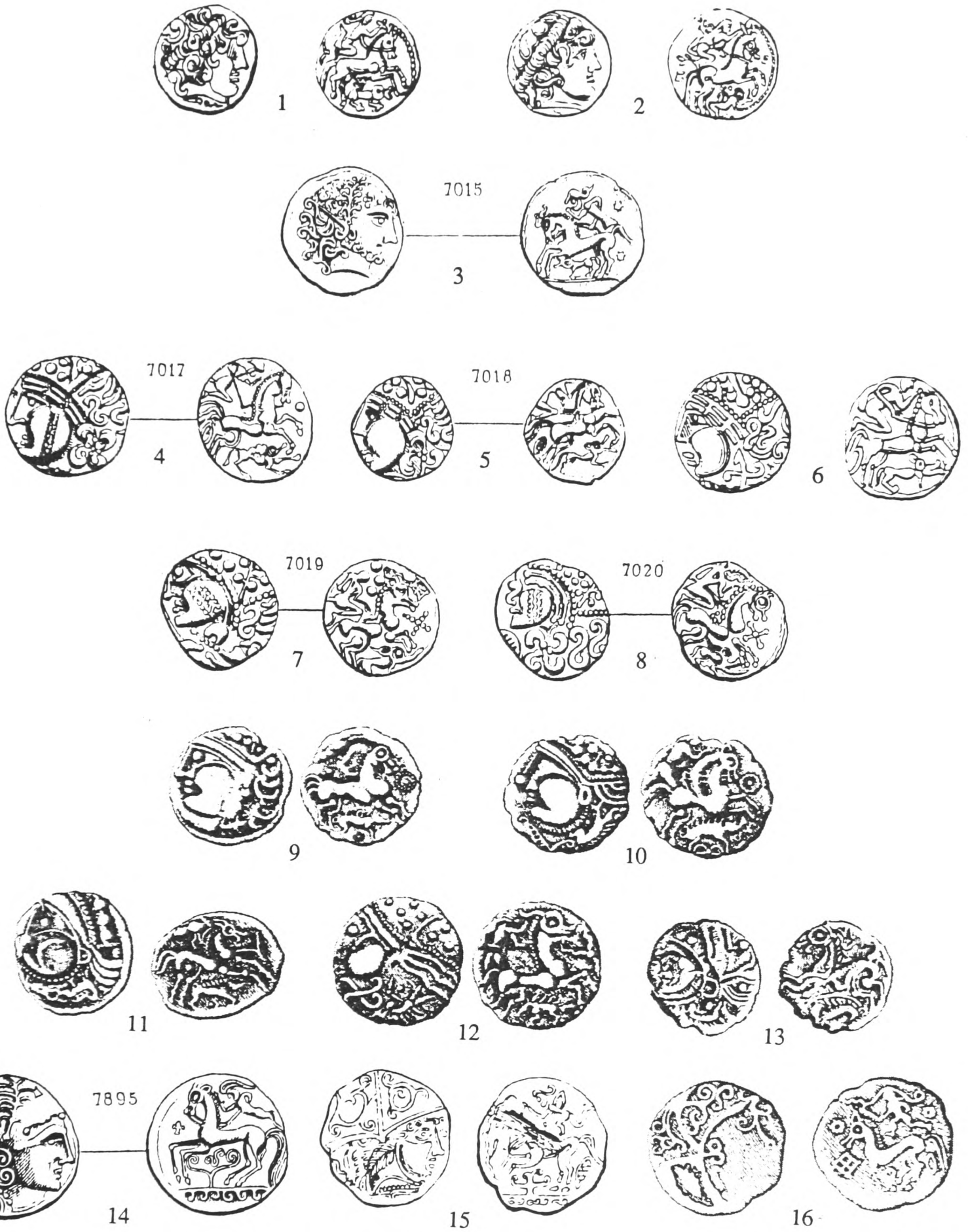

Figure 74 . Aulerci Eburovices gold coinage.
Other, very rare types are illustrated in Scheers (1980a) but do not bear reproduction.

IA:	1: la Haye-du-Theil (27.38; EL II, pl. III.14); 2: le Vieil-Evreux (27.79; EL I, pl. II.30)
IB:	3: unprovenanced (LT XXVII 7015)
IC cl. II:	4-5: unprovenanced (LT XXVIII 7017-7018); 6: Elbeuf (76.04; EL II, pl. VII.18)
IC cl. III:	7-8: unprovenanced (LT XXVIII 7019-7020)
ID cl. I:	9: Saint-André-de-l'Eure (27.63; Scheers 1980a, pl. VII.5); 10: Guichanville (27.36; Scheers 1980a, pl. VII.3)
ID cl. II:	11: Tourville-la-Campagne (27.71; Scheers 1980a, pl. VII.6); 12: Aubevoie (27.01; Scheers 1980a, pl. VII.1)
ID cl. III:	13: Oissel (76.11; Scheers 1980a, pl. VII.11a)
IIA:	14: unprovenanced (LT XXXII 7895)
IIB cl. I:	15: unprovenanced (EL I, pl. XIbis.5)
IIB cl. IV:	16: unprovenanced (Scheers 1980a, pl. VI.12)

both of these types (ibid., 14). Such links are particularly important given the lack of provenanced examples of many varieties of this coinage. Type ID, though replacing the wolf with a boar, is similar to IC. In group II, the very rare type IIA is inspired by IB (ibid., 29-30). The association of IIB with other types is evidenced through a few small details on the obverse, linking it with IA and IB, and features on the reverse including the tattoo and the undulating cord, which provide a link to different classes of type IC.

Although links between these types are thus evident on the basis of similarities in design, it remains difficult to place them all in their relative chronological order. Table 41 shows the distribution of weights of this coinage.

	IA	IB	ICI	ICII	ICIII	IDI	IDII	IDIII	IIA	IIBI	IIBII	IIBIII	IIBV
4.00-4.09g	///	//								///			
3.90-3.99g	/	/								/		/	
3.80-3.89g	///										/	/	
3.70-3.79g	/								//		/		/
3.60-3.69g													
3.50-3.59g	/		/							/			
3.40-3.49g	/			////									
3.30-3.39g	////	/	///	////									
3.20-3.29g		////	//////////	//////////	/								
3.10-3.19g		////	//////////	//	/								
3.00-3.09g		/	///										
2.90-2.99g	//	/											

Table 41. Distribution of weights of the Aulerci Eburovices gold coinage.
Columns include weights of all known examples, listed in Scheers (1980a). There are no recorded weights for IIB class IV. Weights of quarter staters have been doubled.

The heaviest coins (IA, IB and IIB cl. I) are initially of very similar weight to the Normandy first phase coins (see table 28). We may thus suggest a similar date, perhaps in the early or middle second century BC, for these types (cf. Scheers 1980a, 25). After the production of these coins there seems to be a considerable gap before the next issues, classes IC and ID, half staters mostly between 3.10g and 3.50g.[1] As mentioned above, Scheers identifies these coins, in particular the boar issues (ID;

[1] it is tempting to convert these weights into values for staters, and thus to compare the results with the Armorican coinages of the pre-War period. But the stater was clearly not the the denomination employed by the Aulerci Eburovices, and to do so might suggest a misleading parity with the coinage of the Armorican tribes - which the unit, metal and design all seem to contradict.

these overlap with IC, but probably started slightly earlier) as productions associated with the Gallic War, reflecting "le désir de participer à la grande révolte armoricain" (ibid., 36). This seems likely, but there are several reasons to be cautious of assuming such an association. None of the Aulerci Eburovices coins have yet been found in excavation, let alone in securely stratified deposits, and thus there is no independent evidence for dating. They are also extremely rare in hoards. There is a poorly recorded find from Bourg-Beaudouin (in Eure, north of the Seine), which included a half stater of type IC cl. II, and a bronze coin *au personnage agenouillé* of the Veliocasses (Scheers 1977, pl. XXI.608). This latter coin suggests that this was a post-conquest deposition (Scheers 1980a, 26). One other hoard, entirely of Aulerci Eburovices coins, is recorded either from Pas-de-Calais or from Yvelines. There are no known cases of Aulerci Eburovices coins found in association with Armorican issues. Furthermore, although the boar is familiar from many later Armorican coinages, it does not automatically follow that the adoption of this motif signifies a closer link with the Armorican tribes; such is the ubiquity of the boar in the Celtic world that any such assumption must be viewed warily. Despite these points, the hypothesis of a war coinage is attractive and certainly cannot be disproved at present.

Little has been said thus far on the validity of the attribution to the Aulerci Eburovices. Figure 75 shows the finds in north-west France, listed on table 42. There are only a few finds outside the region, recorded in Scheers (1980a): for type IC, a couple of isolated finds in Eure north of the Seine, the Eure hoard mentioned above, and a single find in the Somme; for ID, one isolated find in Eure north of the Seine and the Pas-de-Calais/Yvelines hoard; and for IIB, an isolated find in Pas-de-Calais. As the map shows, only types IC and ID have been found in any number. Although it is tempting to suggest that these two types, which share nearly identical weights (table 41), were the product of two mints, their distribution is thoroughly mixed and cannot confirm this. However there are two distinct concentrations of coins, in south-east Eure and in the region around Elbeuf, and these may represent centres of population. There are no finds at all in the south-west of the department, which is perhaps not surprising given that much of this area is forested and relatively high ground; but whether the lack of coins reflects the absence of Iron Age settlement or the lack of modern interference is not clear. It is apparent, however, that for some types, in particular IB and IIA, the attribution rests solely on typological links, and given the parallels with the Ambiani coinage, it is as well to retain a note of caution in their attribution to the Aulerci Eburovices.

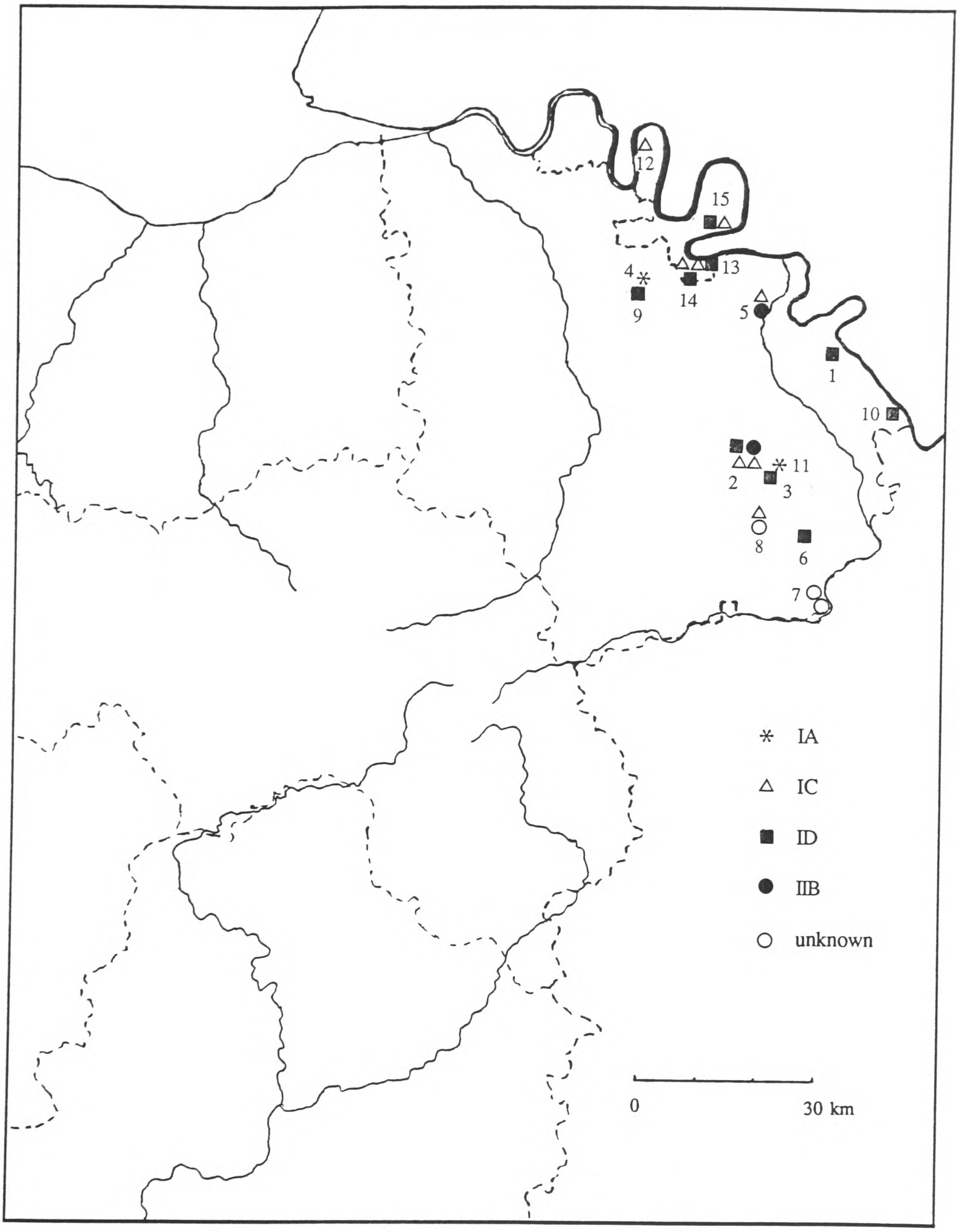

Figure 75. Distribution of Aulerci Eburovices gold coinage.
Key to sites on table 42.

	gaz. no., commune		denomination	weight	remarks
1	27.01	Aubevoie	half stater	-	ID cl. II
2	27.29	Evreux	half stater	-	IC cl. II
	27.29	Evreux	half stater	-	IC cl. II
	27.29	Evreux	half stater	-	ID cl. I?
	27.29	Evreux	half stater	-	IIB cl. IV
3	27.36	Guichanville	half stater	-	ID cl. I
4	27.38	la Haye-du-Theil	half stater	-	IA
5	27.50	Louviers	half stater	3.72g	IIB cl. V
	27.50	Louviers	half stater	-	IC cl. II or III
6	27.63	Saint-André-de-l'Eure	half stater	-	ID cl. I
7	27.64	Saint-Georges-Motel	half stater	-	IC or ID
	27.64	Saint-Georges-Motel	half stater	-	IC or ID
8	27.69	Thomer-la-Sogne	half stater	-	IC cl. II
	27.69	Thomer-la-Sogne	half stater	-	unknown
9	27.71	Tourville-la-Campagne	half stater	-	ID cl. II
10	27.77	Vernon	half stater	3.08g	ID cl. I
11	27.79	le Vieil-Evreux	half stater	3.71g	probably IA
12	76.01	Anneville-sur-Seine	half stater	-	IC cl. II
13	76.03	Caudebec-lès-Elbeuf	half stater	-	ID cl. II
14	76.04	Elbeuf	half stater	2.97g	IC cl. II
	76.04	Elbeuf	half stater	3.45g	IC cl. II
	76.04	Elbeuf	half stater	-	ID cl. ?
15	76.11	Oissel	half stater	3.23g	ID cl. III
	76.11	Oissel	quarter stater	1.71g	IC cl. II

Table 42. Provenanced finds of Aulerci Eburovices gold coinage in north-west France.
All coins are isolated finds.
Numbers in the first column refer to figure 75.

8.6 Other second phase coins

A few other types, known by only a handful of examples, have weights which suggest production during the second phase of coinage.

8.6.1 The BN 6757B type (Colbert de Beaulieu 1954b, fig. 2)

This coin has been discussed by Nash (1978a, 107), who suggests that it is related to her Berry type late gold issues, derived from early eastern Gaulish coinage (ibid., 84-88). One example has been found in north-west France, at le Loroux-Bottereau (44.32; 8.03g); the BN example is rather lighter, at 7.59g. A date late in the second century BC seems likely for the late Berry types (ibid., 101), but in the absence of other examples and information on relative chronology it is not possible to date this type with assurance.

8.6.2 The LT XXIV 6897 type (figure 72.9)

This coin (7.64g) was found at la Ferté-Bernard (72.15) in the nineteenth century; several forged copies have been given provenances elsewhere in north-west France (Colbert de Beaulieu 1973a, 95-97), but this is the only genuine example in the region.[1] The style of the obverse bears some resemblance to the early class (IIa) of the Sarthe armed figure coinage, notably in the arrangement of the locks of hair and the portrayal of the eye, nose and mouth. If an earring was present, it has been obscured by a countermark variously described as a hippocampus or a griffin (Colbert de Beaulieu 1954b, fig. 11; 1973a, fig. 22). On the reverse the relatively early date of this coin is indicated by the retention of two horses with normal heads. Attributions to both the Aulerci Cenomani and the Carnutes have been suggested on the basis of the single findspot in north-west France, but both must be treated with considerable caution.

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[1] another, weighing 7.80g and without the countermark, has been found at Moisy, Loir-et-Cher (Colbert de Beaulieu 1973a, 95 n.125).

8.6.3 The LT XXI 6902 type (figure 72.10)

This type of quarter stater has been fully discussed by Colbert de Beaulieu (1959b, 47-50). Three examples have been found in north-west France: at Jublains (53.28; 1.85g), Ceaucé (61.12; 1.91g), and on the boundary of Mayenne and Sarthe (72.39; probably the BN example, at 1.88g). The style of the obverse on the Ceaucé coin (ibid., plate, no. 11) is close to the Sarthe armed figure coinage, though very different to the other two coins (eg LT XXI 6902). However the three are linked by the reverse, which shows a human-headed horse galloping to the right, beneath which is an ornament (the *quatre-feuilles*) surrounded by a beaded circle. An attribution to the Aulerci Diablintes has been favoured for this type, but as Colbert de Beaulieu notes (ibid., 49-50), the typological and geographical evidence for this is far from certain.

8.6.4 The BN 6921A type

Two examples of this gold quarter stater have been found at Vertou (44.102), weighing 1.60g and 1.85g (the BN example weighs 2.01g). The obverse shows a head face on and the reverse a boar above two marine animals, possibly dolphins; an example found at Saint-Pol-de-Léon (Finistère) is described and illustrated by Blanchet (1932, 185-186 pl. VII.14). Colbert de Beaulieu (1954d, 290-292) has suggested that this type was inspired by a Syracusan coin, dated to 430-400 BC, but the reference he gives (Seltman 1933, pl. XXIII.7) shows a completely different reverse and only passing similarity to the style of the head on the obverse. An association with Corbilo has been advanced (Colbert de Beaulieu 1954d, 292), but once again this must be regarded with caution. Colbert de Beaulieu suggests a date in the second century for this type, but the weight of the BN example and the date of the purported inspiration suggest that it may have been earlier.

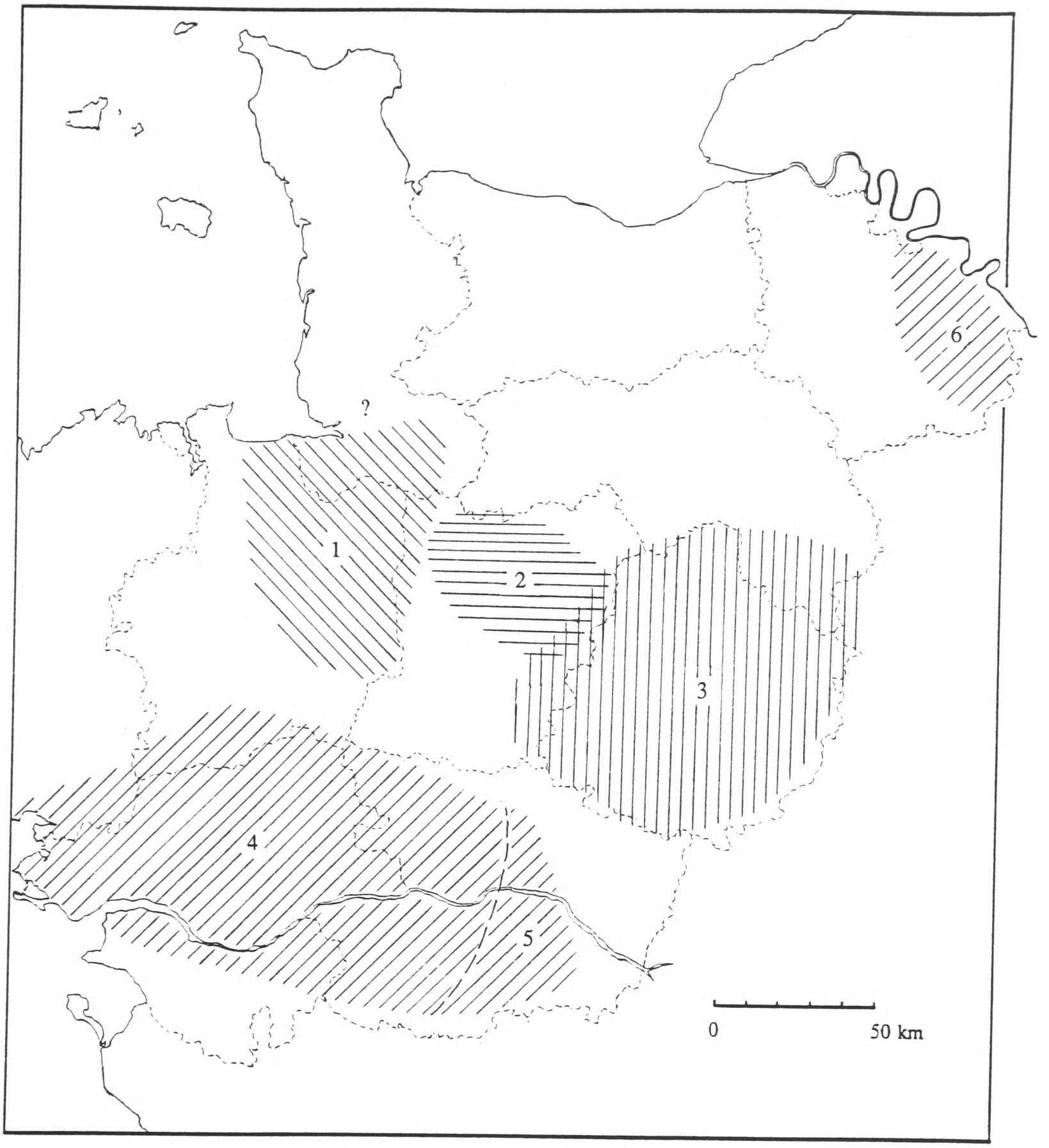
8.6.5 The LT XXV 6963 type (figure 72.11)

A single example of this gold quarter stater, but with the human-headed horse to the left, is recorded simply from 'Jersey' (J.25; 1.858g); it may have been in one of the hoards on the island. The presence of the boar above the head, and beneath the horse, may link this coin to the later series attributed to the Baiocasses and/or the Unelli (9.9).

8.7 Summary

This chapter has identified four main groups of second phase coinage, in east Armorica (the armed rider series), the Sarthe (recumbent figure coins), the lower Seine (the Aulerci Eburovices coinage) and the lower Loire (the "Veneti" winged figure coins). To these may be added more minor issues, such as BN 6765-6769 (eastern Maine-et-Loire?) and the hippocampus type (LT XXIII 6804; Aulerci Diablintes?), along with several other related types which cannot yet be localized. The areas of production of the six main types, on the basis of the distribution of isolated finds, are shown on figure 76. Both the Sarthe and the hippocampus types correspond well to the tribal areas of the Aulerci Cenomani and Aulerci Diablintes respectively, as reconstructed for the early Gallo-Roman period, and it does not seem unreasonable to equate these productions with those tribes. The east Armorican type may have been produced by the Redones or their predecessors in that area; the distribution of the coins does not correspond especially well with the later boundaries, but these may have changed in the century or more after the coins were in use. The distribution of the earliest east Armorican type (*au foudre*) is much more widespread, and may indicate that these coins were still in use almost exclusively in gift exchange between wealthy chieftains. The distribution of the Aulerci Eburovices coinage is not surprisingly concentrated along the valley of the Seine, rather than on the less hospitable ground in the south-west of the modern department which is usually attributed to this tribe.

The "Veneti" coinage presents the greatest problem, since there are several ways of explaining the observed distribution, none of which reflect the current orthodoxy. If we are correct in viewing these coins as a tribal production, then we are faced with three main possibilities: that the Veneti produced these coins, but were located along the lower Loire, rather than in southern Brittany; that the tribe were located in southern Brittany, but did not produce these coins; or that the coins were produced by the Namnetes (or another, earlier group whose name we do not know), whose boundaries as fixed in the early Gallo-Roman period correspond well to the distribution of the winged figure type. If the pattern of isolated finds is to be believed, and there are no obvious reasons why it should not be in this particular instance, then production in the lower Loire region seems almost certain; it remains to be seen whether it was the Veneti, the Namnetes or another group which controlled this production. Further archaeological and numsimatic research should shed some light on these issues, and, it is to be hoped,



1	East Armorican group	4	"Veneti"
2	Aulerci Diablintes?	5	BN 6765 type
3	Sarthe group	6	Aulerci Eburovices

Figure 76. Possible tribal groupings in the second century BC.

on the problem of Corbilo, which perhaps links the first and second phase coins in this area and is certainly of crucial importance in understanding the middle and late Iron Age situation in the region.

Although the second phase coinage was defined at the outset as that between 7.60g and 8.00g, it is plain that such arbitrary limits do not always reflect the real situation. Table 43 compares the distribution of weights of the major Armorican types considered in this chapter.

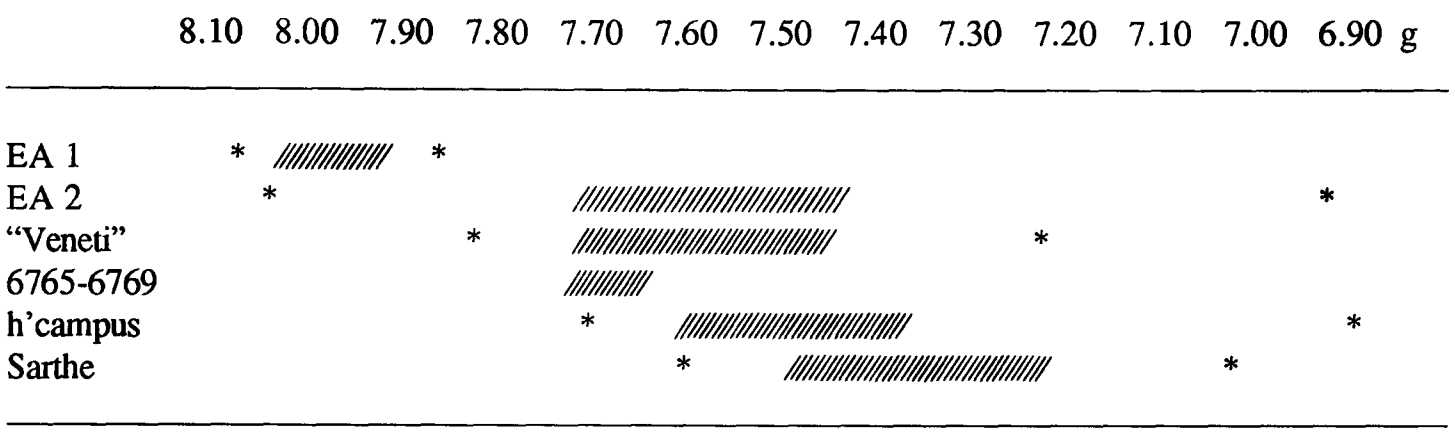


Table 43. Range of weights for the major second phase coin types.
EA 1 is the east Armorican thunderbolt type, and EA 2 the east Armorican lyre type.
The strokes (/) mark the area between the 25th and 75th percentiles for each type; the asterisks mark the position of the 10th and 90th percentiles, where calculable (method from Esty 1989).

The very earliest coins carry the last direct imitation of the Philippus, in the form of the stylized legend on the east Armorican type *à la tête nue*. This group certainly began slightly earlier than the "Veneti" series, which in turn provided inspiration for the Sarthe armed figure coins; this latter group's link with the Treveri remains something of a puzzle. The other types in this table, and most of the others in this chapter, drew on both the Sarthe and the "Veneti" coins for their inspiration. They should perhaps be seen as the product of smaller areas or individual chieftains on the periphery of the major groups.

The absolute dates for these coins remain mostly elusive. The Sarthe group probably continued up to or shortly before the conquest, with the "Veneti" type being replaced by their billon coinage a few years earlier. The beginning of each series is far more problematic, but it is probably appropriate to place the earliest second phase coins in the middle third of the second century BC.

9

Coins of the third phase

The third phase of coinage is marked by a rapid fall in the weight of the coins, corresponding to a decline in the purity of the alloy. The heaviest staters weigh about 7.50g, but decrease by as much as two grammes by the end of this period (the Gallic War or shortly afterwards), as increasing amounts of silver, copper and other metals are introduced to the alloy. The production of coins increases hugely in this phase, with types attributed to most of the tribes recognized in the early Gallo-Roman period, though as we shall see these attributions are not always supportable.

Most of the coins of this phase in north-west France are linked not only by their continued use of the stater as the unit of denomination, and thus by similarities in their weight range, but also by features of the design which are classically Armorican, of which the best known is the human-headed horse. The various tribes using this motif will be considered first, beginning in the south with the gold coinages of the Andes, Namnetes and Pictones (9.1-3), followed by the closely linked billon issues of the Veneti, the Coriosolitae, the Redones and related types (9.4-8), and finally the base gold and billon issues of the Baiocasses/Unelli in lower Normandy (9.9). Some of the tribes considered among this group are technically mostly outside the boundaries of north-west France (the Pictones, the Veneti and the Coriosolitae), but the presence of large numbers of their coins in the region, and the strong stylistic links between the issues of all the tribes in Armorica at this period, necessitate some discussion of these groups as well. Other less well-known types, including the silver fractions featuring the head of Pallas Athena, will be considered in 9.10. In addition, there will be a brief consideration of the distribution in north-west France of third phase coins originating outside the region (9.11).

9.1 The Andes coinage

9.1.1 Gold coins (BN 6525-6528)

This small group has been briefly considered by Colbert de Beaulieu (1960, 85-86; see also Huvelin 1973, 406-407), and discussed in considerable detail by Dain (1971), who attributed these coins to the Andes.[1] Although there are clear stylistic links between these coins and other groups in the south and west, in particular the Veneti and the Namnetes, the positive evidence for such an attribution is limited. We shall return to this point after a brief description of the type (figure 77).

The obverse shows a head to the right, from the top of which project two beaded cordons to which are attached two small heads, one in front and one behind the main head. At the point above the head where the "chains" separate is a decorative motif (*palmette*) (see Dain 1971, pl. I.3 (BN 6525bis) and pl. I.8). On the reverse is a human-headed horse facing right. The charioteer holds the mane of the horse in his right hand, and in his left a line leading to the vexillum in front of the horse; the vexillum has a variable number of hanging pendants. Beneath the horse is a winged figure, with its knees drawn up in a foetal position.

Dain (ibid., 109-113) has presented a rather complex argument, based almost entirely on typological changes, to account for the development of this type from the "Veneti" winged figure coinage, through Namnetes types such as BN 6730 (see below), and two unprovenanced coins, BN 6414 and 6413 (ibid., pl. II.17, 19), leading ultimately to the BN 6525-6528 type. His argument suffers from several probably incorrect assumptions, including Venetic control of early coin production in Armorica, and the belief that each *civitas* must have had a single gold coinage; thus he comments (ibid., 109) that the attribution of the *génie hippophore* type to the Namnetes "pourrait suffire à demontrer que le type au génie couché est le monnayage andécave...", which is simply untenable. In addition, he assumes that as the Veneti were separated from the Andes by the Namnetes, they could only have influenced the Andes coinage by first influencing the Namnetes. As we have seen, the distribution of the "Veneti" winged figure coinage is such that this argument cannot be endorsed. But it

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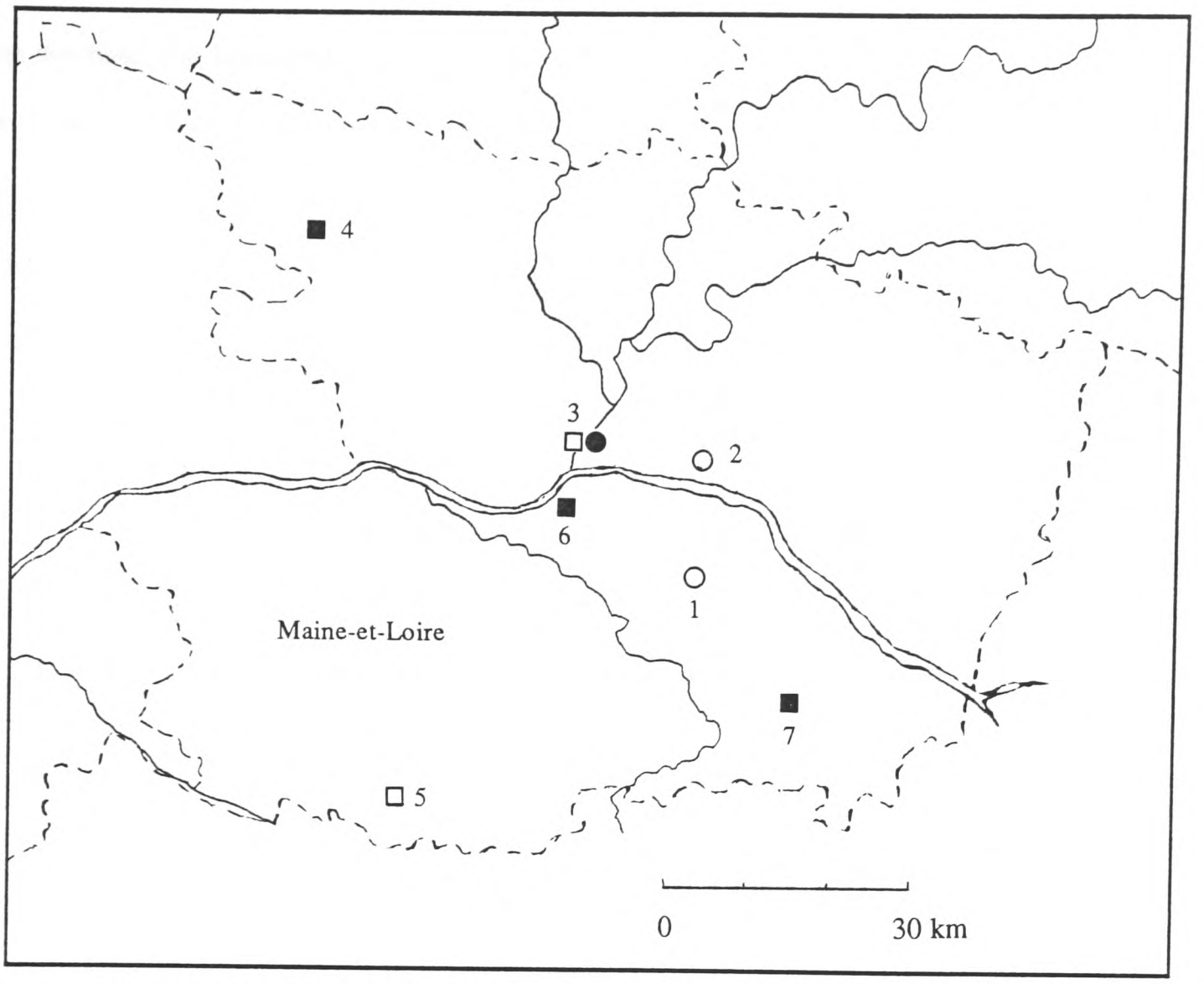
[1] since this section was written, a paper has been published on this type by Frébutte (1991), who has catalogued provenanced and unprovenanced examples and devised a three part classification of the type, based on the design of the *palmette* on the obverse. Certain points from his work have been appended to this section.



□ isolated find, BN 6525-6528

○ excavation find, BN 6432-6486

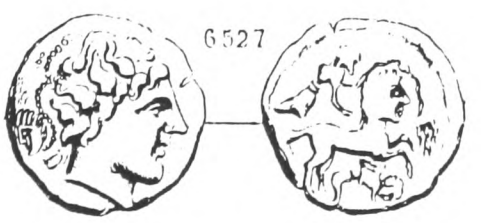
■ hoard find, BN 6525-6528

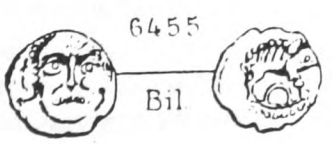
● hoard find, BN 6432-6486

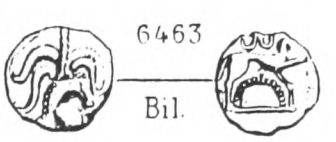
1	les Alleuds	49.01	5	Cholet	49.42
2	Andard	49.03	6	Denée	49.46
3	Angers	49.07-08	7	Doué-la-Fontaine	49.48
4	Challain-la-Potherie	49.27			

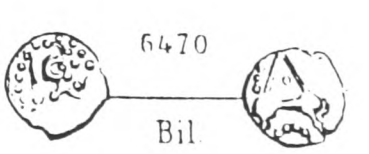
Figure 77. Distribution of Andes coinage.

