EAA 53



EXCAVATIONS IN THETFORD, 1980–1982, FISON WAY, Volume One

East Anglian Archaeology Norfolk Field Archaeology Division 1992

EAST ANGLIAN ARCHAEOLOGY



Frontispiece Tony Gregory, 1948–1991 Excavations in Thetford, 1980-1982, Fison Way

Volume One

by Tony Gregory

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The last word of thanks must go to the people of Thetford. The interest and encouragement of those who live close to an excavation can dictate the whole character of the project. The people of Thetford made this one their own.

Tony Gregory, 1948-1991: An Appreciation

Anthony Keith Gregory, known by all friends and colleagues as Tony, was born in Stapleford, Nottinghamshire on December 16th, 1948. After Nottingham High School he went up to Peterhouse, Cambridge, to read Archaeology and Anthropology. Whilst at university he took part in the excavation of the important Iron Age and Roman site at Dragonby, Lincolnshire, and having graduated he spent three years as a Research Assistant working on the ceramics from this site. In 1974 he was appointed Assistant Keeper of Archaeology at Norwich Castle Museum where he remained for four years. He transferred to the Norfolk Archaeological Unit to take up the post of Field Officer with particular responsibility for the Roman period, becoming Deputy County Field Archaeologist in 1983. Six years later he left the Norfolk Unit and settled in Yorkshire to become an independent archaeological consultant and to dedicate more time to broadcasting work. He was soon to join Heritage Projects in York as Research Officer, and it was whilst in this employ that after an illness of six months' duration he died of cancer on June 26th 1991.

When Tony Gregory first joined the Archaeology Department at Norwich Castle Museum there were very few entries on the Sites and Monuments Record which concerned objects recovered with the use of metal detectors. He soon realised that metal objects brought in for identification and recording were frequently the result of deliberate searching with detectors, and that if the obvious enthusiasms of a growing number of detector users were to be harnessed in the right direction then the archaeological data-bank for the county would be vastly enhanced. Thus he began to foster close liaisons with detectorists, to encourage correct procedures of recording, and to inform finders through his uniquely entertaining yet intellectually brilliant methods of identification. All of this he did for two reasons: a strong desire to see information recorded in order to further knowledge, and a genuine affection for the rich variety of characters who pursue the detecting hobby. He was thus an academic of the highest calibre as well as a populariser with the 'common touch'.

Norfolk is littered with people whose interest in the past was first inspired by Tony Gregory, not only at the meetings of Detector Clubs which he had helped to establish, and during Cambridge University Extra-Mural courses which he taught in Norwich, but also by his frequent appearances on local radio and television. His final TV series, *Now, Then*, was broadcast nationally by the BBC. Its aim was to help young people understand the past, and its method involved the interaction of modern children and child actors taking the parts of ancient children. The distinctive figure of the presenter, with his shirt less unbuttoned than normal, was a great success. There is no doubt that the public appreciation of archaeology would have continued to improve had the presenter lived to make further 'media' appearances.

Throughout the earlier part of the period when Tony Gregory was attempting, very successfully, to encourage the resposible use of metal-detectors, a large section of the archaeological establishment was keen to see detecting brought to an end, or at least rigidly controlled by a licensing system. Much exaggerated propaganda was put out to this end. Tony realised that an outright ban or strict control by licence was not possible, and argued at various meetings and by polemic that education and encouragement hand-in-hand would bring out the best in the vast majority of detectorists who were honest and would serve the long term interests of British archaeology (Green and Gregory 1977-8; Gregory 1983a and b). In all of this he showed great courage as well as erudition, and in the end the somewhat hysterical and certainly ill-informed anti-detector campaign was abandoned.

At the same time as encouraging the honest, Tony Gregory kept his nose to the ground in the pursuit of 'nighthawks', those who plundered sites illegally. His patient intelligence work, which was aided by his ability to communicate with all manner of people, and by a close rapport with the police, resulted in many prosecutions, and helped to bolster the respectability of the large lawabiding majority. Tony's most spectacular coup in his role as 'detecting detective' was the bringing to light of the Thetford Treasure. Here his ability to win confidence was of paramount importance in extracting the truth under very difficult circumstances. He saw that there was nothing intrinsically wrong with a metal detecting device, that the guilt was to be born by the incorrect user of the machine, not by the machine itself, which was simply another tool of archaeological prospecting. How useful such a tool can be within the process of excavation is evidenced in the pages below, and was first demonstrated by Tony in the pages of Antiquity (Gregory and Rogerson 1984).

Tony Gregory's capacity for work was extraordinary; his activities with metal detectorists did not prevent him from finding time to expend tremendous energy in the more traditional roles of the field archaeologist: excavation, survey, synthesis and publication. Numerous papers have appeared on Iron Age and Roman metalwork (Gregory 1975-6, 1976, 1979, and 1986; Gregory and Martin 1985; Green and Gregory 1985). Several articles brought together the evidence from old unpublished excavations (Gregory 1977; Gregory and Gurney 1986) and Iron Age and Roman Norfolk was summarised in a masterly work of popular synthesis *Celtic Fire and Roman Rule* (Robinson and Gregory 1987). Tony began the process of co-authoring a definitive work on the Iceni, a project which it would be good to see bearing fruit.

A paper written with John Davies (Davies and Gregory 1991) demonstrates the enormous potential that the systematic recording of large site assemblages of Roman coins has for the understanding of the history of Roman Britain. In this paper the subject area is Norfolk, and the source material is the series of massive groups of coins collected by metal detectorists and recorded by Tony and his co- workers. This article will go far in vindicating the stand that he took and the work that he did while in the County.

Two of Tony Gregory's greatest talents were a capacity for working extremely hard for very long hours, and a natural ability to get on with and enthuse all sorts of his fellow men and women. Both of these qualities were essential to the success he achieved in excavating the extraordinary site that he presents in the pages below. In these, the methods and circumstances of excavation are described, but readers who did not visit the excavation will garner hardly a hint of the strengths the project demanded from its leader to produce the success that it undoubtedly was. Tony's decision to plan and record the site to 'see what was there' before starting on the sample excavation of features was probably a hard one to take, but in retrospect was quite correct. He then had to control his own impatience (which anyway did not show) and more importantly that of his youthful workforce. There were no riots on that windswept hill outside Thetford; there well may have been if a lesser person had been in charge and had taken the same hard decision. The cleaning and planning of so many square metres of dry gravelly sand must have been tedious for every member of his somewhat wayward workforce, but this has not stopped several team members from entering careers as professional archaeologists. Tony's gift as an inspirer must have been at work here.

The production of this report is in itself no small achievement. That period of British archaeology when so much depended on the use of unemployed people is not seen as a period which has left a complete legacy of published reports. The two years or so that Tony excavated at Thetford saw no diminution in his other activities as Field Officer at the Norfolk Unit, as lecturer, broadcaster, and coordinator of metal detecting. The huge workload took its toll on his bodyweight, but did not otherwise seem to bother him.

During a brief career Tony Gregory achieved a great deal in bringing archaeology to the public without ever compromising the highest academic standards. He has left behind a countywide system for the identification and recording of topsoil artefacts on ploughed sites which is foremost in Britain and which will in future form a secure base for the regional study of many periods. This volume, which describes a remarkable site, provides a fitting memorial to a remarkable man whose enthusiasm for antiquity was such that in a different order of time it might have turned Boudicca's energies away from hostility to Romans and towards an interest in the past, perhaps a study of the Later Bronze Age in Icenia.

Andrew Rogerson July 1991

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Excavations in Thetford, 1980–1982, Fison Way



Fig. 1 Location; scale of main map 1:5000

Chapter 1. Introduction

I. Discovery (Pl. I)

In May 1980 Bob Carr of the Suffolk Archaeological Unit was flying over north Suffolk as part of Suffolk's programme of aerial reconnaissance when his passage through RAF Honington's air space was delayed. While filling time by circling Thetford, the aeroplane passed over the Fison Way Industrial Estate on Gallow's Hill, and he saw a very striking rectangular crop-mark (Pl. I). Although this feature had previously been identified from a BKS Surveys air photograph, taken in 1973, it assumed a new importance in 1980, because of the events of the previous year.

In the early 1960s a mass of Roman pottery and building material was found in rabbit scrapes on a small sandy hillock south-west of the crop-mark; in 1979, when construction work began on and around the hillock for the new Travenol factory, large quantities of late Roman material was found, and the site attracted the attentions of local metal-detector users. Only a small proportion of the material found was ever recorded archaeologically, largely late Roman coins (p119), but estimates put the total number of finds from the metal-detecting at several thousands. Besides coins, the finds included an inscribed piece of lead, possibly a curse tablet (Hassall and Tomlin 1982). It was at this time that the Thetford Treasure, a spectacular hoard of late Roman gold and silver jewellery and spoons, and possibly coins, came to light, to the east of the main concentration of late Roman finds, and south of the crop-mark (Johns and Potter 1983); it then came to the attention of the archaeological world in the spring of 1980.

The finds from the site obviously led to intense speculation. In particular, the presence of spoons with religious inscriptions suggested the presence in the area of a religious site. Also the multiple enclosure was seen to be rather reminiscent of the concentric walls and ditch of the Gosbecks enclosure, in the corner of which stood a Romano-Celtic temple (Hull 1958, 259-267). Therefore the hypothesis to be tested by survey and trial excavation in 1980 was that the Thetford enclosure also surrounded a temple or some sort of religious establishment and was in active use in the late 4th century A.D. when the hoard was concealed.

The combination of the late Roman finds and the crop-marks attracted considerable interest in the site: the area had been designated by Breckland District Council for the expansion of the Fison Way Industrial Estate from the south, and a rescue project was therefore launched. It was only in 1981 that further aerial photography, by Derek Edwards, led to the discovery of an apparent eastward continuation of a small rectangular enclosure in the next



Plate I The site as revealed by crop-marks, 1980. (Photo. R.D.Carr)

field. Since this field was not at the time intended for immediate development it was excluded from the rescue project.

II. Location

(Fig.1)

The present town of Thetford lies at the confluence of the Rivers Thet and Little Ouse, which run through a gap in the chalk ridge which runs from south to north up the west part of Norfolk and Suffolk. The confluence isolates three marked eminences, Snare Hill to the south-east, Barrow Hill to the south-west and Gallows Hill to the north; of these the last two give commanding positions over the best river crossings. The flat top of Gallows Hill, where the site is situated at 50m O.D., is about 35m higher than the site of the town, with a relatively steep slope between them. The slope extends around both the east and west sides of the hill, while to the north it is separated from the main chalk ridge by a dry valley, so that, in a modest way, Gallows Hill forms an isolated block of high ground. Terms like 'high' and 'steep' in East Anglia are relative; the topography of Gallows Hill would not be the least bit striking in most other parts of the country but in the subtle hills and slopes of Norfolk it is quite precipitous.

The site stands on blown sand and outwash gravels, covered by 0.3-0.45m of topsoil, a well-drained acid brownearth. Ploughing and mechanical topsoiling has produced a generally horizontal surface to the sands and gravels, but in places deeper pockets of brownearth survived as evidence of the typical 'Breckland hollows'. Immediately south-west of the excavated area, showing as a distinct patch on the aerial photographs (Pl. I) is a small area of high water table, resulting presumably from a local impermeable deposit below the sand. This high water table extended into the south-west corner of the excavated area, where water was reached at 0.5m below the present ground surface during the winter. The rest of the excavated area was dry with a low, but locally variable, water table; consequently the surface of the natural sand and gravel was extremely dry. Sand predominated over gravel as the subsoil; however, the gravel appeared in patches, rarely more than a few metres across, all over the site, and this variation had a noticeable effect on ditchdigging while the site was occupied (p.00).

Chapter 2. History of the project

I. Preliminary work

(Figs 2, 3)

Work began immediately after harvest, at the beginning of August 1980 with a surface-survey by metal-detector users under the supervision of the writer. The techniques used, and the methodological implications have already been discussed (Gregory and Rogerson 1984) and the significance of finds from the survey will be discussed under the appropriate sections. It is sufficient to say here that the whole area was detected by local enthusiasts, under archaeological supervision, in 20m squares, with finds recorded to 0.1m (Fig. 2). The immediate significance was that several early Roman brooches and coins, and one Iron Age coin, were found in the area of the crop-mark, distributed more widely than the late Roman coins found in the survey, which were much more localised. This was the first hint that the temple hypothesis would not bear close examination.

At the end of August, a magnetometer survey was carried out by the Ancient Monuments Laboratory of the Department of the Environment. In the first instance a pilot survey was restricted to a strip 300m from east to west and 60m from north to south in the southern part of the field, with the intention of returning for more detailed work if the initial results were promising. This they were not, and although the outer ditch of the enclosure was traced as a weak and discontinuous response, no information was afforded for the crop-mark which was not already apparent from the aerial photographs. To the west some anomalies were detected north of the west end of the Travenol factory, where previous finds including the metal-detector survey already indicated late Roman occupation, but this area had already been relegated to secondary importance in comparison with the crop-mark. Magnetometry was therefore abandoned at this stage. The results of the initial survey are not published here but are reproduced in the microfiche supplement (Figs 159 and 160).

A programme of trial excavation (Fig. 3) followed in September and October 1980 with three aims:

- To investigate the immediate context of the treasure, which could only be done to the north of the findspot since the other three sides had been dug away in the construction of the warehouse and in associated works.
- To establish the date and nature of the enclosure which had been revealed by aerial photography.
- To determine whether any evidence related to either the treasure or the enclosure could be discovered in the vacant plot to the east of the warehouse and south of the enclosure.

Three cuttings, I, II and III were excavated to investigate the latter. Apart from a single sherd of Romano-British grey ware there was no trace of ancient use of the area. Cutting IV, excavated immediately north of the findspot, produced the remains of a large post-built structure (p. 111) but in view of the importance of the results of Cutting V it was decided not to proceed any further in this area after the excavation of the cutting was completed.

Cutting V, a major trench 100m north to south and 5m east to west, was designed to investigate the three ditches of the enclosure close to the south-east corner of

the innermost of the three. A surveying error aligned the cutting along the north return of the ditch and thus prevented the recovery of any evidence relating to the interior, but it was established that the three ditches were of first- and not fourth-century date, and that there were Iron Age features in the area. In view of the significance of a first-century site in the Icenian area, and its imminent destruction by industrial development, negotiations began with the Department of the Environment and with the Manpower Services Commission for funding to allow excavation on a large scale.

It was at this time that samples were taken from topsoil for electro-magnetic susceptibility and phosphate analysis (p.181).

II. The excavation strategy

Large-scale area excavation of the site began in January 1981, with the following priorities:

- To investigate the triple-ditched enclosure, to confirm the mid firstcentury date suggested by the trial excavation, and to establish its function and detailed history.
- 2. To investigate the Iron Age phase of the site, and its relationship both chronologically and functionally to the enclosure.
- To look for any evidence of continued use of the site in the Late Roman period, to match the occupation discovered around the Travenol building.

The imminent destruction of the site by redevelopment and the enigmatic nature of many of the features revealed by the trial excavation suggested that a total view of the site was needed, and that an excavation method needed to be evolved to fulfil this aim, modified only by the availability of the site and of resources. The involvement of the Manpower Services Commission in archaeology, at that time through the Youth Opportunities Programme, offered the prospect of a largely untrained, but trainable workforce, and this, together with some financial support from the Department of the Environment made the examination of a large area possible. Further finance was provided by the Department of the Environment for the mechanical removal of topsoil: these two factors allowed an area of nearly 5ha to be stripped, almost the whole of the enclosure, with the exception of the south-east corner, which lay under a farm track and an area of scrub.

The topsoil was removed in two distinct stages; in January 1981 the west part of the area was stripped, constituting about 65% of the total area investigated, and the following fifteen months were spent on its recording and excavation. The remaining 35% was stripped, cleaned and excavated between April and September 1982; with less time available for the east part of the site, the excavation was necessarily less intensive, and orientated towards specific questions which had evolved during the excavation of the first area.

The site was then backfilled, as agreed with the land owner, and it was expected that industrial redevelopment would take place very soon afterwards. Indeed, this was the basis on which Department of the Environment funding had been provided. However, the reluctance of



Fig. 2 Distribution of metal finds, mostly from metal-detecting; scale 1:5000



Fig. 3 Scale 1:5000

Breckland District Council, the developing authority, to destroy the unexcavated parts of the site, coupled with the reduced demand for industrial premises in the economic troubles of the early 1980s, led to the field in which the site stood being redesignated and excluded from the industrial estate. A subsequent refusal of planning permission by Breckland District Council for the construction of an industrial unit on part of the site went to appeal, and the appeal was dismissed in January 1991.

Since the excavation, the site has been returned to cultivation. Now that its preservation seems ensured, it is hoped that an appropriate management plan will be drawn up and implemented.

III. Excavation techniques

(Pls II, III)

The way in which the site was excavated was determined by four factors; the most important of these was the excavation strategy, worked out during the trial trenches and the first few weeks of the main area, namely to strip almost the whole area of the enclosure in two separate but continuous campaigns, and to clean and plan the whole exposed surface before attempting any excavation of features. The topsoil was stripped by a D8 tractor towing a box scraper, removing about 30cm of topsoil in three or four passes. At all times the machine was followed by a metal-detector, used by Tony Frost who was specifically employed as a detector-user for the duration of the excavation. The result was that a large number of metal objects, and some pottery and flints, were recovered from the topsoil and were located as closely as mechanical topsoiling would allow, at the coarsest to the nearest metre and often to 0.1m. Under more leisurely conditions less topsoil would have been removed mechanically, and a buffer layer would have been left above the natural, in order to minimise disturbance by the caterpillar tracks of the tractor and, less seriously, by the rubber tyres of the scraper.

The variation in the underlying subsoil caused some problems; the box scraper would sometimes buck when passing from an area of hard gravel to soft sand, and this led in extreme cases to overmachining. The mechanical topsoiling was followed by cleaning up the working surface, a lengthy job of hoeing and shovelling; the nature of the subsoil was such that the surface dried very soon after stripping, and the exposure of such large areas, particularly in dry windy conditions, caused large-scale sand blows. As long as the cleaning was followed immediately by surface planning, supplemented where necessary by large-scale spraying with water, this problem could be overcome (Pls II and III).

At the end of each of the two phases of topsoiling and cleaning a site plan at 1:50 was prepared. The small scale



Plate II Cleaning and planning east side of site



Plate III Topsoiling, cleaning and planning, centre of site

was chosen for very obvious practical reasons: at 1:20 the site plan would have covered 390 A1 sheets, a total area of 200 square metres of tracing film. Even at the smaller scale the site plan required 82 A1 sheets, and all these figures have to be doubled to allow for the replanning of excavated areas. The 1:50 plan was used as the basic working document and on this basis decisions were taken as to which specific areas of the site and which features should receive further attention.

The priority established for 1981 and the following winter was to investigate the triple-ditched enclosure itself and to establish its function and chronology. However, the site plan showed that there were many other features, some apparently related to the enclosure and others clearly independent of it. Consequently the enclosure ditches and the spaces between them were examined at the south end of the site, where other features were comparatively rare, and a considerable length of time was spent on the interior of the enclosure, particularly on the circular buildings. As the two phases of the main enclosure became clear, the possibility emerged of features such as the ring-ditches being contemporary with the first stage and predating the second. These, and the enclosures in the north part of the site which appeared to predate the enclosure altogether also received a good deal of attention.

With the data from the first part of the excavation, the second, western part of the site could be attempted in a much shorter time, and only six months were spent on it. The rest of the plan of the triple-ditched enclosure was established, and the entrances and the points at which the two stages of the enclosure met received the most attention.

The second factor influencing the excavation method was the character of the site itself, particularly the shallowness and irregularity of many of the features and the homogeneity of many of the fills. In the vast majority of cases the fill was a yellow-brown sand loam, ranging from 10 YR 3/4 to 5/6, with the edges of the fill layers badly obscured by animal disturbances (Pl. X). Sequences between intercutting features could only be determined easily when a distinctive local lens, usually of gravel or of dark sooty soil and charcoal, appeared, or when the two features concerned were more than 0.15 or 0.2m deep. This depth was not the rule of the site, where many of the gullies, either because of their original lack of substance, or because of later erosion were only a few centimetres deep. It soon emerged that, if a sequence was not visible in plan during the first cleaning, the chances of it being worked out later were quite small.

Ditches and gullies were of wildly variable depths and profiles; a feature dug into sand, 30cm deep and 50cm wide, with a marked rounded U-profile might well suddenly change on meeting the hard orange gravel to a puny V-sectioned gully only a few centimetres deep and wide. Animal disturbance, particularly by moles, less commonly by rabbits, and, apparently only once, by



Plate IV General view of east part of site from north: ring-ditch 2 in foreground, buildings 5 and 2 in distance

badgers, also affected the shape of features severely. Since such disturbance was at its worst at the surface of the natural sand it often almost completely obscured the profile of shallower features, particularly those less than 0.1m deep. Thus a gully which in places had a good straight sided, flat-bottomed profile 0.2m deep, in other parts of the site would be visible only as a concentration of mole holes where it shallowed to 0.1m or less. Animal disturbance also had the effect of smoothing profiles so that the sharp flat-bottomed section became dished where it was shallower.

The animal disturbance sometimes had the effect of preserving a shadow of a destroyed feature. Some small discontinuous gullies had been destroyed by ploughing or by over enthusiastic topsoil stripping, but a concentration of dark mole holes in the natural sand showed where fill had been carried down before the features were destroyed. In some cases the rationalising effect of less skilled excavation led to a confusion between genuine feature and shadow.

The variation in depth of individual features also created a problem of identification. A gully sectioned on each side of an intersection might show wildly varying proportions and profiles because of the nature of the subsoil into which it had been cut at each point. It was therefore difficult, without excavating considerable lengths, to be certain that the same feature emerged from an intersection as entered it.

Thirdly, it soon became obvious that the site was not prolific in finds: only 52kg of pottery were recovered during the whole of the excavation. Even considerable lengths of ditches were unlikely to produce useful groups of pottery, so a great deal of thought had to be given to the prospect of excavating long lengths of any feature. The



Plate V A winter morning in the site hut

routine excavation of considerable proportions of any one feature to obtain datable material was not therefore the highest priority.

The fourth factor was the digging team, most of whom were employed under the Manpower Service Commission's Youth Opportunity Programme; while a varying number of experienced archaeological excavators were paid from the Department of the Environment grant, these never represented any more than a small minority of the workforce. The supervisors of the YOP teams had to be recruited locally under Manpower Service Commission's regulations, which meant that for most of the time the site was excavated with a largely inexperienced workforce. Many did acquire considerable archaeological skills, but the small numbers of experienced diggers, and the slower speed at which the inexperienced diggers worked, were always important factors in the excavation.



Fig. 4 Key to drawing conventions

Chapter 3. Site Description

I. The site plan

(Fig. 5, vol. 2)

Figure 5 shows the complete plan, with all planned features which appear to be artificial, whether they were investigated by excavation or not. Two things are immediately obvious from it, the predominance of linear features and the variable density of features across the site. The impression that ditches and gullies were commoner on the site than pits and post-holes may have been exaggerated by the nature of the subsoil and by the method of excavation. Animal disturbances, filled with sand-loam, were common in the sandy natural, and it was often difficult to distinguish between them and post-holes, whereas there was less of a risk of confusion between ditches and gullies on one hand and animal disturbances, even the larger, horizontal burrows, on the other. The exposure of large areas led to rapid drying of the surface, and while linear features could often be seen after drying, post-holes were unlikely to be recognised under any but ideal conditions. It is therefore likely that small post-holes are underrepresented in the record, and that some flimsy structures have gone completely unrecognised. The contrary is also the case, that is some areas where post-holes were wellrepresented, particular care was taken to spray the surface of the natural and to examine it carefully, with the result that a larger proportion than usual were recognised. This is likely to be the reason for the concentration of post-holes between Buildings 1 and 2 at 560/570. Pits, on the other hand are less likely to be affected by such factors and the paucity of pits in all but two very specific areas (Pit Groups 1 and 2, p. 00) is probably real.

The variable density of features is probably less the result of excavation procedures, although it is possible that in the south part of the site, between 510/510 and 600/510, the mechanical topsoil stripping also removed the top of the natural sand, and with it some areas of feature fill. The ephemeral traces of the fences of Enclosure 1b in this area support this. However, if this is the case, only the shallowest features would have been affected, and this process will have served only to exagge-rate what was a valid trend on the site.

The area which contained the greatest density of features is the north-west corner, examined in 1981, and it is worthy of remark that the eastern area stripped and investigated in 1982, when the excavation team was at its most skilled and experienced, was much less dense in features, which confirms the validity of the contrast.

II. Phasing

(Figs 7, 37, 83 and 102)

It must be stressed, particularly since the bulk of the description of the site is done by phase and within the phase by composites such as enclosures and buildings, that the excavators' view of the site was strongly conditioned by the original 1980 aerial photographs, and that this perception also coloured the subsequent ordering and interpretation of the recovered information. Had the

site been excavated after discovery by means of surface finds, the apparent triple-ditched enclosure would probably have assumed less importance, and the phasing would have been different in presentation, if not in its very nature.

As it was, the three ditches which appeared as cropmarks were uppermost in the excavators' minds, and therefore they dominated the interpretation. As it became clear that the triple-ditched enclosure was actually a twophase, double-ditched structure (Enclosures la and lb) and that there was a hiatus in occupation after the end of Enclosure 1b, the two enclosures became pivotal for all reasoning about the sequence of features. A small number of features were stratigraphically later than Enclosure 1b, and some of these contained Late Roman pottery. Other features containing material of the same date, but not related stratigraphically to the enclosures, have been placed with them as Phase IV. Enclosure 1b, by definition, is of Phase III and 1a of Phase II, but since the finds from these two enclosures are indistinguishable, there are substantial problems in differentiating between other features of Phase II and III where they lie outside Enclosure 1b. The tendency has been to allocate features to Phase II unless there is evidence to the contrary.

The status of Phase II, originally defined with reference to Enclosure la, was complicated by the discovery of features containing Early Roman material which were stratigraphically earlier than Enclosure la. This complication is partly the result of the inability to distinguish between material which belongs to the construction and use of a feature or structure and that which belongs to its disuse or demolition. On sites where the fills are more variable and the features deeper this is often possible, but was rarely the case here. It is therefore possible that some of the features and structures allocated to Phase II by virtue of containing Early Roman finds were in reality constructed and used at an earlier date and that the Early Roman material was incorporated into their fill some time later, perhaps to level the area in preparation for major works such as the construction of Enclosure la. If this were the case, the lowest fills might be expected to contain Iron Age material, and Early Roman finds to be restricted to the uppermost fills. If these levels were composed of indistinguishable soil layers and the relative depth of each find unrecorded, as was the case on this site, only a suspicion would remain that this was the true situation.

Phases I and II were distinguished from each other on the crudest of grounds, by the presence of Iron Age pottery alone in the former and the addition, or predominance of, Early Roman material in the latter. On the face of it, this is a dangerous practice, since it fails to recognise the dynamic nature of the transition from Iron Age to Early Roman potting traditions elsewhere, with pre-Conquest imports of Roman vessels and the continuing manufacture after the conquest of forms and fabrics of the Iron Age tradition. However, if the transition from Phase I to Phase II is for the moment taken as the point at which Early Roman material first appears in the archaeological record of the site, and not, for the time being, as a defined calendar date, the worst excesses of this practice are avoided.

Features containing finds solely of an earlier date yet, and more commonly material of an earlier date residual in features containing Iron Age and later finds has simply been attributed to the Prehistoric use of the site, since it is clearly separate from what is otherwise a fairly coherent structural sequence.

Thus, in summary, the site has been phased as follows:

Prehistoric:	Neolithic or Bronze Age
Phase I:	Iron Age, to the first appearance of Early
	Roman finds
Phase II:	Early Roman, to the transition between
	Enclosures 1a and 1b
Phase III:	Early Roman, Enclosure 1b
Phase IV:	Late Roman

III. Prehistoric use of the site

(Fig.6)

Frances Healy's report on the struck flint and pre-Iron Age pottery gives some indication of the extent to which the site was used before Phase I. The period from the Palaeolithic to the Neolithic is sparsely represented, by residual or unstratified finds, and the status of any occupation cannot be assessed.

Much of the 'Prehistoric' pottery from the site is of indeterminate date, and is not even certainly Pre-Iron Age, although, as Frances Healy discusses (p. 149), the flint- and flint- and sand-tempered fabrics do appear to be distinct from the pottery of Phase I, and so are tentatively regarded as being earlier. Grog-tempered sherds which are otherwise indeterminate can be attributed to the Late Neolithic/Early Bronze Age with more confidence, and a concentration of twenty-two sherds in both fabrics, unstratified or residual in later fills, in the grid square 560/610 in the centre of the site, suggests a local concentration of activity.

The earliest occupation to have left any structural traces was in the Late Neolithic/Early Bronze Age to which the pit 6564 belongs. It was small and approximately circular, 0.8m in diameter and 0.15m deep, and contained Beaker sherds and a deposit of contemporary, or slightly later, flint-working debris. There were no contemporary features, but in the same area of the site were two urned cremations, 5823 (Fig. 136, No. 32) and 5810 (Fig. 138), from the Middle and Middle or Late Bronze Age respectively and two unurned cremations, which, while intrinsically undated, can be suggested as approximately contemporary with the urns on the grounds of their location. Of the two urns, 5823 was buried mouth uppermost and 5810 inverted.

In the north-west part of the excavated area was a single isolated urned cremation, 2897 (Fig. 139, No. 35), of an indeterminate Bronze Age date. Only the base and a small part of the lower wall survived, suggesting that damage to the upper surface of the natural subsoil had been considerable at this point, or that the urn had been buried at a local high spot, such as a natural or artificial mound, and thus had been exposed to more severe



Fig. 6 Scale 1:2000

ploughing and weathering than other parts of the site. Whatever the explanation, it is possible that further urned and unurned cremations could have been lost from this area. To its south-east, 3458 (Fig. 137, No. 33) a Deverel-Rimbury vessel of the Middle or Late Bronze Age had been buried inverted; its base had sunk into the interior of the vessel, probably under weight of the overlying soil, and then subsequent disturbance had removed what was left of the lower part of the wall. There was no sign that this vessel had ever contained a cremation.

The Bronze Age palstave fragment (Fig. 116, No. 2) and the possible Bronze Age awl (Fig. 116, No. 11) were probably casual losses.

IV. Phase I

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(Fig. 7, vol. 2)
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If the plan gives an immediate impression of a low density of features and a less general distribution than Phase II, this is in part the result of the sampling strategy, which was aimed primarily at illuminating the Enclosure 1 complex, and features around it which might, from their plan, be contemporary. Thus Enclosures 2 and 6 were initially investigated because there appeared to be a possibility that they were contemporary with, and contained by, Enclosure 1. Their attribution to Phase I led to the more detailed examination of Enclosure 9 and Ditch system 2 with which they could be stratigraphically related. Enclosures 28 and 29 received considerable attention because of the metal-working debris from pit 2640. Pit Groups 1 and 2 required investigation because of the rarity of pits in other parts of the site, while Enclosure 7, underlying the outer ditch of Enclosure la and dictating part of the course of its inner ditch, was crucial to the elucidation of the Enclosure l complex.

While the sampling process may have exaggerated the distribution of Phase I features, it appears that the phase plan reflects to a certain degree the true distribution of Iron Age activity. The attention paid to the Phase II Enclosures 13, 14, 16 and 17 would have produced evidence for extensive Phase I activity in the west edge of the site south of Pit Group 1, had it existed, and while Phase 1 features were almost absent from the area east of Enclosure 6 and north of Enclosure 20, this area was similarly almost devoid of all features, apart from the ditches of Enclosure 1.

It can be suggested, somewhat tentatively, that subphases are identifiable within Phase I, on the basis of the distinction between gritty and sandy pottery fabrics (p. 00). This subdivision is less secure than the general division of phases, and cannot be extended to all features; it is therefore not reflected in the site description or the main phase plan (Fig. 7). The smaller scale of Figs 8 and 9 reflects the uncertainty of this. A third subdivision, Ic, on the basis of the presence of grog-tempered, wheel-made pottery, suggesting a date at the very end of the Iron Age, is based on such a small number of sherds that the gully *4111* and Enclosure 10, which had been allocated to it, have now been reassigned to Phase 1b.

Despite these doubts about the basis for such a division, it is reflected in the distribution of features, with Phase Ia in the centre and south part of the site, and Ib





Fig. 8 Scale 1:2000

concentrated in the north and north-west. The number of stratigraphic relationships suggests that Ia had a longer life than its successor.

Enclosure 2

(Pls VI-IX, Figs 10-11)

In the south-east corner of Enclosure la, but earlier than it, a horse-shoe shaped enclosure stood out at all stages of the excavation as an apparently discrete structure. An area 11m from west to east and at least 12m from north to south was defined by two ditches, separated at the south by a causeway 6m wide. On the east 649 swung around a curve and straightened out onto a north-south line, ending in a well-defined butt. On the west 636 followed a roughly symmetrical line, but began to curve back to the east level with the north end of 649. At this point it straightened out, ran due north until it came to the line of the earlier gully 725, where it turned a right-angled corner to the east and promptly stopped. Thus the apparently neat, horse-shoe shaped, plan is disrupted by the northward continuation of 636. Although it appeared likely that this continuation was in fact a secondary feature, there was no evidence for a recut at this point, and if this were the case, then the whole of 636 was recut when it was extended to the north.

Throughout, the ditches were of comparatively regular profile, a well-weathered U-shape, averaging 0.7m wide and 0.3m deep, but diminishing at the southwest end of 649 where it encountered a patch of hard gravel.

It is convenient to describe the enclosure in terms of

a primary phase, the simple horseshoe-shaped plan, and a secondary phase, with the hypothetical northward extension of 636. Thus the feature that appears to belong most obviously to the enclosure, 646, lay at the middle of the primary enclosure, and there were no obvious internal features to account for the secondary extension to the north.

646 (Pls VII-IX and Fig. 11 S574) was a substantial feature, aligned north to south 1.95m long and 1m wide, 1.6m deep with straight, unweathered and almost vertical sides, and a flat bottom. Its fill was distinctive, with a dark, sooty smear at the base (3269 and 3281), a substantial lower fill of clean sand (3241) and a complex upper fill of layers of sand-loam interspersed with lenses of sooty soil with intense charcoal flecking and some small fragments of red burned clay. In plan, at the unexcavated stage, these lenses appeared as the south end of a rectangle, giving a strong impression of a timber structure in the fill. On excavation, however, they appeared in section as curving lenses of material tipped into the partially filled cavity from the south.

The size and shape of 646, together with the original hypothesis of an internal structure, led to its initial interpretation as a grave, within a funerary enclosure. The absence of bone in such features is normal for the site, and might be explained by soil acidity, but with the discrediting of the wooden structure, and the low phosphate determinations (p.183), the grave hypothesis appears all but untenable; however, no alternative immediately suggests itself.

Two other features, 719 in the north-west corner of





Fig. 10 Scale 1:100



Fig. 11 Scale 1:20



Plate VI Enclosure 2 from south



Plate VII Enclosure 2, 'grave' 646 from east, showing organic stains in upper fill, and animal disturbances filled with pale sand



Plate VIII Enclosure 2, 'grave' 646 in section



Plate IX Enclosure 2, 'grave' 646

the primary enclosure, and 735, immediately outside it to the north-east, fit very well with the large number of subrectangular features in and around the ring-ditches and in the north and west parts of the site, particularly in Phase II, which were also tentatively identified as graves. Phosphate determinations gave a mean slightly higher than the mean for features on the site, 54 as opposed to 47mg, but this is hardly significant.

Stratigraphically the secondary enclosure post-dates the ditch 725 which appears to belong to Phase I, and the whole of Enclosure 2 should also be of that phase. The enclosing ditches contained only hand-made, Iron Age pottery, as did 719 and 735, and the predominance of gritty, as opposed to sandy fabrics, suggests a relatively early stage, in Phase 1a; stratigraphically it appears to belong to the end of Ia. The pottery from 646 appears to belong to Phase 1b which further discourages the hypothesis of grave and funerary enclosure. In the face of this objective reasoning, the present writer nevertheless retains a very strong hunch that the complex is primarily funerary.

Enclosure 6

(Fig. 12)

In the north-east corner of Enclosure la, but stratigraphically predating it, was a penannular, perhaps D-shaped enclosure, 20m from north to south and perhaps 15m from east to west. It was defined by a small, shallow, U-profiled gully, 806 on the east and 812 on the west, ranging from 0.25 to 0.4m in width and around 0.05m deep. On the south side, a gap 3.5m wide between 806 and 812 appears to be an entrance, although the features are so flimsy that it could equally be the result of local shallowing or overcleaning. To the west, 812 executed an approximate semi-circle, flattening out on the north side, fading away before the junction with 676; to the east of the entrance, 806 performed a much tighter curve, to vanish under the later gully 676, from which it did not emerge. It is uncertain whether the east side of the enclosure was followed by the later 676, or faded out to the east of it. The former is more likely, giving a roughly D-shaped enclosure, but this is open to some doubt.

The small-scale sampling of the fill of the enclosing gullies produced no finds, but Enclosure 6 can be dated in

relation to Enclosure la by the relationship with 676, which post-dates Enclosure 6 but predates Enclosure la. Also, ditch 170, the north side of Enclosure la showed a clear northward kink in its unexcavated plan where it approached the north side of Enclosure 6, suggesting that, while the latter was earlier, and its gully sufficiently filled to show a relationship with 676 in Phase I, its position was still visible and some need was felt to respect it at the late date in Phase II when Enclosure la was constructed. It also predated 804 which was in turn earlier than Enclosure 2.

Stratigraphically, then, Enclosure 6 falls within Phase I, and by virtue of its relationship with Ditch System 2 (804), early in Phase Ia. Its function is less certain: the fact that its location was respected by the later ditch, and yet the gully was filled at its junction with 767 before the latter was dug, which was itself before the construction of Enclosure Ia, suggests that what was being respected was perhaps not the enclosing gully of Enclosure 6, but some structure within it, which has left no trace, or the enclosed space itself.



Fig. 12 Scales: plan 1:100, sections 1:20

Enclosure 7

(Pls X-XI; Figs 13-16)

Of all the features and complexes of features excavated, Enclosure 7 suffered most because of the policy of smallscale sampling of feature fills. It soon transpired that what seemed at first to be a relatively simple enclosure was far more complex, and the 20% excavation was insufficient; to interpret the enclosure with reasonable confidence would have required at least 60% sampling. The combination of this, the wide variation of fills and profiles within individual features, and the apparent continuity of alignment of features over some length of time, leads to considerable uncertainties in this particular case, and features are included here whose attribution to the enclosure is less than certain.

A great deal of time was spent, both during the excavation and afterwards, to attempt to correlate the excavated ditch lengths, time which, in retrospect, might have been better spent in large-scale excavation. In the end, it must be admitted that this enclosure is not fully understood, and although it is possible to match features in certain sectors, this cannot be carried all the way around the enclosure.

There appears to have been an entrance at all times just south of the north-east corner. This is the most confident statement than can be made about Enclosure 7; all subsequent statements about the behaviour of ditches assume that no changes, in terms of the appearance or disappearance of features occur between excavated lengths.

The latest feature was the ditch 859, running south from the north-west entrance to a butt at the south, level with the south side of the enclosure. At its south end, in S1005, it was clearly of two phases, 4156 recut by 4155, although only one was visible further north. The feature diminished considerably as it ran northwards, from an aggregate of 1.5m wide and 0.6m deep in S1005 to only 0.5m wide and 0.25m deep at the north end, in S854, but maintained a V-profile throughout. At first sight it is tempting to equate it with the 4201/1149/4056 complex which ran parallel with it 2m to the west but the two are separated chronologically by the intervening 3790/3791 complex. There is some doubt about this, since the sequence between 859 and 3790/3791 was seen only in plan within section 1005, and then only fleetingly. If that sequence were incorrect and 859 proved to be the earlier feature, then it would be possible to interpret it as an outer ditch of Enclosure 7 on the east side, but as things stand this is unacceptable, and 859 is unlikely to be part of the enclosure, but rather to perpetuate its alignment.

Ditch 859 is earlier than Enclosures la and 4, but later than features reliably assigned to Enclosure 7. Of the three sherds found in its fill, two were of Early Roman fabrics.

The south side of the enclosure was formed by at least three ditches, of which the latest, 1719/3790, emerged from below the outer ditch at the south-west corner running in a shallow curve to the south-east. It bowed to the south and curved slightly back to the north at the east end before vanishing under the south end of 859: it could not be traced further, but in plan was narrowing rapidly and could have been about to come to a butt. It could not be identified with any features along the west side of the enclosure, and could similarly have come to an end which was cut away by the ditch of Enclosure la. Its two ex-

posures (Fig. 14 S751 and S850) showed rather different sections, both generally V-profiled, but rather wider towards the east. Its fill included Early Roman fabrics.

Below 1719/3790, following a much straighter line and with a sharp right-angled corner at each end, 3791 formed the earliest surviving line of the south side of the enclosure; at each end two cuts could be seen, the earlier pair being 1717 at the west and 4158 at the east, and the later 4058 and 4159 respectively (Fig. 14 S753 and S1005). The simplest interpretation is that two cuts are involved all along the south side, and were indistinguishable in 3791; the differences in profile are of relatively little significance given the usual range of variation across the site. Only a single sherd of pottery, hand-made in an Iron Age fabric, was found.

Along the west side of the enclosure immediately north of the outer ditch of Enclosure la, two, in some places three, features ran at right angles to the line of 3791 on the south. The alignment between these and the south-west corner of the enclosure is not exact, and there is some doubt that they actually continue the features of the south side of the enclosure. Along the west side, however, there is the possibility of feature correlation, with the earliest in S754, 4285, being the same as 3892 in S915 and S943 (Fig. 15), linked by their deep, narrow profile. Thirty-five metres north of the corner, 4285/3892 ends in a butt, while the two U-profile ditches 4097 and 4096 run northwards. It is uncertain how these two related to 4286 in S754. Further north it seems likely that 4096 turned west as 4273, to disappear after 10m, while 4097 carried on to the north as 4274 to be cut by 4275 on the east.

Another group of features lay along the west side of Enclosure 6: 1591 came to a butt in the south, 12m from the 1719/3790 complex which formed the south side of the enclosure, and 5m east of the south-west corner. It ran at an obtuse angle to 1719/3790 and does not fit well as part of the same layout, yet it is parallel with the east side of the enclosure. It is tempting to equate 1591, as the latest feature on the west side of the enclosure, with 1719, the latest on the south, to give a staggered entrance, but there is nothing else to support this. Towards the north-west corner, 1591 and 4097/4274 combine to become 1474, which became very flimsy (Fig. 15 S965) over hard gravel, but regained its former proportions as it turned east as 1273.

Finds from all the features on the west side of the enclosure were sparse, with small numbers of Iron Age sherds from the two earliest features, 4285/3892 and 4096/4273, and early Roman fabrics with Iron Age from 4097, which predates 1591.

At the north-west corner, where 1474 became 1273, a gully, 1480, of shallow U-section, ran in from the west. In plan, 1273 clearly cut it, but since 1273 in plan may well represent only the latest cut of the enclosure ditch, it is possible that 1480 belongs to an early phase of the north side of the enclosure. Throughout the west part of its line it was not possible to distinguish more than a single phase in 1273 (Fig. 15 S1003) although it is unlikely, on the model of the rest of the enclosure that there was no more than one, and it is only in the easternmost 20m that three features could be distinguished. The three have been tentatively correlated between excavated lengths on the basis of sequences and profiles, and the result suggests rather irregular alignments, but they are acceptable given the



Fig. 13 Scale 1:500



Fig. 14 Scale 1:20

19



Fig. 15 Scale 1:20

20



Fig. 16 Scale 1:20

variation elsewhere on the site. The latest, 4104, was slightly shallower and narrower than its predecessor 4099, the south side of which it follows; the earliest of the three, 4100, was of similar proportions to 4099 (Fig. 17 S1016). At the north-east corner 4104 turned south and continued to the south and east as 1182, to a butt on the north side of the entrance (Fig. 15 S838). It is uncertain how 4099 and 4104 relate to 3770, if indeed they do at all, and it is possible, or likely, that one or both came to an end on the line of 104, the outer ditch of Enclosure 1b.

Finds were more frequent on the north side of the enclosure than elsewhere; pottery attributable to the earliest two features, 4104 and 4099, consisted exclusively of hand-made Iron Age types (Fig. 140 Nos 2-7) while the latest feature, 4104, and the undifferentiated 1273 contained both Early Roman and Iron Age types (Fig. 142 Nos 56-62).

The width of the entrance obviously depends on equating features on either side of it: if 859 and 1182 can be equated they define an entrance a little over 2m wide. If the earlier features 4099 and 4100 to the north, and 4201, 1149 and 4056 to the south can be correlated, and 3770 judged to be irrelevant, then there would be an earlier entrance between 4m and 6m in width. To its south, the east side of the enclosure was marked by three features on the same line, parallel with the later 859 which probably took its alignment from them. The latest of the three, 4201, a shallow, U-profiled ditch, was seen most clearly in S830 (Fig. 15) where it clearly cut the underlying fill. In S894, 7m to the south, it was tentatively identified with the layer 4257, but it could not be traced further south. The main part of the complex consisted of two major cuts at the south-east corner, 4158 and 4159, between which no sequence could be seen, but by extrapolation from further south 4158 appears to have been the earlier. Further north these same two cuts could be followed, 1149 recutting the earlier 4056; this was most convincingly seen in S894 where 1149 had removed most of the narrower, deeper, V-sectioned 4056.

The pottery from these features was almost entirely of hand-made Iron Age type, with a very small number of Early Roman fabrics included: where a stratigraphic distinction could be made these Early Roman fabrics were restricted to 4201 and to the uppermost fill of 1149.

Two other features were examined in the immediate vicinity: 1154, a gully eight and a half metres long, had

steep sides and an almost flat bottom (Fig. 16 S839). It certainly did not stand open for long, but contained no trace of timbers. Its fill contained many sherds of both Iron Age and Early Roman types (Fig. 145 Nos 117 and 117a), a group similar to that from 859 to the east; its function is uncertain.

An earlier gully, *1114*, (Fig. 14 S796) ran northsouth, cut by both 859 and by the 4201/1149/4956 complex. Its south end was not located, and its north end came to a butt at the entrance of Enclosure 7; however, there is no other reason to associate it with that enclosure. Its fill contained Early Roman pottery, including the rim of a butt beaker in micaceous grey ware (Fig. 146 No.141), which is incongruous since *1114* is stratigraphically earlier than the earliest aspect of Enclosure 7, which contained only Iron Age pottery. The Early Roman sherds, however, were all in the uppermost fill of *1114* which in section was indistinguishable from the top fill of 859 and the 4201/1149/4056 complex.

It is possible to suggest a partial phasing for the enclosure, based largely on the occurrence of Early Roman fabrics; this would allocate the latest form of the enclosure to Phase II, but a very early stage in that phase since so many other features of that phase clearly postdate it. This latest form, Enclosure 7b, consisted of *1591* and *4124* on the west side, was undifferentiated from early features at the north-west corner and along much of the north side, and was again recognized as *4104* and *1182* at the north-east corner. The east side south of the entrance was formed by *859*, and the south side was apparently unenclosed. As remarked above, although it is tempting to see the latest of the three features on the south side, *3790/1719* as the south side of Enclosure 7b, it is cut by *859* and so is stratigraphically impossible.

Enclosure 7a, then, consisted of the other features, forming a four-sided enclosure, with at least three phases of ditch-digging. At the north end of the west side there appears to have been an entrance for at least part of the life of the enclosure, in addition to the one at the north-east which lasted throughout its life. In the earliest recognised version of Enclosure 7a, 3892 stopped more than 20m short of the north-west corner; this was followed by the ditch 4273 which turned west, away from the main line of the enclosure, and which might be linked to 1480 to the north, also running off to the west, and thus possibly forming a ditched corridor, 20m wide, running to the


Plate X Enclosure 7, east side; section 873 from south



Plate XI Enclosure 7, west side; section 943 from south

entrance. In a third version the gap was closed, leaving only the north-east entrance.

The presence of Early Roman fabrics in the top of what otherwise appear to be Phase I features and the stratigraphically early date within Phase II for Enclosure 7b allow the following hypothesis: the main life of Enclosure 7 lies within Phase I, and only its final version, Enclosure 7b runs into Phase II. The date of digging of the latter could equally be in Phase I or II, but its filling belongs to the latter. The Early Roman pottery in features of Enclosure 7a, and possibly also an unknown proportion of those in 7b might belong to the final levelling of the site associated with the construction of Enclosure 1 in its two forms. The south side of Enclosure 7a was apparently still visible at a late stage in Phase II, when the inner ditch of Enclosure la was dug, since the latter appears to respect the line of 1719/3790, the latest feature of 7a at this point.

The function of Enclosures 7a and b is not all clear: Ring-ditch 2a is probably contemporary with it (p. 37) but there is no other sign of any obvious internal features, although relatively flimsy structures would not survive on a site of this sort. The finds from the enclosing ditches of both Enclosures 7a and 7b, including relatively large quantities of pottery, clay loom weight fragments and brooches, appear to be the result of domestic occupation, with only odd fragments of slag and crucible. Pellet moulds and moulds for other metal objects were almost completely absent, the quantity being negligible by comparison with the concentration in the adjacent and overlying Enclosure 23. It would certainly appear that this enclosure predates the main period of metal-working in this part of the site.

Enclosure 9

(Figs 17-18)

A complex of ditches within the later Enclosure 1 pro-

vided some initial difficulties. At first they appeared to be related to the enclosure in one of its forms, but proved to be earlier and to belong to a different layout of the site.

