PART III

WIDER CONTEXTS, SYNTHESIS AND CONCLUSIONS
6. THE LIMOUSIN EVIDENCE IN ITS WIDER CONTEXT:
ASPECTS OF THE PHYSICAL RECORD

6.1 Introduction

In this chapter, as a necessary preliminary to an attempt to use the evidence from Limousin in a consideration of the nature of the Iron Age record in non-Mediterranean France, various aspects of the settlement record merit examination. In particular, the record of the site types other than the hill-forts perhaps demands particular examination. To the extent that this is practical, synthesis of the archaeological record with that obtained by other means is postponed until the following chapter.

For the moment, and despite the fact that this set of evidence produces particular problems inherent in its character, I have retained the architecture of hill-fort defences as the best (in the sense of most widely available) data to broach questions of chronology (and, to a lesser extent, of functions) of the more heavily-defended sites. Hopefully, such an approach will be passé in a few years time, but I would contend that, at present, rampart constructions offer considerable scope for integration into wider models, and a measure of precision over a range of sites lacking for other classes of evidence.

6.2 Rampart constructions of the later pre-Roman Iron Age and their native background

"Contrairement aux affirmations de Diodore de Sicile, Alésia comme Bibracte ne peut s'enorgueiller d'une lointaine origine celtique, s'il était reconnu que Vercingétorix, en se retranchant dans une ville a voulu surtout s'abriter derrière un solide rempart de construction récente, opposer aux légions une muraille plus résistante que les vieilles enceintes plus ou moins 'déclassées' de l'âge du bronze."

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- N limit of area defined as "Mediterranean France"
- Limit of C French zone of numerous hill-forts based on de Martillet 1906 and CEEPFA after Schorschütz 1971
- ditto, Brittany, N France, ? Alsace-Lorraine, no data
6.2.1 **General considerations**

As this topic has been broached in print several times in recent years (in Collis, 1975, appendix 2; Collis and Ralston, 1976; Büchsenschütz and Ralston, 1975, 1981a, 1981b; Ralston and Büchsenschütz, 1975; Ralston, 1981), I should like to confine the remarks which follow to an updating of the position I have taken previously on this evidence. The most important, numerically speaking at least, revision concerns the distribution of massive dump ramparts, either of the Fécamp series (Wheeler and Richardson, 1957) with wide, flat-bottomed ditch, or of the Wheathampstead series, with V-shaped ditch, or indeed with ditch of unknown form.

In 1972 (Ralston, unpubl.) I was able to map 26 examples of the Fécamp series (Collis and Ralston, 1976, fig.4): I would now wish to propose over 50. The Fécamp series in particular offers the advantage that it is, perhaps too seductively, recognisable from surface fieldwork. However wide flat-bottomed ditches (15 m across in the case of the newly-examined example at Rouveroy, Belgium: Cahen-Delhaye, Mons-Bavai Colloquium, 1982) are also recorded with 'muri gallici' enclosed forts. I now propose that the distinctiveness of the ditch form in the Fécamp series not only has little to do specifically with the Belgae (Ralston and Büchsenschütz, 1975), but moreover that its existence is partially a result of geological control. Dating of these sites is still hazardous - some at least may drift back towards the second century BC e.g. 'Cité des Limes', Bracquemont - whilst others are decades more recent. To the usual examples cited, we may now add sites such as Boviolles, Naix-aux-Forges, where the dump rampart is secondary to a 'murus gallicus'.

Evidence that the idea of refortification by casting an overburden over a decayed wall may have had a longer currency than
the circumcaesarian decades may be advanced from a number of sites: Amboise in Indre-et-Loire and Aubusson in Creuse perhaps suggest that the duration of the practice of such modifications may span several centuries. For the moment, however, there seems to be no published evidence for a fortification of the classic Fécamp configuration pre-dating La Tène III, though the amount of excavation evidence is still not great.

6.2.2 Walls with internal timberwork or "noch einmal zum Murus Gallicus"

The use of timber to enclose, if not to fortify, settlements and other sites is known at least sporadically from the Neolithic onwards in non-Mediterranean France. Palisades are documented at Noyen-sur-Seine (Mordant and Mordant, 1972) at Gravon, Seine-et-Marne (Gallia Préh, 22, 1979, 454-5), at Compiègne in Oise, where an external palisade flanks an interrupted ditch system (Gallia Préh, 22, 1979, 415-7) and at Saint-Michel-de-Touch in Haute-Garonne (Phillips, 1975, 95, fig.13), amongst others of Neolithic date. The most spectacular addition to this series in recent years has been the Kastenbau wall at Moulins-sur-Céphons, Indre (Duval and Büchsenschütz, 1979, see No.61 below).

Defensive architecture of second millennium BC date also appears to be comparatively ill-recorded (Coles and Harding, 1979, 237, 468-75) for Western France, although upland, and at least potentially-defensive, settlements are known. Further E, Millotte (1963a, 1965) has documented 'Bronze Age' occupations of various sites at least subsequently fortified. Often such fortifications bear indications of calcination or vitrification, although there can be no reason to restrict this phenomenon to a narrow time-band. Amongst such fortifications, about ten examples (Ralston, 1981, 87)
may tentatively be attributed at latest to the earlier centuries of the first millennium BC, and others are certainly possible. Any such list is liable to be subject to rapid increase as the use of isotopic dating, as well as larger-scale excavation, becomes prevalent.

The reasons for examining the strand of evidence offered by timber-using defences are several, but merit rehearsing in the light of a recent discussion of the most celebrated variant of the series, the muri gallici (Furger-Gunti, 1980). It is manifestly clear that much of the evidence discussed here is defective, being drawn from old excavations of extremely limited scale, often executed by people intent, as Furger-Gunti would have it, on finding evidence to confirm the celebrated statement of de Bello Gallico VII, 23, or at least one particular rendition of it. It is clear too that many of these fortifications, dug as unitary works, may well be multi-period and show evidence of repair and replacement not recognised by their original excavators. Elsewhere, the evidence for the increasingly common dump-rampart-over-timber-laced-wall sequence is presented. At other sites, multi-phase timbered box-ramparts have been claimed, for example at Macon, in the light of the Basel-Münsterhügel evidence. Further E, excavations as at Mont-Vully in Switzerland (Kaenel, 1981) and at Finsterlohr (Zürn, 1977) continue to provide examples of structural complexity.

Nonetheless, in spite of its defects, I am unwilling to discard this set of evidence, faute de mieux. Despite the upsurge in the excavation of hill-fort interiors and of open settlements, the amount of usable evidence and the number of gisements tackled on any considerable scale in these latter categories is still paltry for many areas of France and well-nigh lacking entirely for Limousin.
In short, the sample of rampart evidence we have available is certainly inadequate, but there are clear merits in attempting to use it and indeed extend it (Collis, 1981, 71). In support of this, we may cite the evidence provided by the all too few isotopic dates presently available for fortifications in non-Mediterranean France.

Whilst the ensuing discussion will concentrate on those forms of defences which utilised wood, it is fair to point out that dry-stone architecture was also practiced, this latter including the particular variant of the 'murus duplex' (Soutou, 1962). This type has been set to one side here for a variety of reasons, not the least of which is the lack of a precise chronology for it, though examples were undoubtedly still being constructed and modified later, as Kruta's examination of the Camp d'Afrique at Flaverignot in Côte d'Or makes clear (Kruta, 1980).

The manifest variation present in the defensive architecture by the end of the La Tène period is a product of the richness of the temperate European tradition in this field. Whilst it is certainly possible that Mediterranean influences may have been received - possibly via Marseilles, whose rôle, after the great phase of early exportations towards the N, is much shadowier - there is little for which this external influence is essential. It is also worth noting that the defensive types discussed below also appear to embrace the size range of forts known in the archaeological record. We believe that the factors identified in Ralston (1981) may all have affected the decision-makers involved in the selection of the defensive architecture of any site, thereby contributing to the variations present, and further suggesting that it may be only a matter of time before some of the macro-scale patterns presently suggested are further undermined. Nonetheless, the defences represent the major
readily-accessible sample which indicate engineering achievement and corporate undertakings.

Since the first recognition of a defence conforming to the reconstruction of a *murus gallicus* proposed by Napoléon III, on the basis of a translation of *de Bello Gallico VII*, 23, this term has been the standard one which has been pinned on many subsequently-examined defences. There is indeed the possibility that variations have been obscured by the existence of this appellation (Furger-Gunti, 1980). It has long been recognised that Caesar's description is generalising rather than ideographic in character (Harding, 1974, 64; Furger-Gunti, 1980). This latter author has further shown that the *de Bello Gallico* text is not without its ambiguities (1980, 175-8). The case for abandoning the use of the term is concisely expressed (p.175):

"Zusammenfassend muss aber festgestellt werden, dass bis heute erst wenige Wälle entdeckt worden sind, die eine Konstruktion aufweisen, wie sie aus dem Cäsar-Kapitel herausgelesen wird: deshalb muss von seiten der Archäologie die Basis für einen sicheren Vergleich mit dem Cäsar-Text als schlecht bezeichnet werden."

A further complication has been the adoption by some authors (Cotton in Wheeler and Richardson, 1957; Dehn, 1960, 1969) of an element, the long iron spike - not mentioned by Caesar - as a type-fossil, sufficient in itself for attribution to the group. Other authors have pointed out that the nails are inessential for a defence to qualify as a *murus gallicus* (e.g. Harding, 1974), but we feel that the economic repercussions of this extraordinary unostentatious (once the work is complete) use of iron merit the separation of these nailed defences into a named category. The following compromise categorisation is therefore proposed:
A  Avaricum-type: It is clearly perverse to name a category of defences after a site which is next-to-unknown, and the main reason to retain this descriptor here is its definition and use by Cotton (1957). It is thus a substitute for 'murus gallicus' as used by Collis and Ralston (1976, type 1) and does not eliminate the 'murus-gallicus-as-wished-for' problem identified above. Whilst these ramparts must be nailed ('bolted', in Cotton's definition (1957, 175) is an unfortunate term), the discovery of these nails in themselves is not sufficient evidence for attribution to this group. Avaricum-type defences should also lack vertical timbers. The status of works flanking the entrance, where the requirements in terms of super-structures may demand substantial vertical elements, suggests that entrance works may merit separate treatment (Büchsenschütz and Ralston, 1981b, 27, No.4).

B  Ehrang-type: Essentially as defined by Collis and Ralston (1976), Furger-Gunti's objection (1980, 173) to the definition is attributable to the fact that the rear revetment face is not found in all the Continental examples attributed by Collis to this series (1975, 15-17), but as with the Avaricum type this latter feature may perhaps be regarded as optional (Buchsenschütz and Ralston, 1981b, 27, No.3).

C  Preist-Altkönig type: As defined by Collis and Ralston, 1976, following Cotton (1957) and illustrated by Buchsenschütz and Ralston, 1981b, 27, No.6. At Finsterlohr, this would seem to be the earliest of three box ramparts built sequentially on the same location.

D  Kelheim type: As defined by Collis and Ralston, 1976; Büchsenschütz and Ralston, 1981b, 27, No.8. Whilst nails do not seem to be a feature of the E examples of this series, they have been loosely associated with at least two W examples: Castillon (in Calvados) and Mont Lassois, Vix (in Côte d'Or). The evidence from
Finsterlohr (Zürn, 1977) where such a defence is attributable to Period III of the fortification is that this defence belongs late in the sequence at that site. Mont Vully, near La Tène itself, also suggests multiple use of this type of defence (Kaenel, 1981) = Pfostenschlitzmauer mit Hinterschuttüng und Queranker. In the possible French example, summarily published, from Mont Lassois, the internal earthen ramp is not explicitly mentioned, though agricultural operations may have eroded it. At Finsterlohr, Period III defence produced evidence of previously unrecorded tie-beams (Zurn, 1977), though Furger-Gunti is right in saying that they were not noted at Kelheim itself (1980, 174, fn.100); they were inferred (Collis and Ralston, 1976; Collis, 1975)

The examination of Basel-Münsterhügel has highlighted the question of the variations on these themes. Insofar as one can assign these traditions to discrete geographical areas, the presence of vertical timbers appears to be southern rather than northern within Britain, and central rather than western within Europe. This is assuredly a gross simplification, but we may worriedly note that it also corresponds with those areas where larger-scale examination of defensive architecture is more normal. Vertical timbers in wall fronts extend as far N as Castle Point, Troup, Aberdeenshire (Greig, 1972; Megaw and Simpson, 1979, fig.7 : 54) and walls of purely horizontal timbers, constructed on the Rostbau and Kastenbau techniques are only recorded in the E. With the exception of the Neolithic example at Moulins-sur-Céphons, the Kastenbau device is not recorded W of the Wittnauer Horn (Duval and Büchsenschütz, 1979, fig.6).

The main trend, as new excavation evidence appears, is for evidence of diversity to accumulate, in terms of variant architecture
between sites, as well as within-site variation. In this latter regard, the discovery of 'Avaricum' defences on the peripheries of some of the Loire département forts, but not apparently in the main defence, may be significant. Wheeler also noted rather different constructional styles in some of the subsidiary works at Huelgoat, Finistère (Wheeler and Richardson, 1957).

Acknowledgement of the existence of such variety immediately provokes two sets of problems. One concerns the overall utility of typology as a helpful approach to rampart constructions, and needs to tackle the interrelated problem of 'mixed' rampart types. A second, directly related to this, is concerned with questions of chronology.

E 'Mixed' types

For the moment, we share Furger-Gunti's reluctance to over-classify these too firmly. Amongst known, and potential sites, the best documented are Swiss or German. The Basel rampart at one stage combines elements of the Avaricum type (longitudinals and transversals spiked together), of the Kastenbau (with regard to the vertical arrangement of the superimposed layers of timber) and of the Kelheim Pfostenschlitzmauer type, with substantial vertical timbers displayed in the outer wall-face. A similar disposition, though lacking any evidence of nails, is to be found in the Period II defence at Finsterlohr (Zürn, 1977). An earlier variant on the same theme is suggested by the defence of the area around the N gate of the Heuneburg which effectively presents an Altkönig-Preist type with the addition of internal longitudinal timbers (Bittel et al, 1981, Abb.269), and is to be dated late in the Hallstatt period. Further variants are suggested, of late date, though perhaps consisting of multi-period works, as for example at Bern-Engehalbinsel (Furger-Gunti, 1980, No.108).
In the circumstances, overclassification of the French examples with vertical posts - including the following sites:

- Castillon, Calvados
- Fou-de-Verdun, Lavault-de-Frétoy, Nièvre
- Macon, Saône-et-Loire
- Mont Lassois, Vix, Côte d'Or

and the 'muri gallici' examined by the Wheeler expedition may be premature. To classify these as 'Kelheim-mixed' does less violence to the scant evidence presently available, except in the case of the Fou-de-Verdun, where evidence is inadequate for classification.

6.2.3 Timber-laced walls: chronology and external influences

Essentially two sets of chronological problems are posed by wall constructions: one set is concerned with assessing these fortifications in terms of external influence, most vividly expressed in terms of external aggression, whether of Cimbri and Teutones, Ariovistus, or Julius Caesar and his lieutenants. A second set is concerned with questions of continuity and change in hill-fort use (best, sadly, presently recognisable from hill-fort defences) and has implications for the interpretation of these sites in the wider socio-political context of the emergence of state-level societies. Clearly we may expect such a drastic repatterning of socio-political organisation to find concrete support from a perceptible change in between-site and within-site patterning. In both these cases, it is palpably evident that there is a major risk that the archaeological evidence will tend to be bunched close to that period for which historical evidence is strongest and for which change, devoid of the need to rely on defective archaeological data (a sample grossly biased by the selection of sites for examination in relation to the Gallic war) can be propounded.
With regard to the question of the relationship of hill-fort defences to the conduct of the Gallic War, there is now much less evidence that particular forms of defence can be neatly related in toto to the decade of that struggle. Clearly, the Fécamp style of defence is one eminently suited to counteract the particular threats posed by the Roman military machine, and there is evidence that some of those were constructed fairly close in date to the Caesarian war. The internal rampart at Vieux-Laon, Aisne (Lobjois, 1965) is perhaps a better candidate than the Wheeler expedition examples where Sir Mortimer was caught between two stools: contrary arguments of refuge-function—therefore—little—occupation and little—use— (as of the entrance passage at 'Duclair') therefore—close—to—the—Conquest (Hawkes, 1958). But the realisation that dumps were being added to much earlier box ramparts (as at Amboise, Indre-et-Loire, and Aubusson, Creuse) means that such banks may have a rather earlier start date, without us presently being able to offer any precision in this regard.

A further chronological pointer is offered by those cases where banks are secondary to nominally La Tène III Avaricum-type defences. Levroux, Indre, where the construction of the superjacent bank necessitated the importation onto the hill of quantities of limestone from the plain below, is potentially the most laborious modification of this kind presently known (although it has to be admitted that the examined section may be a localised repair after the destruction by fire of the earlier wall). Two possibilities amongst many which suggest themselves are that the massive dump banks are the tokens of the Gallic War, thereby allowing the Avaricum types to drift back in time. Alternatively, if the latter are to be related directly to this episode, the modifications are necessarily post-Conquest.
It is our belief that both these situations may be true in the case of particular forts, but that it is precisely here that our chronology is in need of much further refinement, a refinement which can only come from artefactual typologies worked out at regional or sub-regional level. The reason for advancing this last point is that the impact of Romanisation is better assumed to have been unequal in effect, rather than the contrary, in the first instance.

In the light of this hypothesis, post-Conquest fortifications are likely to be more widespread than previously thought. In particular, the massive dump ramparts, the maintenance of which would have been far less serious a problem than for the wood-using series, may have remained essentially serviceable for a considerable time after the Conquest. It is thus perhaps not surprising that some at least had dense if short-lived occupation sheltering behind them, as at Villeneuve-Saint-Germain, Aisne, in the decades after the Conquest. Roman Gaul was clearly not built in a day, and I doubt very much whether, reduced to using the archaeological and numismatic evidence, without the benefit of Caesar's text, archaeologists would have envisaged as wholehearted a change in the mid-first century BC as has sometimes found favour.

It is perhaps worth remarking that Caesar himself may have unwittingly exaggerated the nature of his conquest. Clearly, this was at least partially dependent on the degree of political control exercised by the political leaders accepting defeat, in turn a measure of the strength of the institutions through which they governed. I personally am far from accepting either that (i) over Gaul as a whole the Central Governments of individual states were sufficiently well-established that they could negotiate so firm a line or (ii) that the Roman Army could secure changes rapidly. These ideas will be
examined further in a later section.

In concluding this section, it seems safest to describe an intense and innovative period of defensive construction having been demonstrated for the circumcaesarian decades. A key question then becomes the need to try to show whether this pattern of hill-fort construction and use can be taken back in time.

The argument that the Avaricum-type defences surrounding the 'oppida' represented a return to fortifications after a period of disuse has essentially been ex silentio as far as W France is concerned. It has been compounded of various factors, including the reliance on Provençal evidence for the late dating of that series of defences, archaeological inability to recognise a 'La Tène II' domestic assemblage (where quantification and closer concern for stratification may alleviate the problem considerably), and the shortage of independent isotopic dating. Although we are as yet unable to demonstrate continuity in hill-fort construction on any scale across the centuries preceding La Tène III (Ralston, 1981, 36-9), evidence is beginning to become more plentiful to suggest that the landscape of W France was not completely devoid of enclosed settlements in the fourth to second centuries.

Parts of the assemblage from Châteaumeillant, Cher, may be attributable to La Tène II (Büchsenschütz, pers. comm.). Both La Tène II and earlier material is known from Bourges, but primarily from burials, and principally from the S of the environs of the Cathedral hill, which the Avaricum of the mid-first century BC is supposed to envelop (Ralston, 1972, lxxx-lxxxiii, No.6). A La Tène II date has also been suggested for some of the evidence from Essalois (Loire) (No.70 below), and for one stage in the defences at Etival-Clairefontaine in Vosges (No.108). Fortified sites with definite occupation evidence
attributable to La Tène I are rare. In E France, the Camp d'Afrique, Messein, Meurthe-et-Moselle, appears to have been occupied at this period, and a key site, the Kemmelberg, just over the frontier in Belgium, appears to have been a major, palisaded enclosure at this time (van Doorselaer, Levroux Colloquium, 1978; Mons-Bavai colloquium, 1982). To the E of Limousin, the promontory fort enclosed by a stone wall at Lijay, Débats-Rivièrè-d'Orpra, Loire, appears to have an occupation restricted essentially to La Tène I, on the basis of limited sondages (Béfort and Béfort, 1970; Gallia, 31, 1973, 520-1; 33, 1975, 543). Radiocarbon dates suggesting construction in the fourth-second centuries BC may be advanced for Châtelet d' ETAules, Côte d'Or, period III (No. 28 below) Erquy in Côtes du Nord (No. 38 below) and Amboise in Indre-et-Loire (No. 62 below). More dates are however needed.

As suggested in earlier work (Collis and Ralston, 1976; Ralston, 1981), a numerically important component in the native background to the great fortifications of the terminal decades of independent Gaul is the series of defences which have been vitrified or calcined. In some cases, these enclose substantial areas and, as such, would merit fuller examination in the context of looking for the native background, socio-political as well as architectural, to the major late forts. The bank of Sénéret, Quincay, Vienne, economically isolating 25 ha. surrounded by a meandering river, is a case in point.

Most of the key arguments in relation to these are as stated in Ralston (1981) and here we have been concerned primarily to update and revise the distributional evidence available to us. The point about misidentification of calcined and vitrified stonework has been reinforced in particular by Nicolardot's careful re-examination of certain of the Cote d'Or examples (1973 onwards) (Nos. 28, 29, 33 and
36 below) and other examples may now be considered suspect. Nonetheless, we remain convinced that, in general, the distribution maps bear witness to the destruction by fire of a set of timber-laced forts, in particular geological formations and in particular firing circumstances, and by no means restricted to a narrow time-segment, as Brothwell and his collaborators claimed for Scotland (1974). The inconclusive comments which terminated the contribution of Youngblood et al (1978) appear altogether more appropriate in indicating what can be deduced from the scientific evidence as presently mustered.

Furthermore, we have been able to provoke limited vitri- faction in a timber-laced wall of essentially Ehrang configuration by fire (Büchsenschütz and Ralston, 1981b; Ralston, unpublished), this despite unfavourable circumstances - a newly-built and rain-wettened rampart, wind from the wrong direction and limited time. The wall was still alight when dismantling had to take place, more than twenty-four hours after the external fire had been ignited.

In the light of the evidence as it presently stands, we would predict that the population of French vitrified and calcined forts includes not only late La Tène types with transversal timbers, but also their precursors (as well as some potentially more recent works). We suggest that the destruction of such defences by fire, calculated on the part of attackers or accidental on the part of defenders, would have been spectacular, and may well have been attempted as such for symbolic reasons (in the case of a successful attack) as for any other.

Despite all this evidence, despite the better-known Hallstatt precursors, and despite the fact that architectural defences make the use of Provençal comparison (and the terminal date of 120 BC they appear to offer) inappropriate, it is nonetheless reasonably clear
that the available evidence suggests that the Avaricum and Kelheim-mixed types of rampart do not appear to precede La Tène III in France, although it has to be admitted that few of them are adequately dated. It is also clear that some walls, as suggested years ago by Cotton and Frere in their examination of the Camp du Charlet, Ussel, Corrèze (1961), were still being constructed in the post-Conquest decades.
6.2.4 Early fortifications in France with evidence of timber recorded from the defences

This listing follows that used by Ralston (1981), but adds new information from excavations, or at least information new to the author. Only sources additional to those cited in the above paper will be mentioned.

1. AISNE, Montigny-L'Engrain (1)
   Le Châtelet
   (Jorrand, 1978, 70)
   The case for this site being a 'murus gallicus' on the basis of Vauville's account may be sustained despite Cotton's doubts. Avaricum type.

2. AISNE, Saint-Thomas (2)
   Vieux-Laon/Camp des Romains/Camp de César
   (Jorrand, 1978, 68)
   The entrance associated with the 'murus gallicus' (Avaricum type) is a Zangentor, further strengthening the late La Tène attribution.

3. ALLIER, Bègues (3)
   Un-named site.
   Material from this site appears in part to pre-date the Conquest. However, Mr. J-P. Daugas is sceptical that the vitrified wall ever constituted a fortification (pers. comm., 1981).

4. AVEYRON, Millau (4)
   La Crête de la Granède
   The timbers appear to have been grooved to fit together better.

5. CALVADOS, Banville (5)
   La Burette.

6. CALVADOS, Castillon (6)
   Oppidum de Castillon
   Nails associated with a wall with vertical timbers are paralleled at Mont Lassois, VIX.

7. CALVADOS, Saint-Désir/La Motte (7)
   Camp du Castellier
   (Lemaître, 1978)
   More recent estimates of the size of this major site place it nearer 200 ha. Avaricum type.

8. CALVADOS, Soumont-Saint-Quentin (8)
   La Breche au Diable/le Mont-Joly.

9. CANTAL, Coren
   Puy de la Fage
   (BSPF, X, 1913, 286: Déchelette, 1913, 706.

10. CANTAL, Escorailles (9)
    Un-named site
    (Déchelette, 1913, 706)
11. CANTAL, Mauriac (10)
Vieux-Château at hamlet of Escoalier
Although, as noted previously (Ralston, 1981, Nos. 9 and 10),
this may be the same site as No.10 above, there is some
evidence to suggest that the two neighbouring communes may
each contain a vitrified site. The Vieux-Château is less
than 0.5 ha. in extent.

12. CHARENTE, Mouthiers-sur-Boeme (11)
Un-named site.

13. CHARENTE, Soyaux (12)
Camp de Recoux.

14. CHARENTE, Voeuil-et-Griget (13)
Fort des Anglais/Camp de la Pierre-Dure
The evidence for calcination extends along the entire length
of the bank, whose dimensions are given as 210 m long, 5-6 m
high, and 25 m wide. The area of this promontory fort is c. 3 ha.

15. CHARENTE-MARITIME, Saint-Sévérin-sur-Boutonne
Le Châtelier
(Gabet, 1965, 148)
'Murus gallicus' defended fort which has produced italic
amphorae: probably Avaricum type.

16. CHER, Bourges (14)
'Avaricum' (? 26-70 ha.).

17. CHER, Chateaumeillant (15)
Les Fossés Sarrasins (c. 18 ha.).

18. CHER, La Grouotte
Camp des Murettes/de César (c. 4 ha.)

19. CORREZE, Lamazière-Basse (17)
Le Châtelet
See main text.

20. CORREZE, Monceaux-sur-Dordogne (18)
Puy-du-Tour
See main text.

21. CORREZE, Monceaux-sur-Dordogne (19)
The Chastel, le Puy Grasset
See main text.

22. CORREZE, Saint-Geniez-ô-Merle (20)
Puy de Sermus
See main text.

23. CORREZE, Saint-Pardoux-le-Vieux (21)
Château de Confolent
See main text.
24. CORREZE, Ussel (22)
Camp du Charlat
See main text.

25. COTE D'OR, Alise-sur-Reine (23)
Mont-Auxois/'Alesia'
Mangin (1976, 4 and Fig.4) illustrates the widely-spaced settings for vertical timbers in the outer face of this wall. Comparisons may be made with Basel (Furger-Gunti, 1980, 179).

26. COTE D'OR, Bouilland (24)
Le Châtelet.

27. COTE D'OR, Crecey-sur-Tille (25)
Camp de Fontaine-Brunehaut.

28. COTE D'OR, Etaules (26)
Le Châtelet
(Nicolardot, 1982)
Presently undergoing re-excavation, this site may already have been enclosed in the middle neolithic. Re-occupation seems to have occurred from the tail-end of the bronze age (Bronze final IIIb). The principal defence consists of an 80 m long rampart, isolating a steep-sided promontory, some 8 ha. in area. The earliest rampart examined to date has produced both carbonised remains of horizontal timbers and post-holes for vertical timbers of a palisade on its upper margin. Associated with this rampart was an iron derivative of a 'lac du Bourget' type bronze arrowhead. Associated pottery carried a range of decorations, including graphite and paint. The subsequent iron age rampart appears to have adopted the line of the breastwork for its dry stone outer face. Although a small quantity of timber was found associated with Guyot's "chaux calcinée" in the upper part of this wall, this latter material was demonstrated to be natural. There are two C¹⁴ dates for carbonised wood from this second wall
Ly - 1811 : 2650 ± 130 bp
Ly - 1812 : 2570 ± 130 bp
A third period of construction using horizontal timber in a narrow wall, some 2 m 30 wide, succeeded this. Although there are three more recent dates for occupation charcoal within the site
Ly - 1813 : 2360 ± 160 bp
Ly - 2090 : 2310 ± 160 bp
? : 2090 ± 140 bp,
the associated assemblage is firmly of First Iron Age character.

29. COTE D'OR, Flaverignot (28)
Mont Afrique
Kruta's excavations produced no indication of internal timber-lacing in a substantial dry-stone wall, modified and rebuilt in gallo-roman times, which isolated a promontory 8.6 ha. in extent. The calcination reported earlier may be very localised.

30. COTE D'OR, Gevrey-Chambertin (27)
Château-Renard.
31. COTE D'OR, Lavilleneuve (30)
    Le Bois Vert
    Not mapped.

32. COTE D'OR, Plombières-les-Dijon (31)
    Bois-Brulé.

33. COTE D'OR, Val-Suzon (31)
    Le Châtelet-de-la-Fontaine-au-Chat
    (Nicolardot, 1978)
    This site appears to have two principal periods of use, Bronze
    final III/Hallstatt ancien and Gallo-Roman. It is to the latter
    period that an extensive spread of burnt material overlying the
    primary rampart may be attributed.

34. COTE D'OR, Vertault (32)
    'Vicus vertillum'
    Recognised last century (de Caumont, 1868), the essence of the
    argument for the late date for this elaborate 'murus gallicus'
    is expressed by Gallia (16, 1958, 309), which describes it as
    "alliant la technique gauloise à la perfection romaine". Avaricum
    type.

35. COTE D'OR, Villeberny (33)
    L'Haut-Mont.

36. COTE D'OR, Vitteaux (34)
    Camp de Myard.
    This site should be eliminated in the light of Nicolardot's work.
    Not mapped.

37. COTE D'OR, Vix (35)
    Mont Lassois
    (Gallia, 11, 1953, 312-3 : Joffroy, 1979).
    There would appear to be two separate periods during which timber
    was used in the defences at Mont Lassois.
    (i) The S. "levée de terre", one of the celebrated antennae
    running down to the Seine (Joffroy, 1960, planche 1), appears to
    have been constructed on a layer of carbonised material, above
    which the stones were intermittently rubefied or calcined. It is
    possible that this represents a timber foundation raft for a bank,
    now spread to a maximum of 20 m in width and 2 m high.
    (ii) Joffroy (1979, 38 and 204) publishes further evidence of the
    later la Tène rampart on the site. At one location (Gisement IV),
    the lower courses of the wall were located over a distance of
    c. 9 m, and the wall proved to be c. 8 m thick. The stone used
    in the construction appears to have been Etrochey limestone.
    Although iron spikes were located on top of this sector of wall
    (on the W. side of the upper plateau), no indications of internal
    timberwork were recorded. The external wall-face was punctuated
    at distances of 0.8 to 1.2 m by the channels for vertical timbers,
    0.2 m across. Although described by Joffroy as the result of the
demolition of a 'murus gallicus' (and it is possible to cite a
parallel for the absence of timberwork in the basal part of the
wall at the Puy-du-Tour), the surviving evidence might rather
suggest a Kelheim type. Elsewhere (Joffroy, 1979, 204) the iron
spikes (0.16 - 0.23 m) long are described as having been found
primarily in front of this vertical suite of timbers: the
disposition recalls that recovered at Castillon in Calvados.
The layer overlying this defence produced *inter alia* a Nauheim fibula and a potin coin (BN 9078: variant) attributed to the Leuci.

38. COTES DU NORD, Erquy (36)
Cap d’Erquy.
Both ramparts of this coastal promontory fort have been sectioned. Although containing fragments of charcoal from the core of a dry-stone faced wall, the inner defence, le Fossé Catuélan, does not appear to have been timber-laced. The charcoal is associated with food remains and may be accountable as debris redeposited from an earlier settlement: the charcoal produced a $^{14}C$ date of $2500 \pm 110$ bp (GIF - 715) (Giot, Briard and Avery, 1968). It was subsequently suggested that charcoal from the summit of this rampart might represent "les restes d’un lacs de boisage médiocrement préservé" (Giot and Briard, 1969, 30). The second line of defence, le Fossé de Plédran Garenne, enclosing 35 ha. rather than the 15 ha. of the earlier defence, produced much more extensive evidence of timber-lacing, in the form of both transversal and longitudinal timbers from a 2 m-wide cut. The inner-wall-face had a longitudinal timber incorporated in the stonework (Giot and Briard, 1969, Fig. 3), contrastingly the longitudinal timber associated with the outer wall face seems to be positioned in front of this. One timber produced a $^{14}C$ date of $2270 \pm 110$ bp (GIF - 1302). The presence over a short distance of a length of stone wall fronted by a ditch in front of this defence was also attested. Magnificently dismissed by Giot and Briard (1969, 35) as "une sorte de ligne Maginot au sens péjoratif du terme", this latter defence, formally undated, may perhaps be attributed to the period of the Gallic War. In spite of the limited nature of the excavations, the significance of this site in terms of the integration of timber-laced with other forms of defence (for the Fossé Catuélan shows two phases of reconstruction) may begin to be appreciated.

39. COTES DU NORD, Plédran (37)
Camp de Peran.

40. CREUSE, Aubusson (38)
Les Chastres
See main text.

41. CREUSE, Budelière
Saint Marien or Sainte Radegonde
See main text.

42. CREUSE, Linard (39)
Château-Gaillard
See main text.

43. CREUSE, Pionnat (40)
Châteauvieux
See main text.

44. CREUSE, La Souterraine
Bridiers
Extremely doubtful records of a timber-laced rampart
See main text.
45. CREUSE, Saint-Dizier-la-Tour (41)
   Butte de la Tour-Saint-Austrille
   See main text.

46. CREUSE, Sainte-Feyre (42)
   Le Puy de Gaudy
   See main text.

47. CREUSE, Thauron (43)
   Site du bourg
   See main text.

47a. CREUSE, Vidaillat
     Motte du Château
     See main text.

48. DORDOGNE, Coulounieux-Chamiers (44)
   There are clear problems in the definition of the evidence for this site: the earliest reference to a 'murus gallicus' here is in the compilation article of de la Noë, 1887. He baldly lists (p.330) the commune of Coulounieux as one of a series of 'murus gallicus' defended forts, which otherwise includes Vertault, Saint-Marcel-de-Félines, Avesnelles, and the camp de la Ségourie, Fief-Sauvin, as well as Bastédon in Belgium. Cotton (in Wheeler and Richardson, 1957, 207) reports other commentators on the site, including Imbert (1894, 145-8, no.6) who refers to the site as the "plateau de la Boissiere". This, and Viré's statement, suggest that the appropriate site is the oppidum de la Curade (Chevillot, 1981b, 121-3), rather than the other major fort, Ecorneboeuf, in the same commune. Both these sites were examined in the XIXth century, and both produced evidence of La Tène occupation. La Curade has recently been re-examined (Gallia, 35, 1977, 456-7; Chevillot, 1981b) during the partial destruction of its rampart, which contains re-deposited La Tène III occupation material (discussed in connection with the Fécamp dump ramparts), but there is no mention of the constituent elements of a 'murus gallicus'. The site must remain a doubtful example of the 'Avaricum type' category.

49. DORDOGNE, Saint-Médard-d'Excideuil (45)
   Castel Sarrazi
   (Bareau, 1882 : Imbert, 1894, 146-8)
   This promontory fort, first described by Bareau, appears to be approximately 3-4 ha, in extent (Hardy, 1882). It is enveloped on three sides by the river Loire. At least two separate and heavily vitrified works are represented, including the 30 m-long 'motte' which defends the easiest approach to the site. Traces of the former positions of timberwork were recognised in the vitrified masses (Hardy, 1882). Whist this author was prepared to accept the site as 'celtic', excavation in 1883 appears to have been unhelpful in dating the site and, in Imbert's view, the remains were too complex for a protohistoric work.
50. **DOUBS, Myon (46)**  
Châtelet de Montbergeret.