The illustrations show (top) the gold type and (bottom) the main billon types.









is on this basis that Dain (ibid., 112) discounts the inspiration of the Veneti for certain motifs on this type - the vexillum and the wheel - in favour of influence from the Aulerci Cenomani (the Sarthe recumbent figure coinage). While this may indeed have been the case, the route by which Dain arrives at this conclusion is not satisfactory. Further problems are presented by the weights of some of these coins. BN 6413 and 6414, at 7.25g and 7.30g respectively, are rather lighter than the few known examples of BN 6525 and BN 6525bis (usually 7.40-7.50g), which they are supposed to have preceded. On the basis of so few examples, however, this argument cannot be conclusively rejected.[1]

The distribution of these coins does not shed a great deal more light on the subject (figure 77). There are only five recorded provenances in north-west France (table 44), and it is possible that the coins in the Challain-la-Potherie hoard were actually "Veneti" winged figure issues, though Dain (ibid., 97-98) has argued that they are more likely to have been of this type. Outside north-west France, examples have been found at Châtillon-Mauléon and Pierrefitte (in a hoard), both in Deux-Sèvres (Hiernard 1978, 67; an example often listed from Thouars is probably from the Pierrefitte hoard).[2]

gaz. no., commune		denomination	weight	remarks
49.08	Angers or environs	stater	7.40g	BN 6525bis
49.27	Challain-la-Potherie	staters	-	in hoard
49.42	Cholet	stater	-	-
49.46	Denée	staters	6.40-7.28g	15 in hoard
49.48	Doué-la-Fontaine	staters	-	2+ in hoard

Table 44. Provenances of type BN 6525-6528 in north-west France.

There are simply too few provenances to comment satisfactorily on the distribution of this type, but it seems unlikely that it was the tribal coinage of the Andes, if such a thing ever existed. The stylistic links and the relatively heavy weight suggest instead that it was one of several types produced in modern-day Loire-Atlantique and Maine-et-Loire, inspired mainly by the "Veneti" winged figure

[1] Frébutte's work, however, provides further evidence against Dain's hypothesis. The earliest classes of this coinage (Frébutte's IA-C) are between 7.40g and 7.60g, which is as heavy as the earliest *génie hippophore* types, which are supposed to have influenced the Andes type. An alternative and more satisfactory view is that these types were probably produced at roughly the same time, both being inspired primarily by the "Veneti" winged figure coinage.

[2] Frébutte also lists examples from the environs of Nantes, from Mazières-en-Mauges (though the description is not sufficient to be certain) and Yzernay in Maine-et-Loire, and from the Gallo-Roman *fanum* of Antigny (Vienne).

coinage of the second phase, but open also to influences from the north (the Sarthe recumbent figure coins).[1]

9.1.2 Billon coins (BN 6432-6486)

This type sits rather uneasily amid the various staters, ultimately inspired by the "Veneti" winged figure coinage, which characterize the third phase issues in the south and west of the region. The reason is simple: its prototype is a completely different coin, the heavy gold quarter stater (type BN 6921A) mentioned above (8.6.4), which has been found at Saint-Pol-de-Léon (Finistère) and at Vertou (44.101) (Colbert de Beaulieu 1954d, 291-292). Although there was probably a gap of many years between production of the two types, the parallels in design are unmistakeable. The prototype (illustrated in Blanchet 1932, pl. VII.14) is little changed on the obverse of two varieties of the billon coinage (figure 77), showing a head face-on. On the reverse the boar supported by two marine animals becomes a boar standard.

Three main varieties of this coinage are recognized, showing a clear degeneration in the design from the first group (BN 6432-6458) to the third group (BN 6467-6476). The second group (BN 6459-6466) has a rather different obverse, apparently with a more characteristically Armorican head, and with a baton between the stylized locks of hair which recalls that on the class I Namnetes staters. The other coins (BN 6477-6486) are a less coherent group featuring a horse on the reverse, but they also have the boar standard and all four designs are certainly part of a single series of issues.

The BN coins were all found in the massive hoard at the pont de la Chalouère (or Chaloire) in Angers (49.07) in 1828, and hence attributed to the Andes. Finds since then have been limited to two sites about 20km from Angers, at the *fanum* of Andard (49.03) and the indigenous settlement of les Alleuds (49.01) (see table 45). Their presence at les Alleuds confirms that the coins were in circulation before the conquest, since that site is remarkable for the lack of Gallo-Roman structures or finds. Other coins on the site included two worn billon staters of the Namnetes (var. b), and a number of potins. The make-up of the Angers hoard, though in hugely increased numbers, is similar to that from the

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[1] Frébutte has suggested that this type might be reattributed to the Ambilatri, perhaps located in the Choletais and the Mauges; this tribe is mentioned by Pliny (*Natural History* IV, 19, 108). There is really as little evidence for this as there is for an attribution to the Andes, and it would seem more sensible at present simply to record the existence of the type without recourse to a tribal attribution.

excavated settlement site: it too included a Namnetes stater, and an estimated 6000 potins, as well as vast numbers of this type.

gaz. no., commune		type	number	weight range
49.01	les Alleuds	BN 6432-6458	4	0.24-0.43g
		BN 6459-6466	3	0.23-0.46g
		BN 6467-6476	5	0.16-0.70g
49.03	Andard	?	-	-
49.07	Angers	BN 6432-6458	>35	0.30-0.70g
		BN 6459-6466	>7	0.32-0.54g
		BN 6467-6476	>14	0.37-0.55g
		BN 6477-6486	>10	0.32-0.60g

Table 45. Provenances of types BN 6432-6486.

There is no significant difference between the weights of the four groups: all average between 0.41g and 0.44g. It is interesting to note that the examples from les Alleuds are mostly lighter than those from Angers, suggesting that they were in circulation for rather longer than the hoarded coins.

It seems virtually certain that these types were produced in or around Angers, probably in the last decade or two before the conquest.

9.2 The Namnetes coinage (BN 6723-6734, 6736-6754)[1]

This distinctive series of staters and quarter staters, in gold and later in electrum or billon, was first critically examined by Dain (1971). The typology has been refined by Scheers (1982), and the distribution analysed by Aubin (1987). The main points of each will be summarized here.

9.2.1 Namnetes gold coinage

The gold staters of this type have the following characteristics (figure 78):

O/: a small head facing right, with a pointed nose and chin; the hair is in two ranges, the lower of four locks laid alongside the head, and the upper of four locks arranged vertically. The head is surrounded by chains or beaded cordons, each terminating in a small head. In front of the chin or below the neck is a motif known as the *mors de bride*, literally a bridle-bit.

R/: a human-headed horse gallops to the right, above the upper part of a man's body. This figure - the *génie hippophore* - has its arms outstretched, grasping the lower limbs of the horse, and its head is turned to the right. The *mors de bride* motif is present beneath the figure. The charioteer holds his right hand aloft, and in his left hand holds the reins; on some varieties (classes Id and IIc) he holds the reins in both hands.

Scheers (1982, 181-182) has identified two classes, distinguished principally by the presence of a baton in the hair (class I) or a cross in front of the head (class II). There are very minor variations within each class which will not be detailed here (see Scheers, ibid.). The design as a whole is strongly influenced by the "Veneti" coinage of the second phase. Of particular relevance are the beaded cordons surrounding the head, and the *mors de bride*, which appears to have developed from the *pédoncule* on which rests the head on the "Veneti" class V and VII issues (see figure 69) (Colbert de Beaulieu 1973a, 145). Dain (1971, 103-104) describes a coin which embodies motifs of both types, possibly from the hoard of Challain-la-Potherie (49.27): the head rests on the *pédoncule orné*, while on the reverse there is the *génie hippophore*. The coin weighs 7.40g and thus is within the usual range of the earliest Namnetes staters (see below).

The gold quarter staters are of two types, BN 6724 and BN 6725. The former is close in style to the class I staters, but the baton on the obverse is not present, and on the reverse the charioteer's

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[1] the 'missing' coin in this list, BN 6735, has recently been described as "namneto-andecave but probably Pictones" (L'Helgouach and Aubin 1987-88, 144). One example (bronze) has been found in north-west France, from dredging the Vilaine at Massérac (44.34).

Figure 78 . Examples of Namnetes coinage.
gold:
1: unprovenanced, cl. Id (BN 6728); 2: Chazé-sur-Argos (49.38), cl. Ia (Aubin 1982a, pl. I.12); 3: unprovenanced, cl. I (Dain 1971, pl. II.11); 4: Avranches (50.01), cl. II (EL II, pl. IX.4); 5: 'Anjou/Bretagne' (49.129), cl. II (EL I, pl. III.20); 6: unprovenanced, cl. IIc (BN 6723).
billon:
7: unprovenanced, var. b (BN 6743); 8: Rannée (35.47), var. b (Musée de Bretagne, Rennes).

hand is represented by a globule. The BN 6725 type is strongly reminiscent of the Sarthe recumbent figure coinage: the beaded cordons are not present, and the human-headed horse is winged.

The weights of the gold coins (table 46) indicate that class I (usually in the range 7.40-7.60g) preceded class II (usually 7.10-7.30g, but common down to 6.80g). The distribution will be discussed after a summary of the billon types.

9.2.2 Namnetes base gold and billon coinage

This series takes its inspiration from the class II gold coinage. The design of the obverse is very similar - the beaded cordons, small heads, cross and *mors de bride* are all present - while on the reverse the charioteer lifts his right hand, and the *génie hippophore* is in the same position beneath the horse. Two variations of this type have been distinguished, with variant b having a smaller head on the obverse (Scheers 1982, 185). Quarter staters are also divided into two types, with variant a virtually identical to variant a of the staters, and variant b again differentiated by the size of the head.

	gold cl. I	gold cl. II	quarters	base gold/billon
7.60-7.69g	/			
7.50-7.59g	////			
7.40-7.49g	////	//	/	
7.30-7.39g	//	/////		
7.20-7.29g	/	////////////////////		/
7.10-7.19g	/	//////////////		
7.00-7.09g		///////	//	
6.90-6.99g		////		//
6.80-6.89g		/////		/
6.70-6.79g				/
6.60-6.69g	/	/		//
6.50-6.59g				
6.40-6.49g				//
6.30-6.39g				/
6.20-6.29g				/
6.10-6.19g				/
others				5.68g, 5.58g, 5.57g, 5.53g, 5.28g, 4.43g

Table 46. Distribution of weights of the Namnetes coinage.
Columns include known weights of all coins with a provenance in north-west France.
/represents one coin. Weights of quarter staters have been quadrupled.

Scheers (ibid.) notes that the billon coins usually weigh between 6.90 and 7.00g, although the examples in north-west France are spread over a much wider range (table 46). There does not appear to be any significant difference between variants a and b, and thus they were probably issued at roughly the same time.

9.2.3 Distribution

The provenanced finds of this coinage are mapped on figure 79 and listed on table 47. Aubin's intensive research on the type (1987) located only two other provenances in western France: an electrum quarter stater from Saint-Benoist-sur-Mer (Vendée), and a doubtful report of a small hoard from Vannes (Morbihan). The distribution is complex and not readily interpretable. Aside from the concentration of gold class I staters around Nantes, very few coins have been found in the territory believed to have been occupied by the Namnetes (figure 10). There are particular concentrations in the area around Angers and in the Segréen (north-west Maine-et-Loire) and southern Mayenne, which may represent centres of population and perhaps trading links using the valley of the Mayenne. Two-thirds of the hoards containing Namnetes coins have been found in these two areas. It is tempting to link the concentration in the Segréen with the presence of gold and tin ores in the area, and further with the quadrilateral enclosures in the forêt de la Guerche, in the extreme south-east of Ille-et-Vilaine, where J.-C. Meuret has recently excavated evidence for some kind of small-scale precious metal production in this period (see section 5.4.2) - in the same commune as the hoard of Namnetes coins at Rannée (35.47).

The contents of the hoards across the region are very similar (table 47). Only the unsatisfactorily recorded find from Rezé (44.72) contains coins other than those of the Andes, Namnetes, Veneti and Pictones, as traditionally defined (this chapter). If we can reject the traditional notion that hoards were necessarily deposited by a fleeing populace at some distance from their tribal areas (eg Dain 1971, 105), then an alternative explanation, such as burial in the neighbourhood of a settlement for recovery at a later date, would reinforce the evidence of the isolated finds, that the populations using the late classes of these coins were concentrated around Angers and in the Segréen. It is notable that only one class I coin is recorded from a hoard (Challain-la-Potherie, 49.27), and it seems reasonable to associate the majority of the hoards, of base gold and billon issues, with events either

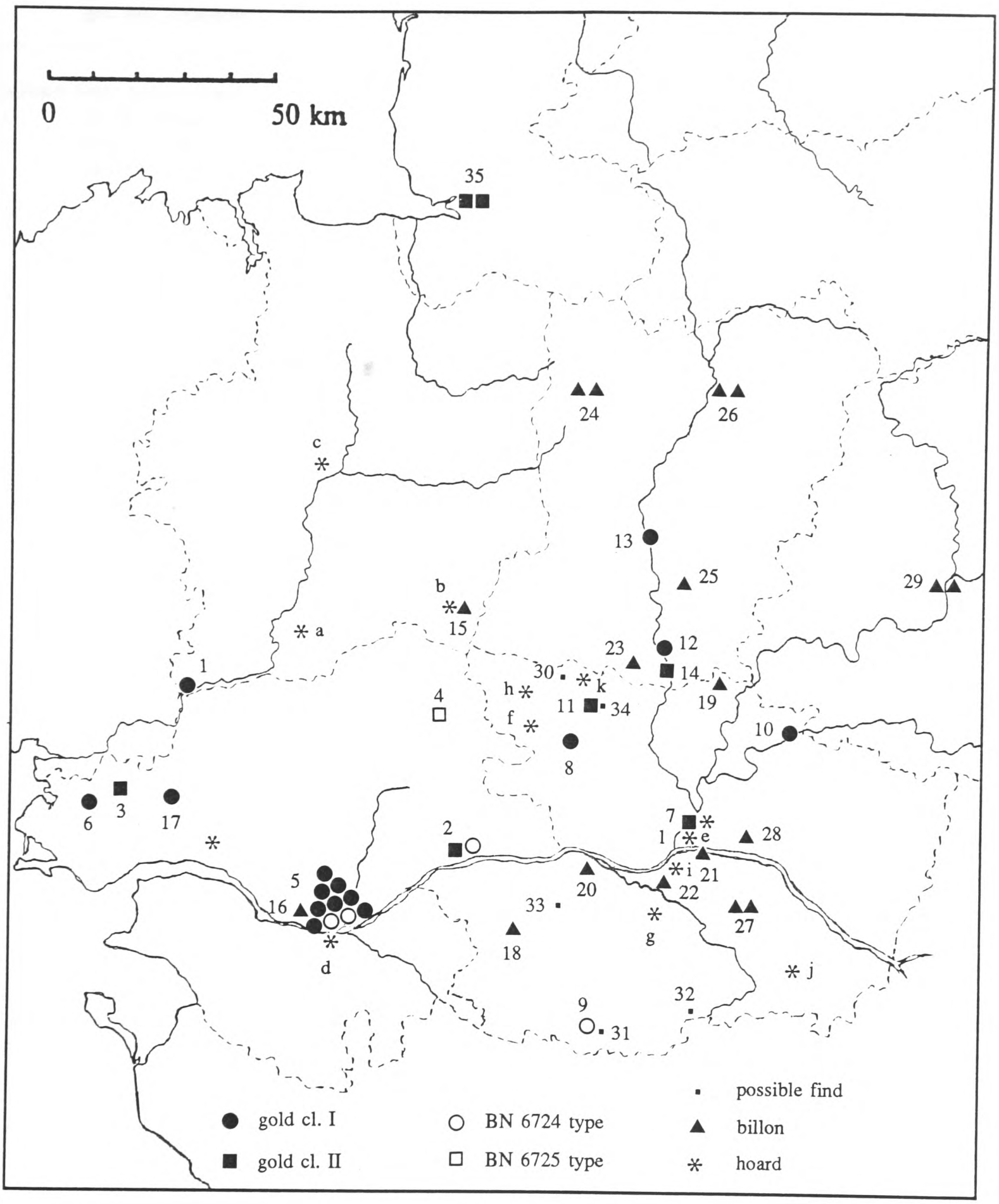


Figure 79. Distribution of Namnetes coinage.
Key to sites overleaf.

	gaz. no., commune		denomination	weight	remarks
isolated finds, gold coinage:					
1	35.48	Redon	stater	7.35g	cl. Id (type BN 6728)
2	44.02	Ancenis	stater	7.35g	cl. IIc (type BN 6723)
	44.02	Ancenis	quarter stater	1.80g	type 6724; O/ c'mk
3	44.13	la Chapelle-des-Marais	stater	-	cl. IIc (type BN 6723)
4	44.21	Erbray	quarter stater	1.75g	probably type 6725
5	44.45	Nantes	quarter stater	1.75g	type 6724; O/ c'mk
	44.45	Nantes	quarter stater	-	probably type 6724
	44.45	Nantes	stater	7.4g	cl. Ic (type BN 6726)
	44.45	Nantes	stater	7.46g	BN 6727 (cl. Id)
	44.45	Nantes	stater	7.63g	cl. Id
	44.45	Nantes	stater	7.55g	cl. Id
	44.45	Nantes	stater	7.48g	cl. Id
	44.45	Nantes	stater	7.45g	cl. Id
	44.45	Nantes	stater	7.38g	cl. Id
	44.45	Nantes	stater	6.69g	cl. Id
6	44.80	Saint-Lyphard	stater	-	cl. Id
7	49.08	Angers	stater	-	cl. IIc; doubtful prov.
8	49.38	Chazé-sur-Argos	stater	7.15g	cl. Ia? another lost
9	49.42	Cholet	quarter stater	1.86g	BN 6724
10	49.50	Durtal	stater	7.53g	cl. I?
11	49.117	Segré	stater	7.27g	cl. IIc; coin has hole
-	49.129	'Anjou/Bretagne'	stater	7.05g	cl. IIa or b
-	49.129	'Anjou/Bretagne'	stater	7.10g	cl. IIa or b
-	49.129	'Anjou/Bretagne'	stater	7.12g	cl. IIa or b
12	53.10	Château-Gontier	stater	7.51g	cl. Id
13	53.36	Laval	stater	7.28g	cl. I?
14	53.42	Ménil	stater	-	doubtful; hhh to left
isolated finds, base gold and billon coinage:					
15	35.47	Rannée	stater	-	var. b
16	44.45	Nantes	stater	6.78g	var. b
17	44.61	Pontchâteau	quarter stater	-	var. a
18	49.58	le Fief-Sauvin	quarter stater	1.57g	billon, type unknown
19	49.79	Miré	stater	6.94g	var. b
20	49.90	la Pommeraye	quarter stater	2g?	var. b; gold?
21	49.91	les Ponts-de-Cé	stater	-	var. b; electrum
22	49.99	Saint-Aubin-de-Luigné	stater	6.65g	var. b; base gold
23	53.12	Chemazé	stater	7.21g	var. b; electrum
24	53.20	Ernée	stater	6.92g	var. b; billon
	53.20	Ernée	quarter stater	1.61g	var. b; billon
25	53.40	Maisoncelles-du-Maine	stater	-	possible prov.
26	53.66	'north of Mayenne'	quarter stater	1.71g	var. b; electrum
	53.66	'north of Mayenne'	quarter stater	1.53g	var. b; electrum
excavated finds:					
27	49.01	les Alleuds	stater	4.43g	var. b; billon
	49.01	les Alleuds	stater	6.35g	worn billon - var. b?
28	49.03	Andard	quarter stater	1.61g	var. b; billon; *fanum*
29	72.01	Allonnes	quarter stater	-	billon, type? *fanum*
	72.01	Allonnes	quarter stater	-	billon, type? *fanum*

Table 47. Provenances of Namnetes coinage in north-west France (continued overleaf).

	gaz. no., commune		denomination	weight	remarks
possible finds of this type:					
30	49.35	Châtelais	stater, q. stater	-	"bronze"
31	49.78	Mazières-en-Mauge	stater	-	electrum
32	49.107	Saint-Paul-du-Bois	staters	-	1 electrum, 2 gold
33	49.111	Saint-Quentin-en-Mauges	quarter stater	-	gold
34	49.117	Segré	staters, q. stater	-	"7g and 2g"
35	50.01	Avranches	staters	-	cl. II

	gaz. no., commune		description
hoards, gold and billon coinage:			
a	35.37	la Noë-Blanche	hoard of about 57 Veneti coins and perhaps at least one billon stater *au génie hippophore*
b	35.47	Rannée	hoard of 26 staters and 2 quarter staters, class IIb and billon var. b
c	35.51	Rennes	hoard including at least one billon stater and three billon quarter staters (var. b)
d	44.72	Rezé	hoard including three "Namnetes" coins, as well as a class II Coriosolitae stater and coins of the Sequani, Bituriges Cubi and Aedui
e	49.07	Angers	huge hoard mostly of small silver of Andes included at least one electrum quarter stater, var. b
f	49.27	Challain-la-Potherie	hoard of 110-150 gold staters, probably mostly Namnetes cl. IIc; one coin in Cabinet des Médailles: BN 6723, (7.46g); one other recorded is cl. Id (type BN 6727), 7.56g
g	49.28	Chanzeaux	hoard of 11 staters including at least six class IIc (type BN 6723): 7.48g, 7.28g, 7.25g, 7.20g, 7.19g and 7.16g
h	49.43	Combrée	probable hoard of two staters and ten quarter staters, perhaps class IIc (type BN 6723)
i	49.46	Denée	at least 114 electrum staters, including 42 cl. II; see gazetteer for weights
j	49.48	Doué-la-Fontaine	hoard of at least 80 staters of Andes and Namnetes, including at least one cl. IIc (type BN 6723)
k	49.63	l'Hôtellerie-de-Flée	hoard of at least 1200 coins, of which 600+ were worn billon var. b (type BN 6743); also a base gold stater, class IIc (type BN 6723)
l	49.101	Sainte-Gemmes-sur-Loire	hoard of ten gold or billon coins *au génie hippophore*

Table 47 (concluded). Provenances of Namnetes coinage in north-west France.
Numbers and letters in the first column refer to figure 79.

immediately before or during the Gallic War. The complete lack of post-conquest issues in the hoards supports this view.

9.3 The Pictones gold coinage (BN 4393-4412)

This well-known type was certainly produced outside north-west France, in Poitou, but is included here on the basis of its typological links to other Armorican coinages, and the fact that a large number of these coins have been found within our region (table 48).

	gaz. no., commune		weight	remarks
1	14.39	Lisieux	-	two coins? O/ and R/ to left
2	35.40	Pipriac	-	7? in hoard mostly of Veneti billon
3	35.53	Retiers	-	same O/ die as BN 4402
4	35.87	Sens-de-Bretagne	-	one in hoard of ten (Veneti?) coins
5	44.05	Batz-sur-Mer	-	possible provenance
6	44.13	la Chapelle-des-Marais	-	-
7	44.23	Gorges	-	c. 40 in hoard
8	44.24	Grand-Auverné	-	hoard including at least one example
9	44.45	Nantes	6.60g	up to 17 others from Nantes?
10	44.83	Saint-Même-le-Tenu	6.68g	-
11	44.98	Savenay	6.5g + others	"some" in hoard of 40-50 coins
12	44.101	Vertou	6.55g	-
	44.101	Vertou	-	-
13	49.18	Bouzillé	-	hoard of up to 7 examples
14	49.46	Denée	6.83g	at least one in hoard of Namnetes/Andes
15	49.50	Durtal	-	-
16	49.52	le Fief-Sauvin	-	possible example
17	49.62	Gesté	-	possible example
18	49.75	Maulévrier	-	one or two examples
19	49.78	Mazières-en-Mauges	-	one or two examples
20	49.114	Saumur	-	one or two examples

Table 48. Provenances of Pictones gold coinage in north-west France.
Numbers in the first column refer to figure 80.

All coins are staters.

Scheers (1980b) has produced a detailed classification of this type. On the most common variety (figure 80) the head is derived from the Namnetes staters, surrounded by the vestiges of beaded cordons (the less common variety, which does not concern us here, has elements of Aquitainian design). On the reverse there is a human-headed horse, usually facing right, ridden by a charioteer composed of disconnected shapes; he holds the reins in one hand, and a plain or beaded circle in the other. Beneath the horse is the most characteristic feature, a human hand on an object which is probably the familiar *mors de bride*. The hand has been shown to derive from late second century BC

West Berry silver types, with a horserider carrying a shield that recalls the east Armorican armed rider coinage of the second phase. The hand is in the same position beneath the horse (Nash 1978a, 247).

There are at least eight variations within this type (ibid., 703-705). It is not practical, however, to classify the north-west French examples at this level of detail, since very few of the coins have been recorded with sufficient information. Scheers (ibid., 705-706) demonstrated a clear decline in the weight of these staters corresponding to the typological development, with the heaviest examples at c. 7.10g, falling to 5.80-5.90g and below, corresponding to a decline in the gold and silver content from c. 30% each to 3-5% each.

The distribution of the isolated finds of this stater in north-west France (figure 80) represents the northern tip of its principal area of circulation (Colbert de Beaulieu 1962a, 49-55; 1971c, 10-11; Nash 1978a, 248; Hiernard 1982, carte 4). It seems to confirm the traditional view of the Loire as the boundary between the Namnetes and the Pictones, at least at the end of the Iron Age; certainly late Namnetes coins are absent from the south of the Loire at least as far east as the Mauges, although there is a scattering of Pictones issues to the north of the river. Many of the Pictones coins are in the valley of the Sèvre Nantaise, which must have acted as an important conduit for the movement of people and/or goods.

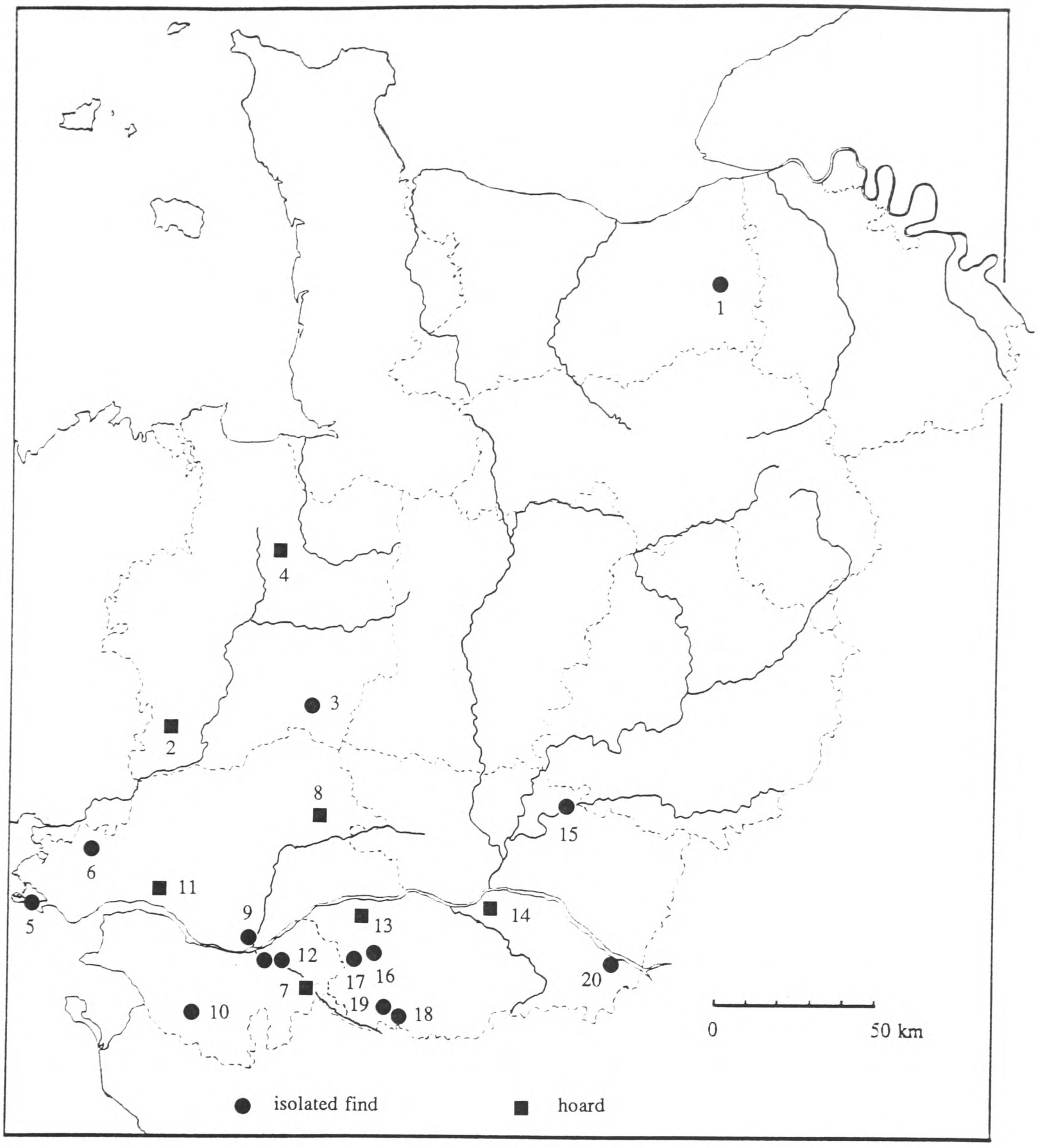
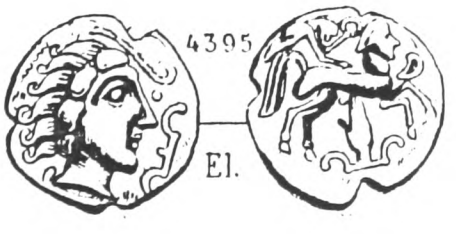


Figure 80. Distribution of Pictones gold coinage.
Key to sites on table 48.



9.4 Veneti billon coinage

This type was classified and discussed by Colbert de Beaulieu in the 1950s in a couple of important papers (1953e; 1953f; see also 1954d, 277-282; 1955b, 166-170; 1956b, 45-50). He distinguished four classes amongst the hoard of these coins found at Pipriac (35.40) in 1908, illustrated on figure 81. The basic characteristics of the type are as follows:

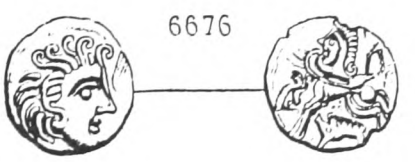
O/: a head usually facing right, with the hair in three *rouleaux*; on class II coins it is surrounded by beaded cordons to which are attached four small heads, recalling the "Veneti" gold coinage and the Namnetes staters.

R/: a human-headed horse, with the charioteer holding a pole or shaft (*hampe*) topped by a circle; this is either beaded (classes I, II and some of III) or with a point in its centre (some class III, and class IV). The motif beneath the horse varies according to the class: on I the recumbent winged figure again recalls the "Veneti" coinage; II, III and IV have a boar or boar standard, and on class II there is in addition a small human head in front of the horse.

Two further classes have since been identified: V (figure 81) has an eight-spoked wheel with a beaded rim beneath the horse, and VI is distinguished by a normal horse's head on the reverse.

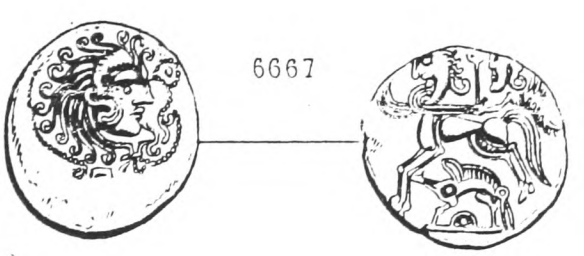
The chronology of these coins has recently been reconsidered by Gruel (1987), who has used analyses of the alloy to modify Colbert de Beaulieu's original classification (in numerical order from class I). The order now proposed is II, I, IIIb, IV, IIIa, V and finally VI, although the recorded weights do not entirely support this scheme (see table 49 below). In common with the "Veneti" winged figure coinage of the second phase, it is time to re-examine the development, distribution and attribution of these coins.

Figure 82 shows the distribution of this type in north-west France. Examples outside the region are shown on Gruel's map (ibid., 321), which unfortunately conflates both gold and billon coins. However by eliminating the known findspots for the gold coins, listed above (table 38), it seems from her map that the only other findspot for a Veneti billon coin in Brittany and north-west France is in the region of Lorient, in western Morbihan. Referring back to Colbert de Beaulieu's original paper on the type (1953f, 27-30), three isolated finds are also recorded from the 'montagne d'Arrée', Carhaix and Penmarc'h in Finistère, and another three from the region of Vannes (Morbihan). Even so, there is very little evidence to support the first part of the claim of Gruel and many before her that "Ces monnaies ont été trouvées essentiellement dans le Morbihan et le long de la Loire" (1989, 320); the

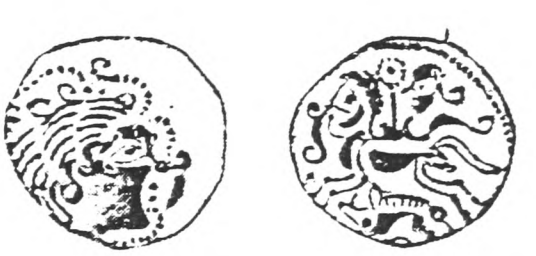


II

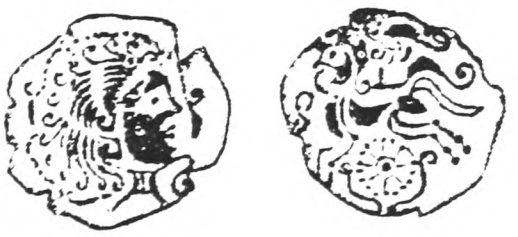
I



III



IV



V

Figure 81. Classes of Veneti billon coinage.
Classes are arranged in chronological order from the top. No illustration is available of the single known example of class VI, with a normal-headed horse on the reverse.

coins are emphatically not found in the Morbihan, on the recognized early Gallo-Roman territory of the Veneti. This point was appreciated from the start by Colbert de Beaulieu (1953f, 17-21), who sought to explain it by suggesting that the majority of the Veneti coins were sunk with the tribal fleet in 56 BC, but even if some coins were lost in this fashion, it seems remarkable that only four have been found in the region. It must be admitted that nowhere is the distribution of isolated finds sufficient to make a convincing alternative attribution, which must therefore rest on the typological links, which are complex.

	I	II	III	IV	V	VI
6.70-6.79g	/		//			
6.60-6.69g	/		///////			
6.50-6.59g	////	/	//////			
6.40-6.49g	////		//////////			
6.30-6.39g		/	//////			
6.20-6.29g	/		//////////////			
6.10-6.19g	/	/	//////	/		
6.00-6.09g	///	/	/////		/	
5.90-5.99g	/	/	////	/		
5.80-5.89g	/		///			
5.70-5.79g	/		/			/
5.60-5.69g	/		////			
5.50-5.59g			/			
5.40-5.49g			/			
5.30-5.39g			/			
5.20-5.29g	/					
5.10-5.19g						
5.00-5.09g	/		/	/		
others			4.9g, 4.7g			

Table 49. Distribution of weights of Veneti billon coins.
/represents one coin.
Columns include all known weights of coins with a provenance in north-west France.