Enclosure 9 is perhaps a misnomer, since at most only three sides of a rectangular area are defined by the features involved, and it might better be regarded as a rectilinear ditch system. Its features were easily recognised, despite the fact that none of them were sectioned, by their comparative regularity, with a fairly standard width of 0.2m. As usual there was a marked tendency for them to appear and disappear, showing the variable depth typical of the site.

The enclosure appears to have been based on the gully 1382, from east to west, with a similar feature, 7632, 2m north of it at its east end. Adjacent to the south side of the former, 1005 appeared to be similar but was on a slightly different alignment and continued a further 20m to the east; it is therefore considered not to be part of this complex. Four further features ran south from 1382, for a maximum of 26m, and these, 7632, 7603, 1696, and 727, while not always continuous, divided the enclosed area into three strips, 16, 12 and 12m in width. On the west, 1382 projected almost 5m beyond the westernmost northsouth gully, with no trace of a further southern return. The north-east corner, on the other hand, was fairly well defined, although it was formed by 727 with 7632 rather than 1382.

At the south-west corner, the right-angled corner of 1383, and the parallel gully 1385, could suggest a 2m wide entrance defined by the two gullies. However the alignment of 1383 and 7632 is poor and 1385 is not parallel to 1382. While this may be expecting too great a precision, it nevertheless throws doubt on the south side of the enclosure, which may never have existed at all.

There were no datable finds from any of the features involved, but they predated features of Phase Ia, and the enclosure should be placed with Enclosure 6 early in Ia.



Fig. 17 Scale 1:500



Fig. 18 Scale 1:20



Fig. 19 Scale 1:200

Enclosure 10

(Figs 19-20)

At the north side of the excavated area a ditch with an obtuse corner may represent part of an enclosure. The ditch 1251, from a complex intersection close to the north balk, ran south-west and then turned west as 1413: at the west end of 1413 an apparent overlapping junction with 1414, formed by a pair of adjacent, tapering butts, appears to be, in reality, a slight southward swing breaking over a bar of hard gravel. The west end of 1414 was not properly defined, but the ditch seems to end around 17m west of the corner, and although 1414 here was aligned well with the north side of Enclosure 14, the finds suggest that the two are removed some distance from each other in time, and if they are to be associated can only be so by a continuation of the alignment from one phase of the site to the next. Thus the west side of the enclosure is uncertain.

The defining ditch was generally of a wide, weathered V-profile 1.3m wide and 0.4m deep. Phasing is not possible from stratigraphic relationships, but the fill contained a number of hand-made Iron Age sherds and a single one of grog-tempered ware, which would allow a date in Phase Ib.

The western continuation, *1414*, appeared to be running along the south side of Pit Group 1 and may have served as an enclosing feature for the group.

Enclosure 20

(Pl. XII; Figs 21-22)

In the south-east quarter of the site, astride Ditch *104*, was a quadrilateral enclosure with maximum dimensions of 35m both north-to-south and east-to-west. Its precise plan is something of a problem in that it appears to consist of two overlapping features, and there is some doubt as to whether it ever existed as a four-sided enclosure at any time.

The earliest feature which might belong to the enclosure was 6631 (Fig. 22 S1492), a short gully length which ran south from the west side of the later ditch, close to the south-east corner. This was steep-sided, of U-pro-file, and could not be traced more than the 3m from its butt, at which point it was cut away by ditch 4545, with no obvious continuation beyond it. The enclosing feature on the west side, 4545, was a fairly substantial V-profiled ditch 0.5m deep, with weathered upper sides and a resultant width of up to 1.3m, and a projected original width of 0.8m. Its fill was varied (S1492 and S1205), but contained nothing to suggest that it had not stood open for a considerable time, as suggested by the weathered profile.

At the north-west corner 4545 turned to the northeast, and shelved to a tapered butt. Beyond this was a causeway of at least 3m before the north side of the enclosure began. This was poorly understood since it ran along a line followed by several other ditches, including at



Fig. 20 Scale 1:20



Fig. 21 Scale 1:500

least one earlier and one later. At its west end, close to the causeway, in S1646, there were two features, the deeper 7128 and the insubstantial 7127. The former looked in section to be more like 4545 to the south, but only five metres east of the causeway, it became abruptly and severely constricted, where it ran through a patch of hard gravel, and in S1649 to the east 7137, its apparent continuation, was very much smaller, although still larger than 7127. Because the intervening length was left unexcavated it is not clear whether 7128 stopped at the constriction and the north side of the enclosure was formed by the continuation, slightly enlarged, of 7127, or whether 7137 is simply a shrunken continuation of 7128.

At the north-east corner, in S1650, a later gully, 7138, was seen running off along the line of the north side, but to the east of the corner. It is uncertain whether this feature also existed further west, perhaps as 7127 and the shelf on the south side of S1649.

The east side of the enclosure was apparently formed by 4658, which clearly continued 7137, and ran at a right angle to it, parallel with 4545, for 13m. At this point, the plan of the enclosure became less regular, as 4658 veered to the west and ran into the north side of the Phase III ditch 104. On the opposite side of 104, it seems likely to have continued as 4550, with a slight inturn, perhaps analogous with that at the north-west corner, and indicating a second entrance. However, at the intersection of 4658 and 104, the unexcavated surface showed what appeared to be a ditch running off at a right angle, to continue south of 104 as 6629, and then turning through 90° to the north-east as 4551, along the same line as 6611 (for which see below). How 6629 and 4551 relate to both 4658 and 6611 is uncertain.

Along the south side of the enclosure there were clearly two phases (Fig. 22 S1499), of which the earlier, represented by the rather V-profiled 6594 seems to be a continuation of 4658 from the north. It then continued to the south-west, deepening as it went, to join 4545 at the south-west corner. Here the base of the ditch was very irregular, and may have preserved the cuts of earlier versions of the ditch, the fills of which did not survive.

Thus the earlier phase of this complex, and the one most easily identifiable as Enclosure 20, consists of an enclosure, square on its west, north and the north of its east side, but with the south side and the south end of the east cut off obliquely. Access into it was through an entrance in the north-west corner, and possibly through a second in the south-east.

The function of the enclosure is unknown, with no surviving evidence of internal features. The fills of its ditches contained exclusively gritty, hand-made, Iron Age pottery, although none of it is worthy of illustration, and this dates it to Phase Ia.

A further ditch, 6611, ran from a butt just outside the south-west corner of the enclosure, cutting into the fill of the earlier 6594, continuing along the same line after 6594 swung away to the north, and meeting the corner of 6629/4551. 6611 had a rather U-shaped profile, similar to that of 6631 at the south-west corner, but the two were clearly of different dates. As 6611 ran east it became much less substantial, as did all the features of the enclosure: this is presumably the result of increasing erosion of the old ground surface towards the east in the south-east quarter of the site.

This ditch contained hand-made Iron Age pottery, in similar fabrics to those in the earlier ditches of Enclosure 20, and again none is worthy of illustration. The function of the ditch as an independent feature is difficult to guess: it may represent a partial recutting of the ditch of Enclosure 20, which would probably also have served



Fig. 22 Scale 1:20

27



Pl. XII Enclosure 20, south side; section 1499 from east

to rationalise the shape of the enclosure's south-east corner.

Enclosure 28

(Figs 23, 24)

Among the features of Phase I in the south part of the site was a group of ditches which, if not enclosing an area of land, at least defined one on two sides. The most substantial part was the ditch numbered 592 to the north of ditch 220 and 510 to the south of it, but surely a single feature some 15m long, with a swing to the south-west and its south end. It was of weathered U-section, deepening as it ran south, with only a single cut visible (S478 and S276). To the south-east it apparently continued, after a causeway 4m wide, as 492, of similar shape and proportions, which ran from north-west to south-east with a swing to the north at its north end, to produce a staggered entrance with 510. The slighter ditch, 494 (S268), may well represent an earlier, and less staggered form of this entrance. The gully 209, earlier than 492 and running south-east and east from its butt, could plausibly be seen as a continuation of 494, to form a south side of Enclosure 28 in its earliest phase, a south side which either disappeared in the second phase or which had a further entrance in the second phase, beyond the south-east end of 492, and which was not distinguished in the line of 209. The latter then disappeared under the north ditch of Enclosure 20, which thus post-dates it, 32m east of the staggered entrance.

To the north, beyond the north end 592, the continuation of these ditches might be found in 620, which would demand another staggered entrance and a change in alignment. This, no more than hypothesis, would date Enclosure 28 earlier than Enclosure 2, in Phase Ia.

The pottery from the various ditches of the enclosure contained exclusively hand-made Iron Age pottery, with a predominance of gritty fabrics which might suggest a relatively early date. Considerable quantities of fired clay moulds, crucibles and hearth-lining were found in 492, 494 and 510 on either side of the staggered entrance, but this material and the pottery assemblage was indistinguishable from that found in the earlier, adjacent, pit 2640, and thus is likely to be residual from it, or in view of the relatively small amount of fill of the latter disturbed by 510, derived from the same source as the material from the pit, presumably a ground-surface or topsoil deposit.

Enclosure 29

To the south and west of Enclosure 28 a gully enclosed a further area, at least 47m from north-to-south, and between 15 and 26m from east-to-west. The west side was clearly defined by the gully 596, which emerged from the south side of the Phase II ditch 170, north of which it could not be traced, and ran south, along a slightly serpentine course. Beyond 220 it continued as 518, with a diversion 3m to the west, apparently respecting the outturn of the entrance into Enclosure 28; further north this gully cut through the fill of the ditch of Enclosure 28, with which it converged, and it is possible that it was the remains of the pit 2640 that was being respected, or some vanished surface feature, perhaps connected with the metallurgical debris found in both 2640 and in the ditch of Enclosure 28. Further south a gap coincided with a change in direction, whence the gully, now numbered 369, continues along a much better and straighter line due south. The gap between 518 and 369 appears to be too narrow for an entrance, and yet the ends of the two gullies were abrupt and appeared to be deliberate. A change of work of some sort is indicated.

Further south, 369 turned a radiused corner to run along the line later followed by the north edge of the Phase III ditch 104. It could be traced with certainty for some 15m, and if it is to be seen in the northward thickening of 104, ran on for 26m beyond the corner.

Although 369 was a little deeper than 518 and 596 the gullies were similar on both sides of the gap; it was 0.4 -0.6m wide, 0.075-0.2m deep and well weathered. Only 369 contained any finds, two sherds of Iron Age pottery, and stratigraphy would allow Enclosure 29 to be placed at any stage in Phase I after Enclosure 28, or even, although less convincingly, early in Phase II. The change of work on the west side is enough to suggest two phases, probably beginning with the southern part, the two sides of 369, later extended to the north as 518 and 596; with this model in mind, the line of 518 is dictated by that of 369, and the dog leg opposite the entrance into Enclosure 28 no longer appears to be respecting features at that entrance. If anything is being avoided, it must have been to the west of the line, in an area singularly devoid of features. Perhaps that very absence of sand-cut features is significant, and it is possible that a major obstruction on the surface around grid reference 580/540 was avoided by all features of Phase I and the early part of Phase II. It was not until the major engineering works of Enclosure la late in Phase II that this obstruction was breached or swept away. This hypothetical obstruction could take many, equally hypothetical forms, either conceptual, a plot of land which for social or other reasons was not to be trespassed on by activities such as ditch digging, or physical forms, a ground-based as opposed to earth-fast structure, a natural sand-hill, or a gigantic manure heap.

The purpose of the original form of the enclosure and that of its extension is, as usual on this site, unclear, with no obviously enclosed features and no trace of the north and east sides.

Pit 2640 and the metal-working area

(Fig. 140)

Immediately south-east of the out-turn of ditch 510 at the entrance into Enclosure 28 was a large rectangular pit predating the enclosure ditch. It was 3m from east to west and 2m from north to south, with straight, almost vertical



Fig. 23 Scale 1:200

sides showing some weathering, and rounded junctions with the flat base, giving a 'bath-tub' plan and profile. It was the only excavated pit of its type on the site, and its filling was similarly singular, with deposits of sooty soil and charcoal, and metallurgical debris, in the form of fragments of clay moulds and crucibles in layers 2649 and 2742. The pottery was exclusively of Iron Age fabrics, with the gritty fabrics predominating, possibly indicating a relatively early date on the site (Fig. 140 Nos 11 and 12).

The metallurgical debris, while in fairly small quantities, was securely attributed to the fill of the pit, which appeared to have been deliberately deposited in a relatively short space of time. Similar material was found in the fill of 510, the ditch of Enclosure 28, which cut the pit, and in 510 it was vertically distributed throughout the fills of that ditch, but confined to its southernmost five metres.

This suggests that the metallurgical material from

510 was in fact residual, and possibly derived from the fill of the earlier pit. However, only a small volume of pit fill would have been removed by the digging of the ditch, and the quantities of material are so disparate that it is more probable that the two groups are derived from a common source, a surface or topsoil dump of debris which was then used to fill both. Thus there is no proof the pit was used in connection with the metallurgical activity that produced the debris.

Predominant among the material were crucible fragments, including one complete example and several which were more than half-complete. Estimates by weight suggest that a minimum of twenty individual vessels were present, and with the exception of two apparently unused examples, all that were analysed had traces of copper, and many of them traces of tin in addition. Sixty-five fragments of clay moulds were found, representing perhaps five or six moulds in all, including



Fig. 24 Scale 1:20

30



Plate XIII Hearth 604, in Enclosure 28 complex, after removal of fill, from west

two fragments from the mouth of a sprue-cup, one fragment for an object with a convex curved, knobbed surface, and another for an object with a concave curve.

Fragments of hearth-lining showed no trace of metal, and while the crucibles and mould fragments attest a bronze-casting industry, the hearth linings are not firmly associated with it.

Three features with associated burning were found in the vicinity of the pit, within the line of both Enclosures 28 and 29. 504 and 498, the nearest, were shallow, oval pits with sooty fills, and with their sides burnt red. Twelve metres to the north-east, 604 was a more substantial structure, a bowl-shaped hearth sunk into the natural sand, consisting of a circular base of fired clay 0.85m in diameter, with the remains of a layer of heat-reddened sandstone cobbles resting on its concave upper surface (Pl. XIII). To the south of 604, still within Enclosure 28, a further bowl-hearth was excavated, 5826. A fragment of fired clay in its fill contained traces of copper, but in no other case did the fills of these features contain any material to suggest their functions, and whether they were metallurgical, domestic or agricultural is unknown, as are their precise dates.

Building 9

(Pls XIV-XV; Fig. 25)

In the south part of the site, within the area of Enclosure 26, an elliptical area 7.8m from north to south and 6.5m from east to west was defined by the gully *4631*. Two gaps through the gully, one on the south 1.8m wide, and second on the east, 4m wide, appear to be deliberate, rather than the result of the gully petering out over hard natural. Nevertheless, there was considerable variation in the size and profile of the gully, ranging from the very insubstantial square profile in the middle of the west side, as in S1212 to a much deeper and wider feature on the south and east sides, as in S1294 and S1215. The fills were unremarkable, apart from a few charcoal flecks, and fragments of the burnt sandstone cobbles from which hearths on the site were constructed, in *6502*, the upper fill in S1215.



Fig. 25 Scale 1:100



Plate XIV Building 9 and west side of Enclosure 20 from south



Plate XV Building 9 and west side of Enclosure 20 after excavation

Although the whole of the gully was excavated, less than twenty small sherds were found, certainly not enough to suggest any intensive domestic activity. All were of hand-made Iron Age types, and a Phase I date is thus probable. The position within Enclosure 26 is therefore likely to be coincidental. Despite the absence of direct evidence for domestic use, the most likely explanation of the gully is that it is the remains of a building. The gully itself contained no suggestion of any structural remains, so is probably an eavesdrip gully rather than a wall-trench. The absence of any internal features comparable with those of the later circular buildings 1-3 (see below p. 00) indicates a different structural technique if this is to be a circular or oval timber building. However, the evidence is hardly unequivocal, and other interpretations, such as a haystack, are possible.

Ditches 681 and 1374

(Figs 17, 18)

Two substantial gullies, joining at a right-angled corner, were clearly distinct from Enclosure 9, which they cut. They lack a north and east side to form a rectangular enclosure. At its north end, 1374 disappeared into the fill of 170, the inner ditch of Enclosure Ia, and ran south for 56m before turning east as 681, which stretched a further 35m to the east. A gap of 6m, within the line of Building 4, appeared only after surface cleaning removed a shallow layer of fill, and it was therefore assumed that 681 simply had an irregular depth. However, excavation of the easternmost length showed that the gully was comparatively substantial and showed no signs of shallowing at its west end, but rather terminated quite abruptly.

Since there does appear to have been a length of very shallow gully joining the two main stretches, this must be attributed to a more than usually severe variation. In view of this, the gaps in the line of *1374* need not indicate entrances.

The gullies were generally of a weathered U-profile, 0.5m wide and 0.2m deep with the fill displaying considerable local variation. In the excavated lengths of 681 the fill contained only hand-made, Iron Age-type pottery. In 1374, on the other hand, Early Roman fabrics were well-represented, but only in the uppermost fills. Since the corner between 1374 and 681 was fairly confidently recognised, although unexcavated, it is reasonable to assume that the two ditches are continuous. Thus it would appear that both belong to Phase I and that the Phase II pottery in 1374 belongs to a period when the gully was out of use and all but full.

This has interesting implications for the interpretation of the use of the buildings, which are discussed below.

Features 152 and 583

Two gullies, each describing arcs of circles, were discovered in the south part of the site, within the line of the Phase II Enclosure 26, but not necessarily contemporary with it.

Feature 152



A flat-bottomed, straight-sided gully, with little sign of any weathering. In the excavated portion it was generally 0.6m wide and 0.3m deep. To the north-west it was lost in the area of severe disturbance, and in the south-west the gully disappeared in patches of hard natural. Time and weather conditions did not allow adequate examination of the area immediately west where the feature would be expected to return. If it did complete a circle, its diameter would have been around 8m. Enough pottery, all of hand-made, Iron Age type, was found to attribute this to Phase I.

The absence of any obvious internal features is not definitive: as with the western projection of the gully, the interior received less attention than would otherwise have been desirable. It is therefore not clear whether 152 is best compared with the larger circular buildings of Phases II and III or the smaller, putatively funerary, ring-ditches of Phase II, in the northern part of the site. However, patches of lightly burned clay and of charcoal in its fill would suggest domestic activity nearby, if not strictly associated with its use.

Feature 583

(Fig. 27)

A \overline{V} -profiled gully, forming the southern part of a rough circle, around 8m in diameter. The single excavated section revealed a profile with weathering towards the top, 0.3m wide and 0.05m deep. In this case the east end of the gully petered out, but the west, as far as could be ascertained without excavation, came to a deliberate butt. To the north, a general absence of features suggests that over-machining may have removed its continuation. The gully 583 can only be dated from the last remnants of a stratigraphic sequence, in which it was cut by the innermost of the Phase III fence-slots. No finds occurred in its fill. Within its arc, however, was a small circular pit, 587



Fig. 26 Scale 1:100



Fig. 27 Scale 1:20



Plate XVI Pit 587 in section, from north-west

(Pl. XVI), straight-sided and flat-bottomed, containing a large sherd of an Iron Age bowl (Fig. 140 No. 22). On this basis the pit can be tentatively attributed to Phase I, but a Phase II alternative for the gully is still possible.

Pit 131

(Fig. 26)

One of the very few large, deep pits on the site was 131, close to the south edge of the excavated area. It was roughly circular, nearly 2m across, with straight, almost vertical sides. The fill was generally dumps of sand and sand-loam, with sooty lenses at the base, and the remains of a lightly fired yellow clay lining on the base and lower sides. The discovery of charred and fused cereal grains in the lowest fill confirms that this was used for grain storage. The pottery, in which the gritty Iron Age fabric predominated, allocates it to Phase Ia.

Two other pits, 670 and 723 to the north were of

similar type although a little smaller. Neither produced any dating evidence nor any evidence for use as storage pits, but they are included here in Phase I for ease of comparison with 131.

Ring-ditches

Although the ring-ditches in the northern part of the site are predominantly of Phase II date, at least one, Ringditch 2a, appears to be earlier in date, as is discussed below. Of the others, Ring-ditch 3 predates its neighbour to the north, 4; the latter in turn clearly predates the Phase III Enclosure 1b, so either Ring-ditch 3 is contemporary with 2, or the Phase II ring-ditches must be considered to have been in use for some considerable period. Pottery of Early Roman types occurs in the upper filling of the ditch of Ring-ditch 3, in one section where no distinction was drawn between upper and lower fills, so the possibility of a Phase I date cannot be ruled out. However, the weight of evidence is in favour of the later date, and so No. 3 is considered at a later point in the report.

Ring-ditch 2a

(Figs 29-30)

An elliptical area, 6m north to south and 5m east to west, was enclosed by the ring-ditch, *1067*. On the north, west and south sides, where it was dug into sand, the ditch had a slightly rounded V-profile, 0.4-0.6m deep, with weathering lips so that its surviving width of 0.9-1m probably represents an original width of 0.5-0.7. On the east side, it was of slighter proportions, particularly in the



Fig. 28 Scale 1:20



Fig. 29 Scale 1:100



Fig. 30 Scale 1:20

south-east where it was dug into the fill of earlier features. The ditch was filled, apparently in a single operation, by dumped soil which contained only pottery of hand-made, Iron Age fabrics, suggesting a Phase I date, and it was certainly full when it was replaced by the Phase II subsquare Ring-ditch 2b.

It is difficult to be sure which of the features within the line of Ring-ditch 2a can be associated with it. Five small pits/post-holes were excavated, of which one pair, 3464 and 3480, were roughly central. The grave-shaped feature, 3315, contained pottery which attributes it to Phase II, and hence to Ring-ditch 2b; so unless it is argued that the replacement of Ring-ditch 2a by 2b also involved severe disturbance of the grave fill, for which there is no evidence, it would appear that this Ring-ditch contained no below-ground burial, and may indeed not even be funerary.

It appears likely that the feature is contemporary with Enclosure 7a, in that both Enclosure 7 and Ringditch 2 span the Phase I/II transition. So unless there is a gap between phases in either case, Enclosure 7a is likely to be contemporary with Ring-ditch 2a and 7b with 2b.

Pit groups

Pits were sufficiently uncommon on the site for the group in the north-west corner to stand out very prominently, and to appear immediately as a distinct and fairly homogeneous element.

Pit group 1

(Pl. XVII and Figs 31-32)

Forty-nine pits were spread over an ovoid area roughly 25m long by 14m wide, and while they were not perfectly spaced, it is clear that a considerable effort was made to avoid intercutting: there is the obvious exception, 3363 which cut 3058, and two which appear to be contiguous on the surface, 3297 and 3486; these two, however, would almost certainly have separated in pre-excavation cleaning. A degree of patterning is detectable, with some grouping by size, such as 2101, 2102, 2110 and 2106, all relatively small, at the west end, and the suggestion of a curving line of pits defining, with the exception of two outliers, the east and south sides of the group from 1799 on the north-east, to 2126 at the west end of the south side.

The pits showed a considerable variation in size from 0.55m in diameter and 0.15m deep to 2m in diameter and 0.6m deep. The impression gained from the plan of two or three apparent sizes was not supported by the scatter diagram (Fig. 33) which shows no apparent clustering. With the exception of the two shallow pits, *1868* and *1875*, they were flat-bottomed with straight, often vertical sides, and in many cases had been dug through sand as far as the top of a layer of hard orange gravel which underlies the sand in this part of the site.

The overall impression is of a group of features which were not allowed to stand open for long, and which were either dug at the same time, or were marked after backfilling so that subsequent pits did not cut them. With the exception of 1791 and 3297 which contained Romanised pottery in their upper fills where they had been cut by later features, the sherds from pits were entirely of Iron Age hand-made types, apart from a handful of indeterminate prehistoric and LNEBA/Bronze Age sherds. Other finds included one fragment each of crucible and fired clay loomweight, and three iron objects (including Fig. 121, No. 12). A Phase I date can be attributed to this group of features with some confidence, but their function is uncertain: they are too small to fit into the normally accepted group of storage pits and their size, spacing and regularity would suggest that they are not quarries. Their spacing and size might suggest that they were planting pits for trees or shrubs, but the sides and bottoms showed no sign of root activity. This leaves large post-holes as the most likely explanation, although no traces of any packing survived. If they were post-holes they could only feasibly represent an array of standing posts: certainly it would be difficult to reconstruct a building on the basis of their plan.

Pit group 2

(Pl. XVIII and Figs 34-35)

A second group of pits lay 15m to the north-east of the first: this consisted of eleven pits in an area 9m long and 5m wide on a similar alignment to that of group 1; two outliers, *1743* and *1749* lay some 7m to the west. The main group showed some signs of careful positioning, but less so than in group 1: the three central pits, *1419*, *1423* and *1425*, were rather closer together than the rest, but still there was no intercutting and the outer pits showed some uniformity of spacing. In diameter they ranged from 0.5m to 1.6m and from 0.2m to 0.7m in depth. Again as in group 1, the deeper pits had a tendency to flat bottoms and straight, almost vertical sides, while the shallower ones were more rounded.

Only one contained a substantial group of pottery, *1749*, which consisted entirely of hand-made gritty Iron Age material (Figs 90-95), but the odd sherds from the other pits also pointed exclusively to a date in Phase Ia. The comments above regarding the function of the pits in group 1 equally apply to group 2. It is surprising, in view of their similarity, that the two groups should appear to belong to different subphases.



Plate XVII Pit group 1; pit 3486 in section from north



Plate XVIII Pit group 2; pit 2087 in section from west



Fig. 31 Scale 1:100

38



Fig. 32 Scale 1:20



Fig. 33 Pit group 1, scatter diagram of dimensions



Fig. 34 Scale 1:100; for Section 609 see Fig.68



Fig. 35 Scale 1:20; for Section 609 see Fig.68

Ditch system 2

(Fig. 36)

A group of right-angled and parallel features in the central and southern part of the site form a coherent pattern. Two parallel ditches, 804 and 676 appear to define a track 3m wide, running south for a distance of 35m, before 804 turns west as 725; 676 continued 30m to the south, to turn west under the line of the inner ditch of Enclosure 1a, which clearly cut it. The alignment of 2292 with 725 suggests that the two should be associated, and these, with 574 and 522 may be traces of a system of land division analogous with that discussed above.

Since 725 predates Enclosure 2, the 725/804/676 complex can be assigned to Phase Ia, and possibly 522 and 574 with it.

V. Phases II and III

These two phases of the use of the site are differentiated from the preceding phase by the presence of Romanised pottery: while they may be distinguished from each other in terms of the development of the principal enclosure, 1, no distinction can be made in the finds; indeed, considering the relatively short time involved (see below p. 9), this is no surprise. Consequently there are two distinct mechanisms of phasing involved, by finds and stratigraphy, the distinction between Phase I on the one hand, and II and III on the other, being based largely on finds, while that between II and III is stratigraphic.

The differentiation of Phases II and III rests on the evolution of Enclosure 1: a major reconstruction produced the much larger Enclosure 1b of Phase III, overrunning many of the structures clustered around the Phase II Enclosure la. So these structures and Enclosure la itself are the only ones which can be confidently ascribed to Phase II rather than Phase III, and structures and features outside Enclosure l could equally belong to either phase. The latter are therefore shown on both phase plans, but for convenience they are described and the finds are catalogued as Phase II rather than Phase III, since the former appears to be the period of greater activity.

VI. Phase II

(Fig. 37, vol. 2)

While the plan of the site in this phase is clearly dominated by Enclosure la and the associated Enclosure 26, they are surrounded on the north and west by a number of enclosures, some of which, while belonging to Phase II on the basis of their pottery, are stratigraphically earlier than Enclosure la, and, as has been discussed above (p. 189) may in reality be of Phase I. However, the overwhelming impression is of a landscape of enclosures surrounding, and largely contemporary with, la and 26.

Enclosure 1a

(Pls XIX-XXII; Figs 37-43)

A double-ditched enclosure was constructed over the lines of earlier backfilled features. It was almost square, with external dimensions of 110m from east to west, 102m from north to south, and an enclosed area of 0.4ha. On the west and south sides the two ditches were roughly parallel; on the north and east the inner ditch deviates, by bowing inwards on the north and outwards on the east at the entrance.





Outer ditch

(Pl. XIX; Figs 38-39)

Three sides of the outer ditch remain putative: on the north, west and south it is assumed that ditch 220, the inner ditch of the Phase III Enclosure 1b is a reuse of the Phase II original. Since there is no trace of any recutting, it seems likely that the Phase III ditch was essentially the same as its Phase II predecessor, which is confirmed by the similarity of proportions of 220 where it follows the Phase II line to those of the surviving lengths of the Phase II ditch, 4576 and 4738, which did not continue in use. These two parts of the east side of the ditch, respectively south and north of the entrance, were substantial ditches, 5m wide and 2m deep, with straight, relatively steep sides. The only irregularities in section appeared at the base, caused not by weathering, but by areas of large flints in the natural sand. Quantities of these flints seem to have been removed during the digging of the ditch, leaving an irregular profile. The natural sand at this depth was rather clayey and therefore has retained the unexpected shapes, but the profiles also suggest that the ditch was not open for any great length of time.

At the entrance, midway along the east side, the ditch terminals were roughly squared off, with steep, unweathered sides running down from the causeway to the base of the ditch.

The filling of 4576 and 4738, which marked the end of Phase II, consisted of many thin layers of sand, or more precisely sand-silt-loam, and gravel. These layers contained a much higher proportion of flint nodules and fragments than is normal on the site and the matrix of each layer was siltier than usual, suggesting that the material had been deliberately selected for this purpose. The upper 0.2-0.3m of fill were much more compact and harder than the fill of other ditches, and it appears that at least the top fill had been deliberately consolidated in the extension of the enclosure at the Phase II/III transition. The presence of a 4m wide counterscarp, or a dump of debris from the cleaning out is suggested by the gap between the outer lip of 220 and the butt of the ditches of Enclosures 4 and 26 (p. 64).



Plate XIX Enclosure la, outer ditch in section 1556 from south; backfilled at the end of Phase II



Fig. 40 Scale 1:20

'Outer Rampart'

(Fig. 38)

A narrow, shallow gully (618) ran parallel with the inner lip of the outer ditch. It was only ever observed in relatively short stretches, and only on the north side was a considerable continuous length, some 60m, observed. The discontinuity is a result of its flimsy nature, the characteristic reduction of size of features where they pass over hard natural and the difficulty of tracing it through complex areas of, presumably, earlier features. It varied in width from 0.1 to 0.2m and was up to 0.15m deep. In its best preserved lengths (S1253) it had steep sides and a flat bottom and appeared not to have been open for long. Where less well-preserved (S1022) it had a shallow, dished profile, which was probably more the result of animal disturbance than the original profile of the feature.

There were no signs of post-holes or post-pipes associated with the feature, but its section, relatively unweathered, might suggest earth-fast posts. The 5m interval between the gully and the inner lip of the outer ditch, and an interval of 5 to 7m between the gully and the



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Fig. 41 Scale 1:200

outer lip of the inner ditch, is uncomfortable. There is not sufficient space for a substantial rampart using this gully either as its front or back. This, coupled with the relative shallowness of the gully and the comparatively narrow, 10m berm between the inner and outer ditches, suggests not a large, reveted rampart, but perhaps a low bank, with a fence embedded in it.

Inner ditch

(Pl. XX; Fig. 43)

The inner ditch of Enclosure 1a (170) enclosed an area approximately 70m×60m with a 5m causeway in the middle of the east side. The west and south sides and southern half of the east side were regular, promising an interior $72m \times 61m$, but the north side bowed to the



Fig. 42 Diagrammatic plan of Enclosure la entrances



Plate XX Enclosure la, inner ditch, section 542, from west

south, to avoid the south side of Enclosure 7b, and was only 67m long. Therefore the northern half of the east side was at an obtuse angle to the north side, to arrive at the proper position for the entrance. The bowed north side indicates that the south side of Enclosure 7b was still visible when 170 was dug, and it similarly respected the north side of Enclosure 6, which was out of use but must still have been obvious. This implies that there was no rampart inside the line of 170.

The ditch section was fairly regular, 3.2-3.4m wide and 1.2m deep, of a rounded V-section, except in S843, immediately north of the entrance, where it was reduced to 2.3m wide and 0.8m deep. The profile usually showed some signs of weathering, with, in some instances, the lowest part of the sides steeper than the upper. This was usually confined to the lower 0.1m or so, but appears to represent the unweathered ditch sides rather than a cleaning slot.

The layers of fill were localised, with lenses of sand or sand-loam dumped in from both sides in a deliberate filling operation. Only on the north side, for example in S833, was there any uniformity in fill, with sand at the bottom (3798 in S833), a principal fill of sand, largely wind-blown, with few stones (3779 and 3780), and an upper fill of stony sand and sand-loam (3684 and 3778). In S833 a localised thin layer of burnt soil with large quantities of charcoal (3781) extended down the south side of the ditch between the lowest sand and the main fill. This layer gave a radiocarbon determination of 50 b.c. \pm 70. The burning does not appear to have taken place *in situ*, and is likely to be the redeposited remains of a fire of some date in first or second century BC or first century AD. It is probable that this layer and those above it are all secondary, used simply to level off the ditch at the end of its life, at the end of Phase II. In many sections all around the perimeter there are concentrations of flints in the uppermost fills, (*e.g. 4198* in S843 and 3631 in S804), suggesting some deliberate attempt at consolidation, but never as thorough nor as successful as in the outer ditch.

The entrance

(Pl. XXI; Figs 39-41).

A single entrance through the middle of the east side led into the enclosure. The causeways across the ditches, 4.8m wide across the inner and 7.5m wide across the outer, were planned around the east-west axis of the enclosure. However, the gateway structures on the causeways were not laid out with the same respect for the overall planning of the enclosure, and deviated both in line and in spacing.

The constituent parts of the entrance structures can only be identified by the way in which they correspond to a sensible pattern; except where features are cut by, or cut, others which are *prima facie* part of the entrance, any features in the area are possible candidates. Such interpretation therefore is severely biased towards the writer's experience of other such structures, and it is possible that features have been excluded from this interpretation which actually formed part of the structure, simply because they could not be made to fit in to his pre-existing models.

Among the features accepted in this way, there are some which cannot be contemporary with each other; notably, on the south side of the outer entrance 5982 cuts 5112, which in turn cuts 5346, indicating at least two, if not three sub-phases of construction, while on the north side the gully 5312 cut 5295. As will be argued below, a two-stage entrance seems most likely; both these subphases, Entrance i and ii, have been attributed to the Phase II Enclosure, on the circumstantial evidence that the outer ditch through which the entrance passes was filled at the end of Phase II, and on the assumption that such an entrance structure would only exist in conjunction with an open ditch. There is of course, no reason why a free-standing structure should not have been constructed in Phase III on the site of the Phase II entrance, and this might explain the disparity between a singlestage inner entrance and a two-stage outer entrance, but the simplest hypothesis is to attribute both Entrances i and ii to Phase II.

Given the two stratigraphic relationships noted above, the two subphases of the outer entrance have been worked out on the rather subjective principles remarked on above, attributing individual features to the phases where they 'fit best'. The exceptions, the gullies *5112* and *5118*, could equally belong to either entrance and are thus shown on both plans. This should not be taken to mean that they were in use in both phases.

The outer entrance, in its original form, i, is dominated by a pair of large rectangular features, 5114 and 5346. Each consisted of a broad shallow ramp, a little over 2m long and wide, leading down to deep narrow slots, 1.2 and 1.4m deep respectively. These would appear to be long, narrow post-sockets, aligned north to south, with ramps, probably for the removal of the posts, dug against their east sides. 5114 clearly had two sockets in its base, each 0.7m square at the bottom, suggesting a pair of posts with a gap of around 0.3m between them, aligned north to south. The slot in the bottom of 5346, the southernmost post-hole, was much narrower so that the posts could have been no more than 0.35m from east-to-west at the base, but could have been as much as 0.9m broad. The posts would have been 5m behind the inner lip of the outer ditch, and roughly aligned with the slot which marks the line of the outer 'rampart'. It would appear that they were deliberately removed, which might account for the excessive width of the sockets in 5114, perhaps caused by rocking the posts more than was done in the case of 5346, and thus the filling of these features represents the end of Entrance i.

A pair of gullies, 5295 on the north and 5906 on the south, ran from just east of the large post-holes and in a slight outward splay, 2m and 1m respectively beyond the outer lips of the ditches. These were generally 0.4m wide and deep, with nearly vertical sides, and appear to have held timbers, although no individual sockets or impressions were found. Between them they defined an entrance corridor tapering from 9m to 5m in width. To north and south of these gullies were the butts of the outer ditch, 4576 and 4738, originally slightly squared, separated from them by a narrow interval.

A pair of post-holes, 5882 and 6976, lie evenly spaced between the west ends of the gullies, dividing the entrance at this point into three passages of equal width. They were apparently dug for posts up to 0.4m in diameter. Their attribution to Entrance i is based on their relationship to the gullies of this subphase.

These then are the features which can be most convincingly attributed to Entrance i, which would consist of a tapering entrance corridor, defined on both sides by fences, across the causeway through the outer ditch. At its end the corridor is divided into three by a pair of freestanding posts, and three metres behind them a gateway defined by a pair of massive posts on each side, quite likely with no gate hung on them. However, the features of Entrance i contained a larger number of iron nails than is normal for the site, and while there is unlikely to have been gates, there may have been some sort of structure, perhaps in the form of cross pieces, between otherwise free-standing posts. If the hypothesis of an outer 'rampart', in reality probably much more of a bank with a fence embedded in it, is correct, then the gateway proper will have coincided more or less with the fence, and possibly the end of the entrance corridor with the front of the bank.

Entrance ii appears to have been much less substantial; a pair of post-holes, 5887 and 5982, were located further forward than the posts in Entrance i, 2m behind the inner lip of the outer ditches. They were subrectangular, 1m×0.5m and 1.5m×0.9m respectively, each 0.4m wide at the base. If they contained single posts, these were up to 0.4m in diameter with a space of about 3m between them. A pair of gullies, 5312 and 5393, ran along the causeway flanking the entrance. Like the gullies in the earlier entrance, these start just outside the inner ditches, but whereas the southern one ran up to the southernmost post-hole, the northern stopped 3m short of its counterpart. These gullies were shallow, narrow and U-profiled, and unlike their predecessors, seem unlikely to have contained timbers. Thus the entrance seems to have consisted simply of a pair of posts, approached by a pair of flanking gullies.

The later entrance seems to have been very different from its predecessor; the size of the posts and their relationships to the gullies suggest a less substantial and less well-planned arrangement. This could certainly be taken to cast doubt on the attribution of Entrance ii to Phase II, since such a marked change in the nature of the entrance structure seems out of character with what went before. Nevertheless, any attribution to Phase III is less acceptable, since the outer ditches had been backfilled completely at the end of Phase II and thus the gullies, which have been associated here with Entrance ii would be difficult to explain.

The inner entrance, in both sub-phases, consisted of a 4.8m causeway between the rounded butts of the inner ditch 170. The north arm of the ditch ended in a ledge 0.1m deep with an oval feature (7603) of rounded V-profile, 0.4m deep, at the east end. In S659 the ridge between the ditch and the oval feature is all that remains of this ledge. To the east, the end of the ditch turned into a slot 0.2m deep and 0.6m wide (3437) running a short distance south into the causeway, and then turning west. In the bottom of this, and about halfway along its length, was an oval post-hole (7539) 0.4m \times 0.6m and 0.45m deep in all.

The south arm of the ditch had no corresponding ledge or feature, but rather a weathered lip, separated by an interval of 0.1m from an east-west gully (3627) which starts beyond the outer lip of the ditch and runs back a



Plate XXI Enclosure la, outer entrance, from east

distance of 5m to the post-hole *3625*. Although rather rounded in profile, this gully, 0.5m wide and 0.3m deep, seems not to have been open for long, and might have contained timbers. The post-hole *3625*, up to which it ran, was roughly rectangular, lying north-west to southeast, at about 45 degrees to the axis of the enclosure, 1.3m long, 0.9m wide and 0.5m deep. It had the irregular profile and homogeneous fill of a post-hole from which any timber had been removed.

It is not clear how this entrance structure might have worked. The south post can be assumed to have stood in 3625, and it seems likely that a north post stood in 7539. However, 7603 is closer to 3625 in shapc and size, and perhaps this, or both features, contained corresponding post or posts on the north side. Whichever is the case, a gate across the inner entrance must have stood obliquely, with its south side well back from the inner lip of the ditch. The intervening gap was filled by the gully 3627 which is likely to have held vertical timbers. The function of the slot on the north side, 3437, is less certain.

Other features shown on both plans present problems; two north-to-south gullies run across the ends of the entrance corridors of both Entrances i and ii. Only one of these, the westernmost, 5112 has any stratigraphic relationship with other features, and post-dates the filling of the post-hole 5346 of Entrance i. Its northern end was originally seen in plan, cutting through the fill of the corresponding post-hole on the north, 5114, but by the time the latter was excavated had either been cleaned away or was not recognised in excavation. If the ramps in these post-holes are truly for removal of the posts, then 5112 is later than the end of Entrance i, and yet it is cut by post-hole 5982, which is attributed to Entrance ii.

There are several possible explanations for this: 5982 does not belong to Entrance ii; 5112 represents a phase between the two entrance structures of i and ii; the ramps on the east side of the post-holes of Entrance i belong to the installation of the posts and not their removal, demanding that the sections of the post-holes were mis-read during excavation. The second is perhaps the most likely, that 5112 was dug, perhaps temporarily, to block the entrance after the removal of the posts of Entrance i, and backfilled before the erection of the posts of the second

stage. Its shallow U-profile suggests a rather flimsy nature, rather less substantial than 5118, more or less parallel with it, and east of the entrance corridor. The latter, with its weathered V-section seems also to have been a gully rather than a timber slot or fence trench. The correspondence in plan between these two might suggest contemporaneity and a similarity of function, but the position of 5118, outside the entrance corridor, with substantial gaps between it and the east end of the corridor fence is much more difficult to explain.

The regularity of layout of the entrances is of some interest (Fig. 42). Careful planning is most evident in the ditches. The lines of the outer ditches and the south part of the inner ditch are parallel. A perpendicular to this alignment forms the axis of the causeways across the ditches, and the butts of the ditches are located symmetrically about this axis. Inspection of the plan shows that in the north arm of the inner ditch, it is the end of the deeper part, rather than the ledge and the feature 7603 which fits into the regular spacing. On this basis, the ends of the outer ditches are set back beyond the line of the inner causeway, by 1.4m on the north and 1.3m on the south — near enough to be regarded as symmetrical, given the scale of the ditches and the degree of weathering possible.

We might therefore have expected that the postholes and gullies of the entrance structures would also be positioned on this basis. But this is not always the case; the main post-holes of the earlier entrance (5114 and 5346) are offset well to the north, as are the two smaller postholes of that subphase (5882 and 6976). Only the gullies of that subphase, 5295 and 5906 respect the lines of the entrances, beginning on the line of the inner entrance and ending on that of the outer. On the other hand, although located off-centre, the two pairs of post-holes conform to lines perpendicular to the entrance axis, and parallel with the alignments of the ditches, which the gullies do not. This dichotomy between the two elements of Entrance i might suggest that the sub-phasing is incorrect, that the two elements, the post-holes and the gullies, were laid out at the same time in broad chronological terms but as parts of two distinct measuring operations (a phenomenon noted on several occasions in the surveying grid of this very excavation), or that the regularity and accuracy being sought is entirely out of place in this structure.

On the other hand, the post-holes of Entrance ii, 5887 and 5982 do conform to this layout, with their outer edges touching the lines of the inner entrance, and lying perpendicular to the entrance axis. In this subphase, on the other hand, the alignment of the gullies is at odds with that of the entrances.

The interior

Few features can be suggested, with any confidence, as belonging to the interior of Enclosure la. These amount to a circular building and a few isolated features.

Building 2a

(Pl. XXII; Figs 44-46, 151)

This consists of a penannular eaves drip gully, almost circular except for a slight flattening on the west side. Within its line were a pair of concentric post-rings, whose centre is offset 0.3m to the west of the centre of the eavesdrip circle. The eavesdrip describes a circle 13m in diameter, while the wall and roof posts give diameters of 12.25m and 8.3m respectively.

The eavesdrip (870) was continuous apart from a 3.5m wide causeway on the east, between two slightly squared butts. Its width varied between 0.6m and 1.2m apart from two short lengths, on the west and south sides, where it was reduced, by hard natural gravel, to only 0.3m. The profile was irregular, ranging from exceptionally shallow to 0.3m deep, and from flat-bottomed to a deep-irregular U-section. Its fill was a pale brown sand-loam with sandy patches and some flints, apparently dumped rather than naturally silted. In view of the later history of the building, this dumping must have taken place at the end of Phase III or later.

The wall is represented by a ring of post-holes, which survived as irregular ovoids, 0.6m-1.2m across set at intervals of 1.5-2.3m. The posts had obviously been removed, and no differentiation could be made between post-pipes, post-packing and later fills; but the features are so irregular that it seems likely that the original shape of the post-holes was almost completely destroyed by the removal of the posts. Having said that, however, there are some traces at the bases of some post-holes suggesting the original dimensions of posts. A maximum dimension of 0.3m is likely and depths of 0.3-0.5m are indicated. A few were much smaller; for example, 2652 is unlikely to have contained a post more than 0.2m across or 0.2m deep below the excavated sand surface. The explanation for this is altogether uncertain; it is perhaps less likely to be the result of some careful thought-out structural plan than of some purely fortuitous circumstance, such as running out of standard-size posts during construction, and making do with something altogether less substantial.

The porch on the east side is marked by two postholes (874 and 2714) 2.3m apart centre to centre, with an original entrance width of around 1.8m. The sizes of the posts are difficult to calculate but appear to have been generally similar to that of the wall-posts. If the inner edge of the porch coincided with the wall-posts then its plan was trapezoidal. Had this been the case, one might have expected the position of the wall posts to have related better than they do to that of the porch posts; as it is, the porch would have been rather awkwardly shaped. It is perhaps more likely that the inner end of the porch was tied in to a wall-plate rather than the wall-posts, in which case almost any shape would be possible. Between the two post-holes, 2716 and 2709, immediately opposite the porch there was a wider interval than usual, 3.3m centre to centre. In this space, and slightly to the east of it, were two smaller post-holes, probably containing the posts of a door-frame Im wide. Again, the removal of the posts has removed the remains of the original post-holes, but nevertheless there are clear differences between the two, the southern, 2710 being an elongated feature 0.75m long and 0.05m deep, and the northern, 2712, which was circular, 0.6m across and 0.3m deep. If the difference between the two represents a real difference between the original post-holes then the northern one would appear to be that on which the door was hung.



Plate XXII Enclosure la, building 2 from east



Fig. 44 Scale 1:100



Fig. 45 Scale 1:20



Fig. 46 Scale 1:20

On each side of the entrance a small elongated feature was found running towards the wall-line from the inner edge of the eavesdrip, 7576 to the north and 7577 to the south. Diametrically opposite each of these was another similar feature, 7578 in the north-western section of the building and 7579 in the south-west. The fills of all four were continuous with that of the eavesdrip, their profiles also continuous with the eavesdrip, although all features were rather shallow, and distinctions of any sort would have been elusive. Of the features on the west side, 7578 lay astride the eavesdrip, and 7579 outside it. Despite these differences, the positions of the four on two almost perpendicular diameters of the eavesdrip suggest that they fulfilled a common function in the structure of the building. None was deep enough to contain major structural vertical timbers.

An inner circle of post-holes represents the roofposts, a series of large features, pear-shaped in surface plan, with the original post positions at the outer ends, and long shallow ramps, up to 1.5m in length, leading down from the centre of the building. The fills of the ramps were continuous with those of the post-holes, and no trace of any post-packing or post-pipe survived, suggesting that the ramps were dug for the removal, rather than the installation of the posts. Generally, the postholes, or rather the removal holes, were between 0.4 and 0.6m deep, and indications at their bases suggest original posts 0.4-0.55m across. The exceptions are the two opposed post-holes 2684 and 886, which were both exceptionally shallow. The reason for this is unclear: no difficulties were encountered at this point in distinguishing between the fill and natural sands, so it appears that their shallowness is real.

A number of other features within the eavesdrip line may be part of the building; the most likely is 2980, a shallow circular feature containing burnt sandstone cobbles of the sort otherwise only found on the site either as the lining of hearths, or as the base for clay hearths. Since the examples of this feature were unburnt, the latter is most likely. A few scraps of fired clay in the fill confirm this. Its location, 2m south of the centre of the building, is quite in keeping with this interpretation. Just inside the line of the roof-post circle a further post-hole, 2686, was ovoid in plan, but with a much slighter ramp than the roof post-holes proper. However it was similar in proportions to them, and perhaps held an additional post inserted, perhaps as a repair to prop up part of the roof.

The functions of the circular post-holes 2982 and 7604 are uncertain; the problem is made more difficult by the fact that the latter was not properly recorded at the time of excavation, and its depth, and relationship to the adjacent roof post-holes 2944 are unknown. The same is true of an elongated feature, 7605, in the west part of the building, between the lines of the wall posts and roof posts.

Features 672 and 689

(Fig. 47)

In the south-east corner of Enclosure 1 were two short, deep gullies, 672 and 689. The former, 4.5m long, Im wide and 0.5m deep, with straight, steep sides and a flat bottom, was filled with layers of sand-loam, of which the middle layer, 3137, contained a small number of burnt sandstone cobbles, like those used in the construction of clay hearths. This layer, and the lowest fill contained a high number of large, fresh sherds from four vessels, one of hand-made Iron Age type and three wheel-turned Early Roman (Fig. 141 Nos 46-49). All four vessels were represented in both layers, which were darker than the usual fills on the site. It would appear that we are dealing



Fig. 47 Scales: plans 1:100, sections 1:20

with a domestic rubbish deposit, but there are no structures in the vicinity which are obviously related to the feature.

