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# The Scheldt Valley Commercial Activity Zone: 350 Hectares of the Gallo-Roman Landscape

By RAPHAËL CLOTUCHE<sup>1</sup>

## ABSTRACT

*The research undertaken on the Scheldt Valley Commercial Activity Zone was the first large-scale excavation in the Valenciennes region (northern France), permitting an insight into the organization of a large territory. It has yielded a great wealth of data on land use and settlement and it forms a key point of reference for any future research within the region for each of the studied periods. The article discusses the characteristics of the occupation of the territory, allowing the development of new models for the occupation, structure, and management of the land and the institution of settlements and their related material culture. It argues for a Roman-indigenous land cadaster, until now not observed for this part of Roman France. The different enclosures and their internal organization are described (buildings, wells, ponds, an artisanal zone, a road system, and a burial zone), showing the persistence of numerous protohistoric sites into Roman times, which is explained by the continuity of the agricultural system and a voluntary integration into a Roman administration. The Onnaing-Scheldt Valley demonstrates the importance of large-scale excavations for the understanding of land use.*

## INTRODUCTION: THE RELEVANCE OF LARGE-SCALE EXCAVATIONS

The recently conducted ‘Scheldt Valley Commercial Activity Zone’ (ZAC) survey is the first of this kind of large-scale excavation programme to be undertaken in the north of France. The evaluation surveys as well as the subsequent excavations were carried out by a team of INRAP (*Institut National de Recherches Archéologiques Préventives*, formerly AFAN) archaeologists from 1998 to 2004 (see bibliography). Undertaken in an area lying east of Valenciennes, this programme has produced more data than were collected during several preceding decades. It thus forms a key point of reference for the analysis of further data resulting from ongoing development in the vicinity, and moreover forms a starting-point for the analysis of similar data from the whole of northern France. This is the case for each of the ancient periods studied. The value of the picture recovered lies not in generalization, but rather in its scale and how this permits us to develop new outlines and models concerning the way landscape was structured, occupied and managed, and how settlement zones were developed

<sup>1</sup> The author wishes to thank Rachid Kaddeche for the drawings and plates, Sonja Willems for the translation, and Steven Willis for his critical assistance.



FIG. 1. Location of the community of Onnaing within the department *Nord*.

and related material culture employed in the Late Iron Age and Roman periods. This is the focus of the present paper. The analysis of rural land-use and settlement in the Roman era is an area of study now receiving appropriate attention in the region of what were the North-West Roman provinces, as a result of the now common archaeological coverage in advance of development.<sup>2</sup> This paper is a contribution to the new understandings and debate.

Most often archaeological interventions take place these days in restricted areas. In the case, for instance, of motorway routes, where the excavation is limited in width, the accumulation of archaeological information permits a detailed study of the zone but not an overall study of the region. The survey of the Scheldt (Escaut) Valley industrial zone, however, has given archaeologists the rare opportunity to uncover and analyse a very large landscape area. It is, for instance, possible to suggest the presence or absence of a cadastral (i.e. property holding) use of a certain area, or to compare the morphology and surface of a site to neighbouring sites. The second advantage of such a survey is the possibility of uncovering small or almost eroded sites, thanks to the presence of larger juxtaposed sites. In other circumstances these almost invisible sites would not have formed the object of more than an evaluation intervention, which leads to a loss of information indispensable for any complete study of the use of a territory.

<sup>2</sup> Taylor 2001; 2007; the Nationale Onderzoeksagenda Archeologie for the Netherlands, now available online [www.noaa.nl](http://www.noaa.nl).

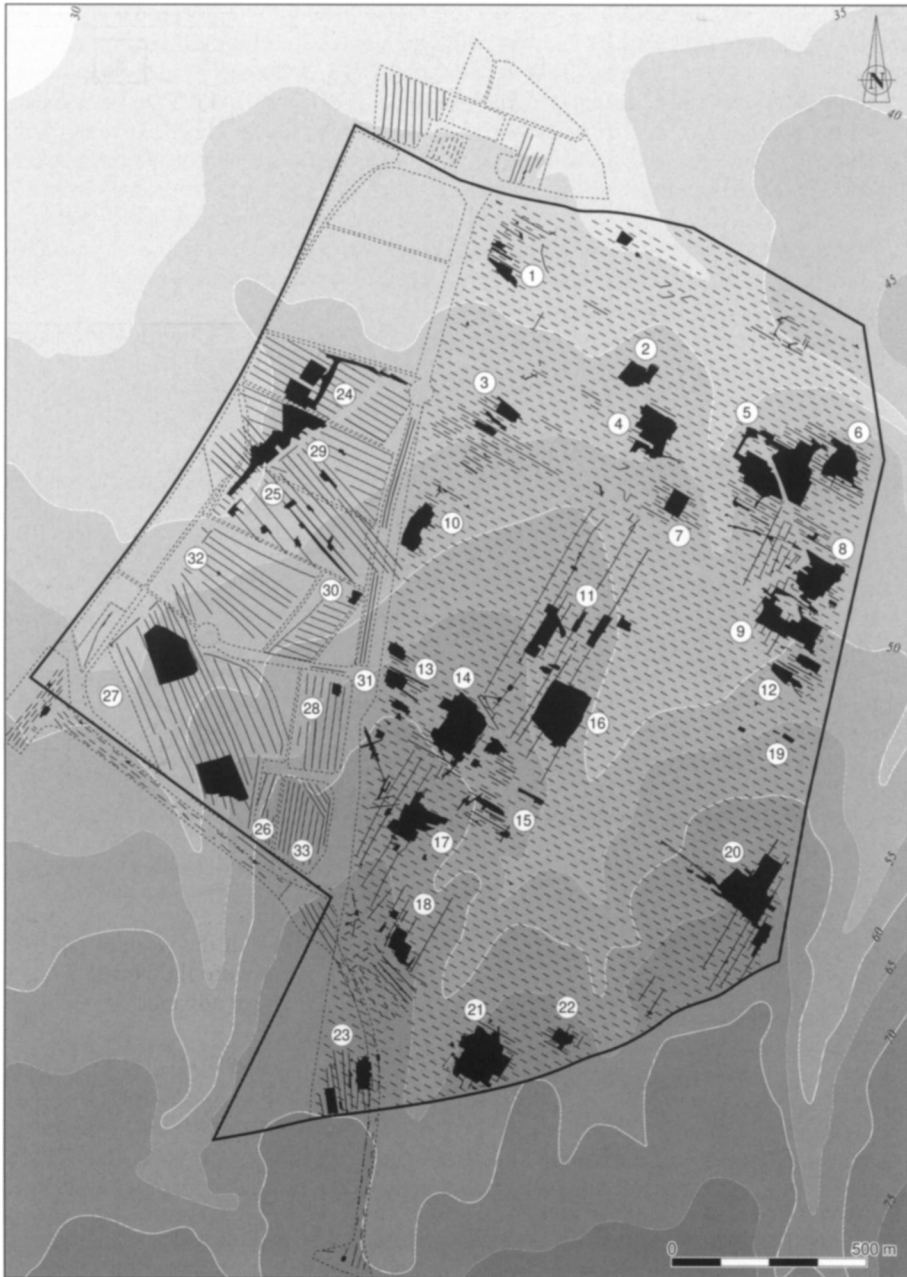


FIG. 2. Location of the diagnostic surveys and the excavated sites.

The commercial estate covers parts of the communities of Onnaing, Quarouble, Rombies-et-Marchiepont, and Estreux, in a quadrangle of 2400 by 1750 m, but the site is categorized as being situated at Onnaing (FIG. 1). Following the decision to establish a Toyota factory in

the Valenciennes region, the SRA (*Service Régional de l'Archéologie*, Regional Archaeological Service) requested, as is provided by law, that a diagnostic (evaluation) archaeological survey be undertaken. This took place between March and April 1998, followed by the excavation of the most archaeologically sensitive zones (April to August 1998). During the diagnostic excavation, 5 per cent of the total plot of 237 ha was opened up. During the excavations, an area of about 30 ha was cleared (12 per cent of the surveyed area). Since the construction of the Toyota factory (covering 237 ha), several other sub-let businesses have been put in place, as well as a power-station especially created for the factory, and several new roads have been laid, thus resulting in 350 ha being investigated via sample-stripping of the topsoil, survey, and excavation. In the years to come, another 120 ha should be excavated, which, with the information already collected, will permit us to complete the picture.

In total, 93 sites have been noted, dating from the Late Bronze Age till the Merovingian period. Some of the earliest ones consist only of pits, possibly related to small buildings. For the Gallo-Roman period, eight settlements and seven groups of cremation graves have been discovered on the Toyota estate (FIG. 2). In the neighbouring zones, a forge and a *mansio* have been recorded. The overall project archive is still being worked on for publication; this article profiles and discusses some of the main elements in the organization of the landscape during the period.

#### TOPOGRAPHY (FIG. 3)

The area is located on a north-facing slope, descending from 65 to 35 m above sea-level, which is crossed by two main dry valleys (*thalwegs*). The slope is irregular; the southern profile is very marked and the northern is rather soft. The middle part consists of the two deeply embedded valleys, which come together in the eastern part of the investigated area. On the northern part, a third dry valley coming from the east joins the main valley.

The substratum underneath the vegetation consists of a thick layer of loess (up to 15 m thick) overlying sandy clay sediments called *tuffeau de Valenciennes*. In the north-eastern part of the site the loess has eroded, which means that the settlements in that area are directly on sandstone sediments.

#### PREVIOUS DATA (FIG. 4)

The existing archaeological map, used as reference for the types of sites that could be encountered within a certain region, did not contain any indication concerning the area to be investigated. A study of the archaeological morphology was undertaken via the aerial photographic record, and a study of older cadastral maps, in order to place the sites in their wider environment and to understand their location and their importance for the formation and evolution of the landscape. This study has only recently provided indicators and has not yielded any information about the interaction between the ancient settlement sites.