Some of the inspiration for the design seems to have come from the Namnetes gold coinage - the beaded cordons and the small heads on the obverse spring to mind, and Colbert de Beaulieu has suggested a possible route for the development of the *hampe* from Namnetes gold staters to Veneti billon (and on to the Coriosolitae issues (1973a, 145-147); see figure 78.3 here, and EH II, fig. 148). Other elements, in particular the style of the hair, are not easily recognizable on any of the obvious candidates for a prototype; it is possible that the depiction of the hair in this fashion was a completely

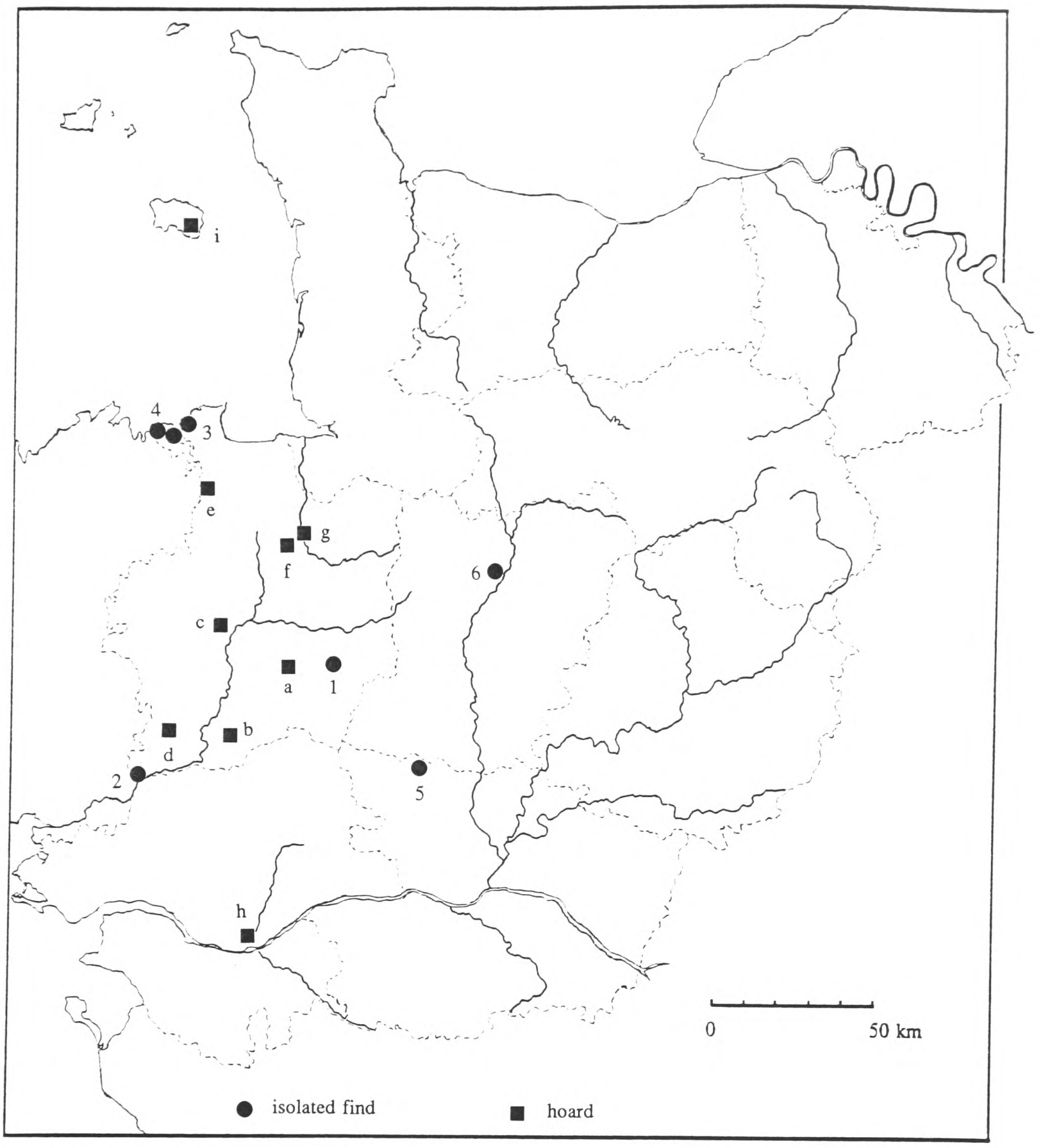


Figure 82. Distribution of Veneti billon coinage.
Key to sites overleaf.

	gaz. no., commune		denomination	weight	remarks
isolated finds:					
1	35.05	Bais	stater	-	possible provenance
2	35.48	Redon	stater	5.77g	class VI
3	35.73	Saint-Malo or environs	stater	-	-
4	35.95	Dinard	staters	-	"two Veneti coins"
5	49.64	l'Hôtellerie-de-Flée	stater	-	class IV
6	53.66	'north of Mayenne'	stater	6.40g	class I

	gaz. no., commune		description
hoards:			
a	35.01	Amanlis	hoard mostly of billon octoped type (LT XXIII 6811) including at least four cl. III or IV staters
b	35.37	la Noë-Blanche	hoard of about 57 coins, including 19 cl. I staters, 4 cl. I quarter staters, 10 cl. III or IV staters and 24 cl. III or IV quarter staters; possibly also a Namnetes billon stater
c	35.36	Mordelles	five cl. III quarter staters with 200-300 Redones billon
d	35.40	Pipriac	hoard of c. 600 coins, mostly billon, including at least 19 cl. I, 5 cl. II, 101 cl. III and 1 cl. IV staters; also a few Redones billon coins, and up to 7 Pictones gold staters
e	35.83	Saint-Pierre-de-Plesguen	hoard of 600-800 billon coins including at least one cl. I
f	35.87	Sens-de-Bretagne	possibly nine billon coins in hoard with single Pictones stater
g	35.89	Vieux-Vy-sur-Couesnon	one class IV stater possibly from hoard, with Redones and early Coriosolitae staters
h	44.45	Nantes	possible hoard of eight billon staters, class III or IV
i	J.01	Grouville	one class III stater in hoard dominated by late Coriosolitae staters

Table 50. Provenances of Veneti billon coinage in north-west France.
Numbers and letters in the first column refer to figure 82.

independent development. Links with the earlier coinage purportedly of the same tribe are thus few, but then perhaps we should not be looking for them anyway: there is a clear gap of 0.60g between the gold and billon issues and, even if they were produced by the same tribe, the disparity in weight is a reminder that production need not have been continuous throughout the gold and billon series, and indeed may have been broken for many years. This point is pehaps borne out by the lack of hoards containing both gold and billon Veneti coins. The weights of the heaviest Veneti billon coins (table 49) are about 0.20g lighter than the early Namnetes billon, and it is tempting to see both developing from the Namnetes gold coinage at roughly the same time, one in the same region and the other probably adjoining. We shall return to these points and their implications below (9.12).

9.5 The Coriosolitae coinage

This series of billon staters and quarter staters has arguably received more attention than any other group of Gaulish coins, from Baron de Donop's somewhat excessive illustration (1838) of 760 examples from one of the Rozel hoards (J.21), through the pioneering typological work of Rybot (1937; 1952), refined by Colbert de Beaulieu (eg 1973a, 107-117), to the scientific analysis of the alloy by Gruel (1981; 1986). The coins are eminently suitable for such intensive analysis because of their quantity - more than 30 000 have been found in Brittany and north-west France - and the relatively brief development of the type, limited to six closely related classes (see figure 83).

The type is familiar in north-west France from as many as 21 recognized hoards (table 51; figure 84). A great deal has been said on the composition of these finds (eg Colbert de Beaulieu 1957b; 1958a; Gruel 1986, 104-106), all of which is readily accessible and thus will not be repeated here. Suffice it to say that it is now widely recognized that not all of the hoards were deposited during or immediately after the Gallic War, but may have been buried as many as 30 years later (eg the le Catillon hoard (Grouville, J.01), which is now dated to 40-20 BC (Fitzpatrick and Megaw 1987)). This has considerable repercussions on the chronology of subjects beyond the scope of this work, such as the development of some British coinage. Here our main concern lies with the development of the Coriosolitae coinage.

The earliest Coriosolitae class (VI) seems to have been inspired by Veneti class III or IV billon staters (Colbert de Beaulieu 1973a, 114; Gruel 1989, 58). Motifs which are transferred between the two coinages include (on the obverse) the style of the hair and the remains of the *pédoncule* supporting the head, and (on the reverse) the *hampe* and beaded circle, and in rare cases the boar beneath the human-headed horse. This latter motif is replaced by a lyre on most examples of the first three classes, however (VI, V and IV). On the three later classes (I, III and II) the boar reappears beneath the horse, which develops an increasingly bird-like head, while above it the *hampe* disappears; on the obverse there are significant changes in the portrayal of the facial features (detailed by Gruel 1981, 6-8).

There are some problems with this arrangement, however. Curiously for such an abundant coinage, relatively little information is available on the changes in weight between the six classes, no doubt in some cases because the sheer number of coins has precluded a detailed analysis of weights.

Figure 83. Classes of Coriosolitae coinage.
Classes are arranged in chronological order from the top.
Illustrations from Rybot (1952).

However Colbert de Beaulieu (1973a, 302), referring to unpublished work on 3553 Coriosolitae coins in the Marquanderie hoard (St Brelade, J.04), indicated the following "poids privilégié":

cl. I:	6.69-6.30g	cl. IV:	6.79-6.40g
cl. II:	6.69-6.30g	cl. V:	6.89-6.50g
cl. III:	6.69-6.30g	cl. VI:	6.79-6.40g

To these figures may be added the analyses made by Gruel (1981, figs. 23-24) of the Trébry hoard in the Côtes-d'Armor:

cl. Vb:	min. 5.63g	average 6.57g ± 0.23	max. 7.03g
cl. Va:	min. 4.81g	average 6.54g ± 0.30	max. 7.11g
cl. IV:	min. 3.98g	average 6.44g ± 0.32	max. 7.29g
cl. III:	min. 4.12g	average 6.37g ± 0.40	max. 7.08g
cl. I:	min. 4.15g	average 6.26g ± 0.40	max. 7.81g

If we compare the weights of the two heaviest classes (VI, usually 6.40-6.79g, and V, usually 6.29-6.82g) with the Veneti billon staters (classes III and IV) which are believed to have inspired the Coriosolitae coinage, with only two recorded examples above 6.70g (table 49), it is apparent that the weights alone suggest that this influence may have been in the opposite direction. Is there any other evidence to support this? The distribution maps, with so few isolated finds, are of little help. It has already been noted, however, that the earliest Coriosolitae staters share several features with the Namnetes gold and billon coinage, specifically the *hampe*, and the remains of the *pédoncule* and the beaded cordons, but it is generally assumed that these motifs were transferred via the Veneti billon coinage (eg Colbert de Beaulieu 1973a, fig. 41). This need not have been so, since at the core of this argument is the assumption that throughout the late Iron Age the Veneti were the dominant Armorican tribe, from which all other tribal coinages developed (cf. Colbert de Beaulieu's comment quoted above (8.2.2)), which cannot be supported on the archaeological evidence currently available. On the other hand there are motifs such as the small heads on the obverse of the earliest Veneti billon (class II) which appear to have come directly from the Namnetes gold staters, or possibly from the "Veneti" winged figure types, which in either case do not occur on the Coriosolitae issues.

Perhaps one of the problems here is that we are applying notions of influence and inspiration which are too rigid to reflect the real situation. For example, generalizations are made such as 'the Veneti coinage inspired the Coriosolitae coinage' which suggest that influence operated in one direction only, when in fact it seems more likely that influence could travel in both directions. This is particularly the case for coinages such as the two featured here, which are closely linked in every sense:

geographically, typologically, metrologically and temporally. It is thus more appropriate to regard the coinages as developing in parallel, with exchanges between the two during the course of development. Recognizing these exchanges will continue to present considerable difficulties in the absence of very detailed typological study, and in the alarming lack of excavated, stratigraphic confirmation for the proposed schemes of classification, both within single coinages and across closely related types such as these.

We have digressed somewhat into issues that are currently unresolvable, but which are central to a full understanding of the development of Armorican billon coinage. Returning to the coins of the Coriosolitae in particular, one of the most significant features revealed by Gruel's analysis of the Trébry hoard (1981) is the abrupt break between the first three classes (VI, V and IV) and the later three (I, III and II). Although die-links exist between each of the classes in these two groups, none exist across this gap. It is possible that this simply reflects a break of some time in the production of the coinage, but Gruel has recently suggested (1989, 58-61) that the later classes may represent a confederal issue. Although archaeological evidence is increasingly pointing to the dominance of the Coriosolitae, rather than the Veneti, in cross-Channel trade, there is little reason to extend this to a general position of power in Armorica. The relatively cohesive distribution of Coriosolitae isolated finds (Colbert de Beaulieu 1973a, fig. 33) also contradicts this interpretation, which simply changes the tribe at the head of the Armorican coalition, without any increase in the positive evidence for such an alliance.

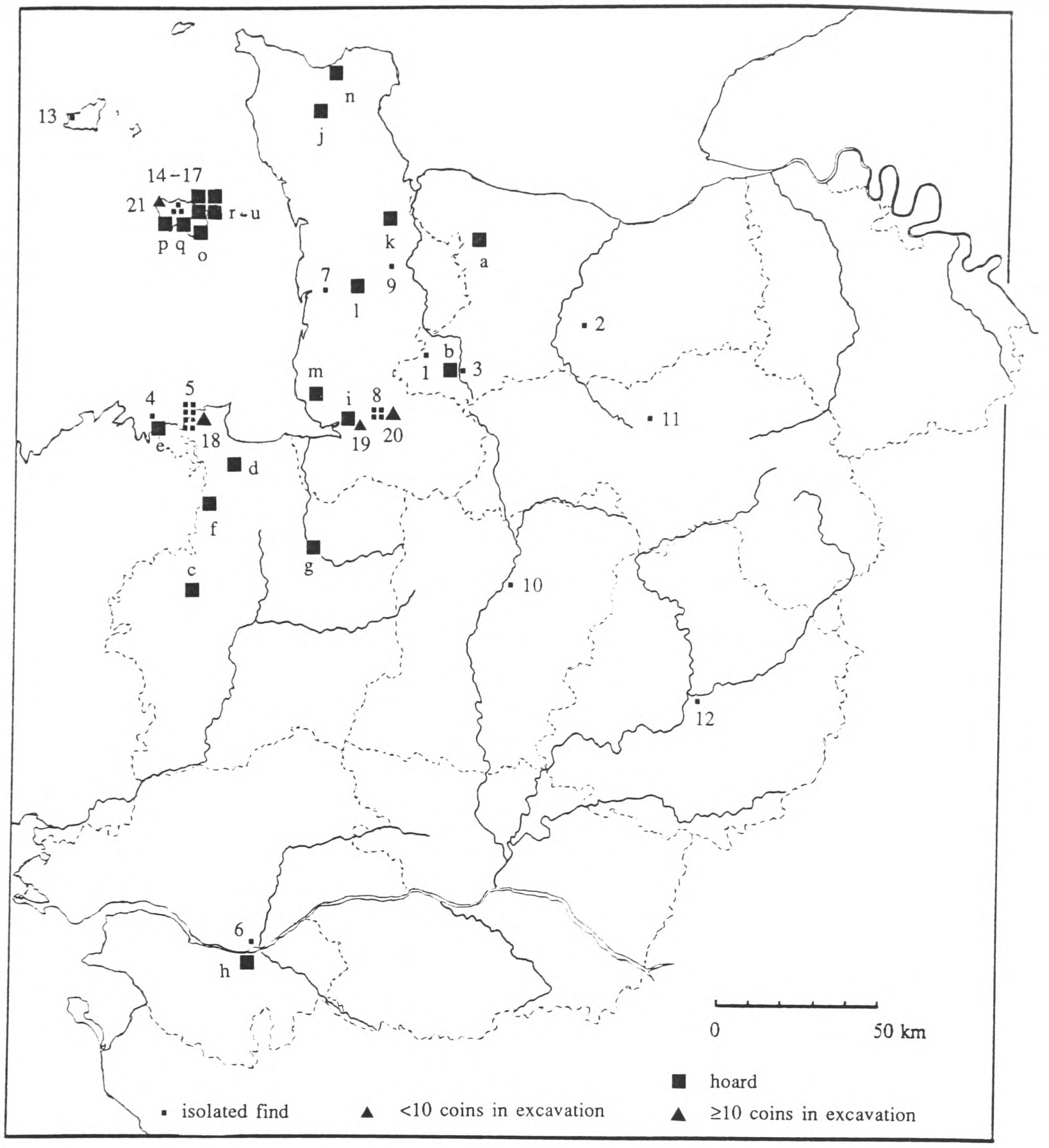


Figure 84. Distribution of Coriosolitae coinage.
Key to sites overleaf.

	gaz. no., commune		denomination	weight	remarks
isolated finds:					
1	14.35	Landelles-et-Coupigny	quarter stater	-	cl. VI
2	14.42	Martainville	quarter stater	1.43g	cl. VI
3	14.80	Vire	stater	-	cl. V
4	35.55	Saint-Briac-sur-Mer	stater	-	cl. V
5	35.73	Saint-Malo	-	-	eight unclassified
6	44.45	Nantes	quarter stater	-	unclassified
7	50.05	Coutances	stater	5.73g	cl. V
8	50.20	le Petit-Celland	staters	-	at least 4 cl. II
9	50.23	Rampan	stater	-	doubtful; unclassified
10	53.66	'north of Mayenne'	stater	6.21g	cl. V
11	61.06	Argentan	stater	-	cl. III
12	72.22	le Mans	stater	6.69g	cl. VI
13	G.21	St Saviour	stater	-	cl. II
14	J.05	St Clement	stater	-	cl. II
15	J.09	St Helier	stater	-	cl. II
16	J.18	St Saviour	stater	-	cl. II
17	J.25	'Jersey'	stater	-	cl. II
excavation finds:					
18	35.67	Saint-Malo	staters	6.35g, -	cl. I
			staters	4.69g, 5.43g, 5.52g, 5.65g, 5.73g, 6.40g, 6.44g, 6.80g, 7.18g	cl. II
			quarter staters	1.20g, 1.42g	cl. II
			staters	4.71g, 5.23g, 5.88g, 5.98g, 6.34g, -	cl. III
			quarter stater	1.17g	cl. III
			staters	5.02g, 6.26g, 6.48g	cl. IV
			quarter staters	1.05g, 1.40g	cl. IV
	35.73	Saint-Malo	staters	-	two cl. II in 60s exc.
19	50.01	Avranches	stater	5.18g	worn cl. II
20	50.20	le Petit-Celland	staters	-	three cl. I, 13 cl. II, 4 cl. III
21	J.17	St Ouen	stater	-	cl. II on *fanum*

	gaz. no., commune		description
hoards:			
a	14.17	Castillon	doubtful record of 1 cl. I and 5 cl. II staters in hoard dominated by Baiocasses/Unelli issues
b	14.80	Vire	doubtful record of 4 or 7 staters
c	35.06	Bedée	possible hoard including cl. III and cl. V staters
d	35.54	Roz-Landrieux	c. 400 coins, mostly Coriosolitae; 64% cl. V
e	35.58	Saint-Briac-sur-Mer	5 staters with one Redones cl. VIII billon; possibly more

Table 51. Provenances of Coriosolitae coinage in north-west France (continued overleaf).

	gaz. no., commune		description
hoards (continued):			
f	35.83	Saint-Pierre-de-Plesguen	600-800 coins including Coriosolitae, Veneti, Redones and Baiocasses/Unelli billon
g	35.89	Vieux-Vy-sur-Couesnon	c. 20 coins including 1 cl. V and 1 Redones cl. III
h	44.72	Rezé	cl. II stater with coins of Namnetes, Sequani, Bituriges Cubi and Aedui
i	50.01	Avranches	one or two hoards, containing c. 500 coins mostly of the Coriosolitae
j	50.03	Brix	probable hoard of Coriosolitae coins
k	50.08	Graignes	c. 60 coins, probably Coriosolitae
l	50.15	le Lorey	unknown number of Coriosolitae coins; possibly the same hoard as Tourlaville
m	50.32	Sartilly	unknown number of coins, probably Coriosolitae
n	50.34	Tourlaville	possibly 2000 coins, mostly of the Coriosolitae; perhaps the same hoard as Le Lorey
o	J.01	Grouville	c. 3000 coins, of which 75% are Coriosolitae
p	J.04	St Brelade	c. 12 000 coins, all but a handful of the Coriosolitae
q	J.08	St Helier	c. 200 coins, mostly of the Coriosolitae
r	J.20	Trinity (1802)	unknown number of coins, mostly of the Coriosolitae
s	J.21	Trinity (1820)	982 coins, all but 20 of the Coriosolitae
t	J.22	Trinity (1875)	several Coriosolitae coins with large number of post-conquest issues and a few other Armorican coins
u	J.23	Trinity (1883)	18 Coriosolitae and Roman coins, including denarius of c. 32 BC

Table 51 (concluded). Provenances of Coriosolitae coinage in north-west France.
Numbers and letters in the first column refer to figure 84.

9.6 Redones billon coinage

In common with the Veneti and Coriosolitae billon issues discussed above, this series of coins is known almost solely from hoards in north-west France. While of all of these issues share certain fundamental Armorican characteristics, the Redones coins are set apart by their links to issues from the east of this region (such as the hippocampus type discussed in the previous chapter, tentatively attributed to the Aulerci Diablintes), rather than to types from the south, in particular the "Veneti" winged figure coins and the Namnetes gold and billon staters.

The classification of this series was developed in a landmark paper by Colbert de Beaulieu (1948), analysing the contents of a hoard entirely composed of Redones billon which had been unearthed at Saint-Jacques-de-la-Lande (35.65) during the Second World War. He defined eight classes, and later added a ninth, from the hoard at Mordelles (35.36) just a few kilometres away (Colbert de Beaulieu and Guibourg 1952, 225-226). The basic characteristics of this type are:

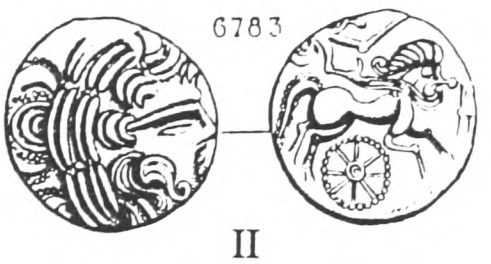
O/: head usually to the right, with large oval eye socket; laurel wreath portrayed as double band of long stylized leaves, with locks of hair below the wreath rendered with similar, but curved motifs. Above the wreath is a pair of symmetrical locks of hair, with other locks to each side.

R/: human-headed horse usually facing right; the charioteer holds the reins in one hand and in the other a whip or stick (this part of the design is often off the flan). Beneath the horse is a wheel, usually with a beaded rim and with four or eight spokes.

The variations between each class are recorded in minute detail by Colbert de Beaulieu (1948, 25-30), and will be summarized here (see also figure 85).

The style of the head is very similar through classes I to VII and IX, but small variations occur on each. Class II (type *perlé*) is differentiated by beaded lines above the hair; class III (type *hachuré*) has oblique strokes above the hair; class V (type *massif à la roue a huit rais*) has a rather smaller head; class VI (type *au cheval à gauche*) has a less well-drawn wreath; and class VII (type *à la fourmi*) has a sort of triangular ornament suspended from the hinge of the jaw. The obverse of class VIII is quite different, with a bearded head and a very detailed interpretation of the hair and the wreath (figure 85), but it is clearly linked to the other issues through the reverse, which is virtually identical to that of classes I, II and III. The reverses of the other classes are similar: IV (type *massif à la roue à quatre rais*) and V have a rather less finely drawn horse; class VI has a smaller horse, facing left, with

I



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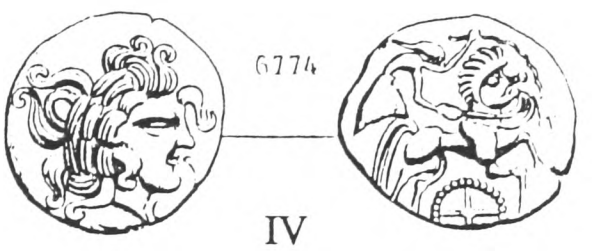
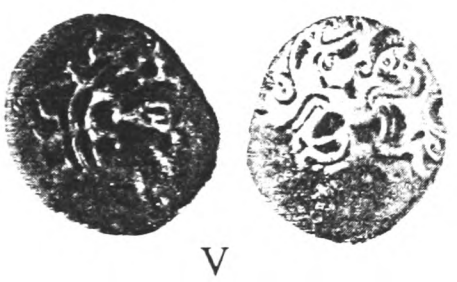
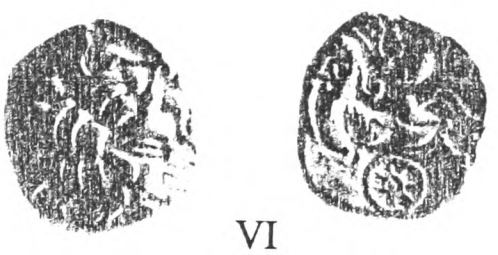
III



IV

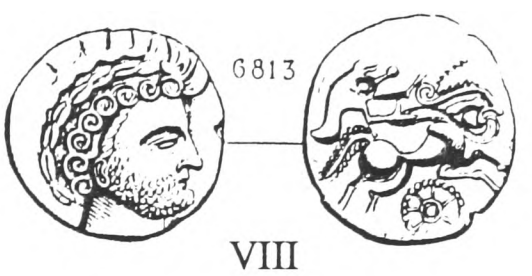


V



VI

VII



VIII

IX

Figure 85. Classes of Redones billon coinage.
Illustrations of the reverse of class III and the obverse of class IX are not available.

an eight-spoked wheel below; and class VII has a more disjointed horse, with the wheel beneath resting on a decorative motif.

Class IX, recorded only from Mordelles, has an obverse very similar to class VII, but the reverse is rather different. Two variants are recognized: one with the familiar eight-spoked wheel accompanied by a beaded circle, and the other with a small wheel in front of the horse and a bull beneath (figure 85).

The style of the hair and the laurel wreath on this series is strongly reminiscent of class II of the Sarthe recumbent figure coinage (figure 67). Colbert de Beaulieu (1953e, 36; 1959b, 57-58) has also drawn attention to a couple of particular parallels on coins from the Pipriac hoard (35.40). One, a variant of the usual Redones class IV, has the three point earring on the obverse characteristic of the later classes of the Sarthe coinage. There is a closer link still between another class IV coin and the obverse (and some details of the reverse) of a hippocampus stater (type LT XXIII 6804) from Saint-Mars-sur-Colmont (53.60), mentioned above (8.4.1).[1] This latter type, attributed to the Aulerci Diablintes, is itself very similar in design to the main Sarthe series. It is worth noting that the hoard of Montanel (50.16), in the border zone between the Redones and the Aulerci Diablintes, contained at least three class V Sarthe staters, with Redones class II, VII and VIII issues, perhaps also indicating contact between the two groups.

Further evidence for this connection may be provided by the weights of the Redones coins (table 52). Class IV, which features in the stylistic links to the Sarthe and Aulerci Diablintes coinage, is almost certainly the first in the Redones series, with several coins between 6.80g and 7.10g. It should be remembered at this point that several unprovenanced examples of the hippocampus type, including BN 6804, are just below 7g, while the lightest examples of the Sarthe coinage are also c. 7g. All this evidence certainly points towards influence from the region of Mayenne and Sarthe. Incidentally, there is no indication of influence from the east Armorican armed rider coinage of the second phase (8.1), which has traditionally been attributed to the Redones, and the production of the two series, perhaps in the same area, must have been separated by many years.

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[1] unfortunately the illustrations of these two coins (Colbert de Beaulieu 1959b, plate, nos. 8 and 14) are not good enough for reproduction here.

	I	II	III	IV	V	VI	VII	VIII	IX
7.00-7.09g				/					
6.90-6.99g	//			/					
6.80-6.89g	/////	///		/			//	/	
6.70-6.79g	*/////	////	////	//			////	//	
6.60-6.69g	*******/////	/////	////			/	/////	//	
6.50-6.59g	********/	*////	*/	///			/////	///	/
6.40-6.49g	******/////	/////	////	///		/	///	///	/
6.30-6.39g	***/////	/////	////	/			///////	////	/
6.20-6.29g	*/////	///		///		/	///		/
6.10-6.19g	////	///	/	//	/		///	//	
6.00-6.09g	/////	/	///				/		
5.90-5.99g	////	/							/
5.80-5.89g	/		/				/	///	//
5.70-5.79g	///	/							//
5.60-5.69g	/						/		
5.50-5.59g									
others	3.8	5.4							†

Table 52. Distribution of weights of the Redones billon coinage.
* represents ten coins; / represents one coin.
† low weights of class IX are 3.4g, 4.3g, 4.5g, 5.1g, 5.1g.
Columns include all known weights of examples with provenances in north-west France.

The progression of classes after IV is not clear, but it seems likely that I, II and III were all produced at much the same time, possibly from different workshops. Class VII, marginally lighter and with a more stylized reverse, and class VIII, may have followed, again produced at the same time. Class IX is distinctly lighter and modelled on class VII (Colbert de Beaulieu and Guibourg 1952, 229), and was probably the last in the series. The position of classes V and VI cannot be ascertained on the basis of so few examples.

The information on relative chronology provided by the hoards is not especially helpful, but some points are worth making: the Mordelles find (35.36), which contained class VII, VIII and IX issues, also contained two coins of Togirix (type LT XVI 5550) and was probably deposited after the conquest; the Saint-Briac-sur-Mer hoard (35.58) included a class VIII stater with five late Coriosolitae staters, again pointing to a late date for that class; and the early date for class IV is perhaps reinforced by its presence in the Pipriac hoard (35.40), with Veneti class III billon and seven base gold staters of the Pictones.

So far we have not questioned the attribution of this type to the Redones. Figure 86 shows the paucity of isolated finds of this coinage, with two coins in the west of the tribe's territory and a third

from excavation at the LLT/EGR *fanum* of Mordelles (35.35), right on the projected boundary of the Redones and the Coriosolitae. Using hoards as the basis for tribal attributions is rather more risky, but it is notable that the hoards in the 'core area' of the Rennes region are overwhelmingly dominated by Redones issues, whereas in the other deposits, more widely dispersed, Redones coins occur as the exception rather than the rule. This may indicate a strong concentration of population around Rennes - people who at this stage, close to the early Gallo-Roman period from which most boundary evidence is taken, were probably the Redones. However the distribution map does not provide much good evidence on the occupation of other parts of their purported territory, save perhaps for the lack of coins in the east of Ille-et-Vilaine which reinforces the notion of a border zone in the region between the Redones and the Aulerci Diablintes (section 1.4.4).

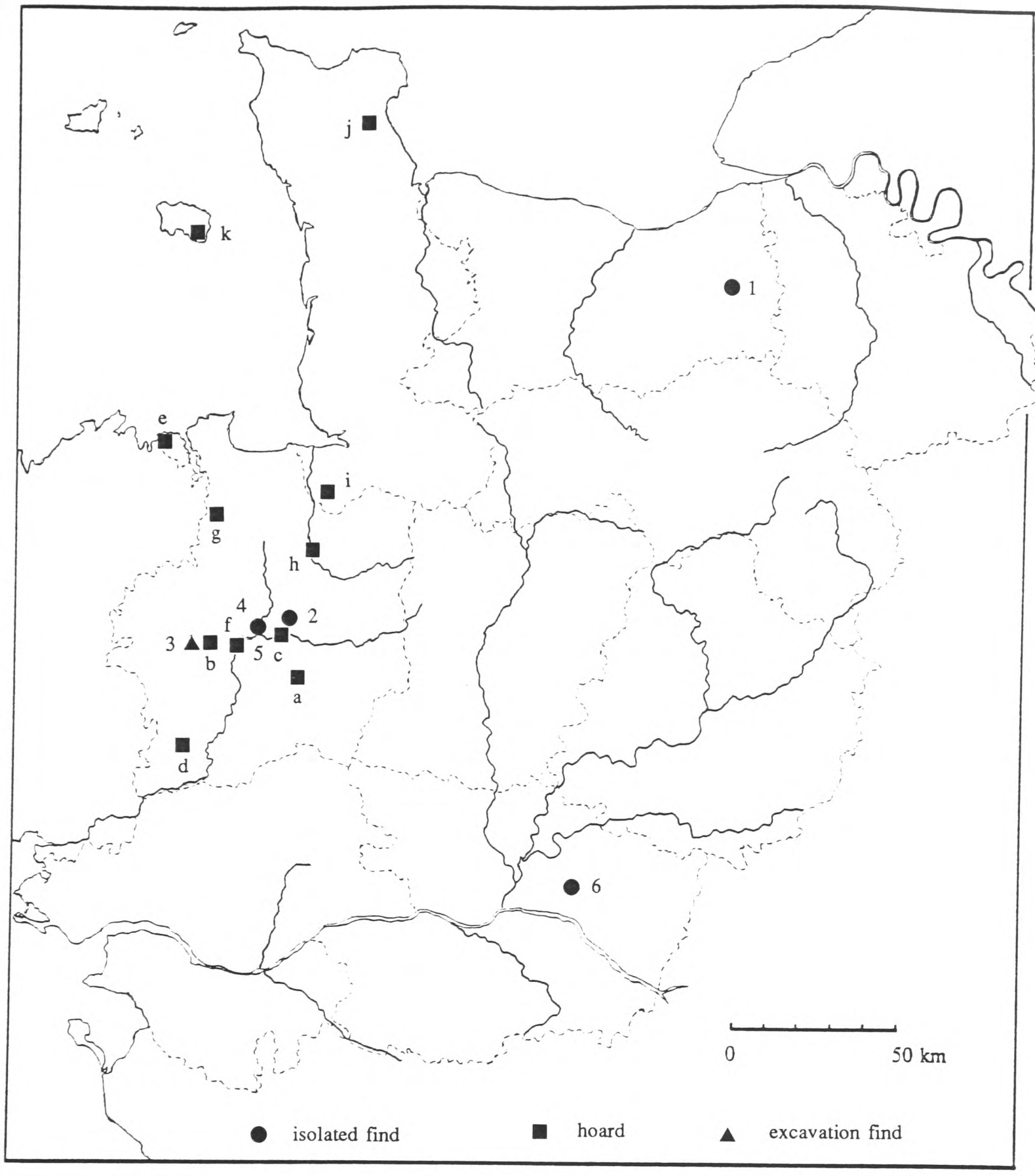


Figure 86. Distribution of Redones billon coinage.
Key to sites overleaf.

	gaz. no., commune		denomination	weight	remarks
isolated and excavation finds:					
1	14.39	Lisieux	stater	6.20g	cl. IV var.
	14.39	Lisieux	stater	6.91g	cl. IV var.
2	35.32	Liffré	stater	6.50g	cl. I
3	35.35	Mordelles	stater	-	from excavation
4	35.50	Rennes	stater	-	cl. I; from river
	35.50	Rennes	stater	6.10g	cl. III; from river
	35.50	Rennes	stater	6.40g	cl. IV; from river
	35.50	Rennes	stater	6.40g	cl. IV; from river
	35.50	Rennes	stater	6.70g	cl. IV; from river
5	35.51	Rennes	stater	6.75g	BN 6776 (cl. IV)
	35.51	Rennes	stater	6.75g	BN 6792 (cl. VII)
6	49.44	Cornillé-les-Caves	stater	-	-

	gaz. no., commune		description
hoards:			
a	35.01	Amanlis	large hoard mostly of billon octoped type (LT XXIII 6811) including "numbers" of Redones cl. IV; also Veneti billon cl. III/IV
b	35.36	Mordelles	hoard of 200-300, mostly Redones billon; recorded classes are VII, VIII and IX; also one XN stater, Veneti cl. III quarter staters, and two type LT XVI 5550 (TOGIRIX)
c	35.38	Noyal-sur-Vilaine	possible hoard of c. 15 class IV billon staters
d	35.40	Pipriac	c. 600 coins, mostly Veneti cl. III billon; also 5 Redones (including 3 cl. IV), and perhaps 7 Pictones gold staters
e	35.58	Saint-Briac-sur-Mer	one cl. VIII stater with 5 late Coriosolitate staters; others?
f	35.65	Saint-Jacques-de-la-Lande	perhaps 2000 Redones billon staters, dominated by cl. I (69% of known examples)
g	35.83	Saint-Pierre-de-Plesguen	600 or 800 coins, including at least one cl. IV Redones billon; also Veneti and Coriosolitae issues
h	35.89	Vieux-Vy-sur-Couesnon	possible hoard (c. 20 coins) including cl. III stater; others found on site include 4 cl. I, 2 cl. II, and a Veneti cl. IV
i	50.16	Montanel	c. 30 (or 180?) coins including Sarthe recumbent figure staters, and 4 Redones billon: 2 cl. VII, 1 each of cl. II and cl. VIII
j	50.26	Saint-Floxel	c. 15 coins including one cl. I and one cl. II Redones
k	J.01	Grouville	hoard dominated by Coriosolitae staters including possible Redones billon stater and two quarter staters

Table 53. Provenances of Redones billon coinage in north-west France.
Numbers and letters in the first column refer to figure 86.

9.7 Unattributed types of eastern Armorica

9.7.1 The octoped type (BN 6806-6812)

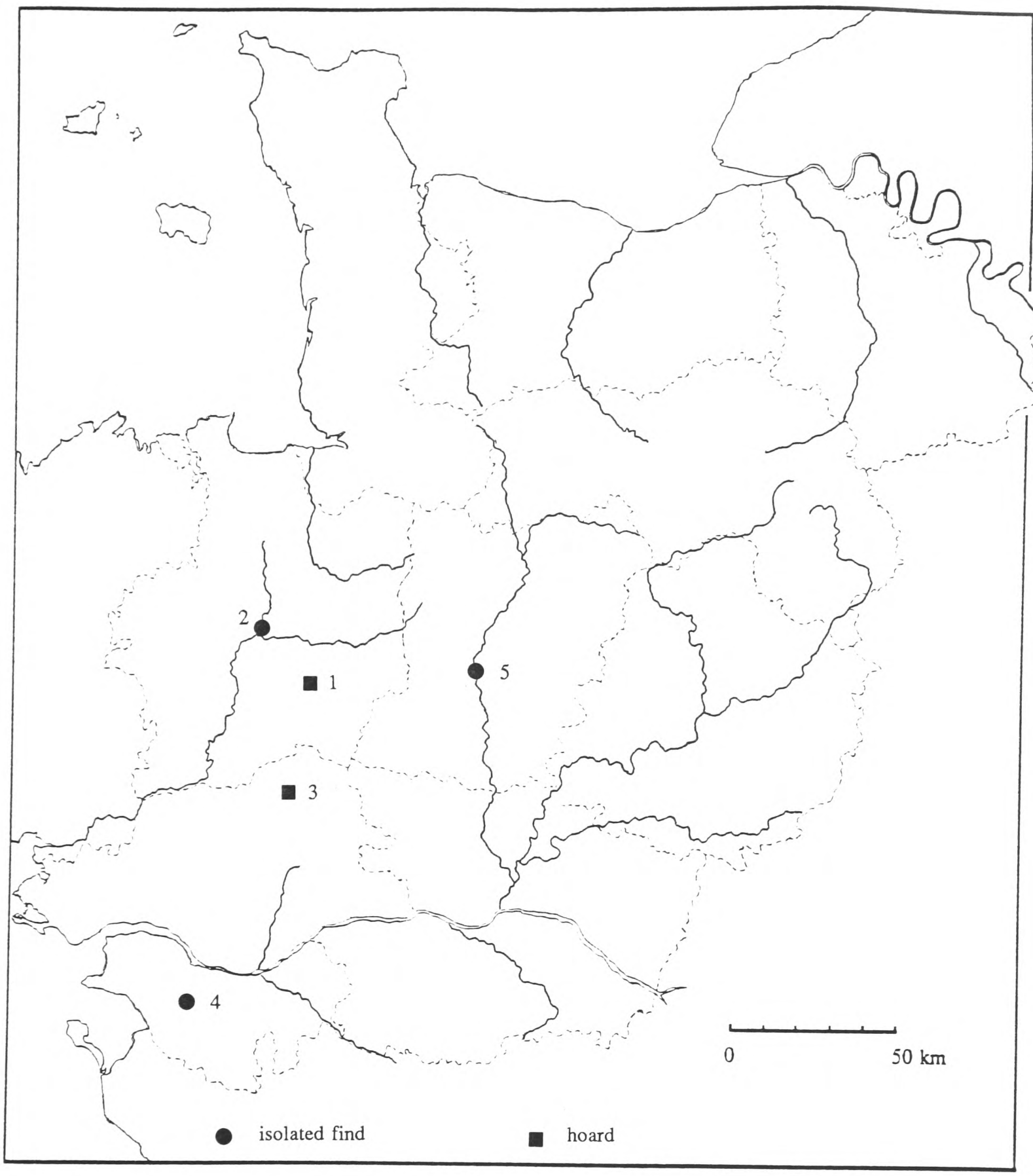
This small group (table 54) is closely linked to the other Armorican issues of the third phase. On the obverse (figure 87) the portrayal of the head is very similar to the Veneti class III and IV billon staters (figure 81). On the reverse the human-headed horse is distinguished by having eight legs, or at least four legs with double lower limbs; beneath the horse is a hippocampus. There is a circular motif behind the charioteer which could be a shield, but is perhaps more likely to be an interpretation of the chariot wheel shifted from its original position.

gaz. no., commune		denomination	weight	remarks
isolated finds:				
35.50	Rennes	stater	-	from river; probably others
44.79	Sainte-Pazanne	stater	-	-
53.36	Laval	stater	6.7g	-

gaz. no., commune		description
hoards:		
35.01	Amanlis	this type apparently formed majority of hoard, which also included Redones and Veneti billon staters
44.75	St-Aubin-des-Châteaux	c. 100 bronze coins plus an octoped stater (4.24g), presumably worn. No other information.