51. **DROME, Le Pègue (47)**  
La colline Saint-Marcel.

52. **EURE, La-Fréneuse-sur-Risle/Livet-sur-Anthou (48)**  
La Berquerie  
Not mapped.

53. **EURE-ET-LOIR, Sorel-Moussel (49)**  
Fort Harrouard  
The likelihood must be that the calcined timbered wall is more recent than Philippe suggested, and either the late Bronze Age or late La Tène periods, both of which supplied extensive debris, may be postulated. The site extends to 8 ha. (Collis, 1975).

54. **FINISTERE, Ergué-Armel (50)**  
Beg-ar-Castel.

55. **FINISTERE, Huelgoat (51)**  
Le camp d'Artus.

56. **ILLE-ET-VILAINE, Landéan**  
Le Poulailler  
(Wheeler and Richardson, 1957, 113-4 and fig.32)  
This site was visualised as the central oppidum of the Redones, some 50 ha. in extent, and incomplete at the time of the Conquest. Plate XLVIII in Wheeler and Richardson (1957) presents the sole field evidence - a brief stretch of coarse masonry - that this may be a 'murus gallicus'. The site may meantime be discounted. Not mapped.

57. **ILLE-ET-VILAINE, Saint-Coulomb (52)**  
Pointe du Meinga.

58. **ILLE-ET-VILAINE, Vieux-Vy-sur-Couësnon (53)**  
Oppidum d'Orange.

59. **INDRE, Levroux (54)**  
Les Tours.  
Contra Nash (1978a, 191-2), the dump rampart at Levroux overlies the 'murus gallicus'. The putative outer line is undated, see Büchsenschütz and Ralston, 1975, figs.2-3 : Avaricum type.

60. **INDRE, Meunet-Planches (55)**  
Le Camp de Corny  
The source for our inclusion of this site amongst the potential 'murus gallicus' defended forts is usually judicious (Buhot de Kersers, followed by Ralston and Büchsenschütz, 1975, 13). Dr. J. Allain has since photographed this site as a cropmark from the air (Büchsenschütz, pers. comm.). It appears to be c. 1 ha. in extent. Presently, there seems little in favour of displacing this site to Brives, pace Nash (1978a, 195). Mapped as having produced nails.
61. **INDRE, Moulins-sur-Céphons**

Les Châteliers

(Duval and Büchsenschütz, 1979: Büchsenschütz and Ralston, 1981a, b)

Although often attributed to the later pre-Roman Iron Age, (Ralston and Büchsenschütz, 1975; Nash, 1978a) partly on account of the coin hoard from the same commune, and partly on account of Augustan sherds collected from the interior, the principal defence of this 10 ha. fort has been shown to be very much older. Although of Kastenbau construction, this has produced radiocarbon dates of 3720 - 70 bp (GIF-5113) and 3700 - 70 bp (GIF-5112) from one beam in the wall. A sondage in the interior has produced essentially chalcolithic material.

62. **INDRE-ET-LOIRE, Amboise**

Les Châteliers

(Gallia, 30, 1972, 381; 36, 1978, 278; 38, 1980, 328-9; Büchsenschütz and Ralston, 1981a, b; Peyrard, 1981)

This 52 ha. promontory fort lies between the Loire and its left-bank affluent, the Amasse, and is subdivided by a subsidiary rampart which isolates about 10 ha. towards the apex of the promontory, where the celebrated Renaissance chateau is located. The site has long been known to have potentially very rich late La Tène/gallo-romain précoce deposits. A section through the outer defence (Büchsenschütz and Ralston (1981a, fig.4) shows the initial stage of this to have consisted of a timber-laced rampart, overlying a Hallstatt Ancien/Moyen burial: the timbers have produced a C14 date of 2240-60 bp. The characteristics of this timber framework are presently unclear. Amboise is of particular interest in view of the fact that both this line of defence and the inner rampart are 'Fécamp' in type according to their surface form.

63. **INDRE-ET-LOIRE, Rochecorbon**

Butte de la Folie

(Mangard, 1973: Büchsenschütz and Ralston, 1981a)

A salvage excavation at this site, necessitated by house construction, revealed sufficient evidence to suggest that a 'murus gallicus' defined by twin dry-stone facings some 7 m apart, is present. One iron spike recovered in this work is illustrated by Mangard (1973, 207, no.5). Avaricum type.

64. **JURA, Cernans (56)**

Le Grandchamp.

65. **JURA, Champagnole (57)**

Eperon de Boyise.

66. **JURA, Mesnay (59)**

Roche-Maldruc.

67. **JURA, Montmirey-la-Ville (60)**

Le Mont-Guérin.

68. **JURA, Rahon (61)**

Le Mont-Ceint.
69. **JURA, Salins (62)**
Camp du Château-sur-Salins
(Härke, 1979, 100 : Piroutet, 1930)
Piroutet's recovery of calcined material appears to have been restricted to a length of about 4 m on the W side of the protohistoric defence, at least part of the system being attributed by him to the Merovingian or Burgundian periods. Although the Hallstatt material from this site is the best-known, there is also urnfield occupation. Located at 628 m, perched on a cliff edge, and less than 1 ha in extent, this site appears topographically extremely different from 'classic' Fürstensitze like Mont Lassois.

70. **LOIRE, Chambles (63)**
La Ruthe/le Palais à Essalois
Still no evidence that this is a 'murus gallicus' defended fort. Nails reported, but their association with the defensive architecture is not certain.

71. **LOIRE, Machézal**
Crêt-Châtelard
(Bouttet in B SPF, 9, 1912, 432-49 (CEEPFA 48th report).
Vitrified material, but not certainly related to a fortification.

72. **LOIRE, Pérignieux**
Pic-de-la-Violette
(Bouttet, as no.71)
A plateau at altitude 650 m is described as being partially enclosed by 'faibles muralles et blocs vitrifiés'.

73. **LOIRE, Saint-Alban-des-Eaux (64)**
Châteaulux
(Bouttet, 1912, as no.71, 441)
This diminutive fort, backed onto a rocky scarp, was partially excavated in 1907 on the instructions of Déchelette. It measures approximately 50 m x 17 m. Vitrified material was recovered, as well as charcoal, identified as oak, but no small finds apart from medieval sherds, which were not considered significant, were made. The mention of iron nails, amongst other items, including iron blades, and bronze objects comes from a source regarded by Bouttet (1910) as unreliable.

74. **LOIRE, Saint-Georges-de-Baroille (65)**
Le Châtelard de Chazi.

75. **LOIRE, Saint-Marcel-de-Félines (66)**
Crêt-Châtelard
Recent work has been concentrated on pits in the interior of this site, and the material produced suggests occupation from the mid-first century BC for two centuries.

76. **LOIRE, Saint-Maurice-sur-Loire (67)**
Jouveure(s)
At 75 ha, this site is bigger, by a factor of 10, than the other well-known oppida of Loire département. The only

Continued ..........
reference to a 'murus gallicus' comes from the discovery of iron nails in 'terrassements' by an early excavator (Cotton, in Wheeler and Richardson, 1957, 206-7). Collis (1975, 181) was not convinced that a 'murus gallicus' had been demonstrated, but as much of the defence appears to consist essentially of earth (Besset and Périchon, 1964, following Jeannet), it is doubtful whether further information would have been recovered in excavations of this period. Interestingly, this is the sole Massif Central site unequivocally accepted as possessing a 'murus gallicus' by Daugas and Malucher (1976, 748). Mapped as 'nailed'.

77. LOIRE, Villerest (68)
Le Château-Brûlé de Lourdon
(Bouttet, 1912, as no.71, 444-5).
2 ha. promontory fort, the principal defence of which has a vitrified core. Compared by Bouttet to no.73, this site has only produced evidence of Neolithic flint-working.

78. LOIRE-ATLANTIQUE, Vue (69)
Vue.

79. LOT, Cras (70)
Murcens (140-150 ha.)

80. LOT, Luzech (71)
L'Imperial.

81. LOT-ET-GARONNE, Agen (72)
Plâteau de l'Ermitage.

82. LOZERE, La Fage-Montivernoux (73)
Puy de la Fage
Possible confusion with no.9.

83. MAINE-ET-LOIRE, Fief-Sauvin (74)
Camp de la Ségourie.

84. MAINE-ET-LOIRE, Saint-Hilaire-du-Bois (75)
La Grosse Motte de la Madeleine.

85. MANCHE, Le Petit Celland (76)
Le Châtelier.

86. MANCHE, Saint-Jean-de-Savigny (77)
Le Grand Câtel
Still no confirmation that this is a 'murus gallicus'. Mapped as vitrified, although this does not appear to have been confirmed.

87. MARNE, Chéminon
La Cité
(Lepage, 1980, 172-3)

Continued ..........
87. (continued)

The ultimate source for the existence of a 'murus gallicus' at this site appears to be Maxe-Werly, who recorded the presence of nails, comparable to those from Boviolles, from the N bank of a promontory fort. This bank, some 80 m in length, cuts off a promontory above the marshy valley of the Buxenelle. Mapped as 'nailed'.

88. MARNE, Suippe
Camp militaire
(Villes, Mons-Bavai Colloquium, 1982)
A palisade encloses this 4 ha. settlement site, which dates from Hallstatt final to La Tène Ic.

89. MAYENNE, Loigné-sur-Mayenne (= 78)
Les Caduries
(Lambert et al, 1977)
Vitrified.

90. MAYENNE, Saint-Jean-sur-Mayenne
Chateau-Meignan.

91. MAYENNE, Sainte-Suzanne (= 80)
Site du Château
The vitrified material from this commune is located under the castle at Sainte-Suzanne itself and not from the Camp Anglais (contra Ralston, 1981).

92. MEURTHE-ET-MOSELLE, Champigneulles (81)
La Foursasse.

93. MEURTHE-ET-MOSELLE, Essey-lès-Nancy (82)
La Butte Sainte-Geneviève
(Deyber, 1981, 94, fig.5)
Extensively settled oppidum, dating to La Tène II-III according to Deyber. Evidence of burning of the rampart is still observable on the W side of the site (pers. observation, 1981).

94. MEURTHE-ET-MOSELLE, Messein (83)
Camp d'Affrique at Ludres
(Deyber, 1981, 95, fig.6)
Occupied La Tène I-III (Deyber) : Hallstatt final-La Tène I
(Millotte, J.P. et al, 1976, 60-1 and fig.22).

95. MEUSE, Naix-aux-Forges (84)
Boviolles
(Gallia, 38, 1980, 417)
Re-examination of the rampart structure in 1978 suggested that this was a complex structure: further nails were found. The suggestion may be supplemented by reference to the section prepared for de la Noë (1887) and by field observation on an admittedly overgrown E defence of this substantial (c. 50 ha.) promontory (pers. Observation, 1981). Both suggest that the final disposition of the principal defence corresponds to a classic Fécamp type. Avaricum type.
96. MEUSE, Sorcy-Saint-Martin
Côte-Saint-Jean
(Barthélemy, 1890 : Gallia, 30, 1972, 360)
This hill of c. 11 ha. in a meander of the Meuse to the SE of Sorcy was examined by Barthélemy who recovered iron spikes from the rampart. La Tène III pottery has been recovered near a gallo-roman temple complex on the summit (= Millotte, 1965, no.246).

97. MORBIHAN, Arzon (= 85)
Bilgroix
(Gallia, 33, 1975, 344)
A sixth century Merovingian halberd-axe was recovered from the site of this now-destroyed rectangular fortification.

98. MORBIHAN, Landerant
Kervarhet
(Gallia, 35, 1977, 346)
An irregularly circular fort, diameter c. 200 m, has produced evidence of vitrification.

99. MOSELLE, Lessy (86)
Un-named site.

100. NIEVRE, Lavault-de-Trétoy (87)
Le Fou de Verdun
The interpretation of this complex fort appears not to be secure.

101. NIEVRE, La Machine (88)
Le Vieux Château de Barbarie,

102. NORD, Avesnelles/Flaumont-Waudrechies (89)
Le Câtelet
This severely-quarried fort of 13.6 ha. was certainly defended by a 'murus gallicus' as numbers of nails were recovered in the XIXth century, including 150 from the SW corner in 1825. Superimposed layers of carbonised wood were also noted. Some of the nails are curated in Avesnes museum (visited 1982). Avaricum type.

103. OISE, Choisy-au-Bac
Le Confluent et la Bouche d'Oise
(Blanchet and Decornelle, 1980 : Andouze et al, 1981, 73-5 and fig.8)
The earthen bank which defined the E margin of a settlement of 10-15 ha. at the confluence of the Aisne and the Oise has conserved evidence of a timber superstructure. The principal period of occupation appears to have been at the transition late Bronze Age/first Iron Age. Not mapped.

104. OISE, Gouvieux (90)
Camp de César
(Jorrand, 1978, 70 : Andouze et al, 1981, 67-9 and fig.5)
104. (continued)

At 47 ha., this promontory fort at the confluence of the Oise and the Nonette is the largest in the département of Oise. Old records of the 980 m long NW bank, still up to 8 m high, note the presence of internal timberwork in the form of carbonised beams and calcined stonework. Despite the many claims that have been made, the site has revealed evidence of neither nails nor stone facings, and the claims that this is a 'murus gallicus' cannot be sustained meantime. A second phase of defence involved the placing of a substantial overburden of limestone over the earlier, but undated, rampart.

105. ORNE, La Courbe (91)
Château-Goutier, Le Haut du Château
(Lioult, 1978)
One of two promontory forts in this commune exhibits signs of vitrification.

106. PUY-DE-DOME, Bourg-Lastic (92)
Un-named site.

107. PUY-DE-DOME, Châteauneuf-les-Bains (93)
Montagne de Villars
(Pommerol, 1884a, b)
This site appears to have been extensively altered to allow agriculture in the vicinity. The vitrified material comes from a 14 m long wall, forming one side of a rectangle (15 m x 7 m) surrounding a stony mound. In view of the small scale of the feature, it may perhaps be discounted as a protohistoric fortification.

108. PUY-DE-DOME, Le Fayet-Ronnaye
Tumulus Dissard
I am grateful to M. J-P. Daugas for bringing this site to my attention. Claimed as the funerary remains of a Druidic Pope-King, much to the amusement of Déchelette (L'Anthropologie, 16, 1905, 418), the site, published by Canon Dissard (Revue du Collège-Héraldique - Rome, March 1904) appears to have consisted of alternating layers of charcoal, calcined stone and debris described as human remains. It may safely be discounted as a fortification. Not mapped.

109. HAUT-RHIN, Hartmannwiller (94)
Fitzethanne
This site, on a spur of the Vosges overlooking the Rhine valley, appears unlikely to have survived some of the bloodiest fighting of the Great War. Nothing could be found amongst a tangle of trenches, bunkers and rusting barbed wire in the vicinity of the French war cemetery at Vieil-Armand (1981).

110. HAUT-RHIN, Illfurth (95)
Britzgyberg
(Härke, 1979)
Use of this site appears to span the period Ha C to early La Tène. It extends to 3 ha.
111. SAONE-ET-LOIRE, Macon (96)
'Matisco'
The vertical posts should perhaps rather be interpreted as the remains of a previous fortification: they lay directly behind the stone outer wall-face (Furger-Gunti, 1980, fn 124).

112. SAONE-ET-LOIRE, Saint-Léger-sous-Beuvray (97)
Mont Beuvray/'Bibracte'
I am grateful to M. J-P. Guillaumet for the information that Déchelette's notebooks record his objections to the diagonal timbers in the 'murus gallicus' at Mont-Beuvray: in essence, he considered them to be a figment of the imagination of the draughtsman who drew the reconstruction, and it is certainly difficult to envisage any structural benefit that, as there illustrated, they would provide. Against this, however, is the evidence presented by Cotton (in Wheeler and Richardson, 1957, 192). Avaricum type.

113. HAUTE-SAONE, Bourguignon-les-Morey (98)
Un-named site
(Härke, 1979, 104; Bouillerot, 1905, 122-3; Joffroy, 1979)
This 3 ha. site was classified by Härke as an 'ordinary hillfort' in contrast to the Fürstensitze: both the Dictionnaire Archéologique de la Gaule, I, 1867, 188 and Bouillerot (1905) quote 17 ha. as the enclosed area. The finds from the 1862 excavations, executed under the instructions of Napoleon III, produced essentially Hallstatt material, with some evidence of gallo-roman re-occupation. The defences include antennae running down from the site to encompass external springs, as at Mont Lassois. At the SW, the Bouillerots found evidence of calcination in a stone bank some 3 m thick. The external antennae are located on both the SW and NE of the principal camp.

114. HAUTE-SAONE, Noroy-les-Jussey (99)
Un-named site.
(Bouillerot, 1905, 126)
This 2.5 ha. fort is recorded as having walls radiating from the main enclosure à la Mont Lassois. There are indications of calcination of the defences.

115. DEUX-SEVRES, Coulon-Sausais
Coteau de Montigné
(Pautreau, 1978; 1981, 107-11)
A sequence of palisade trenches, apparently forming a rectangular pattern (from air photograph evidence), appear to subdivide a settlement site comprising post-holes, hearths and pits and hollows. Trial excavations of both settlement and palisade produced abundant pottery of late Bronze Age/first Iron Age type. The disposition of the palisades does not appear to be defensive. The site occupies about 12 ha. on a slight rise about 25 m above the marais Poitevin, and appears to represent the re-occupation, circa Hallstatt ancien, of a site previously enclosed in the late Neolithic.
116. VAR, Le Luc (100)
La Fourerette
(Arcelin, 1976, 671: Plan in Gallia, 27, 1969, 453-4)
Although described by Arcelin as a 'murus gallicus', the W
ear external tower of this small plateau-edge fort produced no
evidence of nails, although transversal and longitudinal
timbers were recorded. Finds from the interior are sparse,
and the site is undated.

117. VAR, Le Muy (101)
Colle du Rouet.

118. VIENNE, Aslonnes (102)
Camp-Allaric
(Pautreau, 1981, 105-6, 111)
Pautreau (1981, 111) appears to accept this defence as having
been calcined.

119. VIENNE, Lussac-les-Chateaux (103)
Camp de Cornouin.

120. VIENNE, Quinçay (104)
Sénaret
(Imbert, 1895, no.17; Tauvel, 1973; Pautreau, 1976)
This major site, of about 40 ha., occupies a meander in the
R. Auzance. The rampart drawn across the narrow neck of this
showed indications of calcination. The wagon burial, just
outside the camp, may include pottery comparable to that from
the fort, but the assemblage is now mixed (Tauvel, 1973, 237).
The fort seems already to have been occupied in the Hallstatt
ancien (Pautreau, 1976, 774), but the fortification itself is
undated and excavation appears to have been limited to
sondages in 1884.

121. HAUTE-VIENNE, Dournazac (105)
Montbrun
See main text.

122. HAUTE-VIENNE, Jabreilles-les-Bordes
Le Châtelard
See main text.

123. HAUTE-VIENNE, Oradour-sur-Vayres
Les Chalards
See main text.

124. HAUTE-VIENNE, Saint-Denis-des-Murs (106)
Villejoubert
See main text.

125. HAUTE-VIENNE, Saint-Julien-le-Petit (107)
Rochein
See main text.

126. HAUTE-VIENNE, Sereilhac
La Baisse
Vitrified stone, not associated with fortification.
See main text. Not mapped.
127. VOSGES, Etival-Clairefontaine (108)
La Pierre d'Appel/Côte de Repy
(Deyber, 1981, 96, fig.7 plan : Gallia reports from 26, 1968 biennially through 38, 1980, 431-2)
The most recent reports on this small (2 ha.) fort record the presence of a La Tène II rampart with internal timberwork, this latter perhaps intermittent, fronted by an 8 m-wide flat-bottomed ditch. In early La Tène III (La Tène D1) this was replaced by an earth-and-stone wall with a crenellated palisade claimed for its upper surface (Gallia, 36, 1968, 344), this defence being subject to subsequent modification at the transition La Tène III/Gallo-roman précoce and in the late second and early third centuries AD. The above remarks refer to the principal, W, defence. A much less imposing defence delimits the remainder of the circuit of the site. At the junction of these two systems (section B2) nails have been recovered at the junction of carbonised horizontal planks: this part of the work, at least, set between two wall-faces would qualify as a 'murus gallicus' of Avaricum type. Visited 1981.

128. VOSGES, Housseras
Un-named site.
The presence of a wall of Preist type is recorded (Deyber, Mons-Bavai Colloquium, 1982).

129. VOSGES, Moncel-sur-Vair
Le Châtel
The site described by Millotte (1965, 101, no.168) is a substantial fort lying E of the castle at the village of Moncel, itself on the E bank of the R. Vair. This major fort encloses about 20 ha. and the principal defence, at the SE end of the plateau, consists of a bank c.200 m long and 6-10 m high. The site has produced celtic and roman coins and the nails typical of 'murus gallicus' construction.

130. VOSGES, Saint-Dié (109)
La Bure-Tête du Villé
(Gallia, 36, 1978, 344-6; 38, 1980, 432-4)
A sketch of the 'murus gallicus' is provided in Gallia (36, 1978, 345, fig.19). The wall, fronted by a ditch, appears to have been 6.75 m thick, with the transversal timbers, each of which ran approximately half the width of the wall, joined to a longitudinal timber running medially. Loosely associated with this wall- they were found at the foot of the internal wall-face, but the stratigraphic relationship is not further elucidated - were a Nauheim fibula, potin coins attributed to the Leuci and the Lingones, and pottery including at least one sherd of Campanian. Avaricum type.

131. YONNE, Saint Florentin (110)
Mont Avrillo(t)

132. YONNE, Saint-Moré (111)
Camp de Cora.
Sites reported as vallified or calcined (excluding motte).
6.2.5 Dump ramparts

Paul-Marie Duval's influential distillation of Wheeler and Richardson's *Hill-Forts of Northern France* (Duval, 1959) has bequeathed to French archaeological literature the unfortunate appellation "type Belge" to describe that series of ramparts originally defined by the English as the "Pécamp type", and visualised as being a prerogative of the Belgic peoples to the NE of the middle reaches of the Seine. The essential characteristics of this series are well-known and consist of a massive dump bank, without indications of structural stonework or internal timberwork, and fronted by a broad, flat-bottomed ditch of canal-like proportions. In the Wheelerian view, these could be fitted into the historical context offered by Caesar's campaigns, and Caesar's reference to Noviodunum of the Suessiones as being defended in this way offered support for this view (de BG, II, 12), assuming this name refers to Pommiers in Aisne. Although one or two of the series in the Belgic area show evidence of somewhat earlier occupation - La Tène II for example has been claimed at the Cité des Limes, Braquemont, Seine-Maritime (Mangard, 1969) - in essence the series remains attributable to the late La Tène, though in the case of Pommiers, we do not know whether the "Newcastle" name had been given to it many years or only a matter of months beforehand (Desbordes, 1975b, 47-8: in his sketch of Pommiers, fig.3 bis, the ditch and rampart have been reversed). Hawkes (1958, 158-9) also percipiently remarked on the lack of evidence for tight dating to the period of the Conquest.

Although Castagné (1874, 447) had already noted the essential characteristics of the Pécamp series, there was nothing in print until the 1970s to suggest that the type was other than north-eastern, and it was subsequently used by Hachmann et al (1962, 46-7)
in the tighter definition of Belgium, although by 1975, in the face of newer evidence, this hypothesis was collapsing, as Hachmann (1976, 134-5) acknowledged.

The first unequivocal publication of a dump rampart of the appropriate specification well to the S of the 'Belgic area' was due to A.H.A. Hogg (1969, 262) and by 1972 I was able to list ten examples to the S of the Seine, the majority in Berry, where fieldwork had produced several examples (Ralston and Büchsenschütz, 1975; Collis and Ralston, appendix 2, in Collis, 1975, 232-3). Excavations at Levroux, Indre (Büchsenschütz and Ralston, 1975) confirmed a pattern whereby dump ramparts, some of the true Fécamp specification, i.e. fronted by a ditch of the required shape and size, could be demonstrated to be secondary to walls with internal woodwork. The four key examples appeared to be:

AISNE, Saint-Thomas, Vieux Laon (Ralston, 1981, no.2, with previous bibliography). Lobjois excavations (1965) demonstrated that the internal Fécamp rampart was secondary to a 'murus gallicus' of Avaricum type.

CHER, Châteaumeillant, Les Fossés Sarrasins (Ralston, 1981, no.15, with previous bibliography). Fécamp rampart secondary to Ehrang type, itself overlying occupation evidence.

FINISTERE, Bueilgoat, Camp d'Artus (Collis, 1975, 197 and 232; Ralston, 1981, no.51). Dump rampart, with internal revetment, overlying 'murus gallicus' of Avaricum type. A secondary rampart also appears to be of dump construction.

INDRE, Levroux, Les Tours (Ralston, 1981, no.54). Dump rampart of imported limestone, overlying 'murus gallicus' of Avaricum type.

Evidence that dump ramparts of Fécamp specification are more widespread than previously suggested has continued to accumulate, and it is now possible to go beyond those mapped in the most recent French discussion (Kruta in ed. Duby, 1980, 213, fig.135 : essentially following Collis and Ralston, appendix 2). Accepting that dump
ramparts are an acceptable and efficient way of refurbishing defunct fortifications (Avery et al, 1967; Ralston and Büchsenschütz, 1975; Büchsenschütz and Ralston, 1981b, 28; Ralston, 1981, 83-4; Cunliffe, 1978, 255, 282-3 for British evidence) as well as providing efficient defence against the technology of Roman militarism, this wider distribution would be easy to accommodate in any model of cause-and-effect involving the Roman advance but that, in the light of our uncertainty over chronology, would be oversimplistic. There is at least the possibility, in the light of late datings for some of the British series of Fécamp ramparts, notably the post-Conquest date for Silchester/Calleva, that at least some of the French series may be post-Conquest (Büchsenschütz and Ralston, 1975; Duval and Büchsenschütz, 1976, 800), as stratigraphic evidence, for example from some of the sites mentioned above, may be construed to suggest. Contrastingly, liberated from any need to link such fortifications to the chronology of external aggression, it is clearly possible that some dump ramparts are considerably older.

Whilst it is certainly true that the particular form of the ditch associated with classic Fécamp ramparts may be efficient in terms of construction (by minimising vertical lift: Ralston and Büchsenschütz, 1975, 15-6) and in military terms - in keeping Roman siege machinery at a distance - it is also possible to suggest that geology may have provided a contribution to the controls on efficient ditch construction: the classic Fécamp form of ditch is essentially restricted to sedimentary deposits - Miocene, Eocene and Cretaceous N of the Seine, Jurassic in Berry - possibly easier to quarry in this fashion. Elsewhere V-profiled ditches are sometimes recorded - Villejoubert in Haute-Vienne is a case in point - and this may be a function in part of geological control, although La Cheppe in the
Marne, again with a V-profiled ditch, may be the exception which proves the rule.

At the moment, it is probably unwise to make much of the distribution of the dump ramparts, and the following corpus may be taken solely as giving an indication of the potential spread. Not the least of the problems, in consulting the literature, is the scale of the works implied by a qualitative vocabulary which is extremely imprecise. Two salient points may however be mentioned. First, the classic' Fecamp configuration is found across the size-range of forts from small works like Luant, Indre, through to 'major oppida'. Second, there will certainly be more examples, most easily recognised by surface fieldwork, not least in the zone examined by the Wheeler team. Jorrand (1978) suggests that the list for Picardy might be expanded quite considerably, depending on how the criteria are applied.

Jorrand (1978, 68-9) notes the following potential examples excluded by Wheeler: Vermand, Mareuil-Caubert and Villeneuve-Saint-Germain, as well as Bailleul-sur-Therain, and remarks that some examples included by Wheeler, notably Vic-sur-Aisne and Pommiers, seem to have internal stone walls. The following list should therefore be regarded as exceedingly tentative, and far from complete:
6.2.6 List of massive dump banks, primarily of the Fécamp series

1. AISNE, Condé-sur-Suippe/Guignicourt/Variscourt
Vieux-Reims, le Mur de Rome.
The principal surviving sector of the defences of this 70 ha. site at the confluence of the Aisne and the Suippe is the massive earthen bank 'le Mur de Rome' to the NW of Variscourt. Surface collection in 1957 and 1967 produced La Tene III material, and limited excavations in the late 1970s in the interior have produced abundant evidence of settlement with industrial activity, showing an organised lay-out, and paralleled at Villeneuve-Saint-Germain. The suggested lifespan of the site is 50 - 25 BC. (Gallia 37, 1979, 305). The ditch outside the bank does not survive as a surface feature, but the *Dictionnaire* comments that it seemed to be organised such that it could be flooded easily.

2. AISNE, Mondrepuis
Le Castelet
(Daussé, 1975)
A 35 ha. promontory fort isolated by a rampart fronted by a broad ditch may belong to this series.

3. AISNE, Muret-et-Crouttes
Camp de César
(Wheeler and Richardson, 1957, no.87: Cotton, 1961,113).
Fécamp type: c. 16 ha., apparently with inturned entrance.

4. AISNE, Pommiers
Noviodunum of de BG II, 12
Fécamp type: c. 40 ha. with evidence of stone revetting to rampart from Vauville's excavations. Evidence of occupation, and also from the foot of the site, 1/d la Robinette (Gallia, 37, 1979, 300-1) is post-Conquest.

5. AISNE, Saint-Thomas
Vieux-Lon
(Wheeler and Richardson, 1957, no.89: Lobjois, 1965).
Fécamp type internal bank, possibly completed post-Conquest.

6. AISNE, Vic-sur-Aisne
Le Chatel, Ambleny.
Fécamp type with possible stone revetment: c. 8 ha.

7. AISNE, Vermand
Vermand
Massive dump rampart, enclosing c.15 ha., preceded by a wide ditch: doubtfully Fécamp type.
8. AISNE, Villeneuve-Saint-German
Les Grèves
(Jorrand, 1978; Ilett et al, 1981, 201-6 with fig.1, sketch plan).
The earthen bank cutting off the meander of the Aisne in which the presently-excavated settlement site of les Grèves is located has been claimed as a potential Fecamp example. The bank, now very reduced, has not been examined during the recent work (pers. observ., 1981).

9. ALLIER, Hérisson
Camp de Chateloy
(Ralston and Büchsenschütz, 1975, 9-10)
Fecamp type: c. 20 ha.

10. CALVADOS, Cambrerer
Camp des Anglais
(Wheeler and Richardson, 1957, no.55).
Although not attributed to this series by the above authors, the dimensions put forward for this c 2 ha promontory fort suggest that it is a particularly strong possibility. The rampart is described as dominating the ditch bottom by 30 ft. (10 m) and the ditch is described as being 60 ft. broad (20 m).

11. CHARENTE, Challignac
Un-named site
(Dictionnaire Archéologique de la Gaule I, part 2, 1876, 256: Imbert, 1894, Charente list no.24).
This example is included primarily because Imbert commented on the massiveness of the enclosing bank. This is reported as 10 m high and 20 m wide at the base, enclosing an area about 446 m in diameter, approximately 15 ha.

12. CHER, Châteaumeillant
Les Possés-Sarrasins
(Ralston and Büchsenschütz, 1975, 11)
Fecamp type, 18 ha., over Ehrang type.

13. CHER, Moulins-sur-Yèvre
Camp de Vercingétorix/des Monts
(Ralston and Büchsenschütz, 1975, 12).
Fecamp specification bank and ditch, drawn across a low promontory, and probably unfinished.

14. CHER, Sidailles
Camp de César
(Ralston and Büchsenschütz, 1975, 12).
Fecamp specification bank and ditch, with inturned entrance, c. 16 ha.

15. CREUSE, Aubusson
Bois des Chastres
Clay dump over burnt timber lacing.
See main text.
16. **DORDOGNE, Coulouneix-Chamiers**  
La Curade  
The main bank of this site, possibly a *murus gallicus*, shows clear evidence of late La Tène material being dumped over the top of it. The enclosed area is c.35 ha.

17. **EURE, Saint-Pierre-d'Autils**  
Le Goulet/Le Trou Anglais  
(Wheeler and Richardson, 1957, no.62)  
Fécamp type, c. 10 ha.

18. **EURE, Saint-Samson-de-la-Roque**  
Camp des Anglais  
(Wheeler and Richardson, 1957, no.61)  
Probably of Fécamp type, c. 100 ha.

19. **EURE, Vernonnet**  
Le Vernon  
(Wheeler and Richardson, 1957, no.63)  
Fécamp specification.

20. **FINISTERE, Gouesna'ch**  
Saint Cadou  
(Wheeler and Richardson, 1957, no.21)  
The sole reason to include this small promontory fort is that it is described as possessing a bank 100 ft. (= 30 m) wide. The enclosed area is less than 2 ha.

21. **FINISTERE, Huelgoat**  
Camp d'Artus  
(Ralston, 1981)  
Secondary dump bank, undated, over 'murus gallicus' of Avaricum type.

22. **INDRE, Levroux**  
Les Tours  
(Büchsenschütz and Ralston, 1975)  
Secondary dump bank over 'murus gallicus' of Avaricum type.

23. **INDRE, Luant**  
Les Pornins  
(Ralston and Büchsenschütz, 1975, 13)  
Fécamp style defences with inturned entrance around a rectangular fort which falls within the size-range of Viereckschanzen.

24. **INDRE, Murs**  
(Ralston and Büchsenschütz, 1975, 13)  
The bank described above is fronted by a broad flat-bottomed ditch giving the typical Fécamp configuration to this 15 ha. fort.

25. **INDRE, Saint-Marcel**  
Les Mersans/"Argentomagus"  
(Ralston and Büchsenschütz, 1975, 14 : Collis and Ralston, in Collis, 1975, appendix 2)  
A dump rampart has been sectioned on the periphery of the 27 ha. plateau, but there is no indication of a ditch.
26. **INDRE-ET-LOIRE, Amboise**

Les Chatelliers


This promontory fort is of particular interest in that both the outer and inner defences (enclosing 52 ha. and c. 10 ha. respectively) conform to the Fécamp specification, being preceded by wide flat-bottomed ditches. The initial stage of the outer rampart consists of a timber-laced wall, over which at least two suites of additional material had been cast before the upper surface was finally sealed with clay, this last action having a La Tène III fibula associated with it.

27. **LOIR-ET-CHER, Millançay**

Le Camp Romain

(Ralston and Büchsenschütz, 1975, 14)

Full Fécamp specification for a low-lying fort of 5 ha.

28. **LOIR-ET-CHER, Neung-sur-Beuvron**

Les Monts/'Noviodunum'? (Ralston and Büchsenschütz, 1975, 14, 17 : Nash, 1978a, 198)

Full Fécamp specification for a low-lying fort of c. 10 ha.

29. **LOIRE, Saint-Marcel-des-Félines**

Crêt-Châtelard

(Collis, 1975, 181)

The surface topography of the principal defence of this site corresponds closely to the Fécamp model (personal observation, 1980).

30. **MARNE, La Chapelle**

Le Camp d'Attila/Vieux-Châlons


The defences of this low-lying site are heaviest away from that part of the circumference where the man-made bank has the ruisseau de la Noblette flowing below. The principal bank is 4 m 75 high and is flanked from W through N to E (Anon., 1976, fig.2 : plan) by a second rampart. The intervening ditch is V-shaped and 6 m deep. The area enclosed is c. 21 ha. Desultory excavation in the XIXth century and recent finds (Gallia, 29, 1971, 295) suggest a La Tène III date. Cotton described the defences as of Wheathampstead type on account of the profile of the ditch, and this series forms a minor component of the late La Tène dump ramparts.

31. **MAYENNE, Moulay**

Site du bourg

(Gallia, 38, 1980, 385-6)

This quadrangular plateau of c. 12 ha., overlooking the valley of the Mayenne to the NW and the valley of the Aron on the S, is defended on its NE side by a crescentic rampart of earth and stone, 20 m wide at its base, 6 m high and established on a basal layer of fired clay. This rampart retains traces of an external stone breastwork. La Tène III material has been
31. (continued)

recovered from the basal part of the rampart: the ditch has not been examined. The internal occupation evidence is not plentiful: the site is suggested as the capital of the Aulerci Diablintes.