Other regional archaeological data, prior to the Scheldt Valley ZAC excavation, were rare for the pre- and protohistoric period as for antiquity. Few items of evidence had been noted for the Palaeolithic and the Mesolithic period, while only three archaeological observations had been made for the Neolithic period, consisting of some pits (at Saint-Saulve, Bruille-Saint-Amand, and Haulchin). Data concerning the Bronze Age were equally absent. A few traces from the Iron Age had been observed during the small-scale excavation of part of an indigenous farm-building at Hornaing, and an *oppidum* is known at Etrun-sur-Escaut. Likewise the Gallo-Roman period was unexplored; only at Hornaing had a settlement been partly studied. The lack of industrial investment in the Valenciennes region (before the Toyota project) meant an absence of the diagnostic surveys that might normally yield extensive archaeological data. Even the nearby

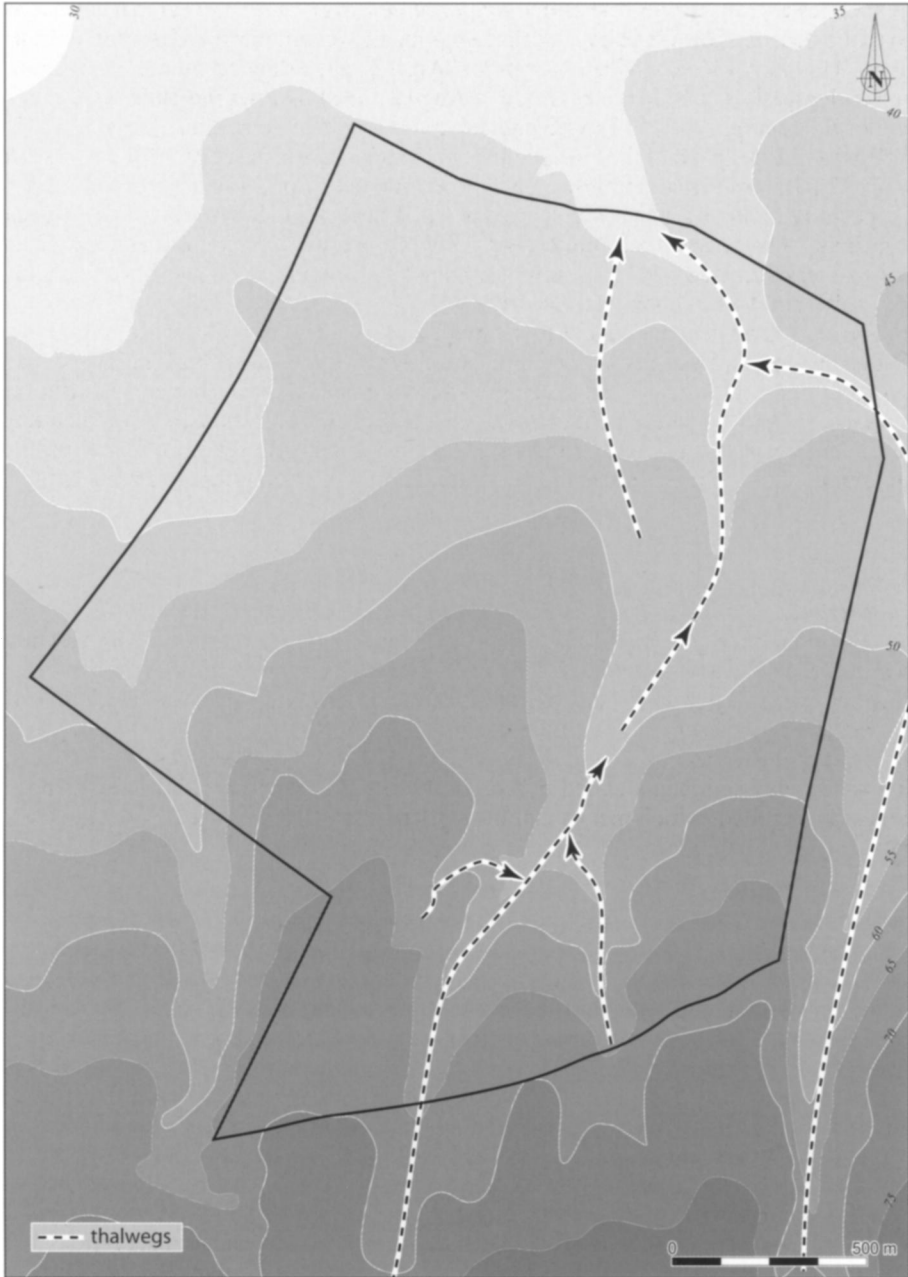


FIG. 3. Topography of the site, showing contour lines and the two main dry valleys (*thalwegs*).

towns of Bavay (*Bagacum*) and Famars (*Fanum Martis*) have seen only comparatively limited excavation.

On the other hand we have the neighbouring Arras region, which is much better known because

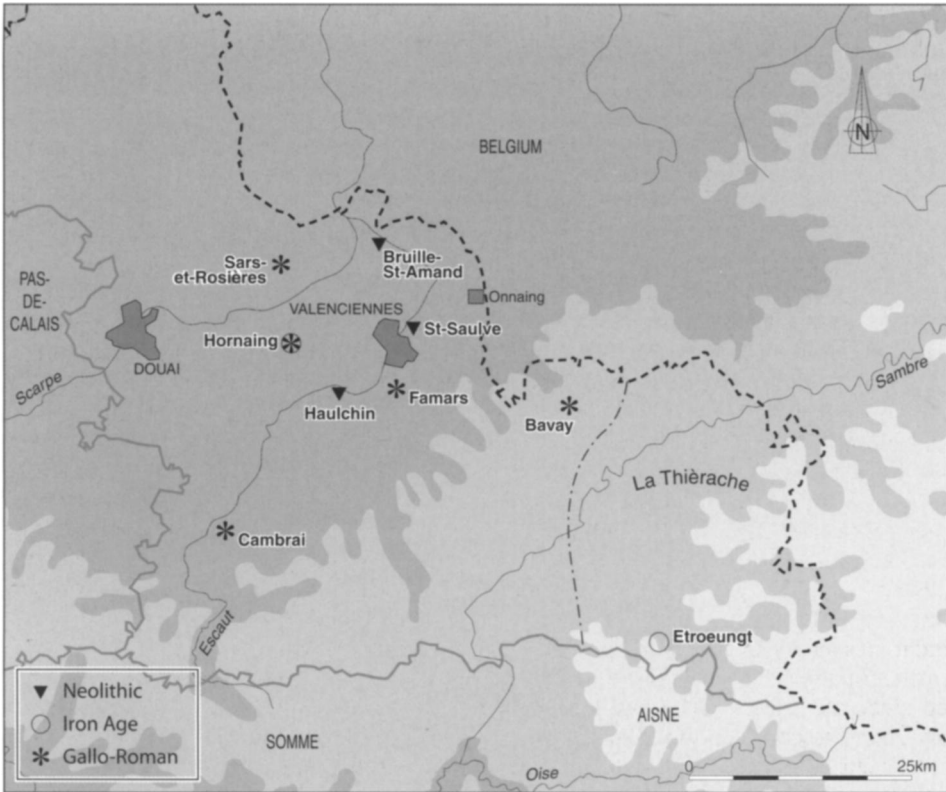


FIG. 4. Known sites within the Valenciennes region before the Onnaing project.

of a huge number of interventions. There, however, the settlement forms and funerary practices are very different from those of the Valenciennes region. We must bear in mind that the north of France does not form one homogeneous entity. It consists of several micro-regions, each with its own tradition of settlement lay-out, funerary practices, and pottery forms. For example, the classic 'villa' type, comprising *pars rustica* and *pars urbana*, is almost absent in this part of the Nervian territory (Valenciennes to Cambrai), while it is common in the territory of the Atrebatés (Arras), the Ambiani (Amiens), and the Viromandui (St-Quentin). Funerary practices differ as well, and the only tombs comparable to those found at Onnaing are those found in the cemetery at Bavay-*Fache du Près Aulnoys*. The latest pottery data<sup>3</sup> show that this part of the Nervian territory was clearly separated from the Atrebaté territory to the west by the Scheldt river, and by the high plateaux of the Menapian territory. It seems that the area formed an entity of its own, corresponding to the medieval *pagus fanum martensis*.

Since the survey described here is the first to make possible the observation of a complete and well-defined area, this means that it is up till now the only one to provide information about the organization of the territory. The other campaigns are only partial excavations or linear interventions (highways, train routes, etc.) and do not permit an extensive view of the area

<sup>3</sup> Clotuche and Willems forthcoming.



traversed. Therefore it is impossible to complement and compare our project with other examples, although the Cambrai region has seen an economic boom with associated archaeological coverage, the results of which will probably permit us to compare the data already collected in due course.

#### DISTRIBUTION AND EVOLUTION OF THE SETTLEMENT LAY-OUT

An exhaustive (but impracticable) full stripping of the whole area at the Onnaing complex would probably have yielded some fine detail in terms of the precise location of divisions (FIG. 5). A part of these subdivisions has certainly become invisible. General erosion of the structures has surely erased some of those boundaries, which were perhaps only represented by simple hedges. The acidity of the soil and the intensive cultivation of the terrain have hindered the conservation of pollen, making a reconstruction of the surrounding landscape problematic. Earlier observations, however, affirm that the region was not very densely forested, consisting of cultivated zones and pastures,<sup>4</sup> close to the present landscape of the Thiérache region. The countryside was probably traversed by hedges,<sup>5</sup> as reported by Caesar in his *Gallic War* when describing the Nervii: 'The Nervii, not having a cavalry at their disposal, [...] had long since resorted to the use of the following procedure, in order to counteract the cavalry of their neighbours more efficiently: they cut back and trimmed young trees; those grew with numerous branches breadthwise, brambles and thorn-hedges filled up the intervals, rendering these hedges, almost resembling walls, the status of protection that even the eye could not violate' (*Gallic War* 2.17). This system of boundaries seen by Caesar's military eye must surely have been a system for the division of different land-parcels.<sup>6</sup> Since palynological studies have shown that the vegetation has hardly changed since the late La Tène and the Gallo-Roman period,<sup>7</sup> this system of boundaries has probably been preserved up to the present day. The re-use of the main Gaulish axes to develop the territory during the Gallo-Roman period is an accepted fact in several regions.<sup>8</sup>

When observing the distribution of the sites and the topography of the area, the dominance of the cadastral system over the topography is clear. One must bear in mind though that it was probably not identical to the lie of the present-day topography. The dry valley will at that time have been markedly less filled up by colluvium, and was certainly defined by pronounced slopes; the upland plateaux must therefore have been larger and the riverbeds more incised. It can be observed that certain enclosures, more precisely on Sites 5 and 11 (FIG. 2), were located close to the steep hillside, which has resulted in their significant erosion along the side of the incline. No reason other than a rigorous application of the cadastral system can have induced the placing of those sites in these unfavourable parts of the area.

