THE LATER PREHISTORIC SETTLEMENT SITES
OF NON-MEDITERRANEAN FRANCE
with particular reference to
LIMOUSIN

Ian B.M. Ralston

Thesis submitted for the Degree of
Doctor of Philosophy
in the
University of Edinburgh,
Faculty of Arts.

September, 1982.
Perhaps one can find more colour for the myth of a rational human behaviour in an iron age ......

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I hereby declare that this thesis has been composed by myself and that it is a record of my own work. It has not been accepted in any previous application for a higher degree. All quotations are distinguished by quotation marks and sources of information are specifically acknowledged by means of references.

September, 1982
Aberdeen.                   Ian B.M. Ralston
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Without the unstinting help of my wife, Sandra, who has accepted climbing hills in France in the summer heat as the natural concomitant of a holiday and even of a honeymoon, this thesis would never have been completed. For a year she has prepared the drawings with one hand, whilst supplying incessant demands for coffee and stronger sustenance with the other, and otherwise being virtually ignored.

The responsibility for any errors this thesis contains is, however, solely my own.

September, 1982

Ian Ralston
Aberdeen.
The thesis is divided into three parts:

PART I consists of a background review. The particular difficulties of producing a synthetic overview in the light of a massive corpus of material available in local journals and a grossly under-exploited field record are stressed. The evidence for key artefact types, particularly for the terminal stages of the pre-Roman Iron Age, is reconsidered. The later prehistoric record from Limousin is summarised and set into its geographical context. An appendix draws attention to the metal resources of this area.

PART II is made up of a gazetteer of sites and potential sites of Corrèze, Creuse and Haute-Vienne. An evaluation of the published evidence, coupled with selective field research, is presented, arranged on a parish basis. Le Tène III is identified as the most widely represented Iron Age period on the sites of Limousin. Excavation evidence is however sparse. An appendix lists presumed medieval works.

PART III attempts to set the evidence from Limousin, particularly in La Tène III, into context. Aspects of the physical record are considered, and the defensive architecture is selected for extensive treatment. Small rectilinear enclosures are discussed in the light of German evidence for cult usage; the increasing evidence for unenclosed settlement is reviewed. Models for the later Iron Age in Limousin are discussed. In an attempt to evaluate whether there is sufficient evidence to argue for a state-level entity in the civitas of the Lemovices at the time of the Gallic War, the historical record is exploited with particular emphasis on de Bello Gallico. Techniques culled from geography are also employed. The key area for comparison is Berry, which undergoes brief reconsideration. For Limousin, the results are inconclusive, and more general doubts are expressed on our ability at present to differentiate between states and other socio-political organisms in La Tène III in the Three Gauls.
0.2 THE ORGANISATION OF THE THESIS: TECHNICAL INFORMATION

0.2.1 A note on references

The Harvard system of author and date is used throughout, with the following exceptions:

(1) References to the *Dictionnaire Archeologique de la Gaule*.

(2) References to material contained in the circonscription notices of *Gallia* and *Gallia Préhistoire* (*Gallia Prêh*), for which volume number, date and pagination are cited, except in those rare instances when the Director's viewpoint is being advanced.

(3) Brief references to sites in the business reports of the local sociéties or of the *Société Préhistorique Française* (particularly in the days of the hillfort commission) which are treated in the same way as (2) above. (The latter is abbreviated CEEPFA, from *Commission d'Etude des Enceintes Préhistoriques et Fortifications Anhistoriques*.

It may be noted that references to the volume numbers and dates of publication of the *Mémoires de la Société des Sciences Naturelles et Archéologiques de la Creuse* are not entirely consistent. This is because each volume of the *Mémoires* is issued as a number of parts, each part spanning one year, and each volume spanning several years. In some instances, it was impractical, within a bound volume, to identify the precise year of publication of a particular article.

(4) Unpublished sources. Only two of these were used. One, identified by 'de Cessac, ms' is the Manuscript *Dictionnaire archéologique du Département de la Creuse*, of which only the preface was published (*de Cessac, 1871*). This useful and elegant hand-written document was
made available to me by the Archivist of Creuse, to whom I am extremely grateful.

M. Yves de Kisch, presently Directeur des Antiquités Historiques du Centre, and formerly occupying the same post in Limousin, made available to me the Direction's records. I am extremely grateful for his kindness.

Material from this archive is prefaced by the reference 'DAHL'.

0.2.2 A note on language

The author is extremely conscious of having produced a text which, at best, may qualify as franglais, at worst, as Eurospeak. I have retained French proper names in the original, to the extent of leaving the 'Bois-de-la-Combe-aux-Moines' in that form, and have not adopted some halfway house of translation.

My defence for going further than this in some instances is either (a) that I find the French term more, or less, precise, as appropriate or (b) that I would have to invent an English term for something for which there is a precise and well-defined French vocabulary. Thus, I have retained technical terms like 'gallo-Romain précoce' for which I am unaware of any precise English equivalent, and 'enceinte', which avoids the division in terms of strength inherent between English 'enclosure' and 'hillfort', where it is appropriate so to do. An exception to this rule is the use of the term 'oppidum', which I use in a sense perhaps more Germanic than English and certainly not in the catch-all French way: where the word is used in the latter sense in the text, it appears within inverted commas. Further discussion of the significance of this term is included later.
In terms of proper names, I use 'Limousin' to mean the three administrative départements of Corrèze, Creuse and Haute-Vienne, and not the territory of the Lemovices, which was not coterminous with the former.

I have been even more reluctant to translate descriptors for artefact types into English, particularly where there is a precise French term for the items concerned. A particular case in point is pottery, for which I have found the typological scheme proposed by Périchon, Ranchon and Sanial (1977) particularly useful: where appropriate, I have used their reference numbers too.

Occasional German and Latin terms are also used. Amongst the former, 'Viereckschanze(n)' has been retained as a particularly useful descriptor. 'Telulae' is used as a synonym for 'tuiles a rébord': 'mur us gallicus' is used in the restricted sense proposed by Collis and Ralston (1976), but is now further qualified as 'of Avaricum type', as will be explained below.

Quotations from Caesar's de Bello Gallico are from the edition edited by Rice Holmes and published by the Clarendon Press in 1914.

0.2.3 The gazetteers of sites: technical information

The sites are classed in the gazetteers according to the Département and commune (approximately equivalent to the 'county' and 'parish' of British pre-1975 parlance) in which they lie. This has been fairly standard practice in France, and avoids the confusions which may arise by basing the system around site-names.

Each commune in France is identified by a simple 8-figure code devised by the Institut national de statistiques. Here, as is fairly standard practice in France, this code has been abbreviated to
five figures - sufficient to provide each commune with an unique code. The first two figures in this modified INSEE code identify the Departement, the last three the commune.

The Départements involved in this survey are:

19 : Corrèze.
23 : Creuse
87 : Haute-Vienne.

Thus the code 23001 identifies Ahun, the first commune (arranged alphabetically) in Creuse.

The spelling of commune names follows the Dictionnaire des Communes, 37th edition, 1980, published by Berger-Levrault (Paris). The names of Départements, where necessary, have been altered to take account of revisions in French nomenclature: thus 'Seine-Inférieure' of Wheeler and Richardson (1957) is now Seine Maritime'. There are no inferior Departments left in France.

Site-names again pose problems. Essentially, the site itself may be named (and some sites have several names) or the name of the 'lieu-dit' (that is to say the place-name which appears on the large-scale cadastral plans) may have been transferred to the site (and some sites, particularly major oppida, embrace several 'lieux-dits'). Generally speaking, I have tried to list all names by which sites are known, identifying by '1/d' those which fall into that category to my knowledge. In these lists, primacy has been given to the name by which the site appears to be most commonly known: in the event of sites not appearing to have a dominant name, I have usually selected one rather less familiar than e.g. 'Le Camp de César'.

Ideally, all sites should be further identified by the reference numbers of the pieces of land (parcelles) of which they are constituted. This can be done by reference to the cadastral plans of
the commune in which the site is located, and this has the additional
benefit of providing detailed areal measurements. Such a study would
also have additional benefits: scrutiny of the cadastral plans may
reveal configurations of parcelle boundaries suggestive of the
existence of an earthwork or toponyms potentially indicative of
archaeological sites. However, at the scale of three Départements
at which I was working, and lacking the necessary expertise in French
language, I felt obliged to omit this field of study, particularly in
view of the practical difficulties, cost and intimate geographical
knowledge of the landscape necessary, all factors which I considered
to be against me. For similar reasons, the vertical aerial cover was
not systematically exploited at all: an additional factor here was
the degree of afforestation. Details of the parcellaire, where known,
have, however, been given.

The sites have further been fixed geographically by
reference to the 1:50,000 scale maps of the Institut géographique
national. IGN maps at this scale are identified by two codes, one
numeric, and the other the name of a principal settlement in the area
covered by the map-sheet. Thus XXII-29 is the Guéret sheet.

The 1:50,000 maps have been a basic working tool.
Unfortunately, when I purchased my map set of 35 sheets in 1973, not
all the Limousin sheets with which I was supplied had been revised.
Whilst many are of the elegant and readable Type 1922 or its successor,
some were the almost unusable old blow-ups from the 1:80,000 in black-
and-white, or overprintings thereof in colour (Type M). This has had
some bearing on the accuracy with which I have been able to locate
sites.

Since I began work, the new and more detailed 1:25,000 scale
maps have become available and wherever possible I have consulted these.
Each sheet at this scale covers one-quarter of the area of the corresponding 1:50,000 sheet, and is identified by a two-figure code: thus 'Aubusson 7/8' is the SE quadrant of the area covered by the Aubusson sheet at 1:50,000. The 1:25,000 maps include much more archaeological information than their predecessors.

French maps, particularly the type M, offer a bewildering selection of reference systems. That chosen for this study is the kilometric grid system of Lambert. This involves identifying the zone in which the site lies (in Limousin we are concerned with zones II and III) and then fixing the site by a three-figure reference on both latitudinal ('x') and longitudinal ('y') axes. Height above sea level is quoted as ('z') in metres. For the first two scales, figures after the comma indicate fractions of a kilometre. The height is a spot-height where known, or an estimate on the basis of contour information, or, in the case of the older maps, a guesstimate based on the terrain and the nearest available spot-heights. French maps do not carry a grid over their entire area and thus the figures quoted below should not be considered as definitive.

0.2.4 A note on site drawings

Most of the site plans and detailed drawings come from published sources: some have been subjected to a measure of modification, to take into account new information in particular. Sources of published plans are acknowledged. Drawings have been retitled in many cases according to the following convention:

*Site plans*: these are headed by the INSEE number followed by the commune name and then the site name.

*Details*: these are headed by the INSEE number of the commune followed by the site name.
The text which follows can be divided into three major parts. These may be defined as follows:

**Part I**: This section endeavours to set the research into context. Previous work is discussed, and some of the principal problems are aired. These include difficulties inherent in the use of certain key artefact types which are recovered from settlement sites. This section also provides summary background information for Limousin: both the archaeological and geographical dimensions are considered. The geography of Limousin is given fairly extended treatment, as it is felt to merit this on a number of grounds, not least in regard to the exploitation of the archaeological field record, but also because of its potential significance with regard to the possible emergence of more complex socio-political entities towards the end of the protohistoric period.

**Part II**: This section presents a preliminary site survey and critical evaluation of the published evidence for the three départements of Limousin. It may be appropriate to stress that for many areas of France, of which Limousin is most definitely one, the exploitation of the archaeological record for later prehistory has not been established in this way: there is, for example, no central equivalent of the Ordnance Survey's Archaeology Branch records, and no local non-intensive archive which can be used as a springboard for research.

Thus the 200-plus entries in this section form a fundamental
component of this research, and offer for the first time a preliminary attempt to evaluate the recorded evidence for later prehistoric settlement in Limousin as an entity. To the extent that these entries offer a re-evaluation of the published evidence and do not attempt to minimise the number of problems outstanding at the end of this prolonged, if intermittent, research, and as such condition the approaches used in Part III, it is felt that they form an integral part of the thesis. For this reason, they have not been relegated to an appendix. However, the reader may prefer to proceed directly from Part I to Part III, consulting only those entries in Part II in which he is particularly interested.

Part III : This section attempts to set the later prehistoric settlement evidence for Limousin, as it has been evaluated in Part II, into context. It is primarily concerned with the period loosely referred to as La Tène III and as such considers settlement and fortification types, the integration of the archaeological and historical data, and broader questions of the recognition of the apparatus of the state in non-Mediterranean Gaul and particularly in the territory of the Lemovices.
PART I

Introduction

The problems of women's military conduct perceived by political and social structures in Mediterranean society are closely related to the development of military activity in separate groups and the formation of a sense of identity which have been given considerable attention in recent years. The introduction of women into the military service of this particular region by means made by and by 1983 characteristics seems to be related to historical and sociocultural aspects.

In this complex and simultaneous sequence, the political nature of the First French Expedition in Otto-Mediterranean Europe is particularly clear. The military operation of Gallia by Julius Caesar and its administrative accomplishment are evidenced by the sense of ambition shared by all the leaders of that era. The military operation was the result of strategic and logistical needs and the political and military conditions of the Mediterranean region and the policies of those who participated in it. The framework for cultural development between the ancient world of the Mediterranean region and the Roman Empire was founded on the cultural and economic development of the Empire. The military operations in the first century BC represented a culmination of a long campaign of contact and conflict in the Mediterranean region.
1. ASPECTS OF THE IRON AGE IN FRANCE

1.1 Previous fieldwork, the development of models and the exploitation of the database

1.1.1 Introduction

The processes of Roman military conquest followed by political and socio-economic reorganisation which ended the questionably independent development of Iron Age societies in temperate Europe offer a terminus for a series of fields of enquiry which have been attracting increasing attention in recent years. The infiltration of the Iron Age cultures of this great region by items made by and by traits characteristic of the state-level societies of the Mediterranean was achieved over a period of centuries and to differing degrees, dependent on military, administrative, social and economic considerations themselves related to geographical conditions (e.g. Wells, 1980).

In this complex and discontinuous sequence, the establishment of the first Roman foothold in entra-Mediterranean Europe - specifically the military conquest of Gallia by Julius Caesar and its administrative consolidation particularly from the reign of Augustus onward - was a crucial step. The intellectual and perceptive mould which had previously confined most Mediterranean enterprise (with some specific exclusions e.g. in the field of trade) to the basin of that sea (Hawkes, 1977, maps) had been broken. The framework for cultural contact between the civilised world of the Mediterranean states and the High Barbarian societies of temperate Europe had changed, with profound implications for the cultural and economic development of Europe. Nonetheless, this change in the first century BC represented a culmination to a varied set of contacts which had marked the previous centuries: Celtic colonisation in northern Italy (Barfield,
1971, 146-59; Peyre, 1979) and the expansions which terminated with their establishment in Galatia; mercenary service in the armies of the Mediterranean world (Piggott, 1968b); and trade contacts via the Alpine passes and the Greek factories of the Mediterranean coasts of Gaul, beginning with the establishment of Massilia c.600 BC (Hawkes, 1963).

Against this background, it is perhaps surprising that the settlements of extra-Mediterranean Gaul in the last centuries BC, at which we might hope to document some of the impacts of these various processes, remain comparatively poorly known. This present work hopes to contribute to a reduction of this problem and, as such, offers little that is methodologically new. It does, however, offer criticisms of previous macroscale attempts to approach this problem, approaches which in our view almost willfully mask the diversity manifest in the archaeological record for settlements in the last centuries BC in Gaul and have a tendency to offer simplistic supermodel solutions which may serve to confuse rather than to enlighten. We have approached this problem in print already (Büchsenschutz and Ralston, 1981a) and are conscious that what we appear to offer is a retreat from theory, a retreat from an attempt to discover the Weltanschauung of Celtic Gaul on the eve of the Roman conquest, in favour of a consideration of the minutiae of an ill-studied settlement record. However, we would contend that the most solid progress that has been made in recent years in the study of Iron Age Temperate Europe has been made on the basis of a thorough examination of the settlement record either at the individual site level (e.g. Clarke, 1972a; Haarnagel, 1979) or on the basis of regional studies, and that until such meso-scale enquiries are pursued with vigour for France, it will be easy to produce a super-
model which appears satisfactorily to account for developments in that
country and allow for its too-easy accommodation into a view of Iron
Age socio-economic developments embracing wider tracts of temperate
Europe.

Of course, regionalism of study has never been unfashionable
in France: indeed, the administrative machinery set up by the Vichy
government enshrined this idea in the establishment of the
circonscriptions, the blocs of several départements in whose
geographical confines archaeology is largely organised. Many too are
the archaeological studies that have set themselves specific
geographical limits (Millotte, 1963, 1965; Bretz-Mahler, 1971;
Pautreau, 1980), but we would contend that the broader perspectives
offered by inter-regional study have not been as fully exploited as
possible in an attempt to reach a fuller understanding of the nature
of Iron Age societies in pre-Roman France. For this reason, the
core material of this thesis consists of the examination of the
archaeological record in one circonscription, that of Limousin,
situated on the north-western fringe of the Massif Central, and
offering profound contrasts, geographical and archaeological, with
the area which the author had previously helped to examine, that of
Berry (Ralston, 1972; Ralston and Büchsenschütz, 1975) which here
undergoes a brief re-examination in Part III. Nonetheless, it would
also be indefensible to cavil at more general views of Iron Age
settlement and society in France (Nash, 1976, 1978 a,b) without
attempting to integrate aspects of the Berry and Limousin data more
generally with those from other areas of France, and this too is
attempted, albeit with a broad brush and a shaky hand. This last is
borne of a knowledge of the partiality of the records for Berry and
Limousin 'visible' even at the level of national periodicals, and
Considered, 22

Areal Comparison with Southern England

Berry
18. Cher 36. Indre

Limousin
37. Haute-Vienne
hence the dangers inherent in generalising on the basis of an exceedingly partial literature review: France has still a much wider range of local periodicals than e.g. Britain - *Gallia*, 23, 1965, for list; Chapman *Times Higher Ed. Suppl.* for Britain. This library-based review has been supplemented by a few site visits outwith the area of direct study.