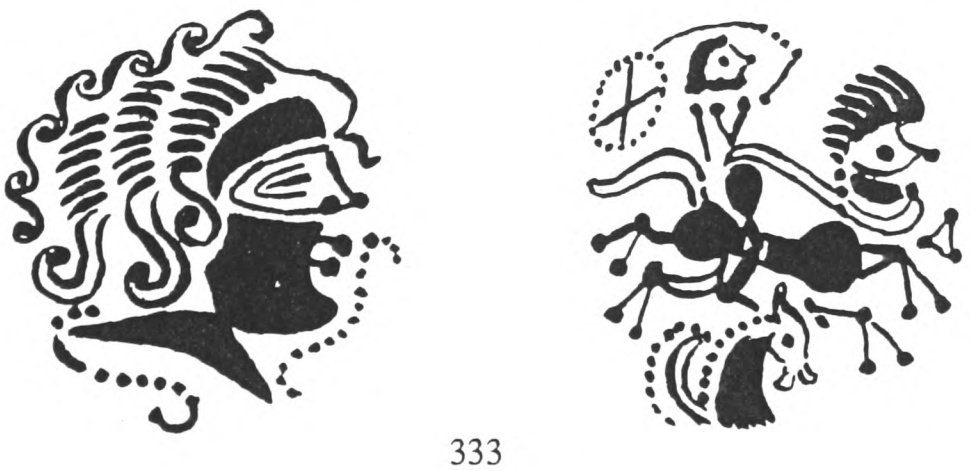
Table 54. Provenances of type BN 6806-6812 in north-west France.
Colbert de Beaulieu (1961a, 68) also records one isolated find from Plédran (Côtes-d'Armor) and a possible example from the region of Vannes (Morbihan).

The reverse of this type seems likely to have been inspired by the same source as the early Redones billon coinage: the hippocampus stater (LT XXIII 6804), attributed to the Aulerci Diablintes. Colbert de Beaulieu (1961a, 66) has also remarked on the similarity of the horse's head to the class IV and V Redones issues, but as the weights of those classes and this type cover a virtually identical range one cannot be certain which direction this possible inspiration took. He has further claimed (ibid., 65) that the obverse is "manifestly" inspired by the Veneti class III stater, but while the resemblance is



1	Amanlis	35.01	4	Sainte-Pazanne	44.79
2	Rennes	35.50	5	Laval	53.36
3	St-Aubin-des-Châteaux	44.75			

Figure 87. Distribution of the octoped type (BN 6806-6812).
Illustration below from Colbert de Beaulieu (1961a).



certainly there, the weights may contradict this direction of influence. The Veneti coin only twice surpasses 6.70g and does not reach 6.80g, while the octoped type includes coins of 6.85g (BN 6808) and 7.11g (BN 6810).

Colbert de Beaulieu (ibid., 71-81; 1973a, 153 n. 195) decided that this type could be attributed to the Lemovices Aremorici, in the pays de Retz, but the hard evidence for this is virtually non-existent. In the first place his argument is based largely on the traditional belief that each *civitas* has a single coinage, and consequently with all the other Armorican tribes having their allotted type, he was forced to search for ever more obscure groups without a recognized coinage. Furthermore, there is absolutely no archaeological evidence to suggest that the pays de Retz was occupied by this tribe (Hiernard 1977, 45-46). And as figure 87 shows, there is only one coin recorded from this area anyway; one might just as well attribute the type to the equally unknown Arvii in the south of Mayenne, on the basis of the single find from Laval (which would of course be appropriate for a coinage influenced by the Aulerci Diablintes...). In fact there are simply not enough findspots to attribute this coinage with much confidence. Traditionally it has been allotted to the Redones, on the basis of the hoard from Amanlis (35.01) which furnished most museum examples, and it may be that it originated on the territory occupied after the conquest by the Redones, while not being a Redones tribal issue. The limited range of weights and the lack of stylistic development suggest that it was a short-lived production.

9.7.2 The XN series (LT XXV J.4-15)

This rare group of staters and quarter staters is often attributed to the Abrincatui, located in the pays Avranchin, though as we shall see there is little hard evidence for this.

The type is characterized on the obverse by a head which recalls the Veneti and Coriosolitae billon issues, in particular the earliest Coriosolitae stater (class VI) (Colbert de Beaulieu 1952a, 87), and on the reverse by a human-headed horse usually to the right, beneath which is a vertical lyre and two circles or stars (figure 88). Colbert de Beaulieu (ibid., 87-89) identified four classes of stater and quarter stater, differentiated essentially through the portrayal of the hair and the motifs on the reverse. On classes II and III, for example, there are often three dotted circles on the cheek, and on class II there is sometimes a small head hanging in front of the main head. The reverse is very similar throughout

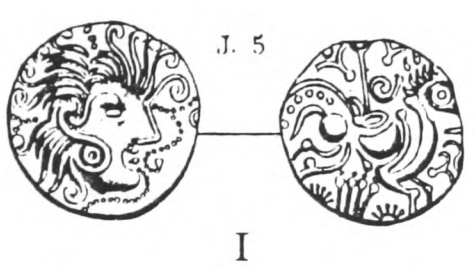
the series; the quarter staters tend to have circles rather than stars on each side of the lyre, which is always in a vertical position. Above the horse is the *hampe* familiar from the early Coriosolitae staters; on class II staters there is a boar standard in front of the horse, which provides another link with the Coriosolitae issues.

gaz. no., commune		denomination	weight	remarks
isolated finds:				
J.25	'Jersey'	quarter stater	-	cl. II
	'Jersey'	quarter stater	-	-
excavated finds:				
35.67	Saint-Malo	quarter stater	1.26g	cl. II

gaz. no., commune		description
hoards:		
35.36	Mordelles	one cl. III stater in hoard mostly of Redones billon
J.01	Grouville	53 staters and 9 quarter staters in hoard dominated by Coriosolitae billon
J.04	St Brelade	one cl. III stater (same dies as Mordelles example) in hoard of c. 12 000 Coriosolitae issues
J.22	Trinity (1875)	22 staters and 9 quarter staters in hoard including post-conquest silver

Table 55. Provenances of the XN series in north-west France.

Two further classes of quarter stater (V and VI) were identified from the le Catillon hoard (Grouville, J.01) (Colbert de Beaulieu 1959a, 52-53), the former close in style to class III and the latter similar to types LT XXVI J.22 and LT XXVIII J.59, from the Trinity (1875) hoard (J.22). The vast majority of these coins have been found in those two hoards (table 55). The only isolated finds (figure 89) are a stater illustrated by Hucher (EH I, pl. 41.2), from the Menez region in the Côtes-d'Armor, which may be of this type, and two quarter staters from 'Jersey' (J.25). One other find has recently been made outside north-west France, in a stratified post-Caesarian context at le Yaudet, Côtes-d'Armor (information from Barry Cunliffe).



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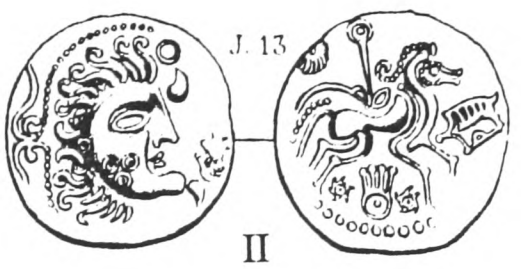

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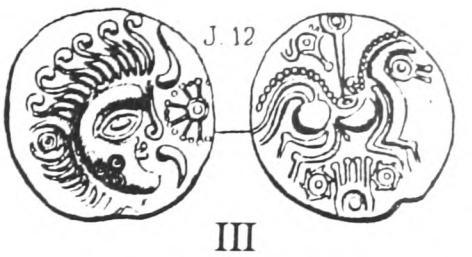
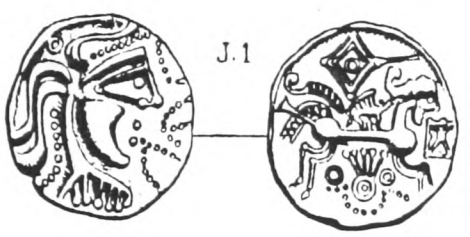
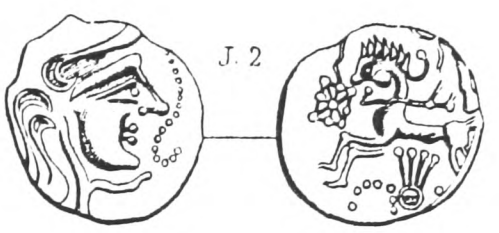
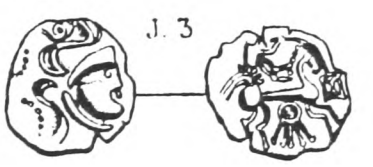


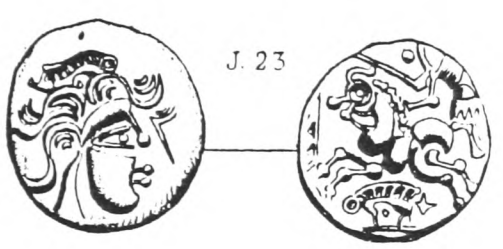
III

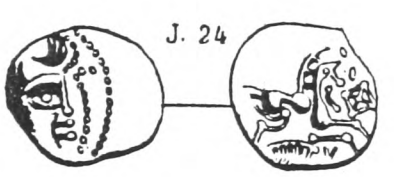
XN series

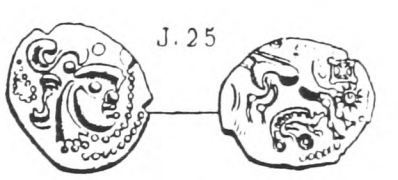


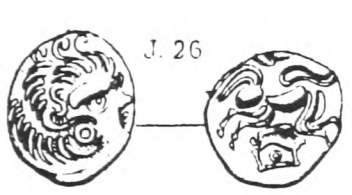


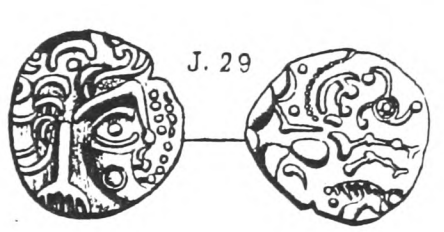


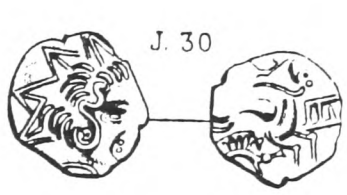


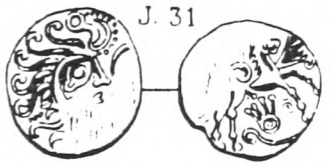


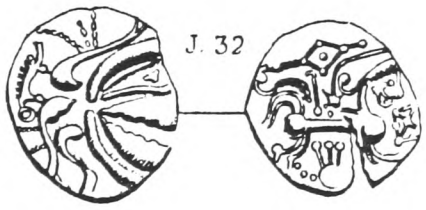


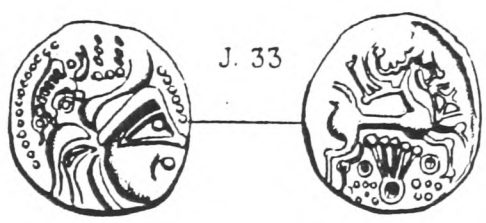


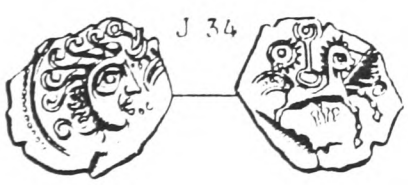


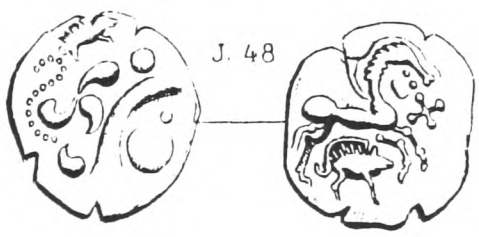


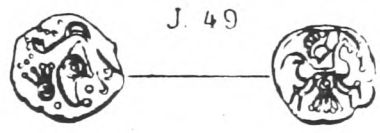


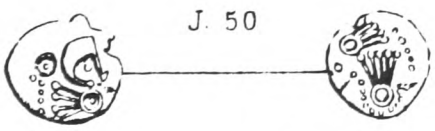


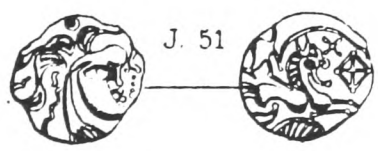


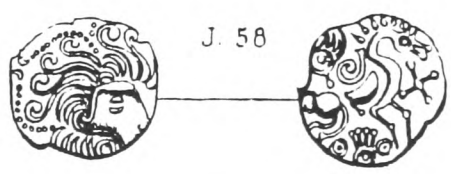


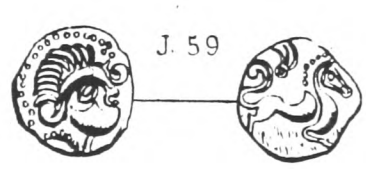












types related to the XN series

Figure 88. Examples of the XN series and related types.

	cl. I	cl. II	cl. III	cl. IV	cl. V	cl. VI
6.80-6.89g		////				
6.70-6.79g		/////	///			
6.60-6.69g		//	//			
6.50-6.59g		///	//			
6.40-6.49g		//	//			
6.30-6.39g		/	/			
6.20-6.29g	/	//	/			
6.10-6.19g		//				
6.00-6.09g						
5.90-5.99g						
5.80-5.89g		/	///			
5.70-5.79g			//			
5.60-5.69g						
5.50-5.59g						
5.40-5.49g		/				
5.30-5.39g						
5.20-5.29g						//
5.10-5.19g						
5.00-5.09g		//				
others		3.22g, 3.56g, 4.20g, 4.60g, 4.68g			4.84g	

Table 56. Distribution of weights of the XN series.
Columns include all known weights of coins with north-west French provenance.
/represents one coin.

The distribution of weights (table 56) suggests that class II may have just preceded class III; there are too few weights of the other classes to place them. The small group of very light class II staters all come from the Trinity hoard, possibly deposited late in the first century BC, and are thus more worn than the other examples. The starting date for the series is currently impossible to determine, but from the weights it must have been at a similar period to the other series of Armorican billon.

The centre of production is equally uncertain, but the coins may have been issued somewhere around the golfe de Saint-Malo or in Jersey. The attribution to the Abrincatui (suggested by Colbert de Beaulieu 1949; 1950) finds little support from the pattern of finds observed so far, although it cannot be ruled out; certainly the similarities of the type to other issues from eastern Armorican and also to the Baiocasses/Unelli coins discussed below suggest that it may have been issued in this area.

9.7.3 Types related to the XN series

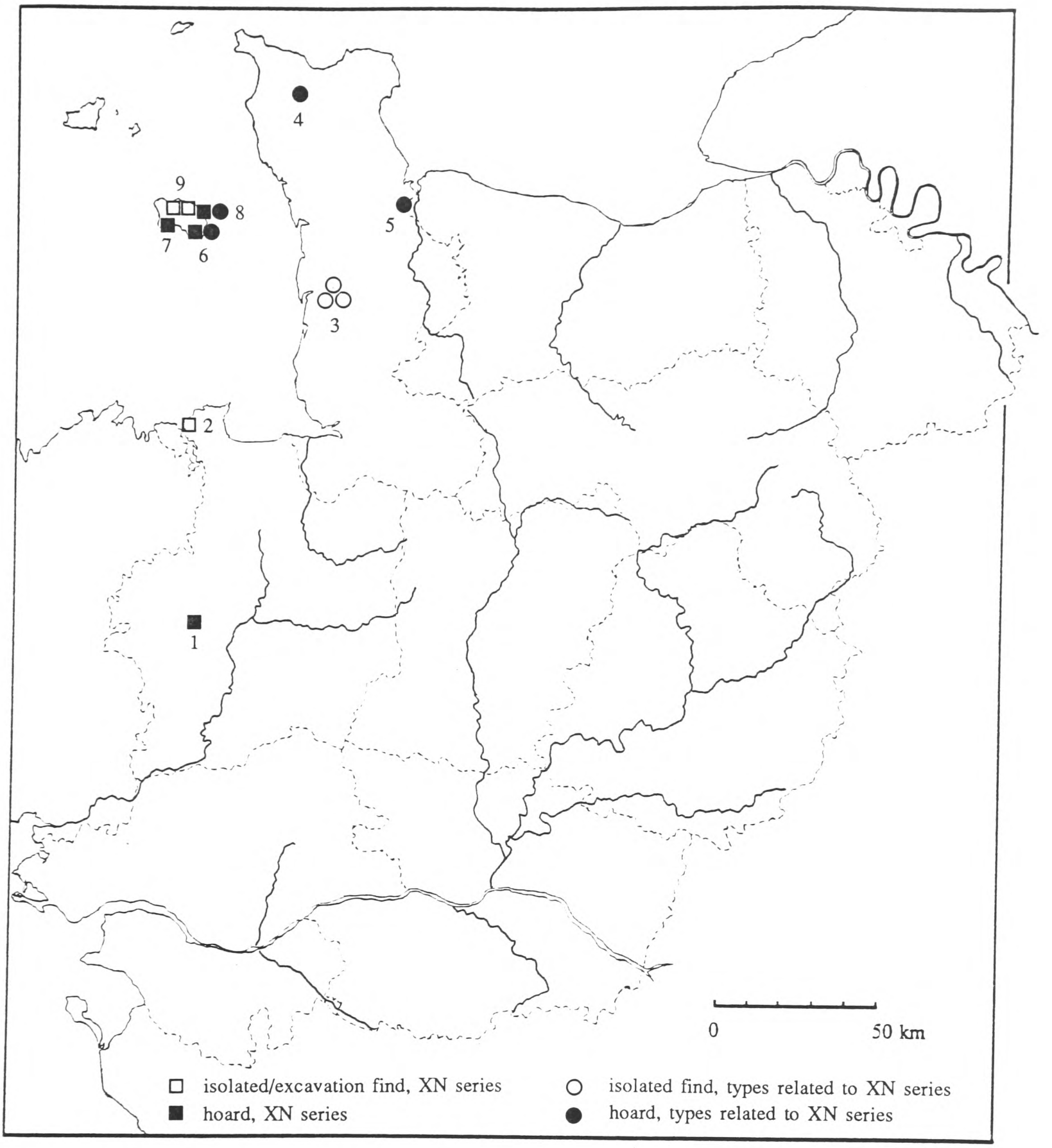
A number of billon fractions and a few staters are recorded principally from the 1875 hoard in Trinity (J.22), with a few findspots in neighbouring parts of the mainland (figure 89). Certain characteristics link these coins to the XN series, in particular the crescent-shaped face on the obverse, and the depiction of the lyre and the stars or circles on the reverse (see figure 88). There are other motifs which echo slightly more distant coinages, most notably the style of the hair and the boar above the head on the obverse, which are found on the Baiocasses/Unelli series discussed below (9.9).

There is little point in attempting to classify this series, as only a very few varieties are known by more than one example. Thus table 57 lists the finds in north-west France with reference to the plates in de la Tour, which for the time being is probably the most sensible way of referring to them. The finds of these coins in Jersey and the Cotentin may indicate production in either of those two areas, probably around the time of the conquest; it is possible that the very small silver billon issues may be post-conquest.

gaz. no., commune		denomination	weight	remarks
isolated finds:				
50.05	Coutances	stater	6.48g	LT XXV J.1 var.
50.05	Coutances	quarter stater	1.43g	LT XXV J.3 var.
50.05	Coutances	stater	4.52g	LT XXVI J.33; very worn

gaz. no., commune		description
hoards:		
50.06	Couville	including stater (6.74g), LT XXV J.1 var.
50.18	Montmartin-en-Graignes	c. 25 of LT XXVI J.33 var. and similar
J.01	Grouville	hoard dominated by Coriosolitae billon included one coin with O/ LT XXVI J.1 and R/ LT XXV J.33; one LT XXV J.2 var.; two (0.98g, 0.78g) LT XXV J.3; two LT XXVI J.23 var.; and three LT XXVII J.49
J.22	Trinity (1875)	hoard included at least one example each of LT XXV J.1-3; LT XXVI J.23-26, 29-34, 48; LT XXVII J.49-51, 58-59; and BN 10387 (0.80g) and BN 10409 (1.03g).

Table 57. Provenances of types related to the XN series.



1	Mordelles	35.36	6	Grouville	J.01
2	Saint-Malo	35.67	7	St Brelade	J.04
3	Coutances	50.05	8	Trinity (1875)	J.22
4	Couville	50.06	9	'Jersey'	J.25
5	Montmartin-en-Graignes	50.18			

Figure 89. Distribution of the XN series and related types.

9.8 The Aulerci Diablintes coinage (BN 6487-6503)

This small group of gold and billon coins, sharing much the same design, is geographically distinct from the other third phase coinages of the south and west, but its portrayal of familiar motifs such as the human-headed horse provides a clear link to the Armorican issues.

gaz. no., commune		denomination	weight	remarks
isolated finds:				
53.28	Jublains	-	-	billon, hhh to left
53.66	'Mayenne'	stater	-	billon
61.25	Héloup	stater	6.97g	electrum; countermark of cross on O/ cheek
72.28	Oisseau-le-Petit	stater	-	billon

gaz. no., commune		description
hoards:		
53.25	Hardanges	more than 20 staters of the billon type, including 1 in BN: 6488 (3.35g); also two Sarthe recumbent figure staters (cl. IV and Vb)
53.41	Mayenne	one billon stater with R/ to left in huge hoard almost entirely of Roman coins
61.47	Suré	three billon coins in hoard; no further information

Table 58. Provenances of types BN 6487 and 6488-6503.
Lambert and Rioufreyt (1987, 518) list a coin found 'in the Sarthe near Alençon' (72.39), which may be BN 6848, as an example of this type, but the description in Muret and Chabouillet (1889, 154) describes the recumbent figure as holding a head, rather than a vase; its association with this group remains in doubt.

The obverse of this type (figure 90) is manifestly related to the Sarthe recumbent figure coinage of the second phase, attributed to the Aulerci Cenomani. The style of the wreath, the depiction of the locks of hair above the wreath, and the presence of the three bead earring on the cheek are all familiar items handled in a very similar fashion. The reverse has undergone greater modification, though the head of the horse and the vexillum, and the cursory depiction of the chariot wheel are all close to the Sarthe coinage. Beneath the horse, however, the recumbent figure now holds an object

usually described as a vase, but which may be a torso, in its right hand, and (perhaps) a shield in its left (this part of the design is usually off the flan). The horse is no longer winged, but in the space thus revealed the charioteer holds a torc in his left hand. The design is basically the same on both the gold (type BN 6847) and silver or billon (type BN 6488-6503) coins of the series.[1]

The earliest coins (just under 7g; see table 59) are one or two decigrammes lighter than their prototypes from the region just to the south; examples of both types were found in the Hardanges hoard (53.25). However the absolute start and finish dates of the series are uncertain. It may have continued practically until the conquest, as the other two hoards were formed predominantly of Roman coinage. There is little typological development and the few finds, provenanced and unprovenanced, suggest that production was on a small scale.

	gold types	billon types
6.90-6.99g	///	
6.80-6.89g	/	
6.70-6.79g		
6.60-6.69g	/	/
6.50-6.59g		
6.40-6.49g		
6.30-6.39g		///
6.20-6.29g		
6.10-6.19g		//
6.00-6.09g		
5.90-5.99g		
5.80-5.89g		
5.70-5.79g		/
others		3.35g, 4.75g, 4.76g, 4.80g, 4.86g, 4.98g, 5.16g, 5.31g, 5.57g

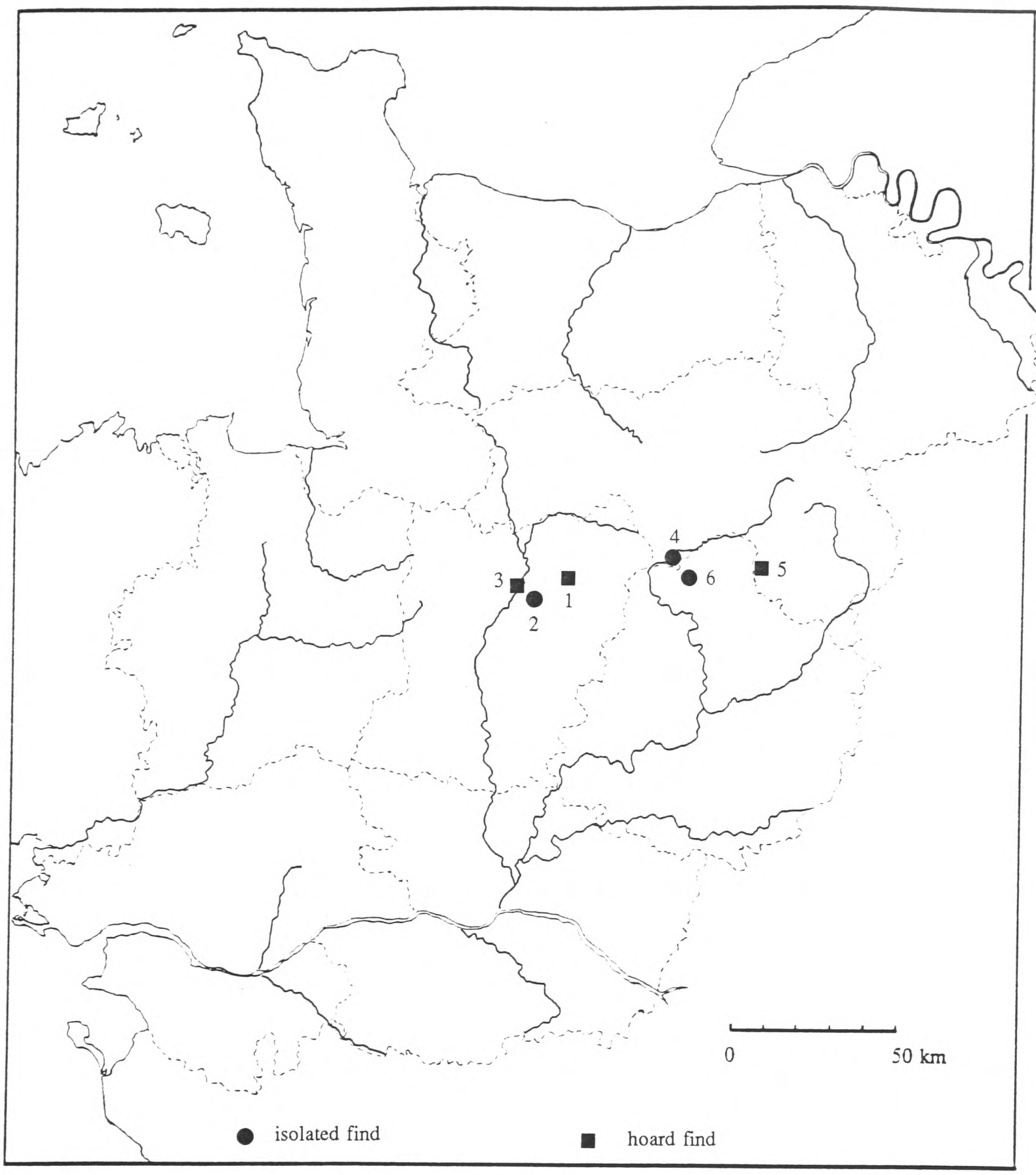
Table 59. Distribution of weights of types BN 6487, 6488-6503.
Columns include gold coins listed by Lambert and Rioufreyt (1987), and billon coins in the BN.
/represents one coin.

The findspots (figure 90) are clustered in the north-east of Mayenne and along the western Sarthe/Orne border, in an area that does not correspond to any known geographical or political entity; they are slightly to the east of the hippocampus type (figure 73), which has a rather more convincing

[1] Lambert and Rioufreyt (1987, 515) note that types BN 6523-6524, also in silver alloy, share these motifs. One of the BN coins (6523), found at Mamers (72.21; 6.55g), was mentioned above (8.2.1) as a possible Aulerci Cenomani production, but is should probably be considered in relation to this group rather than directly to the Sarthe recumbent figure coinage from which it ultimately derives.

attribution to the Aulerci Diablintes. The suggestion of Lambert and Rioufreyt (1987, 519) that it might be the tribal coinage of the Esuvii, which appears to have been accepted by some numismatists (eg Gruel 1990b, figs. 1 and 2), cannot be supported on the present evidence. The type was more likely produced for use within a small regional group with affiliations to the Aulerci Cenomani and the Aulerci Diablintes, but which itself was not of tribal status.[1]

[1] there are two other records of Aulerci Diablintes coins which may be of this type: a quarter stater from excavation in a LLT/EGR context at Jublains (53.26), and a billon stater (5.17g) from the fortification of Moulay (53.46). These may swing the attribution slightly towards the Diablintes, but there are still not enough findspots to be certain.



1	Hardanges	53.25	4	Héloup	61.25
2	Jublains	53.28	5	Suré	61.47
3	Mayenne	53.41	6	Oisseau-le-Petit	72.28

Figure 90. Distribution of Aulerci Diablintes coinage.

Illustration below (BN 6493) by C. Lambert, from Aubin (1990).

9.9 The Baiocasses/Unelli coinage (BN 6955-6988)

This intriguing group of base gold and silver or billon coins has not received the attention it deserves. Previously little effort has been made to distinguish between issues of the Baiocasses, centred on Bayeux, and issues of the Unelli, located in the Cotentin, and consequently the same coins tend to be referred to as the products of one or both of these tribes. A recent study of a hoard at Villequier in Seine-Maritime by Fischer (1987) goes some way towards developing a typology for the issues featuring a boar (BN 6955-6982; see below), but the lyre types in particular have been largely overlooked.

The commonest variety of this coinage features a boar above the head on the obverse, surrounded by beaded cordons (figure 91), and on the reverse a human-headed horse facing right, with a vexillum in front and a boar or boar standard below. From the Villequier hoard Fischer (ibid., 357) distinguished three classes. The differences between the first two (Ia and Ib), based on the disposition of the three stylized locks of hair and the design of the horse's head, are often difficult to detect, particularly so when working from illustrations such as Lambert's, and thus except in a few very clear instances these two variations will be treated simply as class I in the following discussion. Class II is markedly more stylized (figure 91), and may be easily distinguished by the disjointed face surmounted by a boar and a number of small circles with points at their centres.

A further variety of the boar type not discussed by Fischer is illustrated in LT (XXV 6982). The obverse is similar to her class Ia issues, but there are several distinguishing features on the reverse. The horse has a normal head, and the charioteer, carrying a branch in his right hand and tailing the vexillum behind him from his left, seems to be leaping on the back of the horse. This recalls the lyre group of first phase coinage from this region, discussed above (see figure 60.8-9); we shall return to this point later. This type will be referred to as class Ic.

Closely related to these types are a series of coins with the boar on each face replaced by a lyre (BN 6983-6985). Several varieties can be identified (figure 91):

var. a: O/: head to right, with hair represented by three large stylized locks. Above the head is an inverted lyre, with four or five chords; there are symmetrically arranged beaded cordons on each side of the head and lyre.

R/: horse to right, driven by charioteer with his right hand aloft, holding a motif usually interpreted as a key; in his left hand he holds the reins. There is a vexillum in front of the horse, connected by a wavy line to the key, and another behind the charioteer apparently connected to his shoulder or the back of his neck. Beneath the horse is a lyre on its side, with four or five chords to the right. On some examples there are several angular motifs beneath the lyre which seem to be letters from the inscription on the Philippus.

var. b: O/: as above

R/: as above, but the horse is human-headed and the letters have disappeared.

var. c: O/: as above, but there are extra locks of hair at the back of the neck.

R/: human-headed horse to the right, with the charioteer holding the reins in his left hand and the wavy line to the vexillum in his right (aloft). Beneath the horse is an eight-spoked wheel with a wide rim.

var. d: O/: head to right, distinctly crescent-shaped, with triangular eye-socket. Hair of three or four stylized locks. Above the head is a boar; there are vestiges of beaded cordons surrounding the head, one of which possibly issues from the mouth.

R/: human-headed horse to the right, with the charioteer holding reins in left or right hand and a whip (?) in the other, leading to the vexillum. Beneath the horse is a vertical lyre with four or five chords.

Both the lyre and the boar types are evidently related to the Normandy first phase coinage (7.2.2), but determining the nature of those relationships is not simple. Evidence for the connection comes in the form of stylistic links, weights, and distribution. Taking the stylistic links first, if we compare the lyre variant a, as defined above, with the first phase lyre group (figure 60.6-7), it is apparent that the reverse is virtually identical, while the obverse has undergone considerable modification, from a reasonably accurate copy of the Philippus to the highly stylized head we see here (figure 91). The third phase lyre type then undergoes its own evolution, with the introduction of a human-headed horse (variants b-d), which together with the adoption of beaded cordons surrounding the head probably indicates an increase in contact with the Armorican peninsula. The boar type is not linked directly to the first phase coins, although a connection exists between the charioteer perched on the back of the horse (figure 60.8-9) and the rare class Ic (LT XXV 6982). This might suggest that the lyre type preceded the boar type, with the producers of the latter simply replacing the lyre motif for one of their own choosing. The relative weights may shed some more light on this.

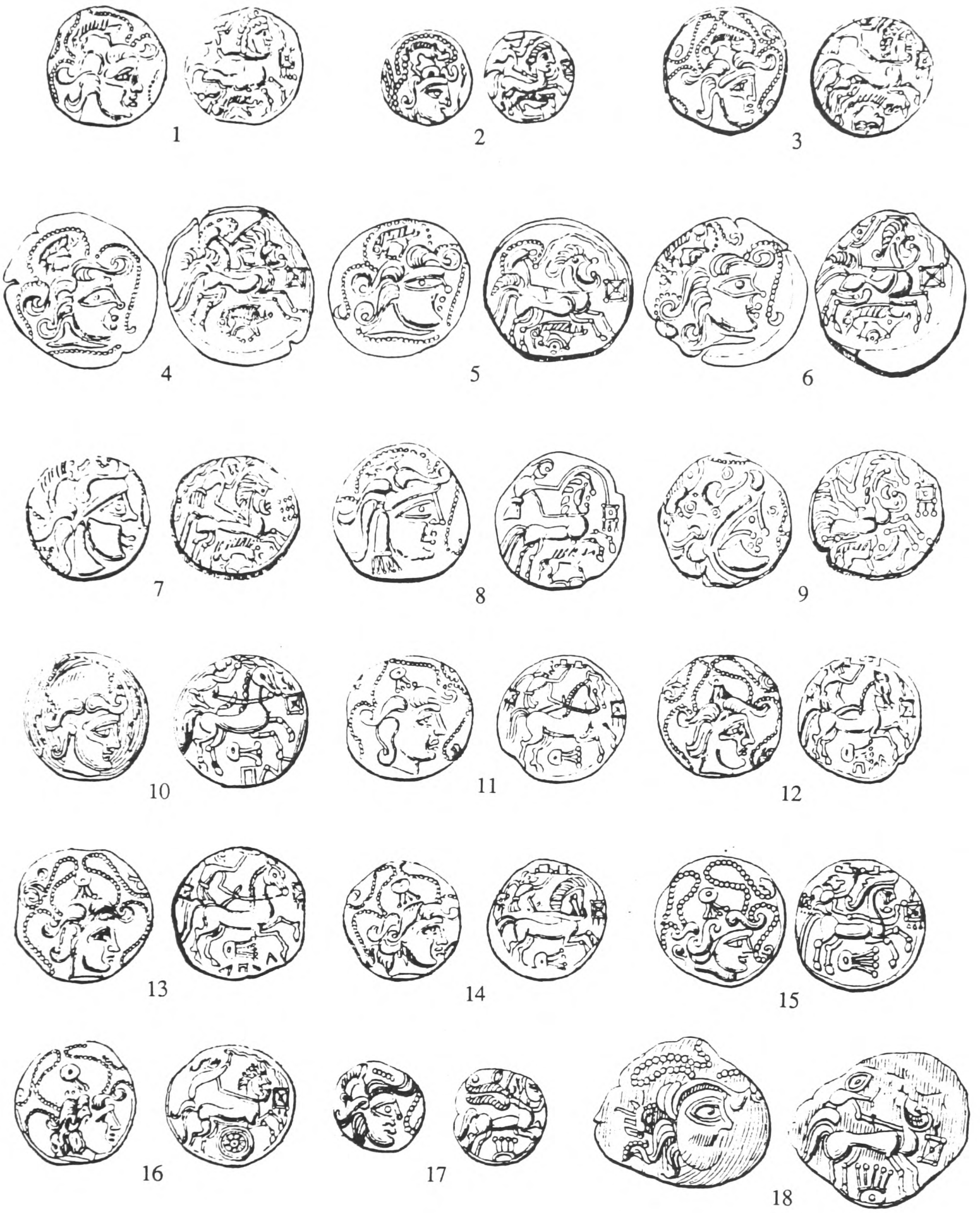


Figure 91. Baiocasses coinage.

class Ia: 1: Castillon (14.17; EL I, pl. IV.12); 2: Jort (14.33; EL II, pl. VIII.23); 3: Castillon (14.17; EL I, pl. IV.9).

class Ib: 4-6: Le Plessis-Grimoult (14.53; EL I, pl. V.13-15); 7: Castillon (14.17; EL I, pl. IV.7); 8: Cherbourg (50.04; EL I, pl. V.18).

class II: 9: unprovenanced (EL I, pl. XIbis.6).

lyre var. a: 10: Arromanches-les-Bains (14.01; EL II, pl. VII.1); 11-13: Castillon (14.17; EL I, pl. IV.14-15, 17).

lyre var. b: 14: Castillon (14.17; EL I, pl. IV.13); 15: Cesny-Bois-Halbout (14.19; EL II, pl. VII.2).

lyre var. c: 16: Triqueville (27.72; EL I, pl. IV.20).

lyre var. d: 17-18: La Barre-de-Semily (50.02; EL II, pl. VII.11-12).

	phase I lyre	phase III lyre	phase III boar cl. I	phase III boar cl. II
8.20-8.29g	//			
8.10-8.19g				
8.00-8.09g	/			
7.90-7.99g	//			
7.80-7.89g				
7.70-7.79g				
7.60-7.69g	/		/	
7.50-7.59g		//		
7.40-7.49g				
7.30-7.39g		//	///	
7.20-7.29g				/
7.10-7.19g		//	///	
7.00-7.09g		///	////	
6.90-6.99g		/		//
6.80-6.89g		//	//	/
6.70-6.79g			//	//
6.60-6.69g	/	///	////	
6.50-6.59g		/	///	
6.40-6.49g				
6.30-6.39g				
6.20-6.29g		/	/////	
6.10-6.19g			/	
6.00-6.09g			/	

Table 60. Distribution of weights of Baiocasses coinage.
Columns include all known weights of coins with a provenance in north-west France.
/represents one coin. Weights of quarter staters have been quadrupled, half staters doubled.