The gully 689, 3m long, Im wide and 0.6m deep, was similar, but less markedly flat-bottomed. Its fill, less dark than that of 672, was nevertheless rich in finds including hand-made Iron Age, wheel-made grog-tempered and Early Roman wares, clay loomweight, crucible, mould and hearth-lining fragments. It is earlier than and within the Phase III Building 4, some of the deposits of which were characterised by clay with chalk, and it is tempting to associate this with the clay lens within 3264. However, the latter is very different in character and would appear not to be connected.

Both features contain material which would date their filling to Phases II or III, and appear to be broadly contemporary. By its stratigraphic relationship with Building 4, 689 is likely to be of Phase II, and 672 could conveniently be associated with it by its similar plan and proportions — however there is no firm evidence for this. Whether the two are structurally related, whether they share a common function, is not clear; nor is it clear whether they should be regarded as contemporary with Enclosure la rather than the earlier part of Phase II.

Ditch 1374

(Fig. 17)

Fifteen metres west of Building 2, a gully ran from the north roughly parallel with the west side of the enclosure; its ends, however, were obscured and their relationship with the ditch of Enclosure la was never investigated.

The gully clearly cut the gullies of the Phase I Enclosure 9 and Ditch System 2, and this, together with the substantial group of Early Roman pottery from its fill (including Fig. 145 Nos 139 and 140) allows it to be placed in Phase II or III. Given the relative numbers of features allocated to each phase, II is more likely, but the evidence is no better than that. The gully varied considerably in width, from 0.3m at the south and to Im at the north. The three excavated sections, all at the north where the width was greatest, revealed a broad U-shaped profile between 0.25 and 0.6m deep.

Ring-ditches and groups of graves

To the north and west of Enclosure la were a number of small ring-ditches, mostly enclosing elongated features of grave-like proportions. There were also a number of clusters of other features which, seen on the surface of the natural sand, also had every appearance of being graves, some within larger rectilinear ditched enclosures. On excavation, however, none of these contained any trace of bones or teeth, or any signs of grave-goods. This is consistent with the general scarcity of bone on the site, but its total absence from these features is a little odd. Where the fills were sampled, there was evidence for phosphate enhancement in the lowest fill, but no trace of any body shadow, no matter how carefully it was examined. For want of any better interpretation, these features are regarded as graves, and called such in this report, but it is important to remember how flimsy the evidence is. The criteria for such an interpretation are an unweathered profile, straight sides and a flattish base rather than a continuous U-section, and dimensions around 2m long, and 0.8m wide.

This is hardly the sort of evidence which one would

like to see in order to define a series of small cemeteries arranged around Enclosure la, so such a suggestion can only be tentative. However, there is a consistency in the proportions of these 'graves' and a degree of clustering of the groups of graves and ring-ditches, particularly to the north of Enclosure la, and such a hypothesis has an attractive neatness. Such features will therefore continue to be referred to as graves despite the flimsiness of the suggestion, and the interpretation of the site will take this into account.

The dating of these features is far from secure: Ringditches 1-5, the graves in and north of Enclosure 17, and those of Enclosure 16, are all cut by the slots of the Phase III fences. In several cases they also contain early Roman pottery and so are allocated to Phase II. The spatial relationship of Ring-ditches 2b and 3 with Enclosure 1a suggests that they are contemporary. The other ring-ditches and graves are then tentatively allocated to the same place in the sequence.

Ring-ditch 1

(Pl. XXIII; Figs 48, 49)

An approximately circular area 4.5-5m across was surrounded by a broad, shallow ditch, 1313, 1-1.2m wide and 0.2-0.3m deep. In places a second, much smaller feature could be seen dug into its upper fill. This gully, 7606, of a U-shaped profile, 0.3m wide and 0.1m deep was seen in the initial cleaning of the surface, but could not be traced during excavation because of dry weather conditions. It could, however, be seen in some sections, allowing its dimensions to be determined. In plan it appeared to be such an integral part of the layout of the ring-ditch that it was thought to be a truncated upper fill, but its profile appears to be much too steep for this. There seems little alternative to its being a later ring-gully, inserted into the fill of 1313. This clearly suggests two phases of the ringditch, but the internal features cannot be related easily to either of the phases and it is therefore presented here as a single entity.

Within the ring-ditch were a series of features. At least one, the pit *1040*, containing an inverted Bronze Age vessel (Fig. 137), almost certainly predates the ring-ditch, but is included here for convenience. Others, the small pits or post-holes, *3527*, *3454*, *3325*, *3461*, *1328*, and the grave *1325*, post-date the filling of the main ring-ditch *1313*, if not both phases of that feature. The remaining features, the pits or post-holes *3489*, *3450* and *3507*, and the graves *1326* and *3472*, could all be contemporary with the ring-ditch.

It is difficult to make sense of the pits or post-holes, particularly since the sections of 3450 and 3507, a possible pair within the ditch, were not recorded. Of the three elongated features, 1325 and 1326 were of convincingly grave-like proportions, on roughly the same orientation, and 3472, although slightly longer and much shallower than the others, appears to be related to them by lying at a right angle to them.

Finds were scarce, with pottery found only in the fills of the two graves 1325 and 1326 and in the uppermost fill of the ring-ditch 1313 itself. In all three cases this included early Roman fabrics, thus placing these three features, and by implication 3472, securely in Phases II or III. The stratigraphic relationship between 1313 and the fence slots precludes a Phase III date, and it is unlikely that the graves would have been dug between the stand-



Fig. 48 Scale 1:100



Plate XXIII Ring-ditch 1 from south-east



Fig. 49 Scale 1:20

ing fences. The apparent gap in the line of one of the fence slots, in which 3472 appears to lie, is not significant. The slot was shallow at this point, and over-enthusiastic cleaning of the surface and surroundings of 3472 have accounted for its disappearance.

Discounting earlier, later and unrelatable features, this consists of a small ring-ditch containing a grave and a related elongated feature, with a second grave cut into the backfilled ring-ditch, all apparently of Phase II.

Ring-ditch 2b

(Pls XXIV-XXVI; Figs 50, 51)

To the east of Ring-ditch 1 lay 2b, a subsquare area 8m east to west and 7.5m north to south, defined by the gully 3319, whose proportions varied considerably, from a shallow U-profile 0.45m wide and 0.1m deep in the north-east where it was cut into hard gravel, to a steep sided U-profile, 0.5m wide and 0.45m deep in the west and south. The gully appears not to have been open long



Plate XXIV Ring-ditch 2 from south-east



Fig. 50 Scale 1:100



Fig. 51 Scale 1:20

enough for the sides to weather, and had been dumpfilled. It is likely that the filling was part of the process of levelling at the end of Phase II in preparation for the construction of the Phase III fences, which cut into its fill.

In the area enclosed, the small pits/post-holes already discussed under the Phase I Ring-ditch 2a may equally belong to this feature, as may 3313 and 3323, similar features which are within the line of 2b, but not of 2a. The grave, 3315 (Pls XXV-XXVI), in the south-east quadrant of the ring-ditch, 1.8m long, 0.9m wide and 0.4m deep, contained pottery of early Roman types (Figs 141, 142, Nos 53 and 55), clearly assigning it to Phase II and to Ring-ditch 2b rather than 2a. The pottery, incomplete although comprising large portions of two vessels, was found in the upper and middle fills of the feature, and there is very little likelihood of their being connected with any putative burial. With the exception of 3467 and 3468, all layers of fill in the feature gave phosphate levels well in excess of the mean plus one standard deviation. In fact the levels from layer 3498, the lowest but one, were in excess of the mean plus four standard deviations, and indicate a considerable organic element.

The funerary nature of this ring-ditch seems quite likely, and its subsquare plan finds comparison with the square mortuary enclosures of Iron Age and early Roman



Plate XXV Ring-ditch 2, 'grave' 3315 in section from south

cemeteries elsewhere (Stead 1969 and 1979, 11-19). It would be strange for a funerary enclosure to replace one of broadly similar scale which did not have some sort of funerary or ceremonial function, and the absence of evidence for a grave within Ring-ditch 2a does not necessarily rule out the possibility of some sort of general continuity between the two structures.

Ring-ditch 3

(Pl. XXVII; Figs 52, 53)

Seven metres east of Ring-ditch 2, and the same distance from the outer ditch of Enclosure Ia was No. 3, enclosing an area 7m in diameter. The apparently irregular line of the ditch is accentuated by poorly-defined areas of unexcavated fill, and indeed both Ring-ditches 3 and 4 suffered from poor excavation and insufficient supervision


Plate XXVI Ring ditch 2, 'grave' 3315 after excavation, from east

which leave some doubts about the accuracy of the evidence. The surrounding ditch, 857, varied from a deep U-section on the south side, Im wide and 0.4m deep to a less pronounced U-section on the north, 1.2-1.4m wide and 0.3m deep. Within the ring-ditch were two elongated features set at right angles, 850 and 3526. These two features, although shallow, are of the right length and width to be considered graves, very similar to 1325 and 1326 in Ring-ditch 1. The grave 3526 probably cut the short gully 853, whose relationship at its south end with the ring-ditch 857 is uncertain; there was a low ridge at the junction of the two suggesting that, since it is likely that 857 and 3526 are contemporary, the gully 853 was earlier, with a butt at its south end which was later cut away by the north edge of 857. The fill over this ridge was so shallow that no relationship could be seen.

Stratigraphically, Ring-ditch 3 predated Phase III, being cut by a fence-slot, and its fill contains early Roman fabrics, including sherds of a butt-beaker. A Phase II date is therefore indicated.

Ring-ditch 4

(Pl. XXVII; Figs 52-54)

Immediately north of Ring-ditch 3, overlapping and cutting into its backfilled ditch, Ring-ditch 4 enclosed an oval area, 8m north to south and 7m east to west, with a causeway 2m wide on the west. This gap appears to be intentional and not a fade-out. On the east the ditch, *1139*, apparently became narrower, where it was dug into the earlier ditch *1133*. However, in view of the generally poor level of excavation of Ring-ditches 3 and 4, this must be regarded as suspect. *1139* generally was of rather an irregular profile, from a slack U-section to a straight-sided, flat-bottomed one, varying from 0.85m wide and 0.45m deep to 1.4m wide and 0.3m deep.

There is no doubt, however, that it cut Ring-ditch 3, and it could well be that Ring-ditch 4 was specifically laid out to overlap with the latter, by the width of its ditch. It was cut by a Phase III fence (S856, Fig. 54) and is thus clearly also of Phase II date. There was no sign of any internal feature, but it seems unlikely that this ring-ditch had any different function from the others. Given the shallowness of the grave-like features within Ring-ditch 3, any within No. 4 could have been ploughed out.



Plate XXVII Ring-ditches 3 and 4 from north



Fig. 52 Scale 1:100



Fig. 53 Scale 1:20



Fig. 54 Scale 1:20

Ring-ditch 5 (Fig. 55)

Seven metres to the north of Ring-ditch 4, No. 5 was defined by a rather flimsy gully, 5746, which was visible around about one third of a circle. In the south-west, its line could be traced as a convexity of the north-east edge of larger features, while the northern part was completely obscured by the outer ditch of Enclosure 1b. The presumption is that 5746 originally described a complete circle, and that other parts of it were removed by ploughing and over-cleaning, but this is not proven. The surviving lengths of gully, up to 0.3m wide, describe an arc with a diameter of 10m, the largest of the ring-ditches under consideration here. Neither the gully nor the central north-south grave-shaped features 1168 were excavated, and no artefacts were found in cleaning. No sequences could be seen in plan, so the feature is essentially undated, but a Phase II date is assumed from its proximity to the other, mainly Phase II, ring-ditches.

Ring-ditch 6

(Pl. XXVIII; Figs 56, 57)

To the north-east of Ring-ditch 5, Ring-ditch 6 consisted of a gully, 5798, defining half of an ellipse, 3.5m northeast to south-west, with its ends petering out into hard gravel natural. The single excavated section revealed a very shallow U-profile 0.35m wide and less than 0.1m deep. At the approximate centre of the enclosed area was a very shallow rectangular feature, 5800, 1.5m by 1m,



Plate XXVIII Ring-ditches 6 and 7 from east

aligned along the apparent long axis of the ring-ditch. There was no stratigraphic nor artefactual dating evidence, and the ring-ditch is assigned to Phase II only by analogy with those discussed above. Its position, immediately north of Enclosure 1b would equally allow assignment to Phase III. On morphological grounds, a funerary function is suggested, but cannot be supported otherwise.

Ring-ditch 7

(Pl. XXVIII; Figs 56, 57)

Immediately north of No. 6, Ring-ditch 7 consisted of a roughly circular area, 5.25m in diameter, surrounded by the ditch *5802*. The ditch was rather irregular, because of patches of hard natural, but generally had a slack U-pro-file, 0.8-1.2m wide, and 0.3m deep. The exception was the south side, where the stratigraphy was complicated by difficulties in defining the base of the feature, which



Fig. 55 Scale 1:100

may have been up to 0.8m deep, but this is far from certain. Time did not allow 5802 to be properly defined in the south-eastern sector. The feature was filled, apparently by a single dumping operation, before any great amount of weathering had taken place. Just north of the centre, and aligned north-west to south-east was a slightly irregular feature, 5803, which appeared to be a rectangu-

lar grave on the cleaned surface, but on excavation became much more irregular, with its north end probably over-excavated. Its base was far from flat because of local hard patches of natural, and this is the least likely of the features near the centre of ring-ditches to be a grave. The arguments for the date of Ring-ditch 6 can also be applied here.



Fig. 56 Scale 1:100

There is a considerable degree of uncertainty about the ring-ditches. Their dating causes some problems, for although a Phase II date is well-established for 1, 2b, 3 and 4, the Phase I attribution of 2a raises problems about the analogous dating of 5, 6 and 7, and the possibility of a Phase III date for the two latter is a further complication. If this is correct then the area could have been in use for structures of this sort for several decades, which would not be surprising if we are dealing with a funerary area.

But again, the interpretation of their function is difficult. The morphological argument, which suggests that all are funerary, is weakened by the absence of internal features in Ring-ditches 4 and possibly 2a or b, and by the shallowness of some of them, but there is a clear trend towards the regular location of grave-shaped and gravesized features within the ring-ditches, often close to the centre. It is also striking that in two separate cases, Ringditches 1 and 3, there are two elongated features in roughly T-shaped conformations.

The absence of grave-goods is a problem, as is the implication of a group of enclosed inhumations in the first century AD. In defence, one can only invoke the very paucity of evidence for Late Iron Age burial in the northern part of East Anglia, beyond the area of classic 'Belgic' cremations, and accept the unexpected.



Fig. 57 Scale 1:20

Enclosure 4

(Fig. 58)

Immediately outside the north-east corner of Enclosure la, a rectangular enclosure 31m long and 11m wide was aligned on the main enclosure. The enclosing gully stopped about 4m short of the north edge of 220, the outer ditch of Enclosure la, suggesting the possibility of a counterscarp or a dump of cleanings on the outer lip.

The enclosure was defined by a shallow, irregular gully (774), broader at the west side where it cut into substantial earlier features. The two corners are quite definite, although very different in plan, and the only doubt about the plan of the enclosure hinges on a dog-leg in the east side, at the point where a Phase III fence-slot ran into the excavated soil mark of the gully. Both features were rather ephemeral at this point and beginning to break up into patterns of mole holes. The apparent dog-leg, marked on the plan as the junction of 774 and

5011 might not therefore be too significant. The fact that the end of 774 on the west side and *5011* on the east are at a uniform distance from the edge of the ditch *220*, suggests that *5011* would most conveniently be seen as a continuation of 774 rather than as a separate feature.

Finds from the gully were sparse but included sherds of a butt-beaker and Romanised fabrics which, together with the sequence of one of the Phase III fenceslots, which clearly cut the filled gully, place Enclosure 4 firmly in Phase II. If the hypothetical external bank of Enclosure la is accepted, then Enclosure 4 must have been constructed late in Phase II, after the digging of the ditch of Enclosure la and the deposition of its counterscarp or cleanings. The gully was cut by the ditch of Ring-ditch 4 on the other hand, which also belongs to Phase II, suggesting a relatively short life for the enclosure. Ring-ditch 3, which also predates Ring-ditch 4 might be contemporary with Enclosure 4, and here it is



Fig. 58 Scales; plan 1:200, sections 1:20

interesting that the west side of Enclosure 4 is parallel with the east side of Ring-ditch 2b, or at least approximately so. The possibility that Ring-ditch 3 was further enclosed by the gully, and that Enclosure 4 is also part of the complex of features with putatively funerary associations is a very real one.

0.5 m

Enclosure 8

(Figs 59-61)

A rectangular ditched enclosure, 39m from east to west and 20m from north to south, underlay the outer ditch of the Phase III Enclosure 1b. It was enclosed by a twophase feature, 1277 around the earlier phase, Enclosure 8a, and 3577 around 8b. Enclosure 8a was defined on all four sides, with an entrance, 5m wide, at the east end of the south side. In some places its ditch was entirely cut away by the later, and generally larger, 3577, particularly along the north side, and on the south had mostly disappeared below 104, the outer ditch of Enclosure 1b. 1277 varied widely, generally of U-profile, and 0.3-0.4m deep, and up to 0.9m wide, although on the west side it was considerably shallower and broader. Also on the west side were short, kinked lengths where the ditch was narrowed by patches of hard natural. On the east side some irregularity in plan is suggested by the way in which it apparently changed sides, having been on the west of the layer 3577 in section 923, but on the east in section 905 10m to the south. This is slightly suspicious in that what is supposed to have been 1277 in the latter section, in that it was the earlier, is also the deeper of the two features, whereas the later features of the two were normally the deeper. It is possible that a mistake was made here.

Enclosure 8b was defined only on two sides, by 3577, a recut of the earlier 1277. There is no reason to believe that a west or south side ever existed. Generally speaking, with the exception noted above, 3577 was wider and deeper than 1277, at 1.5-1.7m wide and 0.4-0.5m deep, with a broad, dished profile. It is possible that the narrowing of the combined features around section 1017 indicates a gap in 3577, but this was not fully explored. A local deepening and widening at the northeast corner cannot be easily explained but appears not to be connected with any other feature, either earlier or later.

Datable finds from either phase of the enclosure were sparse. The ditches contained small numbers of small, scrappy sherds of both Iron Age and Early Roman fabrics, not enough to give a clear indication of date; Phase II is most likely.

In the area enclosed by 1277 and 3577 were eleven vaguely grave-like features. While there is no direct evidence for their contemporaneity with Enclosure 8, and indeed some against it, it is striking that they form an isolated group of such features, entirely within the enclosure. They fall into two distinct groups, three on eastwest alignments in the northern part of the enclosure, 7607, 7611 and 7613, none of which was excavated, and eight west of centre, with the exception of the latest, a small grave 3575, also aligned roughly east to west. Of the latter, six were partly or fully excavated, and as usual none contained any trace of bones, body shadow or gravegoods.

The eleven graves range in size from the smallest 3575, 1.5m long, 0.75m wide and 0.3m deep, to the un-



Fig. 59 Scale 1:200

66



Fig. 60 Scale 1:20

67



Fig. 61 Scale 1:20

usually large 1265, 3m by 1.8m by 0.3m. Two distinct ground plans occurred, the approximately rectangular 1260, 1262, 1265, 7607, and 7613 and the others, slightly more irregular, and with rounded ends. Three intercutting graves, 3575, cutting 1264 which in turn cut 1265, suggest a prolonged period of use.

Three small pits, among or close to the graves, cannot be associated with the enclosure with any certainty, but are considered here for completeness' sake. Only *1253* was excavated, and proved to be shallow with a poorly-defined bottom.

Building 10

(Fig. 59)

Just east of the centre of the enclosure, and immediately east of the main group of graves, a group of features which apparently belong together to a circular structure were revealed by cleaning, but not adequately excavated. A roughly circular area, between 6 and 7m in diameter was defined by the semicircular gully 1235 on the south, and by the curving gully 4465 on the north which defined less than half of a circle, and which was itself poorly defined against other features to the north. A short length of 4465 was excavated in section 976, which showed it to be a V-shaped gully 0.1-0.3m wide and 0.1m deep, of sharp V-section, similar to the gully of Building 4 in Phase III. The ends of 1235 appeared to be well-defined butts, rather than fading out, which might suggest that, if 4465 had originally been a complete semicircle, the structure consisted of a circle with two opposed entrances, again like Building 4. Within the circle lay four short gully lengths, 1225 and 1229 in the northern part parallel to each other, and 1231 and 1233 in the south, slightly curving and parallel. In the absence of any excavation of these it is impossible to see how they relate to the curving gullies, although all the fills are very similar, and it seems very probable that the six features all belong to a single structure.

The dating of Enclosure 8 in its two phases, and the features within it, are based on its stratigraphic relationship with the ditches of Enclosure 7, which it cuts, and Enclosure 1b which it is cut by, placing it firmly in Phase II. The pottery from the ditches was a small collection of scrappy sherds, including both Iron Age and Early Roman fabrics, while four of the graves contained what must be considered relatively large sherd assemblages of more than 100gm. Of these 1258 and 1262 contained only Iron Age fabrics and 1260 and 1264 both Iron Age and early Roman. In the light of this it would be possible to argue that the former were of an earlier date, and that this group of graves began unenclosed, and the area was ditched at a later date. Indeed, the intercutting of three graves might have supported this, were it not for the fact that 1264 and 1265 which are the two earliest graves of the sequence, both contain early Roman fabrics. So the date at which this group of graves begins is left open, but likely to be within Phase II, which must have seen the bulk of the burials. An alternative view of their position outside the outer ditch of the Phase III Enclosure 1b is that some or all of the graves might relate to it, and their position within Enclosure 8 is purely coincidental. This, however, is little favoured.

Enclosure 13

(Figs 62-64)

A group of related features in the south-west part of the excavated area appear to belong to a series of rectangular enclosures and associated features in five stages.

The earliest, Enclosure 13a, consists of a northsouth ditch, 562 turning west at its south end, around a wide, radiused corner, and stopping well within the excavated area. A discontinuity just north of the corner seems to have been the normal fading in and out of ditches on the site. In its north to south length, 562 was generally 0.6m wide and around 0.3m deep, of flat-bottomed U-profile with a shelf on its west side. No reliable section drawing exists of this part of its length. As the ditch turned the corner to the south and west, it became deeper and more V-sectioned (S256), but again diminished as it ran west, only 0.4m wide and 0.15m deep in S187, but still retaining a generally V-shaped profile. Despite this contraction, it appears that the butt west of S187 marks a genuine end to the feature, although perhaps slightly foreshortened by the erratic behaviour of the ditch.

The ditch 562 clearly did not continue north of its intersection with the east-to-west ditch 2223. There are four possible explanations: that 562 comes to an end at its intersection with 2223, and does not restart, that it restarts after a gap of 4m, running eastwards as 7468, that it turns immediately east as 7468, which stops after 7m or that it turns westwards as 2223. In the absence of detailed excavation of any of these three features, the argument is open; by their unexcavated dimensions, 7448 and 7468 are better candidates than 2223, which is much wider, while the latter makes more sense in terms of the dominant rectangular shape of enclosures on the site. The easiest explanation, assuming that the north end of Enclosure 13 is itself of a single phase, is that its north side is represented by 2223, which is wider than would otherwise be expected because it also includes the westward continuation of 7448, and possibly a continuation after a gap of 7468. This is the arrangement depicted in the interpretative Fig. 64. The curving gully, 2212, which in part runs parallel to 2223 might belong to the same system of land division as Enclosure 13a.

Enclosure 13b fits well as the next stage on from 13a, and is essentially a remodelling of it. It was defined by the ditch 2385 on the south side, 0.4 to 0.8m wide, 0.2 to 0.3m deep of sharp V-section, running out of the west edge of the excavation to a radiused corner just inside the corner of Enclosure 13a. As it approached this spot, 2385 veered slightly to the north as if to avoid the earlier corner. Northwards, 2435 continued this line, and probably forms the east side of the enclosure. While its dimensions were similar to those of 2385 on the south side, its profile was much more irregular and less markedly V-shaped. It could be traced with some confidence for 40m to the north, where it merged with the later ditch of Enclosure 13c, forming a band in which the two were not distinguished, but which began to narrow at the point where the corresponding feature of 13a was lost. It is uncertain whether this is because 2435 also turned west as 2223, or took one of the alternative routes discussed above for 13a, or even carried out northwards as 3918; it will be seen below, however, that the latter is unlikely, and so 13b either turns east, west, or stops.

Attention next moves to the south side of the enclosure, where both 562 and 2385 were cut by 403, a ditch



Fig. 63 Scale 1:20



Fig. 64 Scale 1:2000

running out of the south edge of the excavation. It was cut away by the outer ditch of Enclosure 1b, kinked slightly to the east before coming to a butt after 22m, which was in its turn cut away by the ditch of Enclosure 13c. It was a substantial feature, of a variable U-and V-profile, generally around 1.2m wide and 0.4m deep. At one point, north of and in section 110, a smaller, shallower ditch, 2427, emerged from its east side, but was not seen elsewhere. It is entirely uncertain whether this was an earlier version of 403. There is no suggestion of any feature continuing the line of 403, nor of any of an appropriate scale to the east nor west of it. It is therefore difficult to see what function the ditch served, particularly in relationship to the various forms of Enclosure 13.

After ditch 403 had been filled, a small gully, 379, was dug into its upper fill. This was 0.5m wide, 0.1-0.2m deep, of shallow dished section, becoming shallower to the north-east after the gully had veered away from the line of 403 and was dug into the harder natural sand. Its south end, south of Section 110, was lost in the fill of 403, and it is unclear whether it originally extended as far as the south edge of the excavated area. At its north end it faded out before reaching the ditches of Enclosure 13. A second gully, 360, 2.5m to the east ran more or less parallel to it, and was of similar proportions. This was traced from the south edge of the area to the corner of Enclosure 13a which it cut as it butted. There seems no doubt that these two belong together, defining a track some 2-2.5m wide, running north, veering to the north-east, and then stopping more or less on the line as the butt of 403.

There is no stratigraphic relationship between this pair of features, Track 3, and the final form of the Enclosure, 13c. In as much as 379 related very closely to the line of 403, it can be suggested that the track follows on immediately after 403 was backfilled, and intervenes between 403 and Enclosure 13c. There is no confirmation of this however, and the track could be later than the enclosure altogether.

The final version of this complex, Enclosure 13c, cuts all the features considered in the section except Track 3, as noted above. Its ditch, 659, emerged from the west balk, ran 25m to the east, turning a radiused corner

to the north, just inside the corners of Enclosures 13a and b, and ran north for 85m. At its north end it then described a second radiused corner, before running out of the excavated area again, some 30m to the east. Along the south side, in S277, and possibly in S131, the ditch was clearly of two phases, and two phases were also seen in the northern part of the east side. As usual, there was some variation in the size and profile of the ditch: the south side consisted of the later ditch 659, cutting into an earlier, slightly deeper version, 2387, both of U-section. At its west end, however, in Section 131, the ditch was flatbottomed, and it is uncertain whether the lower fill is part of 659 or the earlier 2387. In the southern length of the east side, only a single cut was visible, but it is uncertain whether this is because 659 completely cut away the earlier feature or because the later cut was simply not recognised. In its northern length, beyond the north-east corner of Enclosure 13a, two phases were very clearly visible, 659 here being a slighter feature less than 1m wide and 0.15 to 0.3m deep, cut into the wider and deeper earlier feature, here numbered 3918, which was of similar size to 2387 further south. It is likely that 3918 and 2387 are the same feature, but the absence of a convincing continuation of the ditch of Enclosure 13b, 2435, leaves open the possibility that 3918 represents 13b rather than 13c, although this is much less probable.

In date, the whole complex, from Enclosure 13a to 13c, belongs to Phase II; the latter is cut by other Phase II features including the gully 2292, while both the earlier versions of 13, and the ditch 403 contain Phase II pottery. While this allows the enclosure, 13a, to have started life in Phase I, it cannot have gone out of use before Phase II. The function of the whole complex is uncertain: there are no obvious features or structures within it, and while the south end shows considerable continuity of layout through the three stages of Enclosure 13 in the strict sense, the intervention of 403, and possibly Track 3, between 13b and 13c poses a problem; the interval between the filling of the ditch of 13b and the digging of the ditch of 13c must have been a short one to allow such continuity.

Enclosures 14, 16, 25 and Ditches 1411 and 1751

In the north-west corner of the site a series of ditches were identified which make up a sensible pattern of partiallyenclosed blocks of land, all attributable to Phase II.

Enclosure 16

(Figs 65, 66)

A right-angled ditch enclosing an area to its south and east 35m from north to south and at least 25m from east to west. The south-to-north arm was not excavated, but was traced on the surface with a fair degree of certainty, even through the complicated intersection around 480/650, to a clear butt. The outside of the north-west corner lay immediately beyond the edge of the excavated area, and it is therefore not clear whether this corner is independent, or connects to other features to the west. The north side of the enclosure was defined by a ditch, 2096, which at its west end consists of two small ditches 3009 and 3011, of rounded V-section; no sequence could be demonstrated between the two, but it seems likely that they are not

contemporary, each originally 0.5m wide and 0.2m and 0.3m deep respectively. As they ran eastward the two ditches came together, shallowed and lost their distinctive profile, to become 0.7m wide, and around 0.3m deep, and end in a butt.

After a causeway of 2m, ditch 1755 began, 0.9m wide, 0.3m deep, with an asymmetric, rounded profile, steeper on the north side than the south. This was traced for a distance of twelve metres, to section 620, but apparently ended at some point in the next five metres. There was a distinct difference between the profiles of 2096 and 1755, which casts some doubt on the identification of the two as part of the same enclosure. The pottery from the two ditches would certainly allow them to be part of the same enclosure, with early Roman micaceous fabrics predominating, but there is a similar agreement between the pottery from 1755 and from 1429 which cuts it: this clearly diminishes the value of such comparisons. If it is accepted that 2096 and 1755 together constitute a single unit, then the entrance through them is slightly



Fig. 66 Scale 1:20

staggered by the southward diversion of the latter three metres short of its butt. The apparent two phases of 2096, with no hint of a double profile in 1755 might well suggest two phases of Enclosure 16, namely 16a, at least 25m from east to west, with no defining feature surviving on the east, and 16b, where 1755 has gone out of use and has been replaced on the east by Enclosure 14, which thus provides a 6m wide entrance into Enclosure 16.

Within Enclosure 16 lay a group of graves, between seventeen and twenty in number, depending on how wide the definition of grave is cast. Three features just north of the centre of the enclosure, 1667, 1879 and 7622 are the least likely, but are included for the sake of completeness. South of the centre lay seventeen grave-shaped features, mostly aligned east to west, with the three south-easternmost, 1939, 1622 and 1933, tending more towards a north-south alignment. None was excavated but they are linked by a degree of uniformity of plan, mostly rectangular, 1.8-2.2m long, and around 0.8m wide, with 1922, 2142 and 7621 wider, around 1.4m across. Again it is noticeable that these wider graves are grouped together. There is a curious gap in the distribution, giving an impression of the graves arranged around a central open space, which is accentuated if the three doubtful features to the north are included.

There is no firm evidence, besides their location, to associate these graves with Enclosure 16 in general or 16a in particular. However, the plan is quite persuasive.

Enclosure 14

(Pl. XXIX; Figs 65, 66)

A right-angled ditch, *1429*, aligned with the ditches of Enclosure 16, enclosed an area at least 7m from east to west and a minimum of either 9m or 15m from north to south. The uncertainty about the north-south dimension is caused by the ditch *7614*, poorly-defined in an area of complex intersections, not precisely aligned with *1429*, and not sampled by excavation, but nevertheless a possible southward extension of the west side of the enclosure. For the present purposes it will be assumed to be part of the enclosure. Between the butt of *1429* and the north end of *7614*, which is lost under the outer ditch of Enclosure 1b, a causeway less than 5m wide led from Enclosure 16 into 14.

The ditch *1429* displayed a considerably varied profile, U-sectioned on the west sides between 0.6m and 1m in width and from 0.2m to 0.4m deep, becoming broader and shallower on the north side, to an extreme of 1.3m by 0.2m in S620, tapering away to almost negligible depth at





its east end. In this length it clearly runs along *1755*, the line of the original east end of the north side of Enclosure 16.

Building 8

(Figs 65, 66)

Within the line of the enclosure lay 1757, a curving gully describing half of an ellipse approximately $10m \times 9m$. It was well-defined, 0.2m wide and 0.1m deep, of unweathered U-section, with a marked re-entrant in the north-west. Its northern end appeared to be an intentional butt, insofar as such judgements can be made without excavation, but its south end was lost over the fill of an earlier pit. Only its curved plan suggests that it belongs to a building, but it has nonetheless been interpreted as such, as Building 8.

The gully has the unweathered profile of a construction trench rather than that of a drain but no structural traces, of either post-holes or horizontal timbers, were found, nor was there any surviving evidence for internal features of any sort. This building therefore remains largely unsubstantiated.

The fill of the ditch of Enclosure 14 contained an iron Colchester brooch (Fig. 112 No. 5) and pottery of early Roman fabrics, dating it to Phase II or III. Although there is no stratigraphic evidence to this effect, it seems likely to be of a similar date to Enclosure 16, and this of Phase II, but it is not impossible, in view of the butt immediately north of the Phase III ditch *104*, that Enclosure 14 belongs with Phase III, or at least continued in use in that period. There is no independent dating evidence for Building 8 to associate it chronologically with the enclosure, so only its location can be used to suggest contemporaneity between the buildings and the enclosure.

Enclosure 25

(Pl. XXX; Figs 65, 67)

To the north of Enclosure 16, another right-angled ditch, running from the western limit of the excavated area, appears to form part of an enclosure system with 14 and 16. The enclosing feature was a two-phase ditch, of which the earlier phase was represented by 2963 and the later by 2964. Both were of rounded V-section, 0.35-0.45m deep and 0.8m wide, with very little difference between the two in profile, fill or plan, the later being on the inner edge of the earlier. A causeway 3m wide separated the end of the ditch from the north-west corner of Enclosure 14, and a slight irregularity 4m north of the main butt suggests that the earlier 2963 may have stopped slightly short, and that the redigging represented by 2964 narrowed the entrance. This was not tested by excavation.

The interior of the enclosure, 13m north to south and at least 16m east to west, was, unusually, almost devoid of archaeological features. However, close to its east edge was a group of six graves. Compared to those within Enclosure 16, these were crowded and of irregular orientation. Three, 3097, 206/ and 2065, intercut; two, 2062 and 2063 were orientated east-to-west, 2065 and 2069 north-to-south, and the intercutting 3097 and 2067 respectively north-west to south-east and north-east to south-west. The size and shape of the graves was fairly uniform, 2m to 2.4m long and 0.8m to 1m wide, rectangular with rounded corners, straight, almost vertical sides, and flat bottoms. The southernmost, 2062, was



Fig. 67 Scale 1:20



Plate XXX Enclosure 25 'graves' after excavation

smaller than the others, 1.4m long and 0.6m wide, and presumably the grave of a child.

Finds from the ditches were extremely sparse, and of little use for dating. Of the graves, only 3097 contained any number of finds, including Early Roman pottery, an Icenian silver coin, a sling-shot and a fragment of puddingstone quern. Arguing from the dating of this grave, to the whole group, and thence by virtue of their location to Enclosure 25 as a whole, a Phase II or III date is suggested. The inherent uncertainties in this process are all too obvious. However, there is confirmation of a sort in the alignment of the east side of Enclosure 25 with the west side of 14, and in turn with the plan of Enclosure 16, which confirms the argument to a certain extent. The double phasing of the ditch of Enclosure 25 might then be taken to suggest a correlation with the two phases of Enclosure 16.

Ditch 1751

(Figs 65, 67)

A sinuous ditch, 1751, ran south-eastward from the northern edge of the excavated area, performed a curving dog-leg to end in a short straight length parallel with the west side of Enclosure 14. This left a gap of 3.5m with the

east end of the north side of the latter. There was considerable variation in profile, not only as seen between the two illustrated sections 497 and 611, but within the excavated length north of section 497. However, there was no surface indication of multiple phasing of the ditch in unexcavated lengths, although this must be considered as a possibility. The fill produced Early Roman fabrics, consistent with a Phase II or III date and its alignment at the southern end suggests that it is closely related to the Enclosure 14/16/25 system.

Ditch 1411

(Figs 65, 67)

Immediately east of 1751 ditch 1411 ran out of the north balk, curved along a shallow arc, to butt just south of the same balk nineteen metres to the east. In both excavated sections a double profile was observed in the natural, but not in the fill. However, the latter phenomenon is not surprising in view of the basically homogeneous brown fills on the site, and a double phasing of this feature is likely. The irregularity in plan at the east end supports this, which would suggest that the southernmost of the two features involved stops 5m short of the butt of the northernmost. Pottery from the undistinguished fill of the two features included Early Roman fabrics, and again a date in Phase II or III is likely. In this case, however, the relationship in plan with ditch 1751, the two being on an apparently converging course which would bring them together just north of the balk, presents difficulties in associating 1411 with the whole of the Enclosure 14/16/25 system. However, as is discussed below, it is possible to postulate a role for it in the system.

Enclosure 14/16/25 system

(Fig. 68)

There is clearly a degree of regularity in the layout of Enclosures 14, 16 and 25, which could be seen as forming three interdependent rectangles. The situation is complicated by the double nature of the enclosing features of 16 and 25, and the uncertainty of how ditch *1411* fits in. The



Fig. 68 Scale 1:1000

neatest hypothesis to explain these apparent complications is a two-stage development of the system. The first step would be Enclosure 16a, with no surviving east or south sides, with an entrance to the north, and outside the entrance a further Enclosure, 25a. Burials found within the lines of these enclosures quite possibly belong to this stage, and the prime function of both could have been as cemeteries. The ditch *1411* could belong to this stage.

The second step in the system would be the reduction in size of Enclosure 16a by the addition of Enclosure 14 on the east, containing the putative Building 8. Enclosure 25 remained on the north, with a recut ditch, and a new ditch, 1751, dug on the north-east forms either an irregular enclosure on the north, or defines an approach to the system, providing access simultaneously into Enclosures 14, 16b and 25b. If the prime function of the first step is suggested to be funerary, it is possible that this continued into the second, and in the case of Enclosure 25 it is a completely open question whether the graves belong to 25a, 25b, or both or neither. Equally there is some uncertainty as to the attribution of the graves further south within Enclosure 16. Most fall within the reduced enclosure, 16b, but a small number further east are within the line of Enclosure 14, or the larger Enclosure 16a. The most convenient hypothesis is that all belonged to 16a, and that the reduced enclosure, 16b, was not used for burial. This is the situation shown on Fig. 68. However, this suggests a continuity of plan, but not of use, and is perhaps too sweeping. The more plausible, but almost unillustratable, model is that some of the Enclosure 16 graves belong to 16a, both in the east and west parts of the enclosure. After the insertion of Enclosure 14, burial continued only within 16b, and Enclosure 14 found a new, but possibly related function, perhaps connected with Building 8. This, it must be stressed, is hypothesis.

Enclosure 17 and related features

(Pl. XXXI; Figs 69-72, 117, 141)

Between the west side of Enclosure 1a and the west edge of the excavated area, the D-shaped Enclosure 17, an area of approximately 200m², was surrounded by the gully 2270. As usual, the gully varied in its profile and dimensions, depending on the sands and gravels into which it had been dug, ranging from 0.5m to 1.2m in width, 0.15m to 0.3m in depth, and U-shaped to slack V-shaped in section. At the south-east corner, where a patch of hard gravel was encountered, the gully faded out for a short length. On the west, 2270 vanishes under the later ditch 2297, and only its west edge was definitely traced, around \$930, the result of a localised widening. Two metres further north, however, although no cut feature could be seen in the fill, it seems likely that a local expansion on the west side of 2297 represents the original edge of 2270, and either the cut of 2297 was not recognised, or the cut of 2297 was so close to the original edge of 2270 at this point that the thin layer of fill of 2270 which was left fell away, leaving the distinctive bulge. The fill of Enclosure 17's gully was usually a single homogeneous brown sandloam, although there were localised areas of a lower sand fill in some excavated lengths.

Immediately outside the gully 2270, on its northwest and cut by it, was a gully 3925, 0.5m to 0.6m wide and 0.05m to 0.2m deep, depending on whether it was cut into sand or gravel. At its east end it vanished completely under the later gully, while its west end was seen



Plate XXXI Enclosure 17 from south

only on the surface, where it apparently ran parallel with 2270 until both of them vanished under the later ditch 2297. At this west end 3925 was poorly defined, and its unexcavated length was probably narrower in fact than the plan shows - a further good cleaning would probably have separated the two. Another gully, 3901, running out of the north edge of 2270, which cut it, cut the fill of 3925 and disappeared to the north-east. It is tempting to see 3925, although generally slighter, as a precursor of 2270, and thus an early version of the defining feature of Enclosure 17. Against this is the intervening 3901 which requires that 3925 was full by the time 2270 was dug, and full long enough for yet another feature to be dug on an unrelated alignment. This however is not completely out of the question, and two phases of Enclosure 17 are quite possible.

The enclosure was not situated in an area rich in post-holes: therefore the concentration within it is likely to be contemporary with it, although this concentration will obviously have been exaggerated by the particular attention paid to the interior and immediate surroundings of the enclosure. With the exception of four outliers, 3977, 3957, 3990 and 3985, the post-holes are concentrated in an arc roughly parallel to the north and east sides of the enclosure. If 3963, at the north-west end of this arc and 3975, an atypical, east-to-west slot, are excluded, then the post-holes of the arc can easily be resolved into two parallel lines with a centre-to-centre interval of 1m, narrowing slightly towards the north-west (Fig. 72). Although there is considerable variation in the size of the post-holes, their depths are of roughly the same order. However, it is the scarcity of post-holes elsewhere, and the apparent alignment of this group with the north and east sides of the enclosure which gives them credibility as a coherent group. Their function is uncertain; there seems no possibility that they ever formed a roofed building, and the most acceptable suggestion is that they contained the posts of a double screen, presumably infilled with wattle and daub or hurdles, shielding the centre of the enclosure from the north-east. No suggestion is made as to precisely what in the centre of the enclosure is being shielded.

Within the line of the enclosure lay two graves, 2296 at the south side and 3827 in the north-east. Both were quite shallow, 0.2m and 0.3m respectively, and 2296 showed a clear intrusion in section, cutting the original fill 3940 and filled in turn by 3942 and 3946. This intrusion could not be traced convincingly in excavation, however, and it is uncertain how much of the grave it affected. The possibility that this intrusion represents a grave robbing must be entertained and is discussed again below. The two clear layers in the fill of 3827 appear to be more the result of subsidence than an intrusion; this is, of course common of graves, caused by the decomposition of the body and coffin, and this is a possible explanation here.



Fig. 70 Scale 1:20



Fig. 71 Scale 1:2



Fig. 72 Scale 1:400

As usual, bones survived in neither. Less convincing is the corner of the apparently rectangular feature 3904 which predated the gully of the enclosure. If the latter is accepted as a grave, then all three features, together with 2302 and 3992 just outside the south-east corner of the enclosure, may belong together as a group of five predating Enclosure 17 and post-dating Enclosure 13, but still within Phase II, to which both enclosures belong. Graves 2302 and 3992 are considered below as 'unenclosed graves 3'.

The finds from Enclosure 17 are unusually plentiful. From the gully 2270 came a large group of Early Roman vessels with a low proportion of Iron Age (Fig. 141). The former included *Terra Nigra*, albeit in small sherds, and forms of Gallo-Belgic origin (Fig. 141, Nos 38 and 42). The slightly exotic nature of this assemblage is emphasised by the discovery of an oak leaf of sheet bronze (Fig. 117, No. 21) which might have votive connections, and there is thus the possibility of ritual activity associated with the enclosure.

Of the graves, 2296 also produced a good group of pottery, again with Early Roman fabrics and forms predominating. Both *Terra Nigra* and *Terra Rubra* occurred, along with sherds of two butt-beakers. The sherd size from this group was also unusually large, which, coupled with the intrusion into the grave fill, might suggest that the sherds are from complete vessels placed in the grave as furniture and broken by robbing. However, the proportions of each vessel are far too small, less than 20%, to support this. The presence of this pottery in the fill of the gully and throughout the grave fills dates the enclosure and graves to Phase II or III; the gully 2270 and the graves 2296 and 3827 were cut by the fence-trenches of Enclosure lb, which gives a clear date in Phase II.

Related features

(Figs 69, 71)

In and around Enclosure 17 were three features which, although they have been shown stratigraphically not to be contemporary with it, nevertheless from their finds must be quite close in date. All were partially excavated as part of the investigation of Enclosure 17, and those parts of them which impinge on that enclosure are shown on Fig. 69. The rest of their courses, which were not subjected to such detailed examination, are shown on the Phase II plan (Fig. 37).

Ditch 2292, varying in width from 0.4m to 0.8m, and in the one excavated section (Fig. 71, S959) 0.25m deep but varying from a flat-bottomed V to a rounded asymmetrical V-section, starts at a butt about 3m from the outer ditch of Enclosure la, runs west, at right angles to it, for 12m, cutting the fill of the ditch of Enclosure 13, and turns a right angle to run a further 14m to the south. On each side of the corner it is cut by the gully of Enclosure 17. Its attribution to Phase II rests on its sequence with Enclosures 13 and 17, both of which are dated to that phase, and which this ditch comes between. It would therefore appear to be part of a ditched system sharing a common alignment with Enclosure 1a.

On a different alignment, predating the Phase II Enclosure 17, but also of Phase II on the basis of its finds, is the curious gully 2295. Its ends were not properly defined, the east being lost in the ditch of Enclosure 13, and the south running out as it approached the south end of ditch 2292. Its profile was remarkably uniform, a rounded V-section, with the upper sides widely splayed by weathering, indicating that it had been open for some considerable time. Its depth was between 0.3m and 0.4m and its width generally 0.7-0.8m, with a projected original width, before the weathering, of some 0.2m less. Small numbers of sherds were recovered from its fill, including quantities of Early Roman fabrics, indicating a Phase II date. This is further supported by its being cut by Enclosure 17 and cutting at least the earlier phase of the enclosing feature of Enclosure 13, which was seen very clearly in plan. No such sequence was seen in the excavation of the later feature of Enclosure 13, so that particular aspect of the sequence is uncertain.

Its function is uncertain, particularly in view of its extraordinary, tight, curving plan with an apparently open east side. It is tempting to see some direct relationship between this and the curve of Enclosure 17, suggesting some continuity of function from the earlier gully to the later Enclosure, but there is nothing else to support this.

Finally, ditch 2297 ran out of the west edge of the excavation, heading east for 10m, across the line of the outer ditch of Enclosure 1b, with which no relationship could be established, and then turned north for 25m to the north side of Enclosure 13. It was not traced beyond this point and must either stop, or turn east or west along the line of the earlier ditch which defines Enclosure 13 — earlier by virtue of the sequence of 2297, through 2270 to 2292. The profile was a shallow U, Im wide and 0.25m deep and the fill contained early Roman pottery in small quantities.

2297 clearly post-dates the gully of Enclosure 17, and the finds suggest a date in Phase II or later. It is more likely to be of Phase II, and its coincidence with the alignment of the Phase III Enclosure 1b is a result of the continuing common alignment of the Phase II Enclosure la and associated features with that of Enclosure 1b. This ditch is further discussed below as part of the Ditch System 1 (p. 87).

Enclosure 23

(Figs 73, 74)

To the north of Enclosure la a group of features appear to

constitute a small subrectangular enclosure. A curving ditch, 1462 ran from a butt, curving to the north and west to continue on a curve to the south as 1476. An earlier ditch, 1478, conformed better to the line of 1462, but is clearly not part of it. 1478 turned south as 1487 for 4.5m, but its southern end was not properly defined. To the south, 1476 continued its curve as 1499, disappearing under 104, the later ditch of Enclosure 1b. South of this later ditch, 1513 ran from west to east, turning a corner at the east to end at a butt just west of the butt of 1462 further north. If the two correspond there is an entrance into the enclosure roughly in the middle of its east side, 2.5m wide. However, the way in which the curving plan of 1462, 1476 and 1499 contrasts so starkly with the rectilinear plan of 1513 suggests that the two may be unconnected and that 1513 turned another right-angled corner, since cut away by the later ditch 104, to run north as 1498. Although unexcavated, there were surface indications that 1499 was later than 1498.

If 1513 and 1499 are unrelated, there is no indication of what happened on the south side of the putative enclosure, if enclosure it is. It is too much of a strain on the alignments to relate 1487 and 1498. The north side, 1462 would appear to follow the line of the earlier feature 1478, but excavation left little doubt that 1462 was in fact a continuation of 1476 rather than of 1478. There was a considerable difference in size between 1476 and 1462 (Sections 1000 and 1003), and it seems probable that 1462, dug into the backfill of the earlier 1478, was enlarged because of the softer ground.

Within the enclosure, only the curving gully 1501 seems likely to be contemporary with it, and this is reinforced by the correspondence between the alignment of 1499 and 1501. It is uncertain what the function of this gully was.