During the first century A.D., and more precisely the first half of the first century, the settlements were relatively dispersed (Sites 3, 14, 16, and 21; a site in this context being a certain or a likely focus of settlement and/or other activity in the landscape) (FIGS 6–7). Amongst them, three reappear in a zone already in use during the La Tène period. Only Site 3 was freshly installed. Once again this positioning demonstrates the continuity between indigenous farms and Gallo-Roman farmhouses.<sup>9</sup> During the second half of the first century two settlements (Sites 3 and 21) were abandoned. We notice a rearrangement of the settlements at the highest point of the eastern

<sup>4</sup> Defgnée and Munaut 1996.

<sup>5</sup> Ferdière 1988, 118–19.

<sup>6</sup> Ferdière 1988, 118–19.

<sup>7</sup> Defgnée and Munaut 1996.

<sup>8</sup> Ferdière 1988, 148.

<sup>9</sup> Bayard 1996, 162–7; Ferdière 1988, 66.

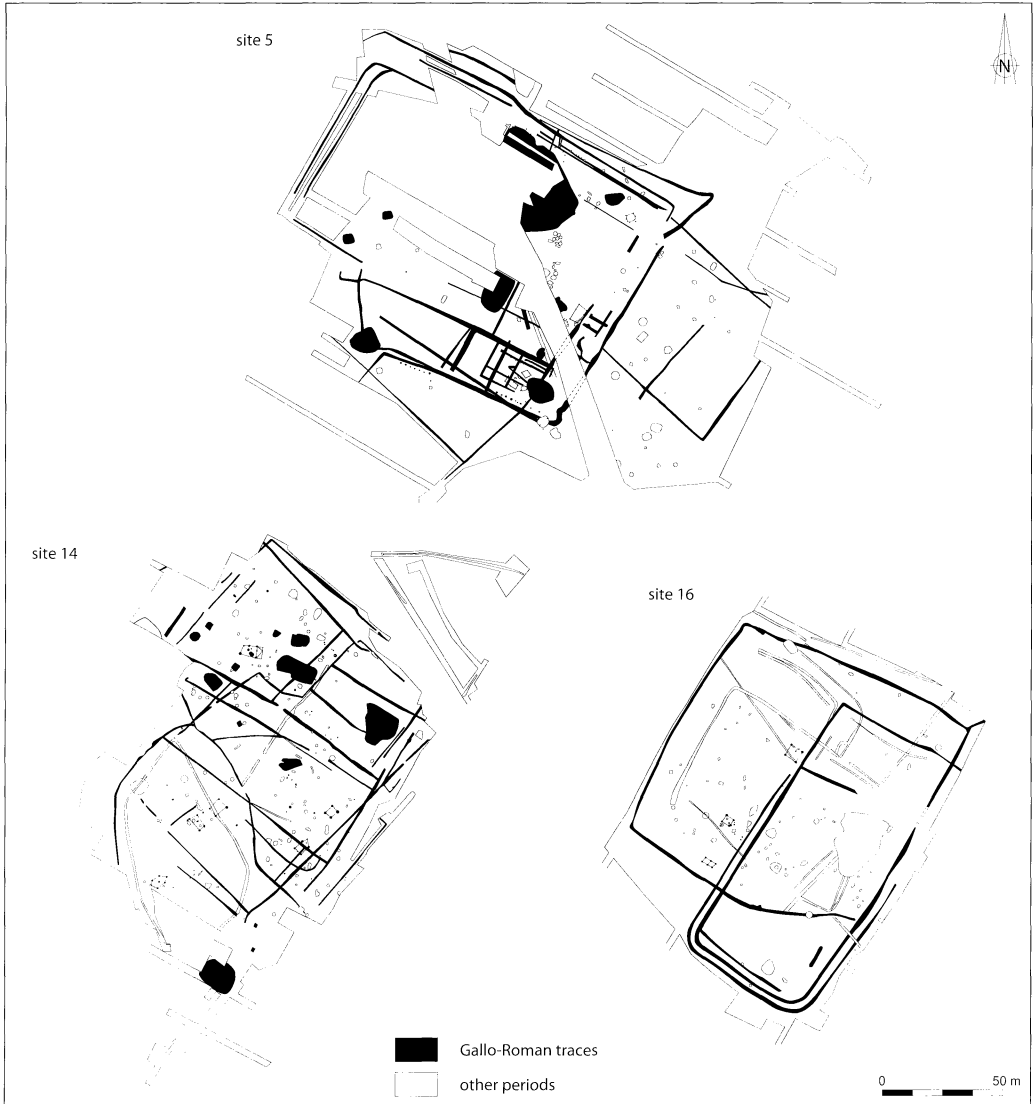


FIG. 5. Three examples of diachronic occupations.

slope of the dry valley, with the creation of four new enclosures (Sites 11, 11b west from 11, 17, and 18). Hence a total of six settlements existed in the second half of the first century.

The appearance of new farms by the middle of the first century A.D. is difficult to explain. Certain settlements in this landscape had remained occupied since protohistoric times and continued to be inhabited, though undergoing some reorganization; others were created *ex nihilo* but were not always inhabited without interruption. The absence of large estates within the region probably indicates that this reorganization was the result of an administrative choice rather than a wish

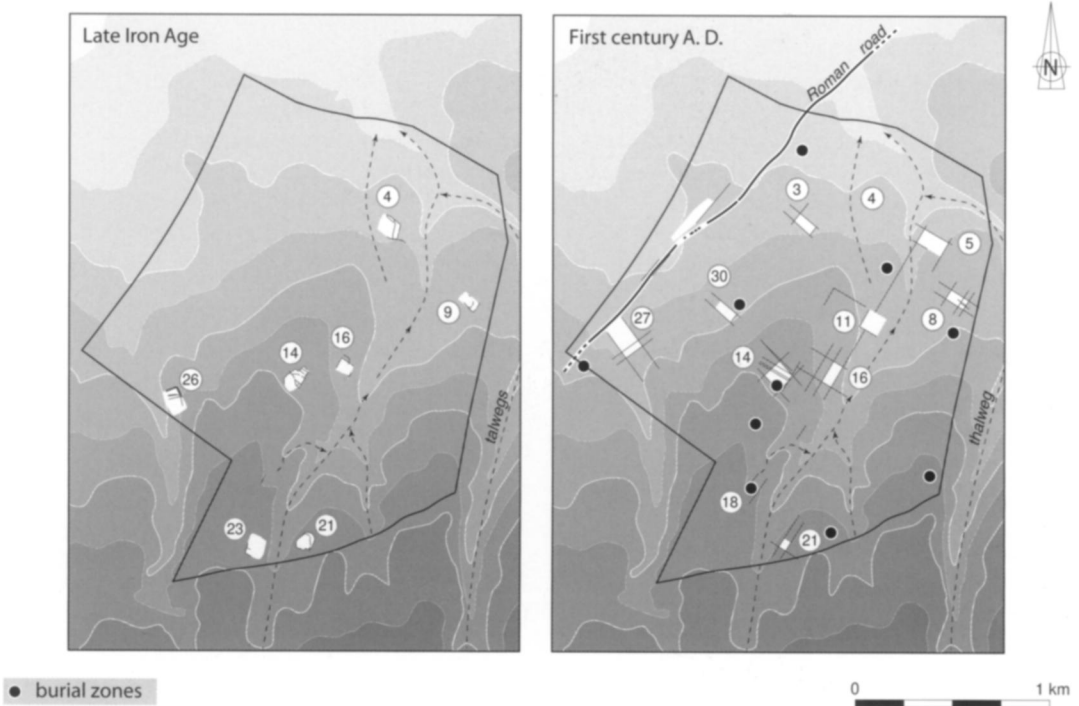


FIG. 6. Late Iron Age settlements and succeeding Gallo-Roman occupation.

of local proprietors to manage their domain, although these ‘reasoned’ occupation sites, when abandoned, might have been taken over by the wealthier domains. In any case, the quadrangular enclosure becomes the norm by the middle of the first century. Maybe this type of enclosure was a practical way of dividing the exploited area. The latest data from recent excavations confirm that the dimensions of these areas recur within the region (for example Sars-et-Rosières<sup>10</sup> and Hordain<sup>11</sup>).

The six settlements were dispersed at regular intervals across the landscape. They are situated 200 to 250 m from each other, with the exception of the earlier Sites 14 and 16, which are only separated by 120 m. South of the slope of the dry valley no sites have been observed, although this zone covers a considerable area. The occupation seems to be restricted to the zone north of the rather gentle slope of the riverbed. This is rather strange when we compare this to the western slope where the occupation was dense. This restricted occupation contrasts with the presence of a burial focus with cremation graves (Site 20) discovered on the top of the plateau (11 graves). Should we consider this as an indicator of a significant settlement situated outside the zone studied or of one lying within our area but not yet located because of the restricted area excavated?