It can be seen from table 60 that the weights of the third phase lyre and boar class I types are very similar, but the former may have been produced slightly earlier.[1] The boar class II billon issues are poorly represented in north-west France, but the sample of 27 from the Villequier hoard range between 4.78g and 6.47g (Fischer 1987, 358), and thus may legitimately be classed as the latest issues of the series.

Turning now to the geography of the findspots (figure 92), the coins as a whole are concentrated in the region occupied in the early Gallo-Roman period by the Baiocasses. The distribution is clearly defined to the south by the high ground of the collines de Normandie, to the west by the great area of marshes to the west of the Vire, where Carentan now lies, and to the north-east by the equally

[1] this may be contradicted by a recent analysis of the alloy of coins of the boar and lyre varieties, found in a hoard at Ringwood in Hampshire (Burnett and Cowell 1989, 1-4). The lyre variety, averaging 7.07g, contained 30% gold, 48% silver, and 22% copper; the boar variety, averaging 7.05g, contained 39% gold, 42% silver, and 19% copper. Interestingly, however, the authors also suggested that the lyre group was the earlier of the two, as they were uniformly more worn than the boar issues in the same hoard.

inhospitable ground between the mouths of the Orne and the Dives. One must bear in mind, however, that Lambert was based in Bayeux and most of the recorded examples of these coins are ultimately due to him; it is possible that some provenances may be misleading. But as the evidence currently stands, there is no reason to suppose that they were produced by the Unelli. The lyre type appears to be biased towards the west of the region, and it may be recalled that the first phase lyre group displayed a very similar bias (figure 61). It may be appropriate to regard the lyre and boar types as issues from two *pagi* within the same tribe, or, at an earlier stage, from chieftains of closely allied groups. Certainly the two varieties are commonly associated in hoards dominated by Baiocasses issues (Arromanches-les-Bains, and the two Castillon hoards), suggesting that the users of each were in close contact.

But at what stage? The chronology of these types is particularly complex, because of their uncertain connections with the first phase coinage. The third phase lyre types, although produced with very similar reverse dies to the earliest issues, are at least 0.30g lighter and show a completely different obverse design, suggesting that rather than maintaining production from the first through to the third phase, some considerable time elapsed between production of the issues of each phase. It would be fascinating to identify the use of the same reverse die in both groups; certainly the illustrations are remarkably similar. This may indicate that the reverse dies were preserved, but not those for the obverse, for reasons we can only guess at. Following the resumption of production of the lyre type, it is possible that a neighbouring group very soon took up production, differentiating their coins by the use of the boar in place of the lyre. It was this later type which ultimately proved the most enduring, with the lyre variety ceasing at c. 6.20g, but considerable numbers of the boar variety being produced below 6g, probably in the run-up to the Gallic War. It is worth repeating here that the first phase ship and sword type (7.2.2) shows a pattern of development very similar to the Baiocasses issues: there are rare examples above 8g, then a gap until production resumes at c. 7.60g down to 6.64g (table 28), with the reproduction of features such as the stylized legend on the later issues again suggesting that the dies may have been preserved, in this case possibly those of the obverse as well. Another throwback in the lyre type to the first phase is probably represented by the striking of half staters (as found at Bayeux (14.06)), which are not found elsewhere in the Armorican third phase coinage.

The absolute dates for this coinage are still more uncertain. It was suggested above (7.3) that the Normandy first phase issues may have been produced in the second half of the third century BC,

perhaps extending into the early second century. But there is currently no way of determining the length of the gap in production which has been suggested to account for the disparity in weights between the early group and the third phase coins. Fischer (1987, 360) dates both her classes I and II to c. 70-60 BC, with deposition of the hoards in the Gallic War, while Burnett and Cowell (1989, 3) have argued for an earlier date, in the second half of the second century BC. None of these coins have yet been found in excavation and the evidence on relative chronology from the hoards is not conclusive, so the matter cannot be resolved for now.

There is at least one more particularly interesting aspect of this coinage. In her study of the Villequier hoard, Fischer observed (1987, 358) that on several occasions the same dies were used to strike coins of completely different alloy: for example two of the class Ia issues, struck in base gold (7.15g) and in pure silver (5.44g). She argues (ibid., 360) that this attests to "un appauvrissement évident" in about 70-60 BC, and further that "la substitution de l'argent à l'or constitue un tournant décisif: il marque le début d'une économie monétaire", with gold coins retained only for important transactions. But we may question to what degree a pure silver coin was regarded as of lower value than one of base gold, and it certainly seems premature to associate the introduction of silver billon staters, surely of a high value, with a monetary economy. It is more likely that the coinage still functioned as a primitive valuable or as primitive money, perhaps with coins of different metals performing the same basic function but for different parts of the society. On the other hand, or in addition, the different alloys may reflect fluctuations in the supply of raw material: the Baiocasses had no suitable resources on their own territory, and Armorica is the obvious candidate for the source of the necessary ores - a connection perhaps indicated by the use of the human-headed horse, and the beaded cordons, on the Normandy coins. Such a link must have been subject to a multitude of factors affecting its reliability, either voluntarily from the peoples at each end or along the route, or involuntarily - from environmental difficulties, disease and so on - which would preclude the minting of coins at some periods. Indeed it may be correct to see the gap in production between the first and the third phase issues primarily as the result of the lack of raw materials.

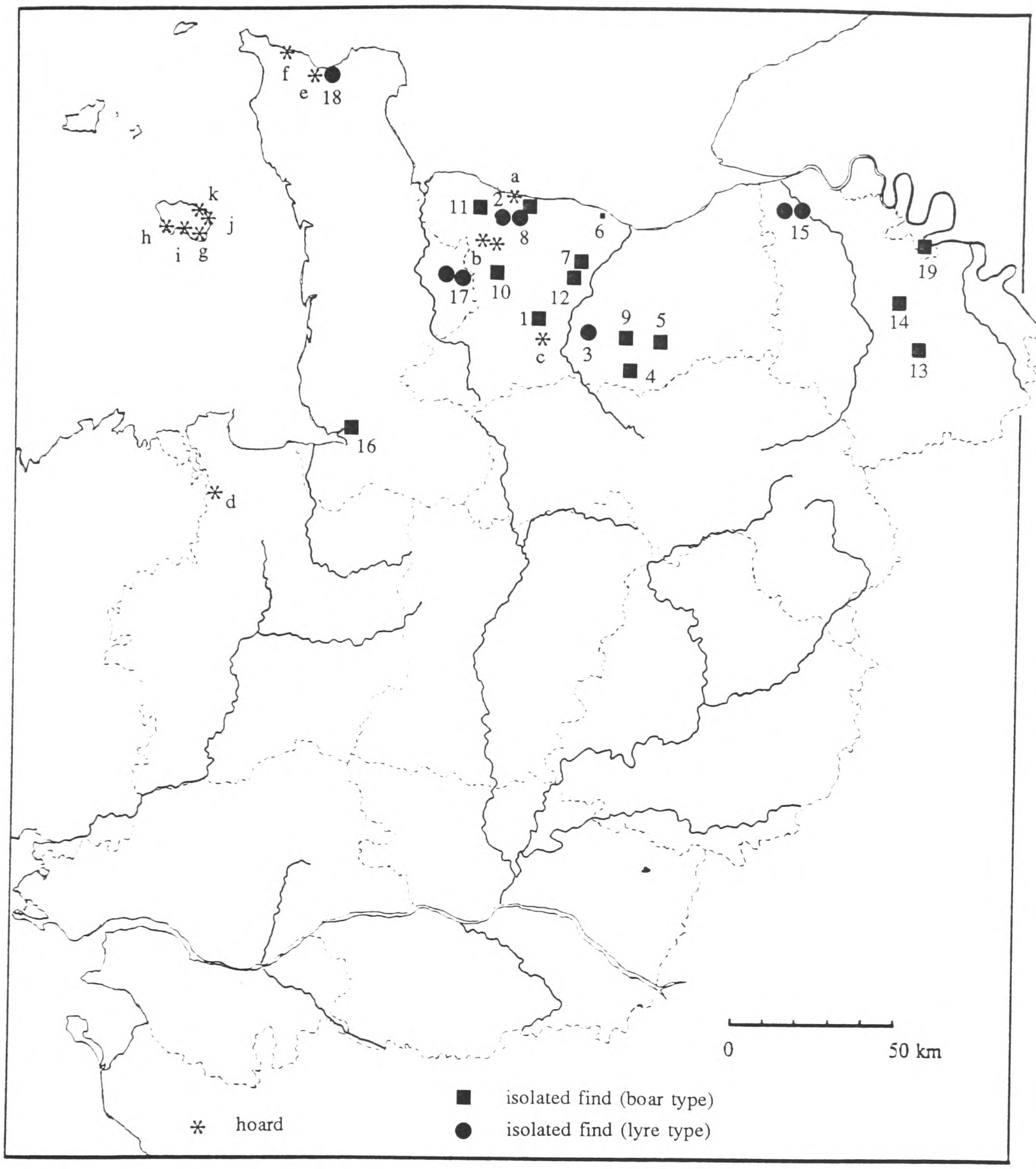


Figure 92. Distribution of Baiocasses coinage.
Key to sites overleaf.

	gaz. no., commune		denomination	weight	remarks
isolated finds:					
1	14.02	Aunay-sur-Odon	stater	7.14g	BN 6974; cl. I; billon
2	14.06	Bayeux	half stater	3.29g	lyre var. a
	14.06	Bayeux	quarter stater	1.65g	cl. I
3	14.19	Cesny-Bois-Halbout	stater	7.31g?	lyre var. b
4	14.26	Falaise	stater	7.01g	cl. Ia; gold plated Cu
5	14.33	Jort	quarter stater	1.91g	cl. Ia
6	14.60	Saint-Aubin-sur-Mer	-	-	possible provenance
7	14.65	St-Germain-la-B.-Herbe	stater	6.64g	cl. Ib; silver
8	14.71	Saint-Vigor-le-Grand	stater	-	lyre type
9	14.74	Soumont-Saint-Quentin	stater	7.19g	cl. I
10	14.75	Torteval	stater	7.30g	cl. Ib; silver
11	14.76	Trevières	stater	6.27g	cl. Ib
12	14.78	Vieux	stater	6.90g	bronze? cl. II var.
-	14.82	'Calvados'	stater	7.19g	cl. I
13	27.02	Aulnay-sur-Iton	stater	-	boar type
14	27.32	Feugeurolles	stater	6.70g	cl. II
15	27.72	Triqueville	stater	7.12g	lyre var. a
	27.72	Triqueville	stater	7.54g	lyre var. a
16	50.01	Avranches	stater	7.38g	cl. Ia
17	50.02	la Barre-de-Semily	quarter stater	1.65g	lyre var. d
	50.02	la Barre-de-Semily	stater	7.06g	lyre var. d
18	50.04	Cherbourg	stater	7.02g	BN 6985; lyre var. d
-	50.41	'Avranches/Rennes road'	stater	-	cl. Ib
19	76.04	Elbeuf	stater	6.89g	cl. II

	gaz. no., commune		description
hoards:			
a	14.01	Arromanches-les-Bains	c. 20 staters and quarter staters including 3 cl. I, 3 cl. II and 2 lyre var. a
b	14.17	Castillon i)	c. 40-50 staters and quarter staters, including 6 cl. Ia and Ib, 1 cl. Ic, 3 cl. II, 4 lyre var. a and 1 lyre var. b
	14.17	Castillon ii)	58 staters; 29 examined including 17 lyre var. a and 12 boar type, incl. 2 cl. I and 1 cl. II
c	14.53	le Plessis-Grimoult	400-500 billon coins including 17 cl. Ib
d	35.83	Saint-Pierre-de-Plesguen	1 cl. Ib stater in hoard of 600-800 billon coins, mostly of Coriosolitae, Veneti and Redones
e	50.04	Cherbourg	possible hoard including cl. II issues
f	50.35	Urville-Nacqueville	hoard of 400-500 billon issues between 5.73g and 7.27g, boar type

Table 61. Provenances of Baiocasses coinage in north-west France (continued overleaf).
Numbers and letters in the first column refer to figure 92.

gaz. no., commune			description
g	J.01	Grouville	3 cl. Ib staters, 1 cl. II quarter stater and 7 lyre var. d in hoard mostly of Coriosolitae billon
h	J.04	St Brelade	7 staters in hoard of c. 12 000 Coriosolitae issues; 1 XN stater also present
i	J.08	St Helier	1 stater in hoard of c. 200 Coriosolitae coins
j	J.21	Trinity (1820)	4 staters in hoard of 982 coins, almost all Coriosolitae
k	J.22	Trinity (1875)	2 lyre var. d staters and 1 billon quarter stater (boar?) in hoard, mostly of Coriosolitae coins and post-conquest silver issues

Table 61 (concluded). Provenances of Baiocasses coinage in north-west France.
Letters in the first column refer to figure 92.

In addition to the above, Coutil (1921, 14-15) records a variant of type LT XXV 6955 (class II) from Evreux, but this provenance is doubtful.

9.10 Other third phase issues

9.10.1 The Pallas Athena types

This series of silver fractions has been subject to quite detailed study on both sides of the Channel, primarily because of its importance in the dating of British coinage, some of which it inspired (the Durotrigan coins Mack 321 and 321A), and some of which it is found alongside in the le Catillon hoard (Grouville, J.01). These matters are beyond the scope of this work; here we shall consider the evidence for the date and production of these coins. Table 62 lists the finds in north-west France.

gaz. no., commune		weight	remarks
isolated finds:			
14.11	Caen	1.12g	type BN 5982
14.33	Jort	0.97g	BN 8516
excavation finds:			
14.05	Baron-sur-Odon	0.73g	type BN 6961A (Scheers cl. Ib; Allen *au serpent*). Possibly another example.
53.26	Jublains	-	LT XVIII 5985 var. in C1 AD context
72.01	Allonnes	-	6 type LT XVIII 5967; 30 type LT XVIII 5980 (including 0.9g, 0.7g, 0.7g); and 3 type LT XVIII 5985 (including 0.7g)

gaz. no., commune		description
hoards:		
53.21	Evron	possible hoard of three silver coins, suggested to be type LT XVIII 5967
72.25	Montfort-le-Rotrou	possible hoard of 12 silver coins, one of which is in the Cabinet des Médailles: BN 5967 (1.15g) (*au carnyx normal*).

Table 62. Provenances of types featuring Pallas Athena in north-west France.

The obverse of these types all feature the helmeted head of Pallas Athena, facing either left or right (figure 93). On the reverse are a variety of designs, usually of animals. Allen (1965) provided the

first detailed classification, distinguishing three series (Normandy/Picardy, South Hampshire and Vendée) with a total of 16 classes between them (ibid., 91-93). Those relevant here are all in the Normandy/Picardy series:

type *à l'aurige de Bridiers* (BN 5982)
type *au carnyx normal* (BN 5967-5969)
type *au carnyx dégénéré* (BN 5971, 5980)
type *à deux cheveaux et tête d'oiseau* (BN 5985)
type *au serpent* (BN 6961A, 7243A-B)
type *au serpent dégénéré* (BN 8516)

Some of these types were reclassified by Scheers (1977, 492-493), but Allen's scheme is more suited to our purposes and thus will be retained here.

The reverse of the earliest types (BN 5982) was inspired by that on the second century BC drachmae found in the Bridiers hoard (Nash 1978a, pl. I), themselves imitations of coins from Emporiae (Scheers 1977, 115). One example has been found in north-west France, at Caen (14.11). Allen suggests (1965, 84) that the various finds in the Maine (types LT XVIII 5967, 5980 and 5985), found in numbers at the *fanum* of Allonnes (72.01), represent a second phase of this coinage, although the producers were presumably not the same people. The only other types in north-west France are of the classes *au serpent* (or hippocampus, according to Scheers): one or two type BN 6961A from the *fanum* of Baron-sur-Odon (14.05), and a degenerate version of the same from Jort (14.33; BN 8516). The former is part of a series probably produced in Seine-Maritime (Scheers 1977, 115); the Jort coin may be a locally-produced imitation, or conceivably a late development from Seine-Maritime itself. The other important centre of production was in Picardy (Scheers series 52), and it was these coins which imspired the south Hampshire series (Allen 1965, 85-86). Another related type (Allen's curiously named Vendée series), also with the head of Pallas Athena, is known principally from the Brech hoard in Morbihan (Colbert de Beaulieu 1953f) and a couple of isolated finds in Finistère; one example was found in the Trinity (1875) hoard (J.22).

Allen suggested (1965) that these coins probably dated from the second century BC, but this is almost certainly too early. Scheers (1977, 116) has commented on the frequency with which these types are found in Gallo-Roman contexts, and indeed all the excavated examples in north-west France have come from Gallo-Roman sites, though in all cases with a previous Iron Age phase. Unfortunately the stratigraphic associations of the coins from Baron-sur-Odon and Allonnes are not recorded; the single example from Jublains was in a first century AD context. The presence of the Durotrigan

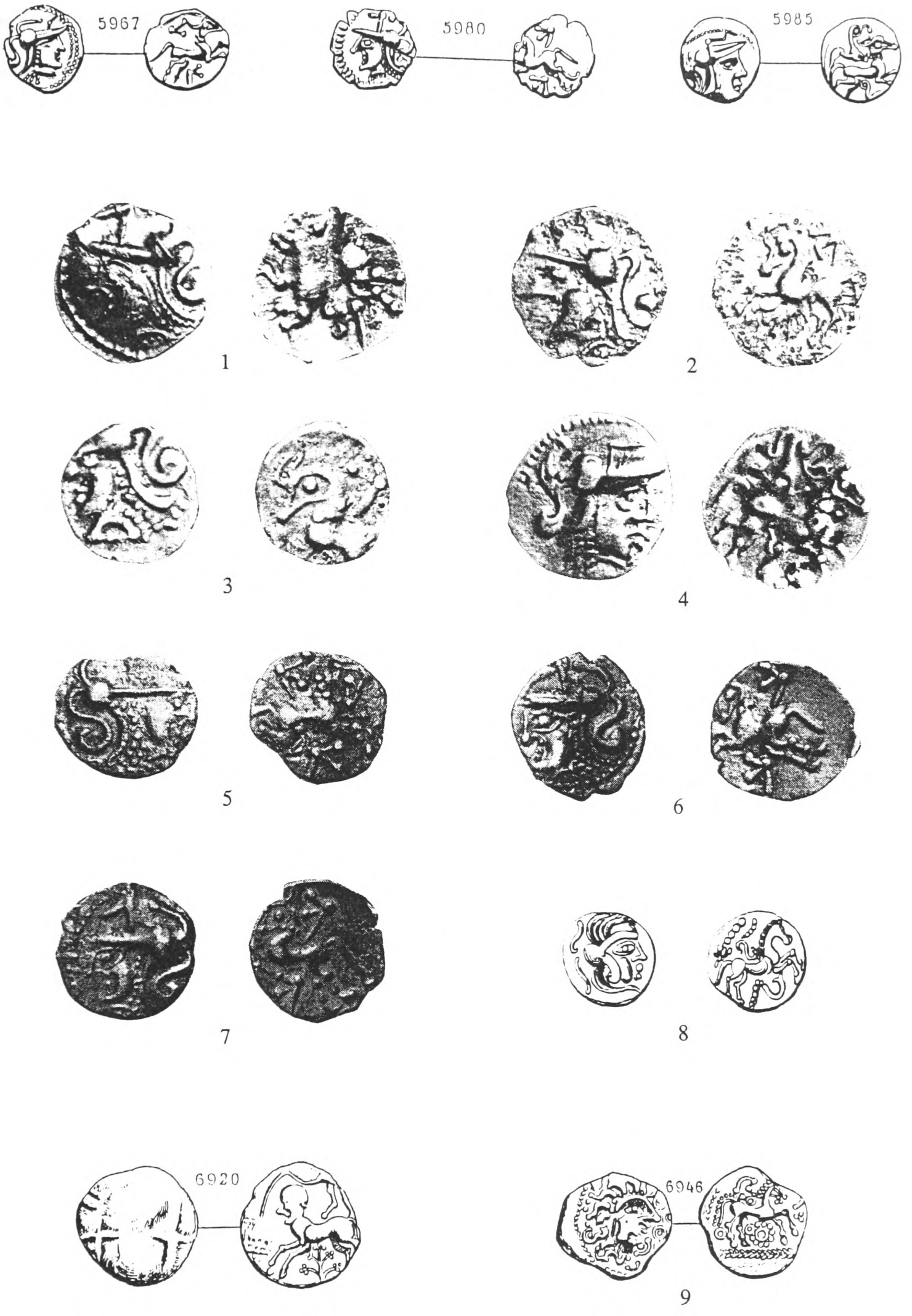


Figure 93. Examples of miscellaneous third phase types.

Pallas Athena types: 1-7: Allonnes (72.01; Cordonnier-Détrie 1957, fig. 6.9-12; Térouanne 1960, pl. LXXXIV.32, 34-35; 8: Jort (14.33; EL II, pl. VII.21).

LT XXIV 6946 type: 9: Saint-Germain-la-Blanche-Herbe (14.65).

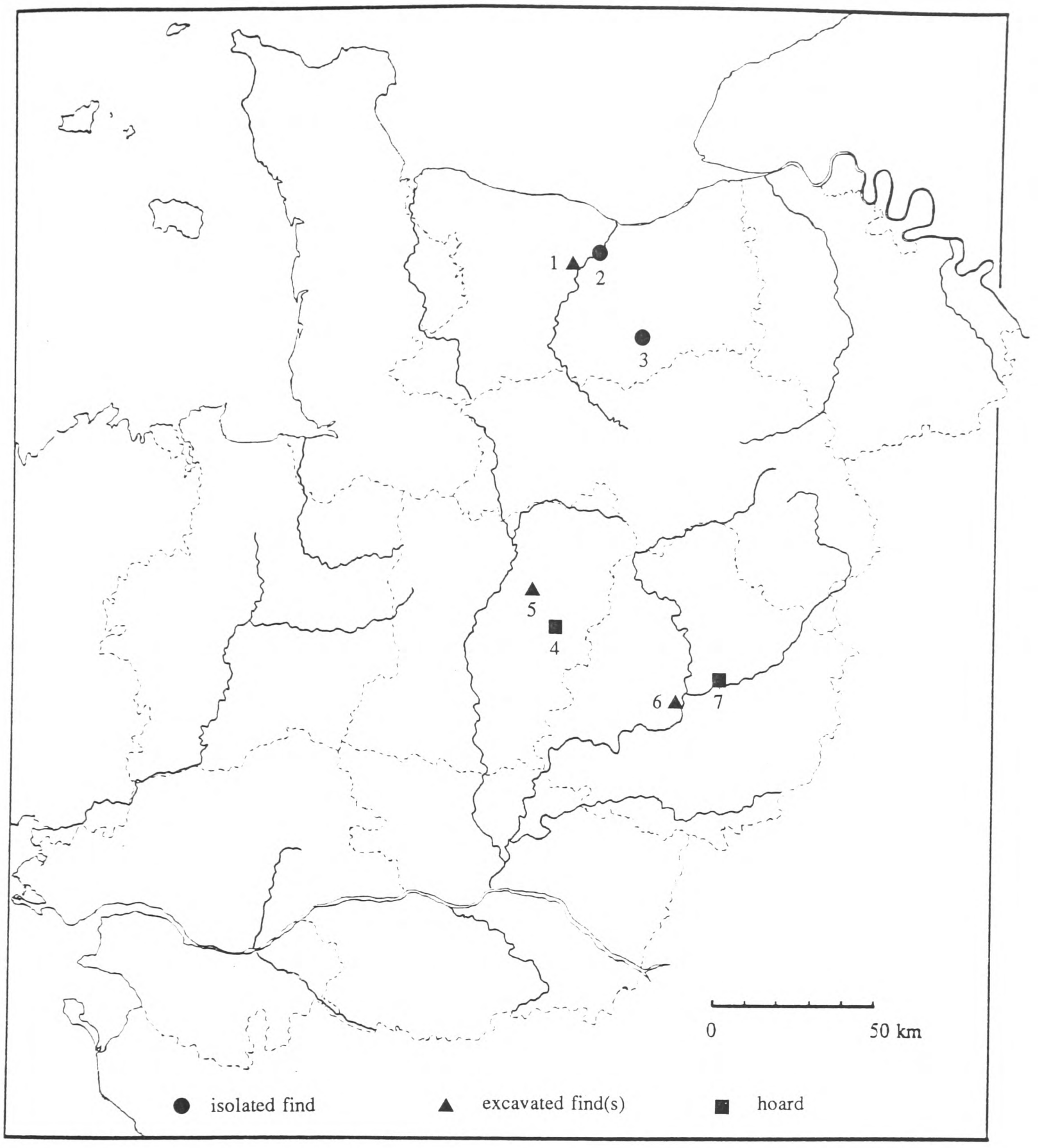
derivatives in the le Catillon hoard (J.01), which led Allen to an early date for this series because the hoard was then dated to 56 BC, no longer has the same impact on the dating of the earlier coins as the deposition of the hoard has been shifted forward to c. 40-20 BC (Fitzpatrick and Megaw 1987). But it is impossible to work back from those dates to the initiation of the series with any confidence, because there is no way of determining the gap between each phase of reproduction of the original design - which itself is not precisely dated. The picture is complicated further by the production of these coins in discrete and distant areas. In some instances it is probably incorrect to treat these issues as phases of a single series: it is likely that the producers of the Maine type had no contact with the producers of the coins in Seine-Maritime, but instead were linked simply by their coincidental use of the same prototype. At the moment little more can be said on the subject. The Maine type has traditionally been attributed to the Aulerci Cenomani or the Carnutes, and while the former is more likely in the sense that the coins were perhaps produced on their territory (figure 94), they were possibly not issues of the tribe itself.

9.10.2 The LT XXIV 6920 type

Two examples of this stater (figure 93) have been found, at Nantes (44.45) and le Fief-Sauvin (49.52; 7.05g). The presence of the human-headed horse suggests that it is an Armorican production, perhaps from the lower Loire region, while the motif beneath the horse recalls second phase coins perhaps from the Touraine (Nash 1978a, pl. X).

9.10.3 The LT XXIV 6946 type

This type (figure 93.9) is known by a single example from Saint-Germain-la-Blanche-Herbe (14.65), in the western suburbs of Caen. On the obverse is a head with highly stylized hair; the reverse shows a horse facing right, with the charioteer reduced to a symbolic motif, and a sort of *fleuron* beneath the horse. The exergual line resembles a horizontal laurel wreath of very small pairs of leaves. The coin is silver, 2.93g, and represented in the BN by a forged copy (Colbert de Beaulieu 1973a, 98-100). Muret and Chabouillet (1889, 158) classed it as a Viducasses production, but there is no evidence to support this. It could conceivably be a post-conquest issue.



1	Baron-sur-Odon	14.05	5	Jublains	53.26
2	Caen	14.11	6	Allonnes	72.01
3	Jort	14.33	7	Montfort-le-Rotrou	72.25
4	Evron	53.21			

Figure 94. Distribution of Pallas Athena types.

9.11 Third phase imports

A small number of third phase coins which were produced outside the region have been found in north-west France. In addition to about 40 Osismii issues in the le Catillon hoard (J.01), there are some 30 isolated finds and a handful of coins in small hoards, not surprisingly mostly concentrated around the edges of the region (figure 95). It must be stressed that these coins were not necessarily imported during the third phase, but could have arrived after the conquest. Only in a couple of instances is there any contextual information to resolve this problem.

9.11.1 Coins from Belgica

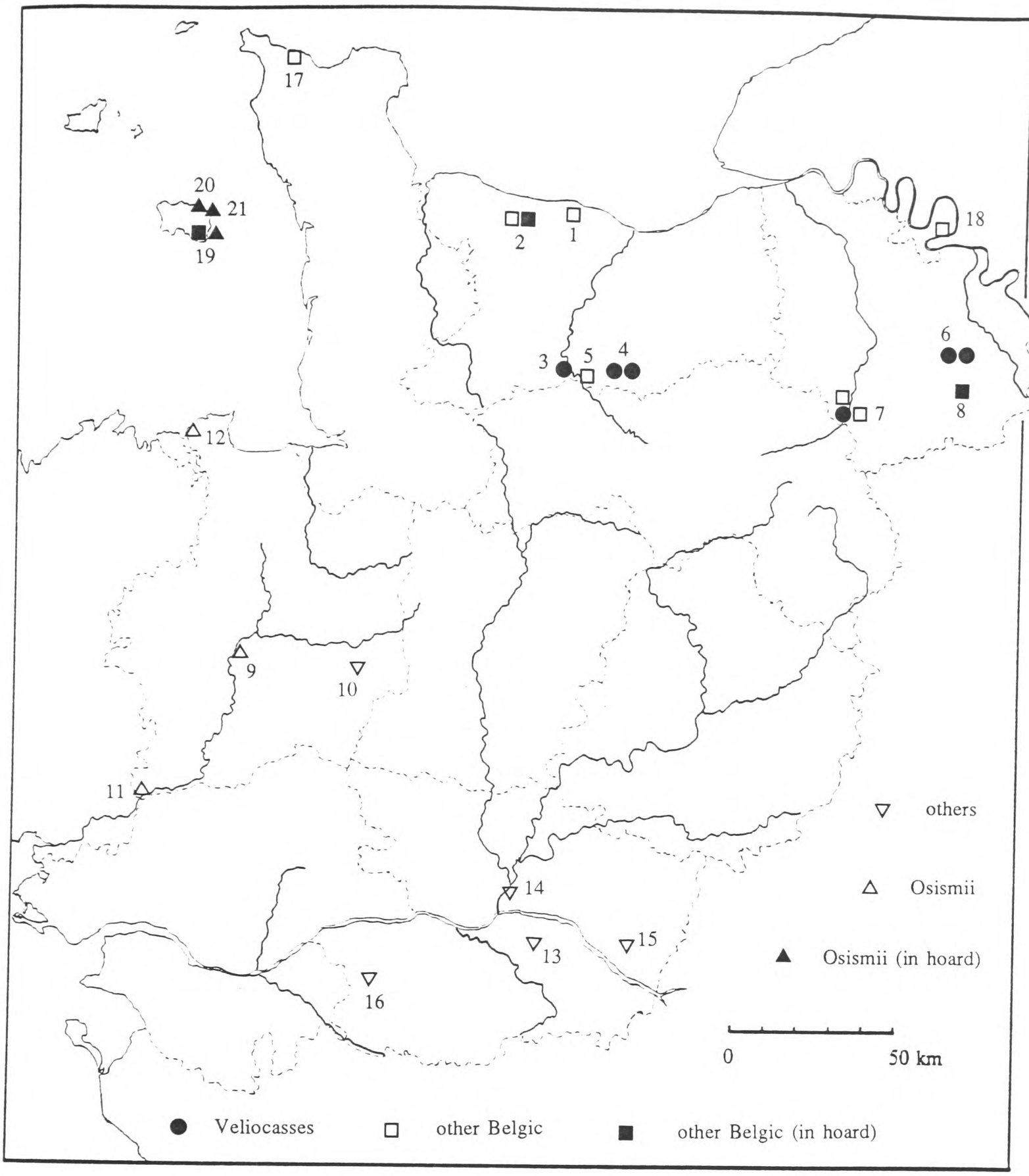
i) types attributed to the Veliocasses (BN 7229-7248)

It may be recalled that this tribe are commonly supposed to have occupied a small part of north-west France, in the north of Eure: the area between the Risle and the Seine, as far south as an east-west line approximately between le Bec-Hellouin and Elbeuf (figure 10). In fact none of the coins attributed to the Veliocasses have been found here, but at several other points in the north-east of the region (figure 95).

gaz. no., commune		denomination	weight	remarks
14.20	Clécy	stater	-	gold, cl. II
14.26	Falaise	stater	5.88g	BN 7231; gold, cl. II
14.26	Falaise	stater	5.73g	gold, cl. II
27.29	Evreux	-	1.85g	silver, cl. IIb
27.29	Evreux	-	-	bronze
27.61	Rugles	quarter stater	1.52g	BN 7236; gold, cl. I

Table 63. Provenances of Veliocasses *à l'astre* coinage in north-west France.

Scheers (1977, 68-69) has dated this type to 58/57 BC, though production may have begun rather earlier than this. The attribution to the Veliocasses remains in some doubt; the Bellovaci have been suggested as a possible alternative (ibid.).



1	Banville	14.04	12	Saint-Malo	35.73
2	Bayeux	14.06	13	les Alleuds	49.01
3	Clécy	14.20	14	Angers	49.08
4	Falaise	14.26	15	Blou	49.17
5	Pont-d'Ouilly	14.54	16	le Fief-Sauvin	49.58
6	Evreux	27.29	17	Urville-Nacqueville	50.36
7	Rugles	27.61	18	Oissel	76.11
8	Thomer-la-Sogne	27.69	19	Grouville	J.01
9	Bruz	35.09	20	Trinity (1820)	J.20
10	Etrelles	35.20	21	Trinity (1875)	J.22
11	Redon	35.48			

Figure 95. Distribution of third phase imports.

ii) other types

The other Belgic and Gallo-Belgic coins are a miscellany of types, mostly known in north-west France by single examples (table 64).

gaz. no., commune		denomination	weight	remarks
isolated finds:				
14.04	Banville	stater	5.89g	LT XXXV 8793 cl. III - gold, Suessiones *anépigraphes*
14.06	Bayeux	quarter stater	1.49g	LT XXXIV 8538 cl. III - gold, Morini (?) *au bateau*
14.54	Pont-d'Ouilly	stater	6.64g	BN 7374-7387 - worn gold, Suessiones *globules à la croix*
27.61	Rugles	stater	5.98g	BN 8751 - gold, *à l'epsilon*, Nervii
27.61	Rugles	stater	6.30g	BN 8711 - gold, cl. II uniface (Gallo-Belgic E, Mack 27)
50.36	Urville-Nacqueville	stater	7.40g	BN 7374-7387 - gold, *globules à la croix* (Suessiones?)
76.11	Oissel	stater	-	BN 7877-7893 - Ambiani large flan gold cl. IVb

gaz. no., commune		description
hoards:		
14.06	Bayeux	Allen (1960) has a gold quarter stater, type LT XXXV 8694 (Gallo-Belgic BB) "found with Armorican base coins in a hoard"
27.69	Thomer-la-Sogne	hoard of seven large flan gold staters (near LT XXXII 7886, Gallo-Belgic AB1)
J.01	Grouville	gold quarter stater *au bateau* (LT XXXIV 8538) in hoard dominated by Coriosolitae billon; deposited after the conquest

Table 64. Provenanced finds of miscellaneous Belgic coinage in north-west France.

Scheers (1977) has dated nearly all of these (save for the *globules à la croix* type, possibly beginning early in the first century BC) to 58/57 BC or a year or two before. This dating has come in for criticism from Haselgrove (1987a, 80-83), who has questioned some of the assumptions made by Scheers, in particular that the production of gold coinage ceased immediately after the War, and that much of this coinage was struck to finance the War effort. These matters are beyond the scope of this work, but it is as well to be aware of differences over the dating of the types. None of these coins have

any recorded context and the most that can be said of them is that they indicate only a very limited penetration of Belgic issues into north-west France.