It seems worth stating explicitly that the *Gallia Circonscription* notes, to which reference is so often made in particular by British authors, are not a complete record either of sites nor of finds, and thus are far from providing a safe basis for generalisation. Rolley (in *Gallia*, 30, 1972, 457 footnote 3) expressed the problem succinctly: "Le caractère multiforme de l'activité archéologique en Saône-et-Loire ..... ne me permet pas de signaler ..... tous les sondages, ni de mentionner toutes les notes et études imprimées." Factors discussed, or distributions plotted, on the basis of these notes, thus allow another level of 'noise' to be introduced between site and synthesizer.

1.1.2 Spatial and chronological parameters

The spatial parameters of this thesis are thus at one level the three départements of Limousin, although it has frequently been considered appropriate to use, and in certain cases to assemble, *comparanda* from metropolitan France and indeed from further afield in temperate Europe, where the compendium of information amassed by Collis (1975) has proved a useful basis. Contrastingly, the chronological parameters are less easily set. This is perhaps inevitable when the core of the thesis is provided by site information: essentially I have felt it appropriate to mention finds of neolithic or later date, since enclosed settlement was by that stage already a feature of the French landscape. Cultural attributions for this
material, where made, follow the published sources cited. For later French prehistory, numerous cultural chronological systems are in use: in the E, there is perhaps an increasing tendency to utilise the S. German system, repeatedly refined since the days of Reinecke. Other chronologies are essentially based on Déchelette, or on the evolving schemes proposed by Hatt (most recently Hatt and Roualet, 1976) and are to a large extent based on material from funerary contexts.

In terms of the melding of funerary and settlement evidence, it is perhaps the middle La Tène (or 'C' or II) which offers the most problems in non-Mediterranean France. Duval's discussion (1976, esp. 482) highlights the near-absolute reliance for the Paris Basin on funerary evidence and the problems of integrating French, Swiss and German schemes. Haffner's assessment of the chronology of this period, now beginning to be anchored by dendrochronology, would make it run from 250-125 BC (1979, 409) with La Tène III following, the change from D1-D2 in the German scheme occurring c. 50 BC. This change is only beginning to be systematically studied in France. For W regions of that country, the phenomenon of cultural retardation has long found favour, perhaps most systematised by Fabre (1952), who envisaged a 'post-hallstattien' period corresponding to the early stages of La Tène in, for example, the Champagne. Although individual high-prestige items attributable to the early La Tène may be found far to the W (e.g. Gomez, 1982), in Limousin for example there is little recognised pre-La Tène III material. In Berry, La Tène I material is known as far W as Palluau-sur-Indre (Indre) (Coulon and Cuffez, 1976): late Hallstatt tumuli e.g. Lizeray, Indre, sometimes include individual items still current in early La Tène (Lambert, 1976).

For the late La Tène, the reappearance of imports from the Mediterranean world in quantity offers an additional factor in the
chronological equation: they are also pressed into service in
discussion of socio-political evolution or change. It therefore
seems advisable to preface discussion of the site record with a
review of the significance of these items, which occur in Limousin.
The other chronological (but also socio-economic) source in terms of
the artefactual record is provided by the numismatic record and
this too is examined with particular reference to Limousin. A key
problem which, as is becoming increasingly clear, is far from satisf-
factory resolution, is the integration of these varied products with
the historical record, in particular with the Gallic War. In this
introduction, we have avoided general discussion of the exploitation
of the settlement record of non-Mediterranean France. This is partly
because specific elements merit subsequent consideration, and partly
because previous treatments (Dehn, 1971: Ralston, 1972, 1981;
Büchsenschütz and Ralston, 1981a) make clear the key differences
between the examination of these sites in France and their British
equivalents. In sum, the second half of the nineteenth century and
the opening decade of this were marked by work of considerable stature
in France, but this precocious work died with Déchelette in the
trenches of the Great War. Subsequent revival, culminating in the
adoption of large scale area-excavation and the availability of a
good cartographic base for extensive field survey (the IGN 1:25,000
maps) (Büchsenschütz and Ralston, forthcoming) may be described,
relative to the British experience, as having been delayed.

1.2 Some key artefactual indicators reviewed

1.2.1 Introduction

A full consideration of the later prehistoric artefact record
for Limousin has not been attempted in this thesis, although the main phases are outlined below. However, since we wish subsequently to focus more closely on the later evidence, the opportunity is taken here to examine selected aspects of that record in its wider sense, before concentrating on the particular data available for Limousin.

Two classes of artefacts - Campanian ware and amphorae - are discussed because they are the predominant items found in extra-Mediterranean Gaul which were manufactured further S. The third set of evidence to undergo general review is the coinages, which have attracted much attention, but which seem, to this author, still to pose many problems.

1.2.2 Campanian pottery

These wares have been used as one potential chronological indicator in extra-Mediterranean Gaul. Imports normally form only a small percentage of what can be voluminous pottery assemblages. These Italian-made vessels appear to have inspired two sets of copies, one group remaining fairly close to the prototypes and perhaps produced in southern France and a second series departing more clearly from the accomplished prototypes: these may be local products, and are represented on La Tène III sites such as those at Tournus (Perrin, 1976, type 21 with subdivisions). A series of examples of copies is illustrated by Périchon et al (1977 types 201-9) from the north-east of the Massif Central. In general, this material may, when properly analysed, offer scope for more precise dating, as a result of both work on some of the major south French forts and of work further afield. In the meantime, as Collis noted (1975, 48), it is certainly possible to place overmuch stress on this material as a chronological indicator.
Work by Morel (1978a) seems to suggest the following broad outline for the three principal Campanian series (Lamboglia, A, B, C). Campanian A appears to have been primarily a product of the Naples-Ischia area, C of Syracuse, but B is presently less fixed geographically, though clearly Italian. Typological difficulties, some with considerable historical repercussions, remain (Morel, 1978a, 150-1): approximately 2,400 forms exist. 'Imitations', too, may not be particularly helpful, in that the relationship with commercially-produced Campanian need not be one-way: the innovation may have been taken up by the more industrially-oriented producers.

Recent trends have been to depress the initial date for Campanian A in Southern France towards the final years of the 3rd century BC, with the first major lot probably those from the Grand Congloué shipwreck, associated with Graeco-Italic amphorae and dated by Morel (1978a, 157) to around 190 BC. This first export-led phase of Campanian A gives way to a second c. 180 BC, and a final phase c. 100 BC. Export and distribution appears to have continued until about 50 BC with the series from Carthage (to 146 BC) and Entremont (abandoned c. 120 BC) providing useful absolute chronological dates: the final phase, however, appears to be represented by a reduction in the range of forms produced. Evidence of re-utilisation, wear and repairs suggests that some vessels may have remained in use for some decades after the terminal date for imports, but several closed assemblages from Southern France and Ampurias indicate the absence of overlap with aretine wares (cited by Morel, 1978, 161).

Campanian B too may be sub-divided, with the examples which reached Gaul (e.g. Vienne, Roanne and Tournus) probably having been produced in northern Campania rather than Etruria, which Morel envisages as the likely centre of origin of this series. Morel
suggests another possible link - between the export of Campanian B of 'north Campanian type' and that of Dressel 1 amphorae. Both forms are absent at Carthage, and Campanian B is almost totally absent at Entremont. A date around the beginning of the last quarter of the second century BC may be suggested for the first appearance of this type in France.

Campanian C, present although rare at Carthage, does not appear on Provençal sites until c. 100 BC. 'Imitations' of this ware appear to have been produced widely in the western half of the Mediterranean, and on southern French sites these are often much more common than Syracusan products (Morel, 1978a, 163).

The penetration of Campanian A wares towards Gallia Comata appears to have begun in the second century BC: Morel has tended to raise the dates proposed by other workers. For example, 2nd century BC Campanian A, belonging to the earlier two-thirds of that century, has been recognised at Verdun-sur-le-Doubs in Saône-et-Loire: an elaborate palmette decoration to one of three sherds of this ware found during the original sondage at Les Arènes at Levroux should have been produced prior to 150 BC on Morel's typology. At Vieille-Toulouse, where special pleading to support a date as late as the Augustan period (contemporary with Aretine wares) for the manufacture of Campanian A found in some of the puits has been advanced by Muller and dismissed by Morel (1978, 1981), some at least of the Campanian A belongs to the second century BC and possesses some design traits and lacks others which combine to suggest a date in the first rather than the second half of that century. Clearly the in-filling of shafts and wells provides an opportunity for the mixing of material of different dates, but other imports here (e.g. grey ampuritan pottery and rhodian amphorae) would be acceptable in second century horizons.
However, at the Vieille-Toulouse sites there is also 1st century BC Campanian A and Campanian B: Roanne too has both typologically early (and thus second century BC) Campanian A from the excavations at the Institution Saint-Joseph (Bessou, 1976, pl. 18, 3) as well as other material in this ware which belongs more properly to the late phase: amongst the latest, according to Morel (1978a, 167) would be the base of a bowl with a widely-splayed foot.

Clearly then it is presently unwise to use the presence of 'Campanian A' (usually baldly referred to in the Chroniques of Gallia thus) to push for a particularly high date. Nonetheless, although the A series continues to appear on non-Mediterranean sites in the first century BC, it suffers a decline in frequency relative to the B series, at least at the Toulouse sites, in Forez and in the sites bordering the Limagne (Morel, 1978a)

At a stage subsequent to the Gallic War, these Campanian wares were ousted as the favoured imported tableware by Terra sigillata aretina pottery which developed c. 50 BC from 'ceramica aretina a vernica nera' (Morel, 1981). There may, however, be a gap of a few (perhaps three) decades between the end of the Campanian series and the importation of Aretine wares. These latter, however, had clearly penetrated Gallia Comata by the last decade of the first century BC as Pucci's map (1981, Fig.16) of radial bowls, the manufacture of which is attributed to the period before 15/10 BC, makes clear.

1.2.3 Amphorae

"Let your daughter drink new wine: an amphora new today will grow old with its mistress".

(Pliny, Natural History, VI, 27, quoted by Callender, 1965).
The following discussion concentrates on two aspects of amphorae: the dates of their importation into the three Gauls and their internal typological evolution. It does not consider questions of their subsequent use on Iron Age sites, once they were emptied. As Callender has made clear (1965), a wide range of functions from pissoir to receptacle for cremated bone is indicated, thereby allowing date of manufacture and date of final deposition (or discarding) to drift apart.

It seems clear that the principal commodity shipped in these containers was wine (Jongkees, 1955), and as such it seems appropriate to give an indication of the scale of this trade. Morel (1981) has described the trade in Campanian wares as 'parasitical' in that these vessels seem to form a minor component in shipments of agricultural products, of which wine seems to have been the most significant. Estimates for the Grand Congloué wreck, for example, suggest that the cargo consisted of 108 tons of wine/amphorae (of Graeco-Italic type) as opposed to 1.5 tons of Campanian pottery (calculation by Benoit quoted by Morel, 1981, 88). Although this cargo consisted of Campanian A, similar characteristics also governed trade in Campanian B (Morel, 1981, 95).

The Graeco-Italic form of amphorae was progressively replaced during the latter part of the second century BC by amphorae of Dressel 1 type, which were used for the export of wine until the end of the succeeding century. Their distribution (Panella, 1981, Fig.12) in the western Mediterranean outside Italy, where they seem to have been produced primarily in the regions bordering the Tyrrhenian Sea from the centre of the country southwards (Tchéria, 1980), shows a scatter near the north African littoral and a considerable penetration inland in Iberia and Gaul (except for considerable tracts of
Gallia Belgica). Shipwrecks, with cargoes of Dressel 1 amphorae, are known westward from the north coast of Sicily to the Gulf of Almeria in southern Spain, and offer considerable help with the chronology of this series.

Dressel 1 amphorae are present at Entremont (and were therefore being imported by 123 BC), and the date range for inscribed examples from in or near Gaul is 119 (at Ampurias: Tchérnia, 1980) to 13 BC (Collis, 1975). Towards the end of their period of use, they were being ousted by amphorae of Dressel forms 2-4, of which the earliest dated example belongs to c. 28 BC, though they may have been in use for a couple of decades by that time. Peacock (1971) reviews the evidence for the discontinuation of the Dressel 1 type by the end of the first century BC.

Dressel 1 (= Benoît republican III) amphorae represent the most prolific Mediterranean import on sites of the later La Tène periods in non-Mediterranean Gaul. The class has been subjected to internal sub-division, and we must be concerned primarily with two of three types classified by Lamboglia (A and B), although a third type (C), known from Spain, is represented at e.g. Toulouse. The typological differences between 1A and 1B have been discussed by Collis (1975, 47-9 and Fig.18) who also outlined the chronological evidence for the internal evolution of the series. On the basis of excavations at Ventimiglia, Lamboglia had been able to suggest increasing use of 1B from c. 70 BC, although type 1A continued in use for the remainder of the currency of the type. Recent work on Mediterranean shipwrecks (Liou and Lequément quoted by Büchsenschütz, 1981b, 335) similarly offers support for the progressive substitution of 1B for 1A in the first century BC. In no shipwreck have Dressel 1 amphorae been found associated with Italic sigillata. Within Gallia Comata then,
Dressel 1A and B amphorae may assist in the refinement of the chronology for the period from 125 BC, although they are themselves insufficient for absolute chronological precision.

Recent distribution maps for the type in France (Peacock, 1971, Fig.36; Nash, 1978a, p.112 and Appendix 3) indicate some characteristics of the distributions, but seriously underestimate the number of sites (and in some cases the quantity of amphorae debris represented on them). Tchérnia (1980) gives graphic descriptions of the mass of material represented (although it is fair to remark that not all the amphorae concerned need have been of Dressel 1 varieties - e.g. Bulliot, 1899, 205) and draws attention to areas of France e.g. the southern coast of Brittany (with eleven find-spots) where the published maps are substantially blank.

All the indications then are that the trade in wine conveyed in Dressel 1 amphorae was a substantial one, pursued with some considerable vigour outwith the confines of the late Republic and early Empire. Clearly merchants were involved (Caesar remarks on how they were excluded from the territory of the Nervii (BG, II, 15 and IV, 2) and various possibilities for Gallic products suggest themselves, such as ham, wool, metals (precious and other) and slaves. Diodorus Siculus (Duval, 1971, No.191, for sources) provides the only figure for a rate of exchange: 1 slave = 1 amphora of wine. We may suppose that circumstances may have provoked variations in the exchange rate, and slaves will not have been the sole product exchanged.

Two factors call for comment, leaving aside the documented liking of the Gallic Celt for wine. First, whilst some of the wine transported will have been for the sustenance of the Roman army, and amphorae are known on sites e.g. Mont Beuvray/Bibracte, where troops
overwintered during the course of the Gallic War, this factor can only account for an unquantifiable percentage of the wine imported. Numbers of amphorae occur on certain sites which clearly pre-date the conquest, and on others at which, despite the extreme incompleteness of the historical record, troops are scarcely likely to have been billeted.

Secondly, some comment on the scale of the trade seems appropriate, though the danger (since we have an exchange rate available) of estimating population loss should perhaps be firmly resisted. In the long term, there is clearly hope in the quantification of data from settlement sites in Gallia Comata for example, of arriving at a numerical assessment of the relative importance of wine imports at different sites, as well as perhaps within-site variations.

Meantime, Tchérnia (1980) has given us an ingenious guesstimate of the total scale of the trade. Its premisses, some distinctly more speculative than others, are:

1. The number of shipwrecks known along the coast of France represent an estimable fraction of total shipwrecks on this coast (including those which will have been sunk in marine environments where no trace may reasonably be expected to survive).

2. Double this figure to take account of the entire sea-journey.

3. Estimate the percentage of ships which may have been lost, and thereby calculate the global figure for ship movements.

4. This figure, divided by the duration of the trade (one century from 125 BC approximately), gives an annual mean estimate of number of journeys.
(5) Estimate the average carrying capacity of the ships (maximum cargo 10,000 amphorae) in amphorae.

(6) This figure multiplied by the number of ships gives the global number of amphorae traded annually.

(7) Divide this figure by 4 to arrive at a total expressed in hectolitres.

By this means Tchérnia arrives at an average annual import figure of 50,000 hectolitres - about half the size of the export trade of Gascony during the 15th century. Such impressive quantities, although admittedly based on a speculative basis, are not without interest when we consider the nature of Gallic-Roman interaction during the last century BC.

Trade on anything like this scale seems unusual beyond the confines of Roman territory. It would also appear to mark the high water mark of Italian wine export to Gaul, where from early Imperial times it was reduced by Iberian competition and increasing home production.

1.2.4 Native coinage

Many aspects of the coinages produced in non-Mediterranean Gaul are rightly a specialist study which fall outwith the scope of this thesis. Nonetheless, the interface between the historical record as preserved in the classical authors (Duval, 1971), numismatics and archaeological evidence is not simply resolved, and merits consideration on a number of grounds.