This type of occupation contrasts with the medieval vision of grouping the agricultural economy in more or less important hamlets.<sup>12</sup> During antiquity the rural landscape is characterized by

<sup>10</sup> Clotuche and Favier 2007.

<sup>11</sup> Séverin *et al.* 2007.

<sup>12</sup> Ferdière 1988, 63.

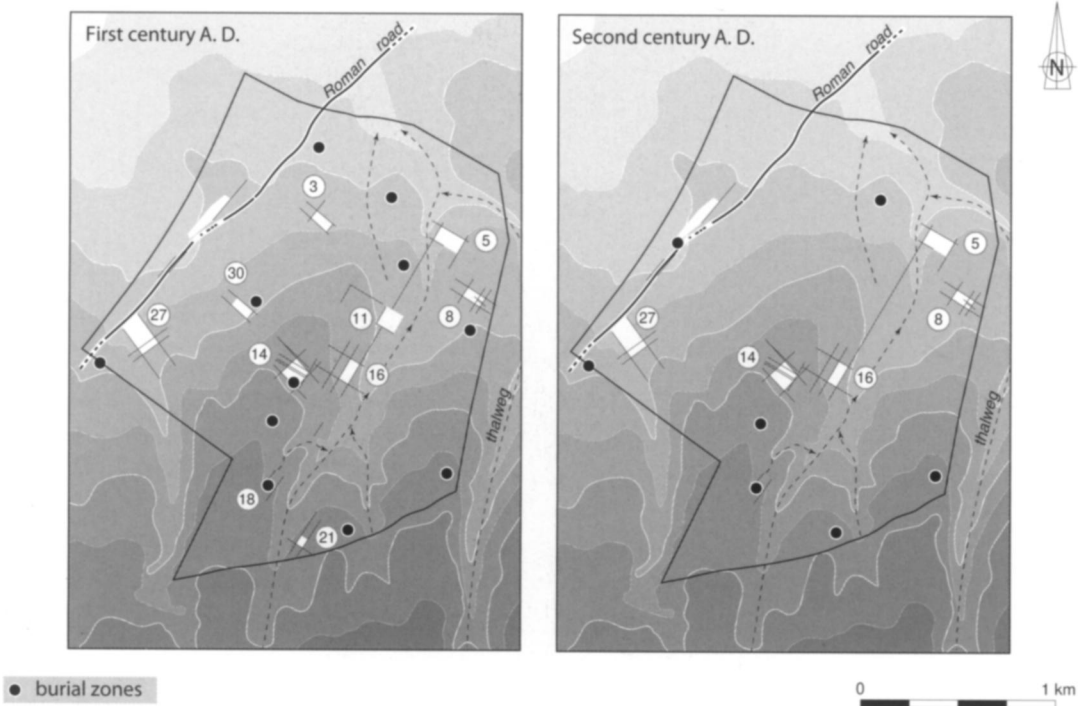


FIG. 7. Distribution and layout of the settlements.

dispersion. The excavated settlements do not correspond to the typical large estates, but to small farms using a mixed agricultural system without producing a considerable surplus,<sup>13</sup> which must be the case for the majority of the sites present in this Gallo-Roman rural landscape. The economy does not seem to change from the protohistoric La Tène period to the Gallo-Roman period (*infra*). The distribution of the settlements, as noticed on the Onnaing site, evokes the image of a small agglomeration in the vicinity surrounded by a number of farms occupying the neighbouring territory. Here, the hypothesis of small agricultural units dependent on an important villa as the principal settlement, as has been noticed in the south, the north and the east of France,<sup>14</sup> cannot be refuted.

#### A ROMAN-INDIGENOUS CADASTER?

In the area uncovered, two orientations can be observed; one west (Orientation A, of variable degree) and one east (Orientation B, 35 degrees east) (FIG. 8). The first orientation (A), which has been traced in the western part of the survey and west of the principal dry valley is perpendicular to the Gallo-Roman road situated beneath the *Chemin des Postes* (which is now a slightly winding road). Site 3, situated at 250 m from the road, respects this orientation. It has also been recognized

<sup>13</sup> Ouzoulias 2006.

<sup>14</sup> Aubin *et al.* 1997, 233.

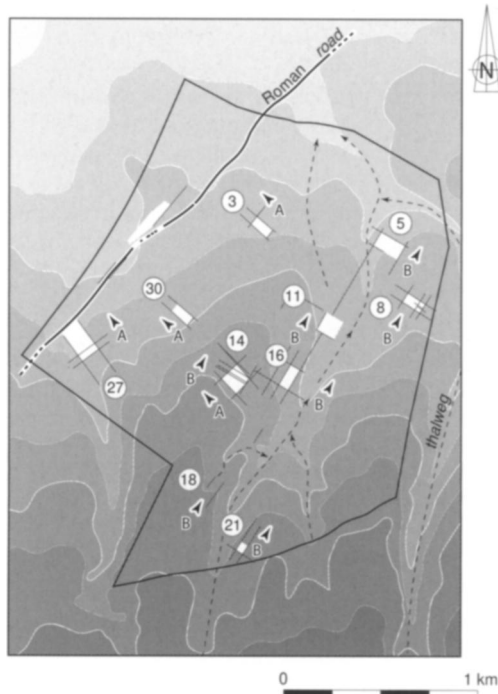


FIG. 8. Axes visible within the Roman-Indigenous cadastral system.

further to the south, on Sites 14 (during the last two phases of occupation), 17, and 18. (It is difficult, of course, to demonstrate that all ditches which follow this orientation and do not contain Gallo-Roman material really belong to this period. More precisely, while the road lasted throughout the Gallo-Roman period, several ditches may belong to the medieval or more recent periods.)

The second orientation (B) has been observed to either side of the dry valley, but most of all to the east of this riverbed. It is orientated 35 degrees east and has been recorded on Sites 5, 8, 11, 14, 16, and 21. Moreover, in those parts of the area surveyed where no sites have been uncovered, several ditches and pits with this same orientation have been observed during the surveys (east and west of Site 19, north-west of Site 11, Site 15). Where areas have not been totally excavated, it is impossible to say whether those ditches enclosed settlements or if they were simply ditches separating fields. Most of these ditches contain some material indicating that they belong to the Gallo-Roman period. Therefore it becomes possible to consider them as contemporaneous and to envisage the existence of an organized and carefully laid-out landscape-management framework.

The existence of this orientation during the pre-Roman period on Site 16 is highly noteworthy, as the Gallo-Roman enclosure follows the orientation of the one established during the La Tène period. The reuse of already-existing, Gaulish road-systems for the organization of the territory is demonstrated by several other examples.<sup>15</sup> The same orientation has been detected on Site 14 during an almost contemporaneous period (end of the La Tène or beginning of the Augusto-

<sup>15</sup> Ferdière 1988, 148.

Tiberian period). Nevertheless, during the protohistoric period only these two sites showed this orientation, and it is not before the first half of the first century A.D. that one can detect the development of the eastern part of the area.

Given this patterning to the organization of the landscape in the Gallo-Roman period, it is possible to evoke a 'cadaster' (land apportionment) interpretation of this area during that era, which means that we have to see this as a 'Roman-indigenous cadaster',<sup>16</sup> organized along the configuration of the major arteries. An orthogonal layout would have enabled the land to be more easily surveyed, quantified, and cultivated; this systematic arrangement was evidently new and may have been alien. This raises intriguing questions. It is conceivable that the remodelling of the landscape was initiated to promote more commercial farming. Alternatively, and less grandiose, the change might represent a 'rationalization' of the existing landscape-management system. This cadastral system here, represented by the contour lines as well as by the implantation of quadrangular enclosures, responds to the practical need to structure the land, and could reflect a definition of land rights and/or ownership, or maybe the need of the administration to establish a system for land tax.<sup>17</sup> The structuring corresponds to the inventories demanded by Augustus (*census a tribus Galliis*), continued by Drusus, Germanicus, Nero, Domitian, and concluded by Trajan at the end of the first/beginning of the second century A.D.<sup>18</sup> Two further points may be noted. First, in this context one must also mention the arrival of the heavy plough, for which the existence of a normative (prescriptive) cadaster was most practical.<sup>19</sup> Site 16 might have served as the point of reference for the installation of this new system. This hypothesis arises from the practical side of things: it was possible to observe the other settlements from this site, whereby it was possible to lay out the main axes along the contours.

Future research may open up the discussion as to the reasons for this cadaster, which again indicates the importance of the Onnaing project as a source of up till now unobserved data. Evidence for land ownership and division in the Roman world is better attested in provinces around the Mediterranean, as with the Cadaster B from *Arausio* (Orange); in the North-West provinces indicators are less clear, but some examples have been argued for or discussed.<sup>20</sup>

#### AN ATTEMPT TO CHARACTERIZE THE ENCLOSURES (FIG. 9)

The enclosures that have been studied at Onnaing are described in Table 1.

The enclosure complexes of Gallo-Roman date that have been studied exhibit varying dimensions; nevertheless several display important similarities. A synchronic installation of these similar settlement forms has not been proven, but the short occupation of the area raises the probability of contemporaneous existence at a certain point in time. Since there are no parallels known at present within the north of France, and since the excavation of further enclosure sites is anticipated in future years at Onnaing, it is appropriate to provide a simple description of the enclosure, building, and organization types, hoping that future research will yield enough information to discuss the subject more thoroughly.

#### RECTANGULAR ENCLOSURES 2/1

Three sites contained enclosures of this type (Sites 3, 8, and 16) (FIG. 5). These three enclosures are characterized by similar dimensions: a width of 53 m (Site 3), 54.5 m (Site 8), and 60 m

<sup>16</sup> Chouquer and Favory 1992, 101.

<sup>17</sup> Ferdière 1988, 144.

<sup>18</sup> Ferdière 1988, 145.

<sup>19</sup> Ferdière 1988, 142.

<sup>20</sup> cf. Rawes 1981; Black 2006.