9.11.2 Coins from western Armorica

A number of coins attributed to the Osismii slip into the west of our region, in particular about 40 in the le Catillon hoard (J.01) (table 65). Once again it must be stressed that most of these probably arrived in north-west France after the conquest.

gaz. no., commune		denomination	weight	remarks
isolated finds:				
35.09	Bruz	-	-	"several Osismii coins"
35.48	Redon	stater	6.84g	LT XXI 6522 var. (Colbert de Beaulieu's XA series)
35.73	Saint-Malo	-	c. 0.80g	one or two billon coins

gaz. no., commune		description
hoards:		
J.01	Grouville	c. 40 Osismii coins (see gazetteer for details) in post-war hoard mostly of Coriosolitae billon
J.20	Trinity (1820)	one stater *à la tente* (LT XXI 6504) in hoard mostly of Coriosolitae billon
J.22	Trinity (1875)	at least five Osismii coins in hoard of Armorican billon and post-conquest silver

Table 65. Provenances of Osismii coinage in north-west France.

9.11.3 Coins from other areas[1]

[1] in addition to the Gaulish coins discussed here, there are a very few records of Roman coins which could conceivably have entered north-west France before the conquest. These include a silver denarius of Cassius, found near Rennes (Bousquet 1963, 424; Chastagnol 1963, 65-68); a quinarius of Octavian from Saint-Nazaire (CAG 44.87); seven or eight Republican coins from le Fief-Sauvin (CAG 49.50), and ten from Chênehutte-Trèves-Cunault (CAG 49.69); denarii of C. Naevius Balbus (Sydenham 769b) and Kaleni, Cordi (Crawford 403), and a quinarius of Octavian from Chavagnes (CAG 49.80); three or four denarii found in Angers (CAG 49.135.235-240); and a denarius of Lucius Julius Caesar (Crawford 323) in the fill of a souterrain at Miré (CAG 49.176). All other examples (eg in the Sark hoard (G.26)) were almost certainly introduced into the region some years after the conquest.

A few coins from other tribes have been identified in north-west France, mostly from the area to the south of our region (table 66).

The LT XVIII 5986 type is possibly a production of the Carnutes; this particular example is known only by a manuscript reference (Colbert de Beaulieu 1957f, 31), and its identification with this type must remain doubtful. The other coins are all from tribes to the south of our region - the Pictones, the Arverni and the Bituriges Cubi (?). The evidence suggests yet again that coins produced by non-Armorican tribes scarcely penetrated the Armorican world before the conquest.

gaz. no., commune		denomination	weight	remarks
isolated finds:				
35.20	Etrelles	stater	-	silver; LT XVIII 5986 var.
49.08	Angers	-	3.05g	silver Pictones coin?
49.17	Blou	-	-	LT XIII 4446, W. Berry silver type PIIIA (Nash 1978a, 48)
49.58	le Fief-Sauvin	-	-	bronze? Arverni, with amphora
excavation finds:				
49.01	les Alleuds	-	-	two potins, type BN 4303 - B. Cubi? (Nash 1978a, 233)

Table 66. Provenances of miscellaneous third phase Gaulish coins in north-west France.

9.12 Summary

The development of third phase north-west French coinage has many strands, not all of which can yet be woven into a comprehensible whole.

It will be recalled that at the end of the second phase, the coinage of north-west France was dominated by two main types: the "Veneti" winged figure coinage, and the Sarthe recumbent figure coinage. It seems likely that production, or at least use of the latter persisted until the conquest. Certainly it provided some of the inspiration for a number of third phase issues: the Redones billon coins, though possibly through the intermediate stage of the hippocampus type (8.4); the octoped type; and the Aulerci Diablintes gold and billon coinage (BN 6487-6503). However by far the most influential second phase coinage was the "Veneti" type, probably produced in the region of the lower Loire, and which was eventually succeeded in that area by the Namnetes *génie hippophore* type. The precise area occupied by the issuers of the Namnetes coins is not clear (figure 79), but it seems likely to have extended beyond the frontiers of that tribe as defined in the early Gallo-Roman period (figure 10), to include parts of western Maine-et-Loire and perhaps the southern fringe of Mayenne. Certainly there is no evidence to suggest that the gold coins traditionally attributed to the Andes (BN 6525-6528) were genuinely the products of that tribe, and it is conceivable that as in the second phase, the whole area from the mouth of the Loire upriver to Angers was under the control of the same group.

Shortly after the start of Namnetes coin production, the Baiocasses in lower Normandy began to strike coins which conserved features of first phase issues from the same area, but which at the same time demonstrated a clear orientation to the Armorican world, perhaps reflecting an intensification in trading relationships. It seems likely that some of the inspiration for the XN series, perhaps located in Jersey or around the 'corner' of the baie de Mont-Saint-Michel, came from the lower Normandy coinage - such as the distinctly crescent-shaped head. However influences operated from the south as well, hence the portrayal of the *hampe* on the XN staters familiar from the Namnetes gold coinage and the Veneti and Coriosolitae billon series.

The exact relationships of the billon series in eastern Armorica are difficult to resolve. The traditional view, that the Veneti billon inspired the other series, is not borne out by the study of their respective weight ranges (table 67). It is probably safer to regard all these issues - the Veneti, Redones,

Coriosolitae and XN types - as productions taking place in the years immediately preceding the Gallic War, with motifs and influences being transferred in various directions between the issuers of each type. There is very little evidence for any significant circulation of these coins having taken place, which suggests that they performed functions such as payment for services - probably military - rather than being used in everyday exchange. The only possible evidence for the use of third phase coins in the latter role is provided by issues such as the Angers hoard types, of which a number of worn examples have been found on the LLT settlement site of les Alleuds (49.01).

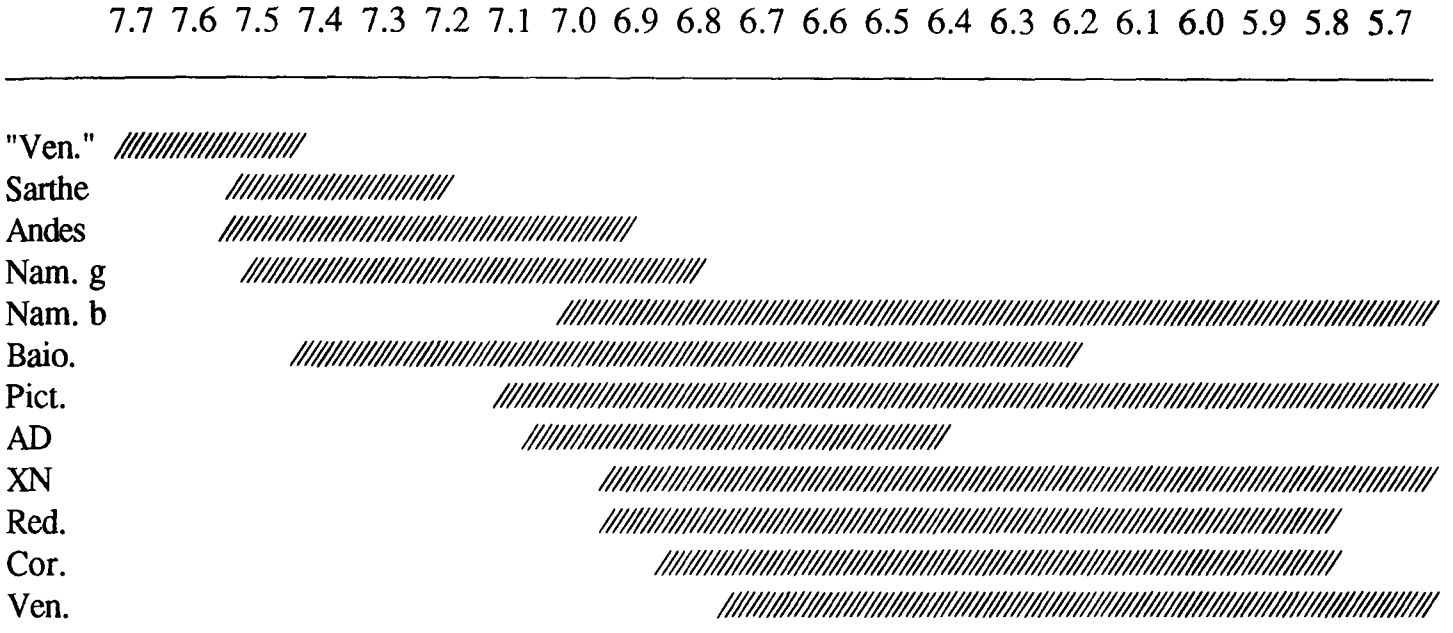


Table 67
Distribution of weights of third phase coinages in north-west France.
Abbrevations:

"Ven.":	"Veneti" winged figure coinage (second phase)		
Sarthe:	Sarthe recumbent figure coinage (second phase)		
Nam. g:	Namnetes gold coinage	Nam. b:	Namnetes billon coinage
Baio.:	Baiocasses	Pict.:	Pictones
AD:	Aulerci Diablintes	Red.:	Redones
Cor.:	Coriosolitae	Ven.:	Veneti (billon)

The absolute chronology of this phase is still mostly a mystery. The earliest issues, such as the Namnetes gold coinage and the heavy Baiocasses staters, may have been produced in the second half of the second century BC. But it is virtually impossible to determine when the billon series developed from the earlier types; it is possible that they should all be consigned to a very brief period before the Gallic War. The problem lies in identifying the rate of change evidenced by the decline in weight and the degeneration of the design, and so far there is no firm indication of how rapidly those processes

operated. Only when these matters are resolved will it be possible to gain a full understanding of the development of late Celtic coinage in north-west France.

10

Post-conquest coins

In this chapter we shall briefly consider the production of coins in the latter stages of and immediately after the Gallic War. As with the earlier phases of Gaulish coinage, the simple division suggested by the conquest masks a much more complex situation, which for north-west France at least remains mostly unresolved. However it is clear (10.1) that indigenous coin production after the Gallic War was very limited, both numerically and spatially. The number of post-conquest coins entering north-west France from other parts of Gaul shows an increase compared to the period immediately preceding the War, but again there are significant constraints on their volume and distribution (10.2).

10.1 Post-conquest coin production in north-west France

It seems probable that the production of the major silver and silver billon coinages discussed in the previous chapter, such as the issues of the Coriosolitae and the Redones, ceased at some point during the Gallic War, presumably following the defeat of the Armorican tribes, although use of the coins may have continued for a few years. Some of the more obscure small silver coinages may have been produced for a short time after the War - Nash (1987a, 107) has suggested that they may have been struck to finance further resistance to the Romans - but there is little evidence to suggest that any of these issues had a very significant role in a society beginning to adjust to Roman rule. It is only in the north-east of our area, amongst the Lexovii and the Aulerci Eburovices, that there is clear evidence for indigenous coin production in this period, and indeed in some cases for the rapid adoption of aspects of Roman society.

10.1.1 The Lexovii coinage (BN 7141-7147, 7151-7168)[1]

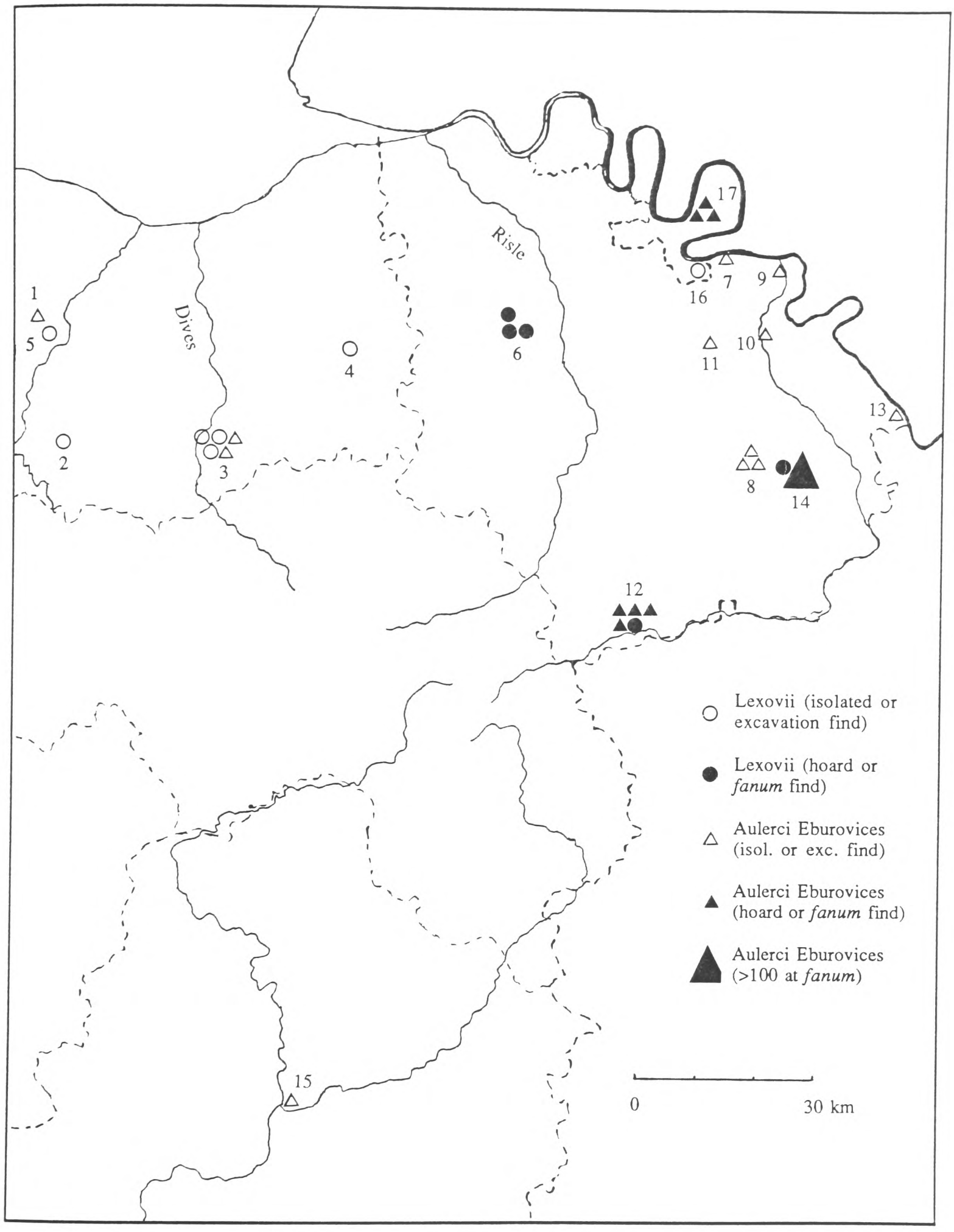
This small series of bronze coins can be satisfactorily attributed to the Lexovii, occupying the area between the Dives and the Risle (eastern Calvados and north-west Eure), on the basis of the incorporation of the tribal name into some of the legends (eg LT XXVIII 7143, 7156). The few finds do not contradict this attribution (figure 96). Table 68 lists the finds in north-west France.

gaz. no., commune		type	weight	legend/remarks
14.19	Cesny-Bois-Halbout	BN 7152-7153	-	CISIAMBOS/ (not recorded)
14.33	Jort	BN 7146	2.81g	(off flan)
14.33	Jort	BN 7152-7153	3.24g	CISIAMBOS/ -
14.33	Jort	BN 7158	-	CISIAMBOS/ARCANTODAN
14.39	Lisieux	BN 7152-7153	2.23g	CIS[IAMBOS]/ -
14.78	Vieux	BN 7159	6.43g	SIMISSOS PVBLICOS LIXOVIO/CISIAMBOS CATTOS VERCOBRETO
14.82	'Calvados'	BN 7156-7159?	-	CISIAMBOS/ (not recorded)
27.07	Berthouville	BN 7151	2.69g	BN 7151; CISIAMBOS/ -; found on *fanum*
27.07	Berthouville	BN 7153	2.02g	BN 7153; CISIAMBOS/ -; found on *fanum*
27.07	Berthouville	BN 7165	6.32g	BN 7165; SIMISSOS PVBLICOS LIXOVIO/ CISIAMBOS CATTOS VERCOBRETO
27.75	Verneuil-sur-Avre	BN 7166	-	SIMISSOS PVBLICOS LIXOVIO/ARCANTODA MAVPENNOS; in hoard
27.78	le Vieil-Evreux	BN 7166var.	7.17g	SIMI[SSOS PVB]LICOS.GAL /ARGANTODA MAVPENNOS; on *fanum*
76.03	Caudebec-lès-Elbeuf	BN 7143	-	[LIXOVI]ATIS/ -

Table 68. Provenances of Lexovii bronze coinage in north-west France.

The weights, legends and designs (figure 97) of these coins demonstrate clearly that there are two distinct varieties within the series. The smaller (usually 2.50-3.50g) bronze coins (BN 7141-7147, 7151-7155) share a horse or lion on the reverse, in one case (LT XXVIII 7146) apparently with a

[1] the coins omitted from this series, BN 7148-7150, are rather different to the remainder of the Lexovii coins (they are lighter, and have the legend TOVA, not obviously part of a longer word), although they are traditionally attributed to that tribe (eg LT XXVIII). Findspots are very scarce, but BN 7150 came from the *fanum* of Berthouville (27.07), hence the attribution. At the present time it is impossible to confirm whether this is correct, and in view of the significant differences to the rest of the series these rare coins have been excluded from this discussion.



1	Baron-sur-Odon	14.05	10	Pinterville	27.57
2	Cesny-Bois-Halbout	14.19	11	Quatremare	27.60
3	Jort	14.33	12	Verneuil-sur-Avre	27.75
4	Lisieux	14.39	13	Vernon	27.77
5	Vieux	14.78	14	le Vieil-Evreux	27.78
6	Berthouville	27.07	15	le Mans	72.22
7	Criquebeuf-sur-Seine	27.23	16	Caudebec-lès-Elbeuf	76.03
8	Evreux	27.28-29	17	Grand-Couronne	76.05
9	Léry	27.48			

Figure 96. Distribution of Lexovii and Aulerci Eburovices post-conquest coinage.

Figure 97. Lexovii (top) and Aulerci Eburovices (bottom) bronze and potin coinage.

1 LT XXVIII 7146 type, from Jort (14.33; EL II, pl. IV.17)
2 BN 9199-9202 type, from Jort (14.33; EL I, pl. I.6)

falling or stumbling figure beneath the horse. The obverses are all rather different, with the legends LIXOVIATI, LIXOVIO or CISIAMBOS. The first two refer to the issuing tribe; CISIAMBOS is a personal name, which links these coins, along with the tribal name, to the much heavier variety of the series (BN 7156-7168). All of the heavy (usually 6-7g) coins are linked by the reverse of a bird with wings outstretched, surrounded by a variety of legends: SIMISSOS PVBLICOS LIXOVIO (LT XXVIII 7156), ARCANTODA MAVPENNOS (LT XXVIII 7158, 7166), and CISIAMBOS CATTOS VERCOBRETO (LT XXVIII 7159). The obverse on two varieties (7156, 7158) shows a head facing left, with the legend CISIAMBOS; on the other two varieties (7159, 7166) the head is replaced by a design of four leaves or petals, surrounded by the familiar SIMISSOS PVBLICOS LIXOVIO. On one example, from le Vieil-Evreux, the tribal name is replaced by GAL. This part of the legend, uniquely amongst Gaulish coinage, records the denomination of the coin: a Celtic version of the *semis*, half of an *as* (Allen 1980, 37). It has been suggested (Scheers 1981a, 16-17) that GAL, replacing LIXOVIO, refers to 'Gaulish'. While it is not yet possible to ascertain quite how widespread the use of this denomination was in late first century Gaul, some other bronze coinages bear an S, probably abbreviating *semissos*, including some issues of the Aulerci Eburovices of very similar weight (see below).

Aside from the other personal names (CATTOS and MAVPENNOS), the most significant feature of the legend is the use of the terms VERCOBRETO and ARCANTODA. The former is familiar from Caesar's description of the elected magistrates amongst the Aedui (BG I.16), and it has been suggested that the latter is a similar title (Allen 1980, 125-126; see also de Saulcy 1837; Colbert de Beaulieu 1959c; Delestrée 1984, 439-440; and Fleuriot 1984, 34-40). Both the denomination and the record of magistrates point to a considerable degree of Romanization, but it is not yet possible to say exactly when these coins were issued and thus whether the Lexovii were particularly rapid to accept, or have forced upon them, some aspects of Roman society. Although prototypes have been identified for the BN 7143-7144 type (Scheers 1969, 49-50), dating not later than c. 60 BC, provenanced examples are very rare (ibid., 153), and the little contextual information available on the other provenanced coins does not help to clarify questions such as when the imitations were produced.

10.1.2 The Aulerci Eburovices coinage

The second focus of post-conquest coin production in north-west France is provided by the Aulerci Eburovices, in the southern half of Eure. It must be stressed, however, that the attribution of some of these types remains in doubt. Figure 97 shows the main varieties of the coinage. It is apparent that only the presence of the boar or boar standard provides a link across all the types, which is hardly sufficient evidence to attribute the uninscribed issues (in particular BN 7021-7041) to the same authority as those with the tribal name. The situation is made more complex by the scarcity of the uninscribed types. For example, the five recorded finds of BN 7038 (Scheers 1977, fig. 153) are widely-spaced in northern France; and no examples of LT XXVIII 7037, with an obverse strongly reminiscent of the Aulerci Cenomani coinage, have yet been found on Aulerci Eburovices territory. The attributions of LT XXVIII 7032 and 7034 are based on equally precarious grounds (Delestrée and Dhénin 1985, 48-50). For the time being, these problems cannot be resolved.

We are on slightly firmer ground with the inscribed types, although they are still not common. There are three main varieties: BN 7044 has a head facing right on the obverse, with the legend IBVROVIX in front of it, and on the reverse a prancing horse with a boar standard below; on BN 7046 the obverse head is to the left, with AVLIRCVS in front, and on the reverse a lion facing a winged figure, with a beaded circle and boar below; and on BN 7049 the obverse shows a horse to the right, with a star below and the legend AVLIRCO above, while the reverse has a boar-standard with the legend EBVROVICOS (figure 97). Another type, distinguished by Scheers (1977, 638) as *type ABT fig. 382 à la légende EPI*, has since been shown to read EBV (Scheers 1981a, 10), and thus tentatively attributed to the Aulerci Eburovices on the basis of the legend and the very few findspots.

In contrast to the Lexovii coins, the legends are limited to the tribal name and occasionally an S, which may indicate the denomination; this feature is found on the LT XXVIII 7049 type, usually weighing about 6.61g, which compares well to the average 6.56g of the Lexovii issues.[1] It is virtually impossible to attempt any ordering of these coins, but it may be reasonable to assume that those with the denomination marked are the latest issues, reflecting the increasing Romanization of the tribe's

[1] the weights are calculated from the BN examples, excluding one coin in each category of almost 10g.

coinage. The absolute dates remain a matter for conjecture in the absence of any accurate archaeological context for the coins.

gaz. no., commune		type	weight	legend/remarks
27.28	Evreux	BN 7047-49var.	3.79g	]IVRO/AVLIRCO.IIC. EBVROVIC; in excavation
27.29	Evreux	BN 7034	-	-
27.29	Evreux	ABT fig. 382	-	EBV
27.48	Léry	?	3.86g	in excavation
27.57	Pinterville	BN 7038	-	-
27.75	Verneuil-sur-Avre	BN 7032?	-	in hoard
27.75	Verneuil-sur-Avre	BN 7034var.	2.42g	in hoard
27.75	Verneuil-sur-Avre	BN 7044	-	IIBVROVIX; in hoard
27.75	Verneuil-sur-Avre	?	-	EBVROVICO S
27.78	le Vieil-Evreux	BN 7049	8.18g	EBVROVICO S/AVLIRCO; on *fanum*
27.78	le Vieil-Evreux	BN 7049	7.76g	EBVROVICO S/AVLIRCO; on *fanum*
27.78	le Vieil-Evreux	BN 7038	3.07g, 2.72g, 2.04g	on *fanum*
27.78	le Vieil-Evreux	BN 7470Avar.	1.82g, 1.70g, 1.62g, 1.13g	on *fanum*
27.78	le Vieil-Evreux	BN 8529	see gaz.	34 examples on *fanum*
27.78	le Vieil-Evreux	type *coll. S*	see gaz.	4 examples on *fanum*
27.78	le Vieil-Evreux	ABT fig. 382	see gaz.	EBV; 4 exs. on *fanum*
27.79	le Vieil-Evreux	BN 7042	1.99g	-
27.79	le Vieil-Evreux	BN 7044	2.31g	IIBVROVIX
27.79	le Vieil-Evreux	BN 7046	-	AVLIRCV
27.79	le Vieil-Evreux	BN 7049	7.73g	EBVR[OVICO S]/ AVLERC[O]
76.05	Grand-Couronne	BN 8529var.	1.48g	on *fanum*
76.05	Grand-Couronne	ABT fig. 382	-	EBV; on *fanum*

Table 69. Provenances of Aulerci Eburovices post-conquest bronze coinage in north-west France.

Scheers (1981a, nos. 41-49, 66-67, 72-111) lists a further 51 bronze and potin coins from the *fanum* of le Vieil-Evreux, of previously unknown or very rare types, which may be productions of the Aulerci Eburovices. Details of these may be found in the relevant gazetteer entry (27.78).

The Aulerci Eburovices are also distinguished in north-west France as the only producers of potin coinage. Scheers (1981a) identified a considerable number of small bronze and especially potin coins from the *fanum* of le Vieil-Evreux (27.78), some of which are unknown from any other site (ibid., nos. 41-49, 66-67, 72-78). It seems possible that these types were developed specifically for use at the temple, presumably as offerings. There is certainly no evidence to suggest that these particular coins were in use in some kind of fledgling market system. Other potins also apparently produced by

the Aulerci Eburovices have a slightly wider distribution. Although Scheers (1981a) does not refer to them as such, "at least 36" (Delestrée and Dhénin 1985, 54) of the potins *au sanglier* from le Vieil-Evreux are apparently of the BN 6238 type, also found about 30km away at Mézières-sur-Seine (Yvelines), on a site tentatively ascribed some sort of cult function (ibid.). In addition there are some examples (the degree of corrosion makes it difficult to distinguish quite how many) of the very similar type BN 9199-9202 (eg Scheers 1981a, fig. 91; see figure 97.2 here). This type is recorded from several places in the north-east of our region (table 70), as well as from Aisne and Oise.

gaz. no., commune		weight	remarks
14.05	Baron-sur-Odon	-	fragment, possibly this type
14.33	Jort	2.98g	-
14.33	Jort	4.54g	possibly this type
27.23	Criquebeuf-sur-Seine	-	-
27.60	Quatremare	-	-
27.77	Vernon	-	-
72.22	le Mans	-	-
76.05	Grand-Couronne	3.74g	-

Table 70. Provenances of type BN 9199-9202 potins in north-west France.

There is no detailed information on the archaeological context of any of these coins, although the examples from Baron-sur-Odon, Criquebeuf-sur-Seine and Grand-Couronne probably came from Gallo-Roman deposits. The distribution, though rather more scattered than other potins attributed to the Aulerci Eburovices, is predominantly within the territory of that tribe.

10.2 Post-conquest imports

This is not the place for a detailed typological study of the numerous silver, bronze and potin coins found in north-west France which can reasonably be dated to the years after the Gallic War. Such an enterprise is certainly needed, since there is much confusion over the dating and attribution of many of the issues of this period. Unfortunately the lack of precise information on the archaeological context of virtually all such coins in north-west France means that they are of little use in throwing light on these problems. Nevertheless, the distribution of coins in the region is itself interesting, and will be the main concern of this brief discussion. In the meantime, it is important to recognize that some of the coins listed in table 71 were produced immediately before or during the Gallic War; these are indicated in the table by an asterisk next to the BN reference. The main source of information for this dating is the presence or absence of the coin on the battlefield of Alesia, where Vercingetorix was defeated in 52 BC, but it cannot be assumed that because a particular type was not found in the mass grave of Celtic warriors, it must have been produced only after the conquest. Regardless of the date of production, however, it will become apparent below that the majority of the coins listed here were almost certainly imported into north-west France in the post-war period.

First, though, two types which stand out as being unusually common imports. A post-conquest date is assured for the bronze PIXTILOS series, which has been exhaustively discussed by Scheers (1979) and shown to have taken much of its inspiration from several denarii of the 40s BC (ibid., 67-70). As table 72 and figure 98 show, this type is found almost exclusively in the east of our region, and indeed has often been attributed to the Aulerci Eburovices (eg LT XXVIII). However, Scheers (ibid., 71) concluded that the Carnutes were the issuing tribe, although examination of her fuller map of provenances (ibid., fig. 3) shows two distinct concentrations of coins in Eure and on the border of Eure-et-Loir and Loiret, with a rather less marked group in Belgica. Her reasoning, that the actual territory of the Carnutes is largely empty of finds because it was the "centre de la dispersion, autour duquel s'ordonnent les provenances secondaires" (ibid., 71) is not especially convincing, and it remains to be seen whether this attribution can be confirmed. An obvious solution to the problem might be the presence of more than one centre of production, but such a situation does not appear to be reflected in any way in the distribution of the various classes of the coinage, which would seem to be

BN/LT ref.	metal	legend	attribution/origin	findspots
LT VI 2630*	silver	-	Volcae Arecomici	one var. in Grouville hoard (J.01)
LT VII 2837	bronze	IMP DIVI F/ COL NEM	Nemausus	isolated find at Breteuil (27.11); in hoards at Verneuil-sur-Avre (27.75), Montreuil-Bellay *fanum* (49.82) and Coutances (50.05); possible example on LT/GR cemetery at Léry (27.47)
LT XII 3900	silver	EPAD	Arverni	isolated find (1.88g) at le Vieil-Evreux (27.79); 11 in Trinity (1875) hoard (J.22)
LT XIII 4072	billon	-	Lemovices?	one var. in Grouville hoard (J.01)
LT XIV 4097*	silver	-	Bituriges Cubi	two on Allonnes *fanum* (72.01); five in Trinity (1875) hoard (J.22)
BN 4139-4144*	silver	CAM	Bituriges Cubi	one on Allonnes *fanum* (72.01); five in Trinity (1875) hoard (J.22)
BN 4177-4178*	bronze	ILAVSO	Bituriges Cubi	one (4g) in lac de Grandlieu hoard (44.103)
LT XIV 4196*	?	/SOLIMA	Bituriges Cubi?	one in Verneuil-sur-Avre hoard (27.75)
BN 4239	bronze	-	?	one (3.06g) in excavation at Léry (27.48)
LT XII 4316	bronze	CONTOVTOS/	Pictones?	one or two in river at Rennes (35.50); "a few" in lac de Grandlieu hoard (44.103); one on Allonnes *fanum* (72.01)
BN 4325-4332	bronze	ANNICCOIOS/	Pictones?	one in lac de Grandlieu hoard (44.103)
LT XII 4336*	bronze	LVCCIOS/	Pictones?	one or more on Montreuil-Bellay *fanum* (49.82)
BN 4344	bronze	ATECTORI/	Pictones?	one or more on Montreuil-Bellay *fanum* (49.82)
BN 4378	bronze	-	?	one (4.50g) on Mauves-sur-Loire *fanum* (44.36)
BN 4472	bronze	VIREDIOS/	Pictones?	isolated find (3.01g) at Rezé (44.73); one or two in lac de Grandlieu hoard (44.103)
LT XIII 4478	silver	DVRAT/IVLIOS	Pictones	one on Allonnes *fanum* (72.01); four in Trinity (1875) hoard (J.22)
LT XIII 4484*	silver	VIIPOTAL	E. Gaul	isolated find (1.86g, plated) at Clinchamps-sur-Orne (14.21); one in Bruz hoard (35.09); one on Allonnes *fanum* (72.01); 50 in Trinity (1875) hoard (J.22)
BN 4498	bronze	VIRIIT[IOS]	?	one in river at Rennes (35.50); one (2.10g) in lac de Grandlieu hoard (44.103); isolated find at le Fief-Sauvin (49.52)
LT XIII 4514	bronze	/SACTNOS	Pictones?	one (3.80g) in lac de Grandlieu hoard (44.103)
LT XIII 4525	silver	ARIVOS/SANTONOS	central Gaul?	isolated find (1.94g) at Evreux (27.29); possible example in Verneuil-sur-Avre hoard (27.75); 13 in Dol-de-Bretagne hoard (35.18); one on Allonnes *fanum* (72.01); one in Sark hoard (G.26); eight in Trinity (1875) hoard (J.22)

Table 71. Post-conquest coin imports in north-west France (continued overleaf).
An asterisk with the BN/LT reference indicates that the type was found at Alesia (information from Colbert de Beaulieu 1955c).

LT XIII 4535	silver	NERCOD/NERCOD	central/west Gaul	three in Trinity (1875) hoard (J.22)
LT XIV 4578	bronze	CONNOS EPILLOS/ SEDVLLVS	Lemovices?	one found at Angers (49.08) with two denarii
LT XV 4599	silver	[GAIVIVL/AGE] DONAP[ATIS]	?	isolated find (1.90g, BN ex.) at Chantenay (72.09); six in Trinity (1875) hoard (J.22), including BN 10412 (1.85g)
BN 4622	silver	SEGVSIAVS/ARVS	E. Gaul	one in Trinity (1875) hoard (J.22)
LT XV 4800	silver	ATPILI F/ORCIITIRIX	Aedui	one on Allonnes *fanum* (72.01); one or two in Sark hoard (G.26); 38 in Trinity (1875) hoard (J.22)
LT XV 4819	silver	COIOS/ORCIITIRIX	Aedui?	two in Trinity (1875) hoard (J.22)
LT XV 4871*	silver	/DIASVLOS	Aedui	seven in Trinity (1875) hoard (J.22)
LT XV 4886*	silver	/ΔOVBNO	Aedui	one var. in Dol-de-Bretagne hoard (35.18); one on Allonnes *fanum* (72.01)
LT XV 5026*	silver	DVBNOCOV/DVBNOREX	Aedui	one in Dol-de-Bretagne hoard (35.18); five in Trinity (1875) hoard (J.22)
LT XV 5072-5076*	silver	LITAVICCVS	Aedui?	six on Allonnes *fanum* (72.01); four in Trinity (1875) hoard (J.22)
LT XVI 5088	bronze	TOGIANTOS/SLAMB	?	one with 8 Roman coins at Andard (49.04); one (2.19g) at Chênehutte-Trèves-Cunault (49.40)
LT XVI 5093*	bronze	-	Aedui	one or two "near this type" in Verneuil-sur-Avre hoard (27.75)
LT XVI 5099	silver	-	Aedui	one on Allonnes *fanum* (72.01)
LT XVI 5252*	silver	-	Aedui	one at Jublains (53.28) and one in Grouville hoard (J.01)
LT XVI 5275	potin	-	?	one in Verneuil-sur-Avre hoard (27.75) and one var. in river at Rennes (35.50)
LT XVI 5351*	silver	/SEQVANOIOTVOS	Sequani?	isolated find (1.81g) at le Mans (72.22) and one in Trinity (1875) hoard (J.22)
LT XVI 5368*	potin	-	Sequani?	four in ?hoard at St-Pierre-des-Ifs (14.68); isolated find "north of Mayenne" (53.66)
LT XVI 5405*	silver	Q DOCI/Q DOCI SAM F	?	isolated find at Jublains (53.28); one or more in hoards at Cauvicourt (14.18), Maizières (14.41), Saint-Pierre-sur-Dives (14.70) and Dol-de-Bretagne (35.18); four on Allonnes *fanum* (72.01); and forty in Trinity (1875) hoard (J.22)
LT XVI 5550*	silver	TOGIRIX/TOGIRIX	Sequani?	one or more on Berthouville *fanum* (27.07); two or three in Verneuils-sur-Avre hoard (27.75); 116 in Dol-de-Bretagne hoard (35.18); two in Mordelles hoard (35.36); three in Sark hoard (G.26); 150 in Trinity (1875) hoard (J.22)
BN 5605-5608*	silver	TOGIRIX/	Sequani?	one on Allonnes *fanum* (72.01)
LT XVII 5632	silver	Q. IVLIVS/TOGIRIX	Sequani?	13 in Dol-de-Bretagne hoard (35.18); four in Trinity (1875) hoard (J.22)
LT XVII 5639	silver	IMIOCI/	?	five in Trinity (1875) hoard (J.22)

Table 71 (continued). Post-conquest coin imports in north-west France.