32. MEURTHE-ET-MOSELLE, Foug
La Motte du Château
(Beaupré, 1902: Millotte, 1965, 78, no.95)
Although extensively damaged by quarrying and by the construction of a later castle, enough survives of the principal rampart of this promontory fort to suggest that it should be attributed to the Fécamp series. The bank, drawn across the promontory approximately 250 m from its apex, is 7 to 8 and a maximum of 10 m high, and has a basal width of c. 20 m. The ditch which fronts this is a maximum of 20 m wide (Beaupré, 1902, plan fig.5), but the entire complex of bank-and-ditch is less impressive at both its E and W ends.

33. MEUSE, Naix-aux-Forges
Bovicelles, 1/d le Châtel
(de la Noë, 1887, figs.20 and 21)
The 'murus gallicus' of Avaricum type from this site is well-established, cutting off the c. 50 ha. of le Châtel. However, this wall is enveloped in a more substantial bank-and-ditch combination of Fécamp type. De la Noë (1887, fig.21) clearly illustrates this in a profile (surely the first clear illustration of the Fécamp configuration?) showing the bank with a basal width of 35 m dominating the bottom of a flat-bottomed ditch, of basal width of 15 m by 8 m. Fieldwork in 1981 confirmed the essential accuracy of de la Noë’s account. Here, too, the Fécamp bank (including much stone) must represent secondary refortification.

34. MEUSE, SORCY-SAINT-MARTIN
Le château de la Côte-Saint-Jean
(Beaupré, 1909: Millotte, 1965, 121, no.246)
Following Beaupré's account, there would appear to be sufficient evidence to suggest a Fécamp bank over the 'murus gallicus' at this site. Beaupré describes the bank as reaching 30/40 m in basal width, for a maximum height of 6-7 m, preceded by a ditch 20 m broad and 3 m deep (figures followed by Millotte) across the easiest access. This would parallel the sequence noted elsewhere.

35. NORD, Etrun-sur-Escaut
Camp de César
(Leman-Delerive et al, 1980, 42-6, no.29)
Full Fécamp specification (fig.6) for a fort of approximately 12 ha. The rampart appears to have been constructed of chalk rubble.

36. OISE, Bailleul-sur-Therain
Le Mont César
36. (continued)

Contour fort of about 35 ha. edged by a dump rampart much mutilated by quarrying which Jorrand suggests may belong to the Fécamp series. Finds from the neolithic on are known, but La Tène material is not plentiful.

37. OISE, Béthisy-Saint-Martin
Le Barillet
(Gallia, 31, 1973, 332 : Audouze et al, 1981, 69 and fig.2.2)
Promontory cut off by a ditch, 30 m wide and 5 m deep (of Fécamp proportions), but not accompanied by a bank. Internal features have been the subject of a sondage and the assemblage recovered suggests post-Conquest occupation.

38. OISE, Gouvieux
Camp de César
(for bibliography, see timber list no.104)
A secondary dump rampart has been thrown over a burnt timber-laced rampart: this latter is undated. The ditch fronting this bank has been infilled.

39. OISE, Saint-Pierre-en-Chastres
Le Vieux Moulin
(Blanchet, 1978 : Wheeler and Richardson, 1957, no.83)
This fort, cosmetically modified by Viollet-le-Duc, includes at least one apparently genuine dump rampart, scraped up from the interior. It encloses a little over 26 ha. and is formed of earth and stones, primarily the limestone of the plateau (plan in Blanchet, 1978, 33). A recent sondage (Gallia, 31, 1973, 340-1 : Blanchet, 1978) suggests that the initial form of this dump rampart may be attributable to Bronze Final IIIa. The amount of La Tène III/gallo-romain précoce material represented is much slighter, but the recovery of early sherds from the bank suggests that it may have been modified in La Tène III, though this has not been satisfactorily demonstrated.

40. PAS-DE-CALAIS, Etrun
Camp de César
42 ha. fort defended by much decayed rampart of dump construction. The ditch has been infilled.

41. PAS-DE-CALAIS, Noyelle-Vion
(Leman-Delerive and Lefranc, 1980, 52-4, no.44)
8 ha. fort surrounding the village. The profiles suggest that the defences may belong to the Fécamp series.

42. SEINE-MARITIME, Bracquemont
Cité de Limes
(Wheeler and Richardson, 1957, no.73 : Mangard, 1969)
The Fécamp type rampart here may originally have enclosed c.55 ha. The ditch has been substantially eroded by ploughing. There are the decayed remains of what is probably an earlier rampart inside the fort.
43. **SEINE-MARITIME, Caudebec**
Camp at the east of the commune
(Wheeler and Richardson, 1957, no.67 : Cotton, 1961, 112)
Damaged remains of a fort, c. 6 ha, with defences of Fécamp type.

44. **SEINE-MARITIME, Caudebec**
Camp de Calidu
(Wheeler and Richardson, 1957, no.68)
The surviving portions of this fort, c. 30 ha, appear light
by the usual standards of the Fécamp series, but the overall
configuration suggests a possible bivallate variant on the
scheme.

45. **SEINE-MARITIME, Huelgeville-sur-Scie**
Un-named site
(Wheeler and Richardson, 1957, no.74)
3 ha. promontory fort, rather more slightly defended than is
usual in the class.

46. **SEINE-MARITIME, Incheville**
Camp de Mortagne
(Wheeler and Richardson, 1957, no.75)
Fécamp series, c. 12 ha.

47. **SEINE-MARITIME, Saint Pierre de Varengeville**
Les Portes de la Ville/Le Câtelier
(Wheeler and Richardson, 1957, 75-83 and no.70 = 'Duclair' : Cotton, 1961, 112).
Promontory fort of 10 ha. above the Seine : sondages under
way by the Wheeler expedition at the outbreak of war indicate
a Fécamp defence, with the rampart retaining slight traces
of a revetment. Occupation evidence was slight.

48. **SEINE-MARITIME, Sandouville**
Camp de César
(Wheeler and Richardson, 1957, no.65)
Fécamp defences : c. 85 ha.

49. **SEINE-MARITIME, Toussaint**
Camp du Canada (= 'Fécamp')
This fort, at a little over 20 ha., was the principal example
of the Fécamp series to have been examined by the Wheeler
expedition. As Hawkes demonstrated, there is a certain
amount of ambiguity in the way the authors attempt to
demonstrate that this fort can be related tightly to the
Caesarian advance.

50. **SEINE-MARITIME, Veulettes**
Le Tombeau de Gargantua
(Wheeler and Richardson, 1957, no.72)
Fécamp defence to an eroded coastal fort.
51. SOMME, La Chaussée-Tirancourt
Le Grand Fort/Camp de César
(Wheeler and Richardson, 1957, no.79 : Pernoud, 1979, 20
for Agache AP).
Massive bank and ditch of Fécamp type isolate this promontory
fort of c. 25 ha.

52. SOMME, L'Etoile
Le Castelet
(Wheeler and Richardson, 1957, no.78 : Pernoud, 1979, 23
for air photograph)
10 ha. contour fort defended by a bank but accompanied by a
ditch more akin to the 'Wheatampstead' series.

53. SOMME, Liercourt-en-Erondelle
(Wheeler and Richardson, 1957, no.77 : Gallia, 21, 1963,
Substantial fort of 32 ha., defended by defences of Fécamp
proportions. A further camp, defined by rectilinear ditches
from the air, lies on the W beyond the second, smaller ditch
noted by Wheeler. This produced pottery of the "extrême fin
de l'Indépendance" and coins of the Ambiani, which should not
pre-date 57 BC.

54. SOMME, Mareuil-Caubert
Camp de César
(Wheeler and Richardson, 1957, no.76 : Jorrand, 1978)
A damaged, but substantial site, potentially attributable to
the Fécamp series.

55. VIENNE, Chatillon-en-Couhé
(Hogg, 1969, 262)
Fécamp defences to a promontory fort.

56. HAUTE-VIENNE, Saint-Denis-des-Murs
Villejoubert
See main text.
Potentially Wheatampstead series, secondary to murus gallicus.

57. HAUTE-VIENNE, Saint-Gence
Camp de César
See main text.
Fécamp type?

58. VAL D'OISE, Taverny
Le Haut Tertré/le Camp de César
37, 1979, 346-7 : plan 35, 1977, 332)
Plateau fort of c.9 ha., with principal defences on the E.
These consist of a principal rampart, surviving up to 6 m
in height, fronted by a 20 m-wide ditch, 3 m deep, with a
second slighter bank and ditch in front of this. At the
back of the rampart is a rectangular "Viereckschanze"-like
enclosure with use beginning in Bronze Final. It has been
suggested that the main bank may pre-date this, but the
configuration looks a dead ringer for a Fécamp example.
Internal occupation of La Tène II-III is attested.
MASSIVE DUMP RAMPALETS, PRIMARILY OF THE FÉCAMP SERIES: A SPECULATION
6.2.7 

**Hill-fort defences: conclusions**

This selective consideration of hill-fort defences allows us to make the following points under the guise of conclusions. They challenge or, more usually, reinforce a challenge to the following 'conventional wisdoms' (Waddington, 1977, 16 and fig.1a, 1) without, in some cases at least, being able to offer much by way of substitution, beyond a direct negative.

(i) There is no evidence for the construction and/or use of hill-forts between the end of the Hallstatt period and La Tene III in central and W France.

(ii) Hill-fort defences were not maintained or constructed after 50 BC.

(iii) Hill-forts were abandoned in 50 BC.

(iv) The typology of defensive architecture can be correlated ethnically with the peoples mentioned by the classical authors.

(v) The 'murus gallicus' is the standard anti-Roman device in non-Mediterranean Gaul.

(vi) There is a direct correlation (e.g. 'murus gallicus' = urbanised) between the type of defences and the nature of the occupation.

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6.3 

**Quadrangular enclosures and the problem of Viereckschanzen**

"Ihre Deutung schwankt zwischen Wehrbauten rein militärischer Art, befestigten Meierhöfen, bewehrter Viehkralen, und Bauten für ein unbekanntes kultisches Brauchtum."

(Schwartz, 1958, 203)
6.3.1 Introductory discussion

In 1908, Dragendorff noted the similarity between the rectangular enclosure at Bouillancourt-en-Séry (Somme) and those known in the Celtic areas of Germany. These latter, he remarked, were invariably characterised by finds of objects at the end of the La Tène period. Since that time, subsequent work in Germany and particularly in Bavaria (Schwartz, 1959, 1962, 1975) has tended to stress the interpretation of these sites as religious places, and there has been a considerable feeling (Büchsenschütz and Ralston, 1981a) that this view can be transferred to the French series of known and presumptively late Iron Age quadrangular enclosures, though with certain exceptions. In contrast, workers more familiar with broadly comparable English sites have tended to envisage a more mundane role, seeing them as essentially agricultural (Cotton, 1961, 1962), although there have been moves to extend the religious interpretation to at least some of the British series (Piggott, 1968; Ross, 1967).

Guébhard, in relaying Dragendorff's remarks to the Commission des Enceintes (BSPF, 5, 1908, 431) perceptively remarked that the chronology and interpretation of these quadrangular enclosures in France was unlikely to be simple. The evidence assembled so far, locational and architectural as well as the products of excavations, suggests that his comment was not inappropriate.

Even amongst the sites initially studied by Schwartz, a considerable variety in form was already noted (1959, Blatt 152-3), with quadrangular, rectangular parallelogram, trapezoidal and indeed more complex groundplans being accepted within the class. Size range too is considerable, with internal areas extending from 1500 m² to 14,000 m² (and exceptionally 25,000 m²), although normally falling within the bracket 4,000 - 12,000 m² (Blatt, 154). Although many of
the potential French sites cluster about 1 ha. in area, this in itself cannot be considered as an adequate criterion for definitive attribution, and in certain areas where considerable numbers of rectangular enclosed sites are known, only a small proportion may be acceptable as Viereckschanzen. Thus, of the considerable series of rectangular sites in Morbihan inventoried by André (1959), Büchsenschütz (1978, 290) accepted only four as being likely Viereckschanzen.

This is not the place to rehearse in detail the arguments, systematised by Schwartz (1959, 1962), for the acceptance of these monuments as both 'cult centres' and late La Tène in date, but attention must be drawn to those factors which may be of significance in assessing whether the sites of Limousin may be included within this class.

First, rectilinear enclosures of varying scales appear to have fulfilled rôles in the funereal and ritual spheres in later prehistoric western Europe. The evidence, as it stood some years ago, is summarised by de Laet, van Doorselaer and Desittere (1966) and Piggott (1968). Amongst the various categories of monument discussed there, the Viereckschanzen seem to be chronologically unexceptionable, taking a wide enough geographical perspective. In N France, small rectangular enclosures have long been recognised as a characteristic element of the protohistoric funereal apparatus. In recent years, examples have perhaps been particularly examined in the Ardennes, for example at Ville-sur-Recourne and Ménil-Ardennes (Gallia, 31, 1973, 400-2). Other micro-scale features of rather different conception may help complement this picture, as at Mont Lassois, where a ditch-defined enclosure (ditch 2.2 m broad and 1.2 m deep) enclosed a stone stela (Gallia, 26, 1968, 489-90; Joffroy, 1979, 203) and associated artefacts dated the construction to La Tène II. Other rectangular enclosures are known in the vicinity. A postscript to the series may
be preferred by the Gräbgärten of the Rhineland, discussed by Decker and Scollar (1962).

As regards the Viereckschanzen themselves, Schumacher's excavations at Hardheim Gerichtstetten, Baden-Württemberg, juxtaposed by Deglatigny (1925, Pl.V) with site plans from monuments in the Paris Basin, establishes a trend which has only been rectified by more extensive fieldwork (Zuber, 1978) and excavation (Lambert and Rioufreyt, 1977) in France in recent years. The examination of Hardheim-Gerichtstetten had at least shown that, despite proimity to the Roman Limes (mapped in Fundberichte aus Baden-Württemberg, 6, 1981, 313, Abb.2), the site clearly predated the Roman incursion, although military usage in the light of the sparse settlement debris from the interior (Bittel et al, 1981, 346) could perhaps not be eliminated.

6.3.2 Characteristic evidence from Viereckschanzen and their environs

In essence, following Schumacher and Reinecke, Bersu (1926; Buchsenschutz, 1978, 288) had already identified many of the key characteristics of these sites in his excavations at Esslingen (Kreis Esslingen) in Baden-Württemberg (Bittel et al, 1981, 330-1). These include location on a slope, dimensions of 86 x 123 m, enclosure most developed at the corners, only one internal structure, elaborate wooden entrance, little associated material, and an internal area raised some 0.4 m relative to the surroundings. The quantity of debris from the interior recovered by excavation was too slight to indicate permanent occupation, and the surrounding landscape was too poor for agricultural use (it is now wooded: alt. c. 440 m). The likelihood of agricultural usage was further undermined by the very regularity of the enclosure form, assuredly foreign to a peasant mentality.

Bersu, swayed by the scale of the enclosing works, suggested that
military considerations may have been uppermost in shaping the nature of this site and its occupation. The argument is worth repeating since a similar factor, particularly in the case of Luant (Indre), has led us to withdraw two Berry sites from the Viereckschanze category (Büchsenschütz and Ralston, 1981a, 57). Like the Luant, Indre, example, some of the German series appear to be characterised by at least slightly inturned entrances, e.g. Mössingen, Kreis Tübingen (Rieth, 1980, 103, Abb. 57), such that in some cases uncertainty as to function, in the absence of excavation, is likely to prevail. Indeed Drda (Drda et al, 1971, 290) in a discussion based largely on the E end of the distribution further suggested that there might be some variety in the strength of Viereckschanzen enceintes, with those closest to oppida being characterised by the slightness of the height by which their enclosing bank dominated the enclosed area.

Interpretation of the sites as agricultural or military in function dominated the inter-war years, and was not superseded until the work of Schwartz, especially in Bavaria, stemming from his excavations at Holzhausen, Kreis Wolfratshausen. Even after Schwartz's re-assessment, it is possibly unwise to insist on a cult attribution for all this series (Lewis, 1966, 6), still less to equate them with the temenos, mentioned for example by Diodorus Siculus (V, 27).

Salient pointers from Schwartz's work (excluding the former presence of shafts and internal structures undetectable from surface fieldwork) would include:

1. Indifference to the defensive potential of terrain in site selection.
2. General slightness of the enclosing earthworks.
3.Absence of original entrance on the N side, the entrance falling within the same compass range as rectangular Romano-Celtic temples.

4. Sparsity of occupation debris.

5. General regularity of form.

6. Proximity of Romano-Celtic religious monuments.

7. Proximity to major late La Tène enclosed sites.

French examples may be cited which suggest that all of these criteria may be matched in the W part of the distribution of the class (Schwartz, 1975, Karte). The lack of internal structural evidence may perhaps best be suggested on the basis of the excavated triple enclosure at Azé, Mayenne (Lambert and Rioufreyt, 1977) where, despite substantial excavation, admittedly on a ploughed site, no internal structures, apart from areas of burnt clay, were detected. Here too the presence of late La Tène material essentially in the top of the ditch fills suggests that the banks may already have been substantially decayed by the end of the Iron Age.

Even the present outlier of the series on the SE at Le Terrail, Amplepuis, Rhône (Périchon, 1966), which produced abundant material from the ditch including Dressel sherds, appears to have been devoid of internal structural remains. Traces of burnt wood from the ditch are recorded, but these were attributed to a palisade which was surmised to have capped the earthen bank, constructed from the materials drawn from the ditch. Earlier excavators had emptied a well or shaft in the interior, and from this burnt pottery had been recovered. An early corpus which illustrates the regularity of form and slight defences of the series is offered by Deglatigny (1925) and the wooded bank of Parçay, Saint-Maure, Indre (Büchsenschütz and Ralston, 1981a, fig.5) brings out the 'classic' characteristics for an individual site.
However, the equation of rectangularity with a cult use is not absolute. Mordant and Mordant (1977), for example, draw attention to a set of rectilinear enclosures from the Seine-Yonne area, which they consider to have been settlement sites, although little structural evidence from their interiors is documented.

More recently (Gallia, 38, 1980, 321), the suggestion of a settlement has been advanced for one of two sites in the commune of Montreuil, Eure-et-Loir (l'â aux Longues Pièces). Here two rectangular post-defined structures have been identified within a rectilinear enceinte, but more evidence is needed before a definitive statement is possible.

The classic example to illustrate the proximity of a Viereckschanze to a gallo-Roman temple in France is probably La Londe, Seine-Maritime (Schwartz, 1962, 42, Abb.17), but another is instanced at Offremont, Territoire de Belfort, where a rectangular enclosure of this class lies about 20 m W of a small gallo-Roman temple. The enclosure has produced La Tène III sherds, and the neighbouring temple appears also to have been in use by the end of the first century BC (Rilliot, 1969, 264-70).

With regard to proximity to major late Iron Age enclosed sites, France can produce several examples, despite the smaller amount of work done to date. Within enclosed sites, the most celebrated example is probably the "Camp de Marc-Antoine" at La Terrasse, Mont Beuvray, Saône-et-Loire. The Mont Beuvray site, to the W of the Chaume du Beuvray, with its temple and 'forum' (Bulliot, 1899, Album, frontispiece) is unexcavated, but is of particular interest in view of its elevated position, even within Mont Beuvray itself, since it occupies the S and second highest summit (Drda et al, 1971, 288). Contrastingly, the rectangular enclosure backing onto the
rampart of the Camp de Cesar at Taverny (Val d'Oise) (Gallia, 33, 1975, 331 and 35, 1977, 332, fig.20) seems, on the basis of preliminary reports, to have undergone a longer sequence of use, stretching back to the late Bronze Age.

Most remarkable of all is perhaps the recognition of a rectangular enclosure within the 12 ha. fort at Gournay-sur-Aronde, Oise. The ditch of this has produced a rich series of La Tene II weapons and, within the ditch-defined enclosure, although on a slightly different axis, lies a gallo-Roman *fanum* (Brunaux, 1978, et al, 1980, figs.1 and 2).

Nearness to major oppida is also a recurrent feature, with examples near Manching, Kelheim and Finsterlohr and as far E as Staré Hradiško and Moravia being documented. In France, potential examples are known beside major fortifications from the departement of Meuse in the E to Maine-et-Loire in the W. In the former area, two are known in the same commune (Naix-aux-Forges) as the oppidum of Boviolles (Millotte, 1965, 104, no.181; Lepage, 1980, 173), whist another *'murus gallicus'* - defended fort, La Ségourie at Fief-Sauvin (49) has a possible Viereckschanze in the same commune - one of five identified from the air and tightly grouped in the W part of the département. This represents the only cluster of sites identified S of the Loire to date (Buchsenschutz and Ralston, 1981, map 6).

Contrastingly, whilst some Viereckschanzen lie within a few kilometres of fortified sites, this juxtaposition cannot be taken as an absolute rule. As an indication of possible connections with other classes of site, the Viereckschanze to the E of Neuchâtel (Switzerland) lies about 10 km from the major fort of Mont-Vully (Kaenel, 1981), but only 1 km from the site of La Tène (G-N. Lambert, pers. comm.). As Drda (Drda et al, 1971) perceptibly noted, some
examples may be related to areas of open settlement, whilst others may be in areas altogether less favourable to habitation. Those located in the Forêt de Rambouillet, on the borders of the territory of the Carnutes and the Parisii, and frequently trapezoidal in plan (Zuber, 1978) may fall into the latter category.

6.3.3 Concluding comments

For the moment, the interpretation of these small rectilinear earthworks, first intensively studied in France by Ledain (1884), as 'cult' enclosures seems acceptable for the majority of cases. But there is clearly a measure of overlap both with sites for which an agricultural function might be sustained and others where the scale of the enclosing works (and the occasional inturned entrance) suggests military use. In terms of the scale of these works, the enclosed areas of the smaller examples fall within the size range of potentially medieval enceintes. In the absence of excavation, the size of the enclosed area, proximity to other monuments, location in the landscape, and the scale of the enclosing works offer us the best, but not infallible, approach to the categorisation of these sites.

6.3.4 The rectilinear enclosures (c. 1 ha.) of Limousin

In the light of these considerations, the following Limousin sites may merit inclusion in the class:

<table>
<thead>
<tr>
<th>Site Code</th>
<th>Site Name</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>19083</td>
<td>FEYT</td>
<td>Brassey</td>
<td>Not located: a possibility.</td>
</tr>
<tr>
<td>19176</td>
<td>ROSIERS D’EGLETONS</td>
<td>Pont-Maure</td>
<td>Satisfies several criteria.</td>
</tr>
<tr>
<td>19199</td>
<td>SAINT-ETIENNE-AUX-CLOS</td>
<td>Fenuillac</td>
<td>Satisfies some criteria.</td>
</tr>
<tr>
<td>Number</td>
<td>Town</td>
<td>Village</td>
<td>Notes</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>19236</td>
<td>SAINT-PRIEST-DE-GIMEL</td>
<td>Brach</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>19256</td>
<td>SERANDON</td>
<td>La Moutte</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>23022</td>
<td>BETETE</td>
<td>Les Terrasses</td>
<td>Not located: a possibility</td>
</tr>
<tr>
<td>23032</td>
<td>BOUSSAC-BOURG</td>
<td>Montmoulard</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>23039</td>
<td>LA CELLE-DUNOISE</td>
<td>Les Chastelas</td>
<td>Not located: a possibility</td>
</tr>
<tr>
<td>23062</td>
<td>CHENIERS</td>
<td>Les Châtres</td>
<td>Very doubtful</td>
</tr>
<tr>
<td>23070</td>
<td>CROZANT</td>
<td>La Chartrie</td>
<td>Very doubtful</td>
</tr>
<tr>
<td>23083</td>
<td>FONTANIERES</td>
<td></td>
<td>Not located: a possibility</td>
</tr>
<tr>
<td>23103</td>
<td>LAFAT</td>
<td>La Ligne</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>23112</td>
<td>LOURDOUEIX-SAINTE-PIERRE</td>
<td>Lignaud</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>23176</td>
<td>LA SOUTERRaine</td>
<td>Malonze</td>
<td>Unlikely: too small</td>
</tr>
<tr>
<td>23197</td>
<td>SAINT-GEORGES-LA POUGE</td>
<td>Camp de César</td>
<td>Unlikely, unless a second site is present here</td>
</tr>
<tr>
<td>87003</td>
<td>ARNAC-LA-POSTE</td>
<td>Martineix</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>87040</td>
<td>CHATEAUNEUF-LA-FORET</td>
<td>Thouraud</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>87076</td>
<td>JABREILLES-LES-BORDES</td>
<td>Grand Vaux</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>87078</td>
<td>JAVERDAT</td>
<td>Grand Champ</td>
<td>Satisfies some criteria</td>
</tr>
<tr>
<td>87124</td>
<td>RILHAC-LASTOURS</td>
<td>Les Combes</td>
<td>Summit location makes this perhaps doubtful</td>
</tr>
<tr>
<td>87142</td>
<td>SAINT-DENIS-DES-MURS</td>
<td>Prassaud</td>
<td>Satisfies some criteria, but elevated location casts doubts.</td>
</tr>
</tbody>
</table>
SAINT-LEGER-MAGNAZEIX
Au Grand Fa
Doubtful.

SAINT-SULPICE-LES-FEUILLES
Seugé
Not located: very doubtful.

VERNEUIL-SUR-VIENNE
Viallebost
Satisfies some criteria.

VIDEIX
Camp Romain
Not located: in Charente?

It may be worth remarking, by way of tentative conclusion, that there seems to be some evidence that those Viereckschanzen not near major fortifications exhibit a tendency to be located towards the frontier of the civitas.

6.4 Open or unfortified sites and low-lying enclosures

6.4.1 Introduction

During the 1970s, the most rapid expansion in the database of the settlement archaeology of later prehistoric France must be acceded to the discovery and partial examination of lowlying and usually unfortified settlements. This may be attributed to numerous factors, principally the expansion of various facets of fieldwork, associated with the concept of 'rescue archaeology', coupled with the susceptibility of many areas - perhaps most famously the catchments of the main river basins of the North-East (Agache, 1978) - to investigation from the air. Examination of the Chronique entries in Gallia suggests, for extra-Mediterranean Gaul, an almost-exponential growth in this category of sites.

In any case, the days when potentially lower-order settlement units were unrecorded (Crumley, 1974, 79, category C b) has long gone and was hardly true at the time: the pioneering studies on Aulnat were
produced by Hatt in the early 1940s. As the database changes fundamentally in character, generalised models based on a small selection of sites (Crumley, 1974, appendix III) must be rapidly adapted to incorporate the new information.

Whilst most attention has been focused on the late La Tène sites, it is clear that open or lightly-enclosed settlements are a recurrent component of the settlement pattern of most areas of extra-Mediterranean France (e.g. Büchsenschütz, 1977a; Mordant and Mordant, 1977; Villes, 1981; Chossenot, 1981). Now that such sites are being rapidly identified, the prime questions become those related to their chorological and chronological relationships with those elements of the settlement pattern already part of the repertory. It is certainly the case that the Limousin evidence is markedly slighter than that for other areas - for example, Indre and Aisne - but it appears nonetheless, worthwhile, bearing in mind the paucity of the data for Corrèze, Creuse and Haute-Vienne, to attempt to integrate this data with the fuller picture which is beginning to emerge elsewhere.

6.4.2 Unfortified or lightly-enclosed sites in Limousin

One set of evidence deliberately excluded from this consideration are those cases where scraped-up settlement debris is incorporated in subsequent barrows or ramparts. Finds from springs are also omitted.

**CORREZE**

ALBUSSAC, Roche de Vic: Clearance heaps with sherds. Very dubious.

AURIAC, Puy de la Valette: Dressel 1 amphorae from hill-top S of the R. Dordogne.

CHASTEAX, La Grêze: stone 'cabanes'.

COMBRESSOL, La Ville en Bois: Hallstatt pits.

DAVIGNAC, L'Hort des Fades: stone 'cabanes'.
LIGNIAC, Yeux : Clearance heap with sherds of amphora.

MALEMORT-SUR-CORREZE, Roumégoux : Tène III settlement?

MARGERIDES, Les Pièces-Grandes : Pre-Conquest, religious.

MAUSSAC, La Forêt : Clearance heaps with Tène III sherds and iron slag.

MEYMAC, emplacement du bourg : Possible settlement debris.

MEYMAC, Sous-le-Chemin-de-Bois : Dressel 1 amphorae sherds.

MONCEAUX-SUR-DORDOGNE, Puy du Tour : Occupation evidence sealed below rampart. Tène III?

NAVES : Dressel I amphorae.

NOAILLES, La Page : Tène III settlement.

SAINT-CERNIN-DE-LARCHE, La Grange de Cournille : Dry-stone structures, undated.

SAINT-FREJOUX-LE-MAJEUR, La Croix Rouge : Tène III settlement.

SAINTE-MARIE-LAPANOUZE : Dressel 1 sherds.

SAINT-PARDOUX-LE-NEUF : Le Bonniefond-Sigale : Dressel 1 amphorae sherds.

SAINT-PRIEST-DE-GIMEL, Brach : Dressel 1 sherds, etc. from plateau.

SALON-LA-TOUR, La Frétille : Tène III pottery and amphorae from a possible settlement.

TARNAC, plateau de Broussas : Stone clearance heaps and cairns.

TURENNE, Les Horts : stone 'cabanes'.

USSEL, Saint-Dézéry : Dressel 1 amphorae sherds.

USSEL, Camp du Charlat : Pre-fortification occupation.

UZERCHE, Les Garennes : Dressel 1 amphorae and Tène III sherds.

VITRAC-SUR-MONTAGNE, Allas : Surface collection of Hallstatt material.

YSSANDON, Puy d'Yssandon and Puy de Chalard : Fortified (?)..

CREUSE

GRAND-BOURG-DE-SALAGNAC, La Ribbe : Tène III settlement.

THAUON, Mont de Transet : stone 'cabanes', probably medieval.

HAUTE-VIENNE

CHAILLAC-SUR-VIENNE, Lesignas : Dressel 1 amphorae plus La Tène III pot.
CHATEAUNEUF-LA-FORET, Le Chalard: Possible La Tène III settlement.

PIERREBUFFIERE, N20: Dressel 1 amphorae sherds.

SAINT-DENIS-DES-MURS, outside Villejoubert: Tène III?

SAINT-GENCE, outside La Grande Châtre: Tène III, late, settlement.

SAINT-JEAN-LIGOURE, Chalucet: Hallstatt, settlement.

In so far as there is evidence for Limousin at present, the existence of unfortified settlement appears to be a recurrent feature of the landscape of the first millennium BC. The first indications are altogether tentative: for example, the occupation debris incorporated in the mound at Augères, Creuse, (Léger, 1975, 1977), must have come from the gently undulating vicinity of the site. The best-recorded site of this first period is certainly Chalucet, at Saint-Jean-Ligoure (87), which would appear to qualify at least as a Hohensiedlung, though we may suspect that further survey and excavation might provide some evidence of enclosure. The indications are that this site continued in use at least until the beginning of the La Tène period from a start date towards the end of the urnfield period. In general terms, this span parallels that recognisable from both fortified sites (Aubusson, Crozant and perhaps Puy-de-Gaudy, Creuse) and from caves and burials. However, the amount of evidence is presently slight and generalisation on the basis of it appears hardly to be a valid exercise.

For the present, it appears impossible to do more than speculate whether this initial set of evidence is chronologically separate from the La Tène III (finale et tardive) suite, and if so by how much. In sum, the absence of a recognisable facies corresponding to the later phases of La Tène I and La Tène II affects both the funerary and the settlement records alike. We may simply
note that the kind of ceramic assemblage known from Saint-Geniez-o-Merle, Correze, lacking La Tène III elements, does not at present appear to be known from open sites. It is only with the terminal decades of Independent Gaul that a more coherent set of evidence is beginning to emerge.

6.4.3 Open and enclosed settlement in La Tène II and III (finale and tardive)

It is perhaps advisable to begin this section with a frank acknowledgement that there is a very real possibility that the vagaries of data collection are liable to have introduced an element of distortion into this discussion, for the reasons outlined at the beginning of this section. The upsurge in area excavation in the last decade has been made possible by the availability of rescue funds, linked to projects which have tended to affect low-lying sites in particular. The Université de Paris I excavations in the Aisne Valley may serve as a case in point (reports 1973 onwards; Ilett et al, 1981). Thus, the suite of evidence, particularly with regard to the finer sequencing of settlement evidence and the recovery of coherent plans, is rapidly becoming much better for the low-lying sites (e.g. Aulnat, Puy-de-Dôme; Levroux, Indre; Tournus, Saône-et-Loire) and the low-lying fortifications (Villeneuve-Saint-Germain and Vieux-Reims, Condé-sur-Suippe, Aisne) than for the 'traditional' hill-forts and 'oppida'. However, some support for the pattern that is emerging can be had by paralleling the record with sites on the Rhine, notably Basel Gasfabrik-Basel Münsterhügel (Kanton Basel, Switzerland) (Berger et al, 1981, with previous bibliography) and Breisach Münsterberg-Hochstetten (Kreis Freiburg, West Germany) (Bender et al, 1976; Stork, 1981), although these latter parallels are not wholly uncontroversial.
The most readily accessible of the French sites is certainly Aulnat-Gandaillat, Puy de Dôme, which has been under examination since the mid-1960s (Périchon and Chopelin, 1969) and where two parallel excavations are presently under way. The so-called "English area" (Collis, 1980) appears to have the longer chronological span of deposits, but the results from the two excavations are of particular interest because of the evidence which is accruing for variation both spatially and temporarily in the activities carried out on the site. Inferences have to be based essentially on the debris recovered from a series of pits, but the evidence presented by Collis seems to show marked concentrations of debris of certain kinds in a restricted number of these features. This appears particularly to be the case with the debris from coin production, although Collis (1980, 46) has noted a similar restriction in the distribution of the bone button industry. Structural evidence appears to be more plentifully available on the French site. Occupation evidence appears to extend over much of the first millennium BC, but seems to be rather slighter for Hallstatt and Early La Tène, both of which periods however have produced evidence of metalworking.

However, the fullest examination to date has been conducted on the La Tène II/III deposits, and the general tendency over the years of excavation has been for the chronology of the site to lengthen. For example, Périchon (1975) envisaged Aulnat being abandoned by 58 BC, on the basis of the southern imports: the amphorae were restricted to Dressel 1a types, and the model then in favour (Périchon, 1975, 100) placed the abandonment of the 'site de plaine' and its substitution by upland settlement in a context of a desire for increasing security.

This view bears repeating since it may serve to caution us about too-hasty attribution of other, much less well-known, sites to
particular 'historical' contexts. At Aulnat, occupation appears to continue for two or three decades after the Conquest: the Gallia interims mention pottery of 'gallo-romain précoce' (35, 1977, 425-6) and Collis discusses a range of ceramic innovations and other debris attributable to the Earliest Roman horizon (1980). The terminal date for Aulnat may now be bracketed between 40 and 20 BC, thereby approximating the span suggested for the beginning of the occupation of Gergovia.

The sequence in the Clermont-Ferrand area is, however, complicated by the existence of forts other than Gergovie-Merdogne on the margins of the Grand Limagne (Collis, 1975b, fig.2), including perhaps the most disputed site in Central France, the Côtes de Clermont (Audollent, 1933; Eychart, 1961, 1962, 1966; Busset, 1933; Collis, 1975a, b) for which a La Tène III occupation extending to at least 15 ha. (Eychart, 1962, 70) has been claimed. Thus, whilst it is perhaps reasonable to set the chronological span of Aulnat against that of Gergovie,Merdogne (Collis, 1975a, b with previous literature), it is by no means certain that the other forts of the vicinity had equally late occupations. Indeed, the lateness of the Gergovie material is difficult to square with the Caesarian account, but beyond one or two intimations of La Tène III deposits (Hatt, 1943b, 101-3), much of the evidence appears resolutely post-Conquest. We may suspect that the fact that the bulk of the excavations have been carried out near the periphery of the plateau (Grenier, 1943, 71 for plan), or on imposing Roman structures in the central area (parcelle 731, excavated 1934: parcelle 700, excavated 1935) may be of significance in suggesting that the sample excavated is clearly insufficient to abandon the notion of a La Tène III occupation on the site definitively.
Nonetheless, bearing the above caveat in mind, we may accept that the tenor of the evidence for Aulnat and Gergovie indicates the progressive substitution of the former (and its cognates) by the latter. Whilst this may be partly a reflection of political and economic change consequent upon the Conquest, it did not happen immediately thereafter. Other contributory factors, including flooding as a result of climatic decline coupled with a failure to maintain drainage systems, have been proposed (Collis, 1980, 47-8). Insofar as the latter view in part seems to require non-cooperation in agricultural tasks on one hand, and the cooperation and control implicit in the establishment of post-Conquest Gergovia on the other, we may regard it as either ominous or improbable, without being able to choose between the two as the evidence stands at present.