TABLE 1. ENCLOSURE TYPES AT ONNAING

No.	Site	Type	Surface area	Dating (all A.D.)	Commentary
1	Site 3	rectangle 2/1	5,620 m <sup>2</sup>	First half of the first century	No subdivision
2	Site 5	L-shaped	15,580 m <sup>2</sup>	Middle of the first century	Six subdivisions
3	Site 5	quadrangular	14,750 m <sup>2</sup>	End of the first/second century	Settlement in the southern part, in a corner, no subdivision
4	Site 5	quadrangular	15,320 m <sup>2</sup>	Second century	No subdivision
5	Site 8	rectangle 2/1	5,940 m <sup>2</sup>	Second century	Three subdivisions
6	Site 14	polygonal	8,500 m <sup>2</sup>	First half of the first century	Subdivision into six long parcels and one semi-circular parcel, settlement in the north, in a corner
7	Site 14	quadrangular	8,200 m <sup>2</sup>	Second half of the first century	Five subdivisions, settlement in the north
8	Site 14	square	12,900 m <sup>2</sup>	First half of the second century	Three subdivisions, settlement in the south
9	Site 16	rectangle 2/1	7,200 m <sup>2</sup>	Second century	Double ditch
10	Site 16	square	10,750 m <sup>2</sup>	First half of the second century	No subdivision
11	Site 21	double enclosure	Not known	First century	Probably parts of juxtaposed enclosures

(Site 16). The enclosure on Site 16, which has been entirely uncovered, shows a length twice the width. The other sites have not yielded a complete plan, but the dimensions preserved permit us to suppose that the width-length ratio is similar to the ratio observed on Site 16. This means that the surface covered by these enclosures reaches *c.* 5,620 m<sup>2</sup>–7,200 m<sup>2</sup> (almost 3 *iugera*).

#### SQUARE ENCLOSURES

Two enclosures of this form have been noticed, one on Site 14 (Period 4, Phase 2) and the other one on Site 16 (Period 4, Phase 1) (FIG. 5). They respectively cover 12,900 m<sup>2</sup> (119.5 by 108 m) and 10,750 m<sup>2</sup> (100.5 by 107 m), thus almost 5 and 4.25 *iugera*.

#### QUADRANGULAR ENCLOSURES

This type has been noticed on Site 5 (Period 4, Phases 2 and 3) and on Site 14 (Period 4, Phase 1) (FIG. 5). During Phase 2 of Site 5, a large enclosure (14,750 m<sup>2</sup>) was installed north of the building. The settlement is situated in the corner of the enclosure. The south-western corner was truncated, probably to avoid an obstacle evident in the landscape. During Phase 3 the enclosure was enlarged (15,320 m<sup>2</sup>) to the west. During Phase 1 of Site 14, the enclosure (8,200 m<sup>2</sup>) was divided into several long parcels, separated by ditches. The settlement was situated in the northern angle of the enclosure. These different internal organizations must signify different functions for the settlements installed at the heart of these enclosures.

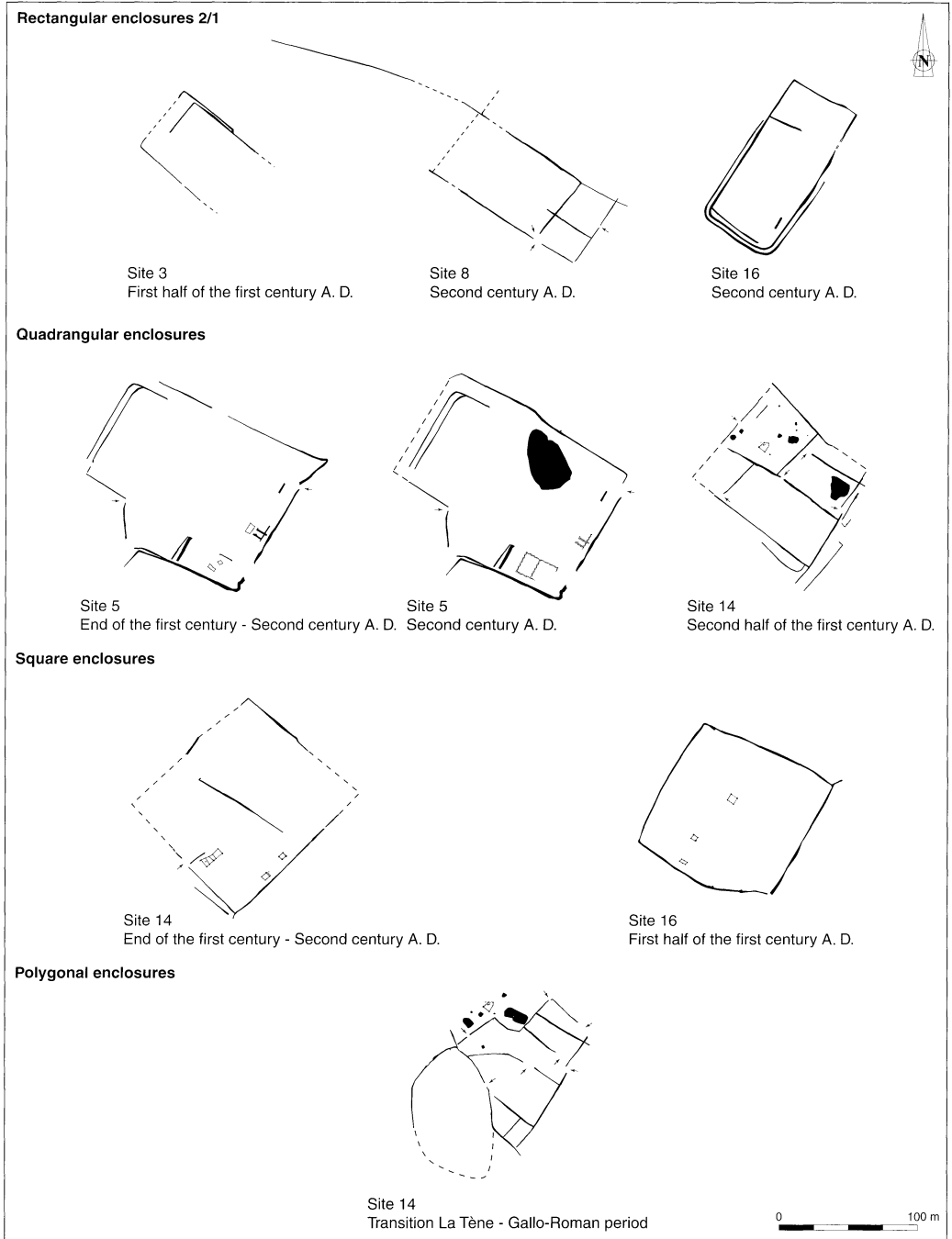


FIG. 9. Characterization of the settlement forms.



## POLYGONAL ENCLOSURES

In Zone 14 the beginning of the Roman occupation was marked by an enclosure (re-using the late Iron Age one) which exhibits rather peculiar outlines. The newly installed ditches respected the established 'cadaster' axes (perpendicular axes), but integrated as well with the older boundaries of the La Tène period. This settlement was divided into numerous small lots, each perhaps serving a specific activity. This type of enclosure is typical of the transition from the protohistoric period, where oval and quadrangular enclosures co-exist, to the Gallo-Roman period, where by contrast quadrangular layouts were the standard.

The Gallo-Roman enclosures at Onnaing were much larger than the La Tène settlements that preceded them. However, it is noticeable that the size evolution during the Gallo-Roman period was not linked to their dating. Some of them decreased in size (as with Site 5, Phase 1 to Phase 2 and Site 16), while others increased (Site 14). Therefore these variations should rather be seen as functional modifications.

## INTERNAL ORGANIZATION

## THE BUILDINGS (FIG. 10)

In each of the enclosures where the settlement zone has been identified, the buildings are placed in an angle. The 'classic' Gallo-Roman pattern manifests itself in the delimitation of a rectangular area, in which the centre of the settlement is established against the rear perimeter and in which the buildings are evenly spread along the side walls. At Onnaing the transition to an orthogonal framework has certainly taken place, but the situation does not correspond to a classic 'Picardy' model.

Few sites have extant traces of the settlement buildings bounded by the ditches. Only Sites 5 and 14 have produced the imprints of building posts or foundations to which one could attribute a firm settlement function. On the other sites, the artefacts recovered (pottery etc.) prove that the settlements were well established within the enclosure. Most of the building footprints have probably disappeared because of the general levelling of the land. The buildings might have been constructed over shallow pits or with posts hardly penetrating into the soil, resulting in their disappearance over the intervening centuries.

The domestic buildings of Site 14 were in each phase composed of cabin-like structures of small dimensions. These are paralleled by other similar buildings of this period in the region. However, in contrast, on Site 5, the first building that has been recognized as a domestic building was established with stone foundations, largely blue stone and flint. The house was created when the enclosure was restructured during the second half of the first century A.D. It covers an area much larger than that of the buildings on Site 14. However, when comparing the building to other settlements discovered in the region, it is evident that it is relatively small, although it is the largest and the best established example discovered within the project area.

Two granaries founded on posts have been excavated on Site 5 and two or three on Site 14. This type of construction, originating from La Tène traditions, remained important up till the middle of the first century A.D. and never really disappeared from the Roman landscape.<sup>21</sup> The local traditions were able to persist in this region, which is especially shown by the pottery from the rural context, indicating that the shift to Roman influences of style and form was not rapidly adopted.

<sup>21</sup> Collart 1996, 152.