BN 5674, 5687	potins *à la tête diabolique*			see separate table
LT XVII 5762*	silver	DVRNACOS/AVSCRO	Rhône valley	one in Bruz hoard (35.09); several in river at Rennes (35.50); several on Montreuil-Bellay *fanum* (49.82); two on Allonnes *fanum* (72.01); one isolated find at Allonnes (72.02)
LT XVII 5795	silver	DVRNACVS/DONNVS	Rhône valley	several in river at Rennes (35.50)
BN 5958	bronze	/CABALLOS	?	one or more on *fanum* of Montreuil-Bellay (49.82)
LT XIX 6069	bronze?	-	Carnutes?	one or more in Verneuil-sur-Avre hoard (27.75)
LT XIX 6077*	bronze	-	Carnutes	five in Verneuil-sur-Avre hoard (27.75)
LT XIX 6088*	bronze	-	Carnutes	isolated find at Brionne (27.14; BN ex?); two (2.59g, 4.53g) in Verneuil-sur-Avre hoard (27.75); one (3.45g) on le Vieil-Evreux *fanum* (27.78); one in river at Rennes (35.50)
BN 6108-6180	bronze/ potin	-	Carnutes	BN examples (73) in Brionne hoard (27.13); c. 45 in Verneuil-sur-Avre hoard (27.75); c. 22 on Allonnes *fanum* (72.01); two on le Vieil-Evreux *fanum* (27.78); several in Angers hoard (49.07)
LT XIX 6188	bronze	-	Carnutes?	one (1.88g) in Verneuil-sur-Avre hoard (27.75); three (1.87g, 3.18g, 3.48g) on le Vieil-Evreux *fanum* (27.78)
LT XIX 6202	bronze	-	Carnutes?	one in Verneuil-sur-Avre hoard (27.75)
LT XIX 6217-6218	bronze	-	Carnutes?	one in Verneuil-sur-Avre hoard (27.75); one (3.80g) on le Vieil-Evreux *fanum* (27.78); BN ex. (2.12g) at le Fief-Sauvin (49.52)
LT XIX 6295*	bronze	EΛKESOOYIZ/TASGIITIOS	Carnutes	two at Damville (27.25); two in Verneuil-sur-Avre hoard (27.75)
LT XIX 6306	bronze	TASGETIO/	?	var. at Cesny-Bois-Halbout (14.19)
LT XIX 6309	bronze	...CONTI/	?	one in Saint-Pierre-sur-Dives hoard (14.70); two in Verneuil-sur-Avre hoard (27.75)
LT XIX 6322*	bronze	-	Carnutes	doubtful record of one in 'Calvados' (14.82)
LT XIX 6331	bronze	CATAL/	Carnutes?	two in Verneuil-sur-Avre hoard (27.75)
LT XIX 6337	bronze	-	?	two? in Verneuil-sur-Avre hoard (27.75)
LT XIX 6342	silver	ANDECOMBO/	Carnutes?	one or two in Verneuil-sur-Avre hoard (27.75); one on Allonnes *fanum* (72.01); 28 in Trinity (1875) hoard (J.22)
LT XX 6361	bronze	TOVTOBOCIO/ATEPOLIS	?	one or more at *fana* of Montreuil-Bellay (49.82) and Allonnes (72.01)

Table 71 (continued). Post-conquest coin imports in north-west France.

BN 6378-6380	silver	BIIINOC	?	one on Allonnes *fanum* (72.01); isolated find in 'forêt de Brotonne' (76.15); ten in Trinity (1875) hoard (J.22)
BN 6996-7001	bronze	TVRONOS/TRICCOS	Turones?	one or more at Montreuil-Bellay *fanum* (49.82)
BN 7002-7014	bronze	TVRONOS/[CANTORIX]	central/E. Gaul	one at Angers (49.08) in Roman brick
		PIXTILOS series		see separate table
LT XXIX 7174	silver	/CALEDV	Belgic?	one in Dol-de-Bretagne hoard (35.18); three plus in Trinity (1875) hoard (J.22)
BN 7181	silver	SENODON/CALEDV	Belgic?	one in Verneuil-sur-Avre hoard (27.75); 15 in Trinity (1875) hoard (J.22)
BN 7185-7202	silver	ATEVLA/VLATOS	Remi?	several in hoards of Cauvicourt (14.18) and Saint-Pierre-sur-Dives (14.70), and possibly Maizières (14.41); several isolated finds at Jort (14.33); one each on *fana* of le Vieil-Evreux (27.78) and Allonnes (72.01); four in Sark hoard (G.26); 65 in Trinity (1875) hoard (J.22)
LT XXIX 7203-7204	silver	CVPINACIOS/VLATOS	?	one each in Sark (G.26) and Trinity (1875) (J.22) hoards
BN 7225	bronze	-	Ambiani?	two on Allonnes *fanum* (72.01)
BN 7228	bronze	-	?	one in Verneuil-sur-Avre hoard (27.75)
BN 7253-7331*	bronze	-	Veliocasses?	isolated find at Pinterville (27.57); two or more on Berthouville *fanum* (27.07, including BN 7277 (2.75g) and 7279 (2.80g)); five on le Vieil-Evreux *fanum* (27.78)
BN 7338	bronze	-	?	one (2.07g) on Berthouville *fanum* (27.07; BN ex.)
LT XXIX 7340	bronze	STRATOS/ -	Veliocasses?	two in Verneuil-sur-Avre hoard (27.75)
BN 7363-7369	bronze	SVTICOS/RATVMACOS	Veliocasses?	one or more on Berthouville *fanum* (27.07); two isolated finds at Evreux (27.29); one at Heudreville (27.39) with Roman coin; isolated find at Louviers (27.50); two in Verneuil-sur-Avre hoard (27.75); ten on le Vieil-Evreux *fanum* (27.78); isolated find at le Vieil-Evreux (27.79)
LT XXX 7396	potin	-	central Gaul	one or more in Saint-Pierre-des-Ifs hoard (14.68); a number from river at Rennes (35.50)
LT XXX 7417 var.	potin	-	Senones? Tricasses?	one or more in Saint-Pierre-des-Ifs hoard (14.68); one or two in Verneuil-sur-Avre hoard (27.75); two on le Vieil-Evreux *fanum* (27.78) and one on Oissel *fanum* (76.10); a number in Angers hoard (49.07); isolated find 'north of Mayenne' (53.66)

Table 71 (continued). Post-conquest coin imports in north-west France.

LT XXX 7447	potin	-	Senones?	two isolated finds at Evreux (27.28)
LT XXX 7458*	potin	-	Bellovaci?	isolated find at le Vieil-Evreux (27.79)
LT XXX 7467	bronze	AΓHΔ	Veliocasses?	isolated finds at Evreux (27.29) and le Vieil-Evreux (27.79)
LT XXX 7493*	bronze	/YLLYCCI	Carnutes	one in Verneuil-sur-Avre hoard (27.75)
LT XXX 7565	bronze	[GIA]MILOS/SIINV	Senones?	one on le Vieil-Evreux *fanum* (27.78)
LT XXX 7570	bronze	GIAMILOS/GIAMILOS	Senones?	two in Verneuil-sur-Avre hoard (27.75)
BN 7606-7615	bronze	-	Meldi?	one on Allonnes *fanum* (72.01)
BN 7616-7630	bronze	EPENOS/EПHNOC	?	isolated find at Evreux (27.29)
BN 7631-7700	bronze	/ROVECA	?	two in Verneuil-sur-Avre hoard (27.75)
LT XXXII 7905	potin	-	Bellovaci/Suessiones?	isolated find at Evreux (27.29); one on le Vieil-Evreux *fanum* (27.78), and one isolated find at le Vieil-Evreux (27.79)
LT XXXII 7924	potin	-	?	several in Verneuil-sur-Avre hoard (27.75)
BN 7930-7932	potin	-	Biturges?	one or more in Angers hoard (49.07)
LT XXXII 7951*	bronze	/CRICIRV	Suessiones	two isolated finds at Lisieux (14.39); single isolated finds at Evreux (27.29) and le Vieil-Evreux (27.79)
BN 7980-7999*	bronze	/VANDIILOS	B. Cubi?/Carnutes?	one on Allonnes *fanum* (72.01); one in hoard at Vouvray-sur-Huisne (72.37)
LT XXXII 8000*	bronze	/CALIAGIIIS	B. Cubi?/Carnutes?	isolated find at Lisieux (14.39)
BN 8086-8094	bronze	[AΘIIDIAC]/A. HIR. IMP.	N. Gaul	isolated find (3.25g) in 'Calvados' (14.82); five on le Vieil-Evreux *fanum* (27.78)
LT XXXII 8106	bronze	-	?	one in Verneuil-sur-Avre hoard (27.75)
LT XXXII 8124-8132	potin	-	Remi	five in Verneuil-sur-Avre hoard (27.75), and an isolated find in the same commune (27.76); isolated finds at Vitot (27.81) and 'north of Mayenne' (53.66)
LT XXXII 8178	silver	/KAΛETEΔOY	?	one in Couville hoard (50.06); six in Trinity (1875) hoard (J.22)
BN 8369	bronze	/EKPIT	?	one on Allonnes *fanum* (72.01)
BN 8392-8394	bronze	-	?	isolated find in 'Calvados' (14.82)
LT XXXIV 8498	bronze	-	?	one on Berthouville *fanum* (27.07; BN ex., 3.10g)
BN 8543-8569	bronze	/VIIRICIVS	pagus Catuslogi?	isolated find at Evreux (27.29); one on le Vieil-Evreux *fanum* (27.78)
LT XXXIV 8584	bronze	-	Bellovaci?	one on Allonnes *fanum* (72.01)
LT XXXIV 8593	silver	-	?	silver-plated copper, possible example from Jort (14.33)
BN 8618-8651	potin	-	Nervii?	several in Verneuil-sur-Avre hoard (27.75); one on Allonnes *fanum* (72.01)

Table 71 (continued). Post-conquest coin imports in north-west France.

BN 8661-8668	potin	-	Veliocasses?	isolated finds at Bayeux (14.06), Jort (14.33), Falaise (14.26; two exs. including BN 8666 (2.12g); one in excavation at Léry (27.48); one on le Vieil-Evreux*fanum* (27.78)
BN 8669-8670	potin	-	?	several in Verneuil-sur-Avre hoard (27.75)
LT XXXV 8671	bronze	ANDOBRV/[CARMA]	?	one in Verneuil-sur-Avre hoard (27.75)
BN 8782	bronze	VERCIO/VERCIO	?	BN ex. (5.82g) from Vernon (27.77) - possibly from north of the Seine
LT XXXVII 9025*	silver	SOLIMA/COΛIMA	E. Gaul?	two doubtful examples from Evreux (27.29); one or more in Verneuil-sur-Avre hoard (27.75); 3 in Dol-de-Bretagne hoard (35.18); 42 in Trinity (1875) hoard (J.22)
BN 9044-9153*	bronze/ potin	-	?	one in Saint-Pierre-sur-Dives hoard (14.70); isolated finds at la Lande-Saint-Léger (27.43), le Vieil-Evreux (27.79) and le Mans (72.22)
BN 9167-9186	potin	-	Parisii?	isolated find at Evreux (27.29)
LT XXXVII 9203	bronze	MATVCIINOS/MATVCIINOS	Leuci?	isolated find at Chênehutte-Trèves-Cunault (49.40)
BN 9245-9265	bronze	/GERMANVS INDVTILLI L.	Remi/Treveri?	one or more at Criquebeuf-sur-Seine (27.23); two in excavation and one isolated find at Evreux (27.28); four on le Vieil-Evreux *fanum* (27.78); three or four with Roman coins at Caudebec-lès-Elbeuf (76.03); one from river at Rennes (35.50); one from Montreuil-Bellay *fanum* (49.82); two from Mayenne hoard (53.41)
LT XXXVIII 9355	silver	NINNO/ -	German	one in Trinity (1875) hoard (J.22)
BN 9910	silver	-	Boii?	possible var. in Verneuil-sur-Avre hoard (27.75)
BN 10308-10309	bronze	ARTOIAM[OS]/ -	?	five on *Allonnes* fanum (72.01)
BN 10377-10378	bronze	ANDVGOVONI/ -	?	one (BN 10377, 3.05g) from Saumur (49.114); possible example from la Flèche (72.16)
BN 10380-10381	silver	ESVIOS/ -	W. Gaul	eight in Trinity (1875) hoard (J.22)
LT XXVI 10383	silver	PENNILLE/RVPPE	?	one in Trinity (1875) hoard (J.22)
LT XXV 10384	silver	CANTOS/CASSIVRATOS	?	two in Trinity (1875) hoard (J.22)
LT XXV 10385	silver	ARIVOS/SANTONOS	?	30 in Trinity (1875) hoard (J.22)
LT XXV 10400	silver	LICVTANOS/ -	?	possible example in Sark hoard (G.26)
-	silver	PIRRVCORI/SCINCOVEPVS	?	one in Trinity (1875) hoard (J.22)
-	bronze	SALVICUS/[AD]IUNE	?	one at Andard (49.04); one in GR excavation at Angers (49.05)

Table 71. Post-conquest coin imports in north-west France (continued overleaf).

The following coins are recorded simply by their suggested tribal attributions, and are therefore of still more uncertain date:

Aedui	six in hoard at Rezé (44.72); two silver at Beaupréau (49.14)
Ambiani	one bronze in excavation at Léry (27.48)
Bituriges Cubi	one at Port-en-Bessin-Huppain (14.91); five in hoard at Rezé (44.72); one at le Fief-Sauvin (49.58)
Carnutes	one on le Vieil-Evreux *fanum* (27.78); six or eight in Antrain hoard (35.02); one in excavation at Alençon (61.02); one at Essai (61.21); possible example from 'Calvados' (14.82)
Lemovices	isolated find at Allonnes (49.02)
Leuci	one in excavation at Saint-Malo (35.67)
Sequani	one in hoard at Rezé (44.72); one isolated find at Alençon (61.03)
Veliocasses	possible example from excavation at Saint-Malo (35.73)

British coins found in the Grouville hoard (J.01) are listed under the relevant gazetteer entry.

Table 71 (concluded). Post-conquest coin imports in north-west France.

	gaz. no., commune		details
1	27.06	Bernay	one cl. VIII, 4.21g (but see Brionne, 27.14)
2	27.13	Brionne	one cl. X, 4.07g; possibly hundreds in hoard
	27.14	Brionne	same coin as Bernay - correct record unknown
3	27.21	Condé-sur-Iton	one cl. I; another *au dragon ailé* - cl. unknown
4	27.29	Evreux	two cl. II, one cl. V, one cl. VI, one cl. VII, one cl. VIII, one cl. IX (BN 7105: 3.02g)
5	27.31	Fauville	one cl. II
6	27.50	Louviers	one cl. IV
7	27.57	Pinterville	one cl. II, with others, Roman coins on GR site
8	27.64	Saint-Georges-Motel	one cl. II
9	27.75	Verneuil-sur-Avre	hoard included at least 3 cl. I, 3 cl. II, 10 cl. III, 1 cl. IV, 3 cl. VI, 12 cl. VII, 21 cl. VIII, 3 cl. IX
10	27.78	le Vieil-Evreux	3 cl. II, 2 cl. VII, 1 cl. VIII, 1 cl. X on *fanum*
12	35.50	Rennes	one cl. I and one cl. III in river
	35.51	Rennes	one cl. III and one cl. VI
17	49.04	Andard	one cl. VII, 2.92g
27	50.04	Cherbourg	one cl. VII
28	50.41	'Cotentin'	one cl. VII
32	72.01	Allonnes	one cl. VI and one cl. IX on *fanum*
34	72.37	Vouvray-sur-Huisne	eleven coins in hoard, including examples of classes I, III, VI, VII, VIII and possibly II
35	J.22	Trinity (1875)	one cl. III and one cl. V

	gaz. no., commune		details
11	35.22	Fougères	possible hoard of 34 cl. II potins
12	35.50	Rennes	one cl. II potin in river
13	35.67	Saint-Malo	two cl. I (2.64g, 2.61g) in Langouët's excs.
	35.73	Saint-Malo	one potin from excavations c. 1850
14	44.30	Haute-Goulaine	possible hoard of c. 40 potins
15	49.01	les Alleuds	ten potins in excavation
16	49.02	Allonnes	one potin
17	49.03	Andard	"potin of Turones" on *fanum*
18	49.07	Angers	up to 6000 potins in massive hoard
19	49.11	Beaufort-en-Vallée	one potin on GR site
20	49.19	Brain-sur-l'Allonnes	one potin on GR site
21	49.36	Chavagnes	one potin
22	49.40	Chênehutte-Trèves-Cunault	four potins
23	49.58	le Fief-Sauvin	one potin with GR material
24	49.82	Montreuil-Bellay	four potins on *fanum*
25	49.97	Rochefort-sur-Loire	one potin
26	49.101	Sainte-Gemmes-sur-Loire	one potin
29	53.18	Entrammes	one potin in fanum exc., another on annex
30	53.46	Moulay	oxidized potin probably this type in hillfort exc.
31	53.63	Saulges	one cl. II potin, 2.58g
32	72.01	Allonnes	222 potins on *fanum*
33	72.26	Noyen-sur-Sarthe	one potin on late LT3/GR site

Table 72. Provenances of the PIXTILOS series (top) and potins *à la tête diabolique* (bottom). Numbers in the first column refer to figure 98.

the most likely way in which different production centres could be recognized. Nor is the dating much assistance, recognizing classes I, II and III as the oldest and the remaining seven as probably simultaneous issues, with no distinction evident between classes on sites of different dates. The simple fact remains that this coinage achieved a widespread circulation to the east and west of the valley of the Seine in the first few decades after the conquest, presumably indicating a considerable degree of contact between the peoples of this area.

The other especially common import are potins *à la tête diabolique*,[1] usually attributed to the Turones, located to the immediate south-east of our region. Thus the examples in north-west France are found solely in the pays de la Loire and eastern Brittany, and in particular in Maine-et-Loire (figure 98).

The dating of these coins is considerably more problematic than that of the PIXTILOS series. The ultimate prototype is the butting-bull bronze coin of Massilia, dated to the second century BC (eg Crawford 1985, fig. 60), probably via struck and cast bronze copies of central Gaul, the earliest of which retain the MA of the original legend above the bull (eg Allen 1980, pl. 27.405). Thus the potins *à la tête diabolique* could almost certainly have been produced late in the second century BC (as suggested by Allen 1971a; see also Haselgrove 1987a, 96-100; 1988b, 103), or at least in the early years of the first century BC. The argument for an early (ibid.) or late chronology (most famously expressed by Colbert de Beaulieu 1970c) has thus swung significantly in favour of the former, mostly because of discoveries in secure, early contexts in the north and east of Gaul (Doyen 1991, 19). Further evidence for this is presented by a couple of the finds in north-west France (table 72), although as usual the problem of identifying quite how long before the conquest the coins were produced is difficult to resolve. Nevertheless, these potins have been found in a secure LLT context at les Alleuds (49.01), and significantly, a possible example was found in the bottom layers of the massive bank at Moulay (53.46). Unfortunately the former site has not been fully published, and the date of the latter, though certainly LLT, cannot be further refined.

Otherwise, the potins in north-west France with recorded context are all from Gallo-Roman sites, in one case (Brain-sur-l'Allonnes, 49.19) as late as the end of the second century AD. The 222 examples from the *fanum* of Allonnes (72.01) cannot be securely associated with either the LT or GR

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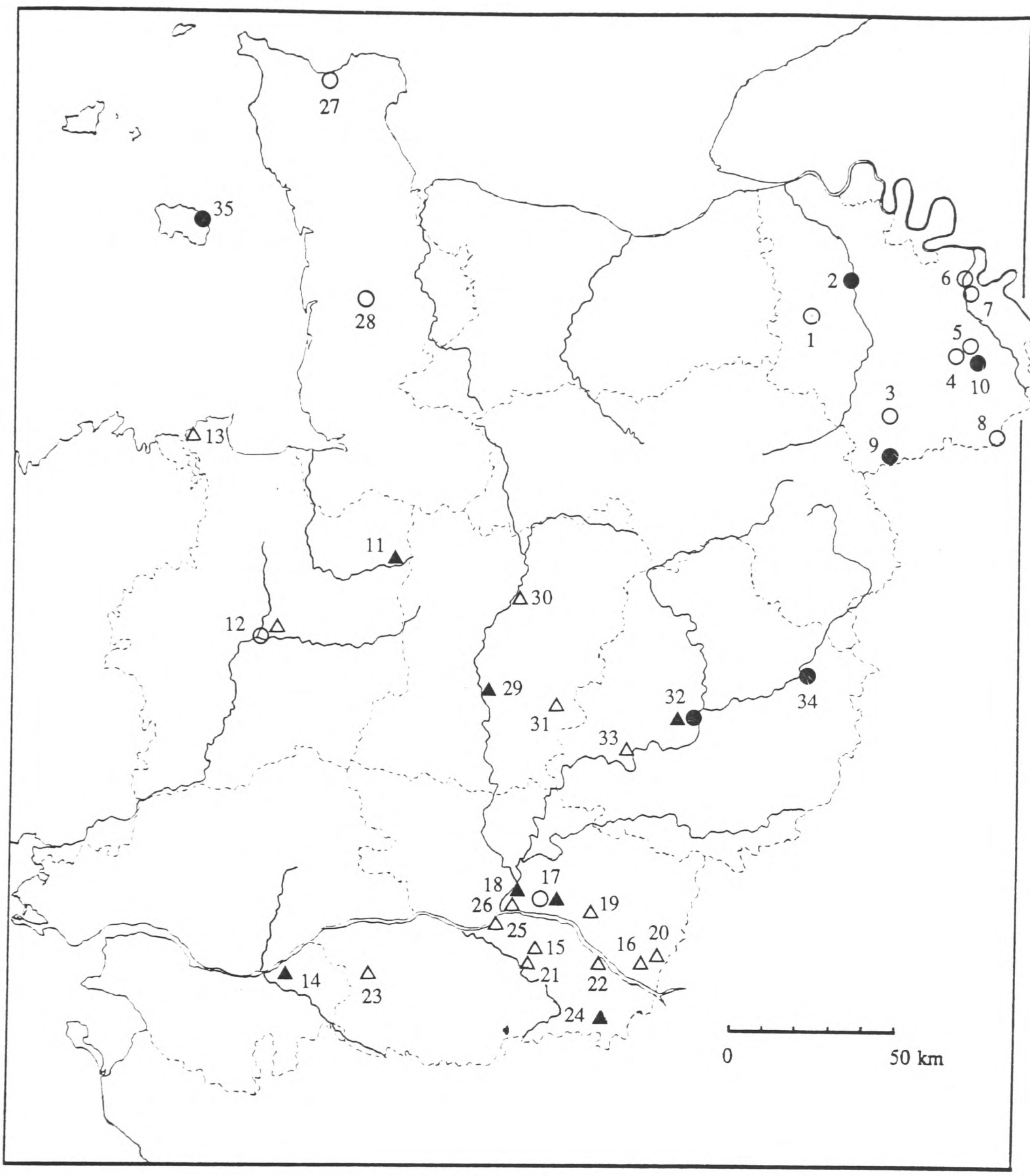
[1] Theureau (1980, 693) has pointed out that this is a largely misleading description of the type, and suggests a reversion to the older term, *au taureau cornupète*. This has not generally been heeded and the term used here is now probably too entrenched for change.



○ PIXTILOS (isolated and excavation finds)

△ potins *à la tête diabolique* (isolated and excavation finds)

● PIXTILOS (hoard and *fanum* finds)

▲ potins *à la tête diabolique* (hoard and *fanum* finds)

Figure 98. Distribution of the PIXTILOS series and potins *à la tête diabolique*.
Key to sites on table 72.

use of the site, because of the lamentable lack of detailed publication. It is worth noting that one or two hoards predominantly of potins *à la tête diabolique* are recorded (Fougères, 35.22 and Haute-Goulaine, 44.30), as is the presence of perhaps as many as 6000 in the Angers hoard (49.07). The latter is almost certainly post-conquest, while there are no associated coins to suggest a date for the Fougères hoard. The Haute-Goulaine find is intriguingly recorded as accompanied by an unidentifiable coin and an iron sword *à sphères* (perhaps suggesting it was a scrap hoard, or alternatively some kind of ritual deposit - the condition of the sword is not made clear), but the presence of such a sword cannot in itself secure a LLT date of deposition. It certainly seems possible that at some period(s), the potins were considered sufficiently valuable to be hoarded.

The attribution of these coins is not of primary importance here, but the increasing number of finds in south-east Maine-et-Loire support an origin nearby, almost certainly in Indre-et-Loire; Colbert de Beaulieu (1970c) suggested that Tours was the place of issue, while Theureau (1980, 693) has made a strong case for Amboise, 20km further up the Loire, as the site of the mint.

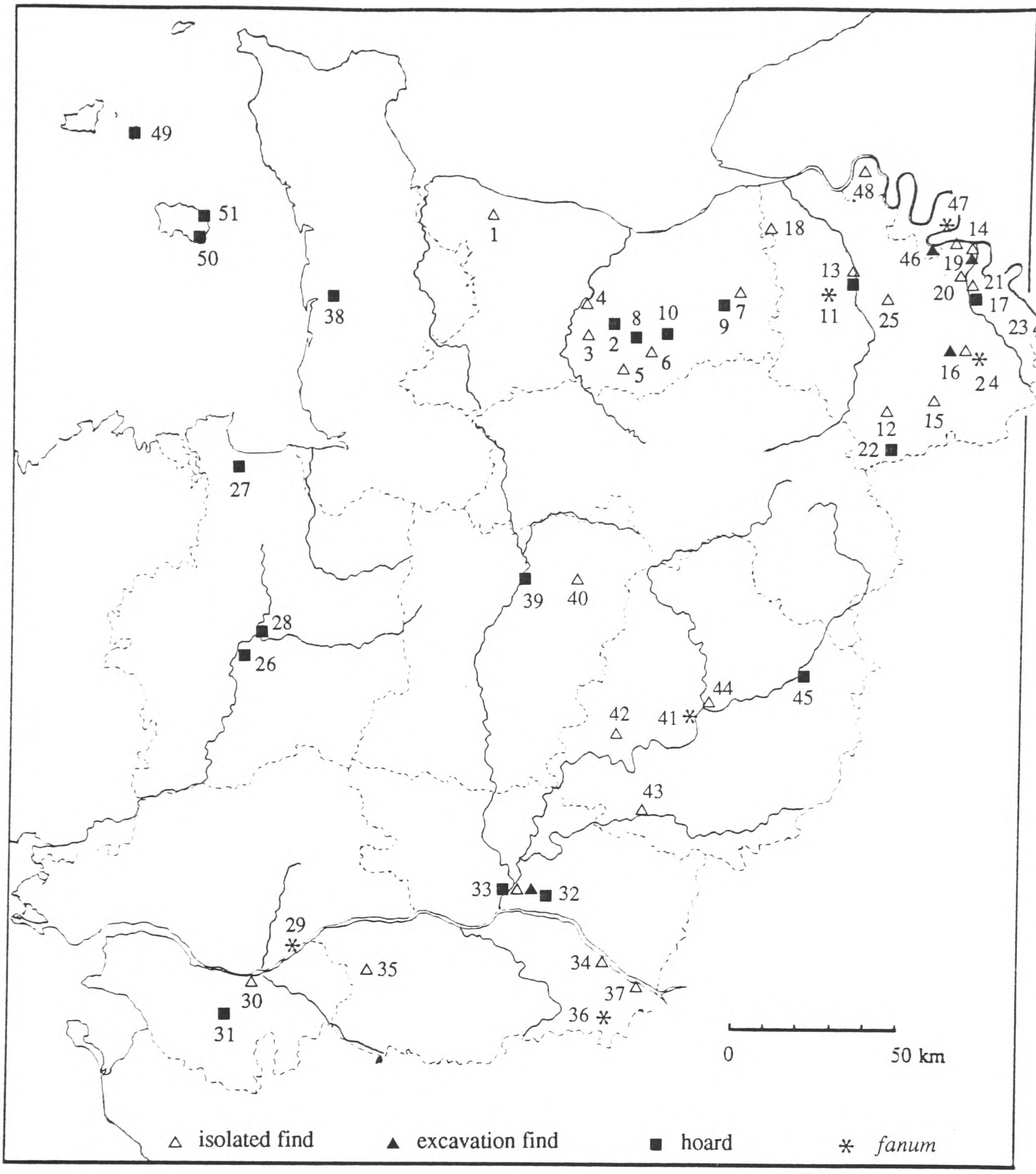
The remainder of the post-conquest imports (table 71) are generally known by only a handful of examples, with a few rare exceptions (eg the Carnutes potins, and the ATEVLA/VLATOS issues) found in quantity in hoards. Included for completeness' sake in the table are a couple of types which are distinctly later than our nominal cut-off point of 31 BC. The well-known bronzes *au crocodile* of Nemausus (LT VII 2837) were struck from 28 BC (Kraay 1955; Crawford 1985, 264-266); and the common GERMANVS INDVTILLI L. issue may be as late as c. 10 BC (Haselgrove 1987a, 75-76). Others may also have been issued very late in the first century BC, but are currently not accurately dated. Table 71 also includes some 30 types which were found on the site of Alesia, and hence were in circulation by 52 BC. But save for a few isolated finds, these coins are generally associated with others indicating a post-conquest date of depostion, eg the hoard of Verneuil-sur-Avre (27.75); those found at Allonnes could be pre-conquest, but in view of the lack of stratigraphical information on these coins it is impossible to be certain.

The most striking feature of the distribution of these coins (figure 99) is the complete lack of examples in the west of the region, save for those found in hoards, in particular Trinity (1875) (J.22), which has furnished a large number of types many of which have not been found elsewhere in north-

west France. The more common coins - potins *à la tête diabolique* and the PIXTILOS bronzes - are also scarce in the west. In contrast, several areas may be observed with a relatively high number of findspots. The south-east of Maine-et-Loire has already been identified as benefitting from the proximity of the potin producers, the Turones; there are a few examples of other coins in this area as well, including a number at the *fanum* of Montreuil-Bellay (49.82). The strongest concentrations, however, are in the north-east: a small group in south central Calvados, and a wealth of finds in Eure. The status of the former group may be misleading, since the supposed hoards are very inadequately recorded and there are grounds to suggest that a single find may have been recycled under the names of several neighbouring or nearby communes. The latter group of coins is predominantly associated with sites near rivers - the Risle, the Seine, the Eure and the Iton - and it is tempting to see in this, and in the lack of coins in the west, independent confirmation of the view that soon after the conquest, trade through Gaul to Britain was reoriented from a predominantly western route to a route focussed on the Seine (eg Cunliffe 1987, 345). The adoption of a Celticized version of the Roman *semis* by the Lexovii and the Aulerci Eburovices, whose territory covers both of these concentrations of imports, is also surely indicative of an increase in Roman-controlled trade in this area.

A case may also be made from the coin finds for transport from the Loire up through the Sarthe and then perhaps across the lower, eastern section of the Perche hills, towards the Seine. It certainly seems as though the Perche, and the collines de Normandie to the west, acted as a significant barrier to movement between the south and the north, although in view of the relatively low density of modern occupation and the distinct lack of archaeological research in this area, it is possible that we are assuming a misleadingly low density of Iron Age occupation.

It is apparent that a considerable proportion of the post-conquest imports have been found on *fana*. Allonnes (72.01) has an extraordinarily diverse range of coins from both before and after the conquest, and in this respect is clearly differentiated from le Vieil-Evreux (27.78), where the coins are almost exclusively from within a 50km radius. It seems that le Vieil-Evreux may have catered primarily for the indigenous inhabitants, and continued to do so in the first couple of decades after the conquest, whereas Allonnes was far more rapidly and decisively Romanized - as indicated by the inscriptions dedicated to Mars Mullo and/or Augustus, at least one of which is from the start of the Empire (Wuilleumier 1961, 58). The geographically distant coins found there are likely to have been



1	Bayeux	14.06	18	la Lande-St-L.	27.43	35	le Fief-Sauvin	49.52
2	Cauvicourt	14.18	19	Léry	27.47-48	36	Montreuil-B.	49.82
3	Cesny-Bois-H.	14.19	20	Louviers	27.50	37	Saumur	49.114
4	Clinchamps	14.21	21	Pinterville	27.57	38	Coutances	50.05
5	Falaise	14.26	22	Verneuil-sur-A.	27.75	39	Mayenne	53.41
6	Jort	14.33	23	Vernon	27.77	40	'N of Mayenne'	53.66
7	Lisieux	14.39	24	le Vieil-Evreux	27.78-79	41	Allonnes	72.01
8	Maizières	14.41	25	Vitot	27.81	42	Chantenay	72.09
9	St-Pierre-des-Ifs	14.68	26	Bruz	35.09	43	la Flèche	72.16
10	St-Pierre-sur-D.	14.70	27	Dol-de-Bretagne	35.18	44	le Mans	72.22
11	Berthouville	27.07	28	Rennes	35.50	45	Vouvray-sur-H.	72.37
12	Breteuil	27.11	29	Mauves-sur-L.	44.36	46	Caudebec-lès-E.	76.03
13	Brionne	27.13-14	30	Rezé	44.73	47	Oissel	76.10
14	Criquebeuf-s-S.	27.23	31	lac de Grandlieu	44.103	48	'Brotonne'	76.15
15	Damville	27.25	32	Andard	49.04	49	Sark	G.26
16	Evreux	27.28-29	33	Angers	49.07-08	50	Grouville	J.01
17	Heudreville	27.39	34	Chênehutte-T-C	49.40	51	Trinity (1875)	J.22

Figure 99. Distribution of imported post-conquest coins.

brought in by Roman soldiers, probably present in the west to quell further outbreaks of rebellion - which may be associated with the post-conquest hoards such as Trinity (J.22) and Dol-de-Bretagne (35.18). In view of the complete absence in the west of isolated or excavation finds of these coins, it is difficult to accept that the post-conquest issues were at all widespread amongst the native population in the decades immediately after the Gallic War. It is thus unlikely that these hoards were deposited by fleeing or frightened Gauls, and as in the case of Sark (Allen 1971b, 30-31), may have been buried by auxiliaries employed by Rome or by Roman soldiers themselves.

11

Synthesis

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time

T. S. Eliot, *Little Gidding*

In the preceding chapters we have examined the mass of evidence, almost exclusively drawn from settlement and coinage, which represents the archaeological record of the La Tène and early Gallo-Roman periods in north-west France. It is now appropriate to stand back from the detail, in order to formulate some more general conclusions on developments in this region during the later Iron Age. These observations will necessarily concentrate on the evidence of coinage, since the settlement information gathered above (chapters 3 and 5) is not of sufficient quantity or quality to do more than illuminate certain aspects of the archaeological record.

For the end of the Hallstatt period and the early La Tène, prior to the introduction of coinage in north-west France, we must rely solely on the information gleaned from settlements and cemeteries, and various isolated finds, for our reconstruction of society in the region. This is a hopelessly inadequate database - the only significant information comes from the inhumation cemeteries of lower Normandy - and to form generalizations from a few isolated finds spread over more than 50 000 km^2 and a small group of cemeteries is a difficult task. Key problems such as the nature of the Ha/LT interface cannot be illuminated by the present evidence; though many of the Normandy burials are dated to the Ha D/LT1 transition, it is impossible to propose absolute dates for this period with any great confidence.

The burial evidence from Normandy does suggest, however, that communities were small, formed of just a few families, and that the same sites may have been occupied for many generations (cf. Tournedos-sur-Seine, 27.70). There is some indication of the construction and/or occupation of defended

sites in this phase (from le Pouliguen (44.68), Merri (61.31) and Aubigné-Racan (72.04)), but the C-14 dates (table 3) are too imprecise to be certain, and it is possible that all such activity should be associated with the Ha D period (which may of course extend beyond the first half of the fifth century BC; we simply cannot say at present).

The presence of coral beads in graves at Ifs (14.32) attests to some external connections in the Ha D or early La Tène, but with whom it is difficult to say; these items could easily have been obtained from regions nearby, and there is no need to posit long-distance exchange directly with the Mediterranean to account for their presence. The situation may be rather different in the south of our region, where it seems certain that the Loire acted as an important conduit for long-distance trade and exchange from a very early period (at least from the seventh and sixth centuries BC; see figure 13). It is perhaps unwise to place too much significance on a couple of exotic imports, probably of the fourth century BC, found near the river (figure 18), but such finds are unknown elsewhere in the region.[1] And as we shall see below, the evidence of the earliest coinage - which could conceivably fall at the very end of the LT1 period - provides further very clear indication of the importance of the lower Loire, and, coincidentally, of lower Normandy, where much of the early La Tène evidence has been found.

What more can be said of the societies which have left these few remains? The economic basis of all Celtic societies was agricultural production, but in some cases a sector of the peasant population functioned as warriors, rather than simply as agriculturalists (hence the distinction between purely agrarian and warrior agrarian societies: cf. Nash 1984, 97-101). The societies of north-west France at this period seem to have been purely agrarian, to judge from the complete lack of weapons associated with burials, but it is possible that the deposition of weapons in graves was simply not part of the regional burial rite (in contrast, swords were certainly deposited in rivers). In view of the general lack of excavated material throughout the region, it is also possible that we have simply not yet found the relevant evidence.

Even in the purely agrarian societies there was probably an elite warrior ruling-class, and it is just possible that the finds recorded as a destroyed chariot burial from Nonant-le-Pin (61.36), dated to

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[1] there are several fine imported objects reputedly found at le Vieil-Evreux (27.80), but their provenances are particularly doubtful; excavation of the temple gave no hint of occupation earlier than the LLT, and it seems likely that some or all of these objects should be associated with the intensive GR development at this site, rather than with indigenous, pre-conquest activity.

the early La Tène, are the last remains of one of the nobles at the head of just such a society. The Celtic warriors played an increasingly important role from approximately 400 BC, when they became heavily involved in mercenary service in the Greek and Punic worlds. This introduced them to new sources of wealth and, significantly, to wealth in new forms, in particular coinage. Though we have argued above that the societies occupying what is now lower Normandy were purely agrarian, the concentration of the earliest Philippus imitations in that area (and along the lower Loire, for which see below; figures 59, 61 and 63) suggests that they may have been supplying mercenaries by the end of the fourth and the early third centuries BC; this is perfectly acceptable, since it is probable that Celtic societies were able to vary the size of the economic contribution made by warrior activity, and thus could fluctuate between purely agrarian and warrior agrarian statuses. In addition, the admittedly poor evidence for the predominantly agricultural nature of this society may predate the introduction of coinage by as much as two hundred years, and in that period there is considerable opportunity for change in social and economic structure.