Little structural evidence from Aulnat has yet been published, although patterns of post-holes are amongst the features signalled from the "French area". The evidence for spatial variation, for industry and for coin production has been rehearsed in outline. The artefactual evidence is eloquent of both long-distance contacts and of more restricted trade patterns.

The initial occupation on the "French" site, attributable to La Tène II, appears to be devoid of amphora debris, and indeed of campanian sherds (Gallia, 29, 1971, 323-6) although both are subsequently recovered, the former in some quantity. Collis (1980,44) remarks that la amphorae start reaching the site in La Tène III: both Dressel I a/b and Campanian wares were recovered from the latest pits on the "English area". Other imports include Graphittonkeramik from S Germany (Périchon, 1980) and at least one vessel in 'céramique grise ampuritaine' (Périchon, 1978), otherwise not recorded beyond the S French province. Clearly, Aulnat was participating in a network
with diverse external linkages. Amongst products manufactured locally and exported sub-regionally, the 'jatte d'Aulnat' may serve as an example as it is known on sites up to 20 km from Aulnat (Collis, 1980, 47) though apparently not further afield (Vichy and Périchon, 1967, 35; Périchon et al, 1977, table 1).

Whether or not Aulnat is accepted as an 'urbanised' site depends on thresholds and where they are set. On the basis of the evidence presently published, the artefactual data (about which little quantifiable information is available) would tend to suggest an affirmative response, but the structural evidence appears less clear-cut.

Levroux, Indre, is another case where the substitution of an open site by an enclosed one is suggested by the available evidence. The sequence there necessitates the juxtaposition of the evidence from the village des Arènes, on the S of the modern settlement with the Colline des Tours on its N margin. As the information stands at present, the pattern suggested (Büchsenschütz and Ralston, 1981a, fig. 9) seems to bear witness to the same sequence as advanced for Aulnat-Gergovia, with movement upslope taking place during the circum-caesarian decades.

We may even suggest, in the light of the excavations on the fortification line on the S side of the site, that the construction of this defensive enclosure may have preceded substantial occupation of the hill-top. It is clearly a considerable leap from this evidence (largely, it should be admitted, ex silentio since there has been little excavation within the area defined by the enceinte (Büchsenschütz, 1975, 128, pl. I) to V/VIth century AD Ireland, but Olmsted (1979) provides us with graphic detail of what might have been going on within our theoretical hill-fort. Horse-racing, regal
residence, and the consumption of strong drink, at suitable seasonal
intervals, are among the possibilities. A provincial (? pagus)
gathering is described as consisting of games, horse racing, music,
trading goods and cattle, telling epic tales and conducting legal
affairs: 'for holding (the Festival of Lug) the Leinstermen were
promised corn and milk ...... tender women, good cheer in every house,
every fruit ...... and nets full of fish' (Olmsted, 1979).

Whilst the transference of this to mid-first century BC
Gaul is clearly extremely fanciful, we hope that it helps emphasise
the problems inherent in any attempt at explaining the translation of
settlement upslope during the key decades around the time of the
arrival of the Roman Army, especially since the correlation with the
appearance of this latter is by no means absolute.

A more prosaic alternative would clearly be to dismiss the
Village des Arènes as a short-lived suburb, although this incorporated
evidence of industry (e.g. fibula production and metal working more
generally), imports (Dressel la amphorae in quantity; campanian
sherds) and coin production (pellet mould fragments) (Büchsenschütz,
1981b, 1978b). Even accepting that an earlier occupation will be
found within the outer enceinte of the Colline des Tours contemporary
with the Village des Arènes assemblage, the existence of this latter in
such close proximity to the fort is likely to cause further problems
in the definition of excavation strategies devised to investigate
early urbanisation. A simple solution - that the Colline des Tours
enceinte was fully occupied - is not sustainable, since at 1/d
Le Cheval Blanc, on the N side of the hill, excavation indicates that
internal settlement did not reach the line of the fortification
(Gallia, 38, 322-3).
Elsewhere in west central France, as we have recently indicated (Büchsenschütz and Ralston, 1981a), there are at least intimations of open settlements with at least parts of the assemblage recovered from the Village des Arènes at Levroux. The debris, examined by Marquet (1974) and Maugard (1977) at Vernou-sur-Brenne (Indre-et-Loire) is a case in point. It is, however, not sufficiently close to the fort at Rochecorbon in the same département to be intimately related to that enclosure. In Indre itself, the appropriate assemblage has also been recovered from Mehun (Coulon and Poplin, 1974) in the same commune as the enclosure at Villedieu-sur-Indre (see below).

In Limousin, the external evidence from Saint-Gence and Saint-Denis-des-Murs (both Haute-Vienne) and perhaps Grand-Bourg (Creuse) may be cited as examples which fall into this category. However, it would clearly be excessive on the available evidence to argue for a wholesale shift in the settlement pattern in favour of fortified enclosures during the currency of this period.

Various arguments may be adduced in support of this assertion. First, even in Southern France, where there is perhaps less dispute about the longevity of fortified enclosures in the settlement record, open sites are known. Examples would include 1/d les Cascals, Azille, Aude, on the left bank of that river (Gallia, 33, 1975, 494) and La Muscadelle at Pinsaguel, Haute-Garonne (Gallia, 36, 1978, 403). Second, we may suspect that at least some of these low-lying sites were enclosed: the discovery of an impressive stockade at Roanne, Loire (Institution Saint Paul) may be an indication of the possibilities (Gallia, 29, 1971, 411-4). A third argument may perhaps be advanced to suggest that the riparian settlements along the Rhine, mentioned above, may themselves mirror
a particular set of circumstances, amongst which, in the case of Basel, the débacle of the move of the Helvetii may have been an important element. They may thus represent a particular regional pattern, not necessarily appropriate to areas W of the Loire. We have noted above that the coin evidence from Basel-Gasfabrik may be taken to suggest that utilisation of the site in some capacity appears to continue beyond the horizon suggested by the events of 58 BC.

In terms of recognisable planning, the clearest example in non-Mediterranean France would appear to be offered by the lay-out within Villeneuve-Saint-German, Aisne, 6 km E of Soissons (Centre de Récherches Protohistoriques, 1973 onwards). This low-lying site, enclosed by a now much-degraded bank (Jorrand, 1978) drawn across a gentle meander of the river, includes a lay-out of post-built structures, palisades, pits and cellarage (Ilett et al, 1981; Demoule, Mons-Bavai colloquium, 1982). Imports are plentiful and the native assemblage is indicative of both on-site industry (including groupings of rectilinear pits exactly paralleled in the Village des Arènes at Levroux and used for bronze-working at the latter site) and of a date range essentially confined to the post-Conquest decades. Even here, the dense settlement evidence recovered by the Université de Paris team cannot be accepted as being replicated across the entire site, as a second excavation team working in an adjacent area has found altogether sparser evidence of use (visited, 1981). If ever, to quote Wheeler, we were to admit 'the oppidum on the way to the urbs' (1957, 14) as a recognisable category, the archaeological evidence from Villeneuve-Saint-German (and the less fully explored but apparently equally late Vieux-Reims) would clearlyloom large.

Thus we may conclude by suggesting that these open sites in Limousin as elsewhere may span a range of settlement types from humble
village to units which incorporated a range of tertiary functions. We may suggest too that the presence/absence of fortifications (or indeed their subsequent addition to already existing centres) may not be of prime significance.

Some too may correspond to purely rural establishments, amongst which gradations are again likely. We may perhaps take the large hall at l/d Le Buisson Campin, Verberie, Oise, as one type (Agache et al, 1976; Andouze et al, 1981), and clearly the suite of evidence categorised as 'fermes indigènes' (Agache, 1981; Duby and Wallon, 1975) offers others. Unfortunately, for central France at least, aerial photographic evidence is again shown to be insufficient for secure dating, as excavations at Montbaron, Levroux, have shown (Büchsenschütz, 1980).

In conclusion, it is clearly premature to overclassify the Limousin evidence in terms of a hierarchy of settlements. Three examples which might be singled out as potentially having attained in some measure the complexities noted at Aulnat and Levroux would include Malemort, Corrèze; La Ribbe at Grand-Bourg de Salagnac (Creuse) and Lesignas, Chaillac-sur-Vienne (Haute-Vienne). The selection can only be based on an assessment of their location (near major rivers) and excavation at a selection of these sites is a prime requirement.
7. THE LIMOUSIN EVIDENCE IN ITS WIDER CONTEXT: MODELLING THE LATER IRON AGE: SOCIOPOLITICAL RECONSTRUCTION AND SETTLEMENT EVIDENCE

7.1 Introduction

In this chapter, an attempt is made to review the historical evidence - in particular the testimony of Julius Caesar's de Bello Gallico - and to set this against the archaeological record for La Tène III (finale et tardive). The material garnered for Limousin is considered in relation to this essay in synthesis in an attempt to see whether the archaeological record as established for that area can be viewed as sufficient to support the emergence of a state-level entity in the civitas of the Lemovices. The Limousin evidence is considered more particularly in relation to that for Berry, taken here as the territory of the Bituriges cubi. It should be borne in mind that for these two areas, the sectors which have been more intensively studied correspond to the modern départements of Cher, Corrèze, Creuse, Indre and Haute-Vienne and therefore do not encompass the entirety of the civitates under discussion.

7.2 The Lemovices at the time of the Gallic War: A primitive state?

7.2.1 Introductory discussion

In this thesis, particular attention has been devoted to the settlement record for the three départements of Corrèze, Creuse and Haute-Vienne. For the majority of the sites considered in this survey, the most readily-attainable chronology - that for their defences - is unknown, and still less solid information is available at the time of writing about the extent, character and duration of their internal occupation. Indeed, the general importance of defence as a recognisable
trait of later prehistoric settlement may be seen to have been over-played, and the recognition that fortified settlement was complemented by, or alternated with, open (or less heavily enclosed) settlement units is one which is at last becoming more generally demonstrable from the archaeological evidence.

This imbalance will take many years of diligent fieldwork and excavation to rectify, although at the sub-regional level elsewhere in France considerable progress has already been made. Meanwhile, it remains the case that the terminal stages of the independent development of Gallia are the best recorded archaeologically, and this is as true for the three départements which made up the preponderant part of the territory of the Lemovices, in relative terms, as it is for many other areas of non-Mediterranean France.

In the light of this evidence, many authors have written about the increasing complexity of later Second Iron Age societies in Gaul (Crumley, 1974; Nash, 1978a, b; Duval, 1981) or have attempted to integrate the data for Gaul into wider models of the early development of statehood (Cherry, 1978). In so doing, these authors have generally attempted to integrate three sets of data — archaeological, numismatic and historical — setting them into an anthropological perspective. Crumley's comments on the existence of the primitive state in Gaul are of a generalising character (1974, 25). Nash's conclusion in the case of the Lemovices was that the existence of the machinery of the State was 'probable' (1976a, Fig.6). In other cases, she is more willing to acknowledge the existence of the institutions of the State, as amongst the Aedui and the Bituriges, and attempts to demonstrate this from the integration of the three data sets.

My principal criticisms of some of the above works, and of Nash in particular, are several, and stem from what I consider to be
over-generalisation on an inadequate data-base, and a failure to
differentiate between what has been demonstrated, and what remains
potentially demonstrable. Hypothesis-generation is, of course, a
prime reason for the accumulation and interpretation of data, and
I accept this as a legitimate end to which the later Iron Age evidence
from France may be put. But I would submit that it is evidence which
is much more nuanced both chronologically and chronologically than these
authors have suggested and, as such, the central French evidence will
repay re-examination if it is to be useful in the wider sphere of early
state formation. A subsidiary question, as to whether the Lemovices
can be demonstrated to have developed the apparatus of the state, may
be presented as a particularist treatment on the basis of the criteria
advanced below.

As two sets of the evidence have already been reviewed with
specific reference to the Lemovices, the fullest treatment will be
 accorded to the historical evidence. It goes without saying that the
inevitable outcome of this approach will be a call for more data, but
the essentials of the argument will be based on presently available
information.

7.2.2 The historical record

Essentially, examination of the historical record suggests
two principal lines of approach which merit being tackled independently.
The first line is simply that of chronology: it suggests that 50 BC,
marking the termination of a military campaign which was not subject to
immediate politico-administrative consolidation, is not a recognisable
break-point in the archaeological record and therefore should more
readily be considered as the end of a phase rather than the end of a
period. If the archaeological record is to be exploited in conjunction
with the historical record in an attempt at fuller understanding of the transformations which were occurring in Gaul, it seems appropriate not to downgrade that part of the record which strongly suggests that consolidation did not ensue for a number of decades after the military achievements of Julius Caesar.

The second avenue concerns the utilisation of classical literature in the assessment of Celtic social and political development. In this latter case, in terms of information content, the prime treatise is clearly Caesar's *de Bello Gallico* which we would submit has been both sinned against and sinning. It is clearly a goldmine of information, and Caesar may be accepted as having been writing essentially about his own time rather than repeating earlier impressions from an assiduous devotion to the Poseidonian tradition (Nash, 1976b). Nonetheless, it is clearly a work which must be used with the utmost circumspection, as Professor Rambaud has urged, perhaps most urgently in the following phrases (1966, 371):

"Le développement de cette mythologie scientifique fondée sur les Commentaires permet de voir comment de vastes synthèses historiques et des philosophies de l'histoire on pu s'édifier sur ce qui n'était que propagande et arrangement littéraire. Sans doute les érudits confrontent-ils leur source avec d'autres documents, et des monuments. Toutefois la virulence d'une déformation historique est contagieuse ...... Dans la mesure où par exemple le chercheur ...... tient compte des données fournies par César pour composer un tableau général de la nation gauloise, voire de la civilisation celte, n'est-il pas tout entier faussé?"

It is evident that Caesar's text must be used extremely cautiously: even what at first sight may seem a fairly tight architectural definition - that of the 'murus gallicos' (*BG, VII, 23*) cannot be completely assimilated to what we know of an increasing number of sites (Ralston and Büchsenschutz, 1975, and supra).

Moreover, it is noticeable that these two themes - of chronology and classical witness - are clearly intertwined, in that
the precision of the former (with all that is suspect about recognising unique events from the testimony of the spade) is derived from the latter. We submit that, without Caesar's *de Bello Gallico*, no-one would suggest that a particular decade was of critical significance in our perception of the developments of first century BC Gaul. Significant change (i.e. Romanisation) would be viewed as essentially rather later in date, around the end of the century, preceded by several/many decades of culture contact, indicated by the evidence of imports and marked by the emergence of settlement sites of increasing complexity, and some signs of military activity. We would argue that in many senses (not perhaps, for example, in terms of the utilisation of precious metals) the Conquest, in the narrow sense of Alesia and all that, is a mirage whose attendant distortions have vitiated our further comprehension of transformations both in material culture and in the pattern of social and other re-organisation which may be recognisable from the archaeological data, by seeming to provide a secure chronology and a recognisable break-point.

7.2.3 The Chronology of Roman involvement in Gaul

The following discussion draws extensively on J-J. Hatt's survey of Roman Gaul, and has two purposes - first, to set the Conquest into context, as one element in the continuing contact between the three Gauls and the Mediterranean world and, second, to chronicle the Conquest itself in terms of the major stages Hatt has identified (1970). We believe these latter to be of considerable significance in assessing Caesar's comments on Gaulish political structures. As a sub-theme, particularly Roman forms of urbanisation - specifically the establishment of *coloniae* - merit attention.

Direct Roman military intervention in what has subsequently
become the territory of France is first recorded in 154 BC, when the Consul Opimius expelled the Ligurians from the vicinity of the counters of Nice and Antibes. Such military activity could be justified both on external grounds - the need to support the Greek cities of Southern France - and on internal grounds. The reforms of the Gracchi in the following decades (133 - 123 BC) created a climate in which a larger field of action was required, both for the Roman commercial classes, and for plebeian settlement.

The annexation of Provence, and the W expansion of this towards the Garonne, may be seen as the logical outcome of these currents in the last quarter of the first century BC. From the campaigns of Fulvius Flaccus in 125 BC and Sextinus Calvinus in the following year, the pattern is one of destruction and pacification followed by re-organisation according to the tenets of the later Roman Republic. For the eastern part of Provence, the destruction of Entremont (124 BC) and the conquest of the Salyens is a celebrated example, with the new Roman military centre at Aix-en-Provence founded by 117 BC in the lee of the ruined oppidum testifying to significant change.

Viewed from the Mediterranean, the tribal groupings further N clearly posed a potential threat. Sheer geographical propinquity might make the Arverni and their allies the most likely source of problems. Into this context, the defeat of the Allobroges by Domitius Ahenobarbus in 122 BC, followed by that of King Bituitos of the Averni in 121 BC, readily fits. It also partially explains the precocious elevation of the Aedui into the ranks of 'Friends of the Roman state'. The map in the endflap illustrates the later advantages ensuing from this arrangement.

Further W, the pattern appears essentially similar. Domitius Ahenobarbus conquered the Helvii, the Cavares and other
tribes; further back from the Gulf of Lion tactics of a more subtle kind may have been applied to the Nitiobriges. The foundation of Narbonne in 118 BC (Clavel and Lévêque, 1971, 29) is of interest on a number of grounds. First, the role of Ahenobarbus' son in its foundation, one facet of the link between powerful Roman families and the Provincia (Ahenobarbus also acted as the patron of the Allobroges in Rome) may be noted. Second, the colonia was established on ground confiscated for the purpose and, third, it was, despite its military significance, a civil colony. The latter factors are of interest in the light of the subsequent treatment of the Three Gauls in the years after the Conquest, as such settlements are not characterisitc of that area. Tolosa (Toulouse) below the still-occupied fort of Vieille-Toulouse, was a colonia by 106 BC.

This Roman move N coincided with a westward push by the Germans, and the catalogue of the defeats of Republican armies - at Noreia, between Toulouse and Agen, and at Orange in 105 BC - must early have focussed attention on the issue of peripheral defence, despite the subsequent defeats of the Cimbri, Teutones and Tigurini by the consular armies of Marius and Catullus (102 - 101 BC). Thereafter the exploitation of the newly-acquired Province could continue apace. As elsewhere, 'the wealthy - officials, contractors or tax-farmers - were able to batten on Rome's new subjects' (Carson, 1964, 226-7) and abuses certainly occurred (Cicero, Pro Fonteio : Hatt, 1970, 44-5).

The implications of such avid exploitation for those living beyond the Province, though within its commercial ambit - as evidenced, for example, by the distribution of Dressel 1a amphorae - may well have produced a range of competing local hierarchies. I am not convinced that such long-distance commerce would necessarily have contributed to greater centralisation, especially if and when Fallers' picturesquely-
named 'trickle effect' (Crumley, 1974, viii and 75) became a deluge. As in other cases, the need for much fuller quantification of the archaeological evidence could only be helpful in assessing the significance of this mechanism (Haselgrove, 1976). There does not seem to be independent literary evidence for the operation of Roman Mercatores, as opposed to native middlemen, beyond the Province in the decades before the Conquest, although their presence is usually tacitly accepted in the literature.

In terms of the wider geo-political posture adopted by Rome, the decade from 70 BC appears to have been of particular significance. The campaigns waged by Lucullus and Pompey at the other end of the sphere of Roman hegemony, in Asia, between 70 and 61 BC, marked a new departure. Hatt (1970, 49) has characterised these as wars of peripheral defence, which resulted in the 'constitution d'un glacis protecteur d'Etats vassaux, alliés on protégés, mais théoriquement autonomes'. In the West, the essence of such a policy was the legacy of the annexation of the 120s, with the continued exclusion of the conquered Arverni from the Province, and the alliance with the Aedui.

The extension of this policy, the inverse of the domino effect, may be described as the minimum goal Julius Caesar set out to achieve. That it did not work is in part attributable to the failure of the native institutions, described by Caesar, to deliver—both actually and figuratively—what he wanted, which should be borne in mind when consideration of their significance in the native sphere is made. It would, however, be simplistic to attribute the conduct of the Gallic War uniquely to this cause. It was an integral part of the power struggle which characterised the first century BC in Rome and her possessions, a power struggle which threw up various strong individuals, with that new invention, a regular army (as opposed to a citizen army)
at their backs. As Carson has remarked (1964, 227), 'the soldiery began to give their loyalty to their general to whom they looked for easy wars and great booty instead of to the state as of old'.

Whilst Diviciacos of the Aedui failed in his address to the Senate in 61 BC to raise Roman support against Ariovistus, this latter being proclaimed 'King and Friend of the Roman People' in 59 BC during Caesar's consulship, the subsequent years were marked by a change in policy when Caesar marched his army beyond the Province. This action was first taken in support of the Aedui, who had previously been ignored, and subsequently, against Ariovistus, who had just been declared a 'Friend'. The previous elevation of Phraates, King of the Parthians, to this title, did not prevent Pompey attacking him. It all suggests that such alliances were viewed as a disposable asset in the Realpolitik of the later Roman Republic.

The course of the Gallic War need not be rehearsed in detail. It is, however, important to point out that, by Caesar's own account, it changed fundamentally in character during his several years of campaigning. The following stages are those identified by Hatt (1970, 53-76), slightly embellished:

1. Campaigns of peripheral defence: 58 BC.
2. The 'protectorate' and peripheral campaigns: 57-55 BC.
3. Mounting resistance: 54-52 BC.
4. Gaulish rising and the war of independence: late 'mopping up' operations: 52-51 BC.

For our purposes, they conveniently demarcate various stages in the attempts by Caesar to manipulate the internal political arrangements of various of the Gallic civitates, which we believe were of considerable significance in assessing the nature of the political organisation of Gallia on the eve of the Conquest. This issue will be discussed more fully below.
By 50 BC, active resistance in the Three Gauls appears meantime to have been eradicated, and the area became a Province. Some of its manpower was drained away as components of Caesar's army - in units organised according to Gaulish methods with contingents headed by the native chiefs and owing their primary allegiance to Caesar himself. Beyond that, losses in Gaul appear likely to have been extremely significant. Numerical assessments in the classical world are notoriously prone to exaggeration: Plutarch's figures, believed to have been taken from boards displayed at Caesar's triumph in 46 BC, indicate that 800 forts were captured, that 300 tribes (a figure worth bearing in mind in relation to the 60 civitates established by Augustus) were conquered, and that native casualties and native prisoners each numbered one million. The amount of gold taken and of tribute demanded was also substantial - sufficient to undermine the value of gold in Rome and to see its virtual demise in native currency in the Three Gauls.

The same year, 46 BC, also produced the first documented native rising, by the Bellovaci: this appears to have been crushed easily by Brutus. Octavius' visit to Gaul in 39/38 BC appears to have coincided with a further rising (Dio Cassius, XLVIII, 49) along with which trouble on the Rhine saw Agrippa cross to deal with the Germans, as Julius Caesar had done before. The likelihood of an uprising kept Augustus in Gaul rather than leading an expedition to Britain in 27 BC (Dio Cassius, LIII, 22). The following chapter of this historian recounts Augustus' reappearance in Gaul, brought about by an invasion of the Sicambres and others and the destruction of a Roman army in 16/15 BC. In 10, and possibly again in 8 BC (Hatt, 1970,86), Augustus personally visited Gaul to control real or potential uprisings.

Other military operations appear to have been left in the
hands of lieutenants: in 31/30 BC, the Treveri revolted, but were brought under control by Nonnius Gallus. In 29 BC, there was campaigning in the territory of the Morini and in 28 BC Messala Corvinus put down a rebellion amongst the Aquitanians. Cotton and Frere (1961), looking for a historical context for the fortification of the Camp du Charlet, Ussel, Corrèze, pointed to the possibility of this campaign.

In one sense, 12 BC may mark the end of this phase of latent rebellion. According to Dio Cassius, that year witnessed further trouble in both Germany and Gaul; in the case of the latter, Drusus sought to defuse this by summoning the consilium to Lyons. Subsequent operations in Germany may have been inspired by the twin aims of checking German penetration and giving the Gauls somewhere else to fight (Hatt, 1970, 87) as well as by other Imperial ambitions.

Whilst other authors have argued that insurrection and revolt continued to be a factor in the internal politics of Gaul until 70 AD (Delale, 1971), it is perhaps sufficient to present purposes to suggest that 50 BC represented the end of a key military phase, rather than the end of military operations. From the documented examples, it appears fair to point out that the majority of cases apply to the peripheries of Gaul, but nonetheless at least later risings certainly occurred in Central France: Sacrovir's seizure of Augustodunum in Aeduan territory in 21 AD may serve as an example.

A second aspect of continuity from the period of the Conquest may be inferred from the continuity in settlements. Although this can be illustrated more strongly from the archaeological evidence, the literary record provides excellent corroborative information in suggesting that the number of new foundations was, especially to begin with, extremely slight.
In Provence, coloniae were established both during Caesar's governorship and in the succeeding decades. Some of these Narbonnaise centres, for example Beziers, where there had previously been an oppidum (Clavel and Lévêque, 1971, 25) represent an element of continuity. Others, like Frejus, to use current planning jargon, may have been 'green field' sites (Clavel and Lévêque, 1971, 35). By the first century AD, some at least had a component of Gaulish proprietors: Orange is the best-documented example (Clavel and Lévêque, 1971, 38). Such establishments N of the Narbonnaise are distinguished by their rarity: in the present-day territory of France, Lyon, founded as a military colony by L. Munatius Plancus in 43 BC, appears to be the sole early example.

The implication appears to be clear: that if hillforts disappear from the record at the time of the Conquest, it may be because they were inadequate essentially for Gallic needs, rather than because of Roman administrative pressures. The likelihood must be that many survived, and indeed prospered, in the post-Conquest decades. It is precisely this period of their history that is currently (as it has been for many years) the best documented archaeologically (Duval, 1981).

The key fillip to change appears to have been the programme of administrative innovations initiated by Augustus in the mid-20s BC. The delay may be accorded to various factors, not least the disruptions, preceding the establishment of the Empire, and the lack of a sufficiently numerous administrative class to control the annexed areas (Hatt, 1970). In the Three Gauls, the rise of Lyons continued apace. Elsewhere, the successors to the oppida of La Tâne III continued to provide the lynch-pins in the administrative system, as at Avaricum of the Bituriges (Clavel and Lévêque, 1971, 35-7). In a minority of cases, this pattern was not maintained. Amongst administrative centres
elevated towards the close of the century, we may cite Augustonemeton (Clermont-Ferrand : Arverni), Augustodunum (Autun : Aedui : replacing Bibracte from 5 BC), Augusta Suessionum (Soissons - Suessiones : replacing Noviodunum?), Augustabona (Troyes : Lingones) and Augustoritum (Limoges : Lemovices : replacing Villejoubert?). It is not a safe assumption that these were all previously settlements of some importance. It is, however, interesting to note that in many of the civitates classed by Nash as possessing the organs of the archaic state, the old capital was rapidly to prove inadequate.

7.2.4 The content of de Bello Gallico: selected aspects

This section attempts to consider only two aspects of Caesar's text. One is his description of settlement sites: a second - in part built on the first - is the assessment of the political structures of Gaul as evidenced by Caesar's writing. Although they are only peripherally mentioned - in Books VII and VIII - of the Gallic War, more general considerations are of significance in any consideration of the status of the Lemovices.

We believe that the criticisms advanced most cogently by Rambaud (1966) need to be borne in mind, and whilst Caesar's audience may not have been 'den Tölpeln am Tiber' of one XIXth century German critic (quoted by Rice-Holmes, 1899, 220), they would clearly expect the organisation and nature of their enemies to be described in terms with which they were familiar. Indeed, the only words of Gallic origin in this sphere appear in Caesar's text are perhaps 'druid' and 'vergobret', the latter being the chief magistrate of the Aedui. 'Gutuater', to which we will return, may also be of relevance as a priestly rank, rather than an individual (Ellis Evans, 1967, 96), in which case its significance was not appreciated, or perhaps concealed,
by Hirtius (*BG*, *VIII*, 38). The main thrust of the arguments that follow is first that Caesar's use of certain terms leaves us in an ambivalent position as to how they should be interpreted in that they almost certainly cover a variety of structures, both physical and mental. Second, that Caesar in fact tells us very little about certain key classes of site (hence stressing the significance of the archaeological and numismatic evidence) and, third, that Caesar's discussion of Gallic (including Belgic) politics is of particular interest in the light of the stages identified, following Hatt, in the conduct of the campaigns.

It is as well to say at the outset that I consider some previous treatments of this evidence, particularly Nash (1976a) as uncritical in its acceptance of social and political complexity. An example of this may perhaps be instanced in her typology of complex settlements, which I consider inadequately explained:

- urban - urbanisation - town - town sites - oppida - most urbanised sites - major urban oppidum - major enclosure? oppidum - late urbanised oppidum - urbanised vicus - urbanised site - major sites - residences of members of the nobility - urban oppidum - major oppida - emporion - most important urbanised oppida - central oppidum - market towns - sites ...
- associated with the oppida in early urbanisation - an intermediate step in the development of the oppida - oppidum nobility - pre-Roman urbanisation - auxiliary towns - permanently settled market centres - big oppida - main urban settlements (Nash, 1976a, 95-109).

(i) OPPIDUM

Caesar, I submit, tells us very little about what he included under this epithet. It is clear that they were commonplace, but that some were more important than others. As an example of the latter, the celebrated description of Bibracte of the Aedui (*BG*, *VII*, 55) may be given:

"quod est oppidum apud eos maximae auctoritatis"
But although not all the tribes mentioned by Caesar are described as possessing oppida, they certainly occurred on the other side of the Rhine (BG, IV, 19) amongst the Suebi. They are hardly mentioned in Britain, Caesar on one occasion restricting himself to the word 'locus' (BG, V, 9) and elsewhere in Britain they had distinctive characteristics.

Oppida might clearly contain stores: Avaricum, for example, did, (BG, VII, 32) and Caesar himself used Noviodunum of the Aedui as a supply base, which he garrisoned (VII, 55). They might also include non-native traders: I am not sure whether Caesar's use of two distinct terms for these (discussed below) is of significance.

Man-made fortifications, supplementing to a lesser or greater extent natural ones, clearly appear to have been characteristic: again gradations were apparent at the time, as in the case of the 'amplius XX urbes' (a rare usage) of the Bituriges, which did not make the grade specified by Vercingetorix (BG, VII, 14-15). Descriptions given by Caesar suggest that both the 'murus gallicus' and the Fécamp type of defence were encountered (VII, 23: II, 12).

As regards their internal architecture or, more grandly, their internal spatial organisation, Caesar's text tells us little. Avaricum was clearly not entirely built-up: there was something which merited the description of a forum or market-place as well as other open spaces: (VII, 28) 'in foro ac locis patentioribus'. Cenabum appears to have had narrow streets as well as a bridge across the Loire (VII, 11) in 52 BC, but by the following year it had been re-occupied with small makeshift buildings 'exiguis aedificiis' (at BG, VIII, 5) and there appears - in what were admittedly exceptional circumstances - to have been sufficient space for a winter camp for two legions inside 'in oppido Cenabo castra posuit'.

Oppida were clearly places in which important meetings took
place - the concilium totius Galliae was regularly summoned to them, for example - but there is nothing in Caesar to indicate that the nobility permanently inhabited them. Population figures for oppida are difficult to assess since we have only Caesar's figures to go on. The 40,000 in Avaricum when it was captured have been taken to suggest a complex social organisation including 'a burgeoning class of merchants, petty officials, and retainers with abilities in civic administration to handle the civic services of such cities. To deny that these individuals were ..... active in Celtic urban life ..... is to suggest that cities of 40,000 run themselves (Crumley, 1974, 47). Not so: the population may have been swollen very considerably by refugees and defenders. Oppidum Atuatucorum (BG, II, 29-33 : Rivet, 1971, No.4) is said to have contained 57,000, a number attained presumably by the centralisation of defence mentioned by Caesar. We know that the Bituriges had fired twenty of their urbes before Avaricum was besieged.

In sum, Caesar's descriptions allow the suggestion that the term oppidum, as used by him, covers a considerable variety of structures, and need not imply, without further evidence, any more than factor (2) of the six identified by Nash (1978a, 5). Even here, other categories of site were possibly defended: the 'castella' of the Atuatuci, abandoned in the conflict of 57 BC, are a case in point. Additionally oppida might contain internal strongpoints: the 'arx' (= citadel) of Vesontoic/Besangon may serve as an example. The variation in the usage of the term 'oppidum', in common with that of other settlement descriptors, is something which spilled over into the Merovingian and Carolingian periods (Lombard-Jourdan, 1972).

(ii) MERCATORES/AD NEGOTIANDI CAUSA

Although Roman merchants are a recurrent image in Caesar's
text, and are clearly of considerable importance if one can safely
link them to the incoming amphorae, etc., the terms used in de Bello
Gallico are of interest. They are discussed here because of their
apparent connection with oppida.

MERCATORES

In Besançon (I, 39) they told the soldiers about the Germans.
The nationality of these merchants is not specified, nor is the
nationality of those not admitted to the territory of the Nervii (II, 15),
or those allowed in to the territory of the Suebi (IV, 2). 'Mercatores
in oppidis' (IV, 5) might have to recount their travels. They might
also go to Britain (IV, 20) and spend the winter in tents with the
Army (VI, 37), take risks travelling, and pay tolls in the Alps (III, 1).

NEGOTIANDI CAUSA

Gaius Fufius Cita, in charge of the commissariat, and others
in this category were slaughtered in the oppidum of Cenabum (de BG, VII, 3).
The same lot befell those offered a free passage 'ex oppido Cavillino'
(BG, VII, 42) though they put up a fight. Those at Noviodunum of the
Aedui (VII, 55) were killed when Caesar's supply base was taken.
Whatever this function was - whether directly linked to the Army's
requirements or not - the three cases cited in de Bello Gallico may be
taken to suggest (a) that it was a function restricted to oppida and
(b) that the Gauls did not like it.

Mercatores, by contrast, appear to have been less restricted
in their habitats, and less endangered. We may suspect that those
identified by Caesar as being in Gaul 'ad negotiandi causa' may well have
been indulging in trade in mode 8 (Emissary trading) or 9 (Colonial
enclave) of those classified by Renfrew (1975, Fig.10 and p.43). The
'mercatores' may have corresponded more closely to middlemen of the
same author's mode 7.
(iii) VICUS

The text tells us little about these sites. They usually occur in the text paired with aedificia. In the territory of the Helvetii, on Caesar's figures, they outnumbered oppida by 400 to 12 (33:1) (de BG, I, 5). In 57 BC, Servius Galba decided to establish his winter quarters in a vicus (Octodurus, in the territory of the Veragri) which he was obliged to fortify, rather than use the castella of the Alpine peoples whose subjugation he had begun. This particular vicus was situated on both sides of a river. In some areas, the vicus appears to represent the topmost tier of the settlement hierarchy, as amongst the Menapii (III, 29: IV, 2) who had them on both banks of the Rhine. Even by the first century BC, vicus appears to have a variety of meanings, ranging from a sector of a town, through village to include rural properties (Desbordes, 1977b, 228, fn.33).

(iv) AEDIFICIUM

These could occur in villages (III, 6), but also appear to have been constructed singly. They were the most striking built feature of the British landscape to Caesar's eyes (V, 12). The most celebrated example is the 'aedificio circumdata silva' (VI, 30), where Ambiorix, joint leader of the Eburones, was surprised. The preferred location of such sites, near rivers and/or woodland is attributed to a desire to avoid heat. Most Gallic houses were of wood. Whilst the leading citizens might therefore live in aedificia, it is by no means certain that this was their usual place of habitation. On other occasions, on campaign, even kings might live in tents.