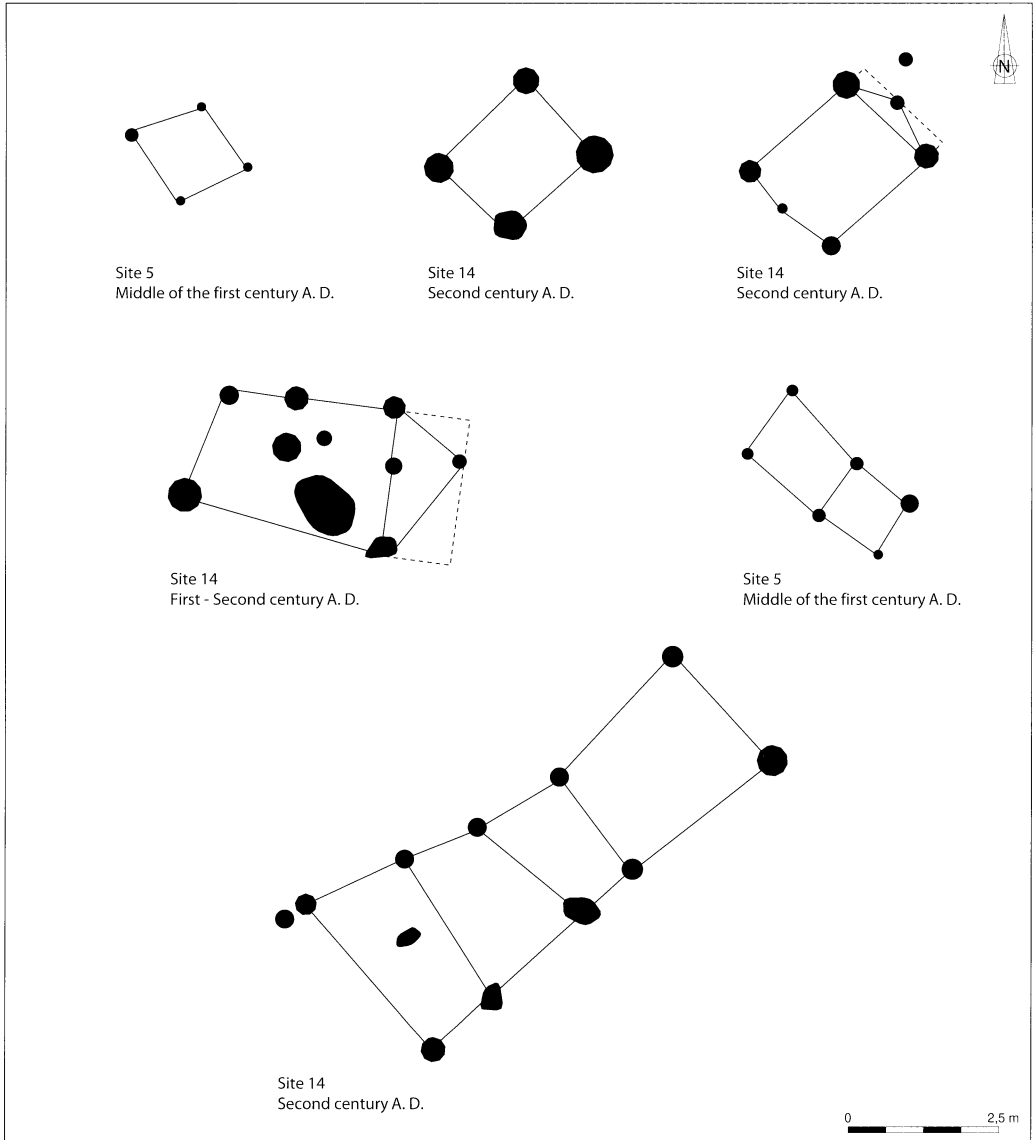


FIG. 10. Types of buildings discovered.

## THE WELLS

Several wells have been observed on the excavated sites. The ones directly attached to a particular site appear at the end of the La Tène period, as has also been observed in other regions.<sup>22</sup> The

<sup>22</sup> Pion 1996, 89.

most important Roman sites each possess at least one well (Sites 5, 14, and 16). The wells were all circular in form, except the one discovered in Zone 16, which was rectilinear in plan. Only one of the wells was lined with blocks of sandstone. The others were probably lined with wattle or wooden boards,<sup>23</sup> which have mainly disappeared through decay, but where there are sandy mudslides along the walls of the shaft, they are still visible. The opening of each well is rather large, but this will have been related to their construction; they were fitted out internally for better access to a defined well-chamber, containing clean 'filtered' water. Does the presence of wells in the settlements on Sites 14 and 16 indicate a privileged status for them in comparison to other sites where wells were lacking? Or does the presence of a well rather indicate the persistence of a domestic settlement: that is to say those conceived of as for a long-term use would have a well and others not? Why did some settlements have more than one well (Sites 5 and 14)? Would it not have been easier to clean out or maintain the existing one? This is a relevant question given that geotechnical survey has shown that the highest present-day water-table is located at a depth of 17 m.

#### THE PONDS

These structures probably functioned primarily as clay-extraction pits for the building of wattle-and-daub walls, but secondly they are proof of the existence of a (more or less important) pastoral activity within the enclosure. The spreading of flint along the pond, found at Site 5, attests to a layout which permitted access to the trough for the livestock. However, on the other sites the ponds must only have been large puddles replenished during rainfall (Sites 14 and 18).

#### THE FUNCTION OF THE SETTLEMENTS

The presence of animal bones and ponds, probably used as drinking-pools, may be (weak) indications of animal husbandry. The presence of granaries and silos indicates cereal-growing activity. The idea of single-crop farming or husbandry specialization was hardly conceivable to the Roman agronomist, whose ideal was the mixed farm, producing all that was necessary for auto-consumption, and implicitly more so, for profit.<sup>24</sup> Palynological studies carried out in the region show a grassland covering with scattered small woods.<sup>25</sup> Cereal seeds are only present in modest quantities, but this is probably the result of the endogamic mode of their production.<sup>26</sup> Studies have shown that on a regional level any systematic change in cereal-growing between the La Tène and Gallo-Roman periods is almost non-existent.<sup>27</sup> The indigenous system of crop-growing was not fundamentally changed by the adoption of a Roman method, which was in any case based on the exploitation of the same resources as before, thus explaining the continuity in agricultural traditions.<sup>28</sup> In other words, there is no proof of change in the use of resources, only a change in method or administration. The continuity of the agricultural system and the apparent voluntary integration of the population into a Roman administration<sup>29</sup> help explain the persistence of numerous sites from protohistoric to Roman times.

<sup>23</sup> Pion 1996, 89.

<sup>24</sup> Lepetz 1996, 323.

<sup>25</sup> Defgnée and Munaut 1996, 328.

<sup>26</sup> Heim 1970.

<sup>27</sup> Defgnée and Munaut 1996, 328.

<sup>28</sup> Ferdière 1988, 70.

<sup>29</sup> Ferdière 1988, 144.



FIG. 11. Section of the Roman road.

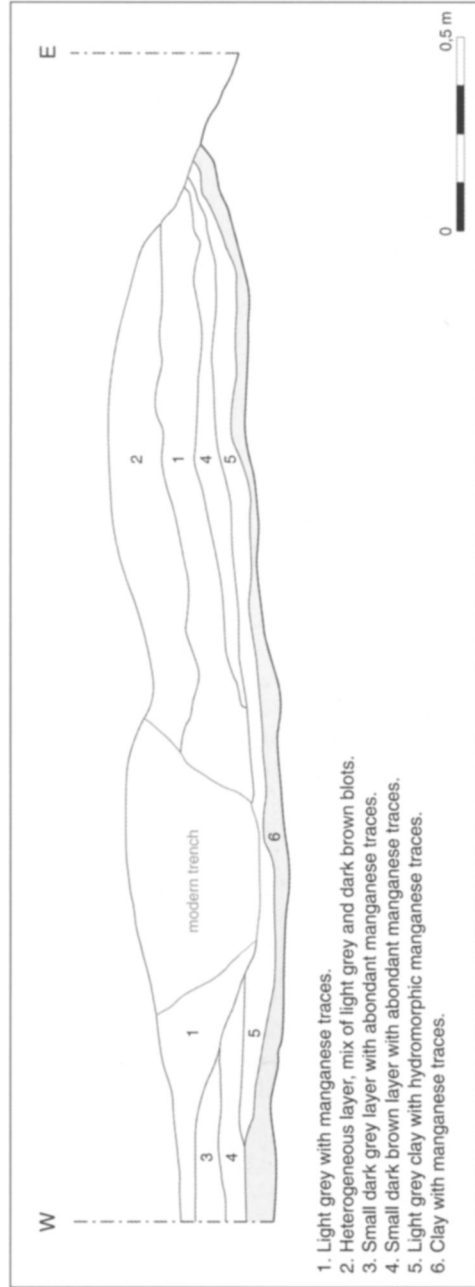


FIG. 12. Stratigraphy of the Roman road.

## AN ARTISANAL ZONE

From the Flavian period till the middle of the second century A.D. it is evident that artisanal activity took place, though intriguingly of unknown kind. The only certainty we have is that it required the supply of water. Sediment analyses have shown a prominent presence of plant remains in the channels that led the water to the buildings (Sites 24, 25, and 29), but palynological research has not been able to reveal of what sort. The presence of these plant remains and the need for a water-supply system suggest possible basketry activity.

During the second half of the second century and the beginning of the third century A.D. metal-smelting was undertaken (Sites 24, 25, and 29). Ten pits, spread out over two zones, were dug to extract the iron present within the pyrites found in the subsoil. The occurrence of several oven walls linked to slag proves the existence of such structures, although only one has been fully recorded. The distribution of the oven-wall fragments, as well as of iron ingots, suggests that the southern zone specialized in the smelting of the mineral, and the northern zone was the location for the post-smelting processing. This is the first time that a site of this nature has been discovered in our region, the nearest other examples being situated in Normandy and the Ardennes.

## THE ROAD SYSTEM (FIGS 11–12)

A substantial road has been discovered in the south-western part of the excavation (Sites 13 and 17). Part of the flint metalling has been observed on Site 17. Its orientation does not correspond to any axis identified on the various excavated sites.

A second road has been noticed underneath the present-day *Chemin des Postes*, corresponding to a *diverticulum*, joining the Bavay-Cambrai and Bavay-Tournai roads, and linking Hensies to Famars. It was bordered by two settlements, each one with a function differing from the other sites encountered (a *mansio* and a smithy of major importance), and it served as an organizing axis for certain settlements.