There are a few other indications of military activity during this period. Most of the first phase Normandy coins (figure 60) feature one or more swords, and it could also be argued that the ship associated with the sword on one type (figure 60.13-15) represents military activity, though it could equally be an indication of trade (cf. Nash 1987a, 102). It is perhaps worth recalling here that the sword scabbard found (unstratified) at the *fanum* of Baron-sur-Odon (14.05), dated to LT1/LT2 or early LT2, was almost certainly manufactured in Switzerland or eastern Europe; it has been suggested (Allen 1974, 44) that the stater of Philip II entered Gaul principally via the Danube, and it is tempting to see the scabbard as another artefact brought back by mercenaries returning along this route.

But what of the possibility of trade? We have mentioned the ship on the coins. There is little other evidence of long-distance contact at this period, save for the luxury objects mentioned above and a fourth or third century BC Massaliot amphora reputedly found near Caen (14.11). However there are clear indications of contact between the producers of the Normandy coins and the producers of the types found in the lower Loire area, the other focus of first phase coinage (both Philippus imitations and the earliest indigenous developments). These links include the only Normandy coin found outside the region of origin (Pouancé, 49.94), and more significantly, the shared motifs on the Falaise sword type

(figure 60.16), another very early coin featuring a figure with a sword (figure 62.7), and the Loire type (figure 62.4).

Although it is extremely tempting to link the Loire coins with the port of Corbilo, the complete lack of archaeological evidence for this settlement must incline us to caution. What is certain is that the distribution of the lower Loire coins accurately reflects the presence of precious metal ores on both sides of the Loire. Although in the context of the core/periphery model at the European scale (see 4.3) we tend to think of resources such as metal ores moving uniformly from the outer periphery to the core (eg the tin trade from Britain), it is apparent that regional exchange relationships could exist separately within the system (for example entirely within the periphery), subject to very different influences than the long-distance core/periphery interaction. In this instance I would suggest that there was a relationship between the societies of the lower Loire and Normandy involving the exchange not only of rare luxury items obtained from the Mediterranean, but perhaps also of precious metal ores (or finished products) from the Loire area, since such resources are absent from Normandy. If the latter groups were warrior agrarian societies, they may have supplied in return the produce of warfare and raiding - slaves and plunder, for example - or perhaps grain and other foodstuffs, according to the orientation of their economies.

It is possible, therefore, that either the earliest Philippus imitations in the lower Loire area were produced as the result of contact with the tribes in lower Normandy, who had brought back the prototypes from mercenary service for the Greeks, or that the inhabitants of the lower Loire were exposed to these coins through the activity of traders (Greek? or native?), moving north through the interior of Gaul and down the Loire, or perhaps travelling up the coast from the Garonne. Nor should we forget the possibility that the Loire coins, in additon to those in Normandy, might reflect mercenary activity by the inhabitants of that region. I believe that mercenary activity almost certainly introduced the coins to Normandy, but whether the development of coinage in the lower Loire area occurred as a result of that, or whether it was independently set in motion by long-distance trading contacts, remains to be seen. Given that the Normandy coins in some respects influenced the Loire coinage, the former is perhaps more likely.

We cannot confidently say how the links between these two regions came about; it is possible that they were present some time before the introduction of coinage, for we must stress that the coins

themselves were not the traded items, but likely functioned as primitive valuables either between the tribal nobles involved in the process, or, to judge from their relatively limited distribution, within each society. It is possible that dies, rather than coins, were exchanged or presented as gifts, and it is also possible that the coins (or dies) were not exchanged at all, but were present in situations where the previously coinless society could examine them and later produce imitations. The absolute dates are uncertain; this development may have taken place entirely within the second half of the third century BC, but could easily have persisted into the second century BC.

The route(s) by which exchange took place within north-west France at this period are archaeologically unproven, but I believe there are clues in the distribution of the coins. The Loire group are situated a few kilometres from the lower reaches of the Mayenne and the Sarthe, and it was surely via these river valleys that contact with Normandy was made. Of the two, the Sarthe is perhaps more appropriate, for in its upper reaches (immediately north of Alençon) it leads to the only significant 'gap' between the collines de Normandie and the collines du Perche, on the north side of which are the headwaters of the Orne and the Dives; and perhaps most significantly, it is this very area, in the immediate vicinity of Falaise, where those coins have been found which provide the strongest links between the two regions. It is tempting to suggest that the people in this area (Falaise) were the dominant group in lower Normandy, controlling access to the principal trade route, but this remains to be seen. Certainly it seems that there were several coin producers in Normandy (figure 61), well defined by the hills to the south, in contrast to the lower Loire, where the two issues with a common reverse suggest the work of one authority. It is clear in both cases, however, that we cannot ascribe these coins to the tribal groups recognized at the end of the La Tène period.

At some point the relationship between these two areas broke down, or at least was articulated without the use of coinage. Various explanations for this may be suggested, none of which currently have any archaeological evidence to back them up. There may have been problems with the supply of resources, or political changes, at one or both ends of the system. But I would like to suggest here an alternative explanation for the temporary interruption of contact between Normandy and the Loire: the development of a strong tribal authority in the region between those two areas.

The question of who migrated where, and when, during the La Tène period is one of the great unresolved issues of Iron Age archaeology. It is all too easy to fall back on mysterious and

undocumented migrations to explain away developments which are not immediately comprehensible in the context of identifiable internal processes, but to do so often contributes little to understanding the problem. Although there is no archaeological information of help in this instance, I believe that there is at least some significant numismatic evidence from north-west France which may point towards the migration of groups from the east, perhaps in the late third century or in the first half of the second century BC: the links between the Sarthe recumbent figure coinage (8.2.1) and some issues of the Treveri. Although it was suggested above (8.2.3) that the direction of influence was from the Aulerci Cenomani to the Treveri, in contrast to the view of Allen (1971c), that does not preclude the possibility of migration from east to west; we cannot be certain, for example, to what extent contact with the 'homeland' was maintained by a migrating group once they had settled in a new area. It is possible that some members of the society returned home if faced with a situation little better than that which they had left; there may also have been deliberate, periodic contact between the two areas. Either instance would give ample opportunity to pass on information regarding coin design, in this case the use of the Armorican human-headed horse.

The human-headed horse is first encountered with the second phase coins supposedly of the Veneti, which appear to have inspired the design on the Sarthe recumbent figure coinage, along with several other less well-localized second phase types in the south of our region (8.3). The attribution of these coins has been discussed in detail above (8.2.2). In summary, I believe that the attribution to the Veneti is ill-founded, and that these coins were more likely produced somewhere in the region of the lower Loire (figure 76). The link between this group and the authority which produced the coins very tentatively associated with Corbilo (above) is uncertain, but it seems likely that they controlled the same metal resources - in the Mauges and in the Abbaretz region - and presumably administered trade along the lower Loire. As such we might expect them to continue trading with the communities of lower Normandy, but the appearance of the Aulerci Cenomani coinage in the Sarthe, interrupting the most obvious routes between the two regions, may indicate that this was no longer feasible. It is possible either that the (new?) community in the Sarthe was a more convenient source of commodities previously obtained from Normandy, and thus maintained a friendly relationship with the lower Loire region, or that they were relatively hostile, thus preventing any penetration along trade routes in their

territory. Given that the Sarthe group imitated the "Veneti" coinage in many respects, the former is perhaps more likely.

There were at least two other major developments in north-west France at roughly the same period, apparently unconnected with the Sarthe/Veneti interaction. In north-east Ille-et-Vilaine and the Avranchin, the earliest east Armorican armed rider coins (8.1) show a very stylized legend in the exergue (eg figure 64.4) which suggests recollection of the prototype or the earliest imitations rather than immediate access to them (unlike Normandy and the lower Loire). These coins, to judge from their weights and design, began before the "Veneti" issues but were later than the first phase issues. Along the lower Seine valley, the other important development was the production of another early coinage, attributed to the Aulerci Eburovices (8.5). These coins (figure 74) show some clear typological links to the Normandy first phase issues, and we may infer some contact between these two areas on that basis, and on the unusual use of the half stater as the predominant denomination. But nor should we forget the link between the Eburovices issues and early coins of the Ambiani, which is just one of the features that mark them out from all the other tribes of north-west France. The most striking archaeological manifestation of this difference is the presence on their territory of numerous quadrilateral enclosures, or *Viereckschanzen* (figure 54). In the absence of any excavation on this group, it is impossible to confirm whether they could have been constructed by the same people who produced the early Eburovices coinage, although it is worth noting that similar sites in Gaul have been dated to the middle La Tène (see 5.4.1). There is a particularly pressing need for investigation of these sites, in order that the somewhat anomalous status of the Aulerci Eburovices may be better understood; once again we may wonder whether this people originated from somewhere beyond western Gaul.

Returning to the main course of events in north-west France, we are faced with further complex developments centred on the lower Loire. The "Veneti" gold coinage, which had already inspired the Sarthe (Aulerci Cenomani) coinage, provided the model for several more Armorican issues. The earliest of these were the Andes coins (9.1.1), almost certainly not produced by that tribe but perhaps in the region of Cholet, and the more numerous Namnetes issues (9.2). As was mentioned above (9.2.3), the distribution of these coins (figure 79) is complex, and not easily reconciled with the traditional reconstruction of the Namnetes boundaries; on the whole the coins show a rather more easterly distribution. It resembles, though does not match, the distribution of the "Veneti" second phase

coinage, and one must ask whether they were produced by the same people. I believe that the geographical, typological and metrological evidence is sufficient to make it likely, but we must await reliable excavated information to confirm this.

The Namnetes base gold and billon coinage (9.2.2) was probably produced until the Roman conquest. It also seems likely that the Sarthe recumbent figure coinage was in circulation until the middle of the first century BC, given the presence of the later classes in several conquest and post-conquest hoards (8.2.1) (unlike, for example, the "Veneti" gold coinage, which has not yet been found in hoards or in association with any other type).

To the north and west of the Namnetes territory, however, there were several very significant developments in third phase coin production in the years immediately before the Gallic War. The series of billon coins attributed to the Coriosolitae (9.5), and rather less convincingly to the Veneti (9.4), show clear links with the "Veneti" gold coinage and with the early Namnetes issues, although it is not always easy to unravel the direction of influence between these closely-related types (see the discussion in the relevant sections above). Also deriving (to varying degrees) from the "Veneti" and Namnetes coinages are the octoped type (9.7.1; see below for consideration of influence from the Sarthe), and the XN series and related types (9.7.2-3). These latter coins also betray the influence of third phase Normandy coinage (the Baiocasses issues), and it is to events in that area that we shall now turn.

Many aspects of the Baiocasses issues are particularly interesting; the discussion above (9.9) has touched only on some of the key features of this coinage, which has been sadly neglected in the past. Nevertheless, there is enough information here to suggest how events may have unfolded in this part of the region. I argued above that contact between Normandy and the lower Loire was interrupted by the introduction (or development from an indigenous base) of a strong, cohesive community in the Sarthe, the Aulerci Cenomani. This would probably have had a more serious impact on the region to the north, since the groups to the south were still able to obtain commodities from their immediate surroundings (perhaps including the Aulerci Cenomani territory), and continued to control trade on the Loire to more distant communities. The temporary isolation of the Normandy peoples is perhaps reflected in the lack of a second phase coinage comparable to the "Veneti" or Sarthe recumbent figure issues, and in the retention of features from the first phase coinage (possibly to the extent of the preservation of reverse dies) on the early third phase issues of the Baiocasses. But I would suggest that

the adoption of Armorican characteristics on the later Baiocasses lyre issues (figure 91) marks the renewal of firm contacts with the centre of innovation in the lower Loire area, and the outlying areas using "Veneti"/Namnetes derived coinage (in the west of Ille-et-Vilaine, the east of the Côtes-d'Armor and around the gulf of Saint-Malo), once again probably in the quest for metal ores. This is reflected by the shared characteristics of the third phase coins of all these areas (figure 100), which may be contrasted with those of the central region (particularly the Sarthe). These differences are not major - all the types share the human-headed horse, for example - but they are sufficient to indicate that there were at least two significant regional subdivisions present in greater Armorica in the late La Tène. To these we may add the only significant cultural boundary within the region, probably represented by the valley of the Risle, beyond which the Aulerci Eburovices occupied a curious position, fitting comfortably into neither the Armorican nor the Belgic worlds.

This so-called central region is dominated by the coinage of the Aulerci Cenomani. They inspired several types principally to their north-west, in particular the hippocampus (second phase) coinage, tentatively attributed to the Aulerci Diablintes (8.4), the Aulerci Diablintes third phase coinage (9.8), and (via the hippocampus staters) the octoped type (9.7.1) and the Redones billon coinage (9.6). The octoped type, which is almost impossible to localize on the basis of the few known provenances (figure 87), is particularly interesting as the obverse is closely related to the Veneti billon coinage, while the reverse is manifestly associated with the hippocampus (ie Sarthe derived) issue. I believe that they may have originated in south-east Ille-et-Vilaine, at the interface between the Sarthe group and the "Veneti"/Namnetes group.

This plethora of billon issues in the third phase can only be associated with the payment of soldiers in the Gallic War. I believe that there is no significant evidence to suggest that *any* of these coins were used in market exchange, or associated with the kind of economic activity which their introduction has traditionally been taken to presage. I would extend this interpretation to the small silver issues (such as the types related to the XN series; 9.7.3), which are probably post-conquest; they may reflect the last vestiges of organized resistance to Rome in the years immediately after the War. It goes almost without saying that the earlier (first and second phase) coins did not function in a market economy either, but served primarily as a means of storing and distributing wealth; their use would

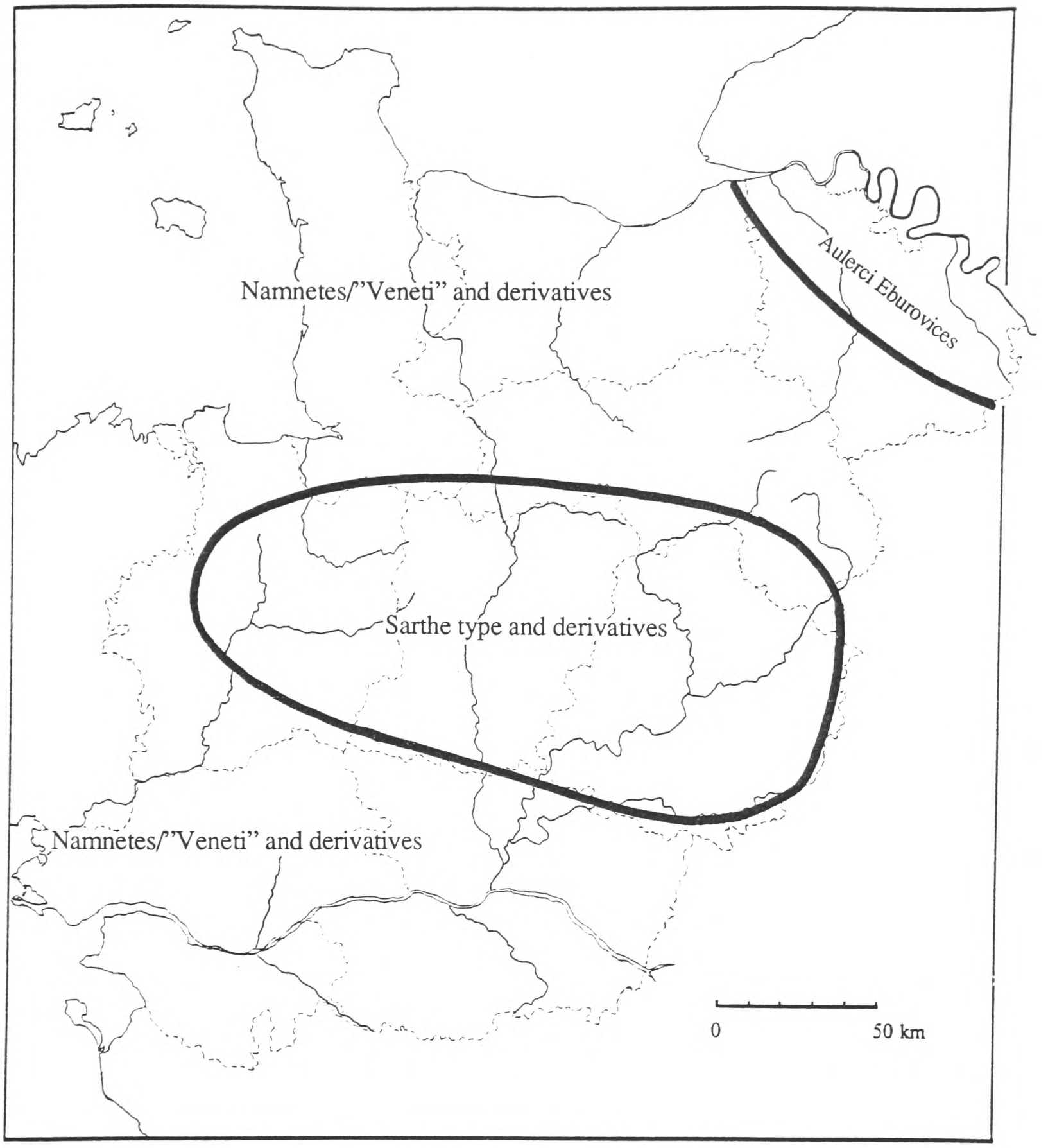
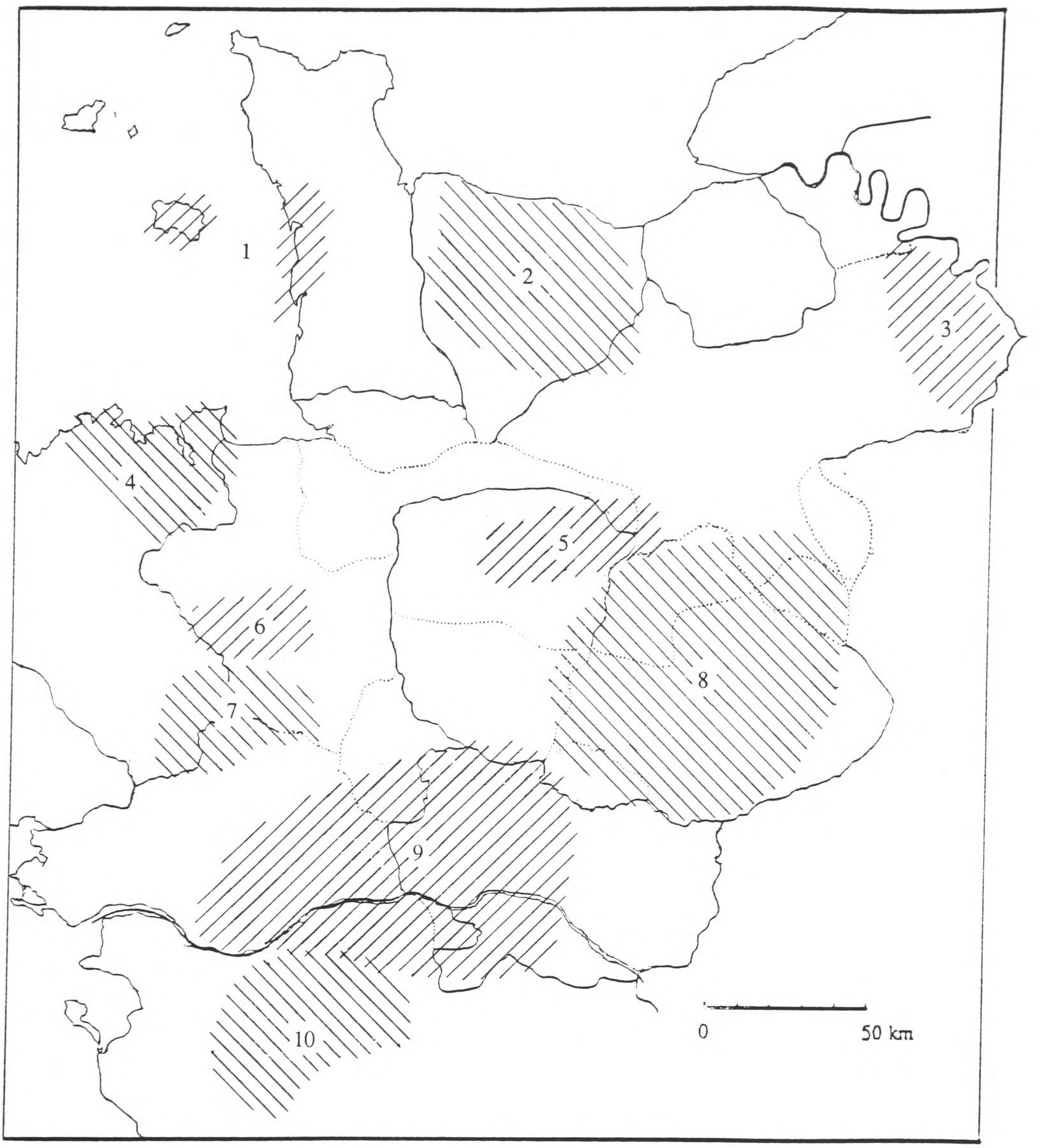


Figure 100. Regional subdivisions in late Iron Age coin design.

have been restricted to the elite of each society, who could use them for purposes such as cementing alliances, and maintaining their position in the social hierarchy.

It is apparent that several tribes never struck coinage; the Unelli are certainly amongst this group, as may be the Andes and perhaps the Veneti, if the arguments above (8.2.2 and 9.4) are accepted. These peoples must have articulated relationships within their social hierarchy by different means, possibly through the exchange of other items. Of the many coin issues discussed above, it is also plain that a large number cannot be satisfactorily attributed to any of the tribes with which we are familiar from the early Gallo-Roman period. For the first and some of the second phase issues at least, this should not occasion surprise. In the first place we cannot reconstruct the tribal boundaries for the middle La Tène, or even for the early LLT with any great confidence (1.4.4). But more importantly, the function of the early coins is emphatically not as some kind of general purpose tribal coinage; these coins were probably produced by nobles in control of relatively small areas (the *pagus* or a still smaller division). Their ability to issue coins rested simply on the command of the necessary resources and of the artisans who were able to manufacture them, and thus in the first and second phase there are a considerable number of scarce and poorly-located coinages (7.2.4 and 8.6), with traditionally Armorican characteristics, which may represent single issues from minor nobles with relatively poor resources; it is arguable that some of the third phase issues (eg the octoped type) were produced under similar circumstances.

Figure 101 illustrates the distribution of coinages immediately prior to the Gallic War, compared with the tribal boundaries formulated during the Gallo-Roman period. It is apparent that only the coins of the Baiocasses and the Aulerci Cenomani correspond well to these boundaries, while most distributions are very different indeed. Several are particularly interesting. The Aulerci Eburovices coinage is focused on the valleys of the Seine, Eure and Iton, and is markedly absent from the south-west of Eure - the high ground of the Perche - which must have formed a substantial frontier zone between this *civitas* and those of greater Armorica. In fact the whole area of high ground stretching from the Avranchin, through the bocage Normand and on to the Perche (figure 4) is remarkably devoid of coin finds, and while to some extent this may reflect the lack of archaeological interest in these areas, it must also indicate, understandably, that this region was not favoured for settlement (see also the general map of fortified sites (figure 24), which presents much the same picture, with the only



1	XN?	6	Redones
2	Baiocasses	7	Veneti?
3	Aulerci Eburovices	8	Aulerci Cenomani
4	Coriosolitae	9	Namnetes
5	Aulerci Diablintes	10	Pictones

Figure 101. Coin-producing areas and tribal boundaries in the late La Tène.
Full distributions of the Coriosolitae and the Pictones, outside north-west France, are not plotted.

fortifications tracing the route between the collines de Normandie and the collines du Perche, mentioned above).

In the south the coins attributed to the Namnetes present particular problems, since it is very difficult to reconcile their distribution with the GR boundaries. Also puzzling are the Veneti billon issues (9.4), which have scarcely been found on Veneti territory, but are difficult to locate elsewhere with a distribution formed almost entirely of hoarded examples (figure 82). What this map indicates above all is that the boundaries often bear little resemblance to those suggested by archaeological and numismatic evidence, and we must conclude that in many cases they represent Gallo-Roman divisions created to provide an administrative framework in the region which sometimes took little account of the indigenous structures.[1]

We must consider here what the archaeological evidence reveals about the changing structure of these societies in the late La Tène period. In chapter 4 we examined the main themes of development in Gaul in the last century or so of the Iron Age, in particular the formation of a number of archaic states in the "semi-periphery" to the north of the Province, and the creation of oppida as the political centres of these *civitates*. At the time we noted that it is unreasonable to expect the societies of the peripheral areas to have developed to the same extent, though we may still be able to recognize some aspects of changing social organization in the settlement record.

Unfortunately the archaeological information from north-west France is very rarely sufficient to achieve this. Given that a couple of hearths and associated features occupying approximately $5m^2$ (at Moulay, 53.46) represent the sum total of structures excavated on fortified sites since the Second World War (5.2), it is hardly worth attempting to identify the characteristics of oppida in the archaeological record of the region. This lack of hard evidence is an extremely important feature which has been almost completely ignored in the past, in the general haste to identify the large fortifications as oppida (cf. Duval 1984a, 85). Some of these sites *may* have been oppida; but let us be clear that at present, we cannot possibly justify this assumption on the basis of archaeological evidence, for there is none.

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[1] this point has recently been discussed, with reference primarily to Belgica, by Haselgrove (1990, 52). He has suggested that in 27 BC Augustus focused on the larger and richer peoples while creating the *civitates*, so that thinly-populated areas or client groups were attached to "cores" with which they may previously have had little or no contact. The same process is likely to have happened in north-west France; examples may include the combination of northern and southern Mayenne as the Aulerci Diablintes, when the archaeological evidence points clearly to the presence of at least two *pagi* within this area, or the incorporation of the producers of the octoped type (see above) into the territory of the Redones or the Namnetes. There were probably many more such cases.

In the absence of excavated information on these sites, we are forced into considering features such as size as an indicator of function, which as we have seen (4.2) is a highly unsatisfactory approach. The application of central place theory, the analysis of rank/size relationships and the construction of Thiessen polygons (5.2.7) are beset by so many problems (detailed in the relevant section) that any "results" must be treated with considerable caution. Thus the markedly stepped settlement hierarchy observed for the Aulerci Diablintes (figures 37 and 38) misleads because the sites used in its construction, within the tribal boundary defined in the early Gallo-Roman period, do not correspond to the area which the evidence of coins (8.4 and 9.8) and stelae (3.4.3) suggests was occupied by this people (see figure 101); to say nothing of the problems of assuming contemporaneity among sites, similarity of function and so on. If these applications of models of spatial distribution demonstrate anything with clarity, it is that the data currently available from the fortified sites of north-west France are simply not of sufficient quality to support their use.

Let us consider, though, one of the very rare large-scale open settlement excavations in the region, at les Alleuds (49.01). This has demonstrated several of the features regarded as characteristic of the oppidum - functioning as a centre for regional and long-distance exchange, and perhaps for production - of which the most striking archaeological evidence is the presence of at least 130 Dr Ia amphorae. The importance of this figure cannot be overemphasized. It puts into shade not only sites such as Alet and Quimper, but major oppida such as Villeneuve-Saint-Germain and the Teitelberg (Fitzpatrick 1985, 311). In addition, the commonest coin on the site is the small silver issue (9.1.2), also found locally in the hoard at Angers (49.07) and the *fanum* of Andard (49.03), which may have been struck (at les Alleuds? there is no published evidence so far) for the payment of services on the site. There is no other coin like this, or with this suggested function, from north-west France. This was very clearly an important settlement, with features of an oppidum, and yet without defences (of more than symbolic nature); the finds suggest beyond reasonable doubt that it was occupied in the first half of the first century BC, and probably abandoned on the eve of the conquest. The implications of this are, I believe, that we may be mistakenly searching for oppidum-like development on north-west French fortified sites in the late La Tène, when in fact the "central places" of these societies were located on relatively open ground, situated for the benefits brought by trade rather than the desire for strong defence. It remains to be seen whether this reflects processes of political centralization similar to

those identified in central Gaul (4.2), but manifested in a rather different way. In the face of an overwhelming lack of excavated evidence we really cannot comment constructively on the situation in the rest of the region, but it seems likely that given the trading links of the lower Loire area (above), it may have reached a stage of political development closer to the *civitates* to the south than had been achieved by the other tribes of north-west France.

There is very little evidence of any other sort for the nature of these societies, though we should bear in mind Caesar's comments (table 5) referring to senates among the Aulerci Eburovices and the Lexovii (BG III.17), and his execution of the council of elders of the Veneti (BG III.16). Incidentally, the presence of Viridovix, described as the chief of the Unelli, need not indicate that this tribe had not developed the same social structures as the Aulerci Eburovices, Lexovii or Veneti, since of times of crisis it was still possible for one popular individual to gain control of the group, even amongst the archaic states (cf. Vercingetorix); and the senates of the Eburovices and the Lexovii were of course put to death by their own people for their refusal to resist Rome, thus indicating the fragility of these structures.

The resistance of the population in the territory of the Aulerci Eburovices and the Lexovii did not persist for very long, to judge from the production in those areas of post-conquest coins with strong Roman inspiration (10.1), and the mixing of native and Roman burial tradition in the cemeteries along the lower Seine (5.5.2); though we must bear in mind that no absolute dates are available for these coins. The most striking feature of the (imported) post-conquest coin distribution, however, is the lack of coins in the west of our area (figure 99). This is surely further indication that these coins were not used in market exchange, for there is plenty of evidence for trading activity in this region after the conquest; I have argued above (5.3.2), for example, that much of the *couche gauloise* at Alet (Saint-Malo, 35.67) might be more correctly ascribed to the years immediately after the conquest. The areas where most post-conquest coins are found - the Seine valley, and the south-east (eastern Maine-et-Loire and southern Sarthe) - represent the areas where direct Roman involvement was particularly marked immediately after the War, either for economic or military reasons. Along the Seine, this involvement seems to have been chiefly economic (cf. the distribution of Dr Ib amphorae in Gaul and Britain, focusing on the Seine as the predominant route of entry; see Fitzpatrick 1985, 313-319). In the rest of our region, the so-called greater Armorica, such involvement must have been chiefly military.

Although Roman military activity in the region after the conquest is very poorly documented, resistance (as evidenced, perhaps, by the degenerate small silver coins related to the XN and Baiocasses types; 9.7.3) is likely to have continued in a sporadic fashion for a number of years. The few hoards predominantly of post-conquest imports (eg Dol-de-Bretagne (35.18) and Trinity (J.22)) and the extraordinary abundance of obscure and distant coinages at Allonnes (72.01) must reflect the presence of Roman soldiers, rather than the widespread circulation of these coinages amongst the native population.

Settlement evidence is of little or no assistance in identifying changes in the region in the first two decades after the conquest, because the limited quantity of excavated evidence is rarely datable with the precision necessary to analyse events occurring in such a short time period. The fact that cross-Channel trade continued at Alet, though diminishing in relation to the exchange articulated between northern Gaul and south-east England (Galliou 1984, 30), is perhaps indicative of relatively little modification to the indigenous societies in the first years of Roman occupation, as may be the delay in introducing *fana* or "converting" existing religious sites throughout most of the region (5.4.4; Allonnes is atypical in this respect). The creation *ex nihilo* of urban centres in the Augustan period (Galliou 1983, 32) marks the real beginning of the Romanization of north-west France, but that is another story.

I would like to conclude this work with the model overleaf (figure 102), which schematizes the principal developments in the Celtic coinage of north-west France. The resolution of the finer points of this model will occupy many years to come, but I believe that it presents a fundamentally correct picture of the evolution of coinage in the region, which is characterized by an underlying similarity between virtually all the second and third phase coins (symbolized by the *cheval androcéphale*). In this chapter I have suggested some of the processes that may have caused the production of coinage to develop in this fashion, and attempted to illuminate them with the application of archaeological evidence. It must be admitted that this evidence is rarely of the quantity or quality necessary to shed much light on the developments suggested by the coinage, and I can only end with a plea for an increase in excavation and, most importantly, publication of Iron Age and early Gallo-Roman sites. There are few areas (either geographically speaking or in the sense of subject) which would not benefit from an intensification in research, but of particular interest must be the region of

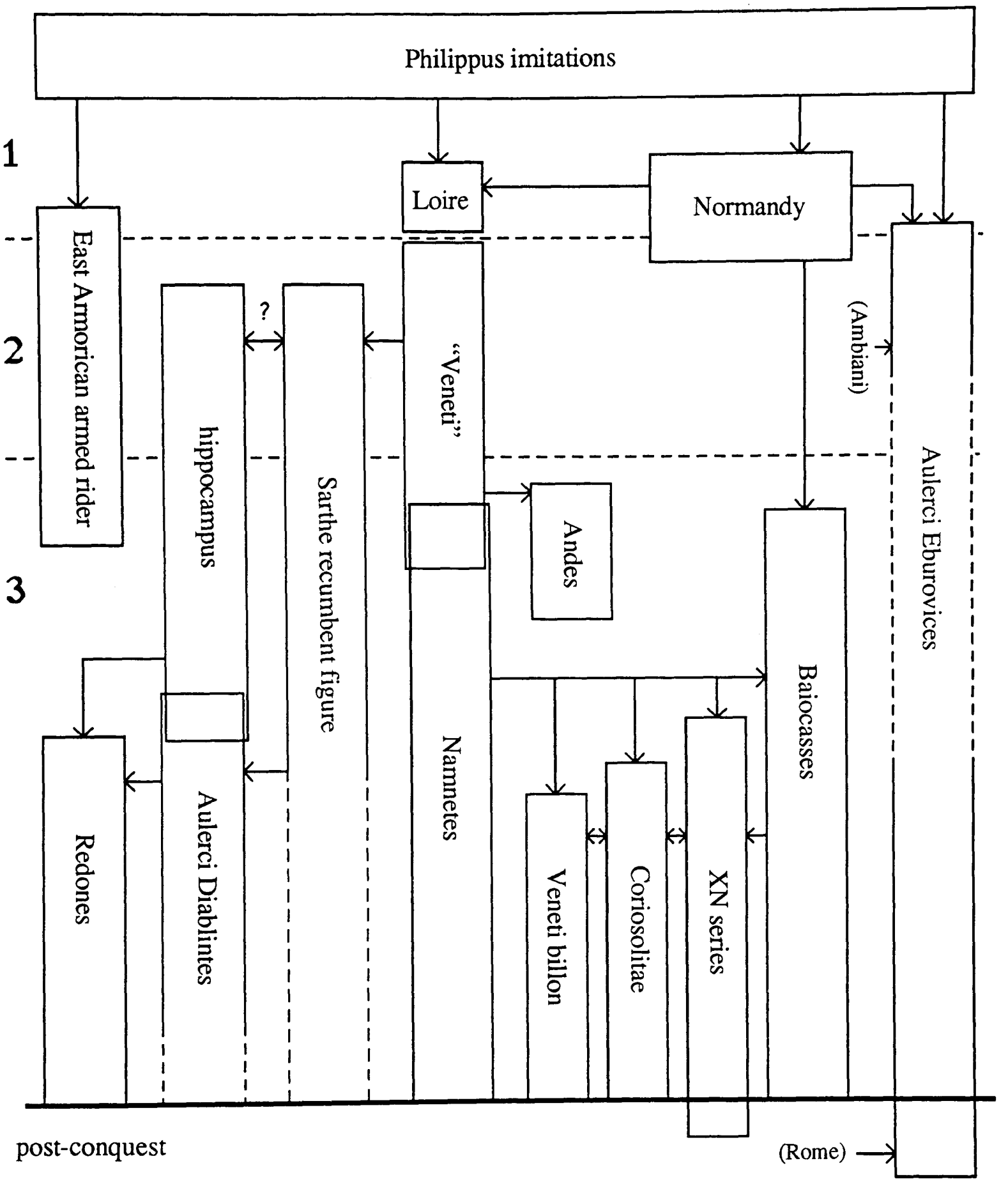

Figure 102. Model of principal developments in the Celtic coinage of north-west France.
Figures on the left hand side refer to the first, second and third phases of coinage.
Arrows indicate the main direction of influence.
Vertical dashed lines indicate possible long-term periods without coin production.

the lower Loire, which seems to have been a focus of development in north-west France from a very early period. Only through an increase in archaeological research, combined with the careful application of numismatic studies, will we be able to say that we truly "know the place".

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Abbreviations:

Ann. Bret.	Annales de Bretagne
Ann. Norm.	Annales de Normandie
Arch. Bret.	Archéologie en Bretagne
BAR (S)	British Archaeological Report (International series)
BCHAM	Bulletin de la Commission Historique et Archéologique de la Mayenne
BSAN	Bulletin de la Société des Antiquaires de Normandie
BSFN	Bulletin de la Société Française de Numismatique
BSHAO	Bulletin de la Société Historique et Archéologique de l'Orne
BSJ	Bulletin of La Société Jersiaise
BSNAF	Bulletin de la Société Nationale des Antiquaires de France
BSPF	Bulletin de la Société Préhistorique de France
Bull. Arch.	Bulletin Archéologique
DCRAA	Dossiers du Centre Régional Archéologique d'Alet
Et. Celt.	Etudes Celtiques
MSAN	Mémoires de la Société des Antiquaires de Normandie
MSPF	Mémoires de la Société Préhistorique de France
OJA	Oxford Journal of Archaeology
PPS	Proceedings of the Prehistoric Society
RAO	Revue Archéologique de l'Ouest
Rev. Arch.	Revue Archéologique
Rev. Num.	Revue Numismatique
RSAHM	Revue de la Société d'Archéologie et d'Histoire de la Mayenne
TSG	Transactions of La Société Guernesiaise

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