From an archaeological viewpoint, concerned primarily with evidence recovered from settlements, the significance of coinage may be assessed under various headings. These would include the following aspects, the importance of which clearly spans a wide socio-political
and socio-economic range:

(a) places of manufacture of coinage
(b) circulation characteristics of coinage: whether civitas-pagus or site-specific, or whether more generalised
(c) the chronological potential of various issues of coinage
(d) relationships between distributions of earlier varieties of coins and possible settlement distributions, either macroscale - in indicating possible 'tribal entities' - or microscale - in suggesting specific fieldwork possibilities for locating earlier, perhaps particularly open settlements
(e) the significance of coinage in suggesting particular links with the Mediterranean world (e.g. in the use of particular motifs: in the use of weight standards)
(f) the non-commercial as opposed to the commercial uses of coinage
(g) the significance of coinage in relation to transformations in Celtic social structure, to the processes of urbanisation and the emergence of state-level entities, and to relations between 'central places' and their hinterlands.

Celtic numismatics are an active field, and for Gallia Comata, the works of Colbert de Beaulieu (especially 1973), Nash (1978a) and Allen (1980) offer a guide to this complex field. Richard (1976) lists many of the pioneers who have contributed to it. Nash's work (1976a, 1978a, 1981) offers the fullest attempt to integrate the numismatic and settlement evidence for Central France, and must represent the point of departure for any subsequent study.
In approaching the evidence from a non-numismatic angle, the major problems represented by the coin evidence would seem to be remarkably varied. These include the many coins which are unprovenanced, as well as the large set of vicissitudes to which this particular set of evidence is especially subject, as discussed by Rodwell (1981). One may also add, with Colbert de Beaulieu (1973), the predilection of museums and collectors for the 'heavier' coins in any assemblage, and the possibility of false provenances being given to coins.

For many sites, perhaps particularly in the later period of Celtic coinage, the coin evidence is sadly inexact in the sense that precise stratification appears rarely to be recorded. Thus many of the site lists offered by Nash (1978) are little more than 'laundry lists', amalgamating coins from perhaps several phases.

Various of the difficulties of the use of coin evidence appear to be intricately bound together, thereby compounding the problem. For example, questions of the metrology of the coins, and the precision attained therein, are clearly related to the nature of their mode of production, and the mode of production in turn must be related to the question of the attribution to particular civitates: in the latter regard, too, the findspots of coins are clearly of significance, and distribution maps might perhaps be more widely used. Even the instruments of production may not offer an infallible guide. For example, a die for the production of a coin of the Biturigges has been found on the Puy de Corent. Admittedly, this can be accounted for by the distortions to distributional evidence attendant on the crisis of the Gallic War which, however, in the shape of the coin assemblage from the ditches at Alesia, provides one of the few fixed points in these coin studies, the more so since Nash's dismissal of the Arvernian hegemony in relation to a supposed earlier monopoly in coin production.
Questions of chronology, especially with regard to the earliest coinages, usually have to be resolved in terms of perceived similarities with the Mediterranean prototypes, given the lack of archaeological contexts, and our perception of 'distance-decay' through time offers the only, and necessarily subjective, assessment of the start date for much central Gaulish coinage. Assuming that the quanta are not excessively distorted by the factors mentioned above, nor by the small numbers on which their recognition must be based, it is clear that by the time of the Gallic War, coinages of gold, silver, bronze and potin were in use in Gallia Comata and were increasingly aligned on Roman metrical standards.

In such politico-economic circumstances, it would appear not unreasonable to evoke Gresham's Law to account for the declining standards represented in these coins, and perhaps to vest it with chronological significance (Colbert de Beaulieu, 1973, 262-3 and note 482), but to what extent such a mechanism is valid for the earliest coinages, perhaps not so controlled by the forces of the market, is possibly a moot point. The range of non-commercial functions envisaged for these coins (Nash, 1981) and the possible significance of mercenary payments in the expansion of the idea of coin production may have decreased the requirement for very great precision in weights.

It is difficult to square some of the assertions in the literature with the available numeric data and the appropriateness of statistical techniques to such small samples may seem difficult to justify. Nonetheless, the exercise has been attempted for one set of data. The West Berry silver group, discussed by Nash (1978a, 44 ff) may be considered worthy of attention as almost 150 weights are available for these coins. Attributed to the second century BC, they have been taken to represent coins minted for a particular purpose,
perhaps in connection with the emergence of the Biturigan civitas. The deposition of these coins in hoards is taken as an indication that they rapidly became 'immobilised treasure', although some are worn (Nash, 1978a). Nash comments that the weights of the West Berry silver coinages are 'very similar' to the first major issues of monnaies à la croix (the modal weight for the Berry coins is 3.40 g, the median c. 3.34 g and the interquartile range c. 3.23-3.40 g), but there are quite clearly discrepancies in weight between some of the series within the West Berry silver coinages:

<table>
<thead>
<tr>
<th>Series</th>
<th>Mean Weight</th>
<th>Interquartile Range</th>
<th>Median Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horseman type (PIIA)</td>
<td>3.45 g</td>
<td>3.43-3.50 g</td>
<td>3.45 g</td>
</tr>
<tr>
<td>Wolf-and-Horse (B2)</td>
<td>3.15 g</td>
<td>3.04-3.24 g</td>
<td>3.17 g</td>
</tr>
</tbody>
</table>

which are significantly lighter.

Nash remarks that "within the West Berry coinage as a whole, weights are broadly similar although marginally lighter and heavier series may be distinguished". Excluding the few minor types which Nash specifically labels as late, there therefore seems to be quite considerable variety in some of these coin series. The difference in mean weight between the two series mentioned above is of the order of 10 per cent, the same order of magnitude as between the first generation copies of Philip II staters and the Gallic series at 7.75 ± 0.25 g. Marginality in terms of weight differences is clearly a flexible concept.

Tribal attributions again appear to beg numerous questions, and these attributions are perhaps to be abandoned, except tentatively, apart from the later series of coins. Even here, the potential significance of coinage and its pattern of dispersal may militate
against simple attributions, particularly since not all *civitates* appear to have been minting coins, and some appear to have started comparatively late. The Cadurci, to whom no coins markedly prior to the Gallic War have been attributed, may be a case in point. Perhaps this is a reflection of political linkages, for example in terms of clientship, but there are also cases in the Ancient World of States refraining from coin production and using the coinage of their neighbours: Sparta, for example. Both the questions of coin production and, dependent upon it, coin chronology are subject to considerable dispute, a dispute to the resolution of which accurate excavational data is of considerable significance. As the coinage from the three départements of Limousin spans the entire range from Philip of Macedon stater to humble potin, a brief review of some of the evidence seems desirable. Although it is clear that tribal attributions are sometimes contentious, these are retained in the present work as offering at least a geographical focus for distributions.

In this general discussion, we may, for convenience, amalgamate Nash's first two phases of coin production (1976a, 1978a, 1981) the more highly to stress the differences between what may be termed *initial* period coinages and *generalised* period coinages, the latter enjoying what Colbert de Beaulieu has termed a 'secondary distribution' over wide areas of Gaul, usually taken to occur in the wake of the Gallic War. The initial period coinages consist exclusively of struck coins of precious metal, starting with series stylistically and metrically closest to the Mediterranean prototypes on which they were based. Already, regular weight standards were in use, but this set of coins cannot be attributed to particular tribes. Production, according to Nash, was almost certainly intermittent, in response to particular crises, and the return to Gaul of mercenaries latterly surplus to the
needs of the Mediterranean states has been envisaged as providing if not the initial impetus, at least a fillip to this process. However, the Hellenistic kingdoms of the Eastern Mediterranean would still require soldiers of fortune, and one suspects that long-distance recruitment was not a major feature of the Ancient World. In all events, such high value coins are unlikely to have had a direct economic function, and their prime purposes must have lain in the field of socio-political relationships, at whatever scale.

By contrast, the generalised period coinages offer marked contrasts. Most importantly, the earlier coinages are known either as strays or from hoards: many lack specific provenances, and secure contextual relationships with settlement sites are excluded. The generalised period coins appear on both defended and open settlements, as well as on religious sites and in hoards, some of which may contain thousands of coins. A wider range of metals, including the first base metal, bronze, either struck or cast, was in use, and production, at least as measured by rates of recovery, was much more substantial. There is a marked increase in the number of varieties and sub-varieties of coin recovered, and this, coupled with the range of metals employed, poses problems in the interpretation of this coinage. A fixed point is provided by coinage which can be related to the events of the 50s BC, and here the role of the coins from the ditches around Alesia is critical. But the Conquest itself is unlikely to have provided a terminal date for Celtic numismatics except perhaps for some of the later high-value issues. It is clear that date of issue and date of final use of coins are manifestly different, and Celtic coins quite frequently occur in mixed deposits associated with Imperial Roman coins. It has even been suggested that some native issues, perhaps particularly the silver coins of Togirix, may have been used in commercial
transactions by the Roman Army (Colbert de Beaulieu, 1973), though this is perhaps unlikely, at least insofar as the usual practices of the Imperial Army are known.

So incomplete is the historical record for non-Mediterranean France before the first century BC, that it seems unreasonable to cling to the geopolitical notion of the Arvernian hegemony to provide a context for the early gold issues based on the stater of Philip II of Macedon (356-336 BC) which appear to have been made principally between c. 340 and 310 BC (Scheers, 1981, 18 and note 2). Although absolute agreement will clearly be unobtainable on the date of the early gold coinages (Kent, 1981), since they represent copies of various degrees of similitude to the original and lack useful contexts in the archaeological sense, a date within the third century BC seems not improbable for their beginning. Recent work has tended to stress the Danube route as the likeliest point of entry, although coastal contacts cannot be excluded (e.g. find from Pons (Charente-Maritime)), but distribution evidence (Nash, 1978a) also militates against the suggestion that the minting of these coins was an Arvernian monopoly retained until the last decades of the second century BC (pace Richard, 1976, 246). The appearance of the coins, taken as the earliest of the series (weight above 8 gm), has been described as a phenomenon that was neither national nor territorial (Allen, 1980, 19), and Scheers (1981, 20, Fig.8 and note 10) postulates at least six independent areas concerned in the production of the first series of philippi. A subsidiary influence, identified by Scheers in Belgic Gaul, and related by her to direct maritime contact between Tarentum and that area (she attributes it more specifically to what was at least later the territory of the Ambiani) are half-staters repeatedly based on Tarentine prototypes. Direct contact of this kind, if accepted, would
perhaps tend to suggest rather more commercial contacts than the mechanisms of mercenary payments and political lubrication propounded in favour of these issues. However, the significance of the latter mechanisms may not be ruled out. Later the metal content of the coins may not have been unimportant in relation to trade with the Mediterranean. Early and middle phase gold coinages thereafter show more regional diversity, and there is general tendency for subsequent issues to fall slightly in weight to a standard of 7.75 ± 0.25 gm (Allen, 1980, Fig.9). These appear to be matched in certain areas by a silver coinage: in relation to Limousin, the most significant — indeed the only — provenanced early silver find is that from La Souterraine (Creuse), with its diverse Mediterranean influences.

It is the later series of coins, perhaps already in use by the later decades of the second century BC, which offer the best evidence for interrelationships with the settlement sites. Economic reorganisation and the removal of spoil after the Gallic War sounded the death-knell for the gold and silver coinages, though it was some decades, probably c. 26 BC (Allen, 1980, 24), before Rome could effectively provision Gallia with sufficient coin (Colbert de Beaulieu, 1973). The Alesia deposits indicate that gold, silver, struck bronze and potin were all in use by the mid-century BC (Nash, 1978a, hoard Al). The use of bronze coinage certainly precedes the Gallic War, as does that of fiat currency of potin, but more interest has been shown in the terminal dates for the use of these than the start date. The coins of Alesia have been taken to represent the first stage (Allen, 1980, 99), with the bulk of the issues being produced between the Conquest and a decade or so before the end of the first century BC.

The potin coinage is also difficult to fix chronologically, and again the start date has to be derived from the Mediterranean.
prototype, in this case Massaliote bronze coins 'au taureau cornupête' (Colbert de Beaulieu, 1973, 321). By the mid first century BC, the Alesia ditches produced numerous varieties, and it seems clear that this coinage continued in use into the first century AD.

In fact, it is these last two kinds of coins - of bronze and of potin - which offer the more prolific sample from settlement sites. Levroux, for example, produced a very worn bronze coin from the make-up of the 'murus gallicus' (probably BN 6088: Büchsenschütz and Ralston, 1975, 43), the type being widely distributed in Gaul, and usually attributed to the Carnutes (Fischer, 1981, 191). Fischer's consideration of the coins from the Levroux excavations also strongly suggests that bronze and potin coins may have been circulating more generally before the Conquest, although she herself would tend to argue for lower dates. Büchsenschütz (1977b, 102), in a preliminary discussion of the external village - the 'Habitat des Arènes - already noted the apparent discrepancy between the coin evidence and the remainder of the artefactual debris, the latter tending to suggest in part La Tene II parallels. Table 1 indicates that the native coinage from this part of the site has been recovered in the following quantities (including fragments):

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>1</td>
</tr>
<tr>
<td>Silver</td>
<td>2</td>
</tr>
<tr>
<td>Struck Bronze</td>
<td>4</td>
</tr>
<tr>
<td>Cast Bronze/Potin</td>
<td>31</td>
</tr>
</tbody>
</table>

These figures by themselves are insufficient to argue incontrovertibly for use of the lower value metals in a widespread fashion much before the Conquest, and further details of their context are required.

Interestingly, the ratio of struck bronze/potin is inverted on the Colline des Tours at Levroux (Büchsenschütz, 1981b, Fig.3) and this may be of chronological import. But, despite the precocious appearance
<table>
<thead>
<tr>
<th>Description</th>
<th>Feature</th>
<th>Notes</th>
<th>Comparanda</th>
<th>Weight</th>
<th>'Tribal Attribution'</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOLD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| ¼ stater gold       | V44     | Fischer, 1981, fig. 5 | BN6420     | 1.78 g |                       | Carnutes?  
Post-100 BC: Nash, 1978a, 82-4, E. Armorican  
Gold Group, type D2, figs.201-2. |
<p>| SILVER              |         |                      |            |        |                      |                                                                          |
| 1 silver, with      | R78     | R/horse and horseman with oval shield | BN4558- BN4560 | 2.89 g | Lemovices, traditionally | Pre-war (Fischer): Colbert de Beaulieu, 1978. |
| copper core         |         |                      |            |        |                      |                                                                          |
| 1 silver            | R69     | cf BN3565a           |            | 0.53 g |                       |                                                                          |
| STRUCK BRONZE       |         |                      |            |        |                      |                                                                          |
| 1 struck bronze     | R68     | Wolf's head/ Pegasus  | BN4220 et seq |        | Bituriges            |                                                                          |
| 1 struck bronze     | R68     | Wolf's head/ Pegasus  | BN4220- BN4268 |        | Bituriges            |                                                                          |
| 2 struck bronzes    | V93     | R/eagle wing         | cf BN6147  |        | Carnutes             |                                                                          |
| CAST BRONZE/POTIN   |         |                      |            |        |                      |                                                                          |
| 1 bronze            | R10     | Horse, plough and rings | BN4199    | 3.79 g | Bituriges            | Nash, 1978a, 223-4.                                                      |
| 1 bronze            | R10     | Wolf's head/ Pegasus  | BN4220 et seq | 2.76 g | Bituriges            |                                                                          |</p>
<table>
<thead>
<tr>
<th>Description</th>
<th>Feature</th>
<th>Notes</th>
<th>Comparanda</th>
<th>Weight</th>
<th>'Tribal Attribution'</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cast Bronze/Potin (continued)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 bronze</td>
<td>R40</td>
<td>Wolf's head/ Pegasus</td>
<td>BN4239</td>
<td>2.33 g</td>
<td>Bituriges</td>
<td>Nash, 1978a, type b.</td>
</tr>
<tr>
<td>1 bronze</td>
<td>R40</td>
<td>Wolf's head/ Pegasus</td>
<td>BN4278</td>
<td>2.65 g</td>
<td>Bituriges</td>
<td>Nash, 1978a, type g.</td>
</tr>
<tr>
<td>1 bronze</td>
<td>V80</td>
<td>Armorican head/ horned animal head</td>
<td>R/cf BN8479</td>
<td></td>
<td>R/Ambiani Test-marked on obverse. Silver-plated?</td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>R30</td>
<td>Apollo/buttling bull</td>
<td>BN5267-BN5271</td>
<td>2.76 g</td>
<td>Aedui</td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>R30</td>
<td>poss. BN5284</td>
<td></td>
<td>4.02 g</td>
<td>Mandubii or Massalia</td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>R40</td>
<td>cf BN5645</td>
<td></td>
<td>3.18 g</td>
<td>Sequani</td>
<td>cf IMIOCI</td>
</tr>
<tr>
<td>1 potin</td>
<td>R69</td>
<td>cf BN10058</td>
<td></td>
<td>3.14 g</td>
<td>Aedui</td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>R69</td>
<td>BN5259</td>
<td></td>
<td>6.21 g</td>
<td>Aedui</td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>R78</td>
<td>Helmeted head</td>
<td></td>
<td>2.81 g</td>
<td>Sequani</td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>V32</td>
<td>BN7447</td>
<td></td>
<td>2.87 g</td>
<td>Senones</td>
<td>More widely distributed.</td>
</tr>
<tr>
<td>1 potin</td>
<td>V38</td>
<td>BN5401</td>
<td></td>
<td>4.07 g</td>
<td>Sequani</td>
<td></td>
</tr>
<tr>
<td>1 potin fragment</td>
<td>V38</td>
<td></td>
<td></td>
<td></td>
<td>cf Sequani, but new variety.</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Feature</td>
<td>Notes</td>
<td>Comparanda</td>
<td>Weight</td>
<td>'Tribal Attribution'</td>
<td>Comment</td>
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<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Cast Bronze/Potin (continued)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>V44</td>
<td>Fischer, 1981 fig.3</td>
<td>O/cf BN5527 R/cf BN5401</td>
<td>3.38 g</td>
<td>Bituriges?</td>
<td>cf Nash, 1978a, figs.592-3? 'Pagus'-type issue</td>
</tr>
<tr>
<td>1 potin</td>
<td>V44</td>
<td>Fischer, 1981 fig.4</td>
<td></td>
<td></td>
<td>Sequani</td>
<td>Colbert de Beaulieu et al, 1959, for BN5527: 6 at Alesia.</td>
</tr>
<tr>
<td>1 potin fragment</td>
<td>V71</td>
<td>As previous example</td>
<td></td>
<td>3.73 g</td>
<td>Sequani</td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>V71</td>
<td></td>
<td>cf BN5368</td>
<td>4.54 g</td>
<td>Sequani</td>
<td>Colbert de Beaulieu et al, 1959, 24-5: 12 at Alesia.</td>
</tr>
<tr>
<td>1 potin</td>
<td>V44</td>
<td>cf BN5308</td>
<td></td>
<td>3.51 g</td>
<td>Mandubii or Massilia</td>
<td></td>
</tr>
<tr>
<td>1 bronze fragment</td>
<td>R39</td>
<td></td>
<td></td>
<td>0.94 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 bronze</td>
<td>R78</td>
<td></td>
<td></td>
<td>0.30 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 bronze</td>
<td>V32</td>
<td></td>
<td></td>
<td>2.87 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 bronze</td>
<td>V53</td>
<td></td>
<td></td>
<td>0.57 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bronze fragments</td>
<td>V79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>V33</td>
<td></td>
<td></td>
<td>3.29 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>V80</td>
<td></td>
<td></td>
<td>3.38 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 potin</td>
<td>V90</td>
<td>&quot;Tête diabolique&quot; prototype</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Feature</td>
<td>Notes</td>
<td>Comparanda</td>
<td>Weight</td>
<td>'Tribal Attribution'</td>
<td>Comment</td>
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<td>----------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>CLASSICAL STRUCK BRONZES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 bronze</td>
<td>V89</td>
<td>Apollo's head/rose</td>
<td>BM384</td>
<td>1.27 g</td>
<td>Rhode</td>
<td>43 BC - 96 AD</td>
</tr>
<tr>
<td>1 bronze</td>
<td>V93</td>
<td>&quot;Altar of Rome and Augustus at Lyon&quot;</td>
<td></td>
<td>6.97 g</td>
<td>Roman</td>
<td></td>
</tr>
</tbody>
</table>
of much of the Levroux–Arênes assemblage, the presence of the Roman and Rhodian coins clearly suggests that activity in this area had not ceased by the time of the Conquest. Büchsenschütz (1981b, 332) has already drawn attention to potins from La Tène C2/D1 contexts near the Rhine on open sites at Breisach–Hochstetten and Basel–Gasfabrik. For the latter site, at least, not all the potins can be pre-Conquest: Fischer (1981, 191) has pointed out that at least two Catalauni/Remi coins are post-Conquest, since they are based on a Roman prototype minted between 54 and 49 BC. Thus, there are indications at least that low-value coins may have been circulating a few decades before the Conquest, with possible social and political ramifications. The Levroux–Arênes site has also produced a fragment of pellet coin mould (Fischer, 1981, Fig.6) which revealed traces of an alloy of silver, copper and lead. Paralleled at Aulnat, the known occurrence of such finds suggests that production was far from confined to major settlement sites (Collis, 1980, 44).