(v) PAGUS

Nash (1978b, 461-3) identifies this as one of the key units of Gaul, and cites most of the Caesarian references to this type of entity. The most instructive text is perhaps BG VI, 11:
"In Gallia, non solum in omnibus civitatibus atque in omnibus pagus sed paene etiam in singulis domibus factiones sunt."

The application of this term also extended to the Germans: recounting their fluid social and political structure (VI, 22-23), Caesar tells us that the administration of justice lay in the hands of the 'principes regionum atque pagorum'; elsewhere (I, 37), 100 pagi of the Suebi - presumably essentially socio-political groups, 'clans' - are reported camped on the Rhine. In North-Eastern Gaul, the basic unit of the Morini seems to have been the pagus.

Whilst there are some indications that the pagus was a sub-unit of the civitas in a territorial sense, this term, rarely used by Caesar, clearly also embraced functional social entities. The departure of the pagus of the Tigurini in support of the Cimbri and Teutones, mentioned by Caesar and Livy (Nash, 1978b, 462), may have involved secession from the civitas, but their territory was presumably still within it. Caesar hardly uses the term pagus in relation to the situation in Central Gaul. Here, as Nash (1978b, 463) has pointed out, the position is far from straightforward: in BG VII, 65, the status of the Gabali is perhaps less clearly independent than Nash implies, and there is no mention of the Velavii by name, pace Nash. The report of Vercingetorix' orders states: "Altera ex parte Gabriolos proximosque pagos Arvernorum in Helvios ..... mittit". The status of the Gabali is thus perhaps unclear, but there would seem to be at least the possibility that this report mixes ideas of the pagus with clientship.

The Helvetii had 4 pagi in 58 BC: otherwise we are not informed as to their number. The sole example of a Central Gaulish pagus acting independently is the conduct of the Verbigeni in 57 BC. I would submit that the evidence of VII, 65, is ambiguous and in any case involves several pagi acting in concert. I do not think that
Caesar's text supports Nash's assertion (1978b, 461) that "pagi provided the basic military units for the civitas army and had at least in practice a considerable degree of autonomy from the central civitas government, undoubtedly because of their military function".

Whilst the pagus may safely be considered as a subdivision of a tribe and its territory, its functional significance in the circum-caesarian decades is difficult to discern clearly from the archaeological evidence as presently available. Nash (1976a, 1978b) has suggested a correlation with certain coin distributions, which is possible, although it is also possible that the centres of production may have exceeded the likely number of pagi. As a territorial unit, the pagus survived through to post-Roman times, although it appears finally to have been downgraded to mean little more than a village or hamlet (Barley, 1977).

For Limousin, Deloche was able to map 18 pagi minores recorded by the Xlth century: another 4 are attested thereafter (1861). Whilst it has been suggested that some represented definable territorial units in pre-Conquest times - the Andecamulenses (= Pays de Rançon) (Deloche, no. I) and the Cambiovicenses (= Pays de Chambon) (Deloche, no. XVII) were favoured candidates of XIXth century authors, like Barailon (Leroux, 1909, 328) - such an exercise is beyond the scope of this research. Units of this kind are clearly potentially much too susceptible to have changed their territorial extent over the intervening centuries for them to be adopted critically without much more subtle archaeological distribution evidence than is presently available being marshalled in support.

(vi) CIVITAS

From Caesar's text, it is apparent that the large scale unit implied by this term was that with which he most frequently dealt. The word is often associated with the concept of frontiers ('in finibus'),
suggesting that the civitas clearly had recognised zonal limits, though precise boundaries are perhaps unlikely. In essence, the term appears to mean a self-governing tribal area, and as such does not in itself clarify the nature of that government. Civitates occur in each of the three Gauls, and various of the German tribes, such as the Suebi and the Ubii, also qualified for this descriptor.

Civitates in Gaul had a legal framework (e.g. VI, 20), and appear to have farmed out tolls and taxes for collection (I, 18) in some instances. They could also be bound by ties of clientship to each other. Institutionally, there are indications of considerable diversity in the internal organisation of these units, discussed below in terms of the socio-political structure as recounted by Caesar. A comment is, however, appropriate, and Thevenot perhaps sums up the general condition of the civitates (1976, 112): "Au temps de la Conquête, ils avaient franchi une notable partie de la distance qui séparait un peuple barbare des nations bien policiées du monde méditerranéen. Et pourtant, en dépit de la qualité des institutions, les États gaulois sont demeurés faibles. C'est que de grands obstacles venaient ...... de l'organisation sociale."

The reconstruction of the territorial boundaries of the various civitates of Gaul according to the earliest recorded dioceses - defining some 60 examples - has been expounded by many authors since d'Anville (1741, transl. 1810). There are notoriously, many problems with this approach, not the least of which concern those factors of political control instituted by the Romans, which early subsumed various tribes - clients or otherwise - into the civitates of the Roman provinces. For example, the Boii, settled on the frontiers of the Aedui, cannot be mapped by this method. The definition of exact boundaries is distinctly less likely satisfactorily to be achieved.
Rice Holmes (1899, 330) was extremely sanguine in this regard: "Generally speaking," he remarked, "it is impossible to determine the frontiers of the Gallic States with certainty."

For Limousin, for example, it is necessary to reamalgamate the diocese of Tulle (established in 1381) with that of Limoges, and to take into account such interchanges of parishes with neighbouring dioceses as are documented (Limouzin-Lamothe, 1951). Thus, to the constraints mentioned by Nash (1978b) should be added that of the ecclesiastical history of France from the initial establishment of these dioceses.

In the light of this remark, Nash's comment (1978b, 467) that "the close correspondence ..... in Central Gaul between Gallo-Roman diocese borders and pre-conquest civitas territories is one of the firmest pieces of evidence that consolidation and definition of territory for the convenience of centralised administration had already taken place, as they had not in any other areas of Gaul" both underplays those problems attributable to subsequent religious reorganisation (in Brittany, for example) as well as overstates the security of the central French evidence.

Of tribes she mentions elsewhere (1976a, 1978b), the following may be cited as problems:

ARVERNI : diocese of Clermont and part of that Saint-Flour (the latter a fourteenth century subdivision) Rice-Holmes, 1899, 382.


GABALI : part of the diocese of Saint-Flour Rice-Holmes, 1899, 383.

SEQUANI : diocese of Besançon : part of Belley Strasbourg (cf. Triboli)? Rice-Holmes, 1899, 484.

Furthermore, we may legitimately ask why, if correspondence with diocesan boundaries is considered of such significance, the following civitates are excluded. If the real criterion is area, it manifestly fails to take into account the varied physical geography of the three Gauls.

ANDES : diocese of Angers
ATREBATES : Arras
BELLOVACI : Beauvais
CARNUTES : dioceses of Chartres, Orleans and Blois
NAMNETES : diocese of Nantes
NITIOBRIGES : dioceses of Agen and Condom
PARISII : diocese of Paris
PETRUCORII : dioceses of Périgueux and Sarlet
PICTONES : diocese of Poitiers
RUTENI : Rodez
SUESSIONES : Soissons

We may note that there are one or two indications in Caesar that the idea of civitas was perhaps beginning to be transmuted from an areal concept to a point one: from the territory to its politico-administrative centre or centres. In the speech of Critognatus at Alesia, civitas is used as the antithesis of ager: 'in agris civitatibusque' (VII, 77). Another example is furnished by the Narbonnaise, where Toulouse, Carcassone and Narbonne are described as 'civitates Galliae' (III, 20) in 56 BC. Whilst the first and last were coloniae, Carcassone is more usually described as a castellum (Rambaud, 1965, 184).

From this examination, we would conclude that Caesar was not striving to produce an accurate definition of the territorial and settlement types of the three Gauls: it was not his intention so to do.
The main territorial unit was clearly the *civitas*, but textual information on the *pagus* is extremely slight. Amongst settlement units, the *oppida* were clearly of major significance, but there is every indication that a wide variety of structures was covered by this term, thereby giving, as usual, a certain logic to French usage (see introduction). Not all fortified sites were *oppida*, though *castellum* is comparatively rarely used. The *vici* and *aedificia* were lesser units. The equations:

Central Gaul = large *civitas* = organs of the archaic state = urbanised *oppida*.

North Gaul = *civitas* produced by Roman amalgamation = less centralised government = non-urbanised *oppida*

are unsupportable on this terminology. Does Caesar's description of political/social organisation clarify or obscure these proposed differences?

7.2.5 *Social and political entities in the three Gauls as recorded in de Bello Gallico*

Having discussed the territorial and settlement units of our area, and one of the external agents which may have contributed to their modification (foreign traders), it is essential to consider the social and political condition of the Celts of Gaul as recorded by Caesar to see (a) whether they can be construed to support the existence of the archaic state and (b) if so, whether this political construction can be restricted territorially in the manner Nash (1976a, fig.6) has suggested.

We would endorse Nash's view (1976b) that Caesar merits attention as an independent primary authority on the Celts, although one whose account is often perfunctory. As she points out, it is a record which is historically later than, and therefore perhaps appropriately different from Poseidonios (especially p.123), and we
would also submit that Caesar's consideration of Gallic and Belgic institutions is further complicated by his own changing military and political needs during the course of the Gallic War. In essence, if Poseidonios and Strabo and the others commented, Caesar meddled. Thus he was not "parroting a book thirty years out of date and relating to different Celts" (Nash, 1976b, 126), but if we wish to contend that Caesar's account was fully up-to-date, it is clearly important that it should be juxtaposed with its contemporary settlement record, as evidenced by archaeology, and not the settlement record of a society which then lay up to thirty years in the future.

Caesar's meddling in the internal arrangements of the civitates, and its consequent effects for our comprehension of political matters, may best be illustrated by the cascade of options he went through in his quest for support as the Gallic War continued. Corresponding to the various stages of the campaigns as identified by Hatt (1970: see above), we may identify the concilium totius Galliae (during the stage of the 'Protectorate') followed successively by the 'Allies' - particularly the Aedui - and finally by individuals, often elevated to the kingship for the purpose (rex, regnum) (Hatt, 1970, 62). Whilst 'centralised political institutions certainly existed, such as annual magistracies, senates and publicly known laws characteristic of early statehood (Nash, 1976b, 123), the problem (and indeed the implication of Caesar's forced changes of horse as outlined above) is to know whether they were well-established and/or generalised.

Clearly, Caesar's own political position and aspirations, and the perceptions of the powerful factions in late Republican Rome dominated by a series of strong individuals, are factors in a full assessment of this sociopolitical minefield. Here, however, we would prefer, naively, to take Caesar more-or-less at face value. It seems
self-evident that the Gallic War, as a period of crisis, might also
be a period of considerable political instability: we submit that the
evidence of Caesar's accounts may be taken to indicate such diversity
that they do not form a safe basis for the construction of firm divides
within the socio-political entities present in Gaul in the mid-first
century BC.

We do not wish to digress on the matter of the essentials of
Celtic social structure, which have been well-covered in various recent
treatments (e.g. Crumley, 1974, Ch.II), except to point out that one
group which does not readily fit into the Caesarian pattern of equites,
druides, and plebes crops up with increasing frequency during the course
of the Gallic War - and that is a monarchy, whether hereditary or not.
From diverse mentions in Caesar's text, it is certainly apparent that
political instability was a factor of Gaulish life, though to what
extent this was amplified by the particular historical circumstances of
the decade of which he wrote, is difficult to judge. He described a
liking for political change, matched by a readiness for war, as
characteristic of them (BG III, 10):

"Omnes fere Gallos novis rebus studere et ad bellum
mobiliter celeriterque excitari".

Attitudes to particular institutions change during the course
of the war: kingship may serve as an example. The quest of Orgetorix
of the Helvetii, Casticus of the Sequani and Dumnorix of the Aedui for
kingship is portrayed in a bad light in the account for 58 BC: in the
opening chapter of Book II - which also reveals Caesar's intention to
extend Roman sovereignty over Gaul - the quest for individual power is
also presented as something to be achieved by undesirable methods. But
kingship clearly survived as an institution amongst certain tribes:
Galba of the Suessiones is favourably described (II, 4), and others
mentioned include Adiatuanus of the Sotiates, Moritasgus of the Senones, and Teutomagus of the Nitiobriges. The account of Vercingetorix' elevation (VI, 4) may be read to suggest that this was a necessary preliminary to his ability to mobilise support.

Elsewhere, particularly in the account of the second half of the Gallic War, a series of kings appointed by Caesar are named. The first of these to be mentioned is Commius the Atrebatan (IV, 21), in 55 BC: Caesar makes explicit his reasons for this appointment. Another pro-Roman king, Casgetius of the Carnutes, was placed on his ancestral throne ('cuius maiores in sua civitate regnum obtinuerant') (V, 25) by Caesar, only to be assassinated by his own tribe. Cavarinus of the Senones (V, 54) fared little better: he was expelled from the territory of the tribe. In this case at least it is clear that the hostility was directed not at the Institution, but at the individual. Elsewhere, Caesar clearly concentrated power in individual hands, though without referring to the individual as a king. Cingetorix of the Treveri was thus rewarded for his loyalty (VI, 8): 'Cingetorigi, quem ab initio permansisse in officio demonstravimus, principatus atque imperium est traditum'.

In sum, kingship was clearly still a potent form of government, and one which was at least locally significant in terms of centralising tendencies. Galba's father, Diviciacus, was remembered as 'regem ...... totius Galliae potentissimum' (II, 4), nor had the Romans demurred from naming kings as allies. To the well-known examples, like Ariovistus, we may add Catamantaloedis (the father of Casticus) of the Sequani (I, 3), described as a friend of the Roman Senate. It is certainly possible that some of these kings may have been 'constitutional' monarchs - whose power and influence was moderated by other forms of government, as appears to be implied by the description of the Remi and Suessiones as
having had 'unum imperium unumque magistratum' (II, 3) - but the variety of institutions (for example, the double kingship of the Eburones, V, 24: VI, 31) suggests that monarchical government was far from outdated and was exploited by Caesar as necessary.

More difficult to discuss is the unique case of someone described as having held general power without being a king. This applies to the father of Vercingetorix, Celtillus, described as 'principatum totius Galliae' (VII, 4), a rank compared by Rice-Holmes with that of a Bretwalda in Anglo-Saxon England (1914, lvii).

The above references to kingship contrast with the rôle of the magistrates, of which much has been made in the literature. The presence of magistrates was clearly a characteristic of those civitates which were in Caesar's eyes the best governed (VI, 20), but in the Realpolitik of the Gallic War they do not appear to have played a very prominent rôle. Nor was the office restricted to the Gauls, though Caesar indicates that the power of the magistracy was perhaps more limited amongst the Germans (VI, 22). Individual power was clearly a major constraint on magisterial power (I,4: I,17).

We may speculate that a hierarchical magistracy was restricted to the Aedui. Liscus is described as 'summo magistratui' (= vergobret) (I, 16). Even in this case, Caesar felt it necessary to make his displeasure known to the Aeduan chiefs as well as to the vergobret. Given Caesar's attention to protocol in the matter of the disputed election to the position of chief magistrate of the Aedui in 52 BC - the vergobret was not permitted to leave the civitas - there is perhaps reason to suggest that the principes (V, 5), who were forced to accompany Caesar to Britain in 54 BC, excluded holders of this office.

Magistrates are named explicitly only rarely, and, with the exception of the Helvetii, are scarcely mentioned as a political feature
of civitates opposed to Caesar.

Institutions, qualified by Caesar as senatus, are contrastingly much more widely mentioned in the text. Again, they are recorded amongst the more 'westernised' of the Germans, the Ubii, for example, being credited with both 'principes ac senatus' (IV, 11). The Nervii appear to have had 600 senators (II, 28), approximately one per hundred fighting men. That membership of the senatus was restricted to the upper echelons of society appears to be confirmed by Diviciacus' report of Aeduan losses at the hands of the Germans: 'omnia nobilitatem, omnem senatum, omnem equitatem' (I, 30). Elsewhere, there are indications that such bodies were by no means restricted to the Central Gaulish civitates. Caesar, at least from 56 BC, clearly viewed these bodies as potentially dangerous. That year, the senate of the Veneti in Brittany was slaughtered (III, 16) by Caesar: that/those of the Aulerci Eburovices and the Lexovii were massacred for opposing military resistance to Caesar. In the case of the Remi, Caesar required the entire senatus of the civitas to present itself to him (II, 5): they obeyed. The Senones, having disposed of a puppet king installed by Caesar, however failed to behave similarly at a later stage in the war. The senate of the Bellovaci (VIII, 21) provides an example of one unable to - perhaps conveniently unable to - resist the alliance of individual leaders (in this case, Correus) with the populace. Several similar incidents, where the governing institutions can be seen to be weak in the face of powerful individuals and/or the mass of the population, are recorded in de Bello Gallico. The power of the plebes is used as a reason for particular conduct: during the first invasion in Britain, popular will is the convenient bête noire used to account for resistance. Indutiomarus used the control of the common people of the Treveri as a reason for not going to Caesar (V, 3), and Ambiorix, explained his conduct by the fact that his power was.
constrained by the wishes of his folk (V, 27).

Whilst instances of the power, real or supposed, of the plebes themselves are restricted to the Armorican and Belgic tribes, individual power (fostered through the socio-economic arrangement of clientship) certainly produced a break on Institutional power in central Gaul as well. Individuals could control wealth-generating functions (I,18) and their personal networks of influence could extend beyond the individual civitas. At no point in the Gallic War does a powerful equites with support at his back lose out to a native central Institution. Although Crumley (1974, 19) has plausibly suggested that 'a client was able to create leverage in his personal situation by the prudent use of the threat to change patrons', Caesar tells us (VII, 40) that such conduct would not have gone down well: 'more Gallorum nefas est etiam in extrema fortuna deserere patronos' (VII, 40).

The coercive abilities of the central civitas institutions appear to have been extremely limited. In at least one case an oppidum is described amongst the clients of an individual (VIII, 32). In other cases it appears clear that standing 'regular' armies were not a feature of the Gallic civitates. Whilst the case of the Eburones may perhaps be regarded as too peripheral to serve as a safe basis for generalisation (VI, 34), other instances suggest that armies were raised as and when needed. I can find no support in de Bello Gallico for Nash's speculation (1976a) that the basic military units were provided by the pagi. Faced with Orgetorix' show of strength, the magistrates were forced to call up men 'ex agris' (I, 4). Contrastingly, the documents of the Helvetii which fell into Caesar's hands apparently listed all men capable of bearing arms, rather than an army, although the particular circumstances of that episode may easily negate this evidence.

Diviciacus' Aeduan army, brought N in support of Caesar's campaigns in
57 BC, appears to have been dismissed when it was not required (II, 14). Indeed, we are elsewhere told the standard method of raising an army: Indutiomarus 'armatum concilium indicit. Hoc more Gallorum est initium belli; quo lege communi omnes puberes armati convenire coguntur: qui ex novissimus venit, in conspectu multitudinis omnibus cruciatibus adfectus negatur' (V.55). This testimony, one might suggest, squares ill with the concept of a pagus-based paid force.

In sum, I would suggest that there is little in Caesar's text to suggest the territorial restrictions of certain forms of government. That literary support for complexity is essentially based on Caesar's accounts of the Aedui, and that the areal extent of particular forms of government is unknowable from the principal classical source, seems established.

Furthermore, certain institutions, especially kingship, survived even on the margins of the original province, as amongst the Nitiobriges. Contrastingly, institutions such as the senatus are recorded even in Brittany. In certain cases - as in the muster to arms discussed above - Belgic and Celtic procedure were identical.

All this is not to deny that the three Gauls are likely to have been undergoing political changes at this period, but rather to suggest that, as the literary evidence has been considered above, that evidence in itself is insufficient to demarcate a province in which the organs of the archaic state existed at the time of the Conquest to the exclusion of other areas. Additionally, the diocesan evidence, I submit, does not conclusively support the construction put on it by Nash (1978b).

Specific episodes used by Nash (1978b) in support of her thesis seem difficult to accept. Caesar's sack of Avaricum is a case in point. Nash (1978b, 462) remarks that its capture "was sufficient to ensure the submission of the whole civitas", and this is cited as an
example of "the degree of effective political centralisation in the most advanced first century states". I would suggest this assessment is rather cavalier for the following reasons:

(a) There is no evidence that the entire civitas surrendered.

(b) Noviodunum of the Bituriges had already been defended.

(c) A considerable proportion (?) of the urbes of the Bituriges had already been destroyed as part of Vercingetorix' scorched earth policy.

(d) Those who managed to steal away from Avaricum to Vercingetorix were re-equipped to fight on (VII, 31).

(e) One might further suggest, pace Nash, that the single defended oppidum is rather a characteristic of those areas (or at least some of them) which she characterised as less centralised. The following examples, from Rivet's list (1971) will suffice to make the point:--

(2) Noviodunum of the Suessiones

(3) Bratuspantium of the Bellovaci : BG II, 13, may be read to suggest the tribe and their possessions were concentrated in this fort.

(4) Oppidum Atuatucorum : they had abandoned all their oppida and castella and concentrated there.

(8) Oppidum Sotiatum.

(26) Lutetia of the Parisii - this, as an interesting variant, was defended by contingents from various civitates under an Aulerca leader. It was eventually burnt and abandoned by the Gauls.

But this is not a general rule either; both Armorica and the Alpine war of 57 BC offer a contrast. However, two things should be borne in mind: de Bello Gallico is clearly 'edited highlights' and not the whole story. Especially if one accepts that Caesar had to be sufficiently accurate for his account not to be suspect in Italy, as Nash (1976b) has argued, there is a quantum jump from the thirty fortifications of all sorts concocted by Rivet (1971) to the eight hundred mentioned by Plutarch (even if the latter is an exaggeration). Second, and much more importantly, there is little to suggest that the war of 52 BC was fought in terms of the civitas-by-civitas subjection
of Central Gaul: the whole concept of the war had changed.

Thus, Nash's subsequent generalisation (1978b, 468): "This (i.e. Hannibal's bargaining with individual leaders in the Alps) is exactly comparable with the way in which in Northern Gaul ....... Caesar's campaigns had to proceed by the reduction of fort after fort, not, as in central Gaul, by the ....... capture of the central stronghold of the whole people" is not supportable. Furthermore (and I submit there is hardly a whit of evidence either way), it would rather do down the remnant independence of action of pagus units of which she elsewhere is so eloquent.

More generally, the existence of super-civitas units might suggest that there was perhaps less distinction on the sociopolitical front amongst the civitates of the three Gauls than has hitherto been suggested, at least not enough for a clear threshold (particularly for 50 BC rather than, say, 10 BC) to be drawn on the basis of available evidence. If we are not to discount Caesar, the shadowy druides had acknowledged legal powers on an inter-civitas scale (VI, 13). The rôle of 'Gutuater' in the beginnings of the troubles of 52 BC may also merit mention in this regard. Moreover, in the concilium totius Galliae, the initial mechanism through which Caesar attempted to exercise control, it was again expected that attendance would be general. This latter is, of course, a weaker example, since we do not know whether it had met prior to 58 BC (I, 30), but clearly civitates (as in the case of the Treveri amongst others) and even pagi (as in the solitary case of the Morini) were expected to attend, suggesting that differences might not have been particularly marked.

Where does this leave the Lemovices?
The references to the Lemovices in the Gallic War

The Lemovices are mentioned four times, thrice by Caesar and once by Hirtius. These instances are as follows:

**VII, 4 (52 BC)**

Announces the arrival of the Lemovices amongst a list of tribes from C and W France in support of Vercingetorix, newly-created king, at the beginning of the Rising.

**VII, 75 (52 BC)**

The enumeration of the troops requested for the relief of Alesia sees the Lemovices grouped with the peoples of Armorica. It is possible that this does not refer to the Lemovices of Limousin, but to another lot, otherwise unrecorded. Alternatively, it may simply be that Caesar or Caesar's source may have had less than perfect recall — hardly surprising in view of the variety in the size of contingents requested. All the neighbours of the Lemovices of Limousin were requested to produce forces: the Arverni, and the Cadurci, the latter associated with them: the Petrucorii: the Santones: the Pictones: and the Bituriges.

**VII, 88 (52 BC)**

Records the death, during the final stages of the Alesia campaign, of Sedullus or Sedulius, described as 'dux et princeps Lemovicum'. Rice-Holmes (1914, 359) translates as follows: "As dux here, of course, means military commander, princeps evidently means chief magistrate". Constans, more sanguine, proposes 'chef militaire des Lemovices et leur premier citoyen' (1961, 351). Handford (1951, 232) settled for 'chieftain and commander'. According to Ellis Evans (1967, 468-9), the name may be Latin rather than Celtic. His rank clearly poses problems.
Caesar's use of princeps is so generalised that I submit it is next-to-useless. Dux is perhaps slightly more helpful. Apart from the all-embracing demand for the duces at the capture of Alesia, the term is used on several occasions to indicate military leaders. Thus, Boduognatus of the Nervii, leading the attack on a Roman encampment, is described as dux. Correus held the same rank in the Bellovaci (VIII, 17). Insofar as his power seemed to depend on popular support, as opposed to the Bellovacan senate (VIII, 17), we may speculate that duces, on the whole, were something Caesar disapproved of, and which were not present in the 'best-governed states'. But this can be no more than speculation.

VIII, 46 (winter of 51 BC)

The distribution of legions to their winter quarters at the end of the war sees two placed 'in Lemovicum finibus, non longe ab Arvernis'. Despite an earlier remark by Caesar that one legion was not enough to control the Bituriges, the disposition of the legions at this stage clearly corresponds to a scheme of regional policing. Two legions were similarly located with the Turones, but close to the frontiers of the Carnutes.

I would thus argue that there is nothing in Caesar's text in general, nor more particularly in his few references to the Lemovices, which allows us to place them on the continuum, somewhere along the line of which is the threshold which may allow us to recognise the presence of the archaic state. In this, the Lemovices are not unusual: we know no more of the political arrangements of many of the civitates of the Centre-West, for example the Bituriges, on the basis of de Bello Gallico. In any case, if one accepts the existence of a second group of Lemovices - sometimes located near the
mouth of the Loire—it is possible to transfer some of the above references to the Armorican branch. The evidence is reviewed by Morichon (1959; 1960).

7.3 The nature of the settlement record: urban structures and correspondences with state-level entities

7.3.1 Introductory discussion: patterning in the archaeological record

Lacking precision in the assessment of the level of social achievement of the Lemovices from the literary data, an obvious line of approach is to examine the patterning of the archaeological evidence. Essentially, three levels of approach are potentially available, and have been characterised by Clarke (1977a, fig.1) as 'micro-level', 'semi-micro-level' and 'macro-level'. Here, we are concerned exclusively with the upper two tiers of this hierarchical pyramid, that is to say with the within-site and between-sites systems. In recent years, approaches of this kind have generated a substantial volume of literature. A major stimulus was the quantitative revolution in geography (Haggett, 1965; Cole and King, 1968). Aspects of the literature are reviewed by Martlew (1981).

As a preliminary to the consideration of some of these models here, it should be stressed that the available data-set, as part II of this thesis has demonstrated, is far from ideal. To the very real constraint inherent in our inability to demonstrate that the sites considered were indeed contemporary and actively participated in a network, must be added the manifest incompleteness of the record. Nonetheless, we consider that it is worth attempting to apply some of these techniques (usually the simplest, in view of the weakness of the data set) by way of illustration of their possibilities and
perhaps to serve as a corrective on some views currently propounded.

A much more serious problem, insofar as those identified above are not insuperable, is presented by the central difficulty identified by Robson in his critique of a recent colloquium: 'the recurring problem of drawing inferences about process on the basis of spatial form and spatial geometry' (1979, 189). We may simply acknowledge the severity of this problem, but suggest that for many archaeological data-sets, the recognition of pattern may still be of assistance, even if we run the very real risk that the perceived patterns will not directly assist us in deciding whether we are dealing with the archaeological remnants of a former state or not. In other words, there is a very real possibility of equifinality. We can only overcome this by the insertion of arbitrary thresholds into the collated data, and make comparisons with 'similar' entities existing at different places in space and time: we have come full circle to the limits of inference.

Nonetheless, we consider that such techniques offer a potential corrective to views on the emergence of urbanisation and the primitive state which depend on the addition of a series of traits recognised in many instances from the literary record rather than from the patterning of the spatial co-ordinates (at whatever scale) of the entities that archaeologists identify. They offer an alternative line of approach to, rather than a substitute for, other means of identifying the complex of human social arrangements which goes under the generic title of 'the state' (Krader, 1968; Cherry, 1978).

A further problem is posed by the very real speed with which we may hypothesise Celtic society in France was evolving in the decades around the Conquest. As Farb pointed out in the case of the Aztec, another group whose emergence to statehood was rapid, 'Relics
of more simple kinds of institutions persisted in all levels of society' (1969, 174). We may perhaps take the survival of the institution of kingship amongst some of the groups of the three Gauls as potentially symptomatic of similar traits being present as 'noise' in our mute data.

7.3.2 Approaches

The variety of these is now so considerable that a review exceeds the scope of this thesis. We will concentrate on some of the types which have been applied to later Iron Age Temperate Europe. We consider the examples known to us to fall essentially into two categories. These may be defined as approaches founded on the perceived status differentiation of individuals (usually achieved by examination of the funerary record) and the aggregation of this information: the second suite is characterised by the manipulation of the larger entities previously identified as our principal field of enquiry.

The first category may be briefly considered, with an example, although we believe that in general the evidence from non-Mediterranean France in La Tène III is presently insufficient for its application. This involves an assessment of the differences in social ranking and by extension in administrative complexity on the basis of archaeological finds from graves or from domestic units.

Such an approach has been attempted for east Denmark (Hedeager, 1978), for which it is claimed that

"The distribution of graves does not reflect the settlement pattern, and it does not reflect the general population. Thus the distribution and the composition of graves is due to social and political factors ...." (p.218).

The general trend through time is for Roman objects to become more
widely available, at least in death, although spatial patterning also changes through time. From this pattern of zones of decreasing wealth for the Late Roman Iron Age, it is concluded that eastern Denmark was politically united, with the control of external trade being a lubricating element in this change. Interestingly, two different mechanisms are suggested for the establishment (military conquest) and disintegration (shift of trade routes) of this system.

Attractive as such models are, they must suffer relative to settlement data, if one does not accept that status in life is invariably mirrored by status in death. In this case, too, even accepting the author's initial premises, there are clear difficulties in accepting a funerary pattern (which she claims does not correlate with settlement information) as an indication of political centralisation. One might, for example, invoke Faller's trickle effect, previously used by Crumley (1974), to suggest that what is being mapped is the downgrading of the status significance of items from the Roman world. Although such models are potentially illuminating - and, for the central European early Iron Age, the bulk of the evidence is funerary in character (Wells, 1980) - they are eclipsed (or potentially so) by the wealth of data from later settlement sites. For the late Second Iron Age, status differentiation would be impossible to demonstrate at present across a set of civitates using burial data. This suite of social models is not considered further.

A second helpful approach is to look at within-site patterning. Clearly, the Limousin data falls far short of what is required to put this suite of models to more than basic use. In essence, this approach involves:

(1) identifying activities conducted within defined areas: here, defences, by providing an intramural area, clearly
mean that forts offer certain advantages (although they will never have functioned independently of their resource-base, however defined),

and

(2) identifying patterning within the activities that have been delineated.

As a corollary of this, one must devise a set of thresholds in this data (we may argue endlessly where this might be) to create a settlement hierarchy. These limits may take different forms, appropriate to the data, since one may create an impressive list of activities which could be going on inside a late Second Iron Age hillfort:

Commercial

Long-distance and local importing.
Long-distance and local exporting.

Manufacturing

For local and export consumption.
Minting coins.

Administration

Centralised storage.
Administrative/legal procedures.
Organised servants of the administration, including 'legalised force', embodied in an army.

Agriculture and other primary extractive industries

Practitioners either based on site, or use site for distribution.

Cult

Recognisable detritus or architecture.
Burials.

Habitation

Social differentiation visible qualitatively/quantitatively and/or spatially.

The list is infinitely expandable, especially if one considers the immense complexity of modern cities. This is irrelevant: what is not, however, is that few of these activities are restricted to units towards the top of a settlement hierarchy. Crudely put, it remains to
be demonstrated that the inhabitants of late Iron Age sites invented anything procedurally new. For example, metalworking, long-distance commerce, and social differentiation in settlement units are not the unique prerogative of sites at the top of a late protohistoric settlement hierarchy. It follows that indications of presence-absence of particular elements are normally meaningless, since the key in consideration of these items is a scalar shift, which we may hope to recognise, rather than mere presence. The corollary of this argument is that the recognition of any threshold (for example, 'urbanised' as a descriptor of a settlement site) depends on a quantitative assessment, normally related to the amount of excavation done and data processed — and not on the totting up of traits recognised qualitatively.

Thus sets of criteria, of the kind most recently listed by Nash (1978a, 5), need in the long-term to be expressed in quantitative, rather than qualitative, terms. In the meantime, it is essential that some of these criteria are framed in ways which can be recognised archaeologically or, alternatively, that ways are devised of showing, on the patterning of the archaeological evidence, that certain statements (e.g. 3a below) actually reflect ancient reality. As a first, crude, step, Nash's criteria have been subdivided and additional categories added: we believe that archaeology already has the mental apparatus to recognise all those identified by (b) below. In certain cases, the recognition of (a) traits would require a scale shift in the amount of excavation and/or more sophisticated sampling and more analysis of on-site distributional evidence than is presently available.

1. (a) Issuing a late phase type of coin. (b) Using late phase types of coin.

2. Defensive function: as, pace Nash (1976a, 107), there is no evidence that 'the murus Gallicus ...... is confined in the centre and east to urbanised oppida', we would prefer to drop the architectural style of the defences as a measure. Size of enclosed area is a not very acceptable
substitute, so let us set the thresholds low -

(a) enclosed area at least 10 ha.
(b) enclosed area at least 5 ha.

3. (a) 'Permanent occupation by a population many ..... of whom were not engaged in primary agricultural production' (Nash, 1978a, 5).
(b) The presence of (? more than one unit of) specialists.

4. (a) Presence of important manufacturing industries, especially metalwork.
(b) Recognisable sector (? scale : at least 3 workshops) devoted to a single industry.

5. (a) Function as a centre of local/inter-regional/ foreign exchange.
(b) No evidence that imports are not quantitatively insignificant in either absolute or relative terms.

6. (a) Function as a religious centre.
(b) Function as a religious centre in Gallo-Roman times, with evidence of previous use of the locality.

7. (a) Presents evidence of social differentiation in domestic units.
(b) "Planning" suggested.

8. (a) Clearly demonstrated to have a pre-Conquest occupation (e.g. Dressel la rather than lb amphorae: coarse wares of Périchon et al, 1977, types l-4 dominant).
(b) "Occupied in La Tène III" (? more than 20 items).

How do the sites mentioned by Nash fare against these criteria?

Let us consider the examples from Berry and Limousin:

Bourges, Cher

Nash, 1978b, 96, no.5 : "major urban oppidum"
1(b): 2(a): 5(a): 7(b): 8(a)
Inferred from finds and Caesar's account.

Les Possés Sarrasins, Châteaumeillant, Cher

Nash, 1978b, 96, no.9 : "major urban oppidum"
1(b): 2(a): 5(a): 8(a).

Levroux, Indre

Nash, 1978b, 96, no.17 : "major urban oppidum"
1(b): 2(a): 5(b): 8(b).
Internal area of hill-fort only known from surface collection.

Puy de Gaudy, Sainte Feyre, Creuse

Nash, 1978b, 96, no.29 : "major urban oppidum"
2(a).
Puy du Tour, Monceaux, Corrèze

Nash, 1978b, 96, no.31 : "major urban oppidum"
1(b): 2(b): 5(b): 7 (extremely doubtful): 8(b)

Puy d'Yssandon, Yssandon, Corrèze

Nash, 1978b, 96, no.32 : "major urban oppidum"
1(b): 8(b).

Camp de César, Saint Gence, Haute-Vienne

Nash, 1978b, 96, no.35 : "major enclosure: ? oppidum"
5(b): 8(b).