During its first phase this road consisted of beaten earth. The road stayed as such for quite a while, as indicated by this layer being up to 20 cm thick in some places. The last recognized ancient state of the road consisted of a flint layer, of which only a few parts are left, because modern crop-growing methods and general erosion have levelled most of the area. The road surface was marked by two wheel-tracks filled up by large flint nodules and some pottery and tile fragments. The space between the wheel-tracks measured about 1.40 m, which enables us to estimate the width of the vehicles using the road. The road was flanked on both sides by ditches, identified along part of its course.

## THE BURIAL ZONES (FIGS 13–14)

Eight burial foci with cremation graves have been discovered on seven sites. All of them are situated on different high points of the studied area. Some of them consist of small units of only one or two graves, whether or not close to a settlement. Their isolation is difficult to explain. Isolated graves are often interpreted as the grave of the lord of the domain. Usually they contained richer furnishings than the graves clustered in a burial-place.<sup>30</sup> However, in this sector, occupied by very small agricultural units, this is not the case. The other graves were grouped into small

<sup>30</sup> Ferdière 1988, 270.

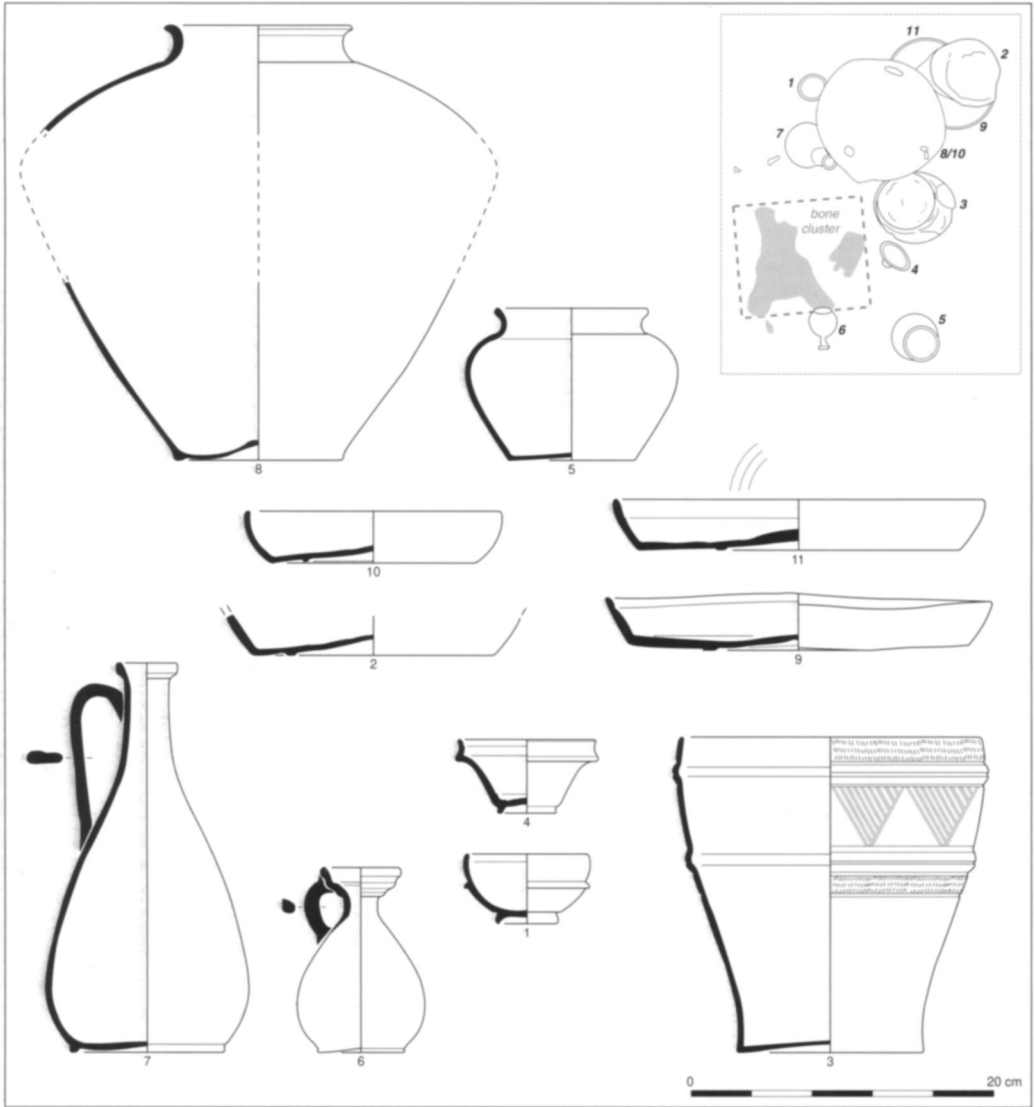


FIG. 13. An example of Gallo-Roman burials with grave-goods.

clusters, probably familial. It would be rash to relate them to a particular settlement, although it is apparent that they were linked to these.<sup>31</sup> The geographical division between the world of the dead and the world of the living was thus well-marked.<sup>32</sup>

Many of the graves seem to have been rather well furnished (containing samian, *terra nigra*,

<sup>31</sup> Ferdière 1988, 262.

<sup>32</sup> Belot 1990, 170.

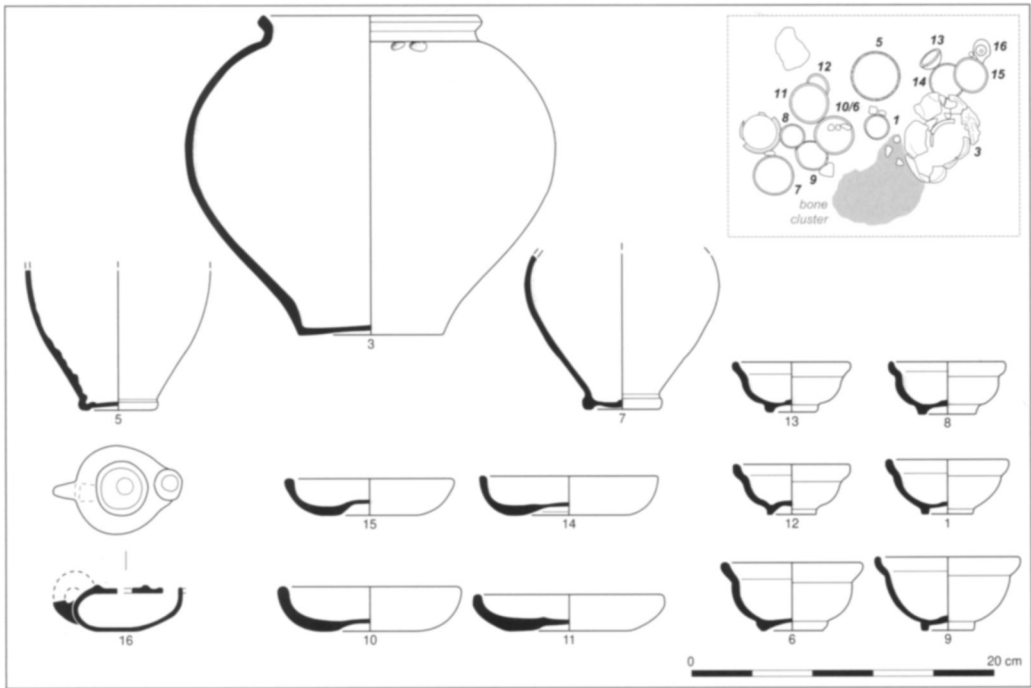


FIG. 14. An example of Gallo-Roman burials with grave-goods.

*terra rubra*, fibulae and so forth) when compared to the material discovered in the settlement zones, where these artefact types are less prominent. Do we have to interpret this difference as an intention of the living to honour their dead particularly, or as a wish to mark one's social importance, as is often seen in an urban context, or as a desire to imitate prestigious patterns practised at that time in the city?<sup>33</sup> Willis has noted a similar contrast, whereby samian is infrequent amongst assemblages from rural settlement sites in Britain, whereas it is strongly represented within urban grave-groups.<sup>34</sup>

#### THE ABANDONMENT OF THE SITES

The study of the pottery has shown that the sites were all abandoned from around the middle of the second century A.D. (specifically the third quarter of this century). Does this seemingly emphatic abandonment indicate a shift to a safer region, because of fear of invasion? Or should we see this abandonment as the result of a search for more profitable lands? The abandonment of different rural settlements at the end of the second or the beginning of the third century A.D. cannot yet be explained, but it is a general phenomenon noticed within the region, apart from some rare exceptions. On the Activity Zone 'Aérodrome ouest', some 20 km south of the Scheldt Valley Activity Zone, we note that the settlements were abandoned at the same time, whilst the

<sup>33</sup> Belot 1990, 170.

<sup>34</sup> Willis 2005, ch. 9.

*vicus*, at a distance of less than 2 km, was still occupied during the fourth century. We can note a transient reoccupation around Site 5 at the end of the fourth or beginning of the fifth century. This episode is marked by some late *terra sigillata* (Argonne) sherds. This occupation might be seen as a temporary phenomenon, maybe to retrieve some of the building material that must have still been visible in the landscape. Indeed, no structure linked to a durable late Roman settlement has been discovered.

#### CONCLUSION

The significant number of Gallo-Roman sites that have been excavated as part of this project permits us to address multiple questions concerning the occupation of the Valenciennes region. Study of the morphology and the extent of these enclosures has shown a diversity of plans and arrangements. If it is impossible to establish a definite chronology in the morphological modifications and the character of the enclosures during the Gallo-Roman period, we can at least observe that the extent of the Gallo-Roman settlements is more extensive than those of the protohistoric period. The variety of enclosure plans is likely to be a result of different functions in accordance with the use and occupation of the land, or according to the noted divisions that have been observed.