Overall, my impression is that the numismatic evidence is in considerable flux, not least because of the lack until recently of much securely stratified data. The over-riding trend appears to be towards the earlier dating of the beginning of the generalised-period coinages, perhaps particularly the low-value ones. The implications for this with regard to settlement organisation are clearly important, but will only become more evident with more stratified information and more quantification. We may suspect the Alesia ditch assemblage of exerting perhaps undue influence in depressing dating, especially since the Basel evidence (Berger and Furger–Gonti, 1981), for example, appears to reverse the usual typological sequence for potins. Nonetheless, there are some indications that not all areas participated in the precocious development of low-value coinages, and Limousin,
despite its mineral resources, may be a case in point. Again, more excavation evidence might overturn this assertion, although the number of coinless La Tène III deposits in that area suggests - even allowing for soil acidity - that the penetration of coinage into the affairs of the Lemovices was less developed than was the case with some of their neighbours.
2. LIMOUSIN: THE PHYSICAL AND HUMAN ENVIRONMENT AND AN OUTLINE OF ITS LATER PREHISTORY

2.1 Introduction

This chapter endeavours to set the scene and to provide the framework for the consideration of the record of settlement sites in Limousin. As such, it touches on a considerable number of issues, many of which cannot be examined in detail.

The nature and range of landforms merit discussion in an attempt to define the differences between Limousin and some of the other, perhaps better known, tracts of the Massif Central, such as the Auvergne. Its subsequent geopolitical history is sketched, to bring out, it is hoped, the marginal position of Limousin relative to two of the great lowland basins of France - the Bassin parisien and the Bassin d'Aquitaine.

The biogeography of the area is discussed from two viewpoints. First, such palynological work as has been done is outlined. As this for the most part consists of relative counts, anchored by few radiocarbon dates, this type of investigation is clearly only in its initial stages. Second, present-day land use is briefly outlined: this has important ramifications for both site survival and site detection.

An outline sketch of the published archaeological record for Limousin is also provided, and some comparisons made with neighbouring regions. Comparatively little has appeared in print by way of synthesis on this material: much of what has been written has been couched in terms of an invasionist model, to which excessive recourse has perhaps been made in the past. It must be explicitly stated that I have studied little of this material at first hand and that therefore such comments as are made below should be viewed as
particularly tentative. The coin evidence from Limousin is, however, treated a little more fully, since recent discussions have tended to attach particular importance to at least a portion of this data. In those cases where there are small finds from settlement sites discussed subsequently, these are mentioned in relation to the particular site. A factor of considerable significance to be borne in mind throughout is the detrimental effect of soil acidity on the artifactual record for much of Limousin.

2.2 Limousin: Aspects of the physical and human geography

2.2.1 Introduction

"Le Limousin offre cette avantage de former une des plus uniformes regions géographiques de la France, vaste zone de terrains cristallins au sol froid, imperméable et humide qui constitue le premier gradin occidental du Massif Central".

(Deffontaines, 1933, 461)

The present extent of Limousin, that is the three départements of Corrèze (19), Creuse (23) and Haute-Vienne (87), is one which has been conditioned by numerous upheavals, both political and administrative, over many centuries. Covering some 19,000 square kilometres, the present-day political unit nonetheless possesses certain unifying characteristics which help define its suitability for study as a region.

During the latter part of the period in which we are specifically interested, this area appears to have constituted the major portion of the territory of the Lemovices, although by no means it all. It is conventionally accepted that the territorial boundaries of the pre-Conquest tribes - insofar as they may have been judged to have been firmly defined - were ultimately transferred *grosso modo* to the ecclesiastical divisions of the country, having also served as the
administrative units of Roman control. Major differences between present-day Limousin and the diocese of Limoges as it existed on the eve of the French Revolution consist in the erosion of its southern and western flanks: some 34 parishes are now in the département of Dordogne, essentially in the arrondissement of Nontron (le Nontronnais) and 38 in the département of Charente, in the Confolentais (Schmitt and Timbal, 1936). Thus it was primarily through the organisation of the Church that territorial integrity was retained.

Contrastingly, during the post-Roman centuries, the area oscillated between being a Frankish possession after the destruction of the Visigoths in 507 AD and a territory of the various states established in SW France as the kingdom or duchy of Aquitaine. Frankish from 507 to 631, and again a northern possession from 744 to 78, it was otherwise an Aquitanian possession from 631 to 918. By the 10th century, Limousin appears to have lost all semblance of political unity (Leroux, 1890a; 1909, 339) since the comté de la Marche - the northern portion of the area - was certainly in existence by the middle of that century (Thomas, nd, 6). Furthermore, the administrative distinction between Haut- and Bas-Limousin (the latter corresponding in some degree with Corrèze) appears to have been established by the later 14th century (Fage, 1917).

The oscillating political dependence on the south and west (the Duchy of Aquitaine, and Gascony) and the Paris Basin to the N, means that many of the attributes conventionally used to differentiate northern and southern influences in France - the presence of flat tiled roofs, the extent of the Provençal language (langue d'oc), and legal differences - follow rather different lines as they traverse Limousin (Pinchemel, 1964, Fig.48). Without wishing to establish too rigid a geographical framework over such information, it is clear that
the physical geographical characteristics of the area have to be admitted as a factor exerting a measure of control, and to these we now turn.

2.2.2 The landforms of Limousin

In geological terms, Limousin forms the NW portion of the central massif of France, one of the major Hercynian units of western Europe. It is formed primarily of igneous rocks with an aureole of crystalline schists and gneisses (Rutten, 1969, 149 Fig.87) and is separated from the area of more recent volcanic activity centered on the Puy de Dôme and Cantal by the "sillon houiller" or major fault zone associated with Stéphenien (carboniferous) coal fields.

This upland plateau of the Massif Central, a former peneplain subsequently uplifted to as much as 1200 m (less than 1000 m in Limousin itself) is one of the main topographic barriers of western Europe. Complemented by the Alps to the E, it effectively acts as a climatic (and to some extent as a cultural) barrier between temperate and Mediterranean Europe.

The subsequent uplift of the Massif Central shows pronounced differential movement, which resulted in a general tilting (and consequent lower altitudes) to the NW. Excluding those mountains produced by subsequent volcanic activity, the greatest elevations in the Massif Central are to be found in the SE, in Velay and the Lozère, at the opposite extremity from Limousin. As a result of this tilting, drainage across the former peneplain is largely to the W and NW, towards the major rivers of the Aquitaine and Paris basins. Limousin shares this dichotomous pattern, with many rivers including the Vienne and Creuse being tributaries of the Loire, whilst those of Corrèze
LIMOUSIN: RELIEF
after Notes et Études Documentaires no 3118, 1964

[Map of Limousin relief, showing different elevation zones: higher than 900m, 700m to 900m, 500m to 700m, 200m to 500m, less than 200m.]
(Bas Limousin) contribute to the R. Dordogne. It is worth noting in parentheses that the only southward-flowing system, the Rhône-Saône, flows down a graben on the eastern margin of this upland bloc.

In general, Limousin is characterised by lower altitudes and different geology from most of the Massif Central, and thus forms a definable unit on the NW margin of the latter (de Cessac, 1862a). The major distinction within Limousin lies between the high plateaux of Millevaches (where individual summits may exceed 900 m in altitude) and the skirts of lower peneplained plateaux which surround it. These latter are interrupted by more restricted areas of high ground (e.g. Massif d'Ambazac and Monts de Blond, Haute-Vienne) and by downcut valleys, which dissect the plateau topography which consists of granitic and metamorphic rocks. In essence, it is an upland zone which rarely encroaches on the neighbouring lowland sedimentary plains of Berry, Poitou and the Angoumois.

Since Demangeon wrote, it has been traditional to divide the landscapes of Limousin into two main series, which he termed respectively the "Hauts Sommets" and the "Plateaux Limousins" (1910). The former category includes not only extensive areas of upland like the Montagne limousine, but also massifs of more restricted extent - Monts de Blond, d'Ambazac, Toulx-Sainte-Croix, Guéret, etc. A third element in this pattern of rounded upland topography is offered by more isolated hills, as around Bourganeuf. Most of these upland areas consist of more resistant granites and granulites which stand proud from a schist surface. This generalisation is by no means absolute, however, as individual summits e.g. Mont Gargan (731 m) are schist. Generally, as with the plateaux, heights decrease westward.

The plateaux suites are marked generally by much gentler slopes, co-incident with the directions of the rivers. The Vézère,
exceptional in the gentleness of its gradient, drops 33 m in 91 km from the Treignac area to Saint-Bonnet-l'Enfantier (463 m to 430 m). The Dordogne, whose bed is at 746 m near Eygurande, leaves the region at c. 500 m near Beaulieu: the Creuse, at c. 700 m at Felletin, has dropped to 200 m by the time it has attained Argenton-sur-Creuse in southern Berry. Average altitudes in the area are, however, fairly high: around 512 m in Creuse, 565 m in Haute-Vienne and 700 m in Corrèze (Leroux, 1909, 307).

2.2.3 Climate and soils

Climatically, Limousin lies at the limit of oceanic, continental and meridional influences. The oceanic pattern is most strongly developed in the lower plateaux of the W fringe of the area where summer (the driest season) gives way to autumn (the wettest). This pattern, however, is reversed further E, for example in Haute-Marche, where autumn is often the driest season. Four-fifths of the area receives 900 mm mean annual rainfall and one-sixth 1300 mm (Durandeau, 1958).

Most of the soils are comparitively light and naturally acidic (pH 5.5–6.5) being based on granite, granulite, micaschists and gneiss. The best soils are those derived from diorite and amphibolite: they are neutral. They make up about 5 per cent of the land area of Limousin, mostly in Haute-Vienne and Corrèze (in the Ligoure basin, some soils around Bellac and Dorat, around Saint-Yrieix-Lubersac-Uzerche and around the margins of the Brive basin) (Durandeau, 1958).

These factors combine to make Limousin an area in general much more favourable for stock-raising than for arable agriculture. A 1958 estimate gave 700,000 ha. of grassland, as opposed to 200,00 ha.
of cereals (Durandeau). Climatic variation coupled with altitudinal range tended to encourage transhumant systems in the past. On the higher ground of Limousin, as elsewhere in the Massif Central, e.g. Cantal (Marty, 1914), the foundations of dry-stone structures ('cases') are well-known, although difficult to date: many, though not all, may be comparatively recent constructions.

Before considering the major constituent elements of Limousin, one product of the interplay of geology and climate should be mentioned, since it has a direct bearing on the archaeology of the region. In certain areas, differential erosion has produced features such as tors (sometimes incorporating massive sub-rounded boulders e.g. Les Pières Jaumâtres : Maitre, 1943, 418) and rocks pitted with natural basins. Inevitably, these attracted early antiquarian interest.

Mérimée (1838, 76) noted that these features were natural, a case which was subsequently more formidably argued by de Cessac (1857, 245-8). Some, however, have been incorporated into later enclosed sites - Saint-Georges-Nigremont in Creuse may serve as an example - so that some of the transparently 'natural' formations may repay future study.

2.2.4 Vegetation

A recent summary (Denêfle et al, 1980) confirms the view that the vegetation pattern of Limousin has more in common with the lower lying areas to the west than with the more mountainous zone of the Massif Central to the east. Dated pollen cores suggest widespread human impacts on the vegetation during the Iron Age, in part represented by the relative decline of arboreal cover, in part by the presence of indicators of agriculture. Most of the available pollen data relates to the upland portions of Limousin, and may thus not
form a safe basis for generalisation. The key sites are thus mentioned summarily below. As yet they are not complemented by environmental evidence from the excavated sites of Limousin.

At Longéroux, near the source of the Vézère on the plateau de Millevaches, a relative pollen diagram (Denèfle et al., 1980, Fig.3) illustrates the spread of Calluna and the Ericaceae around a C$^{14}$ date of 2070 $\pm$ 80 bp (NY-649) accompanied by a fall in most of the tree types represented. A site at Orluc, also located on the plateau de Millevaches, shows a rather different pattern (Denèfle et al., 1980, Fig.4), though decline of the arboreal cover and the spread of grassland can be detected between two horizons dated to 3015 $\pm$ 80 bp and 960 $\pm$ 80 bp. Amongst pollen cores studies further N towards the plateaux of the Marche, that at Augères (Denèfle et al., 1980, Fig.6) seems potentially the most interesting, since the base of the stratification is anchored by a C$^{14}$ date of 3295 $\pm$ 125 bp, which is nonetheless believed to be too recent by the palynologists, who see the pollen composition at the base of the diagram as indicative of the end of the Atlantic forest. Clearance, of increasing importance, has however been recognised through the upper two-thirds of the diagram and so again an Iron Age impact seems assured. From Dauges, in the commune of Saint-Léger-la-Montagne in the Monts d'Ambazac, Haute-Vienne, another diagram has been interpreted as showing forest regression, accompanied by alternating peaks of grasses-and-Cyperaceae and Calluna/Ericaceae over the same period. As pollens of weeds of cultivation are also present, it seems unclear as to whether this diagram represents alternating phases of clearance and recolonisation or simply modifications to the agricultural cycle within the catchment. In general, the authors accept that forest regression was more widespread in the sub-Atlantic, equated with the Iron Age, than in the sub-Boreal, and as might be
expected the evidence for cultivation, although indirect, is clearer on the lower sites around the 400 m contour, than at the Millevaches sites, located at twice that altitude.

Earlier relative pollen work by Lemée (1943) on the plateau de Millevaches and also on the southern plateaux of Limousin (Hauts plateaux corréziens c. 530-680 m) also draw attention to differences from areas further E, specifically the Monts-Dore. Lemée documented the presence of chestnut from a horizon he attributed to the neolithic, but thereafter it appears to have increased in significance, except on the Plateau de Millevaches. It was later to become a significant food source for the Limousin peasant.

Elsewhere, pollen analyses suggest very mixed woodland during the sub-Atlantic, although sampling positions may contribute to an overwhelming representation, in percentage terms, for alder. This is the case at La Draperie, in the lower valley of the Couze, a left-bank tributary of the Vézère, in southern Correze. Here level 10, above a level with C14 dates of 2560 ± 130 bp (Ly - 753) and 2510 ± 120 bp (Ly - 752), includes Quercus, Pinus diploxylon, Carpinus, Fagus, Corylus, Tilia and Ulmus, though at 68.2 per cent Alnus is quantitatively dominant (Raynal, 1979).