Saint Marcel, Indre

Nash, 1978b, 96, no.36 : "major urban oppidum"
1(b): 2(a): 5(a): 6(b): 8(b).

Ville Joubert, Saint-Denis-des-Murs, Haute-Vienne

Nash, 1978b, 96, no.39 : "major enclosure: ? oppidum"
2(a): 8(b).

On these criteria, the selection of "major urban oppida" seems difficult to support. The number that needs to be fulfilled seems extremely low, if these criteria, even applied less rigorously than Nash herself suggests, are to be at all discriminating. Amongst sites in these two areas, and taking into account her original list, the rejection of some sites seems rather idiosyncratic, and the 16 ha. fort at Sidiailles, Cher (see appendix) may be cited as an example.

I therefore submit that it is meaningless to describe Saint-Gence as "urbanised at an early date" (Nash, 1978b, 99) or the Puy de Gaudy (Nash, 1978b, 103) as an "urban oppidum". Widening the argument, I cannot see why Châlons-sur-Saône (usually taken as the oppido Cavillino of BG VII, 42) should be downgraded to a market-town (Nash, 1978b, 106) and, by the foot of the page, to an "urban vicus".

Subsequently, in her definition of 'urbanised oppida', criterion no.2, defences, is replaced by 'defensive position', even at the cost of the sites being 'inconvenient for routine habitation' (criterion no.3?). That 'oppida' should occupy a 'defensive position'
rather than merely have defences is a new gloss, and one which we consider is not supported by taking a wider perspective. Even some major sites have defences which militarily do not make sense, such as Heidetranktal in the Taunus (Maier, pers. comm.) and Mount-Beuvray, where the line of the principal wall, at certain points, especially near valleys, runs across slopes in a manner that suggests that defence was not the unique consideration involved in the selection of the line of the circuit. On the contrary, as we have suggested elsewhere (Büchsenschütz and Ralston, 1981a), it may prove useful to differentiate between enclosures the lines (and the manner of construction) of which suggest a quest for status - for juridicial or market purposes - rather than the adoption of a sound military circuit. However, we can see no reason why "defensive location" should be upgraded, since the defensive capabilities of some of the man-made defences seem decidedly suspect.

Nash's subsequent discussion of the criteria creates further problems: in the case of criteria (4), evidence of industry may provoke downgrading. The pottery industry is taken as characteristic of 'minor oppida' (1978b, 109), a class not otherwise defined, but perhaps smaller than the 6 ha. attributed to Saint Gence.

Further facets of Nash's paper demand comment. The correlation: civitas capital, therefore major urban oppidum nearby, therefore the latter was the senior oppidum of its region (1978b, 114) reeks of the past-as-wished-for. It allows no re-orientation of the settlement pattern in Gallo-Roman times, and would be particularly difficult to support in Limousin where Desbordes (1977b) has mapped the emergence of a substantial number of new centres in that period.

We may legitimately ask if the 'small normal size' of oppida such as Bourges, Poitiers or Gergovie (at 75 ha.) compared not only to
LIMOUSIN: ENCLOSED SITES OF LA TÈNE III

1. GRAND BOURG DE SALAGNAC 2. SAINTE-FEYRE 3. PIONNAT
4. JABREILLES 5. THAURON 6. ALBISSON 7. SAINT-GENCE
8. SAINT-DENIS-DES-MURS 9. SAINT-GEORGES-NIGREMONT
10. LAROCHE-PRES-FEYT 11. SAINT-ETIENNE-AUX-CLOS
12. YSSANDON 13. ALBISSAC 14. MONCEAUX.
THE PRINCIPAL GALLO-ROMAN CENTRES OF LIMOUSIN
AFTER DESBORDES 1977B.

those of central Europe but also to those of France (e.g. Villejoubert, and Saint-Désir in Calvados) may be taken to suggest a 'monarchical rather than oligarchic' system of government in the latter too (1978b, 114). If so, what is the evidence for the probable existence of the archaic state in the territory of the Lemovices?

With regard to the question of exchange, we dispute the contention that amphorae are almost exclusive to oppida and their surroundings, and suggest that there are few excavated La Tène III sites which do not have them. We also dispute that a few sherds of Dressel 1 equal a nobleman, least of all at Pont-Maure, Rosiers d'Egletons, Corrèze.

With regard to criterion 7, I consider the evidence from Puy-du-Tour merits a verdict of non-proven, and most of the other examples I do not accept as being pre-Conquest (especially Gergovia). Moreover, Guillaumet (1981) has shown that the celebrated buildings of the enamelworkers' quarters at Mont-Beuvray (Piggott, 1965, fig.124) are a function of the way the site was dug. There is, to the best of my knowledge, no La Tène III artisan quarters known in the oppidum of Levroux (pace Nash, 1978b, 115).

In general, much of the evidence from the early excavations and from surface collection cannot be used to show the pre-Conquest pattern on sites which also have post-Conquest occupation, because they were dug as single period sites or because multi-period (in the sense of La Tène III finale and tardive) occupation has not been distinguished. Mont-Beuvray is again a classic case: it is not that La Tène finale is not present at Bibracte (e.g. Nauheim fibulae), but that little of the assemblage is demonstrably separable from the tardive occupation typologically.

This factor, I submit, makes it extremely difficult to
support, on the basis of the criteria listed, assertions like "the majority (of oppida) in central and eastern Gaul were urbanised before the Caesarian war" (Nash, 1978b, 118). Some of the arguments adduced to support this appear weak, for example the reading of the evidence from Puy du Tour (p.119). As far as I am aware, none of its excavators commented on abandonment in the mid-first century BC, but rather on the absence of recognisably gallo-roman material.

Crumley's analysis (1974, 77-80) offers the considerable benefit of a coherent settlement hierarchy as the basis of her hypothetical model, which appears to me to be completely lacking in Nash's treatment. Here five site types are logically related, although one suspects that the pattern is capable of further refinement, both from what we know of individual sites and in providing more scope for confirming the settlement type from archaeological evidence. We suggest that the following modifications to the Crumley scheme are already possible to embrace the settlement types recognised or hypothesised for Gaul in the century or so prior to 0 BC.

(a) **Sites with insubstantial permanent habitation**

(a1) **Refuge**: as Crumley, 1974, 78, although I do not accept that the evidence of transhumance is the *sine qua non* of such a system.

(a2) **Periodic market places**.

(a3) **Religious sites**, without any apparent permanent population: usually recognisable, if at all, as precursors of gallo-roman rural religious centres.

(a4) **Viereckschanzen**

(a5) **Temporary military installations** of the kind built during the latter part of the Gallic War.

(b) **Unenclosed sites = Crumley's hamlet or village**

(b1) **Individual structures**, e.g. Caesar's *aedificia*.

(b2) **As (b1) but with indications** of higher status.
(b3) Agricultural village as defined by Crumley, 1974, 79.

(b4) 'Single industry' settlement sites - i.e. located close to single extractive industries.

(b5) Unenclosed industrial or marketing centres, in which agriculture is still a major component: perhaps cognate with Nash, 1978b, 'urban vicus'.

(b6) As (b5), but with higher order functions - e.g. mint: perhaps partially cognate with Nash (1978b) 'market town'.

(bf3)

(bf4) Cognates of (b3-6), but fortified.

(bf5)

(bf6)

(bf7) Enclosed military establishments.

(c) **Fortified town**
Redistribution and/or administrative functions more developed than (bf5) or (bf6).

(d) **Fortified city**
Redistribution and/or administrative functions more developed than (c).

(e) **Port of trade**
I suggest that the archaeological, numismatic and literary evidence gives us at least an intimation of the existence of all these categories of site in the Three Gauls in the first century BC, although I would concede that (a2), (bf7) and (e) are the least well-documented: other possibilities certainly exist (Collis, 1981).

Articulating this hierarchy will need much more subtle distributional information (and structural information) from within sites than is presently available, but other approaches are also possible. Before passing to them, it is evident that examples of these categories should be given. I will cite Central French examples as far as possible.

(a1) Le Châtelard, Jabreilles, Haute-Vienne
(a2) -
(a3) Les Pièces Grandes, Margerides, Corrèze
(a4) Azé, Mayenne.
A very real problem with this approach is clearly the availability of reliable data, but I do not accept Leach's constraint, subscribed to by Piggott (1979, 34-5), wholeheartedly. 'In archaeology, the accumulation of more and more evidence increases our information about historical artefacts: it does not increase the probability of our social guesswork'. To my view, this assertion radically underplays the significance of context and of spatial patterning, both of which are of use to, for example, the urban geographer in related problems of definition (Carter, 1976). There is both more and less than 'the expression of a social concept' (Piggott, 1979, 34) concealed by our imposed terminology of hierarchies of settlement. The recognition of spatial patterning of the evidence will clearly help the refinement or rejection of the above type of mode, but this is not cognate with the quest for the recognition of 'planning', an important factor in the Piggott treatment. I suggest that the resultant descriptions, for example sites described as 'interesting archaeological phenomena rather than demonstrations of incipient urbanisation' (Piggott, 1979, 47) get us nowhere.

However, the fuller utilisation of these models must depend on more excavation evidence - of the kind which is being accumulated at Villeneuve-Saint-Germain and elsewhere - perhaps coupled, where
possible, with the subdivision, from published evidence, of the results of enquiries like those at Mont Beuvray. In the meantime, these models are, I fear, inappropriate for the construction of generalising remarks about the nature and character of pre-Conquest settlements over an area the size of non-Mediterranean France. Meantime, too, it is also difficult to use them to visualise consecutive chronological states of a single settlement. There is, to the best of my knowledge, no site in Iron Age non-Mediterranean France for which we dispose of plans indicative of two successive stages.

The third approach involves a scalar shift in our field of enquiry, from within-site patterning to site-site and site-landscape/hinterland relationships. Again, a major constraint is imposed by the partiality of our evidence and our lack of chronological controls. The Limousin evidence discussed above is a clear example where it would presently be futile to attempt to impose a spatial geometry on the haphazard databank presently assembled. Does the Berry evidence offer better controls?

This area has certainly been frequently mapped, with the primary data sources (Büchsenschütz, 1968; Ralston, 1972) both remaining unpublished. For the department of Cher, much fuller cartographic information is now available (Büchsenschütz et al, 1979). Comparison of the published maps suggests that we are far from a state where the data can be treated as sufficiently solid for an approach of this kind: a comparison is nonetheless instructive.

Map 1: Ralston and Büchsenschütz, 1975, fig.1.

This indescribably bad (in the semiological sense) map, drawn by me, purports to show 'Hillforts and Viereckschanzen of La Tenè III in the territory of the Bituriges Cubi'. In all 30 sites are mapped, three being outwith the diocesan boundaries. Figures are
as follows: Viereckschanzen probable: 10 inside, one outside.
Hillforts: 8 inside, one outside. Hillforts probable: 9 inside,
one outside.

Map 2: Nash, 1976a, figs. 2 and 7.

Fig. 2 shows 4 'urbanised oppida'; 20 'major enclosures? oppida' and 17 'minor enclosures' in relation to geology. Only one
of the intermediate category is outwith the civitas limits. Fig. 7
increases the intermediate category of sites to 21, but reduces the
'minor' category by two.


Most of the sites are as per Nash, 1976a, fig. 7, but the
sites are now named and juxtaposed with 'sources of iron ore worked
in antiquity'; the classification now being 'major defended settlement' -
the four sites classified as 'urbanised oppida' above, 'large irregular
enclosures' and 'small rectangular enclosures', 'Large irregular
enclosures' still number 21. The 15 'small rectangular enclosures'
are synonymous with the 'minor enclosures' of the above classification.

Map 4: Büchsenschütz, 1977a, 5.

Maps 9 Viereckschanzen, 14 La Tène fortified sites, one open
Hallstatt site and two open La Tène sites in the appropriate area. The
La Tène fortified sites could be increased to 16 by the inclusion of
Neung-sur-Beuvron and Millançay.

Map 5: Büchsenschütz et al, 1979 (Cher only).

'La Tène': 4 enclosures
(p.373) 1 settlement
1 enclosure and settlement
'Hallstatt': 1 settlement
(p.372)
'Iron Age': 2 settlements
(p.371) 1 enclosure.

Map 6: Büchsenschütz and Ralston, 1981a (Central France,
selective, figs. 1 and 2.
27 sites of various categories for the two départements
of Cher and Indre: not all fortified.
We suggest that the variation in the sites mapped in the above treatments, whilst it in part records the changing database, is more especially symptomatic of the very real uncertainties concerning the classification of some of these sites. We simply know far less about them on average than is the case in certain other areas of Europe. Nonetheless, as a preliminary to an attempt to analyse this set of information further, the site record for Berry is reviewed in an appendix to this chapter.

7.3.3. The application of various techniques to the settlement data from Berry and Limousin.

The maps included here draw on the re-assessment of the Berry settlement evidence discussed in the appendix. In view of the weakness of the data, we have restricted this assessment to the most basic of the available techniques.

7.3.4 Theissen polygons

This simple technique depends solely on site-site distances and takes no account of the variation of the real landscape. Hogg (1971) has developed a method of defining territorial areas using a modification of this technique by weighing the calculations in relation to the enclosed areas of the sites considered. In view of the lack of the appropriate data for some of the Berry sites, this has not been attempted here.

The theoretical territories manufactured by Theissen polygons are thus abstractions, though their use is perhaps easier to support in a relatively uniform territory like Berry than one where greater topographical variation is present. A clear problem is posed by the need to establish a size restriction on the site size selected for
BERRY
THEissen POLYGONS

POSSIBLE ESMs
treatment in this fashion. Here the threshold utilised is all sites above 1 ha., including certain rectilinear sites which are not classic Viereckschanzen. Clearly the results will not be discriminating and it is only worth pointing out a few individual points on the basis of the maps which have been constructed.

(a) Châteaumeillant, Cher: Despite the quantities of amphora debris which have been recovered from this site since XIXth century which suggest it may have served as a distribution centre, its position, remote from the major water-course of Berry, has always seemed anomalous. This unusual feature may find further reflection in the theoretical territories reconstructed, where, in the case of Châteaumeillant, the effect of a reflexive pairing with the much less well-known site of Sidailles plays a major role in restricting the extent of Châteaumeillant's hypothetical domain.

(b) Whilst it is certainly possible that edge-effects are not insignificant, it is apparent that sites are more densely packed in the Champagne berrichonne than in other areas, with those towards the poorer areas of the Sologne being marked by particularly extensive territories. On the E margin of the area, the large territories might be construed as support for the settlement of the Boii in the area.

(c) The grouping of sites on the frontier with the Carnutes is also of interest. Whilst frontier zones are a known preferred location for Celtic settlement (something that Theissen polygons per se will not bring out), the implication here seems to be that Neung-sur-Beuvron may already lie in the territory of the Carnutes, or perhaps the Turoni.

(d) Insofar as the combination sizeable-fort-plus-extensive-territory may be taken to suggest the centre of a pagus unit, the following sites appear potentially significant:
Contrastingly, like Châteaumeillant, the extent of the territory of Argentomagus/Saint Marcel is comparatively restricted, although it is worth remarking in this instance that its nearest neighbour, Rivarennes, is very small, and Thollet, to the S, is best regarded as uncertain. (4) It is perhaps worth remarking that the hypothetical limit between Hérisson and Néris-les-Bains lies near the string of -ande and other 'border' place-names near the Allier border (Cravayat, 1958; Ralston, 1972, fig.4; Nash, 1978b, fig.3). However, weighing the polygons in the manner suggested by Hogg would tend to displace this border southward.

Clearly it would be inappropriate to make too much of this crude exercise. Nonetheless, the relative uniformity in hypothetical territories over the central part of the civitas Biturigum and the comparatively large territories on its margins (with their central places set some distance back from the frontier save on the R. Loire and in the Sologne) would not be inconsistent with the emergence of the centralising forces characteristic of state-level entities.

7.3.5 Rank-size relationships

Another approach to the classification of the internal organisation of the enclosed settlements within the civitates of Gaul would be to consider the rank-size relationships implicit in their areal extent. The foundation of this approach consists of the inductively recognised formula:

\[ P_n = P_1 (n)^{-1} \]

where \( P_n \) is the population of the \( n \)th town in the series. (Everson
and FitzGerald, 1969, 67): for our purposes, area has to be
substituted for population. As noted by Carter (1976, 86), the
observed smooth line characteristic of log-normal or rank-size
distributions, when plotted on double-log paper, appears as a contra-
diction to the hierarchical 'stepped' organisation characteristic of
classic Central Place Theory, with which it is sometimes compared
(Crumley, 1976).

It should be noted that the data here (as opposed to the
figures presented by Hodder and Orton, 1976, fig.4, 16) are graphed
on log-normal paper and not double-log, since the series is mani-
lessly incomplete. Despite this, the following points are considered
worthy of comment:–

(a) The data for Berry are considerably marred by the lack
of figures for Bourges and Sancerre in particular. If
the maximum size, of 70 ha., for Bourges is selected,
it is notable that there is a cluster of sites of about
the size (c. 23.3 ha.) which the rank-size rule would
generate for the third place in the ranking. Whilst we
may speculate on the existence of an enclosure of c. 35 ha.
at Sancerre (which could certainly accommodate it), perhaps
the most interesting features of the Berry line are –

(i) the suite of sites between 27 ha. and 15 ha. in
extent

(ii) the slight 'stepping' noted when the data is plotted
on log-normal paper. This may be ascribed, very
tentatively, to the existence of a hierarchical
arrangement as postulated by classic Central Place
Theory.
(b) The Limousin figures, dominated by Villejoubert, bring out very strongly the 'primate' nature of this distribution. The next certain site, le Puy de Gaudy, Sainte Feyre, would be 24th in the ranking if the Limousin data matched the log-normal pattern exactly. Even the largest of the tentative sites, Saint-Auvent, would be c.10th. Beyond stressing the massiveness of Villejoubert and its primacy in this pattern, little can be added, except to suggest, following Guillaumet and as discussed above, that it is possible that big sites are escaping detection, according to the well-known rule (e.g. Piggott, 1972, 23), whereby fieldworkers find what they are looking for. Improbable as the hypothesis may sound, it should perhaps be remarked that one of the largest hill-forts in Aberdeenshire (at about 5 ha.) was identified from the air this summer for the first time, despite its survival in pastureland as an upstanding monument.

(c) The Bellovaci figures, for Oise and one site in Val d'Oise, again correspond more closely to a log-normal pattern.

The interpretation of these patterns is not straightforward, not least because the essentials of the work have been based on modern distributions (Haggett, 1965, 101-7 and fig.4.11; Carter, 1976). The standard pattern suggested is that log-normal distributions (Berry, followed by Haggett, 1965, and Crumley, 1976) are characteristic of entries which are

(i) larger than average, and/or

(ii) have a 'long history' (Haggett, 1965, 105) of urbanisation, and/or

(iii) are economically and politically complex.

We would tentatively suggest that the data assembled here
are sufficient to suggest a difference between Limousin and the other
two areas studies, with Berry and Oise approximating to the more complex
pattern. Further testing is clearly necessary, and the correlation
with state-level entities more fully explored (here the Welsh hill-fort
evidence mentioned above is potentially problematical although chrono-
logical controls may not be tight in this example), but there is a
clear implication inherent in the above-noted discrepancy between
Limousin and the other areas. Of factors (a) - (c) identified above,
we may tentatively rule out (a). It thus follows that the likelihood
is that the difference is to be explained in terms of the sociopolitical
or socioeconomic domains.

7.3.6 A tentative formulation of a simple gravity model to give
a measure of interaction between sites

In that it produces a measure of interaction between points,
gravity modelling offers us a means of generating a hypothetical
picture of the internal organisation of civitates, and indeed between
territories, by comparing pairs of sites. As with other models, its
potential utility increases with the detail of the data supplied
(Smith, 1975; Chapman, 1979, 194-201). The basic formula may be
expressed as:

\[ I_{ij} = \frac{PiPj}{dije} \]

where \( I = \) interaction, \( P = \) population, \( d = \) distance, and \( e = \) a distance-
deay function.

Geographical effort has often been devoted to finding more
discriminating measures than crude population, but for our purposes the
even less acceptable substitute of site area has to be used. The
distance-decay function has usually been found empirically to lie
between 0.5 and 3.5 for modern transport networks (Farrington, 1975) and for this trial formulation the following values of the distance-decay function were selected:

(A) Same river basin, same civitas  
    e = 2
(B) Different river basin, same civitas  
    e = 2.33
(C) Same river basin, different civitas  
    e = 2.67
(D) Different river basin, different civitas  
    e = 3

This formulation is clearly no more than a guess, but the stress on river transport is perhaps not inappropriate. Measurements between sites were done on a straight line. The higher values for the exponent for between-civitates interaction was derived from received opinion on the nature of pre-Conquest coin distributions. Little attention should be paid to the exact figures produced here, as many of the initial figures have been rounded up.

Nonetheless, within the constraints which are a product of the partiality of the data and the assumptions underlying the selection of the values for the distance-decay function, the data produced for 26 pairs of sites suggests that, with refinements and more control on the input, the technique may be of some value.

Clearly, the differences between the scores produced in the accompanying table are to a large extent the product of the variation of the exponent, but, to the extent that this is conditioned by a major factor of the physical environment affecting transportation (for navigable rivers see Vauthey and Vauthey, 1966, fig.1) and political boundaries, the results are perhaps not totally valueless.

On the small and unstructured sample presented, the following tentative hypotheses may be advanced for further testing:

(1) Within-civitas interaction between sites may be suggested to be potentially more developed in Berry than in Limousin.

(2) High figures for the sites within Limousin are almost all
generated by the use of Villejoubert. This may either be
taken as support for the 'primate' nature of that site or,
contrastingly, to suggest that Villejoubert may be 'over-
represented' in terms of its likely functions by its
extensive internal area.

(3) In general, the results may be taken to suggest that future
research strategies should be devised to investigate within-
civitas linkages rather than the macro-scale contacts across
the system of oppida, first exemplified by Déchelette (1901),
or with the Mediterranean world.

(4) We may suggest that the difference identified in factor (1)
may correlate with differences in political management:
obviously, much fuller comparanda would need to be assembled
for this contention to be advanced seriously.

Gravity modelling of pairs of La Tène III sites

<table>
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<td>16</td>
<td>12</td>
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<tr>
<td>Villejoubert:Jabreilles</td>
<td>360</td>
<td>9</td>
<td>29</td>
<td>1268</td>
<td>Both Lemovices (A)</td>
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<td>Villejoubert:St.-Gence</td>
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<td>38</td>
<td>0.623</td>
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<td>5</td>
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<td>0.617</td>
<td>Same tribe (A)</td>
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<td>11</td>
<td>0.335</td>
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<tr>
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<td>4.5</td>
<td>11</td>
<td>0.297</td>
<td>&quot;</td>
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<tr>
<td>Levroux:Murs</td>
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<td>4.5</td>
<td>11</td>
<td>0.297</td>
<td>&quot;</td>
</tr>
<tr>
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<td>2.5</td>
<td>25</td>
<td>0.280</td>
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<td>Sainte Feyre:Aubusson</td>
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<td>1.3</td>
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<td>23</td>
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<td>23</td>
<td>58</td>
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<td>Saint Marcel:Levroux</td>
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<td>23</td>
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<td>49</td>
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<td>Remi/Suessiones (C)</td>
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<tr>
<td>Yssandon?:Monceaux</td>
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<td>113</td>
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<td>Lemovices/Arverni (D)</td>
</tr>
<tr>
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<td>75</td>
<td>146</td>
<td>0.017</td>
<td>Aedui/Arverni (C)</td>
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<td>89</td>
<td>0.013</td>
<td>Lemovices/Bituriges (D)</td>
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Continued ............
Gravity modelling of pairs of La Tène III sites (continued)

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<td>200</td>
<td>368</td>
<td>0.001</td>
<td>Lemovices/Lexovii (D)</td>
</tr>
</tbody>
</table>

7.3.7 Renfrew's Administrative Module (ESM)

Attention was drawn to this figure as a result of spatial consideration of early civilisations (Renfrew, 1975, 12). In the case with which we are dealing, the territorial units are too substantial to qualify for this test, but the detection of a regular spatial extent to early state models (ESM) is of interest, in that it allows us to identify "a number of autonomous central places which, initially at least (were) not brought within a single unified jurisdiction" (Renfrew, 1975, 13). Such a condition has often been claimed for the period before the emergency of the civitates in La Tène III, although in the lack of archaeological evidence for earlier occupation of many of the sites subsequently to emerge as important foci in the late Iron Age settlement pattern, it is difficult to demonstrate the existence of a prior suite of settlement sites in many areas, let alone commenting on their organisational characteristics.

On the sample of early civilisations studied by Renfrew, the median area of early state modules is usually c. 1500 km², with a mean distance of about 40 km between the central places of neighbouring modules. Factors associated with difficult terrain may distort these average figures considerably: about 10 early state modules is a usual number in the pre-unification stage. Whilst it has been noted that this formulation was first advanced as a "fairly simple, empirical generalisation based on a rather small sample of cases", arguments
have been put forward for developing this idea (Cherry, 1978, 422-6).

Assuming the principal centres (in the simplistic sense of 'larger forts') of La Tène III to have previously existed in this autonomous state, it is certainly possible to accommodate territories of the suggested extent within the subsequent civitas boundaries with very little overlap. We can therefore postulate that the civitates of Gaul may have emerged piecemeal through the amalgamation of hierarchisation of a pre-existing set of modules, but archaeological support for this heuristic device is presently lacking.

The case of the Morini may be taken as a possible indication that the formation of pagi represents an intermediate stage in this process of amalgamation. Alternatively, their emergence may be viewed as subsequent to that of the civitates, as a result of "the increasing ineffectiveness of state interaction with the periphery" (Gall and Saxe, quoted by Cherry, 1978, 426).

There remain two fundamental problems. First, it remains to be demonstrated that territories the extent of early state modules could not have emerged in "High Barbarian" societies: the more so since this type of spatial arrangement has been characterised as that for "an exploitative and centripetal social and economic system, in which an élite is to varying degrees parasitic on the rest of the population" (Cherry, 1978, 425). For example, the S British evidence presented by Cunliffe (1976, 1978, Ch.13) might be described as presenting site-site distances, and territorial areas not far removed in some instances from ESM units, given the favourable terrain of south-central England. Certainly the scalar difference would not seem to be such that Renfrew can be justified in dismissing the possibility of state-level entities in S Britain completely (1975, 17). Second, the existence of similar orders of distance between centres in 'imposed' settlement patterns - e.g. Roman
Britain (Hodder and Hassall, 1971) and Roman Limousin (Desbordes, 1977b, map) - suggests that the ESM may be partly the product of transportation and administrative controls.

In sum, the introduction of territories of the areal extent of Renfrew's ESM units into the civitates of the Lemovices and Bituriges provides a useful corrective to models for the emergency of these which perhaps put disproportionate emphasis on external factors. Archaeological support - for which the best (in the sense of readily detectable) evidence is perhaps the settlements like the Habitat des Arènes - needs to be collected, however.

7.4.1 Conclusions

Despite the uncertainties which pervade the conclusions drawn in the above sections, there are at least intimations that an amalgam of these techniques and others from the domain of human geography may prove helpful in differentiating amongst the organisational levels attained both within-sites and between-sites in the late pre-Roman Iron Age. Of the three sets of models outlined above, we feel that in the short term it is the third suite which, with refinement, should prove the most helpful. That they have not been developed far here is a function at least in part of the weakness of the database as presently assembled. However, within a matter of a few years, a much more solid database for several circonscriptions in non-Mediterranean France should be available.

Contrastingly, the second suite of models, dependent to a far greater degree on the recognition of within-site patterning, clearly requires a quantum jump in the quantity of excavation. Human specialisation and organisation at the within-site level is perhaps more difficult to characterise definitively, the more so since Celtic social structure
(in the broad sense of major groupings) appears to have embraced essentially similar units whether the organisation of the 'state' was present or not (Le Roux and Guyonvarc'h, 1982, 57-62). More abstract elements, like publicly-known laws, are clearly well-documented for early Ireland, and such customary law is not essentially the unique prerogative of the archaic state. Use of these models has also been marred on occasion by the citation of features which are potentially demonstrable archaeologically, but which have not been demonstrated, without differentiating between the two.

It is perhaps worth reiterating that the present author considers the models, tentatively formulated above, essentially as heuristic devices, which are not intended to describe or explain the facts, but to suggest possible explanations or eliminate others. In this latter regard, the variation in internal organisation of the pre-Industrial city, as allowable in terms of the Sjoberg model and discussed by Collis (1976; 1979), suggests that this latter approach may prove of limited assistance.

The insertion of an "urban" threshold will clearly continue to pose problems. In conclusion, three assertions to terminate this section:

(A) Given the number of potentially-urbanised sites in La Tène III in the Three Gauls which appear to have failed within a matter of decades, we may suggest that the generality of late Iron Age fortified sites was ill-adapted for incorporation into the dynamic and evolving urban system which has characterised France since Roman times. As a corollary of this, we may postulate that their locations and/or their internal layouts may have been contributory factors to their subsequent desertion, or downgrading.
In contrast to a view which sees the majority of upland fortified sites as ill-starred ventures in urbanisation, there appears to be increasing evidence that the "sites de plaine" (Ternes, 1978) may have adapted more successfully to the subsequent imposed pattern of Roman Gaul.

Finally, in respect to Limousin, it appears worthwhile to stress, with Desbordes (1977b) that this area still remains little urbanised in relative terms. In 1975, only two places had populations over 30,000: the medieval period was characterised by a 'scattering of small walled agglomerations, in general less than 10 ha. in extent'. It would thus perhaps be realistic to expect only restricted intimations of precocious urbanisation in this essentially upland area.
Towards a definitive list of enceintes in use during La Tène III in the territory of the Bituriges Cubi

Of the sources considered in the main text (see above), Nash (1978a, 181) tentatively ascribes the largest number of fortified sites to the period under consideration: for much of the data, the source is ultimately Büchsenschütz (1968). The chronological parameters of Büchsenschütz' thesis were, however, distinctly wider than the last century BC. Over the intervening years, further information on at least some of the sites has become available, and this suggests that it is worthwhile discriminating between those sites which have produced positive indications of occupation at the appropriate period and the rest, rather than simply attributing the entire set of works potentially to that period.

The following list therefore takes as its point of departure the sites (and their numbering) discussed by Nash (1978a, 176):

1. Châteaumeillant, Cher: 18 ha. promontory fort
2. Bourges/Avaricum, Cher: Caesarian description - postulated size of enclosed area varies from c. 26 to c. 70 ha.
3. La Groutte, Cher: Late reforitification enclosing 4.5 ha.
4. Sidiailles, Cher: 16 ha. promontory fort, with Fécamp-style defences, an inturned entrance and small finds of the appropriate period.
5. Neuvy-sur-Barangeon, Cher: (Nash, 1978a, 177: coins, 187) Although a candidate for Noviodunum, this locality ('novus vicus') was considered extremely unlikely for reasons advanced in Ralston (1972); Ralston and Büchsenschütz, 1975, 17.
6. Vierzon, Cher: No evidence of settlement known to me.
7. Levet, Cher: No surface or excavated evidence of any settlement preceding gallo-roman villa, although aerial
7. Levet, Cher: photography has revealed undated enclosures nearby (continued) (Holmgren and Leday, 1981).


11. Valles, Indre: This site was located in the middle of a plain. Le Fougeron: rectilinear in shape, it was partially enclosed by a bank which was spread to 12 m in width for a height of 2 m when Allain saw it (1948). The material discussed by Nash came from the scraped-up bank.

12. Luant, Indre: Fécamp defences on a 1 ha. rectilinear site: not a Vierereckschranze (Büchsenschütz and Ralston, 1981a), although the inturned entrance (Ralston and Büchsenschütz, 1975) presumably indicates La Tène III.


14. Brives, Indre: No surviving evidence of fortification from this site.

15. Martizay, Indre: Pre-Conquest material appears to be restricted to stray finds.

16. Dun-sur-Auron, Cher: Of the sites considered by Nash, this is certainly the most problematical. There is no evidence that the promontory of La Touratte was fortified, although frequent suggestions to that effect have appeared in the local literature (Ralston, 1972, 30-1). Another locality, proposed by a local historian, has also not produced definite evidence of enclosure nor of settlement at the appropriate period (Büchsenschütz et al, 1975). There is, however, a La Tène III deposit known from the Tour de l'Horloge in the town (de la Chaussée, 1872: Ralston, 1972, (xxxvii-xxxviii). If one accepts Guillaumet's reinterpretation of the celebrated barrow at Celles, Cantal, (Pagès-Allary et al, 1903), it is possible to extend the same argument (that the Cantal mound may cover a domestic structure or workshop) to the Dun-sur-Auron example, although the evidence as recorded by de la Chaussée is yet more ambiguous.
16. Dun-sur-Auron, Cher: Although funerary evidence of the Hallstatt and early La Tène periods is known in some quantity from the commune, there appears to be no incontrovertible evidence for the 'large irregular enclosure' mapped by Nash, 1978a, 181.

Cher: summary of evidence and additional commentary

Thus, of the sites discussed by Nash, nos.1-4 may be accepted definitively as having been in use in La Tène III: no.16 may be retained provisionally on the strength of the revised interpretation of the Tour del'Horloge find. Nos.5-7 are meantime rejected.

The following comments on the sites mapped, but not discussed, by Nash (1978a, 181) briefly summarise what is known of them.

ALLOGNY and SAINT-MARTIN-D'AUXIGNY, La Haute-Brune

At c. 112 ha., this is the largest enceinte in Berry (Vallois, 1876: Ralston, 1972, 16-9), but the enclosing works are extremely slight. Although close to a major iron-working area, possibly worked in pre-Roman times, (Kerleroux, 1974), this site is qualitatively very different from Iron Age fortifications.

BAUGY, Camp d'Alléant

This rectilinear site of about 2.5 ha. is built on a slope, and does not appear to be particularly defensive (Ralston, 1972, 19-21). Finds from the site and its environs continue to be exclusively gallo-Roman (Leday, 1979, with plan: Gallia 36, 1978, 261). There seems no more reason than there did in 1972 to dispute that this is essentially a gallo-roman work, although pre-Conquest occupation is certainly possible.

FARGES-EN-SEPTAINE, Le Dureau

This enclosure of about 18 ha. was destroyed in the XIXth century. Buhot de Kersers (1867, 38-41) provides a good description
and plan: the defences were relatively slight and the material from
the ditch, which survived to a maximum depth of 0.5 m, had been thrown
up to form an external bank. Both features were discontinuous. In
1972, following Buhot de Kersers, there appeared to be no reason to
envisage this site as either Iron Age or Roman. A second site in this
commune, at Chenevière (Büchsenschütz, 1968, 67) enclosed about 14 ha.
in a long rectangle 700 m x 200 m. The use of squared stones in its
wall suggested a Roman construction. The work was substantially
destroyed by the late 1960s.

GRON

There is a massive lenticular motte here, and the neighbouring
limestone plateau (about 4 ha. in extent) was suggested in the 19th
century as a probable 'oppidum'. The configuration of the terrain is
eminently suitable, but there exists neither evidence of fortification
nor of finds of the appropriate date (Ralston, 1972, 33-4).

LA GROUTTE, Camp de César

Promontory fort, with multi-period principal defence (perhaps
beginning in the Chasséen) and peripheral occupation up to 2 m deep.
Enclosed area c. 4.5 ha. (Gallia Preh 13, 1970, 358-62 with plan fig.18,

INEUIL, Boisroux

Viereckschanze: Büchsenschütz (1978, with previous
bibliography)

MARCAIS, Le Champ Clair

This site was in a near terminal state of decay by 1971:
19th century authors suggest the enclosed area to have been c. 8 ha.,
which appears to be the correct order of magnitude. Roman material
is recorded from the interior (Ralston, 1972, 40-1).
MORTHOMIERS, Les Bordes

(Ralston and Büchsenschütz, 1975, pl. IIa)

Double rectangular camp, formed of two conjoined rectilinear enclosures, each c.100 m x 100 m, now ploughed out.