Stratigraphically the enclosure is firmly in Phase II or I, and the presence of early Roman fabrics in the fill of the features puts it in II. Pottery from 1478/1487 was very similar, including a sherd of grey ware butt beaker with impressed crescents and rouletting. From its position between the ring-ditches, Enclosure 8, and the Enclosure 14/16/25 complex with all their graves, it is tempting to associate Enclosure 23 with the funerary aspect of Phase II, which is reinforced by the similarity in plan between Enclosures 17 and 23. However, in the absence of further evidence, this link is tenuous.

The link is further stretched by the quantity of metallurgical debris from the ditch 1462, forming the north side of the enclosure. More than 97% of the pellet moulds from the site were found either in this ditch or in the small pit 1490 which cut it, along with fragments of other clay moulds: crucibles were also well represented in the feature. All this material is fairly tightly clustered, in a length of less than 15m, but whether it represents debris from activity within the enclosure is uncertain.

Enclosure 26

(Pls XXXII-XXXV; Figs 37, 75-77)

Immediately south of Enclosure 1a, and, in some ways, of a similar nature to it, was Enclosure 26, a ditched area, not quite rectangular in shape, 110m from east-to-west and 30m north-to-south. It was defined by a ditch, generally similar to the inner ditch (170) of Enclosure 1a, and its relationship in plan suggests that the two enclosures were in use at the same time, or at least that 26 was constructed



Fig. 73 Scale 1:200



Fig. 74 Scale 1:20

at a time when the outer ditch of la was still visible, thus firmly in Phase II.

The ends of the ditches stop short of the south-west and south-east corners of Enclosure Ia, leaving gaps of about 4m. This is reminiscent of the way in which the additional length of Enclosure Ib inner ditch was added to the south-east corner of Ia at the beginning of Phase III, but the two operations appear to have been chronologically distinct. These gaps, at the north-west and north-east corners of Enclosure 26, may have afforded access into the interior, but another 4m wide gap, about one-third of the way down the east side makes a more convincing formal entrance, flanked by butts which, although not wholly excavated, appeared to be well squared in plan. The interval on the north side is perhaps to be seen as the result of an external bank around the outer ditch of Enclosure Ia.

The precise profile of the ditch was seen best on the east and west sides, which differed markedly. S196, on the west, showed a slack, rounded V-profile, 2.9m wide and 1m deep, with the upper parts of the sides well weathered. This same profile, and as far as can be told, these dimensions, are repeated in sections along the south side, at least as far as S90, except that much of the ditch was cut away by 104, the outer ditch of Enclosure 1b, dug slightly off centre, displaced to the south, after the Phase II ditch had been largely filled, but its line still marked. Between S90 and S1498, a change occurred in the ditch profile, which then continued along the east side. This part of the ditch was of a sharp, V-profile, with the upper half weathered back to a very wide hollow, but the lower parts of the sides very fresh. It was around 1.5m deep, with a final width of 3m, but a projected original width of a metre less. The change in profile which must occur in



Fig. 75 Scale 1:20; for plan see Fig. 38



Fig. 76 Scale 1:20



Plate XXXII Enclosure 26, west side, section 104



Plate XXXIII Enclosure 26, east side, section 1626 from north

the 40m between the two sections might be the result of another break in the ditch, perhaps a southern entrance.

In the V-profiled, eastern part of the ditch, 7527 and 4739 (Fig. 75 S1498 and Fig. 76), the lowest fills were consistently of sands with patches of flints, suggesting a relatively rapid natural filling, and the dark lens, 6599, on the east side of the ditch in S1497, is taken to represent a natural, stoneless accumulation, possibly the result of wind-blow, plant growth and decay, probably following on immediately after the period of weathering. This same weathering process may have affected the western length, 364, but natural sandy fills were much less in evidence here. The bulk of 364 and the upper parts of the eastern lengths seem to have been filled deliberately, with dumps of sand which were thoroughly consolidated, in the same manner, and possibly on the same occasion, as the consolidation of the upper fills of the outer ditch of Enclosure 1a, thus marking the end of Phase II. The dumps of flint nodules, which occurred rarely in the fill, such as that in 6606 in S1498, may as easily be the result of local patches of naturally concentrated flint as of a rampart cast into the ditch.

Within the enclosure, surface cleaning revealed relatively few features other than those which can be attributed to the later Enclosure 1b: only for the large hollow, feature 2442, described below, can a case be made out that it is contemporary with Enclosure 26. There were also three curving gullies, one enclosing a complete circle, all within the area enclosed by the enclosure, in a part of the site where discrete lengths of curving gullies were rare. The finds from the complete circle, Building 9, appear to date it to Phase I (see above) and the other two are undatable except in so far as they predate Phase III, and so there seems little chance that these three relate to structures contemporary with the enclosure or with the hollow 2442.

The pottery from the ditch around Enclosure 26 places its filling securely after Phase I, and the Phase II slots which cut the ditch fill place the enclosure firmly in Phase II. Although it would have been separated from Enclosure la by the hypothetical outer bank, the two nevertheless appear to be broadly contemporary, at least in use if not in construction, because of their generally corresponding plans.

Feature 2442

(Pls XXXIV, XXXV; Fig. 77)

Within the line of the ditches of Enclosure 26 was one of the most puzzling features discovered on the site, a large subrectangular hollow 15m×18m, no more than 0.25m deep, with a gradually sloping profile. At its base were at least two pits, 2752 near the centre, 0.15m deep, and 2883 at the south end, which was actually the deepest part of the feature. Although only a small part of 2883 was excavated, it is probable that the bottom was located, 0.3m below the base of 2442; the fills of both pits were continuous with 2370, the lower fill of the main feature, a very dark, soot-rich sand-loam containing large quantities of pot-boilers, which were concentrated in and around the two pits. Well over 24kg of these blue-white calcined flints were found in these deposits. The upper fill of 2442, 437, was a brown sand-loam containing sherds of both hand-made Iron Age and early Roman pottery, largely small, weathered sherds which look as if they have been derived from a ground surface or an exposed rubbish deposit.

After the deposition of the lower fill, 2370, the gully 449 was dug running from the north-east and ending south of the centre of the main feature. This appears to be taking advantage of the slope of the upper surface of 2370, and acting as a drain. That there was an elapse of some time between the deposition of the two fills, 2370 and 437, is suggested by the sinkage of the lower fill into the two pits, caused presumably by settling and compression. Eventually the remaining hollow was filled and levelled with the upper layer, 437, into which the Phase III fence trenches were dug: it is likely that this final levelling was carried out specifically for the construction of the Phase III enclosure, and that the fading-out of the fence trenches over the fill of the centre of the hollow is the result of settling of the fill of the feature after the fences were erected.

The function of the great hollow is far from clear: the surface of the natural sand at its base was badly disturbed and churned up, partly by digging animals, but perhaps also by foot traffic. If there had been inordinately heavy use of the area around the two pits, this might have contributed to the formation of the hollow 2442. The lower fill, sooty soil with pot-boilers, is the only clue to the use of the hollow, although this itself is equivocal, since there was no trace of burning on the natural sand at the base of the hollow or either of the pits. But assuming that the soot and the pot-boilers were created by the activities carried on within the hollow, we are left with the question of the soot and pot-boilers.

The suggested interpretations of the pot-boilers are many and varied, for cooking, steam-baths, wood-working or leather-working and it would not be appropriate to



Plate XXXIV Enclosure 26, hollow 2442, feature 2752 in section, from north



Plate XXXV Enclosure 26, hollow 2442, feature 2883 in section, from north, with 2752 in foreground

become involved with the arguments at this point. It should be pointed out, however, that we are clearly dealing with something very different from the usual 'burnt mound' pot-boiler site (Barfield and Hodder 1981) where large deposits of black soil and burnt stone, often consisting of several tons of stones, are found. The quantity of pot-boilers involved here is clearly much smaller, and appears also to make up a smaller proportion of the layer in relationship to the black soil. The material in 2442 is either the result of a different process from those usually encountered, in that it produced a higher proportion of soot than them, or the deposit was not exposed for so long to weathering and the consequential washing-out of soot which would have occurred on the Cob Lane site described by Barfield and Hodder (1981 and 1987). The hollow here, as opposed to the usual mound, would certainly reduce the washing-out of the soot, and this, added perhaps to a low level of use, would account for the unusual nature of this deposit.

Whatever the activity this sooty deposit is the result of, it is likely, although by no means proven, that it took place in the hollow, and that its remains were spread throughout the hollow at its close. Some time then elapsed between that and the construction of the Phase III Enclosure lb, amounting to several years at the very least.

Enclosure 27

(Fig. 78)

Close to the north edge of the excavated area a group of apparent graves lay between Enclosure 8 and Ring-ditch 7. Neither the graves nor the other features in the vicinity were excavated, but the surface plan alone allows the suggestion, albeit rather speculative, of a ditch describing a U-shaped enclosure around them, at least 15m long, and 10m wide, and a possible post-hole structure.

A pair of parallel ditches (1207 and 5740) ran south-



Fig. 78 Scale 1:20

east from the balk; after some 15m a curving ditch (1208) apparently joined them, and all the graves are contained within this area. The parallel ditches clearly continued to the south, to form Track 4 (which is unphased but shown on the Phase II plan for convenience), but the southern edge of 1208 clearly cut the fill of 1207; the suggestion is that lengths of the ditches of Track 4 were reused to define Enclosure 27, with 1208 to complete the line. Without excavation, however, this is difficult to substantiate. Further surface cleaning might have defined their dimensions more accurately, and perhaps have shown traces of the recut.

The resulting plan is a little eccentric but there is a parallel to it in the curving gully 2295 below Enclosure 17. The six graves, confined within the ditched enclosure, must surely belong to it. They follow the familiar pattern on the site, rectangular or subrectangular, around 2m long and lm wide with one smaller, at $lm \times 0.6m$. Orientations are not completely standardised, but in this group north-to-south is the commonest. A dark organic stain along the north and west side of grave *1201* suggests a wooden lining or coffin, but attention is drawn to similar stains in 646 (p. 12).

The graves lay along the south and west side of the enclosure. To their north and east were eleven post-holes, in some cases well-defined circular or subrectangular features, in others, smears of fill in the natural sand, suggesting the residual traces of such features after severe animal disturbance. Eight of these form a rectangular pattern, Structure 12, 7618 and 7617 on the west, 7625 and 7626 on the north, and 7619, 7620, 7621 and 7623 on the west, enclosing an area 5m from east-to-west and from north-to-south. In the absence of excavation it is impossible to

show whether these belong together, although their plan would suggest it. The absence of a south side is difficult, but if 7623 represents the south-east corner, then all the graves lie outside the area of the structure and there would then be a strong case for suggesting that the structure was contemporary with the graves, or with the period at which they were visible.

Neither finds nor stratigraphic sequence are available to date the enclosure and its contained features; however, both *1208*, the south side of the enclosure, and the gully around Ring-ditch 5 cut the westernmost ditch of Track 4, allowing the suggestion that Enclosure 27 is contemporary with Ring-ditch 5, and therefore belongs to Phase 11, the period at which most of the graves and their associated features were being dug.

Unenclosed graves

Three groups of graves were discovered which could not be convincingly associated with any enclosing features, all located in the north and west parts of the site where other graves which have either been shown to be, or supposed to be, of Phase II, lay.

Unenclosed graves 1

(Fig. 80)

In the west part of the site, between Enclosures 13 and 16 a group of four graves was discovered, but left unexcavated. Two, 2195 and 2197 were aligned north-west to south-east, and the others, 2199 and 2201, south-west to north-east. They measured respectively 2.4m by 1.2m, $3m \times 1m$, $2m \times 1.2m$ and $2m \times 1m$, although these are surface dimensions only. In plan they showed a fairly uniform rectangular shape, but this would be subject to







Fig. 80 Scale 1:20

change on excavation. On the grounds that 2199 was cut by one of the fence-slots of the Phase III Enclosure lb, this group is clearly of Phase I or II, and in view of the evidence for other, dated, graves on the site, the latter is most likely.

Unenclosed graves 2

(Fig. 80)

A pair of rectangular features, 4992 and 5787, lay south of Ring-ditch 6 and east of Ring-ditch 5. They were respectively 1.7m long and 1.2m wide, and $2.3m \times 1.4m$. Both lay north-to-south, on the same long axis. They were slightly larger, particularly in width, and more markedly rectangular, than most of the other graves, but compare fairly well with a small number of others on the site, particularly *1211* and *1213* in Enclosure 27 which also lay north-to-south, on a common long axis, and with *2140*, *2142* and *7621* in Enclosure 16. It is pertinent to remark that.several of the excavated graves appeared to be larger and more rectangular in plan before excavation, but took on the more usual plan, narrower with rounded ends, when the surface disturbance was removed in excavation.

However, it is by no means certain that these features are graves, nor that they fulfilled the same function as others of similar shape on the site. Here we rely on hypothesis. There is no independent dating evidence, and a tentative attribution to Phase II rests on analogy with the majority of the other graves.

Unenclosed graves 3

(Fig. 81)

Immediately outside the south-east corner of Enclosure 17, two subrectangular features, 2302 and 3992, were excavated. They fall within the range of features interpreted in other parts of the site as graves, respectively



Fig. 81 Scale 1:20

 $2m \times 1.3m$ and 0.2m deep, and $1.4m \times 1m \times 0.15m$ deep, with straight, unweathered sides and flat bottoms. Phosphate analyses of their fills were not carried out, and as usual there was no trace of bone. Here perhaps, the suggestion that such features are graves is at its weakest. 3992 post-dates the Phase II Enclosure 13, so a Phase II or III date is likely. By analogy with others on the site, these are perhaps more likely to belong to Phase II.

Ditch system 1

(Fig. 82)

In the south-west corner of the excavated area a series of ditches and gullies was discovered which appear to belong to a single system, or at least respect the same alignment. They vary in size from the narrow gully 2221, 0.3m wide, to the ditch 570, 1.2m across. The features were largely unexcavated, with the exception of 2297, discussed above under Enclosure 17, and 560, which had a shallow, dished profile, 0.2m-0.3m wide. This part of the



Fig. 82 Scale 1:1000

system comprised six parallel gullies and ditches running from east-to-west, 7479, 2268, 2226, 2221, 570 and 426. Of these, 2226 appeared to swerve to the south at its east end, although there was some doubt as to whether this swerving extension was really part of the same feature. 570 turned south at each end, the west end running 5m south before stopping, and the east being largely lost below the west ditch of Enclosure 26 which follows its line. The southernmost, 426, barely emerged into the excavation area before turning south and disappearing into the south balk. A degree of uniformity can be observed in their spacing, with an interval of 26-27m between 7479 and 2268, 2221 and 570, and between the end of the west side of 570 and 426. 2290, and the southward extensions of 570 and 426 represent transverse subdivisions of this system.

The dating reinforces the suggestion that these features belong to a single, coherent and largely contemporary system: with the exception of 2297, all could be seen to be cut by the fence-trenches or the outer ditch of the Phase III Enclosure lb. 2297, which contained early Roman pottery, cut Enclosure 17, which contained similar material, and the three central features, 2268, 2226 and 570, all cut the latest version of Enclosure 13, itself attributed to Phase II. This ditch system then clearly belonged to Phase II. Of all the Phase II features in the area, only ditch 364, which formed the west side of Enclosure 26 post-dated any of the features in the system. Enclosure 26 in its turn appears to have been added on to the south side of Enclosure 1a, and the northernmost four features in this system stop short, although not at a uniform distance, of the west side of Enclosure la. The east side of 570 ran south for at least a short distance along the southward projection of the line of the west side of Enclosure la. It appears probable, in the light of this, that this ditch system should be seen as dependent on Enclosure 1a.

It can also be seen as a later version of the Phase I ditch system (Fig. 36, p. 41): the alignment of the two agree well, and this one, it could be argued, represents a movement to the south and west caused by the construction of Enclosure la.

Other features of Phase II

(Figs 37, 142)

A number of ditches and gullies which cannot be related to enclosures or groups of features, appear to belong to Phase II on the basis of finds or stratigraphy (Fig. 37). A narrow gully, 835, ran from a square butt very close to the edge of the outer ditch of Enclosure la to fade out after 65m. After a very short gap its line was continued by 1107, which appears to be the same feature, for a further 85m. Stratigraphically it post-dates Enclosure 7 and predated 4738, part of the outer ditch of Enclosure la which was not recut in Phase III. The pottery from the feature agrees with a date in Phase II. A short gully, 1138, running from east-to-west and turning to the south at its east end was stratigraphically later than Ring-ditch 4 and Enclosure 7 and lay among the Phase III fence slots without obviously being part of them: the pottery from the feature suggests a Phase II or III date, and the location implies that the former is more likely. Some sherds from the large combed jar found in the north ditch of Enclosure 7 (Fig. 142, No. 62) were found in 1138 also, and must be residual.

At the north edge of the excavated area a ditch 1217,

with a recut *1216*, ran south, veering slightly to the east and stopped after 10m. The recut contained pottery of Phase II or III, and the two features are included here for convenience. It is possible that they relate to Enclosure 27, immediately to the east, or to Enclosure 8, but insufficient of the plan was recovered to elaborate on this.

Another gully length, *1290*, running roughly east-towest, parallel with the projected south side of Enclosure 8, and inside the area of Enclosure 7 contained pottery of Phase II or III, and is similarly included here for convenience.

Ditch 859 is considered with Enclosure 7 under Phase I (p. 17) although it belongs to Phase II.

VII. Phase III

(Fig. 83)

As discussed above, only Enclosure lb can be ascribed with certainty to this phase. Structures within the enclosure can be linked to it stratigraphically, and by internal analogy, but there are features and structures, particularly to the north, which may equally belong to Phase II or III. For convenience they are treated under the former.

Enclosure 1b

(Pls XXXVI-XLVI; Figs 84-92)

The new enclosure was formed by filling the inner ditch of Enclosure la (220), and the outer ditch on the east side (4576). The Phase II outer ditch was extended eastwards by 40m and became the inner ditch of the new enclosure, while a new outer ditch (104) was dug 30m from the new inner, with the intervening space filled by a series of parallel gullies. The new enclosure, of $32,000m^2$ was three times as large as its predecessor.

Inner ditch

(Fig. 84)

The inner ditch (220), consists, on its west side, and along the western two-thirds of the north and south sides, of the outer ditch of Enclosure la reused. It is not clear how much remodelling took place to create the new ditch, but there was no trace of any recutting of ditch fills. It is most likely that the Phase II ditch was cleaned out, with the consequent enlargement which occurs when a major sand-cut feature is cleaned, and that no fill had been allowed to accumulate. At what had been the south-east corner of Enclosure 1a the ditch expanded slightly to the north, the result of the collapse of the backfill of the east side of the earlier enclosure. This backfilling was crucial to the enlargement of the enclosure: the earlier ditch was filled by the dumping of thin layers of sand, sand-loam and gravel, which were carefully consolidated, presumably by ramming. The uppermost fill was particularly hard-packed, and it was clear that considerable care had been taken over this operation.

At the north-east corner of Enclosure la the earlier ditch had also been backfilled, with consolidated layers of sand, sand-loam and gravel. This was done by filling the lower part of the ditch with up to 0.4m of sand and gravel and then constructing a blocking bank across the mouth of the ditch to be filled, with its north face coinciding with the projected south side of the new ditch, and then filling progressively southwards.

Where 220 followed the line of the Phase II ditch its

profile (Fig. 84, Section 7) was generally an asymmetric V, from 5.4m to 6.1m wide, and 1.6m to 2.1m deep. The inner face was the steeper of the two. The fill varied considerably, consisting of a series of local dumps of sand-loam with a variable gravel content. Usually the gravel had entered from the interior of the enclosure suggesting a Phase III rampart. In some sections, thin basal layers of sand and sand-silt indicate some natural weathering and filling (*e.g.* Fig. 84, S1006, Layer 4180), but these are rare. Occasionally a layer of sand with very few stones (*e.g.* Fig.84, S1006, Layer 4118) indicates a break in the process of dumping; such layers are more common on the south and west sides of the enclosure.

A common characteristic of its profile is a shallow shelf, up to 2.5m in width on the outer lip. It is not clear whether this is a deliberately constructed feature, or an incidental phenomenon, nor to which period of the life of the ditch it belongs. It might well be the result of disturbance to the ground surface caused by regular traffic in the process of ditch-filling, either by human foot or wheeled vehicle.

The new ditch lengths, which extended the enclosure to the east, were less substantial. Along the north side, and the northern arm of the east side, the ditch was of a symmetrical V-profile 3.4m to 4.1m wide and 1m to 1.5m deep, diminishing to 3.3m wide and 0.9m deep at its square butt north of the entrance. South of the entrance the ditch had a similar square butt and symmetrical V-profile, 4.5m to 5m in width and 1.1m and 1.2m in depth. However, from the south-east corner of the new enclosure to the south-east corner of Enclosure la it decreased markedly in size and finally tapered out in a rather unspectacular pointed butt, leaving a gap of 2m between the old corner and the new ditch. This can hardly be a formal entrance but was perhaps intended to serve as a temporary access during the construction work which was never dug away. The plan here gives the impression of a rather careless and makeshift layout.

The finds from the inner ditch (220) were almost entirely of early Roman date, with some Iron Age pottery, presumably residual. However, a group of radiocarbon determinations from the filling suggest a later date (p.181). A deposit of charcoal at the bottom of the ditch (HAR-5459) (Layer 6852) has given a date of AD 300 ± 80 , while a mass of heather charcoal halfway up the fill (Layer 3304) provided three determinations (HAR-5073, 5074 and 5075) with a mean date of AD 480 ± 60 .

Inner rampart

(Figs 83, 85)

Apart from the fill layers in the inner ditch which appear to have entered from the interior of the enclosure, and thus suggest a rampart, there is also a limited amount of structural evidence in the form of post-holes and gullies. These were best preserved in the north-east corner and east side of the enclosure, particularly in the area newly taken in by the eastward extension of Phase III. Along the east side twenty-one post-holes were located (7547, 4900, 4904, 4906, 4908, 6662, 4910, 4912, 4914, 5148, 6688, 5226, 5222, 5228, 5230, 5232, 5234, 5236, 5238 and 7552) and on the north side, which was much patchier, sixteen (5037, 7541, 5035, 5033, 5031, 5029, 5027, 7542, 7544, 4993, 5023, 4425, 7545, 7546, 1677 and 1092). No post-holes were traced along the south and west sides, but



Fig. 85 Scale 1:20

the gully 618, reused from Phase II, corresponds well with the position of the post-holes and is likely to have fulfilled the same function. The north-east corner is represented by a post-hole (7552) in precisely the right position, but in the south-east a larger feature (4851) might well conceal its counterpart. In the north-east corner at least there thus appears to be a sharp angle rather than a radiused corner.

The spacing and alignment of the post-holes was a little irregular, with a maximum deviation of 0.3m from a straight line and interval of 1.4m to 1.6m. If this spacing is projected, then 128 post-holes would have been required along the north and west sides of which only thirty-seven were discovered, due to a combination of extremely dry conditions and local overmachining.

Excavation of these features was largely restricted to the area around the entrance into Enclosure 1. The postholes were roughly circular, between 0.5m and 1m in diameter and up to 0.2m deep. No post-pipes were visible, and it appears that the posts had all been removed. The gully *618* was around 0.3m wide, and in the few excavated lengths only 0.1m deep. Again there were no signs of posts.

The interpretation of this line of post-holes and gullies is difficult; there is no obvious reason why gully *618* should have been reused on the south and west sides, and replaced by post-holes on the others. The gully and the post-holes stand in the same relationship to the inner ditch of Enclosure 1b, 5m from its inner lip, and it is unlikely that they constitute different structures. We therefore have the probability of a line of post-holes, for posts up to a maximum of 1m in diameter, but probably less than 0.5m and a gully which by analogy might be expected to have served as a bedding trench for further posts.

The fences

(Figs 83, 86)

The area between the inner and outer ditches of Enclosure 1b, which at 218,000m² constitutes almost two thirds of the total area occupied by the enclosure, was

filled by a series of slots, approximately straight and parallel. For much of their lengths the slots were insubstantial, and indeed in some areas ploughing, overmachining and the tendency of these features on this site to disappear over hard gravel patches had led to their disappearance. However there is no good reason to believe that there were any real gaps apart from that at the entrance, and on the north side (see below). The dimensions were similar to those of the gully 618 which formed part of the inner rampart structure, averaging 0.2m in width, occasionally 0.3m, and rarely deeper than 0.1m. On either side of the entrance, however, they were much more substantial, 0.2-0.3m wide and 0.1-0.3m deep, with a tendency towards a square-cut section. This is probably the result of a combination of better preservation generally in that part of the site, better machining, and more substantial features to start with. Comparison between Sections 190 and 197 demonstrates the extent of variation possible in a 5m length of a slot.

In this better-preserved area the fill was normally a pale sand, redeposited natural, below a darker sandloam. Occasional slight post-impressions were seen in the sand layers, but never in the overlying sand-loam, which sometimes filled a cavity rather wider than the lower sand. It seems that the sand was the original fill of the slots, and the sand-loam a demolition layer after the removal of the posts. Elsewhere in the circuit similar distinctions could not be drawn. Faint impressions were sometimes detected in the base of the slots, or in the sandy fill, again pointing to the presence of vertical timbers. These appear to have ranged from 0.15m to 0.3m in diameter at 0.25m to 0.5m centres.

The shallowness of some lengths of slot presented a stratigraphical problem. In places, all that survived was the thinnest of surface smears, or a concentration of moleholes filled with sand darker than the surviving natural. Where this crossed an earlier, particularly a darker, feature, the earlier fill showed through, giving an incorrect impression of the true sequence. Where intersections were examined in section the slots proved to be later in date, and there is no case of a feature post-dating them.



Fig. 86 Scale 1:20

The spacing between slots was fairly regular, at 3.25m, although it actually varied between 3m and 3.5m. The outermost slots on the east side, however, 374 north of the entrance, and 4937 south of it, exceptionally, were separated from their nearest neighbours by only 2.1m. The superficially regular pattern is broken in several places by the need to adapt a rectangular layout to the less than regular line which the inner ditch had inherited from its life in Enclosure 1a. Thus 5188, the innermost gully north of the entrance, was traced for only 10m, after which it appeared to stop. This left a gap of 5m between the next gully and the inner ditch. The next, 568, ran up the east side, turned the north-east corner, and then was

lost for a distance of 150m before reappearing at the north-west. If its line is produced along the north side, it runs perilously close to the outer line of the inner ditch which bows out on this side, so it may never have existed. Along the west side it was probably lost to ploughing and machining, apart from a short length immediately north of the south-west corner, where it stopped.

Moving outwards, the next gully, 490, was traced around the whole circuit apart from missing lengths in the middle of the north and west sides. Like 568, its absence on the north side may be the result of the closeness of the inner ditch, while on the west it is more likely to have been removed by ploughing and machining. An



Plate XXXVI Enclosure lb, outer ditch and Phase IV gullies 363 and 431 in section 444, from east



Plate XXXVII Enclosure 1b outer ditch recutting south ditch of Enclosure 26 in section 1498, from west



Plate XXXVIII Enclosure lb outer ditch, north side, in section 1587, from east



Plate XXXIX Enclosure 1b, south side, fence slots between outer and inner ditches and hollow 2442, from east



Plate XL Enclosure lb, fence-slot 210 in section 687, looking west; a particularly well-preserved example



Plate XLI Enclosure lb, inner entrance, almost vertical view from west



Plate XLII Enclosure lb, inner entrance, post-hole 6681 from south with post-removal pit on east



Plate XLIII Enclosure 1b, entrance from west

anomaly appeared at the north-east corner, where the line of the gully continued northwards for 5m beyond the corner, intruding on the line of the next gully out. This may be the result of over-enthusiasm in the laying-out stage. The adjustments to the alignment of the gullies around the perimeter have resulted in 490 being the third out north of the entrance, but the innermost to the south.

309, the fourth gully north of the entrance and second south of it, is substantially complete apart from its west side, where the explanation is the same as that already given for the inner gullies, and at the north-east corner, where it is lost in underlying features, if it ever existed at all. If it was originally present there, it must have extended across the overrun of 490. On the south side, the gully was crossed obliquely by a further gully, 481, which is stratigraphically later, but of very similar dimensions. This is best seen as a local repair. The difference in alignments might suggest that the fence in 309 was largely still standing in the area where 481 was dug, and that the two overlapped to a considerable extent, with perhaps only a short gap in the earlier structure. Alternatively 481 may be of a later period (p. 00 below). At the south-west corner the line of 309 swung slightly southward to fill the gap left by the absence of 1121. This, the fifth gully out north of the entrance, also disappeared at the north-east corner but could be traced almost continuously along the north side and around the north-west corner. Beyond this, however, it disappeared, and while its absence in the middle of the west side could be explained in the usual way, its failure to appear at the southwest corner appears to be genuine, supported by the slight convergence of 390 to its east and 210 to its west.

The sixth gully out, 210, followed the complete circuit, to become the third gully out south of the entrance. Around the south-west corner it converged with the line of the inner gullies and its line is adjusted so that, from having been an unusual 6m from its inner neighbour north of that corner, it adopted a more orthodox line 4m from it on the south side. At the north-west corner there was a clear gap, where the north-to-south length overran the end of the east-west, which stopped short.

208 began north of the entrance as the seventh gully out, and ended as the fourth. It was more or less continuous, but rather patchy just east of the south-west corner. A 40m length of gully, 528, whose ends lay on the line of 208 and which bowed up to a metre from it to the south, presumably represents a repair similar to that represented by 481.

Eighth out north of the entrance and fifth to the south, was 133, which was also easily traced along most of its line. Along the south side, however, it was badly broken up, and backed by 442 for a length of 70m, presumably yet another repair.

374 was the outermost gully at the north end of the east side, separated from 133 by only 2m. On the north side however, the gap increased to a more conventional 4m, and it continued as the outermost gully until the south-west corner. It ran along the south and east sides as the sixth out, with 411 and 410 beyond it, starting at the south-west corner. The outermost gully on the east side, south of the entrance, 4937, separated from 410 by a gap of only 2m, corresponds with 374 to the north, although they are clearly two different features.

At the entrance, the gullies stopped about 3m short of the corridor fences, rather more uniformly on the south than the north. In all cases there is a clear gap between the gullies for the perimeter fences and those which form the entrance corridor.

Outer ditch

(Figs 83, 87-89)

The outer ditch (104) of Enclosure 1b was separated from the inner by an interval of between 30m and 35m and from the outermost fence by an almost constant 5m. The north-west and south-east corners lay outside the excavated area, but projection of the ditch lines allows the former to be located with very little doubt and the latter with a fair degree of certainty. The enclosure is certainly not quite rectangular; the north and south ditches diverge slightly as they run east, and the east and west sides diverge southwards. The projected lines then give an east side of 170m, a south side of 220m, a west side of 160m and a north side of 214m.

The ditch was generally of a symmetrical slack V-profile, between 3m and 3.5m wide and 1-1.3m deep, appearing to be relatively unweathered with its gently sloping sides a result of the original digging. However, this profile changes radically in the western 30m of the south side. Having rounded the south-west corner, the ditch tapered sharply to a width of 1.6m and a depth of 0.5m, with a slightly more V-shaped profile. At the junction with the south-west corner of the Phase II Enclosure 26 however, it deepened slightly to 0.7m, and widened to about 2.5m, overlying 364, the south ditch of the Phase II Enclosure 26.

Only along the south side (Fig. 89 S90 and S444), where excavation of the ditch was concentrated, can any general view of the history of the filling of 104 be given. The lowest fill was a lens of smooth sand-loam (2348 and 7581), sometimes quite silty, characterised by a very low proportion of flint, or any other stone, even of the smallest size. Its thickness varied, usually between 0.1m and 0.2m in the deeper part of the ditch and less than 0.1m in the shallower part west of the intersection. At its thickest, it often lay up the north side of the ditch, suggesting a deposit of wind-blown material from the south in considerable quantities; it is estimated that the south side of the ditch contains a total of 80 cubic metres, rather more than 100 tons. If this was deposited in a short period of time, and the stratigraphy gives no reason to suspect otherwise, this implies an episode of the sort of severe sandblows so typical of Breckland in later days. This layer did contain some flints and rare artefacts, but not sufficient to suggest any more than the odd piece fortuitously slipping in from the ditch side during the period of deposition. Above this, and filling the ditch to the top, was a group of layers of dark sand-loams, (3066, 2265, 2347 and 2284), hinting in places at deliberate dumping in one or two operations. These layers contained large quantities of late Roman material, indicating a major dumping of soil rich in rubbish in the late fourth century, presumably soon after the wind-blow. This, which belongs properly to Phase IV, should be connected with the use of the late Roman site under the Travenol factory.

Along the other three sides of the enclosure, such a regularity of filling was not apparent. Sands, apparently dumped in from both sides, were normal, with a darker, sand-loam upper filling at the top. This latest fill, although undated, is probably a relatively late levelling deposit. Finds from the lower, sandy, fills were of early



Fig. 87 Scale 1:20

93


Fig. 88 Scale 1:20

94



Fig. 89 Scale 1:20

95



Fig. 90 Scale 1:250

Roman type, but rare. On the east side north of the entrance, in S1584 a lens of charcoal and burnt soil occurred one third of the way up the fill.

The entrance

(Figs 90-92, 153)

The entrance through the outer and inner ditches of Enclosure lb has been constructed as a single unit. The outer ditch stopped in a pair of square terminals, with relatively steep faces along the side of a 9.7m wide causeway. There is no sign of a gate structure, other than a pair of fence gullies, 4951 on the south and 4953 on the north. They projected 2.5m and 1m respectively east of the outer lip of the ditch and ran west, 8.5m apart, skirting the ditch terminals with intervals of 0.7m and 0.2m respectively. The gullies were square, like the perimeter fence-gullies, 0.2-0.3m wide and deep, with a lower fill of hard-packed sand cut by the post-holes, which were filled by a brown



Fig. 91 Scale 1:20



Fig. 92 Scale 1:20



Plate XLIV Enclosure 1b entrance fence-slot 4951 with post-holes in base, from east

sand-loam, continuous with the uppermost fill of the gullies. The surviving post-holes, which were often difficult to distinguish because of the disturbance of the surrounding sand fill, were oval, 0.25-0.5m long and averaging 0.2m wide. Their oval plans appear to be the result of rocking the posts along the length of the gullies to withdraw them, and there seem to have been originally three posts for each metre length, at roughly 0.3m centres, in post-holes 0.2-0.25m in diameter. The deliberate demolition of the fences by withdrawal of the posts had added some uncertainty to this, but it is likely that each of the gullies would have held about 125 posts.

Having crossed the 38m interval between the outer and inner ditches, the fence gullies ran close to the squared and steep-sided terminals of the inner ditch, with virtually no gap on the south, and only 0.2m on the north. They came to an end 2.5m west of the inner lip of the inner ditch, ending in simple butts, defining the outer limits of an inner entrance 8.5m wide.

Immediately inside the end of these fence gullies were a pair of large post-holes, each roughly rectangular in plan, about 2.7m long and 1.8m wide and 1.5m deep. Each one, 6681 on the north side and 5146 on the south was cut by a later pit of approximately the same size, respectively 4693 and 6263. The original pits were steep, almost vertically-sided with flat bottoms, while the later pits more or less followed their profiles on the west, north and south sides, but on the east sloped at a shallow angle. Consequently flint packing survived, particularly layer 6654 on the east side of the northernmost pit 6681.

The implication is clearly that the earlier pits held posts which were removed by the later pits. The difference in size between the post-holes and the removal pits suggests posts no more than 0.7m across, set against the west sides of the pits, but there was no indication of the location of posts along the north-south axis. The size of the post-holes renders it unlikely that each contained a single post 0.7m in diameter. The squared corners of the pits suggest perhaps that a post was set in the south-west and north-west corner of each pit, so that on two sides at least each was supported by undisturbed ground. This suggestion was made by a visiting British Telecom engineer who pointed out that this was the standard technique for installing telephone posts. This would produce a gateway consisting of two pairs of posts, each about 0.7m across, with an interval of 2m between the pairs and of just over a metre between each post in the pair. Whatever the disposition of posts within these pits, it is unlikely that they represent a gate in the structural sense. They stand 1.5m in front of the post-holes of the Inner Rampart, with



Plate XLV Enclosure la outer ditch reused as inner ditch of Enclosure lb, from west



Plate XLVI Enclosure lb, inner ditch, section 1102, from south

no trace of any structure behind to support a walkway over any gate, or to reinforce the posts. They clearly are not part of a tower-like structure such as is normally assumed for an Iron Age defensive gateway. We would appear to have here merely a facade, a screen of perhaps four substantial posts marking the inner end of the entrance corridor, not necessarily blocked by hinged gates at all (Fig. 153).

The interior

It is difficult to be certain which features within the line of Enclosure 1b are really contemporary with it. In a few rare cases, such as Building 1, there is circumstantial evidence to suggest a sequence, in that the building is too close to the ditch of Enclosure 1a to be part of that enclosure, and yet the buildings 1-3 appear to be an integral part of the Enclosure 1 complex, thus suggesting that Building 1, and, by analogy, 3, belong to Enclosure 1b. Buildings 4 and 5, by virtue of their close associations spatially with 1 and 3, should then also be assigned to Enclosure 1b.

Building 1

(Pls XLVII-XLVIII; Figs 93, 94)

This structure conforms well to the plan of the slightly earlier Building 2, in its double post ring and eavesdrip layout. However, it is not quite circular, the eavesdrip and outer post ring being slightly wider from east to west than north to south, although the inner post ring is circular. The eavesdrip gully has a diameter of 14m east to west and 13.5m north to south, the outer post ring 12m and 11.5m, and the inner ring 7.5m. The centre of the inner post ring appears to be offset by about 2.5m to the northwest from the mean centre of the elliptical outer ring and eavesdrip. Interpreting the inner and outer post rings as the roof posts and wall posts respectively, we have a building with an external diameter of about 12.5m, with an eavesdrip gully 0.5m beyond the house wall.

The eavesdrip gully (701) was slightly irregular in plan, with irregularities along its edges which appear to be erosion gullies in the soft natural sand. It was generally 0.6-0.8m wide and 0.15m to 0.2m deep, of shallow U-section. There were two clear breaks; on the west the northern arm came to a butt, with a post-hole, 7574, on its line. To the south, the continuation of the gully was lost in the complications of the large, probably later, pit 2949, so that the width of the causeway and the location of a possible second post-hole are uncertain. In the south-east part of the circuit there was a short interruption of the eavesdrip, a local shallowing over hard gravel, and then the gully became rather obscure in an area of difficult natural; it may well have extended northward beyond the butt as excavated. In short, the true width of both causeways is uncertain. On the east, the two post-holes 912 and 918 mark the site of a porch, with an entrance width of 1.5m. If this porch sprang from the adjacent wall posts, then it must be trapezoidal in plan, with its west side formed by the wall posts 3099 and 3110. It appears that the post-hole in the west causeway, 7574, represents a similar, western porch, which only survives in part.

The outer ring of post-holes, containing the roof posts, consisted originally of twenty post-holes spaced 1.7m to 2m apart. Only nineteen were found in excavation, but the twentieth may be assumed because of the double interval in the area of difficult natural in the southeast part of the circuit between 928 and 3099. Fifteen of the twenty were pear-shaped in surface plan, 0.5m wide and up to 1.5m long, with the widest and deepest parts, the location of the posts, coinciding at the outer end. The tapering inner ends represent a ramp sloping down to the site of the post, and in cases where a distinction could be drawn between the fill of the post-hole and the fill of removal phase, the ramp clearly belongs to the removal. It is suggested that the ramps were dug to the foot of the posts and the posts then pulled down. In one exceptional case, 910, the removal ramp was dug from outside the wall line. Five of the post-holes lack this feature, 4438, only 0.3m in diameter and perhaps not properly part of the wall post ring at all, and 928, 3099, 3110 and 900, which appear to be post-holes of the normal dimensions without the removal ramp. This indicates that the posts were either removed in a different way or not removed at all; the absence of post-pipes in what was often a homogeneous brown sand-loam fill need not indicate that the post was not left in situ.

In several cases, the remnant of a flat bottom, roughly circular in plan, suggests that the post-holes contained timbers up to 0.3m in diameter, 0.2m to 0.5m deep from the excavated surface. The need to dig removal ramps would certainly support the large size of the posts. The only evidence for the nature of the walling is the presence of small patches of yellowish clay with chalk flecks in the upper fill of most of the post-holes which make up both rings of the building, and throughout the fill of the eavesdrip gully. This suggests either panels of wattle and daub or solid cob infill between the wall posts, redeposited after the demolition of the building. Other post-holes in the area of the wall posts, 989, 902 and 3006, cannot easily be related to the building structurally, but also contain the same clay with chalk in their upper fills. Whether this means that they are contemporary with the building, or merely that clay was trodden into their upper fills during the demolition, is uncertain.

The positions of the doors are indicated by the east and possible west porches. In this case, however, no trace of a door frame survived, so the dimensions of any doorway are uncertain.

The inner ring of post-holes marks the position of the roof-supports. The thirteen posts were regularly spaced at 1.5-1.75m centres, with a greater interval, of 2m, between 3059 and 3106, behind the east doorway, allowing easier access into the centre of the building between the roof posts. The post-holes varied in size, and only one, 942, was ramped in the same way as the postholes of the wall. Although it was not possible to make any distinction between the insertion and removal fills,



Fig. 93 Scale 1:100

the irregular plans and profiles suggest that the posts had all been deliberately removed, although generally by a different technique from that used in the wall posts. Their depth varied between 0.4m and 0.6m below the excavated sand surface, and where any trace survived at the base of the proportions of the posts these appeared to be 0.3-0.4m across. A number of other post-holes near the line of the roof post-holes, 946, 950, 956, 2973 and 3108, like those close to wall-posts and discussed above, are not obviously related to the building, except by the clay in their upper fills.

Apart from these rather problematic post-holes, two other features within the eavesdrip may be part of the building; an ephemeral patch of charcoal and burnt soil, 7582, lay less than a metre from the centre of the inner post ring. Its depth was negligible and it appeared to be only the last trace of a surface-built hearth or similar feature which had sunk into the underlying softer fill of the earlier gully 681. It is reasonable to suppose that this is part of the building. The other, a rectangular pit, 916, lay between the two post rings close to the east entrance, and like the fill of the post-holes of the building, contained a mixture of hand-made Iron Age and early Roman sherds; small weathered fragments of crucible and mould from its fill appear to be residual. Its filling can therefore be regarded as broadly contemporary with the filling of the







Plate XLVII Building 1 before excavation, from south



Plate XLVIII Building 1 after excavation, from east

post-holes, the end of the life of the building. The eavesdrip gully produced only two sherds, both of Iron Age type, and cannot be regarded as independently datable. Quantities of finds from the building were small, and both electro-magnetic susceptibility and phosphate determinations from the fill of the eavesdrip suggest minimal domestic occupation.

Building 2b

(Figs 44-6, 151)

This clearly two-phase structure, first constructed in Phase II, appears to have been modified in Phase III. It must be stressed that this argument is based on convenience of interpretation, and of the neatness and uniformity of planning in Phase III which then appears as the result of this interpretation.

The original structure possessed a single, east-facing entrance, with the eavesdrip gully more or less complete around the west side. In its second phase, Building 2b, an eight metre length of the gully on the west side was deliberately backfilled and a pair of post-holes, 2662 and 2664, dug into its east edge, to form a second porch, opposite the original one, which apparently remained in use. The new structure was much closer to the line of the wall than was that on the east side, but it lay in the same relationship to the edge of the eavesdrip gully, suggesting that this, rather than the depth of the porch, was the most important factor determining the location of the posts. In the process the post-hole 2696, which would then have fallen inside the entrance, may well have been backfilled after the removal of its post, but there is no independent evidence for the date of its filling; equally its post could have been reused as a door post.

The new porch post-holes, 2662 and 2664, were respectively 0.7m and 0.6m deep, rather deeper than the corresponding features in the east porch, and must have contained posts less than 0.3m in diameter. The upper fills of both features, which like the filling of the other post-holes in the structure should be assigned to the final demolition of the building, were very dark and sooty. These produced large quantities of carbonised seeds, mainly barley, with some wild fruitstones (p.178), charred bones of small animals, birds and lizards (p.175) and high phosphate levels. The barley, semi-cleaned grain as prepared for bulk storage, was accompanied by some remains of arable weeds, grassland and heath plants, suggesting a combination of stored barley grains with hay and/or straw. Combined with the high phosphate levels, this would suggest that the material represents the remains of a fire in a stable or byre with an associated fodder store. However, as David Gurney points out (p.178), the high phosphate levels might be the results of causes other than excreta, and the specific evidence for a stable or byre in the vicinity is not unequivocal.

Finds from the features of Building 2 were rare; no datable material was found in that length of the eavesdrip gully which was backfilled at the end of the first phase of the building, and the pottery from other features, less than 200gms in all, was a mixture of Iron Age and Early Roman types. These fills, associated with the end of the use of the building, presumably incorporate material present in the immediate vicinity at the time, both rubbish sherds in the soil, and any debris in and around the building.

Building 3

(Fig. 95)

The northernmost of the three circular houses was revealed by a first cleaning of the natural sand surface, and was then left unexcavated. Its interpretation therefore relies heavily on analogy with Buildings I and II, and there are features shown on the plan (Fig. 95) which on excavation may well have proved to be either animal disturbances or unrelated to the building. The precise dimensions of the features are by no means certain: the final, pre-excavation, cleaning would have defined them further, but this process, in itself destructive, was left to some hypothetical re-excavator. Consequently there is little to be gained from rehearsing the sizes of individual features, but the overall dimensions of the building, and its plan are clear enough. Like Building 1, it was surrounded by a slightly elliptical eavesdrip gully, 14m north-to-south and 13m east-to-west, its longer axis perpendicular to that of Building 1. The holes for the wall posts formed a circle 11m in diameter and that for the roof posts 7.5m. The wall consisted of eighteen posts and the roof post ring consisted of twelve, with a thirteenth probably unrecognised in a disturbed area on the west side of the building, and a fourteenth on the south side, between 2818 and 2816.

Like Buildings 1 and 2 in Phase III, this also appears to have had two entrances. That on the west side was fronted by a porch, based on a pair of posts (in 7598 and 2783) and the wall posts (in 2787 and 2785). It is not certain whether this porch was original or a later addition; a poorly-defined and rather ephemeral band of fill was traced between the two porch post-holes, which might suggest a two-phase construction as in Building 2, but it differs so much, in its apparent insubstantiality, from the rest of the eavesdrip that it is perhaps more likely that this represents a drip-line and its accompanying animal disturbances, rather than an early phase eavesdrip backfilled for the erection of a porch. The east entrance is less clear; a single post-hole, 7599, at the butt of the eavesdrip to the north of a clearly-defined causeway, is assumed to be the northern side of the porch; the south side is not certain,



Fig. 95 Scale 1:100

but may be concealed in 4442. This then gives an uncomfortably wide porch, of 3m, and leaves 2808, ostensibly a feature in the wall-post ring, superfluous: perhaps it conceals the northern post of the door frame, with 7587 forming the southern.

A number of smaller features, presumably postholes, were also identified, and although shown on the plan by the same convention as features which are more certainly part of the building, this has not been confirmed. There is a certain consistency of size and location: the small features 7594, 7596, 2779, 7583 and 7584 are all immediately outside the ring of wall-posts and 7598, 7585, 7591, 7592 and 7593 occur immediately inside the ring of roof-supports. How these relate to the structure of the building, whether they might be internal features, is uncertain. The small area of sooty fill, 7590, close to the centre of the building, corresponds well to 7582 in Building 1, and both of these might be the last remnants of central hearths.

A comparison

(Fig. 96)

At this stage it is useful to compare the three conventional circular buildings of Phase III. On the basis of the sug-



Fig. 96 Scale 1:500

gested phasing, it would be expected that Buildings 1 and 3, built entirely in Phase III would have more similarities with each other than with Building 2, which began life in the previous phase. The general similarities between the three would certainly suggest that 1 and 3 were built to the same plan as the earlier Building 2, which was modified at the same time. The decision not to excavate the features of Building 3, however, has meant that like is not being compared with like, and some of the similarities between 1 and 3 may be illusory.

All three are slightly elliptical in plan, the long axis of Building 1 (as opposed to the axis between the entrances of the building) runs east-to-west, while those of 2 and 3 run north-to-south. The plan of the eavesdrip gullies of 1 and 3 accentuate the elliptical plans which are not as extreme in the wall-and roof-post circles, which are more significant. The diameters of the post circles match well between the three buildings, but within those circles the spacing of the posts varies. Fourteen posts supported the roofs of 1 and 3, and fifteen that of Building 2. The spacing of the wall-posts was more varied, with twenty posts in Building 1, sixteen in 2 and eighteen in 3, reflecting perhaps the relative unimportance of the wall compared with the roof-posts in structural terms.

The variation in the porch structures is perhaps the most surprising. Assuming that the nearest pair of wallposts constitutes the inner frame of the porch, the east porch of Building 1 and both porches of 2 were trapezoidal, with the outer frame narrower than the inner. The west porch of Building 1 is likely to have been similar, judging from the surviving north side. Building 3 is very different, with a reversed taper on the west porch and a normal, but very wide splay on the east. The elongated and ramped post-holes of the roof posts in Building 2 are not matched in the other two buildings, where they are more inclined to a circular plan. In Buildings 1 and 3, however, the slighter post-holes for the wall posts show an elongation and a lesser degree of ramping.

There is perhaps a slightly greater degree of similarity between the buildings originally constructed in Phase III than either of them show with the Phase II Building 2, but this seems insufficient to draw any sweeping conclusions.