2.2.5 The geographical background: synthesis

Before embarking on more detailed consideration of the physical and human geography of Limousin, the reasons why such an approach is considered necessary should be explicitly stated. First, and perhaps most significantly, because it is felt that the physical environment of Limousin is an important variable which contributes to a view which we wish to develop later: that the organisational development of Limousin in later prehistory differs markedly from
that of areas bordering on it. Second, because the landscape offers a measure of control on our assessment of the settlement sites located in it, an admittedly coarse control but one which can only be bettered by a fuller excavation programme and more detailed local survey than was practicable within the scope of the present work. Third, because we believe that the physical environment exerts considerable influences on the known and knowable archaeology of Limousin, as it does in other areas of Europe. In Limousin, the most facile case to present is perhaps that of the degree of afforestation. It is thus no surprise that the most successful fieldworker of Haute-Corrèze, for example, was a professional forester, the remarkable communist député Marius Vazeilles (1881-1973) and we would argue that in Limousin it is the systematic exploitation of these areas that will, potentially at least, produce the richest harvest, at least in terms of sheer numbers of sites. In other areas of France, the beginnings of such an approach are already producing results (Desbordes, 1975a; Zuber, 1978). Contrastingly, conventional aerial photography - in terms of cropmark sites rather than of shadow-sites - will probably make less of an impact in this area of woodland and grassland than in the drier and more heavily-cultivated areas further north (e.g. Agache, 1970; Jalmain, 1970).

The terrain of Limousin is perhaps most easily considered by altitudinal bands, beginning with the high massif on its E side:

The "Hauts Sommets : La Montagne Limousine"

The Plateau de Millevaches and its N. neighbour, the plateaux de Gentioux, along with the collines des Monédières, around the headwaters of the R. Corrèze, include all the highest land in Limousin. The "Montagne" culminates at a height of 978 m, towards its SE margin - much lower than the maximum altitude reached elsewhere in the Massif
LIMOUSIN: RELIEF after Notes et Études Documentaires no 3118 1964

Diagram showing the relief of the Limousin region, including the Plateaux de la Basse Marche, Plateaux de la Haute Marche, Bocage du Haut, Poitou, Berry, and Auvergne.
Central. Indeed, apart from the "Montagne", the lower altitudinal limit of which may be set around 700-750 m (Demangeon, 1911, Fig.1), only restricted areas of Limousin are located above the mean height of the entire upland massif of 715 m (Fel, 1955, 401). Whilst this fact in itself may account for the absence of settlement at the highest altitudes within Limousin, Fel (1955) has drawn attention to the fact that the maximum altitude of settlement and cultivation in the NW fringes of the Massif Central is markedly lower than in the interior and S and E of the area.

Whilst acknowledging that a complex interplay of historical, climatic, demographic and pedological factors are involved, Fel draws attention to the correlation between altitudinal limits and aspects of climate. Here, rainfall appears to be of particular significance, though admittedly only in relation to autumn-sown rye, the principal crop of the area during the 19th century. The effect of the oceanic influences on climate appears to be to depress the upper limit for settlement and agricultural use to c. 750 m in the Morvan and below 900 m in Limousin and parts of Cantal, with the hamlets at considerable altitude receiving substantial rainfall (Dantrement, 1966, quotes mean annual rainfall at 1370 mm). Both Château-Chinon in the Morvan and La Courtine in the Montagne Limousine have monthly rainfall minima of 95 mm.

<table>
<thead>
<tr>
<th>TABLE 1: MEAN SEASONAL RAINFALL AT LA COURTINE, ALT. 765 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>(after Fel, 1955, 408)</td>
</tr>
<tr>
<td>Winter</td>
</tr>
<tr>
<td>361 mm</td>
</tr>
</tbody>
</table>

Additionally, the higher areas of Limousin are disadvantaged relative to other more easterly parts of the Massif Central in terms of mean temperatures, a tendency which is most manifest during the summer
months. Evapo-transpiration is thus a less effective mechanism in Limousin than in other parts of the Massif Central, with consequences for vegetation and soils, as well as for human habitation. The area is presently liable to frosts between September and May (Durandeau, 1958); snow may lie for several months (Demangeon, 1911).

TABLE 2: MEAN SEASONAL TEMPERATURES FOR DIFFERENT STATIONS IN THE MASSIF CENTRAL, CORRECTED FOR ALTITUDINAL DIFFERENCES
(after Fel, 1955)

<table>
<thead>
<tr>
<th>Station</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
<th>Autumn</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantal, Aurillac</td>
<td>2.5°</td>
<td>8.5°</td>
<td>16.7°</td>
<td>10.3°</td>
<td>9.5°</td>
</tr>
<tr>
<td>(685 m (oceanic))</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Velay, Le Puy</td>
<td>2.4°</td>
<td>8.8°</td>
<td>17.6°</td>
<td>10.3°</td>
<td>9.8°</td>
</tr>
<tr>
<td>715 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limousin, La Courtine</td>
<td>1.6°</td>
<td>7.4°</td>
<td>15.8°</td>
<td>8.8°</td>
<td>8.4°</td>
</tr>
<tr>
<td>(765 m (oceanic))</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beaujolais, Les Sauvages</td>
<td>1.7°</td>
<td>8.4°</td>
<td>17.3°</td>
<td>9.8°</td>
<td>9.3°</td>
</tr>
<tr>
<td>723 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Taking the 8° annual isotherm as an indicator of comparison within the Massif Central, this can be seen to pass c. 750 m in Morvan, c. 850 m in Limousin, c. 950 m in Beaujolais, Livradois and La Margeride, and in excess of 1000 m around Mende. The "terres froides" of this and neighbouring areas normally indicate uncultivated expanses (Perrier, J., 1949). Heathland is a dominant vegetation community, and areas of ombrogenous peatland are common. Some agriculture and stock-raising are, however, present.

Not surprisingly, the area is and has been one of low population densities: in 1908, for example, the population density was c. 3/km² (d'Abzac, 1909). Most of the principal towns of the area, such as Aubusson, Eymoutiers, Corrèze and Ussel, are located on the periphery of this upland zone (Demangeon, 1911, 317) thereby emphasising their rôle as centres of exchange between different ecotones (Robert, J. et al, 1959). Such a pattern may also have
characterised the later prehistoric period.

The middle-altitude plateaux

Areas in the next altitudinal band, between 500 m and 700 m, are more extensive on the N and S of the Montagne than to the W. On the NE, lies la Combraille, an area which extends across the upper Cher valley into the neighbouring département of Allier (Ardellier, 1970). It consists of a subregion of the crystalline granitic plateau of Limousin, terminating on the east at the coal measures which run from Saint-Eloy-des-Mines (Puy-de-Dôme) to Champagnat near Bort (Corrèze). Encompassing the headwaters of the River Cher, its western limit may be set at the east-facing slopes of the plateaux of Chénérailles and Bellegarde in Haute-Marche and by the plain of Gouzon. Substantially levelled by glacial erosion, la Combraille is marked by a generally rounded topography and has a landscape dominated by bocage, a trait shared with the other plateaux at this altitude, such as the plateaux between the Creuse and the Taurion.

Various slighter upland areas project NW from the plateaux of Haute-Marche, and tend to form pronounced summits above the lower plateaux. These include the Monts d'Ambazac and de Saint-Goussaud, which make up a zone of granite and granulite hills which divide the upper valley of the Gartempe from that of the Vienne (Lacotte, 1962). The montagne de Blond delimits this zone, which fades into the plains of Charente, on the W. Although the hills are interrupted by at least one pronounced saddle - the Col de la Roche between Saint-Sulpice-Laurière and la Jonchère - even this is at c. 500 m and the whole may be considered as a single physiographic unit. This extensively metamorphosed zone is one characterised by exploitable mineral resources on its margins. These hills were subsequently to form the boundary between Marche and Limousin.
On the W, this suite of plateaux extends as far as Mont Gargan, only projecting a maximum of about 20 km beyond the limit of the Montagne. The other major area of these plateaux lies on the SE, and consists of the "Hauts Plateaux Corréziens", extending S as far as the downcut valley of the Dordogne.

South of the Dordogne Valley, the Region of Xaintrie (the cantons of Mercoeur and Saint Privat) is normally linked to neighbour- ing areas of Cantal, specifically la Châtaigneraie cantalienne. A limited number of communes (e.g. Rilhac-Xaintrie and Saint-Julien- aux-Bois) in this area have been affected by volcanic activity, heralding the geology of the Auvergne.

The bocage-covered and wooded plateaux of Haute Corrèze, which stretch W. to a major fault at Argentat, are divided into four or five distinct blocks by the right-bank affluents of the Dordogne, which here flow through narrow valleys up to 200 m deep (Adenis et al., 1967), and offer naturally well-defended locations above their valleys. Like most of this area of plateaux, upper Corrèze is generally fairly rolling country and lacks pronounced hills.

The lower plateaux

The major suite of plateaux of Limousin form a wide band round the N and W of those previously discussed, and generally lie below 500 m in altitude, although they are interspersed with restricted areas of higher ground, as around Toulx-Sainte-Croix in Creuse and the Monts de Châlus in W Haute-Vienne. Again bocage landscapes are the dominant form, and again the plateaux may be dissected by steeply downcut river courses, though other river valleys are wider, especially towards Basse Marche.

Despite the fact that much of this area is comparatively low-lying, it is relatively little used for agriculture and even
recent population densities may be extremely low (e.g. 11 inhabitants/km² - commune d'Azat-le-Riz). Some of this area is "montagnard' in the sense this word is used in Limousin, that is to say country marked by extensive areas of heathland and with comparatively steep slopes which inhibit agricultural development, for example around Jabreilles (Lacotte, 1967). Place-names based on Gast/Gat/Gâtine often indicate uncultivated ground or uninhabited places (e.g. Les Gâtines de Blond) (Perrier, A., 1966).

As recently as the late 18th and the beginning of the 19th century, famine was not unknown in these northern areas around Guéret and Bellac (Dutheil, 1940): the provision of food was made all the more difficult by the poor state of the road network. In 1822, Navière de Rieux-Peyroux wrote in a Haute-Vienne agricultural magazine "Almost all our roads are paths impassable for three-quarters of the year and on which two horsemen often have difficulty passing each other" (quoted by Schmitt and Timbal, 1936, 38).

In these areas, good pastureland has traditionally been exploited in the river valleys, with the cultivated ground being located on the rounded summits and less steep slopes (Valadeau, 1894). Various customs attempted to ensure a degree of regulation in the exploitation of these areas: the "vaine pâture" regulated grazing rights both on individually-owned land and in such areas as newly-burnt or newly-felled woodland (Lacrocq, 1938) and has been documented back to the 16th century. Soils are generally thin, and even in lower-lying areas like the plaine de Gouzon, locally capped by tertiary limestone marls (Mallard, 1857), agriculture may not benefit (Durandeau, 1958).

On the N, the transition from Bas-Berry and Boischaut to Marche is one marked by only gradual change at around 200 m (Rousillat, 1942). This intermediate zone may be continued south as
far as the valley of the Petite Creuse, to incorporate le Dunois (pays de Dun-le-Palestel) and the region around Boussac (Robert, J. et al, 1959), at one stage a fortress of the Duchy of Berry. Again, this is predominantly a zone of bocage, and a similar gradual change marks the W transition to the Confolentais. This lower zone, however, is not uniform, and a consideration of the lower plateaux of Corrèze will serve as an example. This area, with both sandstones and limestones (Mouret, 1896) is geologically more heterogeneous than the N and W. However, even in the schist areas, there are some naturally richer parts where the soil has been enriched by the disintegration of amphibolites: an example is the Vendonnois. The Tourmente valley, lying between the sandstone and the limestone bluff of the Causse Corréziènne is fertile and rich since the subsoil consists of lias. In the sandstone areas, erosion products can contribute to the development of rich soils in the valley bottoms.

The Causse Corrézien and the Bassin de Brive

The transitional zone to which we have just referred is a particularly favoured area (Demangeon, 1933) characterised by both adequate surface water and fertile soils. This extreme SW portion of Limousin offers a complete contrast with the rest. Forming part of the Aquitaine basin, and geologically based on limestone, it consists of lower-lying land, interspersed with more restricted upland blocks (butte-témoins. Comparisons may be made with neighbouring areas, such as Périgord. The Brive Basin thus offers a mode of contact with the SW of France. It, and the "Causse Corrézien" have the lowest average rainfall in Limousin, and place-names like "Les Varennes" often testify to the agricultural value of this ground for cereal cultivation (Perrier, A., 1966). The soils here are the only ones in Limousin to be derived from secondary deposits (Durandeau, 1958).
In the extreme S of this area are major limestone outcrops around Saint-Cernin, Lissac and Meyssac; more restricted outcrops are present further N in the arrondissement of Brive, around Yssandon, Ayen and Saint-Robert (Porot, 1908). It is perhaps unsurprising that this lower enclave should exhibit a rather richer prehistoric record (Couchard, 1974) than that of many parts of the more ancient massif.

2.2.6 Agricultural change, the present-day landscape and fieldwork

Throughout the Limousin, the countryside consists of a varied mosaic of woodland, heathland, permanent grassland and arable fields, the mosaic varying with altitude, aspect and soil conditions. A consistent feature of the Limousin landscape, is the high percentage of woodland. Oak, sessile oak, and beech are dominant on the lower plateaux, along with the chestnut. The last-mentioned is common up to about 600 m, but has declined very considerably in significance over the last century or so. Plantations of chestnut trees (Châtaigneraies) have been removed since the XIXth century to make way for arable cultivation (Valadeau, 1894), although in some areas disease appears to have been eliminating some trees by the XVIIIth century (Drouault, 1917, 255). The birch (Betula pendula) is also a constituent of this woodland, but is quantitatively more important at higher altitudes. However, much of the woodland now consists of plantations of softwoods. Afforestation of this type has been underway since the XIXth century, but has increased greatly in extent since the end of World War II. This extension of woodland has been achieved primarily at the expense of heathland, though such communities are still extensively represented on the higher ground. Although both the pollen record and literary accounts (e.g. Abbé Soudanas, 1972,
LIMOUSIN: Extent of Heathland at the beginning of the XIXth century after Perpillou, 1945.

PERCENTAGES OF HEATHLAND

- LESS THAN 5%
- 5-25%
- 25-50%
- 50-75%
- MORE THAN 75%

Map showing the percentage distribution of heathland in the Limousin region.
quoted by Valadeau, 1894) testify to the chronic overexploitation of woodland for fuel and building, the general impression is now of a heavily wooded landscape, to which reboisement has clearly made a significant contribution. The possibilities for archaeological sites - even those still showing considerable relief - escaping detection are great, and should be frankly acknowledged.

**TABLE 3 : CHANGING LAND-USE IN THE CANTON OF EGLETONS, CORREZE, EXPRESSED IN PERCENTAGES**
(after Perpillou, 1940)

<table>
<thead>
<tr>
<th></th>
<th>1834</th>
<th>1909</th>
<th>1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heathland</td>
<td>56</td>
<td>42</td>
<td>12</td>
</tr>
<tr>
<td>Woodland</td>
<td>4</td>
<td>8.5</td>
<td>33</td>
</tr>
</tbody>
</table>

Limousin's lush grasslands are also acknowledged as presenting prime stock-raising areas. The export of cattle from the upland areas is attested from the XVth century at least, and these have again become the dominant livestock. By contrast, the number of sheep has declined drastically, in parallel with the reclaiming of heathland, from about 2 m in 1888 to less than ½ m by 1933. Thus, unlike much British moorland, on the periphery of Snowdonia as on the margins of the rivers of Northern Scotland, the moorlands of Limousin are less modified by muirburn and the dentition of Ovis spp. As it is in such 'sheepscapes' that low-relief archaeological sites have been most readily recognised in this country, we may expect a complement of these to be increasingly recovered in future years in Limousin. The other concomitant of livestock production, permanent grassland, may also be a contributory factor in accounting for the low number of unenclosed sites presently known, since these are essentially recognisable through artefacts dislodged by agricultural activity.

Limousin, fortunately, was one of the areas studied intensely during the great period of French regional geography, and
Perpillou's study (1940) provides a wealth of cartographic data which may be juxtaposed with the assembled archaeological information. His maps (Planches I and II) bring out the fact that many changes were already underway in the agricultural landscape by the outbreak of the second world war.

The other major element of agricultural change has been land consolidation, or remembrement. The survival of many field monuments in Limousin, as elsewhere in France, may be attributed to their incorporation as the field divisions of the parcellaire: indeed, it has not been unusual to find even the 1 ha. sites sub-divided - as at Prassaud, near the great 'oppidum' of Villejoubert, Saint-Denis-des-Murs (87). Few are the banks of earthworks which are not clad in woodland or in thick and well-nigh impenetrable hedgerows and, hence, the merit, referred to in the introduction, of study of the cadastral plans, still perhaps best exemplified by Jacqueline Soyer's study of the survival of circular parcelles (1970). But the existence over time of some of these land-divisions, particularly in arable areas, means that the formation of negative lynchets - now marked by extensive hedgerows - can, and almost certainly has, led to the overestimation of the dimensions of some earthworks.

Land consolidation, discussed accessibly by Clout (1973, 30-7; 1974) is, as yet, much less significant a threat to the archaeological record in Limousin than in many areas of France. Large-scale remembrement is essentially restricted to the better land, and parcelle consolidation appears, in the light of the gazetteer evidence, principally to be taking a toll of the smaller enclosures. Figures for the canton of La Souterraine, in the north of Creuse, give an indication of the extent to which the landscape had been sub-divided, with consequences for the survival of archaeological
monuments. Valadeau (1894) states that the 27,342 ha. of the canton were divided into 69,040 parcelles (average area 0.4 ha.) at the beginning of the XIXth century; by 1893, this number had been cut to c.46,000.