MOULINS-SUR-YEVRE, Le Chou at Maubranches

This inland and low-lying promontory fort is defined by a bank-and-ditch of Fécamp specifications. The bank is some 280 m long (Ralston, 1972). The interior of the site has produced considerable quantities of neolithic material (Allain, 1969). Limited excavations suggest that the ditch was cleaned out before its final use and that the bank is a multi-phase construction (Gallia Préh, 15, 1972, 368). It has sometimes been suggested as the camp of Vercingetorix at the siege of Avaricum which, in the light of its unfinished appearance, is not impossible.

SAINT-LOUP-LES-CHAUMES, Le Châtelet

This site occupies a slight eminence, marked by intermittent exposures of limestone bedrock, in the middle of an extensive area of plain. The surviving bank, very slight, defines a polygonal enclosure, rather over 1 ha. in size. This site, pace Nash, 1978a, 181, is not a 'small rectangular enclosure' : plan in Ralston, 1972, fig.26.

SAINT SATURNIN, Bagneux

Likely Viereckschanse, now destroyed (Buhot de Kersers, 1886, 15-16, with plan : Ralston, 1972 : Büchsenschütz, 1978). It appears to have been trapezoidal, and to have enclosed c.1 ha.

SANCERRE

This isolated outcrop of Portland limestone, above the Loire, is an excellent defensive position. There is, however, no La Tène material known from the hill, and no evidence of protohistoric defences. The usual argument in support of this site equates the early medieval
Château-Gordon with the oppidum of the Boii (Gortona) and with Sancerre, rather than the riparian settlements which lie below it. The corollary of this view is that the Boii were located on the left bank of the Loire (Ralston, 1972, 46-8; Ralston and Büchsenschütz, 1975, 16).

SURY-ES-BOIS, La Cognardièrè

This site has a rampart coupled with an internal ditch, which is water-filled. It is therefore rejected as an Iron Age fortification (Ralston, 1972, 54-5).

 Sites not mapped by Nash

MENETOU-COUTURE, Château-Basin


MORNAY-BERRY, Villeville

Although rather smaller than is usual for the Viereckschanzen, this site 80 m x 80 m presently resembles their configuration rather closely: in the XIXth century, the defences appear to have been rather grander and this may cast doubt on this attribution (Ralston, 1972, 43-4).

SAUGY, Le Moulin Neuf

Viereckschanze (Büchsenschütz et al, 1979, 179; Büchsenschütz and Ralston, 1981a). This was the only new enclosed protohistoric site revealed in the fieldwork programme of Büchsenschütz et al, 1979.

Cher: Conclusion

This is probably the best-prospected and inventoried département in central France. Further discoveries are, however, to be expected, with aerial photography playing a major contribution (Holmgren and Leday, 1981).

Amongst discoveries signalled to date, that of a rich series
of 'native rural establishments' in the S of the commune of Bourges and in the N of Plaimpied-Givaudins may be noted. The valley of the Yèvre also seems to have plentiful remains (Gallia, 38, 1980, 311-4: 316-8). But, as in other wooded areas, further discoveries may be made. Le Châtelet in the commune of Arpheuilles, located in the bois de la Clouze, is a case in point (Gallia, 38, 1980, 311), although this particular example may be roman or more recent.

Sites retained in Cher:

1. Baugy, Alléant: rectilinear enceinte
2. Bourges/Avaricum: ? contour fort
3. Châteaumeillant: promontory fort
4. La Grotte: promontory fort
5. Tneuil, Boisroux: Viereckschanze
6. Marçais, Champ Clair: large rectilinear enceinte
7. Menetou-Couture, Château-Basin: Viereckschanze
8. Mornay-Berry, Villeville: Viereckschanze
11. Saint-Loup-des-Chaumes: polygonal enceinte
12. Saint-Saturnin, Bagneux: Viereckschanze
14. Saugy, Moulin-Neuf: Viereckschanze

Total: Sites larger than 5 ha.: 6 x 1 possible
Viereckschanzen: 6
Other enceintes: 2

Indre: Summary of evidence and additional commentary

Of the sites discussed by Nash, nos.6-13 may be accepted as having been in use in La Tène III: nos.14-15 are less clearly occupied at this period. The following comments summarise available information on those sites mapped but not discussed by Nash.

CHAILLAC, Milloux

Viereckschanze (Ralston and Büchsenschütz, 1975.
MEUNET-PLANCHES, Corny-les-Iles

See above: this site was recently refound (Gallia, 38, 1980, 324). Small - less than 5 ha.

MOULINS-SUR-CEPHONS, Les Châteliers

Despite the well-known coin hoard, this fortification appears to be neolithic. See above.

MURS, Camp de César

15 ha. fort (Büchsenschütz, 1968, 54) defended by a Fécamp specification bank-and-ditch.

NIHERNE, Camp de l'Allemagne

Rectilinear camp, c. 80 m x 80 m, almost ploughed out, above the R. Indre (Büchsenschütz, 1968, 1978): a probable Viereckschanze.

SACIERGUES-SAINT-MARTIN, Les Goutières

Possible promontory fort of c. 8 ha., but neither defences nor finds are definitely recorded (Büchsenschütz, 1968).

SAINTE-SEVERE, Camp du Guesclin

- Undated promontory fort (Büchsenschütz, 1968).

VILLEDIEU-SUR-INDRE, Camp de César at Chambon

This rectilinear enceinte lacks defences on the S side, which is marked by the edge of the plateau above the R. Indre. It thus differs considerably from the 'classic' configuration of a Viereckschanze. La Tène material has been recovered from pits elsewhere in the commune, at Mehun (Coulon and Poplin, 1974) and may be indicative of an open settlement paralleled at Les Arènes at Levroux (Gallia, 34, 1976, 320).

Sites not mapped by Nash (1978a)

LEVROUX, La Theurace

La Tène III 'tardive' (approx. D2/3) material below a gallo-Roman villa (Gallia, 36, 1978, 272), associated with enclosures spanning
the Augusteen and first century AD (Gallia, 38, 1980, 323 : Adam, 1979).

MONTIERCHAUME

Viereckschanze (Büchsenschütz, 1978, 298)

PARCAY, Saint-Maur

Viereckschanze (Büchsenschütz and Ralston, 1981a) : previously published as in the commune of Villers (Ralston and Büchsenschütz, 1975).

VINEUIL

Viereckschanze (Ralston and Büchsenschütz, 1975) : c. 100 m x 100 m.

Indre : Conclusion

Although not the subject of such intensive survey as Cher, and lacking as strong a nineteenth century record as that preserved for that département in the writings of Buhot de Kersers, (Favière in Büchsenschütz et al, 1979, ix-xiii), Indre's enclosed sites would appear to be reasonably well-known. However, the same factors - 'l'archeologie forestière' (Desbordes, 1975a) and aerial photography - as mentioned in Cher, may alter the pattern radically. Holmgren (1979) indicates the possibilities, but the only AP site excavated so far, at Montbaron, Levroux, despite its patent similarities with N French unenclosed later prehistoric examples, proved to be medieval.

Sites retained for Indre

1. Chaillac, Milloux : Viereckschanze
2. Levroux, Les Tours : contour fort
3. Luant, Le Châtellier at Les Pornins : heavily defended small rectilinear enceinte
4. Meunet-Planches, Corny-les-Iles : contour site?
5. Montierchaume, - : Viereckschanze
6. Murs, Camp de César : promontory fort
7. Niherne, L'Allemagne : Viereckschanze
8. Parçay, Saint-Maur : Viereckschanze  
9. Pouligny-notre-Dame, Les Fossés Sarrasins : heavily defended small rectangular enceinte  
10. Rivarennes, Le Gourde : small sub-rectilinear enceinte  
11. Saint Marcel, Les Mersans : contour fort  
12. Sainte-Sévère, Camp du Guesclin : promontory fort  
13. Velles, Le Fougeron : rectilinear enclosure  
14. Villedieu-sur-Indre : rectilinear enclosure  
15. Vineuil, - : Viereckschanze  

In addition, there are open sites at Chitray beside Riverennes (Coulon and Poplin, 1974), at Mehun (Villedieu-sur-Indre) and at Les Arènes (Levroux): La Theurace would seem to have been occupied post-Conquest (Adam, 1979).

Total: Sites (fortified only)  
- Larger than 5 ha. : 3  
- Rectilinear enceintes : 5  
- Viereckschanzen : 5  
- Other forts: size? : 2

Portions of other départements in the civitas Biturigum  

Whilst it is certainly true that there has been less activity in recent years in Indre-et-Loire (Nash, 1978a, 196), Loir-et-Cher (197) and Allier (199), these areas have also not had their local bibliographies examined in detail, unlike the 'core' départements of Berry.

Büchsenschütz' map (1971, fig.2) shows Allier and Loir-et-Cher to be départements where the SPF list exceeds 30 sites, and Indre-et-Loire one where de Mortillet (1906) listed more than 10 sites. Vienne (like Cher, Indre, and all the Limousin départements) breaks both these thresholds. In Allier, for example, the CEEPFA list reaches 66 sites (BSPF, 10, 1913, 104-6): whilst many of these sites may well be mottes (Mennessier and Büchsenschütz, unpubl., 44-9), in many cases the evidence is insufficient for definitive statements without recourse primarily to the local periodical literature and/or the field.

For the moment, then, it is probably advisable to separate...
Key: major fort ★ / promontory fort (under 10ha) ▲ / contour fort (under 10ha) ● / rectangular enclosure ▼ / Viereckschanze □ /.
the evidence for Cher and Indre from that of the other constituent areas of the civitas Biturigum in that their record has been more systematically exploited. In terms of the construction of geometric territories, however, it is perhaps defensible to retain those large forts which are located near the boundaries with the Lemovices, Arverni and Carnutes. These would include Hérisson (Allier), Neung-sur-Beuvron and Millançay (Loir-et-Cher) (Ralston and Büchsenschütz, 1975), all with Fécamp specification defences: Néris-les-Bains (Allier), although small (c. 2 ha.), may belong to the same category. The status of Thollet, Vienne (Büchsenschütz, 1968) and Pierrefitte-sur-Sauldre is less clear, but both may be retained provisionally.
CONCLUSION: RETROSPECT AND PROSPECT

The data assembled here for Limousin, although perhaps representing a more substantial collation of evidence than has hitherto been attempted, is nonetheless more remarkable for its lacunae than for its content. The former can clearly be diminished in time through controlled programmes of research, fieldwork and excavation such as have been initiated by the Direction des Antiquités Historiques (Desbordes, 1976b). In the meantime, there are clear difficulties in assessing the available evidence, particularly in relation to that for neighbouring areas, favoured in a variety of ways including the comparative ease with which their field records may be approached.

This, in our view, leads to two generalising tendencies, both of which are to be resisted. One is to diminish the differences, both geographical (in terms of the physical landscape and its resource potential as well as in terms of the human patterns fossilised in the monuments and artefacts) and archaeological (in the restricted sense of the characteristics of the artefactual record) between Limousin and its neighbouring regions, and to equate the rather more partial evidence from this area with developments reckoned to have occurred in adjacent provinces. The alternative view, perhaps most concisely propounded by Deffontaines (1933, 462) is to reduce the status of Limousin: "Cette région, pendant toute l'époque préhistorique n'a été qu'un hinterland, une annexe aux pays circumvoisins". Reality must lie between these two poles, but in some respects comparison with the disparate areas which share a common border with Limousin tends to throw into high relief differences which are less marked and more readily assimilable if a wider set of comparanda is selected.

There are distinct differences between Limousin and Berry, for example, but in view of the variation of the terrain and differences
in the resource base, this is to be expected. We may thus account for
the divergence of the spatial pattern in these two areas in terms of
environmental differences, but it is not necessary for these differences
to mirror significant variation in social organisation, though this is
tentatively suggested to be the case. A fairer comparison would be
between Limousin and other upland massifs, and in this context the
Armorican plateaux appear to display certain characteristics recognised
also on the western fringes of the Massif Central: a key factor is
perhaps the strongly primate rank-size figures for these areas. We may
compare the size and rôle envisaged for Huelgoat, Finistère, (Wheeler
and Richardson, 1957) with Villejoubert. It is perhaps worth emphasising
that all the other postulated late Iron Age sites of Limousin would
readily fit inside that immense site, nor can it be argued that the
extent of Villejoubert is purely a function of the configuration of the
landscape at that site.

However, in terms of the categorisation of social development
from settlement patternings, this produces a result which is ultimately
unsatisfactory. In broad terms, two contrary sets of arguments can ensue
from our recognition of differently-organised hierarchies of settlement.
One may accept both patterns as indicative of the emergence of state-
level entities, and attribute the differences to factors of terrain,
resource distribution in the landscape or differential social organi-
sation, although still within the broad definition of a 'state' (Cherry,
1978, 411). A second alternative allows one to propose that the
strongly primate patterns are indicative of something that is almost-
but-not-quite the state and use them to suggest a different 'stage'
in what is surely not a unilinear trajectory towards the evolution of
those institutions of the state which may be recognisable archaeologically.
Contrastingly, one may propose that the organisation of settlement in the landscape may correlate in the first instance rather with factors about which we are woefully ill-informed: the transport network is perhaps a key variable which, apart from general comments about the significance of riverine routeways, little can presently be said. It certainly appears from Wightman's evidence that those newly-created civitas capitals in north-eastern Gaul which survived as major centres into the succeeding period, or alternatively those centres which replaced them, tended to be on riverine routes, rather than merely at road junctions (1977).

From this uncertainty, various points ensue. First, it is not certain that the spatial geometry previously discussed is not other than a limiting case in the contexts in which geographers have tended to apply it. I would suggest that similar patternings may be recognised in the spacing of topless/not topless women on the beach at Menton (pers. obs., 1979) and it is apparent that the correlation of the partial patterns detectable by archaeology is not solely with state-level entities.

The key factor is not so much distributional factors per se, but scale - particularly in view of those factors of control and communication which are the sine qua non of the survival of the élites of state-level societies. Again, the sword is two-edged: we may take the Lothian Plain as an example. Discounting the voluminous aerial photographic record built up over the last few years, this area's later prehistoric record has long been dominated by a suite of major forts, spreading westward from Doon Hill, and often occupying volcanic features of which Traprain Law (Jobey, 1976) is the most celebrated example. The aerial photographic evidence has tended to fill out the 'lower grades' of this pattern, rather than upset the
hierarchy itself. Were it not for the lack of chronological control on the majority of the Scottish sites, I suggest that it would be difficult to accept the Limousin evidence (and indeed the Berry evidence) of spatial patterning as indicative of a state-level entity, and reject that for the Lothian Plain. Before developing this point in relation to the overall question of scale, it seems worth pointing out that individually the sites are not radically different in size. Leaving Villejoubert aside, none of the other Limousin sites is much bigger than the 16 ha. of Traprain Law: Yssandon, at a guesstimated 25 ha., and the even more uncertain Saint-Auvent, represent the largest of the known potential sites of that tract of central France.

The broader issue of scale here may be formulated in terms of territorial units. Already it is apparent that there is a radical difference between the average territorial extent derived for early states (the module of c. 1500 sq. km advanced by Renfrew, 1975) and the size of the civitates with which we have principally dealt. The three present-day départements of Limousin total approximately 16,950 square kilometres in area, so that the inclusion of the Confolentais would suggest that 20,000 square kilometres would be an appropriate order-of-magnitude figure for the ancient civitas Lemovicum: Berry is approximately three-quarters of that size. By way of contrast, the surface of Grampian Region is some 8,700 square kilometres, and represents one of the larger Local Authority areas in Britain to-day, and one which melds a similar mixture of upland core with lower-lying, but eccentric periphery.

We may thus hypothesise that these territorial units are too massive to have arisen as the dependent areas of individual centres. It then follows that the zonal patterns which we may detect in the archaeological record must at some stage have seen the creation and
A scalar comparison between the pre-Roman emergence of the state in Central Europe and other phenomena using an amended version of the Shapiro scales of Haggard (1963) (X-axis) and Jenkins and Hamilton (Y-axis) (1971).

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- Terschelling pagan (10,000 yrs)
- Terschelling church
- Exeter building
- 1% of hill fort
- 10% of major hill fort
- 15% of minor hill fort
- 25% of major hill fort
- 30% of major hill fort
- 40% of major hill fort
- 50% of major hill fort
- 60% of major hill fort
- 70% of major hill fort
- 80% of major hill fort
- 90% of major hill fort
- 100% of major hill fort

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articulation of an internal hierarchical arrangement. We may accept, for example, with Nash, that the major forts of the Bituriges may originally have been less interdependent than they subsequently became, but the need is to examine this evolution from the archaeological data, and that is presently difficult to demonstrate for non-Mediterranean France, although a tendency towards the centralisation of defence and other factors of hill-fort living has been suggested for tracts of South-Central England, for example.

Whilst it is demonstrable that certain forts in west central France may have been in use in the centuries directly preceding La Tène III, for the generality of the known settlements of the latter period, this is not the case. The corollary of this argument is that the emergence of centres and their subsequent articulation into recognisable hierarchies must have been achieved in the lifespan of a few generations, say $6 \div 3$.

We may thus plot the postulated emergence of state-level entities in non-Mediterranean France in terms of Haggett's G-scale (1975, 7) since we may take the 20,000 sq. km of Limousin as an indicator of the size of policies with which we are dealing - and Sugden and Hamilton's T-scale (1971). We suggest that this throws into reasonable relief the particular dimensions of the problem with which we are dealing and perhaps suggests a means for the more critical selection of comparanda.

In any attempt at modelling what happened in this particular space-time segment of the historical past, a major problem is that we are so poorly informed about the baseline from which this particular set of transformations took off. From Villes' excavations at Suippes, Marne (Mons-Bavai colloquium, 1982) and other work, it is beginning to be clear that community layouts (sensu Trigger, 1968) of some complexity
were a feature of certain areas of France between the end of Hallstatt and La Tène finale, but the available evidence is still extremely partial.

Thus it is presently difficult to advance an internal evolutionary model - other than a purely theoretical one - leading to the emergence (at least by La Tène tardive) of state-level entities and their archaeologically-detectable concomitants for non-Mediterranean France. Accordingly, external factors are thrown into perhaps undue prominence: the Mediterranean commercial contacts indicated by the by-products of drinking and to a lesser extent eating, and the rather more obtuse (and perhaps faltering) influences suggested by the intermittent appearance of coinage. Into this set of evidence, the conquest and subjugation of the Three Gauls should be fitted, but even here the implications are less than clear-cut, a difficulty compounded because of the hiatus which preceded the consolidation of the Conquest by Augustus.

We may perhaps conclude by suggesting the following formula:

(i) if one accepts that the bulk of the 'La Tène III' forts were occupied pre-Conquest

and/or

(ii) if one accepts that they exhibit internal characteristics à la Sjoberg, or, however defined, indicative of a class-based complex society

and/or

(iii) if one accepts that the 'community layouts' (sensu Trigger) should include the 'external' settlements like Aulnat and Les Arènes at Levroux

and/or

(iv) if one accepts the widespread emergence of coinage prior to the Conquest and the functional significance attributed to it

and/or
after Goscinny and Uderzo, 1981
(v) if one accepts that external trade was a major conditioning factor in the emergence of particular hierarchies

and/or

(vi) if one accepts that the ecclesiastical frontiers really mirror the situation in 50 BC

and/or

(vii) if one accepts that the testimony of Caesar is indicative of the general rather than the particular (and sometimes reversible?) emergence of state-level institutions

then, dependent on where the thresholds are set, there is clearly a case for arguing that the emergence of state-level societies is a feature of pre-Conquest times. My own view is that this is likely to be the case, but that on the presently accessible information, meshing together the three data sets of the numismatics, the archaeological sites and artefacts, and the historical record, it is difficult to demonstrate clearly.

In the case of the three départements of Limousin, the problem is compounded by the lack of excavational evidence and the uncertain calibre of some which has been summarily published. We estimate that the total excavated area on all Limousin Iron Age sites, funerary as well as occupational, will not presently exceed 5 ha., and is probably considerably less than that figure.

In such circumstances, we believe that the only honest judgement in response to the question 'Had a state-level society with indications of a hierarchically-organised settlement structure emerged in Limousin by the time of the Gallic War?' is 'Not proven'.

This list excludes articles referred to in Ralston (1981) and not referred to in another context here.

The following periodicals, to which frequent reference is made have been initialized:


BSAHL = Bulletin de la Société archéologique et historique du Limousin.


BSSHAC = Bulletin de la Société scientifique historique et archéologique de la Corrèze.

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Gallia in the mid 1st century BC
after Rice Holmes 1899
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Aeduan "confederation" (after Thevenot)
Other allies of Rome
IAN RALSTON

The use of timber in hill-fort defences in France

Amongst the most impressive physical remains to survive from the later prehistoric periods in Europe, from the Iberian peninsula to northern Scotland and to the central heartland of the Continent, are the varieties of fortified enclosure to which the generic term 'hill-fort' may be applied. Of course this epithet obscures the range of locations that such sites occupy: hill-slope positions and others of more negligible defensive properties, as illustrated in England and Wales by Forde-Johnston (1976), may be contrasted with others on summits, naturally difficult of access, and on sea-girt promontories. In defining such sites, an essential characteristic is the presence of at least a partial circuit of man-made defences (Hogg 1979: 1).

These defences are often the most indestructible element of a site, so that all that may be apparent today is the layout of a set of banks, walls and ditches, still present as surface features and delimiting an area that is, superficially, archaeologically featureless. The organization of hill-fort interiors and the nature and extent of inter-site relationships have been attracting greater attention in recent Anglo-American treatments of, in particular, the late pre-Roman iron age in France, especially since the emergence of urbanization as a theme in the archaeology of the later La Tène periods (Crumley 1974; Collis 1975; Cunliffe and Rowley 1976; Nash 1978). This paper, which I write with pleasure for Dr A. H. A. Hogg, whose Antiquity article of 1969 set me off in quest of French enceintes, will concentrate on some aspects of the defences of sites on the other side of the English Channel.

Primarily for the reason stated above, evidence of defensive architecture, albeit of very varying quality, is more plentiful than that relating to internal structures and layout for many French hill-forts. Although recent French work is, rightfully, more concerned with the settlement aspects of these sites, much of the evidence derives from a major spate of activity, partially stimulated by the interest of Napoleon III, and lasting from the mid-nineteenth century until the First World War, during which a principal concern was to establish the constructional (and destructional) sequence of the defences and to elaborate cultural parallels on the basis of architectural similarity.

There was a considerable range of constructional variation present in de-
fensive architecture in Europe north of the Alps during the last millennium BC. The increasing application of isotopic dating techniques, especially radiocarbon, to these later prehistoric structures has been a major contribution to our comprehension of the wide chronological span over which forts were constructed, though precise chronologies must probably still elude us in view, *inter alia*, of dated samples coming from mature constructional timbers (Coles and Jones 1975) and the evidence provided by the close-dating of the gateway timbers from Cullykhan, Banffshire (Campbell et al. 1978). Although there is as yet little reason to envisage a continuous tradition of fort-construction for many areas of Europe, there is equally little evidence to suggest that each perceived chronological episode of hill-fort building will allow of a generalized explanation, and local factors will need to be sought. Population displacements, such as that of the Cimbri and Teutones, remain one factor inescapably to be taken into account, but are unlikely to provide a satisfactory rationale for hill-fort construction in many instances. In France, as elsewhere, there is now plentiful evidence to suggest that many of these forts had been abandoned considerably before the appearance of the Roman military over much of central and western Europe, and hence before the best-documented conflicts in which such forts were to be involved. To anticipate the next section, there can be little doubt that the appearance of Roman armies in France north of the Mediterranean coastal strip in 58 BC must have given a considerable fillip to the defensive aspect of hill-forts, though, like many 'events' in protohistory, this is in many instances notoriously difficult to substantiate unequivocally from the available archaeological evidence. It may be suggested that the critical difference between the Romans and their Celtic adversaries did not lie in military technology, even though artillery, such as catapults, and siege-towers were surely novel threats to the security of Celtic fortresses. Although Celts and Romans had been in conflict for several centuries, and Celts had served as mercenaries in the armies of the Mediterranean world, the critical difference between Roman and native in the military sphere was rather in terms of organization, of the ability to sustain military activity. Prior to the appearance of the Roman armies, hill-forts fulfilled a function in societies where warfare may be presumed to have been of a markedly different character. Whilst warfare amongst High Barbarian groupings such as the Celts will have been a more elaborate undertaking than amongst less complex societies, we are far removed from the era of total war (Harris 1975). Records of inter-barbarian warfare are few, since this lay beyond the interests of classical authors, but Irish literary sources, amongst others of a slightly later date, point to the often desultory character of military campaigning amongst the protohistoric Celts. The character of warfare they portray is often essentially 'heroic', with larger-scale engagements limited to raids, ambushes and, by later standards, short-lived battles. The role of fortified strongpoints in warfare of this type is liable to be over-estimated, particularly when there is no reason to suspect that late bronze age and iron age societies observed a frequent convention of medieval military etiquette, which demanded of an attacking force that it should not confine its activities to plun-
dering an enemy's territory, and that it was honour-bound to besiege any stronghold the defenders had chosen to protect.

In the absence of explosives, the range of fire from a fort is greatly diminished, so much so that they are essentially passively defensive in character. It is thus difficult to support a view of hill-forts dominating a surrounding tract of country in any direct military sense. The only exception to this is the use of chariots by Celtic societies, though by the time Caesar was writing in the first century BC the military use of these vehicles seems to have been in decline on the Continent. Harding (1974) has pointed out that the chariot could have been used to convey a mobile force from a hill-fort to confront an approaching enemy on lower ground: cavalry, for which the Gauls were later to become famous in the Roman Empire, would represent another means of extending the aggressive potential of a hill-fort beyond its very immediate environs. In general, though, such military considerations as underpinned the forms of Temperate European iron age defensive architecture may be suggested to have been restricted to the likelihood of raids and attacks of limited duration. Only in the final stages of their use were they sometimes pressed into service against the Roman military machine.

Two principal competing strands can be noted in the military technologies of the last centuries BC in France. One of these is rooted in native craftsmanship, the other is influenced by contacts with the Mediterranean world. Taking France as an entity, the evidence of status artifacts, wine containers of various kinds and other material, suggests that Mediterranean influence was not all-pervasive, chronologically, socially or spatially, during the course of the local iron age. Whilst certain types of iron age fortified site in France show very clear Mediterranean influence - the masonry bastions and layout of Entremont (Benoit 1975) are a clear example - other aspects of French protohistoric fortifications are perhaps less readily assimilated to Mediterranean precedents. The latter is perhaps particularly true of the varieties of timber-laced defences culminating in the murus gallicus described by Caesar, and it is these that we will examine more closely.

Theoretical considerations

Multifarious considerations - political, economic, cult, legalistic - may have lain behind the decision-making involved in hill-fort construction. Both the selection of the circuit that the defences were to follow and the precise defensive architecture chosen for a particular locality would have had considerable consequences, economic and otherwise, for the community concerned. It is thus undoubtedly simplistic to consider in isolation the forms of defences adopted and to assess them purely in terms of defensive requirements. However, renewed discussion of this factor at a theoretical level may make a useful contribution to the wider consideration of later prehistoric fortifications. Factors directly linked to military requirements, and which may therefore have been given consideration when the structural form of a defence was
to be decided, might have included:

a. **Numerical strength and armament of forces likely to be deployed.** Under ideal conditions a set of defences should be constructed to resist an attack by the best-equipped and largest attacking force that can be envisaged.

b. **Resources.** The local availability, quantity and quality of constructional materials (primarily stone, earth, turf and timber) sets obvious limitations on the potential range of defensive architecture.

c. **Time and labour availability.** These are liable to be particularly critical when either is in short supply.

d. **Location.** The particular geographical location and any natural defensive advantages it may have conferred are another important factor.

e. **Convention.** Tradition within a society may exert considerable pressure in the choice of structural types.

It may be instructive to consider the general forms of defence which have been reconstructed on the basis of archaeological evidence, with a view to providing an estimate, at a theoretical level and certainly exceedingly crude, of their defensive potential. Only methods known to have been used will be mentioned; other ‘options’ may of course remain to be discovered. For the purposes of this exercise, our hypothetical hill-fort will be considered to lie in the middle of a flat plain which offers no natural defensive advantages. In this way, the effects of factor (d) — location — may be minimized. Similarly, to neutralize the effects of differential distribution of, and access to, resources — factor (b) — the main constituents of hill-fort defences will be taken to be of equal availability. By varying the input of factor (a) — the combatants and their armament — some of the perceived differences in the scale of defences may be accounted for.

The simplest form of defence would be required against wild animals or casual banditry. In either of these cases, two principal options suggest themselves: either a delimiting wall or a wooden palisade, perhaps set in the upcast from a small ditch. A third option, a thorn hedge, either living or dead, would be possible, though difficult to detect archaeologically. The appearance of an armed force equipped for hand-to-hand fighting would require the addition of a fighting-platform and breast-work to the wall or stockade. Another element of importance is the entrance, by definition a weak point, and increasing elaboration of the defences at this position is perhaps likely as the postulated level of aggression increases.

The sword and, to a lesser extent, the spear appear to have been the weapons *par excellence* of the European iron age. Slingstones are the most frequently recorded missiles, though the classical authors occasionally mention that stone-throwing was also practised. Archery seems to have been comparatively unimportant for much of the iron age, though metal arrowheads are recorded from both Hallstatt and late La Tène contexts (Mercer 1970; Duval 1970). The use of such missiles might provoke two rather different defensive reactions. The more spectacular would involve the widening of the defensive zone by the construction of a second circuit, or
indeed multiple circuits, of ramparts. The alternative would be to increase the height of the wall, perhaps enhanced, though only slightly in defensive terms, by the excavation of a ditch outside the wall-line.

The appearance of cavalry would not be expected to inspire improvements to the main line of defence but rather to promote means of disorganizing an attack by extending the defensive zone outwards. These might include the construction of chevaux-de-frise, though constructions of this kind may be assumed to have disrupted foot charges as well. The use of cavalry would also increase the speed of approach, and this might necessitate the construction of watch-towers in order that defenders could be alerted. Undertakings of this kind will have had constructional implications if such superstructures were to be built onto the wall-line.

Another aggressive technique recorded in the archaeological record is the use of fire, to which two very different responses are possible. Any exposed timber in the defences would represent a major hazard, so that minimizing the quantity of timber visible to an attacker, in addition to the selection of more fire-resistant woods, might be expected to have received high priority. Greater precautions to protect unavoidably inflammable features, such as wooden gates, might further contribute to the elaboration of the defensive works around the entrances. It would be expedient to minimize the risk of structures within the fort being set alight, and one solution would involve leaving a zone of the fort interior adjacent to the fortification itself clear of buildings. This might incidentally confer defensive advantages by simplifying access to the rampart. At this stage, the arguments in favour of a radically different defensive formula become persuasive. The alternative defensive arrangement would be to abandon the construction of walls containing timberwork (with vertical external face) in favour of a dump rampart (with sloping external face). As with missile warfare, multivallation, or at least bivaliation, might be advantageous, depending on the scale of the primary defence.

Against other more elaborate methods of attack the construction of a large dump rampart would also seem to be the most efficient. Height could thus be obtained and the dangers of collapse inherent in a vertical wall-face avoided. Advanced techniques of attack would embrace those mentioned in de Bello Gallico, including the use of battering rams, mining and sapping, artillery and siege-towers, most – though not all – of which probably represented new kinds of threats with the advent of Roman military expertise in Temperate Europe. Resistance to all these techniques would place a premium on additional precautions to render the approach to the defences more difficult, for example by deliberately waterlogging an area outside the fort, or by removing all brushwood and similar material which the attackers could utilize to level up the ditch in order to bring machinery into contact with the walls, and so on.

In all these cases, the alternative solution, that of building a stone-faced, rubble-cored wall, remains a possibility. The height of the defences might need to be increased from previous standards if siege-towers were likely to be employed. Similarly, the wall would need to be made thicker, to resist batter-
ing rams. An earthen rampart placed behind the wall would help to absorb the impact of the battering ram and might, incidentally, make the defenders' access to the fighting-platform easier. The division of the wall into compartments by internal timber-lacing (spiked at the intersections of the beams in the most elaborate Continental examples) or internal stone walls (\textit{murus duplex}) might reduce the extent of the disintegration of the rampart core should the external wall-face collapse. This latter consideration would apply whether such internal stone walling ran parallel to (as appears usual in France) or transverse to the line of the wall. But there can be little doubt that both the construction and the maintenance of such a wall would demand greater input of labour and resources than would be required for a dump rampart of equivalent, or greater, defensive capabilities. Even in periods of prolonged peace, the natural decay of internal timberwork would require substantial investments in labour to dismantle the wall before any repair could be effected.

It is thus possible to argue that timber-laced defences, built by craftsmen accustomed to witnessing the decay of woodwork, may have been constructed to counter circumstances which the builders did not believe were going to endure indefinitely. Nor does it appear likely that such defences would have been constructed to counteract an immediate and short-term threat, when a dump rampart would seem to present a more efficient solution, either to refurbish a decayed wall or as an entirely new structure.

Two conclusions emerge from an inquiry of this kind. The first is that the type of defence recorded from a number of protohistoric fortified sites differs considerably from the type which might have been considered, on theoretical grounds, best suited to resist the forms of attack being perpetrated. This contrast can be thrown into high relief by consideration of some of the types of fortification in use during the Gallic War of the mid-first century BC. Julius Caesar described an elaborate variant of the timber-laced wall as the usual type he encountered in the campaigns of 58–51 BC. He speaks highly of its resistance both to fire and to the battering ram. However, archaeological evidence, coupled with at least one reference in Caesar's text, suggests that by the time of the Gallic War the Fécamp variant of the glacis-fronted dump rampart was becoming more common – since its distribution, as presently known, extends beyond the territorial boundaries of the Belgae, to whom Wheeler and Richardson (1957), more particularly followed by Paul-Marie Duval (1959) in his review (\textit{type Belge}) of that work, chose to attribute this particular development. Caesar's text can also be construed to suggest that the Fécamp ramparts also formed a more formidable military obstacle to his armies, as at Noviodunum of the Suessiones (\textit{de Bello Gallico} II, 12), than did the timber-laced walls.

Secondly, it has been argued that defences are constructed as the outcome of decisions involving a complex of factors, some interdependent, some at least partially deterministic. Accordingly, it is perhaps as valid to discuss defences in terms of methods of warfare, a model which would easily accommodate the existence of varying strengths of fortification in a past landscape,
as it is to attempt to create a typological sequence based on architectural
details of the constructional methods used.

It remains, nonetheless, remarkable that various forms of timber-lacing
should appear to be such a persistent feature of Temperate European proto-
historic fortifications, as in the Lausitz culture area (Hawkes 1971) and
amongst the Dacians (Rossi 1971), as well as in areas further west bordering
on France (Graff 1963). Timber-laced ramparts are resource-consuming,
demand heavy input of labour for both construction and maintenance, and
appear in some circumstances to have been militarily outmoded, while in
others they conferred few advantages over dump ramparts, even if substi-
tually masked by a protective coating of turf, as has been suggested by at least
two very different pieces of excavation and research (Avery et al. 1967; Young-
blood et al. 1978). It is difficult not to believe that the twin goads of convention
and prestige were important factors in the decisions to construct the later
timber-laced walls.

Timber-laced fortifications in France

One recurrent feature of later prehistoric fortifications in France, as else-
where in Temperate Europe, is the use of substantial quantities of timber.
Architecturally, if not always chronologically, the culmination of this trend
was the construction of the defensive circuits of the massive late La Tène
oppida, such as Mont Beuvray in Saône-et-Loire. Such defensive works,
with perimeters several kilometres long, are, as Collis has recently argued
(1975), the products of societies whose economic base was at least partially
industrialized. The defences themselves suggest this, on account of both the
large number of uniform lengths of timber and the substantial quantities of
iron nails required to fix the timber intersections in the walls of forts enclosed
by true muri gallici.

Discussion of muri gallici has tended to centre on their chronological pos-
tion and on the degree of Mediterranean influence which may be exhibited in
this form of construction (Dehn 1960; 1969). More recently, Collis and I (1976)
have argued in favour of an indigenous Temperate European background to
this well-known group of sites, suggesting that the vitrified forts of France
may well have formed part of the architectural legacy of the use of timber-
work in defences on which the elaborations of the muri gallici were based.