The distribution of finds in the ditches 681 and 1374, which were actually dug in Phase I, has some bearing on the use of the buildings or at least in the interior of the enclosure in one of its two forms (la or lb). It has been argued above that Early Roman pottery appears only in the uppermost fill of what were otherwise Phase I features; at that, it only occurs in the north-to-south features; *1374*, and not in *681*. A considerable length of the latter was excavated, particularly within Buildings 1 and 4 and only Iron Age pottery was found, spread through the fill. This surely represents levelling of the feature in preparation for the erection of the two buildings, if not earlier. Ditch *1374*, on the other hand, would not have to be levelled for the construction of the buildings, since it lay 7m from them. Thus the pottery from the upper fill of *1374* might represent rubbish from the buildings in either Phase II or III; for convenience it is considered under Phase I (p. 32)).

Building 4

(Pl. XLIX-LII; Figs 97, 98)

A rather puzzling structure, Building 4 stood immediately west of Building 1. It cannot be dated independently from its stratigraphic relationships with other features, but its location, and its spatial relationship with Buildings 1-3 suggest that it is part of the Enclosure 1 complex, and like Building 1, it can be argued that it is rather too close to the Inner Ditch of Enclosure la to be part of the Phase II enclosure, and is therefore likely to belong to III.

It consisted of a circular gully (683), 10.5m in diameter and very close to a true circle. Except for the east and west sides, between the paired post-holes, the gaps in its line appear to be the result of slightly shallower lengths truncated by ploughing, rather than deliberate breaks; on the northern side one short length appears to have survived the ploughing but was obscured by rabbit holes. The gully varies little in size compared with the eavesdrips of Buildings 1-3, being 0.2-0.3m wide and 0.1-0.2m deep, with a broad, deep atypical length in the south-east which is the result either of weathering or of animal disturbance. The profile varies from rounded and flat-bottomed to a steep, crisp V-shape, via a shallow U (Sections 561, 677 and 569 respectively). The V-section predominates, and appears to be largely unweathered. The fill contained large quantities of yellowish clay with small chalk lumps and flecks, in some stretches completely filling the gully, in others taking the form of large lumps in a matrix of brown sand-loam. In the latter cases the



Fig. 97 Scale 1:100

sand-loam appears to be the result of later local disturbance or to have entered the gully before the clay. The intention appears to have been a relatively deep, V-shaped, clay-packed gully. On the south-west, 683 cut a similar gully, 3428, of which a 2m length survived. It lacked the distinctive clay in the fill, and is probably not part of the building.

On the east and west sides of the building were two pairs of post-holes defining gaps in the ring-gully (3308 and 3357 on the west and 3282 and 687 on the east). All four were large, roughly rectangular sockets, with dishing towards the surface to the east and west, the sockets around 1m long, 0.5m wide and 0.7m deep. The fills were sand-loams with occasional patches of the same distinctive clay as in the ring-gully 683 and in all four cases appear to be the fills of pits for removing posts, with no original post-hole fills or packing surviving. However, it is likely that the lower parts of the profiles represent the original post-holes, and that the posts were drawn after shallow pits had been dug around them to give easier access. If this is correct, then each post-hole originally contained either a massive squared post, lm×0.5m, or more likely a pair of close-set timbers each 0.5m square. They must have been an integral part of the structure, defining an access into it on each side, 1.2m wide.

Inside the structure were features which appear, from their positions, to have been part of it. Two shallow

scoops, roughly circular in plan and 0.2m deep (3350 and 3787) each close to the centre point of a line drawn between the northernmost and southernmost of each of the post-pairs. With diameter of 0.8m they were clearly large enough to take substantial timbers, but their shallowness suggests that such posts were not required to take much thrust. Between them, and orientated roughly along the axis defined by the six post-holes was a shallow subrectangular feature (3337), 2.5m long, Im wide and 0.25m deep, with a shallow, round-bottomed profile. It is quite similar to the features, largely of Phase II, elsewhere on the site which have tentatively been identified as graves, but its shallowness, and slightly excessive length is proba-



Plate XLIX Building 4 after excavation, from east



Fig. 98 Scale 1:20



Plate L Building 4 wall trench showing fill of clay with chalk



Plate LI Building 4, post-hole 3282 with rectangular socket in base



Plate LII Building 4 'grave' 699

bly against that identification here. Whatever its function, its position, and a lens of clay with chalk in its upper fill certainly relate it to the post-holes and the ring-gully, and the position of the clay lens, subsiding into its uppermost fill implies that this feature was recently-filled when the clay entered it, perhaps at the same time as the clay was deposited in the four main post-holes. The thin layer of fill between 3337 and 3787 is almost certainly the result of disturbance by burrowing animals. A similar, but slightly smaller feature (699) (Pl. LII), in the north-west sector of the structure, is also assumed to be contemporary. A distinctive smear of dark, almost black, sandloam along its base (3732), building up to a lens against the south side, was thought to be organic in origin, but phosphate levels showed no pronounced enhancement.

It is difficult to see this structure as a conventional round-house of the style represented by Buildings 1-3. The ring-gully appears not to have served as an eavesdrip, because of its sharp, unweathered profile and its clay fill, but rather to have been the lowest footing of a clay wall, probably a low or insubstantial one because of the nature of the gully. In this case the clay in the four main post-holes and in 3337 was presumably deposited during demolition, after the posts had been removed; the two western post-holes, or more accurately post-removal pits, clearly cut through the remains of this wall. The feature 3337 would then appear to have been backfilled before the demolition, probably during the life of the building.

If the building was roofed, its roof-support posts must have been supported on surface pads, a technique suggested for the Cat's Water, Fengate, Iron Age buildings (Pryor 1984, 126), but the present writer feels that this would be out of keeping with the massive sockets dug for what must be the door-posts into the building. The two shallow sockets 3350 and 3787 would also be out of place in such an interpretation. More attractive is the possibility that this is a circular walled enclosure, rather than a roofed building, with a pair of opposed entrances, and possibly a central, focal feature in the form of 3337. If this could be interpreted as a grave, then interpretation would be simpler: a circular funerary enclosure, with large, probably elaborate entrance structures, and perhaps a marker on each side. Alternatively, and less tangibly, we may be dealing with a passageway between the two opposed entrances, perhaps defined on each side by horizontal timbers, or rather a pair of 5m timbers on each side, with their junctions supported on verticals which stood in the central features 3350 and 3787. The circular walled enclosure around it would then be rather secondary in function, setting it aside from the surrounding area, and its position in front of Building 1 (albeit not quite aligned onto its entrance) would be significant; perhaps the structure acted as a sort of ceremonial forebuilding to the round house behind it.

If either 699 or 3337 could be accepted as graves, the funerary and ceremonial interpretations could be combined, and the two hypothetical burials seen as analogous to founders' graves in Christian churches. However, this does not seem possible.

The finds from the feature which make up this structure are of little help in the interpretation. Although the pottery is predominantly of hand-made Iron Age fabrics (Fig. 145, Nos 136, 137), there is a single sherd of Early Roman, consistent with a Phase III date. With the exception of a single sherd from the post-hole 687, all the pottery was found in the fill of the feature 699.

Of rather more interest is a copper alloy nail, of a distinctive type with a soldered head, which was found in the post-hole 3308 (Fig. 118, No. 33). It is one of three found on the site, the other two, significantly, being found in a feature of Building 5, and in 874, a feature immediately outside Building 2, and containing the same clay with chalk so distinctive of Buildings 4 and 5.

Building 5

(Pl. LIII; Figs 99, 100)

Despite differences in details, Building 5 appears to be very similar to 4. It consisted of a pair of gullies (sharing the number *1005*) around a semi-circular area 10.2m in diameter, with the same discontinuities as seen in Building 4, where localised areas of shallow gully had been removed by ploughing or machining. Of the two gullies, averaging 0.2m wide and 0.1m deep, the inner tended to be of a U-profile and the outer to a V, and contained little

of the clay with chalk fill which characterised the gully of Building 4. At the east side they were clearly cut by the post-hole 3649, while on the west they faded out before meeting the corresponding feature on that side. There was no sign of a northern continuation of the gullies, but the area where they would have been expected was particularly badly affected by ploughing and subsoiling, and it is not unreasonable to suppose that the circle was originally complete. In this case, the projected line of the gully on the north would have run very close to the inner lip of the inner ditch of Enclosure la, too close for the two to be contemporary.

Two pairs of post-holes at the north end of the arc correspond to the entrance posts of Building 4, in this case *1687*, *1694*, *3651* and *3649*. Each was oval in plan, with straight steep sides and a flat bottom, 1.2m from north-to-south and Im from east-to-west at the top, 0.8m by 0.5m at the base, and 0.5m deep. They did not have the same rectangular plan at the base as the post-holes of Building 4. All four contained quantities of the distinctive



Fig. 99 Scale 1:100



Fig. 100 Scale 1:20

yellowish clay in their upper fills, and it appeared in all cases that the posts had been removed.

Within the area enclosed were four oval features, generally similar in size to the four principal post-holes, but shallower and of gentler profiles (*1683*, *1685*, *3808* and *3855*). All were filled with brown sand-loams or sands, and in *1683* there was a thin layer of sooty black sand-loam at the base. Other features in the immediate area, which differ markedly from the above, have not been considered as part of the structure.

Finds were commoner in the features of this building than in 4. Again, the pottery was largely of handmade Iron Age fabrics, with two sherds of early Romano-British types. The post-hole *3649* contained a copper alloy nail with soldered head of the type already discussed under Building 4 (Fig. 118, No. 34).

In most respects, Building 5 corresponds well with Building 4. Its location is broadly similar, close to the east entrance into Building 3, but not as close or as wellaligned as Building 4 to Building 1. The ring gully of 5, although double, is analogous to the single one of 4, and the four entrance post-holes in each building roughly correspond. The differences are in the internal arrangements and the rarity of clay in the fill of the ring gully in Building 5. It is quite possible to argue that there had been a pair of central post-holes in this building and that later ploughing removed them. This could be supported by the fact that the four entrance post-holes in Building 4 survive to a greater depth, by 0.2m, than their counterparts in 5. If this argument holds good then Building 5 contains additional features in the form of the four shallow internal pits, whose association with the structure is hypothetical. A greater problem is the rarity of clay in the ring-gully 1005. It did appear in quantities in the entrance post-holes, and it is difficult to see where it came from if



Plate LIII Building 5 from east

not from an analogous location to that in Building 4. Perhaps in the case of Building 5 the clay wall was more cohesive and hence demolition more complete. Generally, the interpretative comments made on Building 4 are also good for Building 5.

In summary, the interior of Enclosure 1b contained the three orthodox round houses, Buildings 1, 2b and 3, and the two circular structures Buildings 4 and 5. Taking the building axes as lines drawn through their double entrances and centres of post-rings, Building 2 is aligned on the entrance into Enclosure 1b, and the axes of Buildings 1 and 3, while not aligned on the entrance in the same way, converge on the axis of Building 2, which they intersect at some distance outside the enclosure. The axis of Building 2, of course, is also aligned on the mid line of the entrances into the Phase II Enclosure 1a, and the extension of Enclosure 1a to form 1b may have been aligned on the common axis of the entrances and Building 2a, rather than the irregular alignments of the Phase II ditches.

Buildings 4 and 5 are aligned on axes parallel to that of Building 2 and the entrance into the enclosure. They do not have the same relationship to their nearest conventional round houses, 1 and 3 respectively, which originally led to their allocation to Phase II, in Enclosure 1a. However, Building 5, and to a lesser degree 4, stand too close to the lip of the inner ditch of the Phase II Enclosure 1a, and they have therefore been reallocated to Phase III.

Other features within the enclosure are more difficult to phase; the majority of the ditches and gullies can be shown to be earlier, and the isolated features, pits and post-holes usually cannot be securely phased. So although there is a probability of other features and structures within Enclosure 1b, they cannot be identified with any confidence. One likely exception is a pit, 2577, which cuts the backfilled ditch of Phase II Enclosure 26.

It was a shallow feature, 0.4m deep and 2.5m in diameter, cutting the backfill of ditch *364*, the west side of Enclosure 26, Phase II, immediately north of the south-west corner. It was in turn cut by the Phase IV gully *363* and thus seems certain to belong to Phase III. Its fill contained an unusual quantity of pottery, including micaceous Early Roman fabrics, *terra nigra* and a single sherd of probably pre-Flavian samian, although all of this could equally have been derived from the fill of the ditch which it had cut.



Fig. 101 Scale 1:20; for plan see Fig.84

The end of Phase III appears to have been accompanied or caused by a systematic demolition. There is strong evidence for the removal of posts from the buildings, the perimeter fences and the entrance. Although deliberately filled, the ditches of Enclosure 1b may have been filled slightly later than the end of Phase III (see above), but it is likely the demolition of the structures belongs here, which on purely archaeological grounds, from the pottery associated with the structures, would be put in the Early Roman period. The detailed arguments for the dating will be rehearsed below.

VIII. Phase IV

(Fig. 102)

In the excavated areas there is a clear hiatus in datable finds, between the early Roman associated with Phases II and III and the material of the third and fourth centuries associated with the latest datable activity on site, Phase IV.

Remains of the preceding phase had not been entirely destroyed. The inner ditch of Enclosure 1b was certainly partly open in Phase IV, as indicated by the deposits of burnt heather (p.181), with radio-carbon determinations of AD 300±80, from layer 6852, at the bottom of the ditch on the east side, where the burnt natural sand shows that the deposit was burnt in situ, and AD 480 ± 60 , from layer 3304, the fill of a small pit (3329) dug into the fill of the ditch when it was half full (p. 181). The fill into which 3329 was dug was the relatively stoneless, probably wind-blown, layer common on the south and west sides of the enclosure, representing a pause in the dump-filling. It would therefore appear that, by the late Roman period, the inner ditch was partly filled on the south and west sides, exposed to the prevailing winds, and the east side at least was still largely empty.

The outer ditch of Enclosure lb, 104, contained a similar wind-blown deposit on the south side (e.g. Fig. 87, S1498, 6605), immediately below a thick upper deposit of dark soil containing late Roman material, a rubbish deposit of the late fourth century AD. This would suggest that the outer ditch was in a similar state to the inner of the fourth century, but rather than being left open was deliberately levelled. The reason for this is clearly the digging of a pair of gullies, 363 and 431, along the north lip of the inner ditch, and the east lip of the southern half on the west side (Fig. 103).

The northernmost of these gullies, 363 ran from a poorly-defined east end to a 6m wide causeway before running to the south-west corner of the excavated area where it turns north, more or less following the line of the Phase III ditch, by now freshly filled; it continued along the east edge for a length of 60m before turning a radiused corner through 90°, across that ditch, which at this point was also completely full, and running out of the west side of the excavated area. Its profile varied, particularly on either side of the causeway, which appears to be a deliberate break. To its east the gully had a U- or slack V-section, 0.2m wide and 0.1m deep, often disappearing over areas of hard gravel. To the west of the causeway, 363 was more substantial, particularly where it was dug into the backfill of the ditch of Enclosure 26, generally averaging 0.6m wide and 0.25m deep, with a well-defined and unweathered V-profile. Around the corner and along the north-to-south length its dimensions shrank to 0.25m by 0.15m, with a slighter V-profile. Despite the differences, the coincidence of plan between the lengths east and west of the causeway is enough to allow them to be regarded as the same feature.

Immediately south of 363 in its east-to-west length, and often no more than 0.1m from it, was the second gully 431, running from the south-west corner of Enclosure lb, which it just turns, to end at the west edge of the hard gravel over which 363 had disappeared. Unlike the latter, however, 431 did not reappear to the east of the gravel; it was also continuous behind the causeway in 363. It averaged 0.6m wide and 0.3m deep, increasing to 0.8m by 0.4m over the backfill of the ditch of Enclosure 26, with generally a U-profile.

From the close coincidence of their lines, it would appear that 363 and 431 served the same function, perhaps one following the other, although with differences in their detailed plans. Although each had occasional stake holes in its base, they do not appear to have been intended for fences, but simply as boundary gullies. The dog-leg in the plan of 363 was probably intended to take in the occupation represented by the concentration of late Roman coins, other metal objects and pottery found immediately north of the west end of the Travenol factory, which itself appears to have been a continuation of the principal concentration of finds under the west end of the factory itself.

Building 6

(Pl. LIV; Figs 104, 105)

South of these boundaries, two areas were excavated: the first was cutting IV immediately north of the supposed find-spot of the Thetford Treasure in order to put that discovery into a proper context. It revealed a series of small features, all, where datable, belonging to the late Roman period, including five post-holes and two gullies which are tentatively identified as the remains of a timber building: two post-holes (182 and 192) 7.5m apart, lay 1.5m north of a pair of gullies (113 and 115). Two and a half metres to the south and 5.5m apart lay a second pair of post-holes (135 and 149) while a fifth post-hole (141) further south again formed a north-to-south line perpendicular to the gullies, heading directly for the supposed find-spot of the treasure. In at least one case, 192, the post had been dug out of the post-hole, while the post-hole 149 was cut away after filling by a short length of gully, 120, running along the post-hole line. The shallow oval pit, 184, may belong to the structure. The post-holes, and the gullies 113, 115 and 120 all contained fully Romanised grey wares and a few sherds of late Romano-British colourcoated ware, suggesting a fourth century date for the demolition of the building.

It is perhaps rash to attempt to reconstruct a timber building on such flimsy evidence, particularly when such evidence as there is demands a rather unorthodox reconstruction. However, if it is accepted that the five postholes and the gullies *113* and *115* belong together, on the basis of their rectilinear layout, then the post-holes may be interpreted as the sockets of aisle-posts, and the gullies as parts of bedding trenches, presumably for a wooden sill. This would give a bipartite building with a cross partition, and an aisle width 7.5m north of it and 5m to the south. The wall line is hypothetical, but has been postulated for the sake of credibility.



Fig. 103 Scale 1:20



Fig. 104 Scale 1:200

The reconstruction leaves some problems; why should a bedding trench for a sill survive only at the point where it is least needed, at an internal partition? And why should that partition be a shorter distance from its nearest aisle posts than the standard longitudinal interval between the posts? Why, furthermore, do no traces of further posts survive to the north, without which the building is rather difficult to reconstruct? However, if the reconstruction can be accepted despite these reservations, there is clearly a context for the Treasure, which would then have been concealed either along its line of aisle posts, or in a continuation of the gully *120* dug along that line after the demolition of the building.

To the west of Building 6, a substantial group of fourth century pottery was found by casual digging (4190). This appears to have been a rubbish dump at or close to the surface, lying at the base of the present topsoil. The thin scatter of late Roman coins around Building 6 clearly distinguishes this area from the 100m gap between the building and the concentration of late Roman finds to the west, from which metal finds were absent, and surface finds of pottery rare. There are thus two demonstrable concentrations of activity between the line of the boundary gullies and the Travenol factory to the south.

North of the boundary gullies was a general scatter of late Roman finds, all from the metal-detector survey, and a few features attributable to Phase IV in that they



Plate LIV Building 6

appear to cut and post-date features of Phase III. An eastto-west gully, 481, cutting across one of the fences of Enclosure 1b, may belong to Phase IV, particularly in view of its alignment parallel to 363 and 431. Its alternative interpretation, as a repair to those fences, is discussed above. The small pit, 200, also cut one of the Enclosure 1b fences.

Inside Enclosure 1b was a large pit, 2949, subrectangular in plan, 11.2m by 9m, 2.6m deep with an asymmetric profile and its lowest point set very close to its south side, giving a long shallow ramp on the north side, reminiscent of a large quarry pit (Fig. 107). The few finds from its fill included some sherds of early Roman fabrics, and they suggest a Phase III date. However, a pit immediately outside the west entrance of Building 1 is a most unlikely contemporaneity, so Phase IV is preferred, indicating late Roman, or even later, activity outside the area defined by the Phase IV gullies.



Fig. 105 Scale 1:20

Building 7

(Fig. 106)

This is a structure which cannot be dated independently, but which might fit most comfortably in Phase IV. The last vestiges of fifteen post-holes, often surviving as no more than smears on the surface of the natural sand, or even as concentrations of mole-holes with darker fills, suggest a structure 13.5m long, from north-to-south, and at least 5m wide. Three sides survived, the fourth being untraced, either because the post-holes were cut away by the inner ditch of Enclosure lb, or because they were invisible in its fill, there is certainly no confidence in the relationship between the building and that ditch. The preservation of the post-holes was so poor that excavation of them was impossible, and their dimensions in plan were very subjective. There was some regularity of spacing, at 1m or 0.8m centres, and the deviation from a straight line was only 0.2m. The exception was 7446,



Fig. 106 Scale 1:20

which, if it belongs to the building, could be the southern post of an inset doorway. The arrangement of posts at this point is complicated by the diffuse feature 7434, which may include a post-hole.

There is no evidence from the site for the date of this building. Analogy provides the only suggestion, and here the wide chronological range of simple wall-post rectangular buildings, from Neolithic to Saxon, is of little comfort. The evidence rehearsed recently by Dixon (1982) suggests that structures of this sort are most common in the late Roman and Saxon periods, and perhaps for this reason, a date in Phase IV may be regarded as acceptable, but certainly not proven.

IX. Unphased

A number of features and structures on the site cannot be related to the main phasing either stratigraphically or from their relationship in plan to phased features. While it is likely that they belong to the Late Iron Age/Early Roman phases of this site, and probably to I or II, there is no clear balance of probability in favour of this suggestion, and they are therefore treated together as 'unphased'.

Structure 4

(Figs 108, 109)

Between Buildings 1 and 2 was a concentration of postholes; particular attention was drawn to them because of their unusual density, although the area containing them was more closely examined than other parts of the site because of the proximity of the adjacent circular buildings. As a consequence, the recovery of this particular part of the plan may be regarded as atypical to an extent. However there is a coherence of plan and a relative uniformity of dimensions of some of the post-holes, suggesting the remains of a structure or building of some description. The proximity of the southernmost feature, *3166*, to the eavesdrip gully of Building 1 suggests that they are not contemporary.

Under such circumstances, the convincing reconstruction of a plan is inevitably a particularly subjective matter, but a group of structures, 4 and 8-11 (see below p. 116) readily suggest themselves. Structure 4 appears as three sides of a rectilinear figure, 9m long from northwest to south-east and at least 6m wide, with an internal subdivision approximately half way along its length. The spacing and alignment of posts is a little irregular, with a much greater density along the short sides and the subdivisions. The post-holes were generally circular, 0.2-0.4m across and 0.1-0.15m deep. The two corner postholes, 3123 and 3166 were considerably deeper than the others, suggesting that they held the principal structural members. The presence of a larger post-hole, 2982, immediately north-west of the southern corner, is difficult to explain structurally, and animal disturbances, recognized elsewhere around the structure, might be involved but unrecognized during excavation.

A number of the post-holes attributed to this structure, 3148 and 7606-8, were seen at an early stage of cleaning, but could not be excavated properly because of intense animal disturbance. It is therefore not clear whether the end of the subdivision was also a deeper posthole. This animal disturbance may also account for the small number of post-holes recognized in the south-west side. The north-east side of the structure, the other long side, is a problem. No signs of any post-holes were discovered, suggesting an open side, but if this were the case, the post-holes at the ends of the short walls and the subdivision (3129, 3177, 3148) might be expected to be deeper, corresponding with the other two corners, which is patently not so. It is therefore impossible to decide between two interpretations of Structure 4, either as an open-sided, cart shed-like building, or a rectangle of which one side has been lost.

Structures 8–11

(Figs 108, 109) In the concentration of post-holes which includes Struc-



Fig. 108 Scale 1:100

ture 4 were nine features which form four convincing two-post structures. These cannot be related in any cogent way to Structure 4, except in so far as Structures 10 and 11, if they were contemporary with the latter, and if it was a cart shed-like building, must have stood partly within it. In all cases the post-holes have been associated together in pairs on the grounds of the similarities of their dimensions, and because other similar features are absent from their immediate vicinity.

To the west of Structure 4 were two-posters, 8 and 9, both aligned roughly north-to-south with posts respectively about 2m and 2.5m apart. Another pair of twoposters, 10 and 11, on the east side of Structure 4, were aligned south-west to north-east, with post intervals of approximately 2m and 3m. Structure 11 may have two phases of use, with 3133 as its south-west post-hole in both cases, but 3138 and 3140 each forming the north-east end. Their proximity makes it unlikely that they are contemporary in a three-post structure.

It may be significant that the two-posters occur in two pairs; however there seems little likelihood that they are any more than paired structures. Certainly the difference between the post-holes of each structure rules out any possibility of combining them into four-posters.

The interpretation of two-posters is difficult. Bersu's original interpretation of the Little Woodbury structures as drying racks (1940, 45) was expanded by Ellison and Drewett (1971, 189–90) and others to include other functions such as storage structures, and even buildings. It would certainly be difficult to decide between the wide range of possibilities here.

Pits 506, 512

(Fig. 110)

Immediately south of the outer ditch of Enclosure la were three small pits of which two, 506 and 512 were exca-



Fig. 109 Scale 1:20



Fig. 110 Scales; plan 1:100, sections 1:20

vated. Both were roughly ovoid with straight sides and flat bottoms. The interest of *506* is that it contained lenses of intensely sooty soil which produced a deposit of carbonised semi-cleaned cereal grains, indicating their storage or processing, but not their primary production (p. 00). Neither pit could be dated.

Chapter 4. The Finds

The finds have been catalogued, and are selectively illustrated and discussed here, by material and type. Complete lists of finds, arranged in the same categories as in the printed report, are to be found in the fiche supplement, along with a table showing the presence and absence of finds categories in features or structures, arranged by phase, with unphased features appended. Supplementary material, such as distribution maps of certain finds categories, is to be found in the unpublished site archive.

The standard form for the description of finds published in the printed report is:

Number on figure or plates (or 'unillustrated').

Description of object.

Any necessary quantified data.

Small find number, denoted 'SF', if applicable.

Context number.

Context detail.

Phase of context.

Further details and parallels.

I. Iron Age coins

(Pl. LV)

Only four coins of Iron Age type were found, 1 and 2 by metal-detecting and the others in excavation. A collection of this size is of little use in assessing the date or nature of pre-Roman activity, particularly since the dating of the issuing of Iceni coins, and the length of currency of Iron Age coins in general, and of Iceni coinage in particular given the peculiar circumstances of the tribe in the period AD 43–61, are far from certain. In view of the implications of the pellet moulds (p.139), that this was the site of a mint, the small size of the coin group is strange.

- Icenian silver coin of Allen's (1970) Early Face-Horse type. The obverse was struck from a very worn die. Weight 1.7gm, 27 grains. SF 111. 4. Metal-detecting field surface. This coin is die-linked in the reverse to Allen (1970) Pl. III, which is from an unknown Norfolk find-spot, not from Caistor by Norwich as Allen stated, although the present coin was struck when the die was much more worn. An obverse die-link is also possible, although there is little apparent difference between the state of wear of the obverse dies of the two coins.
- Icenian silver coin of Allen's (1970) Boar-Horse type B. Incomplete. SF 161. 325. Metal-detecting topsoil during stripping.
- Trinovantian copper coin of Mack 251. Obv. Head of Jupiter Ammon left, ——BELIN; Rev. Mounted warrior right, CAM. Weight 2.45gm, 38 grains. SF 267 2965. From ditch of Enclosure 25. Phase II.
- Icenian silver coin of Allen's (1970) Pattern-Horse type, inscribed ECEN. Weight 2.0gm, 31 grains. SF 275. 2068. From the 'grave' 3097 within Enclosure 25. Phase II.

The two metal-detector finds were from the northwest part of Enclosure 1, and the two excavated finds from the north-west corner of the excavated area, outside that enclosure. This distribution could well be attributed to a combination of the greater density of features, and an emphasis of feature excavation, in those parts of the site, but the presence of pellet moulds in Enclosure 23, used to cast coin blanks, perhaps lends extra significance to this distribution.



Plate LV Iron Age coins (actual size)

II. Roman coins

(Table 1; Figs. 2, 111)

The excavations and attendant metal-detecting surveys (p. 00) produced a total of seventy-three Roman coins, ranging in date from Augustus to the House of Valentinian. Sixty-eight of these were metal-detector finds from the surface or topsoil. Of the large number of coins, as well as other objects of Roman date, reported to have been found in 1979 during the construction of the Travenol warehouse (p. 1) thirty-seven have been made available for recording, giving a total of 110, of which 106 are identifiable. Full details are to be found in the fiche supplement. The coin finds are summarised in Table 1 and Fig. 111 and listed in full in Tables 14 and 15.

The histogram (Fig. 111) shows the relative percentages of coins, plotted against the period-by-period values for fourteen groups of site finds published by Reece (1973, fig. 1). Iron Age coins are not included in the total of coins identifiable, to maintain compatibility with Reece's method, but they are expressed as a percentage of that total in order to relate them to the other site finds. The sample size is small, and comparisons for those periods represented only by a few coins are valueless, but there are a few gross divergences from the patterns detected by Reece, which are worth consideration.

The first is the high proportion of coins of period 2a (Claudian issues and their copies, AD 41–54), which is greater than that for any of the sites in Reece. In period



Fig. 111 Histogram of all Roman coins known from site

13b (AD 330–348) the percentage is low, drops into period 14, a common phenomenon in Reece's sites, but then rises dramatically in 15a (AD 364–378).

Period	Date	Number	% of total identifiable
1	pre AD 41	1	0.9
2a	AD 41-54	9	8.5
2b	54-69	0	0
3	69-96	1	0.9
4	96-117	1	0.9
5	117-138	1	0.9
6	138-161	1	0.9
7a	161-180	3	2.8
7b	180-193	0	0
8	192-222	0	0
9a	222-238	0	0
9b	238-259	0	0
10	259-275	8	7.5
11	275-294	11	10.4
12	294-317	3	2.8
13a	317-330	3	2.8
13b	330-348	15	14.2
14	348-364	8	7.5
15a	364-378	40	37.7
15b	378-388	0	0
16	388-402	1	0.9

Table 1. Roman coins

The period by period percentages can also be compared with the coin lists for various Norfolk sites (Davies and Gregory 1991); only in four periods do the percentages for this site vary from the Norfolk means by more than the standard deviation. The most significant once again are 2a (AD 41–54 including Claudian irregulars) and 15a (AD 364–378), respectively ten and three times the standard deviation. In period 7a (AD 161–180) variation is almost twice the standard deviation, but since this is a sample of only three coins, it cannot be considered to be valid. In period 13b (AD 330–348) this site is underrepresented by very little more than the standard deviation, and this should probably also be regarded as insignificant.

The increase from period 14 to 15a is a common feature of Norfolk coin lists, but is more marked in this case than the others.

The spatial distribution of the coins is also of some interest (Fig. 2). Almost all the Claudian coins were found within the limits of Enclosure Ib, the Phase III extent of the site, and are concentrated in the east part of the enclosure. This is contrary to the bias of excavated features towards the west, and the predominance of metal-detector finds among the Claudian coins confirms that the distribution is little affected by uneven excavation.

Similarly the later Roman coins, mostly of third and fourth century date, were largely metal-detector finds, and therefore likely to show a reliable pattern across the site. Across the excavated area the coins are more or less evenly scattered with a cluster around Enclosure 17; this however was a much earlier feature, and there was no comparable concentration of later finds in the excavation of this area. The heaviest concentration was to the west of the excavated area, on a low hillock immediately north of the west end of the Travenol warehouse: the implications of this for the later use of the site will be discussed below.

III. Post-Roman coin

Despite the intense metal-detecting, only one Post-Roman, pre-sixteenth century coin was found:

 Cut silver half-penny; short cross, Class VI, Henry III, AD 1218– 1223. SF 668. 4. Metal-detecting field surface.

IV. Brooches of copper alloy and of iron

(Figs 112–115; Table 16) by D.F.Mackreth (written March 1985)

All are made from a copper alloy, unless otherwise stated.

Colchesters

(Fig. 112, Nos 1-5)

In these, the spring and the hook are integral with the body of the brooch.

- 1. The hook is broad, short and spreads out as it meets the head of the bow. The wings and bow are plain. The latter has a thin rectangular section and tapers to a pointed foot. The narrow catch-plate was hammered out from one side of the bow and has two piercings with squared corners. *SF 173. 582. Enclosure 1a, inner ditch. Phase II.*
- Corrosion has removed most of the surface. The spring and most of the catch-plate are missing. The hook is pointed and longer than that of brooch 1. The wings are plain, the bow was probably also plain and seems to have an octagonal section. The catch-plate may have had a rectangular piercing. SF 160. 325. Metal-detecting topsoil. Unphased.
- In a poorer condition than brooch 2, half of the six-coil spring is present. The wings and bow appear to have been plain and only a stub of the catch-plate remains. SF 148. 325. Metal-detecting topsoil. Unphased.
- 4. The head only survives. The hook is broad, short and splays out like that of brooch 1. The wings here are vestigial. Unusually, the head is a flat plate from which the hook rises with the spring running out from the back of the plate. At the top of the bow is a trace of a narrow buried ridge. SF 424. 7633. Unresolved intersection. Unphased.
- 5. Iron. The details are best seen on the X-ray which shows a spring with at least seven coils on the left. There is an axis bar and a chord. The hook is clearly bent forward. There is no good evidence that the spring is integral with the body, but there is equally no sign of a plate or hook like those found on the Derivative forms dealt with below. Each wing has a flat front with two vertical grooves. The bow is short and there may have been some attempt at a foot-knob. SF 213. 1644. Ditch of Enclosure 14. Phase II.

Both the dating and development of the Colchester in Britain are ill-understood in the sense that the former is essentially based on one site, Skeleton Green (Partridge 1981), while the latter can only be described at present as a hypothetical typological sequence. No Colchester can convincingly be placed in the first century B.C., the earliest having a context date of c. B.C. 10–20 A.D. (*ibid.* 141, fig. 68, 21). The typology, as it is at present conceived by the writer, is of necessity simplistic beginning with specimens echoing what appear to be continental forms (*e.g.* Thill 1969, 140, *Abb.* 3, 31, 33) with short, broad hooks, thin and rather flat-sectioned bows and basically straight profiles to their bows. Catch-plates tend to be four-sided instead of the normal British triangular version.

Brooch 1 here conforms fairly well with this description.

Thereafter, the bow develops a curve and the catchplate acquires fretting between its openings. Ornament is always restrained and consists in the main of fluting on the wings or hand-worked wavy ridge down the bow: the two are virtually mutually exclusive. The later stages are marked by a diminution of general size and the applica-



Fig. 112 Copper alloy brooches, scale 1:1

tion of what, in this system, is variant ornament (*e.g.*, Bennett *et al.* 1982, 169–71, fig. 88, 1). However, a growing body of evidence suggests that such a simple linear development may need to be modified to allow for some regional variations.

Brooch l here may date to the first quarter of the first century A.D. Brooches 2–3 are 'typical' specimens which may begin fairly early in the floruit, but display in themselves no particular symptoms of being late. The springfixing arrangement of brooch 4 is abnormal, the usual upright wings masking the double start of hook and spring being absent. Whether this departure marks an early stage or a late one in the Colchester sequence cannot as yet be determined.

The end of the manufacture of Colchesters must be closely related to the first production of the type's progeny. At present, the earliest Derivative form is the sole example present in the Skeleton Green collection where, in fact, the stratigraphical position of the piece was ambiguous (Partridge 1981, 35, 137, fig. 69, 25). However, the solitary presence of the brooch in a collection lying in the prime area of the development of that particular variety must be significant and it would be difficult to argue that, even if the real context dates to after the Conquest, the brooch itself cannot have been made before (*ibid.*, 51– 2, 130).

Therefore, no Colchester should have been made after c. 40/5 at the latest and any lost after then were most probably survivors-in-use. As for the iron brooch, 5, the form would point to a date after c. 30, *i.e.* in the last few years of the period of manufacture, especially if there had been decoration on the foot. The length of time late Colchesters would have survived in use after the end of production was probably no more than about ten years, say up to c. 55/60 at the most.

Colchester Derivatives

(Figs 112, 113 Nos 6-15)

Brooches 6–12 had a separately-made spring held to the body of the brooch by a rearward-facing hook catching hold of the chord, the spring being pressed into the wellcurved wings.

Brooch 12 has, behind the left hand wing, solder which still retains impressions of the coils of the spring. On brooch 7 a fragment of spring survives at the end of the left hand wing. Closer examination of the other brooches in this group shows that corrosion products behind the wings tend to be confined or to be more definite behind the same wing: 6, 8 and 10. The same characteristics in differing degrees including solder smears have now been noted on the same type of brooch from other sites, but the state of preservation depends on the quality of the conservation work carried out. Although the traces are most often behind the left hand wing, they occasionally occur at the end of each wing and seem to be a persistent enough feature to need some form of explanation. This particular type of Colchester Derivative, with only a hook to hold the spring to the body of the brooch, has always appeared to have been inefficient. However, if solder was used to anchor part of the spring, the system becomes more convincing. As springs coil out from the centre of the brooch to the left before crossing over via the chord to the extreme right end to coil back to the middle, it was clearly the part of the spring furthest away from the pin which was 'fixed': to solder the beginning of the

spring, at the centre of the head, could result in the pin being affected as well. Those brooches with solder at each end either copy the principle of the Polden Hill, or the practice may even have been a stage in the development of the pierced plates at the ends of the wings, the mark of the Polden Hill spring-fixing arrangement.

- 6. Each wing has a central flute with a relieved beaded moulding on each side. The hook lay at the end of a shallow centre ridge which had moulded ornament in the form of close-set lips separated by flutes. The basic section of the bow is a semi-circle with a shallow step down each side bearing a version of the moulded decoration down the centre, but less well executed and with a tendency for its divisions to be diagonal. The lower bow is missing, but enough remains to show that the catch-plate had been of sheet metal inserted into a slot cut into the back of the bow to receive it (see brooches 9 and 13). SF 519. 4500. Metal-detecting topsoil. Unphased.
- 7. Much damaged by corrosion, part of the spring is still in position although the chord and hook are missing (see brooch 12). Each wing was decorated like those on brooch 6. The head of the bow is, again, humped over the wings and has traces of a central beaded ridge defined by a groove on each side. The lower bow, with the catch-plate is missing. SF 167. 325. Metal-detecting topsoil. Unphased.
- 8. A skeuomorph of the Colchester's hook has a complex profile made up of a beaded convex and a concave curve separated by steps. The wings are repeats of the previous examples. The bow had a flat back, squared sides and a central beaded ridge defined along each side by a groove. The whole brooch was very carefully finished. SF 570. 4500. Metal-detecting topsoil. Unphased.
- 9. The hook was either made of wire inserted into the mould before casting, or was a piece of metal put into a cut made afterwards: corrosion damage renders the details ambiguous. Each wing has at its end a wide, relieved, flute. The bow is rounded both behind and in front which has a pair of ridges down the centre and one along each edge. The central pair once had diagonal beading, giving a herring-bone effect, now worn away except at the foot. SF 164. 325. Metal-detecting topsoil. Unphased.
- 10. The hook, now broken, stood boldly up from the top of the bow. Each wing has a vertical groove at the end with a diagonal one along the rest of the face. The bow has a flat back, shallow squared sides and a chamfer on each side running up to a central groove. Down each side arris and the central groove is a line of cross-cuts executed with a slightly blunt and narrow bladed chisel. The catch-plate has a circular hole. The brooch is finely finished. SF 205. 1524. Ditch of Enclosure 7b. Phase II.
- 11. In poorer condition than brooch 10. Each wing has remains of two wide and shallow flutes. The edges of the bow are stepped. The groove down the centre has a line of chiselled cuts down it. The lower bow, with the catch-plate, is missing. SF 500. 4500. Metaldetecting topsoil. Unphased.
- 12. Each wing has a wide flute relieved to either side. The bow section is like that of brooch 10, but here there is a beaded central ridge defined by grooves. The catch-plate has lost its return. Behind the end of the left-hand wing is a deposit of white metal which still retains the impression of the spring (see brooch 7). *SF* 473. 1098. *Inner ditch of Enclosure 1a. Phase II.*

Although these seven brooches have varied ornament, this is of secondary importance for dating compared with the type of the spring-fixing arrangement used. The system is one of the three principal methods established as soon as the spring was made separately from the body of the brooch. While that on the 'Harlow', brooches 13-15 here, and the Polden Hill continue towards the end and beyond of the first century, the simple rear-hook has a much more limited life: c. 43-50 (Clifford 1961, 172, fig. 31, 1, 2, 4; Brailsford 1962, 7, fig. 6, C13; Richmond 1968, 117-9); c. 49-61 (Hawkes and Hull 1947, 312, Pl. XCII, 44, 45, 51); 50/55-60/1 (Crummy 1983, 12-2, figs 6-8, 6, 56, 57, 62); 50-65 (ibid., 12, fig. 7, 61); 40-65 (Partridge 1979, 38, fig. 6, 10); 64-70 (Hobley 1969, 108, fig. 19, 3). The maximum range may be said to be c. 40-70 A.D. As most of the examples had been lost or

consigned to the ground by 60-65, the actual range is shorter. Indeed, the recently published specimens from Colchester (Crummy 1983, above) may be of some significance: of all the brooches dealt with, none of this type was obviously residual, unlike the other major categories represented in the collections. As the centre of the distribution is towards the northern part of East Anglia spreading to the western margins of the Fens and with relatively few outliers, the type very probably originated in the lands controlled by the historical Iceni. The dating of the examples given suggests strongly that the Boudican revolt and its immediate aftermath could have brought its production to an end, even if the relative inefficiency of the system had not caused this to happen by then. There is no good reason at present to suppose that any survived in use significantly beyond c. 65 A.D.

The following three brooches had their springs held in what the writer calls the 'Harlow' manner: an axis bar passed through the coils and the lower of two holes in a plate at the back of the bow; the chord was held in the upper. The back of the wings is flat.

- 13. Each wing has a wide flute relieved on each side. The bow is broad at the top and tapers to a near-pointed foot. The plate behind the head runs over the top and down the centre as a ridge. There is a poorly preserved moulding down each side of the bow. The catchplate was made of sheet metal inserted into a cut behind the bow, the cut coming through to the front. There is no sign that this arrangement was a repair (see brooch 6). SF 549. 4500. Metal-detecting topsoil. Unphased.
- 14. Only a fragment is left. The surviving wing is plain. The plate behind the head is carried over the top to form a skeuomorph of the hook on a Colchester. There is a moulding on each side of the bow at the top. The rest is plain and the lower part, with the catch-plate, is missing. SF 550. 4500. Metal-detecting topsoil. Unphased.
- Only the head survives with plain wings and a skeuomorph hook. The bow has a central groove. SF 146. 325. Metal-detecting topsoil. Unphased.

None of these three brooches has such marked characteristics that any can be placed in a sub-group of the type having this spring-fixing arrangement. None, therefore, can be assigned satisfactorily to any particular part of the overall *floruit* of the system. Only in the case of brooch 13 is it possible to suggest a fairly early date based upon the manner in which the catch-plate was made: this argues that the casting technique of the maker was not well developed and can be associated with similar mannerisms in the first group dealt with (brooches 6 and 9). Beyond that, each brooch may have lasted into the second century.

Iron Age types including Drahtfibel and Nauheim Derivatives

(Fig. 113, Nos 16-27)

All are of iron except for brooch 22. Most of the details are not visible to the naked eye and use has been made of X-rays. These, however, show only one view and an appreciation of the proper relationship of parts is difficult.

- 16. Now in six pieces, parts of the lower bow and catch-plate are not identifiable. The chord of the spring was external, there may have been four coils and there is an axis bar through them. The bow had a relatively sharp bend at the top and had a rod-like section. SF 137. 311. Inner ditch of Enclosure 1a. Phase II.
- Only the spring with the start of the pin is present. The chord was external as there is not enough room between it and the four coils for the bow. SF 220. 1940. Feature 1939. Phase II.
- Half of the spring only survives, it had an external chord and seems to have had six coils. SF 231. 1983. Gully 2189. Unphased.
- There are six pieces one of which is part of the bow and the very top of the catch-plate, not enough to tell if it had been solid or framed.

The chord of the spring was probably external and the number of coils cannot be assessed. SF 221. 1762. Ditch of Enclosure 13c. Phase II.

- The spring and the top of the pin only survive. The chord could have been external and the number of coils cannot be counted. SF 227. 1951. Outer ditch of Enclosure 1b. Phase III.
- The spring is four-coiled with an internal chord. The bow has a thin circular section and the catch-plate has a large triangular piercing. SF 608. Outer ditch of Enclosure 1a. Phase II.
- 22. The only copper alloy brooch in this section, the spring is missing. The bow is thin and lanceolate. There is a groove down each side of a slightly swelled centre. The catch-plate is damaged and was solid. *SF 163. 325. Metal-detector topsoil. Unphased.*
- Only the upper part of the brooch is present. The four-coil spring has an internal chord. The bow is narrow and thin. SF 464. 3863. Pit 3862. Unphased.
- 24. Half of the four-coil spring with part of the internal chord survives. The upper part of the bow has a thin circular section, the rest is missing. SF 179. 816. Inner ditch, Enclosure 1a. Phase II.
- 25. The number of coils cannot be seen in this fragment of spring which has internal chord and an axis bar through the coils. SF 482. 4025. Ditch of Enclosure 13c. Phase II.
- 26. Now in four main pieces, the bow has a recurve near the top and is a thin rectangle in section swelling where the upper part projects forward. The spring is poorly preserved, but probably had four coils. As there is no corrosion mark from an internal chord, it may have been external. The catch-plate is small with just enough room to admit a normal pin. SF 187. 998. Ditch of Enclosure 7a. Phase I.
- 27. Not certainly a brooch, the piece consists of a circular-sectioned rod tangential to two circular, parallel plates mounted at one end. There is a trace of there having been a hole in each plate. SF 641. 7101. Pit 7102. Phase I.

The brooches divide fairly naturally into two groups: 16-20 inclusive which either had, or may have had, an external chord; 21-6 inclusive with an internal chord. Brooch 27 is discussed at the end. In the two instances in the first group where the bow can be identified, brooches 16 and 19, it has a simple circular section and could be described as being either a thin rod or a thick wire. The only trace of a catch-plate is on brooch 19 where the very top survives and the way in which it has decayed might mean that it had been open-framed. While this would suit the style of the spring, no emphasis is laid upon the possibility. With the exception of brooch 18 with its possible six-coil spring which makes specific comment difficult, the surviving remains point to a condition in which the chord is moving, typologically, from a position essentially in line with the spring to one in which it lies basically parallel with the pin, but pointing downwards, as it does in the Nauheim and its Derivatives.

In such terms, therefore, these brooches should predate the Nauheim and its alternative form, the Drahtfibel. However, as Stead has pointed out (1976, 409–10), there is no direct evidence in Britain that a pure sequence has any chronological value. Yet, to accept that this may apply, leads to a stalemate and, in default of direct evidence, it is perhaps best to assume that there is some relationship. Hence it should be taken that brooches with an external chord should generally predate those with an internal one. That this is broadly true is shown, in any case, by the persistence of the latter until near the end of the first century A.D. and the absence of the former. The time of change from an external chord to an internal one can only be defined by establishing when the latter had come into reasonably common use.

Unfortunately, the forms which are generally taken to be the earliest are not often found in Britain: the Nauheim and the Drahtfibel. Each is defined by having an open-framed catch-plate, the further distinction being the lanceolate bow of the former contrasting with the rodlike bow section of the latter. There are no Nauheims in this collection, but brooch 21 is definitely a Drahtfibel. The dating of the two types is closely related to the development of the standard Augusto-Claudian series characterised in chief by the Rosette and the Langton Down. While both of these can be taken back to the last quarter of the first century B.C., the date of their prototypes is still in question, a point made by Allen (1972) in his discussion of the coins of CRICIRV: if these coins date to before the conquest of Gaul by Caesar, so must the Rosette's initial form which appears on them (ibid., 130, pl. XXV-XXVII). Whether there should be an absolute separation between these later types and the Nauheim is not clear and it is tempting to see the demise of that type at the rise of its successors. At best, therefore, the Nauheim and Drahtfibel should have been in full use by c. 60-50 B.C., their origins lying at a conservative estimate in the previous two or three decades. Allowing that there should be some kind of synchronism between Britain and the continent, brooch 21 should date c. 100/75-25 B.C. overall. To return to those pieces with an external chord, Bantelmann's (1972) analysis of grave groups in the Rhein-Main-Moselgebiet showed a distinct shift forward from the cultural suites belonging to the Middle la Tène to those of the Late La Tène containing the Nauheim (*ibid.*, table 1). However, there is not an exact match between the types predating the Nauheim there and the ones under discussion here. It is also to be noted that, as may be expected, there is a slight overlap between the early and later brooches, but only a very limited one (ibid.). The conclusion is that brooches 16-20 should be earlier than 21, but by how much is hard to assess.

The remaining brooches, with the exception of 26 and 27, are definable as Drahtfibel and Nauheim Derivatives even if only 22 is well enough preserved for its solid catch-plate to demonstrate the point. The Derivative forms carry on in use at least into the last part of the first century A.D. and few of the sub-varieties can be closely dated. Brooch 22 with its upright bow-profile need not be late in the sequence. However, the other three are of iron and can be dated to pre-Conquest times (*e.g.*, Partridge 1979, 35, fig. 6, 1, 2, 6), but dating on material and size alone is not wise beyond saying that large brooches and the more than occasional use of iron are not characteristic of assemblages belonging to the early years of the Roman period or later.

As for brooch 26, there is a possibility that there may have been an external chord. It can also be noted that the profile of the bow is unusual and that the two may be combined to produce a first century B.C. date, but the evidence of the brooch itself will not allow this to be asserted. Item 27 may not be part of a brooch. If it had been, it would presumably have belonged to what appears to be a specifically British strain of La Tène brooches often with a straight or involute bow and a La Tène II foot, but with hinged pins (*e.g.* Stead 1979, 66–7, fig. 24, 3, 4).