2.2.7 Conclusion

In concluding this section, the following points merit emphasis and may be read in conjunction with the départmental gazetteers and the discussion which is built on them. The landscapes of Limousin and their land-use history, enhanced by rural depopulation, means that there is certainly more scope for the survival of upstanding field monuments undetected than in the areas further N. The gazetteers include many sites, where available evidence did not allow the site to be pinpointed with sufficient accuracy for it to be assessed, within the very real constraints of time and manpower pertaining to this study. It has seemed more honest to include these 'unconfirmed' sites, rather than to present a more restricted set of 'confirmed' sites, and base discussion uniquely on them, without offering some perspective from which the completeness of the database might be assessed.

Nonetheless, judging by the experience of Büchsenschütz and others (1979) in re-assessing the field monuments of Cher and complementing it with this evidence from Limousin and work done elsewhere, the following conclusions seem reasonably safe: the rate at which 'new' protohistoric earthworks are being discovered as surface monuments is far exceeded by that for transparently medieval works - though the division is certainly less clear-cut in Limousin than, for example, in Berry. As yet, my impression - and it is purely that - is that 'crop-mark forts' are comparatively rare in France, and
absent in Limousin, where aerial archaeology is yet in its infancy.
Of course, in the light of British experience (Watkins - St. Germains, E. Lothian - pers. comm.), it is clearly possible that some e.g. of the series of 'fermes indigènes' recorded in the Somme by Agache (1981) may be more militarily-enclosed than that appellation suggests, but they, too, are absent for the moment in Limousin. We would suggest that, amongst the protohistoric enclosed works, it is those at the smaller end of the scale which are most likely to increase substantially in number (see section on Viereckschanzen). Contrastingly, I owe the suggestion that large, comparatively lightly-enclosed sites, which exceed the size-expectations of aerial photographers, may also be presently under-represented to M. J-P. Guillaumet. Whilst I would accept the general validity of this view, I do not think that the patchwork landscape of Limousin well-suited to reveal this potential category without extensive fieldwork, rather than aerial survey. Open sites are clearly under-represented, but I do not think that Limousin will produce as many of these in the next few years as the favoured areas of the Massif Central, notably the lowland troughs of the Limanges and Forez, since the latter are better-defined geographically, more restricted in extent, and benefit from a longer and more active tradition of fieldwork.

2.3 The later prehistory of Limousin: the artefactual record

2.3.1 Introduction

The evidence for the later prehistoric occupation in Limousin, as indicated by the artefactual record, has normally taken fairly minimal account of comparable developments in adjacent areas. Contrastingly, the apparent richness of many of the metalliferous zones
of Limousin has been drawn into discussions of the artefacts of the Metal Ages, although there appears to be as yet little formal evidence that the exploitation of these resources preceded the gallo-roman period.

The present research was not primarily concerned with the artefactual record (nor with the funerary monuments from which a substantial portion of the provenanced remains originate), but it has been felt appropriate to produce a brief résumé of the evidence against which the settlements (and the small finds recovered from them) may be judged.

Whilst it has been argued that the funerary record - in terms of the location and distribution of barrows - offers a general indication of areas of settlement (Couchard, 1968, 14) and this has been demonstrated for individual barrows, for example at Augères, Creuse, where the scraped-up earth forming the mound contained numerous sherds (Léger, 1977), the systematic study of this class of monuments, even in terms of their distribution, has not been attempted here. A generalised distribution map is available for Corrèze (Lintz, 1979a). However, the pages of the local periodicals make clear that examples continue to be discovered in some numbers (e.g. Lintz, 1970), nor are they uniquely Iron Age in date.

On the basis of the available artefactual evidence, two categories of site, at least potentially of Iron Age date, are also not the subject of systematic study, and the reasons for rejecting them are given below.

2.3.2 Souterrains

Evidence from other areas of France, particularly Brittany, makes clear that this category of sites was in use in the pre-Roman
Iron Age. It has often been tacitly accepted that at least some of the Limousin examples ought to belong to this period (e.g. Lecler, 1894), not least because of classical references taken to refer to this category of sites and because of proximity to Iron Age sites. Bombal (1904, 1911), for example, discusses several around the Puy du Tour at Monceaux.

However, the Limousin examples, for the most part dug in rotted granite, differ in this important structural way from the Breton series. They are also much more complex in plan than is usual in the protohistoric types (Lombard, 1977a; Gady, 1973; Gady, pers. comm., 1974). The associated artefactual debris is usually medieval or more recent (Gady, 1972), and there is a radiocarbon date of 780 ± 90 bp for an example at Saint-Pardoux-le-Neuf (19) (Lombard, 1968a). In the present state of our knowledge, it seems reasonable to discard this category of sites from the later prehistoric repertory in Limousin.

2.3.3 'Cases' and 'Cabanons'

Dry-stone structures, often found grouped in what have been termed "agglomérations anhistoriques" (Guébhard, 1919), are a recurrent feature of the upland landscapes of the Massif Central and considerable tracts of S France. Barruol (1966) has argued that the majority of the Provençal series appears to date between 1700 and 1850; variation in form of these structures is usual, and some retain indications of corbelled roofs. However, the date range for these structures in Provence is long, with examples of neolithic date for example at Fontbouisse.

Those of the Massif Central (often referred to as 'clapiers' or 'clapas' in dialect) appear to be in general less complex
architecturally, and whilst many may be attributable to fairly recent times and functions in relation to transhumant farming systems, at least some - as at Chastel-sur-Murat, Cantal - may be protohistoric. Some of these systems are clearly very big: Vazeilles estimates 3,000 examples on 70 ha. at La Paillère, Murat-le-Quaire, Cantal (1944), but single examples are also known. In the absence of much chronological evidence, they have not been taken into account in the present work.

2.3.4 The artefactual record

Much of the evidence to be discussed here was discovered during XIXth century excavations, although there has been a revival in the number of excavations since the late 1950s, and this has affected (at least in terms of scale) funerary monuments more than settlement sites. Otherwise the bulk of the evidence consists of stray finds, associated to a lesser or greater extent with known sites. In terms of external influences, during the course of later prehistory, Limousin shows evidence of contacts with areas further E in the Massif Central (and beyond this to E France and the Rhine), with the W and in particular the SW and Aquitaine (and beyond that with Iberia); and with the Mediterranean littoral of France. The metal resources of Limousin may have been a contributory factor in these diverse external contacts (see Appendix).

Daugas' study (1976) makes clear that the late bronze age of Limousin (Bronze final) is poorly known, and this contrasts with the Middle Bronze Age which appears to be a rich and innovative period, perhaps particularly in the case of Creuse (Janicaud, 1944; Delage, 1949). In the extreme S of Corrèze, a little rilled ware (sensu Sandars, 1957) is known from Les Allées at Noailles, but in general urnfield
ceramics are little known. Millotte (1959, 1963b) envisages the primary external contacts during the middle and later bronze ages as western in origin - illustrated for example by rectangular socketed bronze axes and by the mould for a socketed hammer from La Roche l'Abeille (87) (Gomez, 1979).

The transition to the early iron age is also not easy to recognise in Limousin in terms of a defined early Hallstatt (H. ancien) phase. Elsewhere in the Massif Central the appearance of a new aristocracy with iron swords has been suggested on the basis of the funerary record, though not in other aspects of life, to have occurred c. 650/625 BC. Contact with these groups may have produced what Sandars (1957) termed the "Groupe des Garrigues": graphite pottery is already present. Further extension took these groups as far as Roussillon, but in the Massif Central it has been suggested, on the basis of various cultural elements, that links were retained with the E and with S Germany (Daugas and Malacher, 1975). Within Limousin, this group has only been claimed for the causse Corrèzien, for example in the re-used megalithic monument at La Route Vieille, Noailles, Corrèze (Couchard and Arnal, 1963), although other burials are less easy to date with precision in the light of an impoverished artefactual record. The Pech-Pialat tumulus at Noailles is a case in point (Couchard, 1962, 1974).

Further E in the Massif Central (Daugas and Malacher, 1976) open sites of this period are known e.g. Brezet III, Clermont-Ferraud (Puy-de-Dome). Promontory forts appear also to have been in use in the initial Iron Age, at least in Haute-Auvergne. In Creuse and Haute-Vienne, a continuation of Late Bronze Age traits at this time appears likely.
The Hallstatt moyen period is comparatively ill-known in Limousin, although individual barrows - rather more substantial than those of the preceding phase (being up to 20 m in diameter and 2 m high) - appear to belong to this period. Amongst those at Saint-Ybard (Corrèze) (Brugère, 1890), one at least shares internal architectural similarities with tumuli elsewhere in the Massif Central, at as Saint Simon in Cantal (Delporte and Vuittenez, 1966).

A feature of this period would appear to be burials with multiple bracelets (Millotte, 1963b, 682; Lambert, 1974). About 60 were recovered from Faux-la-Montagne in the S of Creuse, grouped into three collections (d'Abzac, 1894). Although quantitatively slight, the evidence for this period does include sites at higher altitude: Faux-la-Montagne, for example, is at 750 m.

Evidence from the Auvergne, although comparatively scanty, may be taken to echo this suggestion of some occupation of upland sites - as, for example, at Joeuvres and perhaps at Corent (Daugas and Malacher, 1976). External influences are dominated by parallels with regions to the E and NE, although Lambert (1974, 49) has identified at least one item better paralleled in the third period of the Languedoc first iron age. At present it is not possible to separate Hallstatt moyen chronologically from the succeeding period and it is possible that there is a considerable overlap with the currency of Hallstatt final.

Although normally allocated a duration of approximately one century centered on 500 BC, there are indications in the western Massif Central and specifically in Limousin that the Hallstatt final may have had a longer survival. Effectively, since there is little clear evidence attributable to the earlier periods of La Tène, a terminal date for this period, quantitatively much better represented
than its predecessors, is difficult to specify. Burials, in part as a result of late XIXth century excavations (Masfrand, 1893, 1904, 1910; Vazeilles, 1936a) are the best-known element of this period. The material of this period has attracted a considerable recent literature (Lambert, 1974; Boisseau and Lambert, 1975; Léger, 1975; Daugas et al, 1976; Chevillot and Roulière, 1976; Lambert and Roulière, 1980; Roulière et al, 1981; Lintz, 1981a) and incorporates the results of excavations at Glandon (Haute-Vienne), Augères and Saint-Pierre-de-Fursac (Creuse) and Saint-Priest-de-Gimel (Corrèze). The dominant element in the associated assemblage is graphite decorated pottery, recovered from burials in Limousin (in Haute-Vienne S of Limoges, and E Creuse, and in Corrèze and NE Lot) and in the surrounding areas, though in these latter cases pottery of this type is not the dominant element in the assemblage. In the few cases where this pottery has been recognised in the Mediterranean hinterland (map in Lambert and Roulière, 1980, 102: the furthest S is at Cayla de Mailhac, Aude), it is on account of the occasional sherd. Within Limousin itself, two settlement sites - Crozant (23) and Chalucet (87) - have produced this pottery, in the latter case in association with pottery associated with the end of the Bronze Age (Bronze final IIIb). It is also known further N, as at Camp Allaric, Aslonnes, Vienne.

An absolute date range for this type of pot, with internal typological evolution, from the 8th - 5th century BC, has been proposed, (Lambert and Roulière, 1980), but the bulk of the Limousin examples may perhaps be attributed to the latter part of this chronological range.

The normal burial rite appears to be cremation below tumuli of similar dimensions to those of Hallstatt moyen, and a recurrent feature is the grouping of barrows of this period in cemeteries of
5 – 10 examples. Saint Mathieu and Glandon (where there were certainly 9 and possibly as many as 14) may serve as examples. Some cemeteries are located in areas of mineral resources and again Glandon is an example (Boisseau and Lambert, 1975). Elements of an internal stone-built architecture are recorded in some of the late Hallstatt barrows. The most elaborate is perhaps at Puy de Lafont in Corrèze (Lintz, 1981a), although this appears to have been an inhumation burial. Some Limousin examples may originally have held a wooden coffin, as bronze or iron nails are frequently recorded. Status differentiation may be apparent in the gravegoods (Lambert, 1974, table, 56-7) and between the barrows and earth-fast burials, again cremations, which are recorded in both Allier and Haute-Vienne (near Chalucet) and these may well have been more widely distributed. An earlier example is perhaps represented at Merlines (19) (Lombard, 1968b). Amongst the shapes of the "céramique graphitée", the minority, which are footed forms, is perhaps that most readily paralleled to the S and W, particularly in Aquitaine (Lambert, 1974, 53). Contemporary with these wares are undecorated forms (e.g. bowls from Saint-Mathieu - Roulière et al, 1981, fig.4; Daugas et al, 1976; Boisseau and Lambert, 1975, fig.18) whose shapes are echoed in the coarse hand-made wares sometimes referred to as "Hallstattien prolongé", e.g. Vazeilles (1962, 33).

There is no Greek pottery from Limousin, although Ionian has been recovered from Joeuvres (Loire) and Attic sherds from Bègues (Allier). The contacts appear to be south-western, rather than with the Mediterranean coastlands.

The metalwork inventory at this period also shows changes. Iron swords appear to have gone out of fashion, to be replaced by daggers and knives. Iron plaques covered with sheet bronze from
the barrow Cornoloubo at Beaune (Haute-Vienne) have been interpreted as parts of a breast-plate (Daugas and Malacher, 1976, following Ardant, 1857) or as the remains of harness gear or a wagon (Chevillot and Roulière, 1976, 281 and fig.4). Perhaps surprisingly, horse gear appears otherwise to be poorly documented in the literature on this assemblage.

Amongst jewellery, the most diagnostic types consist of fibulae, usually of iron, though bronze examples are recorded, as at Tumulus IX, Golandon, Haute-Vienne. Typologically, two varieties appear to be dominant. Both have the spring set internally and transversally and a rounded bow, a long catch-plate and the foot elaborated 'à bouton' or 'à cabochon'.

Other material includes bronze rings, a bronze basin from Saint-Mathieu (Tumulus D), now lost (Roulière et al, 1981), and whetstones (Gomez, 1976). A series of schist or jet bracelets, decorated with geometric designs, and which may have been finished at Chalucet using undecorated products from Allier is also recorded. They appear with burials as at Tumulus de Lafont, Saint-Preist-de-Gimel (Corrèze) (Lintz, 1981a) and at Isle in Haute-Vienne, as well as settlement sites like the Puy de Gaudy (Creuse) and Aslonnes in Vienne.

In contrast with more easterly parts of the massif central, Limousin appears to have been more open to influences from the south and west: from Aquitaine and indeed Spain. Lambert (1974) identifies many of these - belt-hooks (as at Nexon (87); Gomez, 1976, fig.9) and pedestal pottery. We may also cite the zoomorphic bronze fibula from Chalucet, Saint Jean Ligoure (87) in this connection, and the Pyrenean fibula from Saint-Mathieu (Roulière et al, 1981, fig.5). Upland settlement is more commonly recorded than in previous phases,
and defences may first have appeared at various sites in the Puy-de-Dôme at this period (Daugas and Malacher, 1976). To the end of this period belongs the first broadly-datable artefact securely related to a fortification in Limousin - at Aubusson in Creuse.

The manifestations of the First Iron Age in Limousin may perhaps be summarily described as suggesting the emergence of a high status group as indicated by their gravegoods. It may be suggested that their wealth was in part built on the exploitation of metal resources, although gold items do not appear to be included in this inventory. External linkages to the E (suggested also by the unprovenanced, but local, bronze swan from Guéret Museum - Pautreau, 1978b) and SW appear certain.

La Tène artefacts such as a pin with a perforated head and a fibula with a channeled ('nervuré') bow (Boisseau and Lambert, 1975, fig.18, 49 : tumulus IX, Golandon) have been found with this late Hallstatt material in Limousin, suggesting that it continued after the nominal terminal date in the middle of the 5th century BC. Otherwise early La Tène material is poorly represented in Limousin. Apart from the fibulae from Crozant (23) and that from Aubusson, mentioned above, the principal objects are the gravegoods with a secondary burial in a tree-trunk at the late bronze age/early iron age tumulus of St.-Ybard, Corrèze. These consist of two bronze bracelets with moulded decoration and a damaged bronze torc, with one expanded terminal surviving ('à tampons') (Brugère, 1890; Bouyssonie, 1954; 1955). The second century BC (c. 250-120 BC), corresponding to La Tène II, also appears to be little represented in Limousin. Continuity of occupation during the La Tene period has been claimed for some Limousin fortified sites, like Crozant (23) and the Puy-du-Tour (19) (Daugas and Malacher, 1976), but otherwise the finds attributable to
this period would appear to be coins based on the gold stater of Philip of Macedon from Saint-Sylvain, Montaignt-le-Blanc, Creuse (Daugas and Malacher, 1976) and Limoges (Allen, 1980, No.168). A small bronze appliqué head from Vicq (87) may also be of La Tène II (Perrier, J. 1964; Delage, 1936).

The final La Tène period, La Tène III, is the best known in Limousin. Burials are infrequent, but evidence is more readily recognised from settlement sites and can most simply be discussed in connection with them. General points to be made include the difficulty at present in seriating the coarse pottery (as recovered, for example, at Puy-du-Tour and discussed more generally by Hatt, 1943, 1945) and the problem, discussed above, of distinguishing a 'clean' La Tène III assemblage from the post-Conquest manifestations which give rise to the appellation 'gallo-romain précoce'.