Roman-period agriculture was based on a mixed system, producing all that was necessary for auto-consumption (autarchy). Perhaps in this case production of a surplus was or had become important in the early Roman period, with no shortage of potential markets in the form of adjacent growing towns, the Rhine garrison, or extra-provincial shipment. The presence of animal bones and ponds indicates animal husbandry. The presence of several granaries and material used for the grinding process demonstrates arable agricultural practices. However, analysis of the excavation archive and samples is not yet sufficiently advanced to ascertain the type of crop-growing practised on the studied fields.

Examination of the location and arrangement of the different enclosures has proved the existence of a cadastral system, which was set out during the first half of the first century A.D., using the existing axes established during the La Tène period. The system has been recognized in the eastern part of the project area, the area farthest from the road observed underneath the present-day *Chemin des Postes*. The cadaster has in part over-ridden the topography of the area, as has been shown by the location of some of the sites close to the dry valley. As to the reasons for this cadaster, we are uncertain, and hope that further research might reveal new insights on the why and who of this territorial organization. The internal organization of the enclosures shows that the most important ones contained at least one well. Explaining the reason for the digging of more than one well on a site, or the existence of wells outside the domestic occupation zone, is impossible, though the watering of cattle may be one potential explanation. The burial-places were spread across the whole excavated area. They occupied the highest points of the landscape, dominating the valley. Some isolated graves were found; others were grouped together into small burial-places. The reasons for isolating some of the graves in contrast to others is unclear, all the more when we notice that the accompanying material is identical.

The research undertaken on the Scheldt Valley Commercial Activity Zone was the first large-scale excavation undertaken in the Valenciennes region. It has yielded a great wealth of data on land-use and settlement and it forms a basis and a point of reference for any future research within the region or within the whole of northern France for each of the periods studied. Notwithstanding a surface investigation of 350 ha, this, nonetheless, only forms a small part of a much larger territory. However, we can conclude that this project has permitted us to observe, within a defined geographical space, the characteristics of the occupation of a territory, permitting



us to develop new models concerning the occupation, structure, and management of the land and the institution of settlements and their related material culture.

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#### BIBLIOGRAPHY

- Aubin, G., Blanchet, J.-C., Gauthier, M., Papinot, J.-C., Tarrête, J., Thomas, J., and Richet, C. (eds) 1997: *La recherche archéologique en France: Bilan 1990–1994 et programmation du Conseil national de la recherche archéologique*, Ministère de la Culture, Paris
- Barbier, P., Deschodt, L., Djemali, N., Drwila, G., Feray, P., and Teheux, E. 1998: *Onnaing (59), usine Toyota, rapport de sondages archéologiques profonds*, SRA Nord/Pas-de-Calais
- Barret, M. 1999: *ZAC de la Vallée de l'Escaut, Parcelle Tsucho, rapport de sondages*, SRA Nord/Pas-de-Calais
- Bayard, D. 1996: 'La romanisation des campagnes en Picardie à la lumière des fouilles récentes: problèmes d'échelles et de critère', *Revue Archéologique de Picardie*, no. spécial 11, 157–84
- Belot, E. 1990: *Les dieux et les morts. Collections d'archéologie romaine*, Château Musée de Boulogne-sur-Mer, Mémoire de la Société Académique du Boulonnais IX
- Black, E.W. 2006: 'The pre-Boudiccan colonia at Camulodunum', in P. Ottaway (ed.), *A Victory Celebration: Papers on the Archaeology of Colchester and Late Iron Age-Roman Britain presented to Philip Crummy*, Colchester, 43–54
- Blancaert, G., Feray, P., and Robert, B. 2005: 'L'Âge du Bronze dans le nord de la France: découvertes récentes', in J. Bourgeois and M. Talon (eds), *L'Âge du Bronze du nord de la France dans son contexte européen*, Paris, 103–37
- Blondiaux, L. 2004: *ZAC de la Vallée de l'Escaut, «Petite Mer 2», rapport de sondages*, SRA Nord/Pas-de-Calais
- Boithias, J.-L. 1970: *La maison rurale en Normandie, 1. La Haute Normandie. (Les cahiers de construction traditionnelle)*, Paris
- Bretagne, P., Cattedu, I., Clotuche, R., Gaudefroy, S., and Robert, B. 1998: *Fouilles archéologiques réalisées sur le site de Toyota, Onnaing (59). Document final de synthèse* (2 vols), SRA Nord/Pas-de-Calais
- Buchez, N., and Daveau, I. 1996: 'La mise en place d'un réseau d'établissements au début de l'époque romaine, Marne-la-Vallée: origine et aspects des nouvelles installations', *Revue Archéologique de Picardie*, no. spécial 11, 221–32
- Chouquer, G., and Favory, F. 1992: *Les arpenteurs romains. Théorie et pratique*, Paris
- Clavel, V., and Clotuche, R. 2001: *ZAC de la Vallée de l'Escaut, parcelle GEFCO, DFS de sauvetage urgent*, SRA Nord/Pas-de-Calais
- Clotuche, R. 2000a: *ZAC de la Vallée de l'Escaut, parcelle «Techniques Surfaces», rapport de sondages*, SRA Nord/Pas-de-Calais
- Clotuche, R. 2000b: *ZAC de la Vallée de l'Escaut, Waka 2, rapport de sondages*, SRA Nord/Pas-de-Calais
- Clotuche, R. 2003: *ZAC de la Vallée de l'Escaut, opération Delquignies/Bils-Deroo, DFS de sauvetage urgent*, SRA Nord/Pas-de-Calais
- Clotuche, R., with Cattedu, I. 2006: 'Onnaing «ZAC de la vallée de l'Escaut»', in P. Brun, C. Marcigny and J. Vanmoerkerke (eds), *Une archéologie des réseaux locaux. Quelles surfaces étudiées pour quelle représentativité? Actes de la table ronde des 14 et 15 juin 2005 à Châlons-en-Champagne*, Les nouvelles de l'archéologie 104–105, 51–6
- Clotuche, R. 2007: *ZAC de la Vallée de l'Escaut, «Chemin des postes» – «Dessus de la Crête», document final d'opération*, SRA Nord/Pas-de-Calais
- Clotuche, R., Favier, J.-M., Vacossin, J.-F. 2004: *ZAC de la Vallée de l'Escaut, «Chemin des postes» – «Dessus de la Crête», rapport de diagnostic*, SRA Nord/Pas-de-Calais
- Clotuche, R., and Favier, J.-M. 2007: *Sars-et-Rosières, zone commercial extension, rapport de diagnostic*, SRA Nord/Pas-de-Calais
- Clotuche, R., and Willems, S. forthcoming: 'A characterisation of coastal pottery in the north of France (Nord/Pas-de-Calais)', *Journal of Roman Pottery Studies*

- Collart, J.-L. 1996: 'La naissance de la villa en Picardie: la ferme gallo-romaine précoce', *Revue Archéologique de Picardie*, no. spécial 11, 121–56
- Decanter, F. 1998: *Estreux «projet EDF», rapport de sondages*, SRA Nord/Pas-de-Calais
- Defgnée, A., and Munaut, A.-V. 1996: 'Évolution de l'environnement végétal du Nord de la Gaule de La Tène à l'époque gallo-romaine', *Revue Archéologique de Picardie*, no. spécial 11, 325–32
- Ferrière, A. 1988: *Les campagnes en Gaule romaine. Tome 1: Les hommes et l'environnement en Gaule rurale (52 av. J.-C.–486 ap. J.-C.)*, Paris
- Geoffroy, J.-F. 2000: *Onnaing, échangeur 24, «La croix Willaume», rapport de sondages*, SRA Nord/Pas-de-Calais
- Heim, J. 1970: *Les relations entre les spectres récents et la végétation actuelle en Europe occidentale*, Louvain
- Lepetz, S. 1996: 'Effets de la romanisation sur l'élevage dans les établissements ruraux du Nord de la Gaule: l'exemple de l'augmentation de la stature des animaux domestiques', *Revue Archéologique de Picardie*, no. spécial 11, 317–24
- Marcy, T. 1999: *Voirie de desserte de l'usine Toyota, rapport de sondages*, SRA Nord/Pas-de-Calais
- Ouzoulias, P. 2006: *L'économie agraire de la Gaule: aperçus historiographiques et perspectives archéologiques*, unpub. doctoral thesis, University of Franche-Comté
- Pion, P. 1996: 'Les établissements ruraux de la vallée de l'Aisne, de la fin du second Age du Fer au début du Haut Empire romain (IIe s. av. J.-C./Ie s. ap. J.-C.): bilan provisoire et esquisse de synthèse', *Revue Archéologique de Picardie*, no. spécial 11, 55–108
- Rawes, B. 1981: 'The Romano-British site at Brockworth, Gloucestershire', *Britannia* 12, 45–77
- Routier, J.-C. 1999: *ZAC de la Vallée de l'Escaut, Parcelles Piazza, Tsucho, Waka, rapport de sondages*, SRA Nord/Pas-de-Calais
- Sévérin, C., Courbot-Dewerd, C., Gaillard, D., and Gustiaux, G. 2007: *La Fosse à Loups, ZAC Hordain – Hainaut*, SRA Nord/Pas-De-Calais
- Taylor, J. 2001: 'Rural society in Roman Britain', in S. James and M.J. Millett (eds), *Britons and Romans: Advancing an Archaeological Agenda*, CBA Research Report 125, York, 46–59
- Taylor, J. 2007: *An Atlas of Roman Rural Settlement in England*, CBA Research Report 151, York
- Thoquenne, V., and Marcy, T. 1998: *ZAC de la Vallée de l'Escaut, Parcelle Simoldes, document final de synthèse*, SRA Nord/Pas-de-Calais
- Willis, S.H. 2005: 'Samian pottery, a resource for the study of Roman Britain and beyond. The results of the English Heritage funded Samian Project; including an interrogatable database of samian pottery', *Internet Archaeology* 17