However, it seems that the common habit was to have a central pierced plate at the end of the bow clasped by two at the end of the pin (*ibid.*, fig. 25, 2–4). And this would suit the present time if it were also the end of a pin. The date of such a brooch should be at least second century B.C., if not earlier.

Aesica

(Fig. 114)

28. The spring was held by a rearward-facing hook behind the head of the bow. One wing has a helical groove. The upper bow splays out to end each side in an outward-facing boss. The rear-hook is carried forward to form a skeuomorph of the Colchester's hook. There is a groove down each side of the bow and the middle, the last dividing at the base of the crest. The lower bow consists of a plate shaped to a disc above a fantail foot. At the top of the disc are two steps and beneath these a raised triangle. The steps and the lower edges of the triangle have a line of rocker-arm ornament along them. The fantail has an incised line around its outer edge and three pairs in the middle which radiate from the triangular pedestal. SF 234. 2009. Enclosure 1b, fence trench. Phase III.

The type has recently been discussed (Mackreth 1982) and it was suggested that its inception should be related to the presence in Britain of the type of Rosette which it was so clearly imitating (ibid., 312, 313). At the time that note was written, only one of the type had the rear-hook spring-fixing arrangement. Apart from the present example, the writer has recorded two more and all three are from the same workshop. The relationship with the full-blown Rosette is clear: the knobs at the lower edge of the upper bow, the shape of the lower bow coupled with the ornament in the centre of the disc. The manufacturing date should be before 50, and the discussion of brooches 6-12 concludes that the evidence is that the spring-fixing system had passed out of use by 60/5. (My thanks are due to Miss Barbara Green of Norwich Castle Museum and to R. Hattatt for sending me details).

Langton Down and other continental brooches (Fig. 114, 29–32)

- 29. The spring is missing and the badly decayed case has three triangles of punched-dots rising from the cross-moulding at the top of the bow. The latter has a buried ridge down the centre and one down each side. In each zone defined by these is punched-dot decoration made up of a line down the outer edge from which rise seven
- triangles. SF 115. 4. Metal-detecting surface. Unphased.
 30. The spring is present, but has lost its pin. The case has a pair of lines along the top with traces of a single one down each side. The bow has a moulding across its top and is reeded with three mouldings in the middle and two down each side. The head splays out and in the spaces created a triangular ridge is introduced. The lower bow and catch-plate are missing. SF 542. 4500. Metal-detecting topsoil. Unphased.

Langton Downs with square heads to their bows were never as common as the standard form (see brooch 30), or the faceted head (e.g. Riha 1979, 95, Taf. 17, 313), and those with elaborate decoration are rarer. As a consequence the dating is less well fixed. However, it may be noted that one from Dangstetten (Fingerlin 1972, 217, Abb. 9, 3 is more elaborate and squatter than the normal, but it is less easy to be sure that brooches like 29 here should be put nearer the beginning of the *floruit* as a result (Partridge 1981, 133-4, fig. 71, 43; 140, fig. 71, 44), although to some extent it is the form which should be expected from the initial development of the type (Hawkes and Hull 1947, 381, pl. XCIV, 85; Canterbury, to be published; Odell, Beds., to be published; Guillaumet 1984, 29, 30, pl. XVII-LXXXVI). However, the matter is opaque because recent studies have tended to group too many sub-varieties together in order to produce evidence for major assemblage changes through time and, to some extent, space (Rieckhoff 1975, Abb. 8, Taf. 13; Guillaumet 1984, tables 4 and 5). For instance, the Alesia is sometimes lumped in with all classes of 'Aucissas'. Therefore, all that can be offered for























Fig. 113 Copper alloy and iron brooches, scale 1:1

brooch 29 is the range late first century ? BC - c. AD 40/50.

Dating of the standard Langton Down, as it was originally defined (Wheeler and Wheeler 1932, 71–4, fig. 10), is not clear. However, the type occurs sufficiently frequently in the King Harry Lane, St Albans, cemetery (I am grateful to Dr I.M.Stead and Miss V.Rigby for information prior to publication) where the typical Augusto-Tiberian Rosette is common enough to suggest that the full-reeded Langton Down had a fairly similar lifespan: from the early first century AD, but had probably ceased to be made by 40. Those found later would have been survivors-in-use.

31. Only a fragment of what could have been either a sprung or hinged pin Rosette brooch survives. The top is identifiable by the bend, with a flute across it, which joined the disc to the pin-fixing arrangement. The disc is plain and has lost virtually all its edges. The centre is marked by corrosion from a rivet still visible on the back. *SF* 497. 4500. Metal-detecting topsoil. Unphased.

The essential feature of this brooch, as far as dating is concerned, the use of a sprung or hinged pin, is missing. There is little else to help save to note that the form of the brooch has been reduced to a simple disc-and-fantailshaped plate. That this is typologically late may be accepted and there is good evidence that it is chronologically late in the series as well. Of the six dated contexts from Augst, none could be earlier than c. AD 25. A narrow manufacturing range of c. 30-40 can be applied (Riha 1979, 106-7, Taf. 21, passim). Dating in Britain is sparse once obviously residual specimens are discounted: Claudian-50/60 (Clifford 1961, 175, fig. 32, 4); 43/44-48 (Hawkes and Hull 1947, 316, pl. XCIV, 83). In general, the major sites which produce these brooches are those which either had preceding Iron Age occupation, or were occupied in the first few years of the Roman period: Ancaster, Bagendon, Baldock, Canterbury, Chichester, Colchester, Silchester and Verulamium (King Harry Lane cemetery). These are brooches with an overall repoussé plate. The trace of a rivet hole in the Thetford piece points to a variety which apparently has the same sort of date-range (Clifford 1961, 175, fig. 32, 2, 3) and occurs in greater numbers in the King Harry Lane cemetery than the unriveted kind. Hinged Rosettes are even more poorly dated, but there is a lack of emphasis on military sites as well as a greater proportion of minor sites in relation to those in the list given above. All-in-all, the likely terminal date for the latest piece-in-use is c. AD 50/55.

32. Only the top of what looks like a devolved lion brooch is present. The spring is now separate and has a hinged-pin mounted on an axis bar through its coils. The spring-case is plain. The upper bow ends in a forward-facing projection which represents in crude form the head and shoulders of the original lion. The lower bow is missing. SF 171. 325. Metal-detecting topsoil. Unphased.

Brooches of the same type as this are seldom found in Britain and are not particularly common on the continent. It seems that there was a general devolution in the quality of the representation of the lion from an original form in which a carefully detailed lion is shown about to spring, the space between the fore-legs is open (Feugère 1978, 160–2, fig. 4). The type had evolved by the end of the first century BC (Fingerlin 1972, 217, *Taf.* 14, 1). The less elaborate version is, however, contemporary with the standard Rosette of Augusto-Tiberian times. The present piece should have been made before 35/40 and is unlikely to have survived for more than about ten years after that time.

'Aucissa', Hod Hills

(Fig. 114, 33-39)

- 33. The axis bar of the hinged pin is housed in the rolled-under head of the bow. Each end of the axis bar is fitted with a small knob with a basal moulding. On the head of the bow is a cut-out at each side with two leaf-stamps in the middle, the triangle between them being filled with similar raised ribs. The bow has a central raised ridge with a groove down the middle filled with a series of small punched dots. The edges of the bow are damaged but reveal that each had another sunken groove also with punched dots, only smaller ones. The lower bow, along with the catch-plate, is missing. SF 127. 325. Metal-detecting topsoil. Unphased.
- 34. The brooch has been almost straightened. The pin and its axis bar are missing, but the latter had been housed in a rolled-over head. Corrosion has removed nearly all the surface and any ornament there may have been on the bow has been lost. On each side of the head is a trace of a circular stamp applied so that only an arc was impressed. The foot ends in a separately-made foot-knob with a moulding around the top. SF 147. 325. Metal-detecting topsoil. Unphased.

Superficially, both these brooches resemble the named Aucissa which was the last major development from the Alesia (Duval 1974).

Like that, 33 has a rolled-under head to house the axis bar of the hinged-pin: the Aucissa proper and its progeny, the Hod Hill, both have rolled-over heads, like that of 34. Of the two, 33 is the earlier: the punched decoration and the use of leaf-ornament had come into use before the end of the first century BC at Dangstetten (Fingerlin 1972, 217, Abb. 8, 6, 7) where, indeed, earlier stages are to be found (ibid., Abb. 8, 2, 3) suggesting that brooches like 33 had only just developed in this period, c. 20-10 BC. It is less easy to tell for how long they continued in manufacture before they had been displaced by later varieties, principally because the necessary analysis of the greater number of specimens and dated contexts on the continent seems not to have been published. Brooch 33 could lie somewhere in the period c. 15 BC – c. AD 25, while 34 developed later, but should not date as late as c. AD 35/40 as the 'eyes' were not transmitted to the Aucissa itself.

The following five brooches have rolled-over heads for the axis bar of the hinged pin.

- 35. The upper bow is straight-sided and has a marked curve in its profile. Down the front are the remains of five narrow flutes separated one from another by three broad ones. The peaked ridges between have small cross-cuts. The lower bow is straight in profile and has at the top a crudely formed disc with a plain surface, the rest is narrow, has a slight swell and a cross-groove at the bottom.
 - The brooch was tinned or silvered. SF 142. 325. Metal-detecting topsoil. Undated.

Although superficially like a Hod Hill, its general character, manner of decoration and profile do not suit that type entirely. The writer has not been able to find a like design amongst Hod Hills.

Dangstetten provides both an approximate parallel and a date. The form is different in profile and reveals a debt to the Alesia (Fingerlin 1972, 217, *Abb.* 8, 1). However, the original of the present specimen may not have been in one like the Dangstetten piece, but could display borrowings from early Rosettes (*ibid.*, 217, *Abb.* 9, 1, 2). Dating is difficult: the brooch may be related to the exemplars mentioned and therefore possibly be Augustan, or it could be described as being typologically removed











Fig. 114 Copper alloy brooches, scale 1:1

from these and therefore later. The style of head and the silvery finish suggest that the latter is more likely.

- 36. A fragment of the upper bow with a central ridge flanked by a flute. There are traces of tinning or silvering. SF 479. 4500. Metaldetecting topsoil. Unphased.
- 37. The upper bow has two cross-mouldings at the top, one large and beaded, and the main panel tapers outwards. Down it is a deep flute with a broad, swelled ridge on each side, then another wide flute with cross-cuts along the borders. Below this panel are two strong cross-mouldings. The lower bow has a central arris and tapers to a foot-knob beneath two more cross-mouldings. At the lower corners of the upper bow are the stumps of wings. The silvered finish is well enough preserved to see that it was applied differentially: on the head, down the flutes on the sides of the upper bow and the main face of the lower bow. SF 268. 327. Outer ditch of Enclosure 1b. Phase III or IV.
- Now folded, the surface of the brooch is badly damaged by corrosion.

The upper bow had slight projections at the top and the sides sweep out to prominent points at the bottom. There are traces of cross-fluting along the top edge and the main face has two scrolls, carried out in punched-dot technique, joining in the middle. The lower bow seems to have a cross-moulding at its head, otherwise it appears to taper to a pointed foot. There are traces of a silvery finish. SF 480. 4500. Metal-detecting topsoil. Unphased.

39. A finely detailed and elaborate brooch, the head has a groove parallel with the axis bar of the hinged-pin, then a shallow flute with a cut-out at each end above a strong, beaded, cross-moulding.

The upper panel of the bow has a central arris with a face on each side running away to a pair of cross-cut ridges. From these spring wings having a small knob and a large cross-cut ridge in the middle. The lower bow has two strongly dished panels, with concave sides, divided one from the other by a groove. The top and bottom edges of the lower panel are beaded. The foot-knob has above it a beaded cross-moulding. Again there is selective tinning or silvering: the top cross-flute; the central arris and the planes on each side; the first flute on the wings; the lower panel and all beneath except for the narrow flute above the foot-knob. *SF 116. 4. Metal-detecting topsoil. Unphased.*

No fully developed Hod Hill has yet been published from an assured pre-Conquest context. It is not easy to tell if, however, the presence of one of this type of brooch amongst an otherwise 'native' cultural assemblage has influenced the dating of a site or layer. The earliest group of Hod Hill brooches from Britain is that from the eponymous site (Brailsford 1962, 9, figs 8, 9, C53-C80), dating to before 50 (Richmond 1968, 117-9). It is possible that the only full specimen from Skeleton Green is of the same date or even marginally earlier (Partridge 1981, 35, 141, 142, fig. 72, 55). Those from Hod Hill show that virtually all varieties had evolved at an early date and that there are very few which could be described as being transitional from the Aucissa - these are usually signalled by having a separately-made foot-knob which was then sweated on (Brailsford 1962, 9, fig. 8, C53, C55). Therefore it would be unwise to see in the Thetford examples any chronological variation. The distribution in Britain reveals that Hod Hills were in common usage up to c. 60 and that very few indeed survived in use significantly beyond c. 70 to be taken into the north with the Roman military advance.

Penannulars

(Fig. 115, Nos 40-43)

- 40. The ring has a circular section. The surviving terminal was formed by tapering out the end of the ring and then winding it into a tight coil at right-angles to the plane of the ring. The other terminal has been uncoiled and the whole of the ring on that side distorted, perhaps to form a kind of ring-headed pin. SF 504. 4500. Metaldetecting topsoil. Unphased.
- 41. The ring has a circular section and each terminal was made by flattening the ring and then coiling it crudely at right angles to the

plane of the ring. SF 252. 2685. Post-hole of Building 2b. Phase III.

- 42. A repeat of the last brooch, one terminal has been cut off and the ring reformed as a closed loop. SF 201. 325. Metal-detecting topsoil. Unphased.
- 43. The ring has a circular section. Each terminal was made by folding the ends of the ring back along itself. The better preserved terminal has a concavity on the middle of each side, and there is a small nick in the end face. The form of the other terminal seems to have been the same. *SF 176. 325. Metal-detecting topsoil. Unphased.*

Brooches 40–42 are essentially of the same type: it has yet to be established that variations in the number and size of coils have any significance. The ease of manufacture is against such a detail having a great deal of meaning. The type is found in pre-Conquest times and was possibly the chief form immediately before AD 43: all those made of iron in the King Harry Lane cemetery belonged to it and the type was present at Skeleton Green where it was dated c. AD 15–25 (Partridge 1981, 136, fig. 72, 56). Dating is sparse and the type may have developed from one in which similarly coiled terminals lay in the same plane as the ring, possibly in the first century BC.

Brooch 43 superficially looks as though it is also of common form, but the very end of each terminal appears to have been stepped or grooved. Again, such brooches are easy to make and the weight which should be placed upon what could be taken to be a trivial detail is hard to assess. Taking the general form of a waist with one or more grooves, this can be seen to have come into being in the first half of the first century AD at least: *c*. 10–43 (Hawkes and Hull 1947, 327, fig. 59, 6); 25–50 (Wheeler 1943, 264, fig. 86, 8); Tiberian?- early Claudian (Clifford 1961, 184, fig. 36, 8); before 50 (B.M.Guide, 22, fig. 12, 49: Richmond 1968, 117, 118). But both types to which these four brooches belong carry on through the first century and there are enough of each from second-century contexts for both to have continued.

Fragments

- (Fig. 115, Nos 44-46)
- 44. A hinged pin with the projection common to the type at the lower end of the pierced expansion at the head. SF 602. 5987. Outer ditch of Enclosure 1a. Phase II.
- 45. A pin with the beginning of a wrap-round at one end and a curve at the other: from a penannular brooch. SF 197. 348. Inner ditch of Enclosure 1a. Phase II.
- Iron. Two fragments of what may have been a brooch pin. SF 237. 1913. Gully 2189. Unphased.
- Not illustrated. Iron. Four small pieces the X-ray of which does not aid the interpretation as parts of a brooch. SF 257. 2639. Gully 510. Phase I.

Dating

The biases within the collection cannot be assessed without considering the site from which it came, and that assessment has no place here. All that need be said is that there would seem to be a strong presence in the first century BC with, perhaps, a weakening up to the approximate period of the Roman Conquest. As for the terminal date, the bulk of the brooches should have ceased to be used by AD 60/5 and those which could have run on later are not of such a marked character that this must be insisted upon. Other evidence suggests that the site was deliberately dismantled and, presumably, all occupation came to an end abruptly. There is nothing in the brooch assemblage to go against such a view and all could have entered the ground by 60/5.







Fig. 115 Copper alloy brooches, scale 1:1

Distribution

Most of the brooches were metal-detector finds, with a few from the excavation of features. Therefore the distribution of recovered brooches is likely to be a fair reflection of the real distribution of brooches deposited across the site, and will reflect minimally the selective nature of the excavation.

There is a clear concentration in a broad diagonal band across the site from north-west to south-east, largely within the limits of Enclosure 1.

The areas with no or very few brooches, the east side of the excavated area, the north-east corner and the south-west corner, are those with the sparsest features, particularly in Phase I and that part of Phase II before Enclosure la. This, and Mackreth's assessment of a strong presence in the late first century BC suggests that Phase I perhaps saw the highest level of brooch acquisition on the site. If so, they remained in use for some considerable time.

Only nineteen out of forty-seven brooches can be related to phased deposits. Of these Phase I is represented by iron fragments, possibly from a brooch (No. 47 unillustrated) a hinged pin (Fig. 113, 27), which may belong to an Iron Age iron brooch of La Tène II foot-construction and an iron brooch of La Tène III type (Fig. 113, 26). Fourteen were stratified in Phase II deposits, including Colchester, rear-hook brooches, La Tène III types, penannulars, Nauheim/Drahtfibel derivatives, and the Drahtfibel. In Phase III deposits were three brooches, a La Tène III, an Aesica and an Aucissa/Hod Hill. There is nothing here to contradict the dating suggested by the pottery.

V. Other copper alloy objects (Figs 116–118; Table 17)

Prehistoric

(Fig. 116, 1, 2)

- Awl or drill bit, one end of square section and the other octagonal, with both tips absent. The square half may have been intended for fixing into a drill or handle. SF 184. 325. Metal-detecting topsoil. Unphased. This is perhaps a Bronze Age awl, similar to that found at Methwold, Norfolk (Norfolk Museums Service, 1977, No. 28), but the workmanship appears rather finer than might be expected.
- Fragment of a Middle Bronze Age palstave. SF 555. 4500. Metaldetecting topsoil. Unphased.

Roman military objects

by Dr G.Webster

- A finely-made belt or apron mount decorated with niello inlay and a tinned surface. These mounts are found in a variety of forms. SF 128. 101. Metal-detecting topsoil. Unphased. (Cf. Ulbert 1959, Taf. 18, Nos 1–3 etc., Taf. 62, No. 8; Ulbert 1970, Taf. 23, Nos 352, 353).
- A small D-shaped buckle of typical military form (Brailsford 1962, No. A54; Ulbert 1969, Taf. 64, Nos 25, 25–8). SF 498: 4500. Metal-detecting topsoil. Unphased.
- Part of a baldric clip. SF 551. 4500. Metal-detecting topsoil. Unphased. An identical example comes from Novaesium (Lehner 1904, Taf. XXXA, No. 6).
- Bronze prick of an iron spur. SF 630. 4500. Metal-detecting topsoil. Unphased. (Cf. Lehner 1904, Taf. XXXA, 30; Jahn 1921, Nos 71 ff; Ulbert 1959, 76; Bushe-Fox 1932, Pl. X, No. 20 and p79 for further parallels).
- Large curved tongue from a harness buckle. SF 138. 325. Metaldetecting topsoil. Unphased. (Cf. Lehner 1904, Taf. XXXB, No. 70).

The five pieces above are the ones which can confidently be identified as military in origin. Other objects, which can be paralleled in military collections, but which

⁽Fig. 116, 3-7)


Fig. 116 Other copper alloy objects, scale 1:1









19

F











22

24





Fig. 117 Other copper alloy objects, scale 1:1

are not so diagnostic of military use, are described below. These five pieces, which were all metal-detector finds, were distributed widely across the site (Fig. 2), Nos 3–5 in the east part of Enclosure 1, No. 6 well to the southwest of the enclosure in the area of concentration of later Roman finds, and No. 7 immediately outside the west ditch of Enclosure 1b, close to the south-west corner. It would be difficult to argue that their distribution is different from that of the other metal objects.

Iron Age and Roman objects

(Figs 116-118, 8-43)

Entries followed by (GW) were supplied by Dr Graham Webster.

- Curved bar, of semi-circular cross-section; one end complete and slightly pointed, the other tapered and broken. SF 132. Gully 115. Building 6. Phase IV.
- Upper ring of a masked harness loop of Roman type; heavy iron staining at the base suggests an iron projection from a basal socket. SF 183. 325. Metal-detecting topsoil. Unphased. Cf. Ulbert 1959, Taf. 22 No. 1; Webster 1958, Nos 166, 175 and 252; Frere 1972, fig. 40 No. 127, Curle 1911, Pl. LXXV No. 12 (GW).
- Mirror handle with a ring terminal, of Iron Age type. SF 529. 325. Metal-detecting the backfilled excavation. Unphased.

G.Lloyd-Morgan writes: A mirror handle of Fox (1948) type I. Leaving aside the more bar-like handles of the Arras and Garton Slack graves (Greenwell 1906 fig. 31 and Brewster 1975, 109) there are only half a dozen handles in this group. The most complete are the Ingleton (Fox 1948 fig. 1.4) and Stamford Hill, Plymouth handles (Spence Bate 1866, 501), and both, particularly the Ingleton mirror, display the baluster moulding which can be seen on the Thetford fragment. These, however, have large terminal loops, as do the handles from the Carlingwark hoard (Curle 1931, fig. 23 No. 4) and from York (RCHM 1962, 82). The closest parallels are an unprovenanced piece now in Edinburgh (Fox 1948, 26) and the second handle found in the Birdlip grave (Bellows 1880, 139). Like the Thetford piece they have a modest little terminal ring, neatly proportioned in relation to the triple baluster moulding which has survived. The links between the concave-sided balusters with domed ends of the Ingleton handle and the small loops of the second Birdlip and the unprovenanced, northern handles, tie the Thetford piece convincingly into the tradition of the Celtic mirror handles of Fox's type I.

The writer has long felt that the Celtic mirrors of Britain, and especially the handles, owe much of their inspiration to those of central and northern Italy during the late republican/early imperial period. The discovery of fragments of Roman mirror within the Iron Age temple at Hayling Island, Hants., has confirmed that the contact already existed (Lloyd-Morgan 1979, 98). The elegance of the baluster moulding on the Thetford and other handles noted above speaks not only of the high standard of bronze workmanship in Britain, but also compares well with the baluster handles on some of the silver mirrors from Italy during the time of Augustus and Tiberius (Lloyd-Morgan 1978, Pl. XVII, fig. 17, 227 and 230), the only difference being that the Roman terminal knob is translated as a neat loop.

- Nail cleaner from a chatelaine (GW). SF 186. 821. Ditch of Enclosure 7b. Phase II.
- Scoop from a chatelaine (GW). SF 525. 4514. Outer ditch of Enclosure 1a. Phase II.
- Pin of Roman type with domed, slightly pointed head. SF 122. 4. Metal-detecting topsoil. Unphased, but found in the concentration of Late Roman finds north of the west end of the Travenol warehouse.
- Terminal of a pendant of Roman type, with traces of tinning (GW). SF 540. 4500. Metal-detecting topsoil. Unphased.
- Small belt-slide or toggle for fastening a veil or scarf of textile (GW). SF 416. 3299. Inner ditch of Enclosure 1a. Phase II. Cf. Cunliffe 1978, 61, for an Iron Age example from Hengistbury Head.
- Cloak fastener with a disc head which may have been decorated. SF 556. 4500. Metal-detecting topsoil. Unphased.
 - This piece does not fit Dr Wild's classification (1970) but a very similar example, No. 17 below, is probably Roman (I am grateful to Dr Wild for comments on this object) (GW).
- 17. Cloak fastener with a plain disc; this object bears remains of tin-

ning and so is probably Roman. SF 533. 4500. Metal-detecting topsoil. Unphased.

 Finger-ring with an expanded oval bezel, and no marked shoulders.

The hoop is bent out of shape and broken. Hollow sided triangles of red enamel on the shoulders are linked to curving lobes on the bezel, while the edges of the reserved ground are emphasised by lines crossed by transverse notches. This linear ornament survives on one side of the bezel only, the other having been subjected to considerable wear and scratching. SF 577. 5288. Found in surface cleaning, from an uncertain feature. Unphased.

Possibly Late Iron Age in date, but the probability of the continued manufacture of such items well into the Roman period renders certainty impossible.

Handle of folding razor showing a dog seizing a hare. Little survives of the iron blade. SF 618. 4. Metal-detecting topsoil, in the area of the Late Roman concentration north of the west end of the Travenol warehouse.

This is unlikely to be of early Roman date, and fits well with the late Roman coins with which it was found.

 Sheet fragment with six punch marks. SF 584. 4735. Metal-detecting backfill. Unphased.

This may be part of a spoon bowl, in which case it would be Post Medieval in date.

 Oak leaf made of thin sheet, broken at the stem so that the method of attachment is unknown; the veins have been made by hammering the metal into a die. SF 441. 3838. Gully of Enclosure 17. Phase II.

It is possible that this was one of many leaves made for a wreath or crown. Early Celtic heads were frequently decorated with leaf patterns, but these were normally based on the S-scroll (Jacobsthal 1944, 15–17) and have no resemblance to oak leaves. The strongly naturalistic form, on the other hand, suggests a strong Roman influence, and the oak leaf crown (*corona civica*) was one of the highest honours that the state could bestow, given to a Roman who saved the life of a fellow citizen (Maxfield 1981, 70–4) (GW).

22. Well-made pointed spike with a square, tapered bronze-faced iron shank. The sides of the shank still bear file marks, while the point is better finished. This, and the notches on the corners of the shank suggest that it was secured in a wooden handle. SF 210. 1519. Inner ditch of Enclosure 1b. Phase III.

One possible identification is that it is part of a *groma* although one would imagine that it was rather too delicate for that purpose (GW).

 Crescentic foot from a copper-alloy vessel, with scratch-keying on one face where it had been soldered on. SF 516. 4500. Metaldetecting topsoil. Unphased.

Objects of this type have been found in pre-Conquest contexts in Britain (Lethbridge 1954) and in later contexts on the continent (Ulbert 1969, Taf. 37, Nos 5–7); it is thus uncertain whether they should be regarded as of Iron Age or Roman type.

24. Strip with one original edge, probably the rim of a vessel, with a sharp cordon below the lip. It was accompanied by a small fragment, possibly the corner of a triangular sheet, secured to another sheet fragment by a rivet of solid rod. SF 422. 3604. Post-hole 3602, possibly part of Building 4 and so Phase III.

A marked groove or cordon is often seen below the rim of large sheet metal cauldrons of the Iron Age and Roman period, marking the presence of an iron stiffener.

- Fragment, possibly from a vessel, but the tinning on one side makes this less likely. SF 571. 4736. Gully 5198. Unphased.
- Four sheet fragments folded together; the outermost has a row of small repoussé bosses along one finished edge. SF 565. 4695. Ditch 5712. Unphased.
- Sheet, folded lengthways with original long edges surviving and with lines of punched decoration. SF 511. 4500. Metal-detecting topsoil. Unphased.
- Fragments of a plain, thin belt mount with a fold at one edge, possibly for a hinge (GW). SF 643. 6363. Outer ditch of Enclosure Ia. Phase II.
- Domed bronze stud masking an iron nail head. SF 523. 4500. Metal-detecting topsoil. Unphased. Cf. Ulbert 1969, Taf. 41, No. 11 (GW).
- Stud with a domed hollow head. The waisting at the end of the shank suggests that it might have had a washer. SF 189. 325. Metaldetecting topsoil. Unphased.
- 31. Stud with a domed circular head decorated with a five-pointed star. SF 129. 101. Metal-detector find from machine spoil.
- 32. Square-sectioned nail secured to a domed head by high-lead solder



Fig. 118 Other copper alloy objects, scale 1:1

(see No. 34 below). SF 273. 3028. Feature 874, outside the entrance of Building 2. Unphased.

- 33. As No.32 above. SF 409. 3309. Post-hole of Building 4. Phase III.
- Nail with oval-sectioned shank made from a spirally-coiled strip, secured to a circular domed head by high-lead solder. SF 432. 3650. Post-hole of Building 5. Phase III.

Nos 32–34 above present a coherent group in that all have domed heads soldered onto a shank. The two latter were found in features of Buildings 4 and 5, which appear to belong together, and the first in a feature linked with Building 4 since both share fills containing large quantities of clay with chalk, which appears to have been the material of the wall of the Building; thus No. 32 may be derived from the demolition of Building 4, and so all three would belong to buildings of this peculiar type. Their function in such buildings is uncertain and puzzling; a decorative one is perhaps most likely in view of their material and the difficulties of hammering nails of this construction. It appears that the shank was inserted into whatever material held the nails, and the heads then soldered on.

 Copper alloy knob with the remains of a projecting iron shank. SF 536. 4500. Metal-detecting topsoil.

A common Romano-British type, probably used in the decoration of large wooden constructions.

- 36. Disc, with edges badly damaged, but probably of roughly its original diameter. The edge of the central perforation is flanged on both faces, but the perforation is surrounded by a hollow sided triangle in fine punched stipple on one face only. SF 209. 1624. Ditch of Enclosure 7b. Phase II.
- Small circular mount with mouldings and with traces of a lead infill on the reverse. SF 665. 3288. Ditch of Enclosure 14. Phase II. Cf. Ulbert 1969, Taf. 24, No. 14 (GW).

The lead traces on the reverse suggests a possible comparison with the dome-headed copper alloy nails (Nos 32-34 above).

- Strip, rolled and flattened, with a rivet-hole at the projecting end. SF 247. 2756. Gully 510. Phase I.
- 39. Small, well-formed, nozzle. SF 560. 325. Metal-detecting topsoil. Unphased. Cf. Ulbert 1970, Taf. 10, No. 162. The rough finish on the inside and the lack of any evidence of attachment indicated that it was the lid of a small enclosed vessel requiring an aperture, such as an inkwell (GW).
- Cone of rolled sheet. SF 625. 325. Metal-detecting surface. Unphased.
- Rod with moulded head, possibly part of a pin. SF 610. 4911. Posthole 4910, inner rampart of Enclosure 1b. Phase III.
- Bar of triangular section, one end rounded, the other missing. Possibly part of an ingot. SF 526. 325. Metal-detecting backfill. Unphased.
- 43. End of a bar of subrectangular section. The incomplete end appears to have been marked with a chisel and then broken. Possibly part of an ingot. SF 567. 4500. Metal-detecting topsoil. Unphased.

Post-Roman objects

(Fig. 118, Nos 44-46)

- Medieval dagger-sheath chape, with squared edges and strong central ribs down to a slightly domed terminal. SF 114. c. Metaldetecting surface. Unphased.
- 45. Trilobate **mount** with globular-headed rod rivets through holes in the terminal lobes and a larger hole without a rivet through the centre of the larger central domed lobe. *SF 512. 4500. Metal-detecting topsoil. Unphased.*

This is a common find among metal-detector collections from fields with large quantities of post-medieval metalwork, and was probably a strap ornament, perhaps from horse-harness. Mounts of a similar size, but different shape were often used to decorate stallion leading reins in the nineteenth and early twentieth centuries. The surface and topsoil metal-detecting of the site produced three similar, unillustrated examples (*SF 491, 493 and 505*).

 Decorative plate with two fixing studs. SF 538. 4500. Metal-detecting topsoil. Unphased.

Post-medieval strap ornament, possibly from horse-harness.

These copper alloy objects include a number whose date and function is uncertain, particularly among that majority which were found in the topsoil. Some, such as No. 36, are not intrinsically datable, but appear from their contexts to be of Iron Age or Early Roman date. Others, such as No. 16, cannot be dated from their context, but typologically are of Iron Age or Early Roman



Fig. 119 Lead object, scale 1:2

date. There are a few, however, namely Nos 20, 27, 29, 30, 31, 35, 40, 42 and 43 which cannot be dated by either means, but which are included here for convenience.

Of those objects which can be dated, the majority clearly belong to the end of the Iron Age or to the Early Roman period, with a few, mostly found west of excavated area, that belong to the Late Roman use of the site.

VI. Objects of lead

(Fig. 119; Table 18)

Ten lead objects were found in the course of the metaldetecting, and none by excavation. Of these ten, eight were uncharacteristic or clearly post-medieval, and only the two below deserve special consideration.

- Globular lead weight, with remains of an upper and lower iron loop, probably a Roman steelyard weight. SF 659. 325. Metal-detecting surface. Unphased, but from the same area as the pot-mend below.
- Unillustrated. Lead plug, used to repair a hole in a pot. SF 125. 4. Metal-detecting surface. Unphased, but found in the area of Late Roman finds, north of the west end of the Travenol warehouse.

VII. Other iron objects

(Figs 120, 121; Table 19)

1. Iron finger ring. SF 204. 1515. Inner ditch of Enclosure 1b. Phase III.

Martin Henig has contributed the following note: Iron ring with high, pronounced bezel; a late Hellenistic form popular in the late Roman Republic (Henig 1978, fig. 1, type 1 cf. Pl. XLV, 467 and pp.35, 36). Most of the hoop is missing. The bezel is set with an intaglio of banded agate (black with a white band), broken but held together by iron corrosion.

The device, viewed in impression, is a warrior seated in profile to the right and supporting his shield(?) with his right hand. In his left hand he holds a staff-like object, perhaps a sword in its scabbard. There appears to be an object towards his feet; if this is to be interpreted as an animal head then we must have here a representation of Ajax, resting after being seized by a madness in which he slaughtered cattle and sheep, thinking they were the enemy. Close comparison may be made with a cornelian ringstone formerly in The Hague (now in Leiden) which represents Ajax seated upon a rock in a similar attitude to the hero on the Thetford gem but to the left (Maaskant-Kleibrink 1978, 141, No. 219).

The Thetford intaglio, like that in Leiden, is executed in the 'pellet style', with pellets being used for the eye of the putative animal and for rendering the top and bottom of the sword. The *floruit* of this style lies in the second and first centuries BC. Heroic scenes are characteristic and banded agate is often used as a material (Maaskant-Kleibrink 1978, 131, 132). Obviously there are few gems of such an early type from British sites (but cf. Henig 1978, No. 444 a sard from Verulamium depicting the seizure of the *Palladium*) although it is likely that some signet gems may have reached Britain at least fifty years before AD 43, and have influenced the appearance and devices of some native coins (as already discussed by the present writer, Henig 1972).



Fig. 120 Iron objects, scale 1:2; No.1, scale 1:1; Nos la and lb scale 2:1 details of gem and impression; No.1c colour of gem.

- Part of wavy knife blade, Manning (1985) Type 18. SF 437. 3777. Ditch of Enclosure 8. Phase II.
- Tanged knife with hogs-back blade, Manning Type 19. SF 216. 1653. Ditch of Enclosure 14. Phase II.
- Tanged knife with straight-backed, triangular blade, Manning Type 11. SF 281. 967. Pit 966. Unphased.
- Tanged knife with concave back, Manning Type 23, a predominantly Iron Age/Early Roman type. SF 219. 1762. Ditch of Enclosure 13. Phase II.
- Tool; square sectioned tang with corner bevels separated from blade by a flanged offset. The blade, of deep rectangular section, is slightly curved, with a chisel-like working edge bevelled on one side. SF 514. 4500. Metal-detecting topsoil. Unphased.

Use and date uncertain, but the condition closely resembles that of Iron Age/Roman types on the site.

- 7. Part of a tool; square-sectioned tang with a groove down one face, and blade of subtriangular section. SF 188. 763. Gully 835. Phase II.
- 8. Tool of square section with slightly burred head and pointed end. SF 471. 1831. Ditch of Enclosure 13. Phase II.

While it superficially resembles a small smith's punch, the tool is rather short, and the burring of the head very slight. It might equally be a tooth from a composite implement, such as a rake.

- 9. Part of a ferrule, both split longitudinally and broken at the end. SF 655. 4508. Outer ditch of Enclosure 1b. Phase III. Cf. Manning 1985. S57 and S63; although objects of this sort are common finds on military sites and are usually interpreted as ferrules from spear shafts, they also occur on other sites, and may have been used for other purposes too.
- Pointed ferrule? SF 580. 5115. Post-hole 5114, gateway of Enclosure 1a. Phase II.
- Flat bar of rectangular section, with slightly curved sides and finished, rounded ends. SF 198. 1098. Inner ditch of Enclosure 1a. Phase II.
- 12. Tip of blade? SF 214. 1655. Pit 1784, in pit group 1. Phase I.
- Fragment of bar with one end rounded and the other broken. SF 244. 2564. Pit 2571. Unphased.
- Double-spiked loop, possibly intended to be driven into wood. SF 443. 3895. Ditch of Enclosure 8. Phase II.
- Bar of flat rectangular section, one end broken, and the other turned down; possibly a joiner's dog. SF 470. 1836. Ditch of Enclosure 17. Phase II.
- Bent bar of rectangular section; both ends are burred. SF 225. 1901. Feature 2161. Unphased.
- Hobnail; pyramidal head and shank of circular section. SF 639. 6359. Outer ditch of Enclosure 1a. Phase II.
- Hobnail; hollow conical head and circular shank. SF 588. 5593. Post-hole 4693, in gateway of Enclosure 1b. Phase III.
- Hobnail with flat head and indeterminate shank. SF 635. 6354. Inner ditch of Enclosure 1b. Phase III.
- Massive stud with oval head and short wedge-shaped shank. SF 517. 4500. Metal-detecting topsoil. Unphased.
- Circular plate with slight central projection, possibly the concave head of a stud. SF 235. 2236. Gully 2306. Unphased.
- Square-sectioned ring. SF 282. 3296. Outer ditch of Enclosure 1b. Phase III.
- 23. Fragments of ?octagonal plate, with central ?octagonal hole. SF 664. 5294. Gully 5104 or 6963. Unphased. Although stratified in an Iron Age or Early Roman feature, the composition of the metal looks recent, and the piece may be intrusive.
- Square sectioned shank ending in a flat, circular loop. SF 242. 378. Pit 2577. Phase III.
- This piece is very similar to the Hod Hill netting needle (Manning 1985, D38) but such objects end in forks rather than loops.
- Bent bar of rectangular section; possibly a D-shaped buckle loop. SF 435. 1527. Pit 3865. Unphased.
- 26. Possibly a tool. SF 434. 3729. Inner Ditch of Enclosure 1a. Phase II.
- Slightly curved bar of subrectangular section. One end broken the other complete and slightly rounded. SF 266. 2109. Pit 2108 in pit group 1. Phase I.
- Rod of circular section; possibly a pin fragment. SF 420. 3444. Ditch 1751. Phase II.

Only a small selection of iron objects is published here. Of the several hundred found, mostly by metaldetecting in the topsoil, 126 have been selected for listing (microfiche supplement), by excluding all topsoil and unstratified finds that appear to be post-medieval either in their form or in the condition of their metal, and others, like nails, which are truly indeterminate. The result is that only two of the 126 are topsoil finds. This is in stark contrast to the copper alloy objects, which by their very nature are less likely to be indeterminate; in that case, of the 116 identifiable Iron Age and Roman or stratified objects listed, forty-five were topsoil finds. This implies that a number of the indeterminate iron objects from the topsoil, including nails, wire fragments and other unidentifiable pieces which have not been listed are also likely to be of Iron Age or Roman date, perhaps forty or fifty if the analogy of the copper alloy objects holds good.

Nails constitute a relatively high proportion of the objects listed, forty-seven in all, which is not unusual. There are no marked concentrations in their distribution in the areas of buildings or fences. In addition to these there were eight hobnails, which even with metal-detecting might be expected to be under-represented in a sample because of their small size.

The most noticeable feature among the identified pieces is the number of iron knives, which appears to be large for a sample of this size. There are no recognised military iron objects to go with those of copper alloy.

VIII. Metal-working debris

(Figs 122-126)

The material consists largely of crucibles, pellet moulds and investment mould fragments, with some less characteristic fragments of fired clay which are identified as parts of hearths. There were also small quantities of iron slag and fuel ash slag in a general background scatter across the site. The moulds and crucibles were not wellrepresented in the general scatter of finds, but rather showed three specific concentrations (Fig. 122). To a certain extent these concentrations represent areas selected for intensive excavation because of the initial discovery of metal-working debris, but there were other large intensively-excavated areas which did not produce such debris. Thus these concentrations can be regarded as real, although there may well be other concentrations undiscovered on the site. The three concentrations were widely distributed:

1. Enclosure 28 and Pit 2640, in the south part of the site. Most of the material was found in the gullies of the enclosure but some also occurred in the fill of the pit which was stratigraphically earlier. However, so little of the pit was cut away by the later gully that it is most unlikely that the material in the gullies was derived from the pit, and more probable that all the material came from a surface deposit which was gradually redeposited in the features. If this is so, the deposit must have accumulated before the filling of the features, but even then need not predate their digging. A group of small hearths and burnt features on the east of 2640 produced no evidence for metal-working apart from a fragment of hearth-lining from the fill of hearth 5826 which had traces of copper.

This concentration contained no pellet moulds, but did include two small fragments of iron slag. One of the crucibles was complete and unvitrified, yielding no trace of metal in XRF analysis. It was, therefore, probably discarded unused.

- Ditch 4876 in the area of the later entrance into Enclosure 1a. This group also included a fragment of hearth lining with traces of copper, and no pellet moulds or slag.
- 3. Enclosure 23 and surrounding features in the north-west part of the site. This consisted of crucible fragments, investment mould and pellet mould fragments, the ingot mould or annealing vessel and a few fragments of iron slag, including smithing slag, with the greatest concentration in the fill of the ditch of Enclosure 23.

Two of the concentrations, Enclosure 28 and Ditch 4876 are unequivocally of Phase I, and contain relatively



Fig. 121 Iron objects, scale 1:2



Fig. 122 Distribution of metal-working debris, scale 1:2000

unweathered, large fragments of crucibles, in some cases even complete examples, together with badly broken and weathered investment mould fragments. This reflects the different uses of the material, since used crucibles are harder than the moulds and may have been used only once and then discarded, but the investment moulds would have been broken, in some cases into small fragments, as part of the manufacturing process.

In the concentration around Enclosure 23, the situation is less clear. The majority of the pieces (95% by weight), crucibles, investment moulds and pellet moulds, were found in Phase II contexts, but the remaining small proportion came from contexts of Phase I. There is therefore some doubt whether we are dealing with the remains of a Phase II industry with some odd fragments finding their way intrusively into earlier features, or a deposit of Phase I metallurgical debris on the ground surface which began to be distributed and incorporated into ditch fills soon after, but which was mainly dispersed and buried in Phase II. This is particularly important since it is this concentration which contains the pellet moulds.

The crucibles in the Enclosure 23 concentration, however, are much more fragmented and weathered than those in the other two, with an average fragment weight of 8gm as opposed to 15.4gm for the rest of the site collection, and there is a particular contrast between the crucible fragments from Enclosure 23 and those from Enclosure 28 which include several complete examples. The former were also dispersed over a much larger area, some 1200m², while the other two concentrations were tightly clustered in a small number of contiguous features. The smallest, most weathered fragments, were from the upper fills of Phase I features, and it would appear that the Enclosure 23 concentration belongs to Phase II, with some fragments intruding into earlier layers.

Thus there is evidence for casting bronze in investment moulds in Phase I, possibly continuing into Phase II which sees the introduction of silver working, using pellet moulds.

Crucibles

(Figs 123, 124; Tables 20, 21))

Three types of crucible all in a similar grey fabric were recognised by Ruth Linton and Justine Bayley, during their preparation of the metallurgical report.

- **Type A:** Triangular at the mouth, with a pointed base. About 5cm high, and 5–5.6cm across at the mouth, with a brimful volume of about 22cc. Represented by an estimated twenty-three examples (Fig. 123; Nos 1, 2).
- **Type B:** Similar in shape to A but slightly larger; although no complete examples were found the type appears to be in the range of 6–7cm high and wide. Estimated nine examples (Figs 123, 124; Nos 3, 4).
- **Type C:** Much larger and more bowl-shaped, with a slightly flattened base. At 18cm across and 11cm deep, this type would have had a very large brimful capacity, around 1000cc, and the estimated five examples would have had a total capacity far greater than all the examples of Types A and B (Fig. 124; No. 5).



Fig. 123 Crucibles, scale 1:2

All three types had traces of copper, lead and tin. Types A and B were represented in all three concentrations, while C was absent from the Enclosure 28 finds.

Detailed descriptions are rendered superfluous by the type descriptions above. The illustrated examples are therefore accompanied only by context detail:

1-4. 2756. Gully of Enclosure 28. Phase I.

5. 5343. Gullv 4876. Phase I.

6. see p. 141 below

Pellet moulds

(Fig. 125; Tables 22, 23)

One hundred and nine fragments, with uncounted scraps, of a total weight of 555gm, were found in the concentration of metal-working debris around Enclosure 23. The vast majority, more than 95% by weight, were found in the ditch of Enclosure 23 itself or in features which cut it. It is too fragmentary a group to be able to reconstruct large portions of the trays, of which the pieces are assumed to be parts, but in a few cases enough survived to be able to estimate the average size of the cups at 9mm in diameter and 11mm deep, laid out on a square grid at 18mm centres. Three corners were found, and no single fragment or restorable piece had more than ten cups surviving. The results of XRF analysis are a little equivocal, with one piece having no trace of metal whatsoever, but overall, it appears that the pellet moulds were used to melt silver.

- 1. Corner with a single cup. SF 467. 1491. Pit 1490. Phase II.
- Fragment from the body of a tray, with ten cups. SF 455. 3584. Ditch of Enclosure 23. Phase II.
- 3. Corner with four cups. SF 474. 4168. Ditch of Enclosure 23. Phase II.
- Fragment from a tray edge with eight cups. SF 474. 4168. Ditch of Enclosure 23. Phase II.

Despite some uncertainties, it still seems likely that pellet moulds were used to produce blanks for the manufacture of Iron Age coins. Wilthew (p.142) has made out a reasonable case for considering that the moulds under consideration here were used for casting silver, in line with the predominantly silver coinage of the Iceni. The absence of silver from the crucible analyses suggests that the metal for producing coin blanks was processed elsewhere on or off-site, although the production of the coin blanks and the copper-alloy working may have taken place at the same spot as the skills and equipment required were similar.

Investment moulds

(Fig. 126; Tables 24, 25)

The excavations produced 133 fragments of clay moulds in fine clay, normally reduced to grey, but occasionally with an oxidised exterior. With two exceptions, in features of Buildings I and 4, they were confined to the three concentrations discussed above, and are part of an industry attributable to Phases I and II. The analysis suggests that they were used for casting copper alloys.

- Part of a mould for an object with a curved, knobbed surface, possibly curved in the plane perpendicular to the knobs. 2614. Gully of Enclosure 28. Phase I.
- Part of a mould for an object with a curved, tapering surface and lateral projection. 4108. Ditch of Enclosure 23. Phase II.

Seven fragments of a mould for an object with a flat surface bearing a raised, curved half-round moulding. 4108. Ditch of Enclosure 23. Phase II. Unillustrated.

Fragment of a mould for two rods meeting at an angle, or the



Fig. 124 Crucibles, 4-5, and ingot mould or annealing vessel, 6, scales 1:2



Fig. 125 Pellet moulds, scale 1:2



Fig. 126 Investment moulds and casts, scale 1:2

junction of two part-round mouldings. 4168. Ditch of Enclosure 23. Unillustrated.

The small size of the fragments, with never more than a square centimetre of casting surface surviving makes it impossible to identify any of the products. Indeed many were identified as mould fragments only by the smoothness of their surviving casting surfaces.

Hearth lining

(Tables 27, 28)

Several fragments of fired clay were found which, by their laminar appearance, or because of their surfaces, were taken to be parts of hearths or furnaces, often highly fired, and very different in texture to what would normally be regarded as daub from buildings. Their distribution was general, with no marked concentrations, and all were analysed for metal content. One produced slight traces of lead, which is best regarded as a contaminant, and two of copper, as discussed above (p.136).

Ingots

(p.134 and Fig. 118; Nos 42, 43)

Two fragments of copper alloy rod may be parts of ingots. If this is so, they are likely to represent the raw material brought onto site to be melted in crucibles and cast in investment moulds.

Ingot mould or annealing vessel

(Fig. 124, No. 6; Table 29)

A single fragment of a strange low-walled vessel with a curved wall-base junction; analysis shows the presence of silver, copper and lead, suggesting that it was essentially used in silver-working. SF 474. 4168. Ditch of Enclosure 23 Phase II. The shape is perhaps suggestive of an ingot mould, but no trace of silver has been found on any crucibles to show that the silver was melted for casting into ingots. It is worth remarking that it came from Enclosure 23, the most fully-examined of the metalworking deposits, and so the chances of finding such a crucible might be expected to be high. However the absence of the rest of the object shows that only a small part of the original deposit was recovered and the question of the presence or absence of crucibles for silver is open. They would not, of course, have been required for casting silver coin blanks.

A small fragment of a similar object was found in Mrs M.U.Jones' excavations at Old Sleaford, a site which also produced fragments of pellet moulds: this piece actually has a globule of silver adhering to it (Justine Bayley, pers.comm.). It seems probable that this type of object was used in connection with coin production.

Sites in the East Midlands have produced flat, hammered discs of precious metal and it is suggested that these are the pellets from clay moulds which have been hammered flat before being dic-struck as coins (J.May, pers.comm.). This would have necessitated annealing the hammered flans to soften the metal before striking, for which the Fison Way and Old Sleaford pieces would have been suitable containers. The result would be that the clay was fired but not intensively vitrified, which is precisely the condition of the Thetford piece. While further research is clearly needed, it seems most likely that this was used as a container for flans during annealing. This suggestion is the result of discussions with Justine Bayley, to whom the writer is most grateful.