Only the coins have so far been allocated to the Lemovices as a specific, territorial phenomenon, and to these we now turn.

2.3.5 The coins from Limousin and the coinage of the Lemovices

Nash (1978a, 271) described the coinage of the Lemovices as 'relatively well-known', but there are problems in attributing both the series below to this group. Nash's reasoning for this difficulty - the disruption to the distributions resulting from the high Limousin plateau (= Millevaches) is difficult to sustain in view of the higher altitudes attained elsewhere in the Massif Central (Nash, 1978a, 280), and she appears subsequently to have retreated from this position (Nash, 1981, 16, note).

The best claimant as a coinage of the Lemovices is the silver 'severed head' group, although as Nash points out its utilisation of the quinarius standard (c. 1.90 g) probably contributed
to its wide dispersal (Colbert de Beaulieu, 1955, map; Nash, 1981, 16, note; Nash, 1978a, 287, findspots). In view of this Nash's attribution of this coinage to 'a section of the Lemovices' (1978a, 280) is puzzling. The Lemovican attribution was more confidently supported by Colbert de Beaulieu (1978). Both series (Colbert de Beaulieu, 1955) were in use in 52 BC (Alesia grave deposits).

Settlement and potential settlement contexts for this coinage in Limousin would appear to be restricted to:

- Margerides, 19
- Puy Chalard, Yssandon, 19
- Puy de Gaudy, Sainte-Feyre, 23.

In 1978, Nash and Colbert de Beaulieu differed somewhat as to whether any of the gold coinages could be attributed to the Lemovices. Colbert de Beaulieu (1978, 151) contrasted the wealth of Limousin in gold ores with the uncertainty in the attribution of gold coins, despite the earlier confidence of authors at the turn of the century. Nash's reasons for suggesting the attribution of the series of gold 'crane-and-trefoil' coins in the Lemovices, fabric affinity with Armorican and Pictones staters, and a die-cutting style most readily compared with the silver 'severed head' group were not enough to suggest that this attribution was other than problematical. The internal evolution of the series is also uncertain, although some types, including two found in the Marcillat hoard, were clearly in use around the time of the Conquest. Nash (1978a, 280) suggests that the base series (type 4) most frequently found on settlements is the latest, although her own data (284-5) does not support the contention with regard to settlements in general. Settlement contexts in Limousin appear to be restricted to:

- Puy du Tour, Monceaux-sur-Dordogne, 19: type 4
- Puy Chalard, Yssandon, 19: type 4.
No debris associated with coin production appears to be recorded in the three départements of Limousin, and the beginning of coin production in this civitas is perhaps still best regarded as undated. The bulk of the available evidence, both hoards and settlement evidence, suggests material little removed in date from the Conquest.

Clear indications of the earlier use of coinage in Limousin is restricted to the evidence from both hoards and strays. With regard to silver coinage, any connection between the Bridiers hoard and a possible pre-Conquest site at that location remains to be demonstrated, and none of this series of coins, including its later developments (Nash, 1978a) appears to have been found on a settlement site in Limousin.

The gold coins perhaps offer marginally more by way of possibilities. The series begins with the genuine Macedonian stater from Montaigut-le-Blanc (23), and both first and second generation copies appear to be represented in the area. It is perhaps the second century BC gold coins which may offer some possibility of linkages with settlement sites. Possibilities may include:

Saint-Priest-de-Gimel, 19
Limoges, 87.

Mediterranean coins

Pre-Conquest, or slightly later Mediterranean coins have been identified from the following actual or potential settlement sites:

Les Angles, 19: celtiberian, neo-punic
Monceaux-sur-Dordogne, 19: Narbonne
Yssandon, 19: late Massiliote drachma
La Souterraine, 23: Republican denarii
Limoges, 87: aureus of 43 BC
Saint-Nicholas-Courbefy, 87: Emporion bronze.
Extending this list to the end of the century to include Nîmes as would lead to the inclusion of:

- Margerides, 19
- Naves, 19
- Saint-Goussand, 23
- Toulx-Saint-Croix, 87.

The following list includes all the coins known to me with Limousin provenances. Two settlement sites stand out as having produced a handful of coins - the Puy de Tour and the Yssandon sites, both in southern Corrèze. Admittedly, this evidence is strongly influenced by the general lack of much excavation, but the lack of coins from sites with ploughed interiors (e.g. Saint-Gence and Villejoubert, Saint-Denis-des-Murs) seems worthy of comment. For the moment, too, no coins appear to be known from any of the tentatively-identified open La Tène III settlements.
2.3.6 Coins from Limousin: a preliminary inventory

19009 LES ANGLES: Puy de Merle
Silver neo-punic coin, issued by Juba I, King of Numidia (60 - 46 BC);
celtiberian coin.

19028 BORT-LES-ORGUES: ?
Bronze celtiberian coin from Osca in Aragon:
comparable with Roman coins 53 - 40 BC.
Deloche, 1884, 16.

19128 MARGERIDES: Les Pièces Grandes
16 silver coins, dated to the second half of
the first century BC by association.
2 x BN4561, Colbert de Beaulieu, 1955, series A;
5 x BN4566, idem, series A, variant C.
Include fractions (Colbert de Beaulieu, 1973,
301 and note 573): lower weights than those
found in the Alesia deposits: attributed to
the Lemovices.
1 x BN4091 (paralleled at Jalesches, 23),
attributed to Lemovices or Pictones.
3 + 2 uncertain x BN4365, attributed to Cadurci.
Late variant of a 'monnaie à la croix',
paralleled at Cuzances hoard, Lot 1 of unknown
type.
Also 1 as from the Nîmes colony, post-2 BC.
Mitard, 1979, 45-8.

19140 MONCEAUX-SUR-DORDOGNE: Puy du Tour
From excavations, stratigraphy mostly uncertain.
3 (at least) x MOTVIDIACA (bronze): Arvernian
(Blanchet, 1910)
1 x Crane-and-trefoil (bronze):
1 x potin Q DOCI: Sequani:
Nash, 1978a, 276.
1 x potin of 'Massilia imitation type'
(?, copying a Massalicote coin 'au taureau
cornupete': Colbert de Beaulieu, 1973, 321).
1 x bronze NERONCEN (Narbonne) with Iberic
inscription (Murat and Richard, 1968).
1 x bronze (Bituriges), unspecified,
Nash, 1978a, 276.
1 x silver (Bituriges), 'sword group',
Nash, 1978a, 341.

19145 MOUSTIER-VENTADOUR: Chamalot
1 x Massilia obol in silver, weight 0.5 g,
diameter 9 mm, 'Variety E'.

Continued ............
2 x silver coins of TOGIRIX: their weights, at 2.8 g and 2.5 g, seem high, well above the usual range for the series (1.9 - 1.99 g) (Colbert de Beaulieu, 1973): de Beaulieu's distribution map (1973, 343, fig.53) would make these the furthest SW examples, but his explanation for their wide dispersal - that they may have been used by the Army (1973, 309) - seems difficult to support. Attributed to the Sequani (cf. BN5550)

1 x Armorican quarter-stater, in billon (base silver). Coriosolites?

1 x silver DVR (NACUS), weight 2 g, cf. BN5795: about average weight for the series (Colbert de Beaulieu, 1973, 313-4, n 607). These 'Rhone valley horseman' coins are widely distributed. Attributed to the Vocontii.

1 x silver DVRNO (sic), weight 2.4 g. Presumably DUBNOCOV or DUBNOREX (and variants). Attributed to the Aedui, the series is again widely distributed (Colbert de Beaulieu, 1973, 311): the weight of this coin against that normally recorded for the series is again high (usually 1.8 - 1.99 g: idem, p.274).

1 x silver, perhaps Aedui. This group of coins would seem to belong to the late phase of wide circulation.

NAVES, Crédit Agricole.

Site

1 x as of Nîmes (Antignac and Lombard, 1977).

NOAILLES : in the vicinity of

Found in railway construction c. 1883: numbering follows Labrousse (1972).

1 x bronze (struck): LVXIIIRIOS, very worn. Lucterius, attributed to the Cadurci (no.1). In use by 52 BC.

1 x bronze (struck): 'O' of VANDII(A)LOS: attributed to Bituriges (no.2) : post-Conquest at Levroux (Fischer, 1981, 102).

1 x bronze (struck) cf. NB7493. Attributed to Senones, frequent on 'oppida' (Colbert de Beaulieu et al, 1959, no.116). 6 examples in Alesia deposits (no.6).

1 x potin, widely paralleled in west-central France (no.7).

1 x bronze, uncertain, very worn (no.8). If this assemblage was closed, it would appear unlikely to pre-date the Conquest, and may well be post-Conquest.

PANDRIGNES : Camp des Saulières

Site

Apparently stray finds from the fort: Lombard, 1972a.

Continued ............
19158  (continued)

1 x bronze coin GIAMILOS (cf. BN7565), attributed to the Senones. Weight 2.5 g. Must be post-49 BC (Allen, 1980).
1 x coin in unspecified metal, attributed to the Pictones. The survival of these coins, in view of the thin acidic soil, is remarkable.

19236  SAINT-PRIEST-DE-GIMEL: near Brach

Found in 1879 between the fields of Brach and Brousse (Pau, 1880, 575-6). Attributed to the Arverni by Colbert de Beaulieu (1973, 201, note 314). Compared with BN4543 by Bost et al (1981): this would be Nash's 'Head of Helios' type (1978a, 90) paralleled at Limoges (= BN4541) and attributed to the middle phase of Central gold coins, dated to the second century BC: central or western in origin.

19202  SAINTE-FEREOLE: in the vicinity of

1 x copy of Philip II gold stater. The coin appears to have both the determining traits of a 'first-generation copy' (Allen, 1980, 70). Lalande, 1912, 630-2 and 1913, 92.

19249  SAINT-YRIEIX-LE-DEJALAT

1 x silver coin: Silver Bridiers group, later development: lowest weight (3.60 g) of 'Horseman type' i.e. Nash, 1978a, 38, type A.

19274  USSAC: Bois de Tulle

120 coins found in a pot in a cave above the plain of Brive during World War I (Bost et al, 1981, 19-20: cf. BN4072). Hoard of gold 'crane-and-trefoil' coins of Nash's type 3 (1978a, 284), described as the 'Brive' hoard (1972a, 311, hoard 36). Late phase.

19275  USSEL: in the vicinity of

1 x silver coin cf. Colbert de Beaulieu, 1955. Not attributable to series A or B without further information. Attributed to the Lemovices. Lacroix, A, 1940.

19276  UZERCHE: or, in the vicinity of

1 x potin, attributed to the Senones, but common throughout the Seine Basin cf. BN7417 (Labrousse, 1972, no.5; Colbert de Beaulieu et al, 1959, no.112).

19289  YSSANDON

Both possible forts - in reality perhaps more likely to represent a single site - have produced coins: the following appears to be the most likely distribution between the sites (Lacroix, 1882, 1887). Continued .........
(a) Puy Chalard
1 x gold coin, found before 1887 (Bost et al., 1981, 20): possibly in electrum (Labrousse, 1972, no.3). Attributed to the Pictones, distribution western to Armorica, rare S of here, though there are two from Vieille-Toulouse. First century BC - still in use at Alesia (Nash, 1978a, 246-7).
1 x silver coin, Colbert de Beaulieu, 1955, series A, no.20, cf. BN4561. Found at Chalard according to Chalard (1878, 147). Attributed to the Lemovices.
4 x bronze coins of type with horse and crane on reverse (Blanchet, 1910): attributed to the Bituriges by Lalande (1890, 195). Nash describes these coins (1978a, 285) as attributable to the Lemovices, and as essentially local. Nash type 4.

(b) Puy d'Yssandon
1 x potin 'à la gross tête' (Lalande, 1890a, 195), found before 1882, widely copied, and in existence by 52 BC. Attributable to the Sequani (Labrousse, 1972, no.4) or the Aedui (Nash, 1978a, 278).
1 x Massiliote drachma, in silver (Lalande, 1890a, 195) late series (Nash, 1978a, 340)
1 x 'debased gold stater' (Lalande, 1890a, 195): this may be the Biturigan coin referred to below.

(c) Unspecified/both
1 x coin, attributed to the Bituriges (Nash, 1978a, 278).
Unknown number, small late silver coins, from both Yssandon and Chalard, perhaps Cadurcan (Nash, 1978a, 294).

(d) Mediterranean coins
There are also five Roman republican coins from Yssandon, two Nîmes as, and the silver coin from Marseilles already mentioned (Lacroix, 1882).

23001
AHUN: in the vicinity of Stray
Fragment of potin coin
Desbordes, 1976.

23021
BENEVENT-L'ABBAYE Hoard
Board of 44 severed head silver coins from a fountain or spring (Lacrocq, A, 1940). Consist of series A (cf. BN4561) of Colbert de Beaulieu (1955, no.15) Bost (1978), hoard no.4 and Nash (1978a) hoard no.35: late series.

23021
BENEVENT-L'ABBAYE Stray
Silver drachma of Massilia: Dugenest (1862, 343) followed by Nash (1978a, 340). Another stray find, listed by Nash (1978a, 336) from this commune, is from la Brionne.
23028 BOSROGER
1 x middle bronze EMPOR with Celtiberian legend (Dugunest, 1862, 343: de Cessac, ms).
Not from Benevent, pace Nash, 1978a, 336.

23034 BROUSSE
Gold coin, found in a meadow c. 1845 (de Cessac, ms). Description suggests comparisons with BN3716 (Bost et al, 1981, 21). Attributed to the Arverni, this type is only provenanced in the Pionsat hoard (Nash, 1978a, 156, series B5): late.

"23 CHAMBON"
Although described as a silver CAM 'sword group' coin, and attributed to the Bituriges and the above commune (Nash, 1978a, 214), this coin was in fact found at Cheverny 'in the Sologne' (probably the commune of that name in Loire-et-Cher). The confusion probably arose in the early XIXth century, when efforts were made to attribute the CAM series to either Chambon or a tribe called the Cambiovicenses on the eastern march of the Lemovices (apparently originally by de la Saussaye: see Tripon, 1837, 160-1, no.5, and Fillioux, 1862, 454).

23053 CHARD
Found c. 1850 (Janicaud, 1937, 407-15): some confusion with the all-gold hoard from Pionsat, found almost at the same time, is possible (Bost et al, 1981, 22): some coins from Pionsat (perhaps Chard) were seen in a jeweller's shop at Aubusson c. 1858 (Fillioux, 1862). Both Chard (often referred to as Auzances and sometimes placed in Auvergne: Nash, 1978a, 307, hoard no.15) and Pionsat (Nash, 1978a, 307, no.19) contained gold staters of Vercingetorix, those from Pionsat being light-weight and attributed to the end of the Gallic War (Colbert de Beaulieu, 1973, 222), but the Chard hoard, pace Nash, also seems to have included silver coins (Bost et al, 1981, 22).
One possible coin from the hoard (the size of which is unknown) has been identified in Limoges Museum, and compared to BN3754 (Bost et al, 1981): if so, this is Nash (1978a, 149) type A5, also recovered at Pionsat.

23076 EVAX-LES-BAINS
N'tmes bronze 'au crocodil' (Fillioux, 1862a, 197).

Continued ...........
FELLETIN : 'near'
Tripon (1837, 160-1, no.2) reports a group of coins from here, but they are excluded by Bost (1978) from his consideration of hoards. As they were initially recorded by Beaumesnil, the find may well be suspect. Colbert de Beaulieu suggested that one coin inscribed SEDULLUS (not the Lemovican leader) might instead read CEDVIX and be Merovingian (discussion in Ellis Evans, 1967, 468-9).

ISSOUDUN-LETRIEIX : la Villette
Bronze celtic coin 'with galloping horse' on reverse. Monnet, 1890, 399: Péranthon, 1904, 193.

JALESCHES : Marcillat
Found in 1908, sold in Paris in 1909, by which time some pieces were already lost. At least 79 coins, comprising 13 x staters, 4 x quarter staters and 62 x silver coins, found in a greyish-red pot, not wheel-made and bound with an iron band and accompanied by an iron axe-head, typologically comparable with that found with a hoard at Saint-Etienne-des-Landes, Dordogne (Blanchet, 1910).
Contents, described by Nash (1978a, 312, hoard 41) and attributed to the late phase, include 31 silver coins (Lacroix, 1938, 40) of Colbert de Beaulieu, 1955, series A and 15 series B (cf. BN4561, BN4572) (hoard no.13), weighing on average less than those of the Bénévent-l'Abbaye find. These coins may be attributed to the Lemovices. Nash lists 80 coins.
Other coins include late Berry sword group silver coins, including a fraction (Nash, 1978a, 219) and 4 x CAMBOTRE (or 5?) (Nash, 1978a, 213) for which a reverse die for one type (BI1) was found at the Puy de Corent. There was also a silver TOGIRIX and a silver inscribed Aedui coin, the latter paralleled post-Conquest at Levroux (Fischer, 1981, 192).
The gold coins are of 'crane-and-trefoil' series, and this is the only hoard where staters and quarter staters are found in association. These are possibly to be attributed to the Lemovices. Late phase hoard.

LAVAVEIX-LES-MINES
Gold coin (de Cessac, ms) from a garden: described as a stater fraction and probably attributable to the Arverni by Bost (et al, 1981, 24). De Cessac's description allows the possibility that it may be a second generation copy of a philippus.
MAZEIRAT
1 x celtic coin
Lacrocq and Janicaud, 1932, 99.

MOUTIER-ROZEILLE : la Grave
1 coin 'of the Lemovices' is reported from
la Grave, 'on the NE of Aubusson'.
Dayras, 1970, 22.