Despite MacKie’s contention (1976b: 206) that the vitrified forts of Scotland
are ‘unique in Europe’, the 70 or so examples in north Britain are matched by a
roughly equivalent number in France, and comparisons between the two sets
of monuments have been made intermittently since the nineteenth century
(Youngblood et al. 1978). In referring to such vitrified forts, we are not directly
concerned with the constructional/destructional argument which has come
to the fore again recently (Brothwell et al. 1974; Nisbet 1974; 1975; MacKie
1976b; Youngblood et al. 1978); it is sufficient to remark here that most theories
currently propounded seem to be in agreement on the need for considerable
quantities of timberwork in the defence. The Appendix to this paper lists all examples of vitrification known to me, mainly from literary sources, as well as defences in which calcined material has been reported. It should be stressed that Nicolardot's recent work in Burgundy and the analyses carried out in conjunction with that programme (Delattre in Nicolardot 1974: 44–5) indicate that calcined material recovered from the neolithic settlement at the Camp de Myard, adjacent to the enclosing wall of that site, was not attributable to the destruction by fire of the defences. Some early identifications of fortifications in which the core has been described as calcined may therefore be suspect, but in general it appears likely that most examples where calcination has been recorded indicate the former presence of internal timberwork in a defence of limestone or similar building stone. I remain unconvinced that vitrification or calcination in most instances is anything other than an indication of the destruction by fire of a timber-laced wall. Accepting that similar defects will

Figure 9. Sites in France reported to be calcined or vitrified (excluding mottes).
occur in this list as were noted by Nisbet (1975) in her consideration of the Scottish evidence, for example a confusion of some rock types such as conglomerate with vitrification, the overall distribution of calcined and vitrified sites bears a considerable resemblance of that of other types of timber-laced defence, as presently known (figs. 9–11). The distribution maps share a comparative paucity of sites within the Paris Basin and in Provence.

Vitrification may have as wide a chronological range as the use of timber-frameworks in defensive architecture. Thus, in Scotland, we may add late dates for the wall at Mote of Mark, Kirkcudbright (ad 459±42: Laing 1975a) and the slightly-vitrified core of a timber-laced wall at the Green Castle, Portknockie, Banffshire (Ralston 1980) to the end of the series quoted by MacKie (1976b). In France, various mottes which exhibit signs of vitrification may be presumed to represent a later use of structural timberwork in this markedly

Figure 10. Late defences in France: *muri gallici* (lozenges), Kelheim types (open circles), and defences from which nails are recorded (rectangles).
different form of early medieval fortification. The Appendix includes several examples of mottes, which are mapped in fig. 12.

Given the general lack of large-scale excavation or isotopic dating, the chronological range of defences incorporating timber (including vitrified and calcined sites) lacks precision, though at least ten sites appear to have received their defences in later Urnfield or Hallstatt iron age times, including la Crête de la Granède in Aveyron, la Brèche-au-Diable in Calvados, Vœu in Charente, la Groulle in Cher, le Puy de Sermus in Corrèze, le Châtelet d'Étaules in Côte d'Or, Aubusson in Creuse, and the Britzyberg in Haut-Rhin; other possibilities include Erquy in Côtes du Nord, and perhaps Camp-Allaric in Vienne. Contrastingly, true muri gallici and Kelheim types (Collis and Ralston 1976) remain late in the French sequence, no excavated example clearly pre-dating La Tène III, and they apparently continued into early
Gallo-Roman ('précocé') times, as for example at Vertault in Côte d'Or. Given the recovery of nails from other types of defence in, for example, Calvados and Nièvre, as well as the occasional reference to the recovery of iron from vitrified works, it is perhaps advisable to separate those muri gallici identified solely by the recovery of nails from those where a more formal proof exists.

Whilst it has frequently been suggested that there may have been a hiatus in hill-fort construction in France north of Provence for two or three centuries before the spate of fortification construction in late la Tène (Hodson and Rowlett 1974: 187; Collis 1975: 11; Collis and Ralston 1976), the paucity of datable artifacts attributable to these years from settlement sites in general makes this assertion difficult to support, perhaps particularly for western France. In eastern France, recent evidence from excavations, as at La Pierre d’Appel in Vosges (see Appendix), may help to bridge this postulated inter-

Figure 12. Mottes (triangles) and other apparently medieval works (stars) in France, with vitrified material associated.
ruption, though, in view of the evidence from elsewhere in Temperate Europe (Collis 1975), there is no a priori reason why hill-fort construction and use need have been a continuous process.

However, given the imprecision which prevails at present, it seems preferable to avoid detailed chronological discussion. The distribution maps, with all the shortcomings of their kind, are perhaps the most graphic illustration of the feeling that a considerable expertise in the construction of wood-and-stone defences lay behind the muri gallici of mid-first-century bc Gaul.
Appendix: early fortifications in France with evidence of timber recorded from the defences

This appendix represents a preliminary attempt to group information on the use of timberwork in early defences in metropolitan France. Many of the sources on which it is based are old, and the gazetteer is certain to be incomplete. Not the least important reason for this is the survival of the local archaeological society as a major publication agency (for which, see the appendix to Gallia 23, 1965). The acquisition of a fuller picture is liable to be a considerable task in view of the lack of a direct archaeological influence on the state mapping agency in France, the Institut Géographique National. In time, the Projet de la Constitution d'une Carte Archéologique de la France (Büchsenschütz et al. 1975) may well ameliorate the picture, but for the moment there is still considerable uncertainty about the global total of surviving early fortified sites in France (Büchsenschütz 1971). The most complete national survey remains that of the Commission d'Étude des Enceintes Préhistoriques et Fortifications Anhistoriques, published in a lengthy series of reports in the bulletin of the Société Préhistorique Française in the first three decades of this century. These reports usually take the form of annotated lists arranged by département (county) and commune (parish). For recent work, the most accessible way of monitoring excavations in France is through the summary reports of the area directors of antiquities, appended to the national archaeological periodicals Gallia and Gallia préhistoire, which are unfortunately not indexed.

The following list is arranged by département and commune, after which each entry gives the site names, selected references, and an outline of the nature of the evidence. The same numbering system is used on the maps (figs. 9–12).

1. Aisne, Montigny-l'Engrain
   Le Châtelet
   (Wheeler and Richardson 1957: 129 and 205–6; Cotton 1961: 105–6 and n. 13, 113)
   Primarily on the basis of Vauvillé's nineteenth-century excavations, Cotton originally considered this to be a timber-laced rampart with iron nails. In 1961, however, she suggested that this camp represented a tribal chef-lieu in Gallia Belgica, copying the murus gallicus, but without nails.

2. Aisne, Saint-Thomas
   Vieux Laon/Camp des Romains/Camp de César
   (Wheeler and Richardson 1957: 131; Lobjois 1965; Collis 1975: 206)
   Classic murus gallicus, first recognized by Peter Goessler in 1915, enclosing 32ha.
   Subsequently reduced in size by the construction of a dump rampart of Fécamp type.

3. Allier, Bègues
   Un-named site
   (Capitan 1913; 1915; 1916)
   Calcino-vitrified. Description suggests vertical and horizontal timbers.

4. Aveyron, Millau
   La Crête de la Granède
   Burnt timber-laced rampart which was constructed, at latest, in the early Hallstatt iron age.

5. Calvados, Banville
   La Burette
   (Wheeler and Richardson 1957: 208–9)
   Cotton was able to cite only circumstantial evidence for the presence of iron nails from this 2ha fort in suggesting that it may have possessed a murus gallicus.

6. Calvados, Castillon
   Oppidum de Castillon
The excavation of one section across the defence of this 35ha oppidum indicated the presence of a Kelheim-type wall (Collis and Ralston 1976: fig. 1). However, quadrangular-sectioned nails came from some of the post-holes for the vertical timbers of the rampart façade.

7 **Calvados, Saint-Désir/La Motte**
Camp du Castellier
(Wheeler and Richardson 1957: 118 and 203–4)
Massive oppidum enclosing in excess of 150ha and defended by a *murus gallicus*; largely obliterated by the time of the Wheeler expedition in 1938–9.

8 **Calvados, Soumont-Saint-Quentin**
La Brèche-au-Diable/Le Mont Joly
4ha promontory fort, with defence probably of late bronze age date. Edeine (1966: 259) was of the opinion that the traces of charcoal and burnt timber recovered from the excavation of the defences represented the remains of fires set on the clay of the rampart in order to harden the clay.

9 **Cantal, Escorailles**
Un-named site
(Vazeilles 1936: 85–6)
Vitrified site. Possibly confused with an example in the commune of Mauriac.

10 **Cantal, Mauriac**
Vieux Château at hamlet of Escoalier
(Fournier 1961: no. A2)
Vitrified. Various other sources, including Déchelette (1913: 706), suggest the presence of a second vitrified site here, but it may be that mentioned by Vazeilles (1936: 85–6) in the commune of Escorailles.

11 **Charente, Mouthiers-sur-Boeme**
Un-named site
(Büchsenschütz, pers. comm.)
Calcined.

12 **Charente, Soyaux**
Camp de Recoux
(Lièvre 1888; Savory 1971b: 259, 260)
Calcined.

13 **Charente, Voeuil-et-Giget**
Fort des Anglais/Camp de Pierre-Dure
(Lièvre 1888; de la Noé 1892; L'Intaude 1956; Savory 1971b: 259)
Calcined. Bersu thought this camp was probably of final Urnfield construction (in L'Intaude 1956: 125); there is material of that period from the site, paralleled at Camp Allaric, Vienne (Pautreau 1976: 414).

14 **Cher, Bourges**
‘Avaricum’
(Dumoutet 1863; Wheeler and Richardson 1957: 199–201; Ralston and Büchsenschütz 1975: 10–11)
Dumoutet (1863: 1) makes the only reference to the discovery of a wall conforming to Caesar’s description (*de B G VII, 23*); this was located by excavations in the Archbishop’s Garden in 1821.

15 **Cher, Châteaumeillant**
Les Fossés Sarrasins
(Hugoniot and Gourvest 1961; Ralston and Büchsenschütz 1975: 11; Collis and Ralston 1976: 142)
Although it would be possible to account for the absence of iron nails from the timber-laced rampart at the southern end of this 18ha promontory fort by the
limited sampling, it may be of Ehrang type.

16 Cher, La Grouotte
Camp des Murettes/de César
(Hugoniot and Vannier 1971; Ralston and Büchsenschütz 1975: 12)
The earlier defences of this site show evidence of fire-reddened stones and calcination.

17 Corrèze, Lamazière-Basse/Darnetz
Le Châtelet at La Gane
(Vazeilles 1936: 56–7; Brogan and Frere 1958: 221; Cotton and Frere 1961: 45, n. 38)
One wall is vitrified in a site which has produced evidence suggestive of use in both the iron age and medieval periods. Cotton has suggested that two phases, a vitrified Preist-type wall and a murus gallicus, may be represented, but this is unproven.

18 Corrèze, Monceaux-sur-Dordogne
Puy du Tour
(Bombal 1906; Hatt 1941; Wheeler and Richardson 1957: 182–3; Cotton and Frere 1961: 43; Murat and Murat 1967)
The post-war excavators of this c.6ha site did not re-examine the defences, even the line of which must be regarded as uncertain. Bombal’s description (1906: 408–10) is somewhat ambiguous, but Cotton (in Wheeler and Richardson 1957) is surely right in suggesting that the lower part of the murus gallicus appears to have been rubble-built and to have lacked both the wood and nails recovered higher up. It is possible that a number of post-holes recorded below the rampart represent an earlier defence, but Bombal suggests that they may be evidence of pre-rampart settlement.

19 Corrèze, Monceaux-sur-Dordogne
Le Chastel, Le Puy Grasset
(Rupin 1893)
Vitrified motte.

20 Corrèze, Saint-Geniez-ô-Merle
Puy de Sermus
(Rupin 1893; Raymond 1910; Cotton and Frere 1961: 45; Lintz 1976)
Vitrified promontory fort which has produced a little iron age pottery.

21 Corrèze, Saint-Pardoux-le-Vieux
Château de Confolent
(Vazeilles 1938)
Vitrified motte.

22 Corrèze, Ussel
Camp du Charlat
(Cotton and Frere 1961: 31–42)
Small plateau fort occupied during late La Tène and post-Conquest times; defences of murux duplex construction, incorporating horizontal timbers.

23 Côte d’Or, Alise-sur-Reine
Mont Auxois/‘Alesia’
Oppidum enclosed by a murus gallicus. Collis (1975: 173) suggests, on the basis of changes of alignment, that there may have been more than one period of construction. A sector of the southern slope of the hill has recently produced indications of murus gallicus construction.

24 Côte d’Or, Bouilland
Le Châtelet
(Nicolardot 1975: 92)
Calcined.

25 Côte d’Or, Crecey-sur-Tille
Camp de Fontaine-Brunehaut
The main defence of this promontory fort appears to be a dry-stone wall; only one sondage produced evidence of calcination. The wall is underlain by Hallstatt material.

26 Côte d'Or, Étaules
Le Châtelet
(Raymond 1910: 3, 22; Guyot 1964)
Promontory fort with rampart of complex structure. The pre-calcined level of the rampart is Hallstatt B/Kimmig Champs d'Urnes III in date.

27 Côte d'Or, Gevrey-Chambertin
Château-Renard
(Nicolardot 1975: 92)
Calcined rampart.

28 Côte d'Or, Flaverignot
Mont Afrique/camp de César
(Drioton 1905: 50; Raymond 1910: 14; Gallia 34, 1976: 441)
Kruta's recent excavations do not seem to have produced further evidence of calcination. Apparently late La Tène in date.

29 Côte d'Or, Plombières-les-Dijon
Bois-Brulé
(Drioton 1905: 50–6; Raymond 1910: 3)
Calcined.

30 Côte d'Or, Lavilleneuve
Le Bois Vert
(Wheeler and Richardson 1957: 209)
Timber-lacing recovered in the enclosing wall of a barrow. The Dictionnaire des Communes lists three Villeneuves in this département. Not mapped.

31 Côte d'Or, Val-Suzon
Le Châtelet
(Drioton 1905: 50–6)
Calcined.

32 Côte d'Or, Vertault
Vicus Vertillum
(Wheeler and Richardson 1957: 198–9; Gallia 16, 1958: 308–10; Dehn 1960: 45; Collis 1975: 174)
The most recent investigation of this murus gallicus, known since the last century, suggested a post-Conquest date to the excavator, M. R. Joffroy; this depends largely on an assessment of the quality of the stonework, especially in the outer wall-face. Two other unusual features were the short length of the beams employed, and the presence of longitudinal timbers, as well as the beam-ends of the transversals, in the front face of the wall.

33 Côte d'Or, Villeberny
L'Haut-Mont
(Nicolardot 1975: 92)
Calcined rampart.

34 Côte d'Or, Vitteaux
Camp de Myard
(Nicolardot 1973; 1974; 1975)
Calcined material from directly behind the inner edge of the dry-stone defences is of neolithic date but has been attributed by Nicolardot to a settlement rather than to the wall itself.

35 Côte d'Or, Vix
Mont Lassois/Montagne Saint-Marcel
Although previously described as a *murus gallicus*, the presence of vertical timbers in the outer face of the wall suggests that it may more appropriately be classed as Priest-type, or perhaps Kelheim-type. A recent sondage on the southwest edge of the plateau failed to relocate the rampart, but produced six iron spikes, up to 25cm long, of the type used in *murus gallicus* construction.

36 Côtes du Nord, Erquy
Cap d’Erquy
(Sancier 1964; Giot et al. 1968; Giot and Briard 1969; Savory 1971b: 260)
Substantial promontory fort of 35ha, with outer wall (the Fossé de Pleine Garenne) showing evidence of carbonized transversal and longitudinal timbers. A radiocarbon date of 320±110 bc (GIF-1302) has been obtained (Giot and Briard 1969: 33).

37 Côtes du Nord, Plédran
Camp de Péran/Camp Romain
(Daubrée 1881: 21–5; de la Noë 1892; Raymond 1910: 3–5; Wheeler and Richardson 1957: 112)
Vitrified plateau fort. Both Wheeler and Richardson and de la Noë remark on the traces of horizontal timbers in the heavily-vitrified gneiss of the main rampart.

38 Creuse, Aubusson
Camp des Chastres
(Léger 1972; Gallia 33, 1975: 443)
15ha promontory fort whose main defences incorporate burnt timber-lacing, including a vertical element. A single fibula suggests late Hallstatt construction.

39 Creuse, Linard
Chateau Gaillard
(Martin 1905: 51–2; Autorde 1907: 722)
Vitrified material from a motte.

40 Creuse, Pionnat
Chateauvieux
(Mayaud 1881; Daubrée 1881; Raymond 1910: 2; Youngblood et al. 1978: figs. 5a and 5b, passim)
Vitrified.

41 Creuse, Saint-Dizier-la-Tour
La butte de la Tour-Saint-Austeille
(de Cessac 1867)
Vitrified material from a motte.

42 Creuse, Sainte-Feyre
Le Puy de Gaudy
(de Cessac 1878; Daubrée 1882; Raymond 1910: 2; Youngblood et al. 1978: passim)
Vitrified contour fort.

43 Creuse, Thauron
Un-named site
(Autorde 1907: passim; Raymond 1910: 2, 7)
Vitrified.

44 Dordogne, Coulounieux-Chamiers
Camp de César/de Périgueux
(de la Noë 1887: 330; Wheeler and Richardson 1957: 207)
First cited as a *murus gallicus* by de la Noë.

45 Dordogne, Saint-Médard-d’Excideuil
Castel Sarrazi
(Hardy 1882; Barrière 1933: 16–17)
Vitrified.

46 Doubs, Myon
Châtelet de Montbergeret
(Piroutet 1906: 51; 1913: 164)
Calcined.

47 **Drôme, Le Pègue**

La colline Saint-Marcel
(Hatt 1976)

An earthen bank, at an associated site below the hill ('Chantier de l'École'), contained traces of vertical and horizontal timbers (Hatt 1976: 37–41), and appears to have been in use from late Hallstatt to La Tène II. Whether its purpose was exclusively defensive or was partially designed to protect the site from flood damage is uncertain.

48 **Eure, La Fréneuse-sur-Risle/Livet-sur-Authou**

La Berquerie
(Coutil 1909: 608)

Previously suggested as calcined, but withdrawn by Coutil. Not mapped.

49 **Eure-et-Loir, Sorel-Moussel**

Fort Harrouard
(Philippe 1936; 1937; Wheeler and Richardson 1957: 121; Collis 1975: 203–4)

Although Philippe’s excavation of the main rampart revealed no details of internal structure, excavations around the perimeter of the promontory indicated the presence of a calcined rampart, with both vertical and horizontal timbers. Philippe considered this to be neolithic in date (1936: 293–8).

50 **Finistère, Erquy-Armel**

Beg-ar-Castel
(Wheeler and Richardson 1957: 107)

There are patches of burning and indications of vitrification in the rampart of this promontory fort of less than 1ha in area.

51 **Finistère, Huelgoat**

Le camp d’Artus/d’Arthur
(Wheeler and Richardson 1957: 23–38)

*Murus gallicus*, lacking rear revetting wall and with vertical timbers (six-post arrangement) in two of the gateways, enclosing an area of approximately 30ha. One of Wheeler’s trenches (site E, see Wheeler and Richardson 1957: pl.III) shows a dump rampart, with internal retaining wall; the latter was seemingly not intended to be freestanding, but formed a capping to the main rampart; this second phase is undated.

52 **Ille-et-Vilaine, Saint-Coulomb**

Ville des Mues/Pointe du Meinga
(Wheeler and Richardson 1957: 113)

Although traces of burnt timber were recorded behind the stone revetting-wall of this 14ha promontory fort, the evidence was felt to be inadequate to classify it as a *murus gallicus*.

53 **Ille-et-Vilaine, Vieux-Vy-sur-Couësnon**

Oppidum d’Orange
(Collis 1975: 200)

Suggestion of vitrification in the inner rampart.

54 **Indre, Levroux** (fig. 13)

Les Tours
(Büchsenschütz and Ralston 1975)

*Murus gallicus*, lacking formal rear revetting-wall, replaced and overlain by a dump rampart.

55 **Indre, Meunet-Planches**

Le Camp de Corny
(Ralston and Büchsenschütz 1975: 13)

Nails recovered from the rampart of this c.1ha fort during quarrying operations in the nineteenth century were compared to those from Murcens. Roman finds are recorded from the interior of the fort.
56 Jura, Cernans
  Le Grandchamp
  (Piroutet 1913: 163)
  Evidence of fire in the upper part of the earth-and-stone rampart.

57 Jura, Champagnole
  Éperon de Boyise
  (BSPF 5, 1908: 432-3)
  Timber-laced rampart; apparently Merovingian in date.

58 Jura, Chevigny
  Un-named site
  (Büchsenschütz, pers. comm.)
  Calcined. (Almost certainly the same site as Montmirey in the same département.)

59 Jura, Mesnay
  Roch-Maldru
  (Piroutet 1906: 38-42; Millotte 1963: 94)
  Calcined defence overlies early bronze age occupation.

60 Jura, Montmirey-la-Ville
  Le Mont-Guérin
  (Piroutet 1909; 1913: 166; Feuvrier 1913: 692, fig. 2)
  Calcined defence overlies early bronze age level.

61 Jura, Rahon
  Le Mont-Ceint
  (Millotte 1963: 123)
  Evidence of burning in a defence compared by Millotte to that of the Wittnauernhorn.

62 Jura, Salins
  Camp du Château
  (Piroutet and Déchelette 1909; Piroutet 1913: 164-5; 1930; Dayet 1967)
  Partially vitrified; this was not apparent in the later excavations of Dayet. (The site is sometimes listed in the commune of Pretin, Doubs.)

63 Loire, Chambles
  La Ruthe/Le Palais à Essalois
  (Wheeler and Richardson 1957: 180-1; Renaud 1962; Preynat 1962; Collis 1975: 179)
  Although the 1962 descriptions of this site vary, both Renaud and Preynat oppose the idea that it was defended by a murus gallicus. Renaud's excavations produced evidence for murus duplex construction, whilst Preynat (1962: 306) argues that the presence of long iron spikes can be related to destroyed wooden structures from the interior of the site.

64 Loire, Saint-Alban-les-Eaux
  Châteaulux/Château de Verre de Châteaulus
  (Bouquet 1910: Raymond 1910: 2)
  Vitrified. Old excavations mention the discovery of iron nails.

65 Loire, Saint-Georges-de-Bariolle
  Le Châtelard de Chazi/Le Crêt Châtelard
  (Wheeler and Richardson 1957: 181-2; Besset and Périchon 1964: 63-6; Collis 1975: 181)
  Promontory fort of 6-7ha in area. When cleared for the planting of vines, the defences produced numerous blocks of stone which did not seem to have formed

Figure 13. Indre, Levroux (site 54), from the south-west. The murus gallicus excavated in 1971 lies immediately south of the track encircling the 20ha oppidum (photograph O. Büchsenschütz).
a wall, and amongst which iron nails were found. A *murus gallicus* of 3m overall width seems to have been discovered on the north side of the camp.

66 **Loire, Saint-Marcel-de-Félines**
Le Crêt Chatelard
(Wheeler and Richardson 1957: 178–80; Besset and Périchon 1964; Collis 1975: 181)
Although the main defence seems to comprise only a dry-stone wall, a *murus gallicus* constructed on an artificially-cut platform has been discovered elsewhere on the perimeter of the site.

67 **Loire, Saint-Maurice-sur-Loire**
Jœuvre(s)
(Wheeler and Richardson 1957: 206–7; Besset and Périchon 1964: 70–2; Collis 1975: 181)
Only reports of the discovery of iron nails, not certainly associated with a defensive architecture, suggest that there may be a *murus gallicus* here.

68 **Loire-Atlantique, Vue**
(Wheeler and Richardson 1957: 207)
The only evidence to suggest the presence of a *murus gallicus* seems to be iron nails.

70 **Lot, Cras**
Murcens/Murceint/Ville des Mues
(Castagné 1874: *passim*; Wheeler and Richardson 1957: 183–5)
A classic *murus gallicus* runs across the isthmus of this promontory. A little calcined material (Castagné 1874: 472) has also been recovered from the site, but much of the perimeter defence seems to be devoid of internal timber-lacing.

71 **Lot, Luzech**
L’Impernal
(Viré 1913; Wheeler and Richardson 1957: 186–8)
A classic *murus gallicus*, isolating a plateau of about 16ha, was built on the debris which had fallen forward from an earlier calcined rampart.

72 **Lot-et-Garonne, Agen**
Plateau de l’Ermitage
(Mommèja 1901)
Tentatively suggested as a *murus gallicus* on the basis of nails recovered from the site during excavations in the 1870s.

73 **Lozère, La Fage-Montivernoux**
Puy de la Fage
(de Lasteyrie 1883: 17–18; Raymond 1910: 2; BSPF 10, 1913, lists this site in Cantal)
Vitrified. de Lasteyrie notes that the rampart incorporated a horseshoe.

74 **Maine-et-Loire, Fief-Sauvin**
Le Camp de la Ségourie
(Wheeler and Richardson 1957: 202–3)
Early records indicate the presence of a *murus gallicus*.

75 **Maine-et-Loire, Saint-Hilaire-du-Bois**
La Grosse Motte de la Madeleine
(Desmazières 1933)
Vitrified or calcined enclosure for a motte.

76 **Manche, Le Petit Celland**
Le Châtelier
(Wheeler and Richardson 1957: 38–54; Collis 1975: 200)
Contour fort on a promontory, approximately 20ha in area, defended by a murus gallicus. Collis has suggested that a massive vertical timber, located behind the external wall-face in Wheeler's trench A (Wheeler and Richardson 1957: 41, pl.XVII), may represent part of a tower, or some such superstructure, associated with the murus gallicus. The approach to the eastern gate displays vertical timbers in Kelheim style.

77 Manche, Saint-Jean-de-Savigny
Le Grand Câtel
(Wheeler and Richardson 1957: 116)
Wheeler and Richardson, following BSPF 13, 1916, equate this site with the unlocated La Butte des Romains, Cérisy-la-Forêt, which is also said to be vitrified. No evidence of vitrification was seen during the Wheeler expedition. Both Wheeler and P.-M. Duval (1959: 49) suggest that this 14ha promontory fort may have been defended by a murus gallicus.

78 Mayenne, Loigné-sur-Mayenne
Loigné
(Büchsenschütz, pers. comm.)
Vitrified.

79 Mayenne, Saint-Jean-sur-Mayenne
Château-Meignan
(Daubrée 1882; Raymond 1910: 3–4)
Vitrified.

80 Mayenne, Sainte-Suzanne
Camp Anglais/de la Motte
(Daubrée 1881; Triger 1907: 68–85; Raymond 1910: 2)
Vitrified.

81 Meurthe-et-Moselle, Champigneulles
La Fourasse
(Beaupré 1902: no. 6, plan; Raymond 1910: 31; Millotte 1965: 65)
Calcined.

82 Meurthe-et-Moselle, Essey-lès-Nancy
La Butte Sainte-Geneviève
(Beaupré 1902: no. 8, plan; Beaupré 1910; Millotte 1965: 77)
The rampart is calcined and shows evidence of timbers.

83 Meurthe-et-Moselle, Messein
Camp d’Afrique at Ludres
(Beaupré 1902: 71–4; Beaupré 1909: 381–4; Raymond 1910: 14)
The inner rampart of two is calcined. (Ludres is listed in the Dictionnaire des Communes as a commune in its own right.)

84 Meuse, Naix-aux-Forges
Boviolles/Mont-Chalet/Mont-Chaté
(Maxe-Werly 1877; Wheeler and Richardson 1957: 204–5)
Promontory site of approximately 50ha with murus gallicus.

85 Morbihan, Bilgroix-en-Arzon
Un-named site
(André 1959: 444)
Small rectangular camp, with evidence of Roman occupation, and evidence of transversal and longitudinal timbers from its enclosing wall. (Arzon is listed as the commune name in the Dictionnaire des Communes.)

86 Moselle, Lessy
Un-named site
(de la Noë 1892; Coutil 1909: 608)
Calcined. Totally destroyed.

87 Nièvre, Lavault-de-Frétoy
Le Fou de Verdun
The use of timber in hill-fort defences in France: Appendix

(Olivier et al. 1969; Harbison 1971: 214–5)

An inland promontory fort with an elaborate defence consisting of a wooden chevaux-de-frise, a small ditch and a timber-laced rampart; the latter incorporated both horizontals and verticals, at least near the entrance. According to Harbison, the description of the defences as of Preist type is based on inadequate evidence. The defences have yielded three iron nails. Available dating evidence suggests use in late Hallstatt and late La Tène.

88 Nièvre, La Machine
Le Vieux Château de Barbarie
(Barré de Saint-Venant and Poussereau 1906; Raymond 1910: 12)
Vitrified. Apparently medieval.

89 Nord, Avesnelles/Flaumont-Wandrechies
Le Chatelet/Camp de César
Although both de la Noë and Déchelette cited this fortification as an example of murus gallicus, it seems safer to classify it as timber-laced, perhaps of Ehrang type.

90 Oise, Gouvieux
Camp de César
(Durvin 1962: 44–8)
Vitrified. No clear evidence to support Durvin’s contention that the defence consisted of a murus gallicus.

91 Orne, La Courbe
Château Goutier/Les Pierres Brulées/Les Vieux Chateaux
(Daubréée 1881; Coutil 1909: 606–8; Raymond 1910: 2; Wheeler and Richardson 1957: 119)
Partially vitrified. Coutil mentions an iron nail adhering to a piece of vitrified material from this site.

92 Puy de Dome, Bourg-Lastic
Un-named site
(Fournier 1961: 90; Gallia 21, 1963: 494)
Calcined. No pre-Roman finds.

93 Puy de Dome, Chateauneuf-les-Bains
Montagne de Villars
(Vimont and Pommerol 1884; Raymond 1910: 12)
Vitrified motte or tumulus.

94 Haut Rhin, Hartmannwiller
Enceinte de Fitzethanne
(Rupin 1893: 184)
Vitrified.

95 Haut Rhin, Illfurth
Britzgyberg
(Gallia 32, 1974: 368–9; Millotte 1976: 844, with plan)
The middle and late Hallstatt defences of this promontory fort incorporate a palisade and a timber-laced rampart, the latter apparently incorporating vertical timbers in the core of the wall material.

96 Saône-et-Loire, Macon
‘Matisco’
(Barthélemy 1973)

Figure 14. Haute Vienne, Saint-Denis-des-Murs (site 106), from the south-east. The line of trees in the centre of the photograph covers the outermost defence, a murus gallicus, which crosses the plateau between the wooded valleys of the Vienne (left) and the Maulde (right, flooded), the confluence of which lies over 4km to the north-west and marks the other end of the oppidum (photograph O. Büchsenschütz).
Recently discovered *murus gallicus*, the main variant feature of which is the presence of vertical timbers in the rear wall-face.

97 Saône-et-Loire, Saint-Léger-sous-Beuvray
Mont-Beuvray/’Bibracte’
(Wheeler and Richardson 1957: 190–5)
The main departure from standard practice in the construction of the *murus gallicus* of this contour site is the possible presence of diagonal elements, as well as the usual transversals and longitudinals, in the timber framework of the wall. These were recorded by the earlier excavator, J.-G. Bulliot; his successor, Déchellette, was sceptical about the existence of this irregular feature, though he did not excavate in the defences of the site.

98 Haute Saône, Bourguignon-lès-Morey
Un-named site
(Bouillerot 1905)
Calcined.

99 Haute Saône, Noroy-lès-Jussey
Un-named site
(Bouillerot 1905)
Calcined.

100 Var, Le Luc
La Fournette
One of three towers attached to the external face of a dry-stone wall has transversal and longitudinal timbers.

101 Var, Le Muy
Colle du Rouet
(*Gallia* 22, 1964: 595)
Records of the discovery of iron spikes form the main evidence for suggesting that this promontory fort, of c.10ha, was defended by a *murus gallicus*.

102 Vienne, Aslonnes
Camp-Allaric
(Pautreau 1976)
Promontory fort of 2ha, defended by a dry-stone wall erected after 610±110 bc (GIF-3018). Calcined material associated with this wall takes the form of a layer overlying tumble from the wall and has been attributed to the destruction of a settlement built against its inner face, though it seems possible to interpret it as collapse from a higher part of the wall.

103 Vienne, Lussac-les-Chateaux
Camp de Cornouin
(Delage 1935; Wheeler and Richardson 1957: 201–2)
Records of the discovery of iron spikes form the main evidence for suggesting that this promontory fort, of c.10ha, was defended by a *murus gallicus*.

104 Vienne, Quinçay
Sénérer
(Chauvet 1926: 13–21; Savory 1971b: 259; Taurvel 1973)
Calcined. The Hallstatt vehicle burial (Chauvet 1926; Joffroy 1958) lay just outside the camp.

105 Haute Vienne, Dournazac
Le Mont Brun
(Leclerc 1883: 28–9; Cotton and Frere 1961: 45, lists this site in Corrèze)
Vitrified motte.

106 Haute Vienne, Saint-Denis-des-Murs (fig. 14)
Villéjoubert/Camp de César
(Delage and Gorceix 1923; Wheeler and Richardson 1957: 189–90; Cotton and Frere 1961: 42–3)
Massive promontory fort of approximately 350ha, defended by a *murus galicus*.

107 **Haute Vienne, Saint-Julien-le-Petit**

Rochefin
(Dubois 1900)
Motte with vitrified stonework.

108 **Vosges, Étival-Clairefontaine**

La Pierre d’Appel
*(Gallia 32, 1974: 361-2)*
This 2.5ha site apparently has four phases of timber-laced defences from La Tène II through to the Augustan period. Much less use was made of wood in the final phase than previously.

109 **Vosges, Saint-Dié**

La Bure-Tête du Villé
(Tronquart 1976)
Promontory fort of 3.5ha, defended by a *murus galicus* at its eastern end. This defence seems to have had two phases of construction, marked by a change of alignment in the northern sector.

110 **Yonne, Saint Florentin**

Mont Avrollo
*(Gallia 32, 1974: 450-1; Collis 1975: 175; Gallia 34, 1976: 462)*
Small promontory fort of 3ha, defended by a *murus galicus*.

111 **Yonne, Saint-Moré**

Camp de Cora
(Raymond 1910: 2)
Calcined.

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Hill-fort functions and populations: a sceptical viewpoint

The study of hill-fort population figures, so inextricably bound up with that of hill-fort functions, has become a field for serious researchers over the past couple of decades, but we may doubt whether it has yet come of age. The increased scale of excavations inside hill-forts, with the consequent increase in structural information, has done much to foster these branches of hill-fort studies, and a good many people, including the present writer, have warmed to the opportunity of speculating upon a variety of the apparent implications of this new body of evidence. It is, of course, essential to realize that, in its present infancy, our inquiry into the nature of hill-fort interiors has achieved little more than a few glimpses of the potentiality that exists below ground. Mindful of this, I shall here review certain aspects of the twin themes of hill-fort functions and populations rather more coolly than some have done of late, for a feeling of disquiet has increasingly dogged my cogitations about the character of the interiors of two hill-forts where I excavated in the 1970s and thence, inevitably, about hill-forts at large. That I should choose the pages of this volume to discuss, in critical vein, an arena which Dr Hogg has himself entered on occasions says a lot for the measure of esteem in which I hold his open-mindedness, the quality which we ought perhaps to set above all others in an archaeologist.

The types of evidence adduced by those aiming to evaluate the populations of individual hill-forts have been derived from the records of both excavation and surface inspection. We shall examine examples of each in turn.

It may be felt, prima facie, that a respectable starting-point for the demographer will lie in the total excavation of a settlement site, provided conditions allow for confidence that all structures have been located, itself a circumstance of considerable rarity, not to say impossibility (Guilbert 1975a: 214–20), and that their sequence of construction is reliably defined. Even then, however, problems will still abound. Above all, the former usage of each structure has somehow got to be established, for in some situations it may not be good enough to prove the function of only a single or even several examples of a recurrent type of structure, still less to analogize with separate sites, no matter if they are contemporaneous and seem comparable at first sight.
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