IX. Analysis of the metal-working debris

by Paul Wilthew and Justine Bayley with Ruth Linton

Introduction

The material examined included slag, crucibles, hearth lining, and soil samples from Iron Age and Early Roman contexts, which were thought to provide evidence for metalworking activities on the site. The individual samples were identified and, where appropriate, analysed elementally using qualitative energy dispersive X-ray fluorescence (XRF). The identifications and the analytical results are given in the microfiche supplement.

X-radiographs of the pellet mould fragments were taken to determine whether any metal droplets remained in the moulds, but the results were negative.

Ironworking

The material examined included several small samples of

iron slag with a total weight just under 2kg. A few of the samples (Table 28) were almost certainly iron smithing slag, which is the slag which collects in the bottom of a blacksmith's hearth, but in most cases it could not be stated with confidence whether the slag was produced during smithing or smelting. None of the slag had been tapped, but it is quite possible that a non-tapping method of iron smelting would have been used at this date: however the small quantity indicates smithing as the most likely source.

Of the other material examined, the fuel ash slag and hearth lining may have been associated with ironworking. Some of the hearth lining samples (Table 28) had detectable levels of copper, lead or tin and were therefore almost certainly from hearths used in non-ferrous metalworking. Fuel ash slag is the product of a high temperature reaction between ash and silica-rich material such as sand or clay. It is often associated with metalworking but can be formed in any sufficiently hot fire, and does not therefore provide positive evidence for any particular technological activity.

The results indicate that iron smithing took place on or, more likely, near the site during the Late Iron Age or Early Roman periods but the amount of slag suggests that it was only on a very small scale. There was no positive evidence for iron smelting.

Copper alloy working

The evidence for copper alloy melting on the site during the Iron Age consists primarily of crucible fragments, although additional evidence is provided by some of the hearth lining, as mentioned above.

The analytical results showed that the crucibles were used to melt bronze (copper-tin alloy) and that some, at least, of the alloys also contained lead. In some cases the metal may have been essentially copper. Zinc was not present at detectable levels on any of the crucibles.

Overall, the results suggest that the crucibles were used to melt bronze (possibly leaded in some cases) and perhaps copper but not silver or gold and almost certainly not copper-zinc or copper-zinc-tin alloys. The results are consistent with a Late Iron Age date for all the crucibles. There were several sizes of triangular crucible. There was no indication of any change in the types of alloy being melted during the period represented by the material examined.

Investment moulds

Metal melted in crucibles was cast either directly into objects or into blanks which were smithed to produce sheet metal, rods and wire. In Iron Age times clay moulds made by the investment (lost wax) process were used to cast objects (Bayley 1987) and this site has produced a number of fragments of such moulds. The moulds had to be broken to remove the casting so large pieces which show the form of the object being cast rarely survive. As the moulds were in contact with molten metal for far less time than the crucibles there is less opportunity for metal to become bound to the mould surface so it is rarely possible to identify the metals being cast from analysis of the moulds. Only half the moulds had any detectable metal traces and these were very slight. The analytical evidence is not in conflict with the interpretation that the metals melted in the crucibles were cast in the moulds.

Coin pellet moulds

All those areas of the coin pellet moulds which it was considered might retain traces of metal were analysed (no visible metal was observed and no indication of massive metal was found by X-radiography). In one case no traces of metal were detected in any area, but lead was detected on all the other fragments and in most cases copper and/or silver was detectable in at least one area. The significant elements detected on each fragment are given in the microfiche supplement. Neither zinc nor tin were detected on any fragment.

The almost ubiquitous presence of lead was probably due to the tendency of lead to enter vitrified layers on the surface of the mould. Where copper but no silver was detectable this was probably due either to the presence of contamination by copper compounds or to the fact that the detection limit for silver with the method used is significantly higher than that for copper. Silver on the other hand would not be expected to be present at detectable levels simply because of contamination. Silver was detected on the majority of the pellet mould fragments analysed and it is highly probable that all the coin pellet moulds were used to melt silver. The silver would have almost certainly contained some copper and traces at least of lead. There was no convincing evidence that any of the coin pellet moulds had been used to melt copper alloys.

Although the coin pellet moulds were contemporary with some of the crucibles, they are not directly connected technologically with the latter. A description of the probable method of use of coin pellet moulds is given by Tylecote (1976, 50–51). A pre-determined weight of solid metal was introduced into each depression, the mould was heated from above until the metal melted and formed a globule which was removed after cooling and coined.

Silver working

Further evidence of silver working is provided by the fragment of ingot mould or annealing vessel (p. 141, Fig. 124, No. 6). Its use is unknown but it is most likely to be connected with the production of coins as silver was detected on its inner surface. Its find-spot, associated with the pellet moulds supports this suggestion.

Metalworking at Fison Way, Thetford in a broader context

There are dozens of sites that have produced evidence for non-ferrous metalworking in Iron Age times. The finds are very varied and indicate three distinct types of metalworking but few sites produce evidence for more than one of these three. First are the sites where metal was melted in crucibles and cast into objects using investment moulds. Second are those where there is evidence for wrought metalworking; metal may have been melted but was only cast into ingots or blanks which were smithed to give sheet metal, rods and wires which were cut and worked further to produce objects. The final type of metalworking was restricted to the late Iron Age and involved the use of coin pellet moulds to produce blanks for striking into coins (Collis 1985, Tournaire et al. 1982). There are a few sites, e.g. Hengistbury Head, where more complex metalworking operations such as refining were also carried out (Gowland 1915). Northover (1984) has noted the association of different types of metalworking with different types of sites; casting appears to be found

only on open settlements while much of the best evidence for wrought metalworking comes from hillforts.

Metalworking sites most commonly produce crucibles (nearly half the sites) but often these are represented by only a single sherd. Where the crucible form can be reconstructed, two distinct shapes are seen. Both are triangular in plan but one variant is shallow (with a diameter of over twice its depth) while the other is far deeper. Dated finds suggest the shallow form goes out of use in the first century BC while the deeper crucibles are found on site that run on into the first century AD (Bayley 1987).

Other relatively common finds are scrap and waste metal and coin pellet moulds. The largest group of coin pellet moulds is several thousand fragments from Old Sleaford, Lincs. (Jones *et al.* 1976). Bagendon, Gloucs. also produced considerable numbers (Clifford 1961) and smaller groups and individual finds are widespread in lowland England. In contrast, moulds for casting objects are known from only a handful of sites.

The site with by far the largest quantity of both crucibles and moulds is Gussage All Saints, Dorset (Spratling 1979, Foster 1980) where around 600 crucible fragments and over 7000 mould fragments were found, most of them dumped in a single pit. It was the rapid and tidy discard of these finds and the lack of later disturbance of the pit fill that preserved them. Although the group is now unique in terms of its size, it is its survival that is truly remarkable as other groups of similar size must have been commonplace in Iron Age times. Two recently excavated sites, Beckford, Worcs. and Weelsby Avenue, Grimsby, Humberside have also produced significant numbers of crucibles and investment moulds.

Fison Way, Thetford can be considered unusual if not unique in that the finds include quantities of coin pellet moulds as well as fragments of investment moulds, indicators of two very different types of metalworking. The analytical results show the metals used were also different, with silver being used for the coinage while bronze, and probably leaded bronze too, were used for casting. The presence of traces of silver on the ?ingot mould suggest an association with the former process. Though the quantity of investment mould material is not large, this is only the fourth site in England to produce more than the odd fragment or two and as such could be considered as one of the country's major Iron Age bronze casting sites. However, the quality of the evidence is such that no new light is thrown on the technology so amply illustrated by the finds from Gussage. In a similar way, the fragmentary coin pellet moulds add only a further point to the distribution map of sites where they are known, though the positive identification of silver is less common.

X. Lithic material

by Frances Healy

(Figs 127-129; Tables 2, 30, 31)

Description

The material is summarised in Table 2, listed by context in Table 30 (microfiche) and summarised by 10m grid square in Table 31 (microfiche).

Selected artefacts (Nos 1–22) are illustrated, and are described in the catalogue at the end of this section. Descriptive terms are defined in Appendix 2 (microfiche).

Less than eight percent of the struck flint from the excavation was recovered from pre-Iron Age contexts. It comprises three flakes from pit 5821, which contained a cremation and a fragmentary Biconical Urn (No. 32), and an assemblage of 102 pieces from 6565, the upper fill of pit 6564, which contained sherds of Middle Beaker pottery, including Fig. 135, Nos 5–13. The original record for layer 6565 reads 'many struck flints lying on top of feature, but few actually in fill; fill contains burnt flint and stones'.

It is thus unclear whether the struck flint from 6565 was associated with the Beaker pottery or post-dated it. The remainder of the lithic material was either excavated from Iron Age and later contexts or was unstratified, much of it amassed by casual collection from spoil heaps consisting mainly of stripped topsoil. Less than half can be attributed to particular locations within the main excavated area (Table 31 (microfiche)), with a low mean density of approximately 17 pieces per 100m². Both for this reason and because excavation was incomplete and of uneven intensity, scope for any form of spatial analysis is less than the size of the collection and the extent of the excavated area might at first suggest.

Raw material

Insofar as the bulk of the worked flint can be characterised, it seems originally to have consisted of relatively small, rounded nodules, with occasional larger material represented by massive flakes, such as one measuring 96mm by 62mm from layer 153 of gully 152. Surfaces consist of weathered but unrolled cortex or of ancient, heavily corticated thermal fractures. Beneath the surface, the flint is generally dark grey to black in colour, sometimes thinly banded with pale grey or white, and with

71	Catego	ries	25																			
Context	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Totals	Η	Drawings
Pit 6564	9	6	78	8	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	102	0	1-4
Pit 5821	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	
Remaining contexts	38	18	1085	158	1	1	1	1	2	39	4	4	1	6	2	14	2	1	1	1376	3	5-22
Totals	47	24	1166	166	1	1	1	1	2	39	4	4	1	6	2	14	2	1	1	1481	3	
Drawings	1-3,9		10,11	8	12	13	14		15	16-18	19	20	21		6,7			22	5			

Table 2 Summary of Lithic Material

1 = cores, 2 = irregular waste, 3 = flakes, 4 = blades, 5 = chisel arrowhead, 6 = barbed and tanged arrowhead, 7 = triangular arrowhead, 8 = chisel or oblique arrowhead fragment, 9 = ?unfinished arrowhead, 10 = scrapers, 11 = borers, 12 = knives, 13 = denticulate, 14 = serrated pieces, 15 = micoliths, 16 = misc. retouched, 17 = 'fabricators', 18 = axe, 19 = hand-axe, H = hammerstones.



Fig. 127 Lithic material, scale 1:2



Fig. 128 Lithic material, scale 1:2

frequent latent thermal fractures, along which it has tended to split while being knapped. Its characteristics can be seen in the cores from the top of pit 6564 (Nos 1–3). It matches the flint which abounds on the surface of the surrounding Breckland today, derived from the underlying chalk. Most of the raw material used may have been collected from broken ground.

Possible exceptions are nine pieces, including Nos 11 and 19, of dark, sound flint with fresh tan to cream cortex up to 10mm thick. This and the large size of 11 would be consistent with their manufacture from floorstone mined at Grime's Graves, Weeting with Broomhill (Site 5640), 6.5km to the north-west. It must be remembered, however, that floorstone-like flint can also be found on the surface. A ground axe, No. 22, is of mottled, pale grey flint exceptional in the collection. An unstratified, unworked weathered pebble of igneous rock (from context 325) has been identified as olivine basalt, probably an erratic, by Diana Smith, formerly of the Natural History Department, Norwich Castle Museum.

The assemblage from the top of pit 6564 (Fig. 129)

This seems to consist entirely of local surface flint and comprises only debitage, with the exception of a doubtfully serrated flake. Hard-hammer flaking is reflected by thick butts, pronounced bulbs and deep flake scars. There are two core trimming flakes, No. 4 and a smaller example of the same form. Nineteen minute flakes and chips were recovered from flotation residues.

FLAKES FROM LAYER 6565 OF PIT 6564



Fig. 129 Summary of intact flakes and blades from the top of pit 6564

They are excluded from Fig. 129, which summarises metrical and other characteristics of the relatively few intact flakes and blades. Ancient, corticated thermal fractures are counted as cortex in the definition of primary, secondary and tertiary flakes, of the extent of cortex on dorsal surfaces and of cortical butts, because, like cortex, they represent the unmodified surface of the raw material.

The remainder of the material

Cores include a small, Levallois-like example (No. 9). At least one flake (No. 10) was struck from a similar core. There are two further core trimming flakes in addition to those from the top of 6564.

Among retouched pieces, most scrapers are relatively large, within the size range of Nos 16 and 17. Only two, including No. 18, are small, 'thumbnail' forms. Serrated pieces are under-represented in the totals because their edges are readily damaged. At least a further four blades and two flakes were probably once serrated. The total of miscellaneous retouched pieces includes two recent gun-flints.

Discussion

The assemblage from the top of pit 6564

This is characterised as knapping debris by the presence of cores, irregular waste, core trimming flakes and minute flakes and chips. It is uncertain whether it was associated with or later than the Middle Beaker pottery represented by Fig. 135, Nos 5–13. Beaker-associated industries are often characterised by the presence of numerous small, often scale-flaked 'thumbnail' scrapers, such as No. 18, and by a relative fineness and neatness of workmanship in some other retouched forms, notably scale-flaked knives (Healy 1984b; Petersen and Healy 1986, 84-89). Absence of these features from the 6565 material may simply result from its nature as knapping debris. Its knapping style, however, would also be consistent with a later date. Features such as the overall aspect of the cores (Nos 1-3), multiple bulbs of percussion on the flakes, their considerable thickness, and the frequency among them of cortical or other unmodified butts and of hinge fractures (Fig. 129) would all accord with the flint-working practices of the full Bronze Age, synthesised by Ford et al. (1984) and Ford (1987), and locally exemplified by the industry of the Middle Bronze Age occupants of Grime's Graves (Savile 1981a). A Bronze Age date is thus possible, and perhaps made more likely by the presence of two pits containing Middle Bronze Age urns, 5809 and 5281, only 13m to the north.

The remainder of the material

The collection spans a considerable time range. John Wymer writes of No. 5

'This type of hand-axe is characteristic of the latest hand-axe industries of Britain, referred to as Mousterian of Acheulian Tradition. They are uncommon, but often occur as isolated surface discoveries, such as this one, which presumably became incorporated in a Phase III gully by accident. About twenty-four sites of such hand-axes are known in East Anglia, of which six are in Norfolk. They concentrate in the Breckland (Wymer 1985, fig. 116), with one other known from Thetford, at White Hill.

At Lynford (Site 21499) and at Bramford Road, Ipswich, Suffolk, they are found in gravels of Last Glaciation (Devensian) date. The inference is that

	AI	A2	B1	<i>B2</i>	<i>B3</i>	С	D	E	Uncl/ frag.	Totals	No. with blade scars	Mean wt. of complete cores
Pit 6564	0	1	0	1	2	2	2	1	0	9	0	68g
Remaining contexts	1	10	5	0	5	9	4	3	1	38	8	73g
Totals	1	11	5	1	7	11	6	4	1	47	8	71g

Table 3. Cores

they date from the Ipswichian into the Devensian. From continental parallels it seems unlikely that they could occur after the mid-Devensian, i.e. *c*. 40,000 BP. At Bramford Road they are associated with Levalloisian flakes. However, it must be conceded that, although such hand-axes were certainly a component of the British Mousterian of Acheulian Tradition industry, "the value of using these or any single tool type as a typological or cultural marker is highly questionable" (Coulson 1986)'.

Mesolithic activity is certainly represented by two microliths, Nos 6 and 7. No. 8 may be broadly contemporary, because it has been struck from a bipolar blade core, a form more frequent in Mesolithic industries than in later ones, and because it is more heavily corticated than most of the collection. The amount of Mesolithic debitage present is, however, difficult to gauge. The low frequency of blades, which form approximately thirteen per cent of all flakes (Table 2), suggests that it is not great.

Comparable levels of blade-production in Later Mesolithic and Earlier Neolithic industries (Pitts 1978) mean that most of the blades and blade debitage are as likely to be Earlier Neolithic as Mesolithic.

The bulk of the collection seems to date from the Later Neolithic and Bronze Age. Levallois-like technique, exemplified by Nos 9 and 10, was regularly employed to produce blanks for Later Neolithic transverse arrowheads and other flake tools, and was used to produce far larger flakes from the exceptionally massive raw material of Grime's Graves, Weeting with Broomhill (Site 5640, Saville 1981a, 47, 48). The prevalence of proportionately broad, squat flakes conforms to a progressive abandonment of blade technology in the course of the third millenium cal. BC (Pitts 1978). The chisel, barbed and tanged, and triangular arrowheads (Nos 12, 13, 14) are all of forms produced during the later Neolithic and Early Bronze Age (Green 1980, 111-114, 137-143). Most of the other retouched pieces, especially the spurred piece (No. 19), the scale-flaked knife (No. 20), and the denticulate (No. 21), are of forms current in contemporary industries in East Anglia and beyond (Healy 1984b; Healy 1985, 192-196; Petersen and Healy 1986, 84-89).

Nos 12–14 form part of a national concentration of arrowheads of every form in the Breckland (Green 1980, figs 31, 40, 41, 47, 52, 53, 54). No. 15 may have been abandoned during the manufacture of an arrowhead or even, given its size, of a heavier missile head such as a 'laurel leaf'. It may alternatively be a finished implement of unusual form.

Catalogue of illustrated lithic material (Figs 127, 128)

Categories are defined in the fiche supplement. Artefact descriptions are laid out in the following order: artefact type, description, comment (if any) and context.

 B2 core. On small nodule with latent thermal fractures, through which some of final removals have run out. 6565, Pit 6564.

- 2. **B3 core**. On small nodule. 6565, *Pit* 6564.
- E core. With central area of fresh thermal fractures and granular inclusions. 6565, Pit 6564.
- Core trimming flake. From edge of platform consisting of fresh thermally-fractured surface. 6565, Pit 6564.
- 5. Bout coupé hand-axe. Unrolled, but corticated white and in places reduced to a cortical state. Some later damage at the more pointed end is more faintly patinated, and slight recent damage at the same end has exposed dark grey flint. Its condition is consistent with long exposure on alkaline soil or with incorporation in very calcareous deposit. 1066.
- 6. Microlith. Obliquely-blunted point, lightly corticated. 2369.
- 7. Microlith. Obliquely-blunted point, lightly corticated. 325.
- Blade. From bipolar core. Slight white cortication broken by recent damage, revealing grey flint. 202.
- Levallois-like core. Longitudinal section suggests manufacture on flake. 4166.
- 10. Flake. From core similar to 9. 325.
- 11. Flake. Possibly of Grime's Graves floorstone. 348.
- 12. Chisel arrowhead. 4896.
- 13. Barbed and tanged arrowhead. 325.
- 14. Triangular arrowhead. 1865.
- 15. ?Unfinished arrowhead. 325.
- 16. Scraper. 1049.
- 17. Scraper. 4531.
- 18. Scraper. 4003.
- 19. Spurred piece, possibly of Grime's Graves floorstone. 3757.
- 20. Scale-flaked knife. 1842.
- 21. Denticulate. On partly thermally-fractured blank. 1060.
- 22. Axe. Ground, corticated, with much recent (plough?) damage, which reveals mottled, pale grey flint. 325.

XI. Shale

(Fig. 130)

Small shale ring with a subrectangular section tapering to a flat ovoid; originally a complete circle. *SF 575. 4990. Unresolved intersection* It is probable that all features in this area were Phase I or II.



Fig. 130 Shale object, scale 1:1

XII. Quernstones

(unillustrated, Table 32)

Five fragments or collections of fragments of querns were found in the excavation, none of them worthy of illustration.

Unillustrated

Puddingstone fragment, with a small area of grinding surface. 2068. 'Grave' 3097. Phase II.



Fig. 131 Glass objects, scale 1:1

Crumbs of Niedermendig lava. 2243. Outer ditch of Enclosure 1b. Phase III or IV.

Niedermendig lava fragment. 3098. 'Grave' 2067. Phase II. Millstone grit fragment. 4190. South of excavated area, west of Cutting IV. Phase IV.

Niedermendig lava fragment. 6368. Outer ditch of Enclosure 1a. Phase II.

XIII. Glass

(Fig. 131)

Objects of glass were surprisingly rare; only two were discovered.

- Cylindrical bead, one end flat and the other rounded; blue with green trails. SF 251. 1927. Ditch of Enclosure 14. Phase II.
- 2. Shapeless bead of green glass. SF 271. 2960. Gully 363. Phase IV.

XIV. Mineral sample

Small fragments of red mineral, which appeared to be foreign to the site, were found in the Phase II fill of ringditch 7. They have been identified by Justine Bayley, of the Ancient Monuments Laboratory as realgar (arsenic sulphide). This is not likely to have originated in East Anglia, and should be considered as an import to the site. Realgar has been used in the past as a pigment, and, mixed with lime, to remove hair from skins in tanning (Phillips 1912, 294).

XV. Fired clay

After the removal of fired clay objects with metallurgical associations (crucibles, moulds and possible fragments of hearth linings), the recognisable artefact types were extracted as below. The remainder, miscellaneous and uncharacteristic pieces, were retained but have not been catalogued in detailed.

The absence of recognisable daub from buildings, particularly the lack of any wattle-impressed daub, is worthy of note.



Fig. 132 Fired clay spindle whorl, scale 1:2

Spindle whorl

(Fig. 132)

Biconical spindle whorl of fired clay, not of re-used pottery, although the fabric is very similar to GW2. One flat surface survives, and it is likely that the piece was symmetrical about its transverse axis. *SF* 772. *Ditch of Enclosure 7. Phase II.*

It is worth noting the contrast between the relatively large number of loomweights, compared with the single spindle whorl, although the recovery was undoubtedly weighted in favour of the easily-recognisable loomweights.

Loomweights

(unillustrated, Table 38)

Eighty-eight fragments of groups or fragments were found, a total of 10.50kg. With an estimated complete weight of about 2kg, this represents a minimum estimated total of five, but in reality that must have been far greater, probably much nearer to the eighty-eight discoveries, particularly since the rate of disappearance of the poorly-fired loomweights if exposed on the surface, would have been fast.

The fabric is fine, of low density, poorly mixed and streaky; there are a very few tiny rounded white and colourless quartz grains. In many cases the fragments have been identified as loomweights purely on the grounds of their fabric.

None was restorable, but where substantial portions survived they were all of triangular form, with perforations across the corners. They were distributed widely across the site and through all four phases, although by their very nature and condition, they are likely to be residual. The only concentration was in Ditch 4876, a feature of Phase I, in association with crucibles and investment mould fragments. This might indicate an association between the refuse dump of the metallurgical and weaving industries, or that the equipment used for producing clay moulds and crucibles was also used for the manufacture of loomweights.

Sling shots

(Fig. 133; Table 37)

Five biconical, fired clay sling shots were excavated, although their appearance, similar to that of weathered flint gravel, makes it likely that they are under-represented in the collection. Two of the five were from contexts of Phase II and one from Phase I.

- Complete sling shot; fabric invisible. SF 564. 2068. 'Grave' 3097. Phase II.
- A quarter of a sling shot; refired after being broken, and then broken again. Very fine, inclusion-free fabric, similar to that of the loomweights. 3691. Pit 3692. Unphased.
- Almost complete, with one end damaged. Fabric similar to No.2 above. SF 561. 4669. Gully 4876. Phase I.

 Complete sling-shot; fabric largely invisible, but some small white quartz shows. SF 611. 4737. Outer ditch of Enclosure 1a. Phase II. Unillustrated.

Three fragments of one sling shot; soft and crumbly fabric with rare, reddish rounded quartz. 4980. Uncertain context and phasing.

XVI. Pre-Iron Age pottery

(Figs 134–139; Tables 4, 33) by Frances Healy

Description

The material is summarised in Table 4 and listed by



Fig. 133 Fired clay sling-shots, scale 1:2

context in Table 33 (microfiche). 'Indeterminate Later Neolithic/Early Bronze Age' is used to denote sherds such as 25–30, which are too plain or too fragmentary to be assigned to particular styles within the broad period. Plus signs following the sherd numbers for 3458, 5810 and 5823 indicate approximate numbers of sherds comprising semi-complete pots. Selected sherds and vessels (1–35) are illustrated and are described in the catalogue at the end of this section.

A small assemblage of Beaker pottery, including Nos 5–15, was recovered from 6565, the upper fill of pit 6564. Further sherds were residual in 6580, the fill of pit 6579, which cut it. Four Bronze Age Urns (Nos 32–35) were found in pits, in three cases accompanying cremations. The remainder of the pottery was in most cases residual in Iron Age and Romano-British contexts. The bulk of it consists of small, abraded sherds, the condition of which suggests that they had already suffered substantial attrition before being incorporated in later feature fills. They were scattered widely over the excavated area, with little relation to the few pre-Iron Age features and with little obvious focus, except in the case of ten metre square 560/610, which produced twenty-two pre-Iron Age sherds, including Nos 21, 23 and 27.

Indeterminate flint- or flint- and sand-tempered sherds are included in Tables 4 and 33 because their

PRE-IRON AGE POTTERY FABRICS

Flint- or flint- and sand-tempered





fabrics seem closer to those of some local Neolithic and Bronze Age wares than to those of generally sandier and more often quartzite-tempered Iron Age wares. Indeterminate grog-tempered sherds are included because their fabrics almost certainly attribute them to the local Later Neolithic or Early to Middle Bronze Age. The fabrics of those sherds for which more precise stylistic attribution is possible are summarised by main temper in Fig. 134.

Discussion

Fabrics

The collection shows a measure of correlation between style and fabric which obtains within East Anglia and beyond. The distinction between the flint- and sand-tempered fabrics of the few Neolithic Bowl sherds and the predominantly grogged fabrics of some Later Neolithic and Early Bronze Age styles is a recurrent one, seen locally at Spong Hill, North Elmham (Healy 1988, figs 54, 78). Diversity of temper among local Beaker fabrics is similarly frequent (Petersen and Healy 1986, fig. 82; 1988, fig. 78). Tomalin (1983, 369–372) documents the prevalence of grog temper in a large collection of Biconical Urn sherds from sites on the Fen edge in Hockwold cum Wilton, 17km to the west, while the abundant Deverel-Rimbury assemblage of the post-mining occupation

Sand-tempered

338 Sherds



Fig. 134 Pre-Iron Age pottery styles summarised by main temper

Context	Date/Type	Neo.Bowl	?Grooved Ware	Beaker	Rust. Beaker	Indet. LNEBA	Biconical Urn	Deverel- Rimbury	Indet. BA	Indet. Flint- Temp.	Indet. Grog- Temp.	Totals	Drawings
Pit 6564	Beaker	0	0	13	1	0	0	0	0	0	4	18	5-13
Urn 2897	Bronze Age	0	0	0	0	0	0	0	12	0	0	12	35
3458	Bronze Age	0	0	0	0	0	0	50+	0	0	0	50+	33
Urn 5810	Bronze Age	0	0	0	0	0	0	30+	0	0	0	30+	34
Urn 5823	Bronze Age	0	0	0	0	0	130+	0	0	0	0	130+	32
Remaining	contexts	5	2	9	16	68	2	0	17	49	38	189	1-4, 14-31
Totals		5	2	22	17	68	132+	80+	12	49	42	429+	
Drawings		1–2	3-4	5–12 14–20	13 21–24	25-30	31-32	33–34	35				

Table 4 Pre-Iron Age pottery

of Grime's Graves, Weeting with Broomhill, 6.5km to the north-west, includes flint-tempered vessels among those in other fabrics (Longworth 1981).

Neolithic Bowl

Nos 1 and 2 are too fragmentary to be attributed to any particular Bowl style. The tradition as a whole was long-lived, spanning the period c. 4000–2900 Cal. BC.

?Grooved Ware

If 3 and 4 are indeed of Grooved Ware, they form part of a regional concentration of the style in the Breckland (Cleal 1984, fig. 9.4; Healy, Cleal and Kinnes forthcoming, fig. 2). It was the main ceramic of the mining period of Grime's Graves, Weeting with Broomhill, dated to *c*. 2580–1960 cal BC; (Burleigh *et al.* 1979).

Beaker

The assemblage from pits 6564 and 6579 (Nos 5-15) is marked by the almost exclusive use of comb-impression and by a restricted range of simple decorative motifs with frequent zonation. These characteristics assign it to Steps 2-4 in the scheme of Lanting and Van der Waals (1972) and to Case's (1977, 72) Middle style. The material is too fragmentary to permit of ready classification in the scheme of Clarke (1970). The profile of 5 and the decoration of the assemblage as a whole would be compatible with his European Bell Beaker or Wessex/Middle Rhine groups (1970, 69-107). Middle Beakers seem to have become current c. 2500 Cal. BC or a little later (Gibson 1982, fig. 2). It is unclear for how long complete assemblages of this kind continued to be made: some of their stylistic elements certainly persisted, alongside later traits, for several centuries (Longworth 1979, 90).

Beaker sherds from elsewhere in the excavated area (Nos 16–24) also seem to be more often of Middle than of Late affinities. The protruding base of 19 is of a form frequently found in barrel-shaped Middle Beakers of Clarke's East Anglian and Barbed Wire groups. Incision occurs only on 18 and the only reserve motif is represented fragmentarily on 20. Among the relatively few rust-icated sherds, non-plastic horizontal rows of impressions on 22 and 24 are matched more readily in Middle than in Late assemblages (Clarke 1970, 258; Bamford 1982, 60–64).

Indeterminate Later Neolithic/Early Bronze Age sherds The form and fabric of No. 26 would be compatible with plain Grooved Ware or with the various urn styles of the Early Bronze Age. Nos 27–30 are all likely to be of Early Bronze Age date.

Biconical Urn

Nos 31 and 32, the latter buried with a cremation, conform in form and fabric to the large collection of Biconical Urn from apparently domestic contexts in Hockwold cum Wilton described at length by Tomalin in an unpublished thesis (1983). Similar vessels were excavated from an occupation site in a similar fen edge location in Mildenhall, Suffolk (Clark 1936, figs 6, 7). Examples from funerary contexts in Norfolk are illustrated by Lawson (1980, fig. 3) and Tomalin (1986, figs 96, 97). Lawson (1984, fig. 6.1) suggests a time-range of *c*. 1770–1430 cal BC.

Deverel-Rimbury

Nos 33 and 34 are clearly allied with the pottery of the post-mining occupation of Grime's Graves, Weeting with Broomhill, the bucket-like forms of which include features such as rows of perforations beneath the rim, finger-tip-impressed rims and applied bosses (Longworth 1981). The regularly-wiped surfaces of both pots are paralleled on Bucket Urns from Shouldham (Lawson 1980, fig. 4: A, B) and Witton (Lawson 1983, fig. 25: 8, 29:10). Lawson (1984, fig. 6.1) suggests an overall currency of *c*. 1700–950 cal BC. The post-mining occupation of Grime's Graves is dated to *c*. 1700–950 cal BC; (Burleigh *et al.* 1979, 45–46).

Indeterminate Bronze Age

Near-identify of fabric between 35 and 33–34 makes it almost certain that it was made in the same Deverel-Rimbury tradition.

Catalogue of illustrated pre-Iron Age pottery (Figs 135–139)

Notes: Pottery descriptions are laid out in the following order: style, temper(s), texture, hardness, colour, decorative technique (if any), comment (if any) and context.

Munsell notations are followed by subjective colour



Fig. 135 Pre-Iron Age pottery, scale 1:2



Fig. 136 Pre-Iron Age pottery, scale 1:2

descriptions rather than by Munsell soil colour names. 1–28, Fig. 135

- 1–20, Fig. 155
- Neolithic bowl. Flint with some sand. Coarse. Hard. Ext. 7.5YR 4/2 (brown), core 5YR 4/1 (grey-brown), int. 5YR 3/1 (grey). 1028.
- Neolithic bowl. Flint with some sand. Medium. Hard. Ext. 5YR 4/2 (brown-orange), core 5YR 4/1 (brown-grey), int. 5YR 3/1 (grey). 3492.
- Grooved Ware. Grog with micaceous sand and 1 fleck ?haematite. Medium. Medium. Ext. 5YR 6/6 (buff), core 5YR 5/4 (buff), int. 5YR 6/4 (buff). Grooving. Fabric identical to that of 4. 3438.
- Grooved Ware. Grog with micaceous sand. Medium. Medium. Ext. 5YR 6/6 (buff), core 5YR 5/4 (buff), int. 5YR 6/4 (buff). Grooving. Fabric identical to that of 3. 4923.

5-13 Pit 6564

- Beaker. Sand with some flint. Fine. Hard. Ext. 2.5YR 5/6 (orange), core 5YR 4/1 (grey), int. 7.5YR 6/6 (buff). Comb-impression. 6565.
- Beaker. Grog with some flint and some sand. Medium. Medium. Ext. 5YR 5/6 (orange), core 5YR 4/1 (grey), int. 5YR 5/3 (buff). Comb-impression. 6565.
- Beaker. Sand with some flint. Medium. Hard. Ext. 7.5YR 5/4 (buff), core 5YR 3/1 (grey), int. 5YR 5/2 (buff). Comb-impression, incision. 6565.
- Beaker. Grog with some sand. Fine. Medium. Ext. 7.5YR 6/6 (buff), core 5YR 4/1 (grey), int. 7.5YR 6/2 (grey-buff). Comb-impression. 6565.
- Beaker. Grog with some sand. Fine. Medium. Ext. 7.5YR 6/4 (buff), core 7.5YR 4/2 (grey), int. 7.5YR 5/2 (grey-buff). Combimpression. 6565.
- Beaker. Grog with some flint and some sand. Medium. Medium. Ext. 5YR 5/6 (orange-buff), core 5YR 4/1 (grey), int. 5YR 5/1 (grey). Comb-impression. 6565.
- Beaker. Grog. Medium. Medium. Ext. 7.5YR 6/6 (buff), core 5YR 3/1 (grey), int. 7.5YR 4/2 (brown-grey). Comb-impression. 6565.
- Beaker. Sand with some flint. Fine. Hard. Ext. 2.5YR 5/6 (orange), core 5YR 4/1 (grey), int. 7.5YR 6/6 (buff). Comb-impression. Possibly from same pot as 5. 6565.
- Rusticated Beaker. Grog with some flint and some sand. Coarse. Hard. Ext. 7.5YR 6/4 (buff), core 5YR 4/1 (grey), int. 7.5YR 6/4 (buff). Finger-pinching. 6565.

14-15 Pit 6579

- Beaker. Grog with some flint. Fine. Medium. Ext. 5YR 6/4 (orange-buff), core 5YR 5/1 (grey), int. 5YR 6/3 (buff). Comb-impression. 6580.
- Beaker. Grog with some flint and some sand. Medium. Medium. Ext. 5YR 6/6 (orange), core 5YR 5/1 (grey), int. 7.5YR 5/2 (greybuff). Comb-impression. 6580.
- Beaker. Grog with some flint and some sand. Medium. Hard. Ext. 5YR 5/6 (orange), core 5YR 4/1 (grey), int. 7.5YR 6/2 (buff). Combimpression. 1026.
- Beaker. Flint with some sand. Medium. Hard. Ext. 5YR 6/6 (orange-buff), core 5YR 4/1 (grey), int. 7.5YR 6/2 (grey-buff). Combimpression. 1826.
- Beaker. Grog with some flint. Medium. Medium. Ext. 5YR 6/6 (orange-buff), core 5YR 5/2 (grey), int. 5YR 5/2 (grey). Incision. 6237.
- Beaker. Grog with some sand and some flint. Medium. Hard. Ext. 5YR 6/4 (orange-buff), core 5YR 5/1 (grey), int. 5YR 5/1 (grey). Incision. Small find 609. 6686.
- Beaker. Flint with some sand. Medium. Hard. Ext. 5YR 6/6 (orange-buff), core 5YR 4/1 (grey), int. 5YR 5/3 (buff-grey). Combimpression. 6829.
- Rusticated Beaker. Grog with some sand. Coarse. Medium. Ext. 7.5YR 6/6 (buff), core 5YR 4/1 (grey), int. 7.5YR 5/2 (grey-buff). Fingernail impression. 1684.
- Rusticated Beaker. Grog with some flint and some sand. Medium. Hard. Ext. 2.5YR 6/6 (orange-buff), core 5YR 5/2 (grey), int. 5YR 6/4 (buff). Impression. 1842.
- Rusticated Beaker. Grog with some flint and some sand. Coarse. Medium. Ext. 5YR 6/6 (orange-buff), core 5YR 4/1 (grey), int. 5YR 6/3 (buff). Finger-pinching. 3669.
- Rusticated Beaker. Grog with some sand and some flint. Medium. Hard. Ext. 5YR 5/6 (orange-brown), core 5YR 3/1 (grey), int. 5YR 5/3 (buff-grey). Impression. 4146.
- Indeterminate Later Neolithic/Early Bronze Age. Grog. Coarse. Medium. Ext. 2.5YR 6/8 (orange), core 5YR 5/3 (brown-grey), int. 2.5YR 6/6 (orange-pink). Combing. 6966.
- Indeterminate Later Neolithic/Early Bronze Age. Grog with some micaceous sand. Coarse. Medium. Ext. 2.5YR 6/6 (bufforange), core 5YR 4/2 (grey), int. 5YR 4/2 (grey). ?Organic residue. 1064.
- 27. Indeterminate Later Neolithic/Early Bronze Age. Grog with some sand. Coarse. Soft. Ext. 5YR 7/8 (orange-buff), core 5YR



Fig. 137 Pre-Iron Age pottery, scale 1:2

5/1 (grey), int. 5YR 6/2 (buff-grey). Applique, finger-tip impression. 1684.

- Indeterminate Later Neolithic/Early Bronze Age. Grog with some sand. Coarse. Medium. Ext. 5YR 4/3 (brown), core 5YR 4/2 (brown-grey), int. 5YR 4/3 (brown). Lighter-coloured grog. 1825.
- 29-32, Fig. 136
- Indeterminate Later Neolithic/Early Bronze Age. Grog with sand and some flint. Medium. Hard. Ext. 2.5YR 5/6 (orange), core 5YR 5/1 (grey), int. 5YR 4/1 (grey). Lighter-coloured grog. 1841.
- Indeterminate Later Neolithic/Early Bronze Age. Grog with some sand. Coarse. Medium. Ext. 2.5YR 5/4 (orange-brown), core 5YR 4/2 (grey), int. 2.5YR 5/6 (orange-buff). Lighter-coloured grog. 1850.
- Biconical Urn. Grog with some sand and some flint. Medium. Medium. Ext. 7.5YR 6/6 (buff), core 7.5YR 7.4 (buff), int. 7.5YR 6/6 (buff). Appliqué. Much abraded. 2006.
- Biconical Urn. Grog with some flint. Coarse. Soft. Ext. 7.5YR 7/4 (buff), core 7.5YR 4/2 (grey), int. 7.5YR 4/2 (grey). In extremely friable condition. 5823. (Contained cremation).

33-35, Figs 137-139

- Deverel-Rimbury. Flint. Coarse. Hard. Ext. 5YR 4/3 (orangebrown), core 5YR 3/1 (grey-black), int. 5YR 4/2 (brown). Perforation (from interior, before firing), (?finger-)wiping. Consolidated; rim area darker than rest of pot. 3458.
- 34. Deverel-Rimbury. Flint. Coarse. Hard. Ext. 5YR 4/6 (brownorange), core 5YR 4/2 (brown-grey), int. 5YR 4/2 (brown-buff). Finger-tip impression, applique, (?finger-)wiping. Consolidated; rim area darker than rest of pot. 5810. (Contained cremation).
- Indeterminate Bronze Age. Flint. Coarse. Friable. Ext. 2.5YR 4/6 (orange-brown), core 5YR 4/1 (grey), int. 5YR 3/1 (grey). Consolidated; fabric near-identical to that of 33 and 34. 2897. (Contained cremation).



Fig. 138 Pre-Iron Age pottery, scale 1:2



Fig. 139 Pre-Iron Age pottery, scale 1:2

XVII. Iron Age and Roman pottery

(Figs 140-146; Tables 34-36)

Although most of the finds categories are published here in typological order, the Iron Age and Roman pottery has been ordered stratigraphically where possible.

Thus material is published by phase, and within each phase by structure or feature in an order compatible with that in which the structures and features have been described above. Pottery from features which cannot be attributed to any phase, from features which were never properly understood, and material which was obviously intrusive into earlier features, is allotted a section of its own. Since all the material in that category published here is of Iron Age or Early Roman datc it has been placed after Phase III.

Description has been kept to a minimum, and only illustrated pottery published in detail. An exception has been made in the case of Samian ware and Gallo-Belgic pottery, which is published whether illustrated or not. Entries for these specialist wares have been contributed by Catherine Johns and Valery Rigby respectively and are followed by their initials as appropriate. Their reports have been distributed through the pottery report, but are available in their original form in the microfiche supplement.

Fabrics

The pottery has been quantified by sherd count and weight, in fabric types. This information, tabulated by structures and features, within phases, is available in the archive and is summarised below. The fabrics used for the initial quantification were amalgamated, in light of the experience gained in the quantification, into a smaller number of fabric groups. A general division into handmade and wheel-made fabrics reflects a general distinction between relatively coarse Iron Age style pottery, and finer, largely kiln-fired, sandy material of Roman or Romano-British type.

Fabric series

Hand-made

- HM1 Fine to coarse, soft to hard, occasionally laminated. Sparse rounded small colourless or dark quartz. Core dark, ranging grey-brown to black. Surfaces light brown through grey to black, occasionally dark grey inside and on exterior above the shoulder with the lower part oxidised brown. Occasionally a little grog. Fabric can look quite granular when quartz grains are unusually small and dense. The commonest hand-made fabric.
- HM2 Buff surfaces, grey core, very micaceous with rare rounded colourless to dark quartz. Probably hand-made. Not a common fabric.
- HM3 Predominantly dark grey throughout. Profuse large angular to subangular white quartz. Coarse end of the HM3-5 spectrum.
- Brown to dark grey, coarse. Profuse small angular to sub-HM4 angular white quartz and tiny rounded colourless to dark quartz. Often has a speckly surface. Fine end of the HM3-5 spectrum.
- HM5 Mid way between HM3 and HM4. Finer than 3, with more rounded quartz (sandier), coarser than 4. The large white quartz occasionally includes some flint.

HM6-10 are uncommon and relatively unimportant fabrics:

- HM6 Smooth, slightly granular fabric with sparse small rounded and angular quartz and some grog. Often has burnished dark grey-black surfaces and a dark red-brown core. Can be confused with HM1.
- HM7 Coarse grained and gritty. Profuse angular medium to large

white quartz. Surfaces red-brown-grey, core grey. Sometimes oxidised surfaces.

- HM8 Fine dense fabric with dense mica and rare small and tiny rounded colourless to dark quartz. Brown-dark grey-black.
- HM9 Coarse soft, vesicular variegated fabric. Leached ?shell.
- Coarse flint gritted, often oxidised surfaces. Body sherds ap-**HM10** pear to be indeterminate Prehistoric, but occasionally forms of Iron Age appearance can be recognised.

Wheel-made

- GW1 Miscellaneous sandy grey wares; standard RB grey wares.
- GW2 Medium to fine hard fabric with sparse to profuse small rounded colourless to dark quartz. Occasionally contains some red iron ore or white chalk, and can be fairly crumbly. The classic form has brown to dark grey surfaces and a grey core, with a reddish layer immediately below the surface; but not invariable as often it appears as a slightly fine, wheelmade version of HM1. Something of a catch-all for nonmicaceous early Roman 'native' wares.
- GW3 Soft, slightly soapy fabric, voids from ?vegetable temper, and some grog. Light grey core, grey-brown surfaces. Not a common fabric.
- GW4 Sandy grey ware with grog.

GW5 Coarse grained with profuse tiny subrounded colourless to dark quartz. Black surfaces, brownish core. Although reminiscent of later Romano-British black-burnished fabrics, it is basically a wheel-made version of HM1, fairly close to GW2. GW6 Wheel-made version of HM2, with perhaps a little more

- quartz.
- MGW Fine lightly micaceous grey-brown, thin bodied.
- OW1 Oxidised version of GW2.
- OW2 Soft and fine, with rare very small black grog and rounded quartz.
- OW3 Very fine, soft smooth fabric with rare mica and some grog. Pale orange with orange-red slip.
- OW4 Fine fabric with dense small rounded quartz and sparse mica; buff core and surfaces.
- OW5 Oxidised version of MGW1 sometimes less micaceous and with a little grog.
- OW6 Micaceous fabric with very rare small rounded quartz. Orange-red with white slip.
- OW7 Hard and sandy, brick red.
- MD Very fine, almost inclusion-free apart from very rare small rounded quartz. Dark grey core, orange exterior with mica slip.
- TN Smooth very fine fabric with rare tiny mica. Grey to browngrey to black slip; imported Terra Nigra.
- PC White pipe clay.
- DF Soft, medium fine, with small rounded quartz and rare mica. Reddish core, grey black surfaces. Related to GW2 but softer.
- GT1 Medium hard to soft, fine to coarse with sparse medium grog and rare small rounded quartz.
- SG Soapy shell-gritted ware, late Roman.
- SW Samian ware.
- OR Oxfordshire red-slipped.
- PM Post Medieval.
- CC1 Nene Valley colour-coated.
- CC2 Hard fine crisp fabric with mica and tiny rounded quartz, orange with faceted brown-slipped surface. Oxfordshire? Much Hadham oxidised fabric.
- MH

The initial fabrics have been amalgamated into fabric groups as follows:

- Fabric group g: HM3, HM4, HM5, HM7; hand-made with substantial quantities of white quartz filler; the gritty Iron Age fabric Fabric group s: HM1, HM2, HM6; hand-made with sand filler; the
 - sandy Iron Age fabric
- GW2, GW5, GW6, OW1; wheel-made, romanised Fabric group r: fabric, reduced or more rarely oxidised, often sandwich-fired
- Fabric group b: GT1, GW3 and GW4; grog-tempered wares, ranging from very large jars to fine wares
- Fabric group m: MGW and OW5; micaceous, fine fabrics, almost always wheel-made

Terra Nigra and Terra Rubra tn/tr:

GW1, GW3, OW6, OW7, SG, OR, CC1, CC2; the lr: later Roman fabrics

Illustrated pottery

In the following catalogue, detailed fabric descriptions have been replaced by reference to the fabric type (see above). Only where an individual vessel shows some characteristic of its fabric which differs significantly from the published description of the fabric type, are details included in the catalogue entry.

Since these entries are ordered by phase and structure or feature, the standard catalogue entry consists of the drawing number, fabric type and context number, with any other detail which is required. Entries are followed by the provisional drawing number, which is used in the archive.

Phase I

(Figs 140, 141; Nos 1-35)

Enclosure 2

Only small quantities of pottery were found in the gullies defining Enclosure 2, but gritty fabrics predominated, including unillustrated sherds of a jar with a vertically-wiped exterior. Where the forms were recognisable they were mainly simple jars with more complex forms such as corrugated shoulders appearing only in the fill of the central 'grave' 646. This feature produced only a small quantity of pottery, which would normally have been regarded as too small to be significant, but since almost three-quarters of this was of sandy rather than gritty fabrics, there are enough hints of a distinction between the 'grave' and its surrounding feature to suggest some chronological differences in final filling, and possibly in construction (see below p.158).

1. HM5 3306 from the enclosure gully (53).

Enclosure 7a

Stratigraphically this enclosure belongs late in the Iron Age sequence, with its final stage, 7b, attributable to Phase II. Sandy fabrics predominate, with grog-tempered ware also appearing, in the form of a large combed jar (unillustrated). The micaceous cup (No. 7) presents something of a problem. It was not found in circumstances where intrusion was likely, although it is possible that a mistake was made in excavation. It clearly stands out from the rest of the assemblage, and the present writer is reluctant to place any great weight on it, either as evidence for a Phase I start for the fabric, or for a Phase II date for the enclosure.

- HM1 Exterior horizontally wiped between the rim and shoulder, and vertically below the shoulder, with the exception of a further horizontal band at the base. The interior and upper part of the exterior are reduced, but the lower part of the exterior oxidised, suggesting inverted firing. 3714 (108).
- HMI Coarse wiping on the exterior of the neck and organic impressions, possibly of grass or chaff on the underside of the base and lower part of the body. Probably fired inverted as No. 2 above. 3714 (107).

Nos 2 and 3 were largely complete and found in a single mass suggesting an intimate association.

- 4. HM1 4116 (104).
- 5. HM5 3893 (109).
- HM1 It is possible that this vessel was wheel-made, and its form, with the slight cordon, may indicate some influence of the wheelmade, grog-tempered 'Belgic' wares, or the beginning of the Phase II tradition of GW2. 3645 (106).
- MGW 3645 (105). Possibly the rim of large bowl like No. 81 (Fig. 143).

Enclosure 10

Sandy fabrics predominate, including one, unillustrated, combed body sherd and one grog-tempered body sherd, indicating a date late in Phase I.

8. HM1 Exterior horizontally smoothed 3812 (161).

Enclosure 28

An assemblage of predominantly gritty fabrics, including a group of vertically-scored body sherds in HM1. The ditches of this enclosure also contained quantities of metallurgical debris which appear to be derived from a ground surface rubbish deposit which had been in existence for some time before these ditches were filled. It is therefore possible that some of the pottery is also derived from such a source.

 HM5, with some voids, possibly from organic material. This may have been fired inverted in the same way as No. 2. 2639 (125).
HM1 Pitch uncertain 2639 (126).