RETERRE : Coust
A gold ingot, triangular in shape and weighing
863 g was found near a spring in an area of
marshland: it is now lost (Urien, 1970, 19;
Bost et al, 1981). Although this may be ancient,
de Cessac (ms) records that it was rumoured to
have been brought to the commune by a soldier
returning from Spain at the beginning of the
XIXth century: it was certainly known by the
1840s (Bonafoux, 1838-47, 12-3).

SOUMANS : Montebas
De Cessac (1871, 339) records three bronze coins
from this location; their possible association
with early mining activity is unclear.
1 x bronze coin of EPASNACTUS. Attributed to
the Arverni. Nash (1978a, 161) suggests that
they may have been struck at Gergovie-Merdogne.
Colbert de Beaulieu (1973, 304) notes the series
(cf. NB3907-3920; 3886-3899) as the most pothernon-local bronze series at Alesia, but they
are unlikely to pre-date the final stages of the
Gallic War.
1 x bronze coin, without inscription.
1 x bronze coin, from Nîmes, probably an as.

LA SOUTERRAINE : Breith
(a) This key hoard, with its varied Mediterranean
prototypes (Allen, 1980, 57-8), has been taken to
represent the earliest silver coinage in Central
Gaul (Nash, 1978a, hoard no.2): although sometimes
attributed to the Lemovices (e.g. Muret and
Chabouillet, 1899, 102, BN4549), there appears
to be no particular reason so to do. According to
Fillouix (1862b, 457), 36 coins were found,
although others put the figure at over 40. The
coins were found in a pot with a black slip
presumably during Fesneau's excavations.
Apart from the coins studied by Nash, Blanchet
claimed a re-struck coin amongst the collection:
this was taken as a copy of drachma of Ampurias/
Emporion, over a monnaie à la croix. Colbert de
Beaulieu (1973, n 545) was sceptical, though the
given weight of this coin (4.30 g) would be not
out of line for the main series of monnaies à la
croix (type II) for which a second century date
has been debated (Nash, 1978a, 22).

Continued ............
(b) A second hoard of c. 120-200 coins was found by Fesneau in excavating at the 'Maison du Gaburos' before 1861. Found in a pot, this material was dispersed before it could be studied (Buisson de Mavergnier, 1863, 51; Janicaud, 1948; Bost, 1978, no.27), but it may have contained a coin of 'Vergasillaunus', perhaps a bronze of VERGA. On the strength of this tentative identification, it may be possible to suggest that this hoard may have belonged to the late phase of wide dispersal: coins of VERGA are known as far S as Languedoc (Colbert de Beaulieu, 1973, 328).

(c) A bronze coin, attributed to Petrocorii (cf. BN4326), was found in excavations: the associated stratification was however disturbed (Gallia, 33, 1975, 444).

LA SOUTERRAINE
Republic denarii, perhaps forming a hoard, are known from the commune (Bost, 1978, 161).

SAINT-FEYRE : le Puy de Gaudy
1x silver coin (Lacrocq, 1938-40), 'severed head' group, Colbert de Beaulieu (1955, no.14 'Saint-Léger-le-Guéretois') series A (cf. BN4561), attributable to the Lemovices. From Thuot's excavations at Puy de Gaudy (Blanchet, 1910).

SAINT-MEDARD-LA-ROCHETTE : Lioreix
Found during railway construction.

SAINT-SYLVAIN-MONTAIGUT
No precise context, found prior to 1890 (Monnet, 1890, 395) and now lost (Bost et al, 1981).
1x gold stater, wt. 8.60 g, clearly Macedonian (Colbert de Beaulieu, 1973, 200-1 and n.312).

"23 TOULL"
The coin attributed to here (Nash, 1978a, 214) is from the Sologne (Cheverny, Loir-et-Cher): Tripon, 1837, 160-1, no.4, and Fillioux, 1862, 454. See Chambon above.

TOULX-SAINTE-CROIX
1x as of the colony of Nîmes Barailon, 1784, 2.
VIERSAT
1 x celtic coin
Lacroq and Janicaud, 1932, 99.

BUSSIERE-BOFFY
1 x gaulish stater, gold, weight c. 7 g, now lost (du Taya, 1859; Bost et al, 1981).
1 x 'severed head' silver coin, attributable to the Lemovices. Colbert de Beaulieu, 1955, no.16, series A, cf. NB4561.

COMPREIGNAC : La Jante
Found by a labourer in 1811: a mixed hoard of Celtic and Roman coins. Over 1,000 coins - the maximum figure suggested being nearer 2,000 (Lecler, 1867, 20). Terminus post quem for hoard provided by Roman coins at 43 BC (Nash, 1978a, 314, hoard 47) or 37 BC (Rolland, followed by Colbert de Beaulieu, 1973, 260). Coins, attributed inter alii to the Aedui, Sequani, Leuci?, Pictones and neighbours, Remi, Bituriges and the Arverni (Colbert de Beaulieu, 1973, 357, and Nash, 1978a, 314) indicate the phase of widespread dispersal.

LE DORAT
Although it is sometimes suggested that only one coin has been found here (BSAHL, 91, 1964, 300), two staters appear to have been discovered separately (Bost et al, 1981, 29).

(a) Gaulish stater, known in XVIIIth century.

(b) 1 x gold stater, Berry late gold of type C (Nash, 1978a, 105-6) with obverse probably derived from coins of Philip V of Macedon (220 - 179 BC).

LA JONCHERE-SAINT-MAURICE : la Cicogne
32 x gold staters, attributed to the Pictones, issued before the end of the Gallic War, and paralleled at Yssandon, from a hoard which included Roman consular and imperial denarii. Colbert de Beaulieu, 1973, 261; Nash, 1978a, 249.

LIMOGES
(a) Rue Torte now Rue de la Boucherie
1 x Roman aureus, date of issue 43 BC (Bost et al, 1981, 31).

(b) 1 x gold stater (Muret and Chabouillet, 1889, 102 : BN4541) from the collection of F. de Sauley, traditionally attributed to the Lemovices (Bost et al, 1981). The coin is of Nash's 'Head of Helios' group (1978a, 90, and fig.230), attributed to the middle phase of central/western gold coins.

Continued ..........
NEXON
1 x coin, probably of electrum, of the 'crane-and-trefoil' series (Nash, 1978a, 285).

PIERREBUFFIERE: Villa d’Antone
4 x late bronze coins, discussed by Nash, 1978a, and a silver coin 'imitation of Emporion': the bronze coins are attributed to the Arverni and Bituriges. Further Biturigan coins (ABVDOS type) are reported by Dict. Arch. Gaule.

LA ROCHE-L'ABEILLE
1 x gaulish stater, imitating a Macedonian stater. (Bost et al, 1981, 36)

SAINT-AUVENT
1 x gaulish coin, found in 1849 and now lost. Probably of electrum (Bost et al, 1981, 36).

SAINT-GENECE: la Grande Châtre
1 gaulish coin (Juge et al, 1969).

SAINT-JUST-LE-MARTEL: Fort-Manoir
10 silver coins were found here, of which 3 were probably Roman and the rest gaulish (Perrier, 1964, 48, no.52). Appears to have included:
1 x silver coin (NB4460) of Nash's 'Silver Bridiers group, later development: Horseman type/type A' (1978a, 38, and fig.60).

SAINT-LAURENT-SUR-GORRE
1 x coin, imitation of Macedonian stater. Arbellot, 1879, 305; Bost et al, 1981, 37.

SAINT-LEGER-LA-MONTAGNE: Lailloux
1 x silver coin, found in 1935, cf. BN8178/8291 of Caletedu: one of the so-called 'uncertaines de l'Est'. Pitte and Sarradet, 1965; Colbert de Beaulieu, 1959, 46-7.

SAINT-NICHOLAS-COURBEFY
1 x bronze coin of Emporiae (Perrier, 1964; Nash, 1978a, 338).

VAULRY
Hoard, including approximately 300 bronze coins (Delage, 1930, 359) and several strays nearby. Includes gold 'crane-and-trefoil' coins of types 2 and 3 (Nash, 1978a, 281 and 284).
2.3.7 Conclusions

In conclusion, reference may be made to the association of the material discussed here with the main historical events documented in the historical record. Two call for especial comment: one is the development of the Arvernan hegemony in central France prior to 121 BC; the second the disruption attendant on Caesar's conquest in the middle of the Century.

Setting the coin evidence meantime to one side, there appears to be little in the archaeological record to suggest for Limousin a build-up of wealth as a satellite of its eastern neighbours in the earlier La Tène phases. Clearly, the evidence for La Tène III suggests a very pronounced change from the end of the second century BC, but the effects of the Conquest in this area peripheral to both the direct effects of the fighting and perhaps also to the initial impact of romanisation may perhaps be expected to leave an altogether muted trace in the archaeological record. To be sure, such a picture is likely to be radically altered by further excavation. However, in the present state of our information, the most distinctive period in the later prehistory of Limousin appears to be the regional manifestation, characterised more particularly by 'céramique graphitée' of the late Hallstatt period.
APPENDIX: THE METALLIFEROUS AREAS OF LIMOUSIN

In common with many of the ancient massifs of Europe, the Massif Central, and specifically Limousin, includes a number of areas from which metal ores may be obtained. The presence of such areally-restricted deposits of this kind has often been considered as a contributory factor in the choice of settlement locations. For example, Wheeler and Richardson (1957) draw attention to the silver deposits in the vicinity of Huelgoat in Finistère, and the iron resources around Manching in Bavaria and the Titelberg in Luxembourg are well-known. Of the metals in use in later prehistoric Europe, we may differentiate between the likely scale of operations associated with ironworking and other metals. Iron ores are much more widely distributed across Europe, would have been required in bulk and are likely to have been - relatively speaking - of low value. Hence, if we allow market forces to have been at work, there is every possibility that manufacturing is likely to have taken place in reasonable proximity to the source of the ore. The same constraints need not have applied to scarcer resources, and two of the principal metals of Limousin - gold and tin - would certainly fall into this latter category.

More recent European evidence tends to suggest that exploitation of resources of this kind - in SW England and Snowdonia for example - need not have the same effect on settlement distributions. In Limousin, it has been suggested that the exploitation of gold during the gallo-roman period may have been a labour-intensive industry (using slaves and convicts) and that some of the enclosed settlements may have served as penitentiaries or work-camps, or may have in some way surveilled the gold-bearing resources (Laporte, 1963, 1971, 1973). This author has gone on to suggest that the wealth of Limousin in gallo-roman times may have derived from these mineral resources, to the extent that the Lemovices territory has been described as the 'California of the Ancient World' (Laporte, 1973).

Whilst we may suspect this latter view of a measure of hyperbole, we cannot pursue it here: the principal question must be whether this extractive industry (whatever its scale) may have had later prehistoric antecedents, and whether they may have had an effect
on the settlement pattern. Before broaching the availability of mineral resources, two points must be made. First, the archaeological record itself gives little indication of a concentration of wealth, particularly in regard to gold. To the best of my knowledge, there are no gold objects from either burials or settlements in Limousin, with the exception of coins. Interestingly, the only pre-Conquest coin series attributed with certainty to the Lemovices is of silver, a metal scarcely extracted from the area. It is perhaps perverse to suggest - in contrast to what Nash (1978a, b) proposes for Berry - that silver may have been of higher value than gold in Limousin, in view of the rarity of the former.

The second point is more fundamental. I have no expertise in metallurgy and no first-hand experience of the quarries and mines mentioned below. Many now take the form of deep shafts, encased in vegetation, likely to trap the unwary, of which I would certainly be one. Similarly, not all the ores recovered in Limousin are likely to have been capable of use without recourse to comparatively recent technology. Laporte, for example, has reported that many of the gold-bearing strata of this area would appear to be extremely difficult to deal with without recourse to the modern process of cyanuration, which was not available until the end of the XIXth century (1963, 25).

In concluding these introductory comments, it should be remarked that definite evidence of pre-Roman working of these deposits appears to be lacking. Nonetheless, various authors have advocated either Iron Age or indeed Bronze Age extraction (Précigou, 1901) on some at least of these sites almost since they were first rediscovered from the end of the eighteenth century. Since that time, a number of these ores has been intermittently exploited according to the dictates of commercial pressures.

The principal gold-bearing areas of Limousin are:

Bénévent-l'Abbaye and environs (Laporte, 1963)

This area, rediscovered by Mallard (1866), is located near the headwaters of the Gartempe on the border between Creuse and Haute-Vienne between La Souterraine and Ceyroux. It shows extensive signs of open working, and some sites e.g. les Redoutes at Mouricoux (Mayaud, 1885) have been confused with fortifications. Extensive
Principal gold-bearing areas of Limousin after Laporte 1973
indications of working are known at Millemilange, a little to the E of Grant Vaux, Jabreilles, for example.

II Monts d'Ambazac/de Saint-Goussand (Imbert, 1909)

Gold has been recovered from a band running NE-SW from around Laurière at the N end of the Col de la Roche to Couzieux, located to the N of Limoges itself. There are indications of 'early' open mining. Additionally, alluvial gold has been recovered from the R. Aurence which drains this area towards the Vienne.

III Saint-Yrieix-la-Perche (Didier, 1911; Sagui, 1940)

The main gold-bearing strata here occupy a broad band along the margins of the Dordogne and Vienne basins between Meilhards (Corrèze) and Jumilhac-le-Grand (Dordogne) to the N of Saint-Yrieix. A more restricted area, centred on Glandon, is located to the SW of the town. Both exhibit signs of 'ancient workings'.

IV Periphery of Monts de Blond

The area around Vaulry and Cieux is the centre of a zone, between the Gartempe and the Vienne, which has produced a range of mineral deposits. Native gold (Daubrée, 1891) was identified here in 1856, and has also been recovered by alluvial panning from a number of communes in the vicinity (Meillet, 1889). The Etang de Cieux seems to have been the richest source of alluvial gold.

Tin in the form of cassiterite was identified here in 1812 (Mallard, 1866; Fuchs and de Launay, 1893) and tin-bearing alluvial deposits are also known. Small quantities of other metals, including native copper, have also been identified. The area shows extensive evidence of "ancient workings" including l/d la Posse profonde at Vaulry. Individual pits reach 70 m in diameter and may be up to 10 m deep. Such shafts appear normally to have been open to the sky.

V Bugeat near Ussel, Corrèze

In contrast to the N part of Limousin, gold appears to be recorded only rarely in Corrèze: alluvial gold is however noted near Bugeat (Porot, 1908).
Other deposits:

VI Gold has also been recorded from Montboucher, Creuse, to the S of area I above (Massaux and Teste, 1956) and at le Châtelet, in the commune of Budelière, in the same département (Laporte, 1963). However, these deposits either show no traces of ancient working or are amongst the most difficult to extract.

VII Puy-les-Vignes, Saint-Léonard-de-Noblat, Haute-Vienne

An oxide of tin was identified here in 1795, making it the earliest known modern find of tin in central France (Mallard, 1866; Fuchs and de Launay, 1893). Various minerals, including the cassiterite, were briefly exploited 1809-13. This deposit is potentially of interest because of its proximity to the massive site at Villejoubert, Saint-Denis-des-Murs.

VIII Montebras, commune of Soumans, Creuse

This site, 100 km E of Vaulry, has also produced tin (Fuchs and de Launay, 1893). Indications of early working were described by Barailon (1806, 27) who mistook the evidence for a Roman camp, but their significance was appreciated by Mallard (1862, 1866). A concession extending to about 4,500 ha. has been intermittently worked in more recent times (Tribalat, 1962; Naigeon, 1940). The area lies on a hill to the W of Montebras, below the ridge which culminates at Toulx-Sainte-Croix.

IX The richest area for metal ores in Corrèze appears to be in the SW of the département. Copper was being mined at Saint-Robert and Ayen in 1710 and arsenical copper was discovered at Yssandon in 1792. It is also known at Louignac and Perpezac (Forot, 1908). Tin was discovered at Ségur near Lubersac in 1786 (Forot, 1908). It is also reported from Arnac near Pompadour (Barret, 1890; Précigou, 1901).

X Iron ores appear to be relatively common in Limousin. Pyrites is described as common in Haute-Vienne (Barret, 1890) and other ores are widespread in Corrèze (Forot, 1908). In that département, the secondary deposits of its SW part appear to be the richest source. Imbert (1910), for example, mentions 'fer en rognons' at the Puy d'Ayen and Saint-Robert.

It should be emphasized that none of these workings is
formally dated before the gallo-Roman period. Although some appear to have slag associated with them, datable artefacts appear to have been rarely recovered. In terms of correlations with artefact distributions, the best fit (supported by the occasional find from the vicinity of the workings) would appear to be with the end of the middle bronze age ('haches à talon') (Fitte, in Musée Municipal, Limoges, 1967, 46). Dunlop (1938, 477, fig.6) appears to have been the first to map these deposits in connection with a discussion of Bronze Age France. Consideration of the sites in terms of prehistoric working goes back at least until the 1860s (Simonin, 1866). Mallard (1866) suggested a 'gaulish' date for the open workings, but no proof has since been offered.

Thus it appears hazardous to make too much of mineral resources in relation to settlement patterns. Laporte (1973) remarked on the centrality of Limoges relative to the four main gold-bearing areas. Other sites - Jabreilles in Haute-Vienne and Yssandon in Corrèze - are clearly near metalliferous deposits, but the nature of their occupation debris is almost unknown. Contrastingly, we may perhaps suggest that the 'silver' element in Argentomagus at Saint Marcel, Indre, on the river Creuse in the transitional zone to the plains of Berry is unlikely to have referred to metal from our area, unless it was extracted from lead.