Pit 2640

This large rectangular feature below the entrance of Enclosure 28, contained large quantities of metallurgical debris, derived from a ground surface dump. The pottery, a predominantly gritty group, may be from the same source. Two vessels had scored exteriors, No. 11 below, and body sherds from another vessel in HM5 from 2742.

11. HM5 2649 (156).

12. HM1 2649 (155).

Ring-ditch 2a

The first stage of Ring-ditch 2 contained sherds of only two vessels, both in HM1, consisting of a single sherd of a jar, and rather more than half of an unusual vessel (No. 13 below) with a pedestal foot. There is no reason to suppose that any great length of time elapsed between the two stages of the ring-ditch and so this material should date to the end of Phase I.

13. HM1 Exterior and underside of base lightly burnished, with voids probably of organic material, on the interior and in the core. The rim slopes markedly and the form of the vessel suggests that it might have been cut down from a larger pedestal urn, a suggestion which gains support from the absence of any original surface on the rim. However, the surfaces and the top of the rim are all oxidised, in contrast to the reduced core, and this oxidisation takes the form of a thin skin of regular thickness extending across the surfaces including the present rim, suggesting that the vessel was refired after trimming but before finally being broken. 3725 (54).

Pit Group 1

It has been assumed that all the pits in this group should be treated as part of a single, broadly contemporary whole, as a result of which it appears that sand fabrics predominate over gritty, and a date in Phase Ib is appropriate. This is in contrast to the very similar pits of Group 2 where the opposite is the case. If, by extension of the original assumption, both pit groups were considered together, gritty fabrics would predominate, and both would be attributed to Ia. This underlies the problems of dealing with such small quantities of finds, since of the total of 1.5kg of pottery from the two pit groups, 0.7kg of gritty sherds came from one pit in Group 2, and 0.12kg and 0.1kg of HM1 from two pits of Group 1. These are very shaky grounds indeed on which to base the subdivision of a phase.

14. HM5 1798, Pit 1797 (82).

15. HM1 2100, Pit 3363 (84).



Fig. 140 Iron Age and Roman pottery, Phase I, scale 1:4

Pit Group 2

See the remarks above, under Pit Group 1. All six vessels illustrated here are from the fill of a single pit, *1749*.

- HM1, with a little mica. The exterior is horizontally burnished, and the diameter not absolutely certain. 1319 (91).
- HM5, with a little mica and some flint; both surfaces smoothed, the exterior more finely than the interior. 1319 (92).
- 18. HM1 1319 (93).
- 19. HM1 1319 (94).
- 20. HM5 1319 (95).
- HM5 1319 (96). Despite the obvious similarities, this is certainly from a different vessel from No. 20 above.

Pit 587

 HM1 Exterior horizontally burnished with a finely-burnished chevron in multiple line immediately below the neck. Perhaps originally omphalos-based. 3019 (157).

Pit 131

A predominantly gritty group, including an unillustrated sherd in HM5 with finger nail impressions on the shoulder.

23. HM1 Exterior of shoulder obliquely wiped or scored. 132 (85).

Ditch 749

A short ditch length with no obvious relationship with any other feature, but containing a good group of pottery, with an overwhelming proportion in gritty fabrics. However, of the 1.2kg of sherds found, 0.9kg were probably from a single, large, badly shattered vessel, No. 26, which distorts the figures.

24. HM1 An inverted firing, as No. 2 above. 2618 (101).

25. HM5 Exterior knife-trimmed. 3665 (99).

26. HM5 with some rare large flint fragments. 3633 (100).

Feature 1374

27. HM1 1097 (122).

Gully 1711

Two vessels are represented by a large number of sherds, weighing almost 0.7kg. Both are jars in HM1 of which only one is illustrable.

28. HM1 with a smoothed exterior. 3697 (142).

Ditch 3834 29. HM1 3583 (115).

Pit 3862 30. **HM1** *1044* (116).

Ditch 4111

A length of ditch which stratigraphically predated Enclosure 7a, and can therefore be firmly placed in Phase I, contained a mixture of sandy Iron Age pottery and two sherds of a round-bodied jar or bowl in grog-tempered fabric, with burnished and unburnished zones separated by a groove (unillustrated).

31. **HM1** Pitch uncertain. *1079* (113). 32. **HM1** *4148* (114).

Gully 926

A predominantly sandy group. The corrugated vessel (No. 34) may betray the influence of the grog-tempered industry of the south-east (Thompson 1982, 129); this would be consistent with the sandy fabrics which in other groups on the site are associated with grog-tempered, wares.

33. HM1 Light horizontal burnish on the exterior. 927 (130).

 HM1, but approaching very closely a hand-made version of GW2. Light horizontal burnish on the exterior. 927 (131).

Ditch 3675

35. HM1, with a few organic impressions on the exterior. 3689 (160).

Phase I: Discussion

Since this phase has been defined by those features which appear to be Iron Age in date, as opposed to those which contain Early Roman pottery, its pottery is inevitably dominated by hand-made fabrics, although a few sherds of wheel-made, grog-tempered ware, all unillustrated, occur. The total sample is small, only 8.4kg, and within that total only one feature, ditch 749, contained more than lkg.

Within this small sample, however, some trends can be seen, particularly in the relationship between the gritty, sandy and grog-tempered fabrics (fabric groups g, s and b). Initially it was noticed that the vessel forms which intuitively appeared 'early', coarse jars with thickened flat-topped rims, sometimes with impressed decoration, and thin-bodied bowls (*e.g.* Nos 5, 20, 21 and 17) were commoner in gritty fabrics, while more developed forms, particularly small jars with grooved shoulders (*e.g.* Nos 2 and 3), were normally found in sandy fabrics. In the absence of a large enough sample of recognisable vessel forms to test this, the composition of Phase I groups was examined in terms of the proportions of gritty, sandy and grog-tempered sherds (Table 5).

Groups from features which are stratigraphically early in the Iron Age sequence, such as Enclosures 2, 28 and Pit 2640 contain a higher proportion of gritty fabrics while some features which clearly belong to the end of the Iron Age sequence stratigraphically, such as Enclosure 7a, continuing into Phase II present the opposite case. In addition, it may be noted that grog-tempered wares occur only in groups where sandy fabrics predominate; these appear to be closely related with the 'Belgic' grog-tempered wares of the South-East and so belong to the end of the Iron Age.

It therefore appears likely that there is a significant difference between the assemblages dominated by gritty fabrics and those in which sandy fabrics are in the majority, and that some of the Iron Age groups can be divided on that basis into Phases Ia and Ib. In view of the relatively small number of groups which can be characterised in this way however, the subdivision of the phase can only be applied partially.

It is extremely difficult to place the Fison Way Iron Age pottery in its proper context, since there is no secure internal dating evidence, and parallels with other sites constantly run aground on the weakness of their dating evidence. Iron Age pottery in Eastern England is still dated largely on an intuitive basis between the two supposed fixed points of West Harling, just before the middle of the first millennium, and the 'Belgic' or 'Aylesford-Swarling' horizon, including the grog-tempered tradition and beginning somewhere in the first century BC.

Assuming that the division into Phase Ia and Ib has some validity for the pottery, even though its value for the interpretation of the site plan is limited, the earliest Iron Age material at Fison Way, stratigraphically, includes slightly angular bowls (No. 17) and large coarse jars with T-shaped rims, often bearing impressed decoration, slightly concave inturned necks and slightly angular



Fig. 141 Iron Age and Roman pottery, Phase I (31-35) and Phase II (36-54), scale 1:4

shoulders. These jars occur widely in the region, at Maxey (Pryor et al. 1985, fig. 75, no. 20) where they are dated to the second and third centuries BC, at Feltwell, not far from Thetford (Gurney 1986, fig. 20, no. 15), and at Darmsden (Cunliffe 1968, fig. 3, nos 37-45). Cunliffe argued that the Darmsden material dated to the fourth or third century BC, and it could be suggested that the absence of the characteristic Darmsden fine wares from Maxey and Fison Way is the result of the jar type continuing in production after the end of the fine bowls, agreeing with Pryor's dating of the Maxey example. At the same time, it could be argued that the Maxey example belongs to a potting tradition contemporary with the Darmsden style, but differentiated from it by the fine wares. On that basis, the material from Fison Way Phase Ia could be given any date in the fourth, third or second century BC.

In Phase Ib the most characteristic feature is the range of jars and bowls of approximately S-shaped profile, ranging from the slightly angular (Nos 9 and 24) to more sinuous forms, wide-mouthed (No. 16), globular (No. 22) or intermediate (No. 33). This range of forms is common in the region, and while it is absent from Cunliffe's Darmsden style, it is otherwise ubiquitous. Instinctively, one would say that it post-dates Darmsden and related material, and this is indeed the case at Fison Way; at Little Waltham it is represented by forms 8, 10b and 13 (Drury 1978, figs 37 and 38), dated to the first and second centuries BC, and at Woodham Walter (Rodwell 1987, fig. 15, nos 18–22), dated to the Middle and Late Pre-Roman Iron Age. Less easily dated, but possibly part of a continuous sequence of rubbish-deposition into the

Structures	Fa	bric groups	by weight (gm)
	g	s	b	0
Enclosure 2	(355)	(5)		
	99%	1%		
Enclosure 7a	(65)	(545)	(60)	
	10%	81%	9%	
Enclosure 10	(5)	(180)	(10)	
	3%	92%	5%	
Enclosure 20	(175)	(55)		
	76%	24%		
Enclosure 28	(740)	(365)		
	67%	33%		
Pit group 1	(215)	(390)		
	36%	64%		
Pit group 2	(720)	(155)		
	82%	18%		
Pit 131	(210)	(40)		
	84%	16%		
'Grave' 646	(15)	(40)		
	27%	73%		
Ditch 749	(1135)	(60)		
	95%	5%		
Gully 1711		(680)		
		100%		
Pit 2640	(350)	(85)		
	80%	20%		
Ditch 3834	(10)	(200)		
	5%	95%		
Pit 3862		(265)		
		100%		
Gully 4111		(95)	(35)	
		73%	27%	
Pit 7102	(165)	(210)		
	44%	56%		
Total	(4815)	(3535)	(105)	(8455
	57%	42%	1%	100%

Table 5 Phase I pottery proportions

Groups of less than 100 gm have been excluded.

early Roman period, are similar forms from the ditch of the Arminghall Henge (Clark 1936, fig. 6, nos 12 and 14).

Thus the evidence might suggest that the Iron Age pottery at Fison Way begins sometime between the fourth and second centuries BC and continues into the first. In the absence of any obvious gap in the occupation, and given the presence of grog-tempered wares, occupation continued through the first centuries BC and AD until the introduction of pottery of early Roman types.

Phase II

(Figs 141-144, Nos 55-116)

Enclosure Ia, Outer Ditch

The material considered here belongs to the backfill and consolidation of the east side of the enclosure, at the end of Phase II, in preparation for the extension of the enclosure in Phase III. Unillustrated sherds include a small fragment of a girth beaker in an oxidised fabric from 4737, of pre-Flavian date, and the samian ware sherd described below:

Unillustrated:

Samian, DR 15/17; South Gaulish, Claudio-Neronian. A rim-sherd in a good light orange-red ware with a glossy slip (CJ) 5963.

36. **MGW**, but more like **GW2** in texture. 5327 (26).

37. MGW 6373 (28).

38. GW1 with sparse mica 5327 (25).

39. HM9 5977 (27). Both the form and fabric of this vessel are unusual for the site, and it may be a non-local traded piece.

Enclosure 1a, Inner Ditch

Although, on the face of it, it appears likely that the fill of this feature and the previous one are contemporary, there are some differences. The sherds from the inner ditch are generally smaller, and many vessels are represented by single sherds, whereas in the outer ditch several vessels are represented by a good number of sherds each. Micaceous fabrics are distributed throughout the fill of the outer ditch, which was clearly a short, deliberate operation, while the lower fills of the inner ditch contain mainly GW2, with only a single micaceous sherd, and only in the uppermost layers were micaceous fabrics common. Does this indicate that the lower fills of the inner ditch were accumulating slightly earlier, perhaps by natural silting, and that the outer ditch was kept clear, until both were finally, deliberately levelled? This hypothesis demands that the micaceous fabric becomes common slightly later, perhaps by as little as a few years, than GW2, a phenomenon which is plausible in light of the strong similarities between the Iron Age HM1 and GW2, and the very distinctive, perhaps intrusive, nature of MGW.

Unillustrated:

Samian ware; a basal fragment of Dr 18R, 15/17R, or even 16 or 17 (i.e. Hofheim 2B, 3B or 4B), South Gaulish, Claudio-Neronian. In a very hard, dark fabric, probably overfired, but conceivably slightly burnt. Enough of the ring of rouletting is visible to indicate that the diameter was large. A Claudian date is possible, especially if the dish is in fact a Hofheim 3 (Dr 16), but it could perfectly well be a Dr 18R, which would make a Neronian date possible. (CJ) 3287. Unillustrated:

An **amphora sherd** of which David Williams writes: 'A small featureless amphora bodysherd in a fairly hard, smooth, somewhat micaceous fabric, light grey (Munsell 10YR 7/2) outer surface, light red (2.5YR 6/8) inner surface and core. This sherd probably belongs to a Dressel 2– 4 amphora form. Dressel 2–4 amphorae were made over a wide area, e.g. Italy, France, Spain, the Aegean, as well as Britain (Castle 1978), during the period from the late first century BC to the mid second century AD. This was the most common type present for example in the



Fig. 142 Iron Age and Roman pottery, Phase II, scale 1:4

large group of amphorae recovered from the 1970 excavations at Colchester-Sheepen, which must have reached Britain between AD 43 and AD 60/61 (Sealey 1985).

Quantitative trends suggest that the form was in decline by the later first century AD (Panella 1973). *Tituli Picti* indicate that the principal content carried in these vessels was wine (Zevi 1966). Thin sectioning and study under the petrological microscope of the Thetford sherd reveals inclusions of fresh volcanic glass, which may suggest an origin in Italy or perhaps the Aegean area'. 269.

 MGW, decorated with comb-stamped chevrons. It is uncertain which way up this sherd should be seen. 1176 (29).

41. GW3 582 (30).

42. GW6 3228 (31).

- 43. **GW2** 3299 (32).
- 44. GW2 3780 (33).

Enclosure la Entrance i 45. MGW 5302 (169).

Gully 672

A short gully within Enclosure 1, not stratigraphically datable, but firmly in Phase II or III from its pottery. The group is published here as Phase II purely for convenience. The group consists of ninety sherds from only four vessels, all illustrated; the sherds were quite closely concentrated, and appear to form a single rubbish deposit.

- 46. GW2 Exterior horizontally burnished. 3137 (62).
- GW2 Interior of rim and exterior down to just below girth groove horizontally burnished. 3137 (63).
- 48. GW2 3137 (65).
- 49. HMI 3137 (64). While No. 49 is hand-made, in an Iron Age fabric, it is substantially complete and shows no more evidence of wear than the other three vessels from the group. There is no reason to regard it as either an heirloom or a rubbish survival, and it gives every impression of being truly contemporary with the three Early Roman vessels.

Gully 689

Another short gully within Enclosure 1, 689 resembles 672 in its proportions and in containing substantial portions of a small number of vessels, in this case two, and accompanied by sherds of others. Unillustrated sherds include scored HM1 and GW2 with combing.

- 50. Essentially GW2, but possibly hand-made, with slight vertical facets of ?knife-trimming below the shoulder grooves. Both the form and fabric are slightly unusual, and this may be a product of a different industry from that which produced most of the material on the site. 3663 (66).
- 51. GT1, with the remains of a black tarry substance in the very slight hollow on the underside of the foot, and some sooting on the exterior of the shoulder. The whole of the exterior bears a light horizontal burnish. 3663 (67). An unusual form, for its low girth and narrow neck, for which no parallel has yet been found.

Feature 3527

Although this cut the fill of Ring-ditch 1 it has been considered with it, and its finds therefore belong here.

 MGW1 with traces of a self-slip on the exterior and on the bevel of the rim. Butt-beakers are common in this fabric. 3529 (158).

Ring-ditch 2b

The ring-ditch itself and the enclosed 'grave' 3315 are treated together: Nos 53 and 55 were found in the 'grave' and No. 54 in the ring-ditch.

- PC with very rare tiny red ?iron ore. Rouletted body sherds and shoulder cordon survive but do not join. 3649 (56); a classic Camulodunum butt-beaker.
- GW2 with horizontal burnish on the exterior and fine burnished grooves on the lower wall. 3491 (55).
- GW3, exterior horizontally smoothed, and burnished in the grooves. 3469 (57). The fabric with some grog, although not over-

whelmingly grog-tempered, clearly relates this vessel to the 'Belgic' tradition (Thompson 1982, 141-2).

Enclosure 7b

To this later phase of Enclosure 7b have been attributed not only the fills of the latest phase of the ditch, but also those stretches of ditch where the latest phase could not be differentiated. This material therefore includes more residual pottery from 7a than would otherwise be expected. Body sherds from an Iron Age-style jar in HM1 with deep vertical scoring were from such undifferentiated contexts. Other unillustrated material, from secure 7b contexts, includes a sherd in hand-made GW2 and a body sherd of a large, globular, cordoned vessel in GW2.

Unillustrated:

Base sherd from a small platter with a narrow applied foot-ring, in T.N. with badly flaked surfaces no finish survives. *c*. AD 25–80. (VR) 4123.

- HM1 with some orange ?iron ore. Exterior below the shoulder knife-trimmed. 772 (112).
- 57. HM1 3572 (117).
- 58. DF1 3678 (102). This carinated beaker in a very fine, thin-walled fabric is as obtrusive in the general pottery collection as are the parchment ware butt-beakers. It is a Roman rather than a native form (Hawkes and Hull 1947, 241, type 120), but whether it should be regarded as part of the Gallo-Belgic repertoire or one of the continental forms which came in with the conquest is uncertain.
- 59. GT1 with horizontal burnish 3678 (103).
- 60. GW2 4102 (111).
- 61. MGW with horizontal burnish on the exterior. 3573 (117a).
- GT1 decorated with combed arcs below semi-circular notches cut into a low cordon. 1024 (110).

Enclosure 8

The only illustrable sherd is from 'grave' 1262 within the enclosure. The fill of the enclosure ditch itself contained a mixed group of GW2 and MGW with a single grog-tempered sherd.

63. HM1 1263 (51).

Enclosure 13c

The fill of the enclosure ditch contained predominantly Iron Age-style material in HM1, but with enough GW2 and MGW to confirm the attribution to Phase II. Unillustrated sherds include a cordoned, rounded shoulder in HM1, a second vessel in HM1 with scoring, and a rectangular-sectioned handle in GW2.

- 64. GW2 with a strainer base, which, while it does not join with the upper part, is almost certainly from the same vessel. 1840 (71).
- 65. HM1 with horizontal smoothing on the exterior. 4006 (72).
- 66. GW2 4025 (77).
- 67. HM1 1762 (76).
- 68. A very sandy version of GW2 4006 (73). The fabric is close to, but not identical with the standard early Roman fabric and the form is unusual. This vessel should perhaps be regarded as an outsider.
- 69. GW2 1831 (69).70. A coarse version of GW2 4024 (75).

Enclosure 14

Initial sections across the ditch of Enclosure 14 produced larger quantities of pottery than usual, which led to the excavation of considerable lengths; large numbers of sherds were recovered, but they belong to a relatively small number of vessels, suggesting a fairly tight rubbish deposit. The micaceous fabrics predominated.

Unillustrated:

Samian ware, Dr 29, South Gaulish and Nero-Flavian. A tiny, worn sherd, retaining a small portion of the upper zone scroll, together with the central moulding and bordering beads: the moulding is narrow and the beads fairly small. Close dating is impossible, although the colour and quality of the slip may favour pre-Flavian manufacture.



Fig. 143 Iron Age and Roman pottery, Phase II, scale 1:4

Also a **pipe-clay body sherd**, possibly from a flagon, a sherd of a **girth-beaker** in **OW2**, and a horizontally-rilled **body sherd** in **MGW**, probably from a bowl.

- OW5 with self-slipped exterior; the lower part of the body bears rouletting above a narrow burnished band. 1773 (58).
- MGW, but burnt. Rouletting on the main part of the body, badly eroded in the lower zones. 3271 (61).
- 73. MGW 2994 (59).
- 74. MGW, with a light horizontal burnish on the interior of the rim and on the exterior. 3288 (60).

Enclosure 25

Part of the same lay-out as Enclosure 14 above.

- GW2 1660 (80). Sherds of a rounded body with a pair of grooves, possibly at the girth, survive, and are almost certainly from this vessel.
- 76. OW5 with horizontal burnish on the exterior. 3034 (81).
- 77. HM1 with mica. 2992 (121).
- 78. HM1 2292 (120).

Enclosure 17

The D-shaped enclosure with its enclosed 'graves' produced a comparatively large group of pottery with GW2, MGW and grog-tempered wares in more or less equal proportions. The quantities of Gallo-Belgic wares and high quality fine wares such as No. 81 are unusual for the site. The T.R. cup, No. 121 below, is probably from the same vessel as a body sherd in the ditch of Enclosure 17, and while the vessel is illustrated and described under Enclosure 1b, since the illustrated sherd was found here, its original context should be regarded as Enclosure 17.

Unillustrated:

Five base sherds, of which four join, of a small **T.N. platter** with a narrow, applied foot-ring, possibly Cam 7 or 8. At least one double circle on the upper surface. Fairly worn and pitted. *c*. AD 25–65 (VR) 2234.

Six joining sherds from a large **T.N. platter** with an applied, functional foot-ring. c. AD 25–65 (VR) 3998.

Other unillustrated pottery includes body sherds of a large combed jar in GT1, and a sherd of jar in MGW with vertical combing.

- OW5 with horizontal burnish on the interior of the rim, and on the exterior. 3940 (48).
- MGW with horizontal burnish on the interior of the rim and on the exterior. 3946 (49).
- 81. MGW with horizontal burnish on the interior of the rim and on the exterior. 1946 (38). While this form is superficially similar to some variants of the 'Belgic' carinated cup (Thompson 1982, 357–363, E1–2) it is altogether more elaborate and finer in execution than most examples, and while this and the 'Belgic' examples might share a common source, the present writer is reluctant to seek a 'Belgic' origin for it, but rather to look for its origin in Cam 76, Terra Rubra pedestal beakers.
- GW2, with horizontal external burnish. The pitch and diameter are a little uncertain. 1837 (42).
- 83. MGW with horizontal smoothing on the exterior. 1946 (39).
- 84. GW2 3942 (46).
- GW2 3942 (47). The general similarity in style between this, and the grog-tempered No. 55 above, is worthy of note.
- 86. MGW with horizontally burnished exterior. 4002 (45).
- GW2, but soft and slightly soapy, although no grog can be seen. Exterior of neck horizontally burnished. 1946 (40).
- 88. HM1 with the exterior burnished horizontally. 3942 (50).
- 89. MGW with a rilled exterior. 3839 (41).
- 90. HM8 with a horizontally-burnished exterior. 4007 (43).
- GT1, with triangles cut into the surface of the shoulder, in a similar style to No. 62. 4007 (44).

Gully 2295

This gully predates Enclosure 17, but their pottery assemblages are similar, and little time can have elapsed between the filling of 2295 and of the ditch of Enclosure 17. A sherd of overfired MGW with combed decoration, possibly from a butt beaker, is not illustrated.

- A highly micaceous fabric, but rather different from MGW, and otherwise as GW2. Exterior horizontally burnished. 2238 (78).
- HM1 4021 (79). Despite the smallness of the sherd the pitch is fairly reliable.

Enclosure 23

While the pottery is mainly of Iron Age types, the enclosure clearly post dates Enclosure 7b, and much of the hand-made material is probably residual. This is consistent with the condition of the pottery, since of more than a kilogram of HM1, only a single vessel can be illustrated. Unillustrated sherds include deeply-scored body sherds of HM1, a sherd of a large combed grog-tempered jar, and scraps of a butt beaker in GW2 with impressed crescents and rouletting.

94. HM1 4109 (164).

Enclosure 24

96.

- 95. HM1 with horizontal burnish on the exterior 3967 (118).
- Enclosure 26

GW2 3762 (119).

Unillustrated material, apart from the samian ware and TN described below, includes sherds of a rilled jar in MGW and a sherd from the neck of a possible butt beaker, in OW1.

Unillustrated:

Samian ware, Dr 15/17, South Gaulish and pre-Flavian. The fabric is burnt and the slip dulled. The form of the wall is early and approximates more to Dr 17 than to the classic hybrid. (CJ) 388.

A rim sherd from a platter of Cam. form 16 in T.N. c. AD 50–85. The implications of the distribution of this type are discussed in Rigby 1977. (VR) 2747.

97. MGW1 2365 (24).

Valery Rigby has contributed the following note: A bordered mark placed centrally within two incised circles on the upper surface of a small platter copying the G-B import, Cam. form 8. Fabric highly micaceous, fine-quartz sand-tempered ware, with occasional organic inclusions: grey core with darker grey, highly micaceous, burnished surfaces.

The stamp is unparalleled. Stylistically it belongs to a group of bordered and dotted dies with distributions confined to East Anglia and the East Midlands (Stead and Rigby 1986, fig. 100, 1– 3; p. 243, 4). Dies of this type were used in the Roman pottery at West Stow, Suffolk, and examples have also been found at Needham, Wereham and Scole, Norfolk, Baldock and Weston, Herts, Longthorpe, Cambs., and a West Stow product has been identified at Doncaster, South Yorks. (excavations by S.E.West 1990). The presence of two other examples, and a sherd from a copy of a second G-B import, the platter Cam. form 16, suggests a local workshop with a specialist line in good quality, close copies of G-B imports, in the early Roman period, a trend demonstrated at Chichester, Sussex, Eccles and Keston, Kent and Rushden, Northants.

The prototype Cam. form 8 is dated c. AD 25-65. It was widely distributed in Britain, south of a line from the Humber to the Severn, particularly in the immediately post-conquest period. The form was readily copied by native potters, initially in grogtempered fabrics, using traditional late Iron Age techniques, later, after c. AD 60, in sand-tempered fabrics, using Roman techniques, including kiln firing. Production of more simplified variants, but still with a foot-ring, continued to Hadrianic period, while flat-based versions, occasionally stamped with the potter's mark were still being produced in the late Antonine period. This particular platter was manufactured between AD 50 and 120, most probably in the Flavian period. It was complete at the time of its deposition, since all sherds are present, including the stamp, and the foot-ring is very abraded, so that it had clearly been used, but the sherds were substantially intact, implying that the period of use was not excessive; and so there is no reason to think that the piece was 'residual', unless perhaps disturbed from a burial.

 OW1 with a buff external slip and at least two horizontal lines of stabbed decoration; probably a butt beaker or a related form. 2400 (23).




- MGW with horizontal burnish down to the carination, and a little below it. 2365 (22).
- 100. GW3 with some grog, and a light faceted burnish on the exterior. 2604 (21). Both the fabric and the form (comparable with Thompson's Type D2-1, 1982, 319-321) connect this vessel closely with the 'Belgic' tradition.

Feature 2442

The large hollow within Enclosure 26 produced a good quantity of pottery, but almost all from the upper fill, post-dating the sooty layer and burnt flints which appear to be associated with its primary use. Early Roman fabrics, particularly GW2, dominate the group, but of the total pottery group of 0.8kg, almost 0.5kg consists of the sherds of a single vessel in GW2 (No. 105). Apart from this, the group consists almost entirely of small sherds of Iron Age-style material, probably representing the filling of the upper part of the hollow with ground surface material.

- 101. HM1 with horizontal external burnish. 2610 (90).
- 102. HM1 437 (87).
- 103. GW2 with external horizontal burnish. 2441 (88).
- 104. HM1 with sparse mica. 2441 (89).
- GW2 with horizontally wiped, and faintly grooved, exterior. 437 (86).

Gully 2206

This north-south gully was probably part of Ditch System 1. Unillustrated sherds include grog-tempered body sherds from a large, vertically-combed jar.

- 106. MGW with the exterior horizontally burnished. 1843 (148).
- 107. MGW with an external horizontal burnish. 1861 (147).
- 108. MGW 1843 (149).

Ditch System 1

The ditches immediately south of Gully 2206, which may also belong with them, produced much less material.

Unillustrated:

A rim sherd from a small platter of Cam. 7/8 with a markedly off-set, straight lower facet. This particular variant is confined to **T.R.** and is not common (see Rigby 1981, fig.77, type 13) (VR) *3853*. 109. **HM1** The cordon has clearly been applied. *1536* (138).

Ditch 1138

A gully which post-dates Enclosure 7b. It contained body sherds of the large grog-tempered jar No. 62 which were presumably redeposited in *1138* from Enclosure 7b or from a common original source.

 GW2 3763 (129). An unusual fabric on this site for large combed jars, which otherwise are all of GT1.

Ditch 1290

A feature within Enclosure 7 but not necessarily part of it.

111. Medium hard, harsh fabric with grey core, orange margins, and orange pimply exterior with traces of a brownish slip. Dense small rounded quartz and coarse grog. *1030* (128).

Gully 1565

112. GW2 1109 (135).

Gully 2077

113. **MGW** with an external horizontal burnish. *3379* (83). This is presumably a copy of an imported cup, originally perhaps of the T.R. form Cam. 54.

Gully 3833

114. GT1 with a smoothed exterior, and severe wear on the underside of the base. 3836 (162). Both the form and fabric relate this to the Belgic tradition like No. 100 above.

Pit 4136

115. GW2 with a smoothed exterior. 4137 (98).116. HM1 4137 (97).

Gully 4169

Unillustrated:

Three-quarters of a base circuit, with the stamp and rim missing, from a copy of a Cam. form 8, clearly from the same source and of the same date as No. 97 above. (VR) 2248.

Phase III

(Figs 144, 145; Nos 117-138)

Enclosure 1b

After the removal of the uppermost fills, which on the south side of the enclosure contained rubbish dumps of Phase IV, the middle and lower fills of the inner and outer ditches of Enclosure 1b are the Phase III type-deposits.

Outer Ditch

Unillustrated:

Samian ware, Dr 15/17; South Gaulish, Nero-Flavian (CJ) 167.

- Samian ware, Hofheim 12; South Gaulish, Nero-Flavian. Flange fragment (CJ) 327.
- **MGW** Rim sherd from a platter copying a Cam 8, from the same source and of the same date as No. 97 above (VR) 4737.

Other unillustrated sherds include a butt beaker in MGW, a large combed jar in GT1 and scored sherds in HM1. The grog-tempered ware, being thick-bodied, has seriously skewed the proportions of fabrics by weight in its favour.

- 117. MGW 425 (16).
- 118. A flagon neck in a dark MGW. 5500 (171).
- 119. MGW 2706 (13).
- 120. HM1 890 (17).

Fence-trenches

121. Rim sherd from a pedestalled cup of Cam. form 74 or 79, in T.R. 1(c) c. AD 10–50. Such cups are not particularly common although they are found on sites peripheral to the main distribution of pre-Claudian Gallo-Belgic wares, e.g. Hayton, the native settlement, and North Ferriby, North Humberside, Dragonby and Old Wintringham, South Humberside (VR) 3885.

Although illustrated under this feature, the rim probably belongs to the same vessel as a body sherd from Enclosure 17, and if this is correct, then the sherd's true context would be Phase II rather than III.

122. GW2 but with common earthy cream inclusions. The base and the wall have been pierced, after firing, presumably to allow 'stitched' repairs. 1317 (136).

Inner Ditch

- 123. Butt beaker base in GW2 with a slightly reddish external slip. 6784 (8).
- Body sherd of a beaker or cup in OW2 with faint traces of rouletting. 3574 (3).
- 125. MGW with light horizontal burnish between the rim and shoulder and in the three grooves. 5647 (2).
- 126. GW4 3794 (6).
- 127. GW2 with traces of a pale slip below the rim. 6838 (7).
- 128. MGW 255 (11).
- 129. GW3 with remains of a pale, creamish slip, in the cavity below the rim and in the grooves. 5554 (4).
- 130. HM7, blackened at the rim. 6778 (5).
- 131. GW3 6727 (10).

Building 1 and Pit 916

A small number of sherds of HM1, GW2 and MGW were found in features of Building 1, both in the fills of postholes, representing the end of the building, and in the eavesdrip.

Similar material was found in the fill of Pit 916, within the building but unrelated to it stratigraphically. Since there is nothing to distinguish the material from the pit from that from the building, both are considered here.





Pit 916

Unillustrated

Sherds of a coarse, scored jar in GW2. 132. GW2 with horizontal burnish on the exterior. 3007 (68). 133. GW2 3004 (69). (No. 134 not used).

Building 2

Unillustrated

Body sherd of a butt beaker with two rouletted zones separated by a horizontal burnished band. 2776 From the fill of the eavesdrip gully. 135. GW2 3025 (34). Fill of one of the Phase III porch posts.

Building 4

The features of Building 4 itself were almost devoid of pottery, a single sherd of HM1 being the only piece found, in one of the post removal pits at the east entrance. A better collection came from the rectangular, grave-like pit 699, within Building 4 but not proven to be part of it. These are described here.

Unillustrated

A large sherd of a vertically scored jar in GW2, 700. 136. HM1 700 (35). 137. HM1 700 (36).

Building 5

A small number of sherds were found in the ring gully and in the post-holes within.

Unillustrated

Triple-reeded handle with right-angled bend in a fine buff flagon fabric. 1688, from the fill of post-hole 1687. 138. HM7 1686, fill of post-hole 1685 (37).

Pit 2577

A pit, possibly of Phase III, dug through the south-west corner of the ditch of Enclosure 26.

Unillustrated

Samian ware, indeterminate form, South Gaulish, probably pre-Flavian. (CJ) 378.

Unphased and uncertain features

(Figs 145, 146; Nos 139-161)

Some pottery, from features which cannot be allocated to a phase or feature with any certainty, or which were clearly intrusive into earlier contexts are of interest in that they expand the small corpus of pottery from the site. They are therefore published here.

Intrusive

- 139. MGW 4181, intrusive in ditch 1374 (123).
- 140. MGW 4181, intrusive in ditch 1374 (124).

Unphased and uncertain

- 141. MGW 758 Top fill of ditch 1114 (127).
- 142. HM1 773 Uncertain feature (127a).
- 143. HM1 with horizontal burnish on exterior above and below the neck groove. 976 Gully 4439 (132).
- 144. HM1 with external horizontal burnish 3644, Gully 3643 (159). 145. HM1, possibly coil built, with external horizontal burnish. 2382
- Feature 2257 (154).
- 146. HM1 with a compacted exterior. 1907 Gully 2131 (145).
- 147. GT1 with a light horizontal burnish on the exterior. 1074 Feature 3670 (134).

Unillustrated:

Rim sherd in the same fabric and from the same source as No. 97 above, copying the Gallo-Belgic import Cam 16. 7483 Uncertain feature. 148. MGW 4986 Uncertain feature (170).

- 149. MGW with a horizontally burnished exterior. 1907 Gully 7507 152)
- 150. GW2 with a horizontally burnished exterior. 1988 Uncertain feature (151).

- 151. GW2 with exterior horizontally smoothed. 3957 Pit 2305 (163).
- 152. MGW but hand-made. 1641 Uncertain feature (140).
- 153. GW2 1908 Uncertain feature (146).
- 154. GW2 1527 Pit 2865 (137). An unusual form and decoration for the site, but the fabric falls within the normal, albeit very wide, range of variation.
- 155. MGW 2245 Uncertain feature (153).
- 156. MGW1 with rilled exterior. 1913 Gully 2319 (150).
- 157. MGW with rilled exterior. 1842 Uncertain feature (143).
- 158. GW2 with horizontal burnish on exterior and top of rim. 1853 Uncertain feature (144),
- 159. GW2 with fine horizontal burnish on top and interior of rim and on exterior. 1630 Gully 2028 (159).
- 160. GW2 with burnish on top of rim. 1641 Uncertain feature (141).
- 161. GT1 with combed exterior. 1060 Uncertain feature (133).

Phases II and III: Discussion

It is difficult to distinguish the pottery of Phase II from that of Phase III. Quantities are insufficient to allow any sensitive analysis of forms and their relationship to fabrics, since the total weight of pottery from each phase is only 23kg and 5kg respectively. The fills of the ditches of Enclosure la provide some slender hope however, with the hint that the micaceous fabrics might have appeared on a large scale at a slightly later date than the GW2 fabric, which appears to be a Romanised version of the standard sandy Iron Age fabric (p.155).

That this might be the case is also implied by the overall proportions of fabrics in the two phases (Tables 6 and 7); in Phase II, fabric group r is more common than m, while this situation is reversed in Phase III. Closer examination of the figures, however, reveals that this phenomenon is due almost entirely to the large group from the outer ditch of Enclosure 1b, and that the proportions in the inner ditch are more like those of Phase II. There would thus seem to be little further evidence for a slightly later popularity of fabric group m and it can only be used tentatively.

While considering the Romanisation of the pottery tradition we must not lose site of the continuing deposition of hand-made vessels of Iron Age tradition in Phases II and III. In gully 672, No. 49, essentially an Iron Age vessel, occurred in a rubbish deposit with three perfectly good early Roman vessels, in a similar condition, suggesting that the four were contemporary in use as well as in disposal. This might well be extended to Nos 63 and 102, of a similar form, and an unknown proportion of other, less distinctive, forms may also represent the continuing manufacture of Iron Age-style material.

Given that the beginning of Phase II is defined by the first appearance in the archaeological record of 'Early Roman' pottery, namely fabric groups r and m, it is necessary to consider what this first appearance means. This is of course the old problem of the Roman conquest and its recognition in the pottery traditions of the first century AD. Pottery assemblages in Britain in the Roman period are composed largely of three classes of material: imports from other parts of the Empire, local copies of those imports, and the products of a continuation of pre-Roman native industries, modified to a varying degree by Roman technologies. In the south-east of England the modified native industries are overwhelmingly 'Belgic' in tradition and the degree to which that tradition was established before the conquest varies across the region.

that a tradition, It appears localised in Hertfordshire, Essex and Kent, of using grog as the principal filler, together with two pieces of hardware which

were to become characteristics of most Romano-British pottery industries, the fast wheel and the kiln, expanded enormously in the period after the Roman conquest, when its repertoire of forms, and to a lesser degree its fabric, was distributed widely across the south-east of England, to satisfy the expanding market that followed the advance of the Roman army. Thus 'Belgic' forms are likely to appear in northern East Anglia either as imports from the Hertfordshire/Essex/Kent region, in grog-tempered fabrics, which might be earlier or later than the post-Conquest expansion, or in other fabrics, produced locally, or imported from other sources again, as copies of the grog-tempered forms. No site in northern East Anglia has yet produced evidence for this copying before the post-Conquest expansion.

This would suggest a beginning for Phase II later than AD 43. How much later is not at all clear from the pottery, partly because dating from ceramic evidence alone cannot be sufficiently precise to allow chronological distinctions at the level of decades, and partly because the quantities of material recovered from the site were small.

Imports

Imported pottery often permits some sort of fine chronology to be established in the first century AD, but the small quantities discovered at Fison Way militate against such use here. Of the four sherds of Samian ware found in contexts of Phase II, a Dr 29 from Enclosure 14 is Neronian-Flavian, a Dr 17 from Enclosure 26 is pre-Flavian, and two platters from the outer ditch of Enclosure 1a, one a Dr 15/17 and the other a 13/17R, 18R, 16 or 17, are both Claudio-Neronian. All four are likely to have been deposited at the end of that phase, when the site was being prepared for the extension of the Enclosure 1.

Phase III deposits produced three sherds, a Dr 15/17 and a Hofheim 12, both of Neronian-Flavian date and from the outer ditch of Enclosure 1b, and a pre-Flavian sherd of indeterminate form from pit 2577, of which the two former were probably deposited at the end of the use of the enclosure and the latter during its period of use.

Gallo-Belgic and related pottery adds little: butt beakers were found, some in the common 'pipe-clay' fabric, in Cam. form 113, and all in Phase II or III contexts. Whether production of these began before the Conquest is irrelevant here, and the date for cessation of that production, towards the end of the third quarter of the first century AD, is not precise.

Terra Nigra and *Terra Rubra* were no more common than the Samian ware, with six vessels represented, but large portions of vessels were more common in these than in Samian ware. In all cases, deposition belonged to Phase II, with a total date range of AD 10–85; with the exception of the sherd from Enclosure 26, which can be dated *c*. AD 50–85, all the forms represented began their production before the Conquest, and most continued for a short time after it.

Thus the imports give an initial impression of a date in the 40s, 50s and 60s for Phases II and III. Specifically Flavian material is absent, and if pottery of the last quarter of the first century AD was brought to the site, it is not now identifiable.

Fabric Group b

Three 'native' fabrics occur in sufficient quantities in Phases II and III to be of interest. Grog-tempered wares, fabrics GT1, GW3 and GW4 are present in relatively small quantities. They comprise 1% of the total pottery in Phase I deposits, 11% in Phase II and 21% in Phase III. These totals are distorted in terms of the minimum numbers of vessels represented, since much of this grog-tempered ware comes from large combed jars (*e.g.* Nos 62 and 161), 0.5% in Phase I, 9% in Phase II, and all 21% in Phase III.

Thus it can be seen that the proportions of large combed jars in grog-tempered wares behave differently from other vessels, suggesting that they continue in production or use longer than other vessel types. The others, mainly bowls, are more common in Phase I and II, but are absent from III, suggesting that their use on the site was confined to the first two phases, with their height of popularity in II. The other vessel types cover a restricted range: in Phase I only a single vessel could be identified, two body sherds from a round-bodied vessel, perhaps a globular jar, from ditch *4111*.

The range of forms in Phase II is similarly restricted: the commonest is the bowl and jar form with an everted rim, a rounded rather than a carinated body angle, and a sloping shoulder which is usually, but not always, cordoned and rippled (Nos 55, 85, 100, 111 and 114). Pedestalled forms are represented by a base and an unusual low-girthed, narrow-necked jar (Nos 51 and 59) with the heavy footring (No. 147) perhaps from some sort of large bowl. The only small jar is the round-shouldered No. 129 with an everted rim and grooved shoulder, essentially a miniature version of the large combed jar. Here we have represented a part of the full south-eastern grog-tempered industry, with certain common forms, notably platters, butt beakers, carinated cups and bowls (Thompson 1982, 349-377), plain, everted rim jars, bowls and cups (ibid 87-113 and 391-409), and most of the wide range of jars (ibid 191-255) all absent. The range is notably more restricted than that found at Burgh, Suffolk (Martin 1988), the nearest substantial group of grog-tempered wares, although the two groups share forms; notably the bowl/jar form with rippled and cordoned shoulder (ibid fig. 26, nos 196-206).

The origin of the Fison Way grog-tempered ware is uncertain. It differs significantly from the normal Essex and Hertfordshire fabrics, not least in that it contains quantities of small rounded quartz, to an extent where No. 111 is more quartz-tempered with some grog than vice versa. Since it is also peripheral to the main areas of distribution, Essex, Hertfordshire, Northamptonshire, south Cambridgeshire and south-east Suffolk, and constitutes such a small proportion of the assemblage it is assumed to have been imported, but if so it was probably imported from the fringes of the main tradition and not from the Home Counties heartland: a more local origin cannot be ruled out.

Fabric Group r

Far more prolific in the pottery assemblages of Phases II and III are vessels of fabric group r, wheel-made, often dark grey and sandwich fired, and with rounded quartz inclusions. While not as fine and sandy as the classic Roman grey wares, group r fabrics appear to be a Romanised form of the Iron Age HM1, from which it can often be distinguished only by virtue of wheel-throwing. However, the repertoire of forms shows a distinct change, between the Iron Age tradition of Phase I, and its

Romanised version in Phase II; with technological change in the form of the potter's wheel and the introduction or improvement of the kiln, which would appear to be 'Romanisation', comes the new range of types, and here we see the influence, not so much of Roman forms as such, but of some of the forms produced by the 'Belgic' grog-tempered industry of the south-east, and being spread, one assumes, by the Romanisation of the industry and the market. The changes that take place do not need Roman influence to bring them about. They might just as easily be the result of an expansion of the 'Belgic' industry under its own steam, and were there to be any independent evidence of this affecting Norfolk before the Conquest set the scene for Romanisation, the present writer would be delighted to accept it. Unfortunately, such evidence is lacking, and it is difficult to see how it could appear unless sites are discovered with a very clear archaeological horizon datable to AD 43 and the few succeeding years. Until then, we must accept this phenomenon as a 'Romanising' process.

It is significant that with the exception of the small jar form, Nos. 44 and 129, the forms represented in grogtempered ware are absent from the group r fabrics: ripple-shouldered jars and bowls and pedestal bases do not appear, nor do they, in grog-tempered ware, survive into Phase III. It is as if the forms produced by the 'Belgic' industry were divided; some continuing to be made in grog-tempered ware and dying out, while others underwent a change to new fabrics and flourished. Many more groups of this period are required before this can be anything more than a hypothesis.

The bowls are the most distinctive feature of fabric group r: Nos 46, 112, 122, 133 and 151, similar in general proportions to the cognate Nos 55, 85, 100 and 114 in grog-tempered ware are vet distinguished from them by the junction of the shoulder and body, and by the absence of the rippled effect. Even where the angle at the base of the neck is missing the two traditions can easily be differentiated by the much simpler outline of group r. This shows clearly in the comparison of No. 84 with the grogtempered No. 85. Of this group, No. 122, with its distinctive rim style and shoulder cordon, stands some little distance from the rest. It might have been regarded as distinctive only by virtue of the tricks of an individual potter, were it not for its slightly odd fabric, which perhaps marks it out as the product of a different centre of the same tradition. This whole group of forms is generally related to Thompson's E2-1 and -2 (1982, 375-383) but is quite distinct.

A similar group of forms in the same fabric group is represented by Nos 47, 54, 60, 75, 115, 132, 151 and 153, jars and bowls with everted rims, vertical or inturned necks, and rounded shoulders. It is a widespread type, occurring through all areas of the 'Belgic' industry, as Thompson's B1, D1–1 and E3–1 (1982, 93, 299–303, and 392–3) as well as being found in other industries with a strong 'Belgic' flavour (May 1970, fig. 8, nos 18–21). A range of variants on this general type is also found here, in the form of Nos 48, 66 and 96.

Jars with no corresponding bowl forms present a much wider range in this fabric group: the small jar No. 44, with a rounded shoulder and grooved body, occurs also in grog-tempered and micaceous fabrics, while Nos 110 and 135 represent a version in this 'Romanised' fabric of the large grog-tempered combed jars. A link with the micaceous fabrics is also provided by No. 82, which may be from a similar vessel to Nos 81 and 105, but otherwise this fabric group is as distinct in its range of forms as the other two major groups. Other small jar forms are represented by single examples, suggesting these small jars were a relatively unimportant part of the industry, with some possibly experimental features such as the hand-made GW2 vessel No. 50, and the appearance in Phase III of GW2 with a pale external slip (Nos 127 and 129).

Fabric Group m

The micaceous fabrics, MGW and its oxidised variant OW5, encompass a much more restricted range of forms and fabrics than the preceding fabric groups. With one or two outsiders like No. 92, which appears to be a hybrid between MGW and GW2, and No. 152, a hand-made vessel in what appears to be a standard MGW fabric, but of a form which does not otherwise occur on the site, the fabric is remarkably uniform, and can be seen very clearly as a precursor of the highly micaceous grey wares which are so common in North Suffolk and South Norfolk later in the Roman period (Maynard *et al.* 1936).

The commonest form in this fabric is the biconical jar (Nos 36, 45, 61, 73, 76, 83, 99, 107, 148 and 152) in two principal variations, one with a series of offsets on the shoulder, and rarely cordoned (Nos 36, 73 and 152), the other with a plain shoulder with a cordon at the base of the neck and at the carination (Nos 45, 61, 76, 83, 99 and 148). Both of these can be paralleled in the Claudio-Neronian group from Needham (Frere 1941, fig. 3, no. 12 and fig. 4, no. 40). Of the same general type are No. 125, with a rounded body, and No. 74 which is a bowl version of the more common jar. Only the latter shows any similarity with vessels in any other fabric group, with No. 84 in fabric GW2.

Much of the remaining micaceous material from the site is accounted for by butt beakers (Nos 52, 71, 72, 79, 80, 117 and 141). All but the last are very similar to the common pipe clay form Cam. 113, and 141 differs from it only in the absence of the offset. It appears that these butt beakers are direct copies of the Camulodunum form, and they comprise the majority of the butt beakers from the site. The same fabric was used for copies of other imported forms, platters (No. 97), cups (No. 113), flagons (No. 118) and beakers possibly of Cam. 76 (Nos 81 and 106). The fine globular jars or beakers Nos 128, 140 and 86 may derive from the 'Belgic' tradition (Thompson 1982, 208) but their origin, and that of the cup No. 119 is far from clear. Small jars with rilled shoulders and everted rims occur in micaceous fabrics, as they do in the other two main fabric groups (Nos 89, 156 and 157). They too have perfectly good ancestors in the 'Belgic' tradition (Thompson 1982, C7-1, 273-281) but in their original grog-tempered fabric they are largely restricted to Hertfordshire.

The connection with Hertfordshire can also be seen in other fabrics: the grog-tempered bowls (Nos 55, 85, 100, 111 and 114) are best paralleled by Thompson's form B3–1 and its cognate bowls, while the bowls Nos 47, 54, 69, 75, 115, 132, 151 and 153 are closely comparable with her forms B1–1, E3 and D1–1, all of which are concentrated in that area.

If the ideas proposed and comparisons drawn above are accepted (and it must be admitted that the small sample size throws considerable doubt on any conclusions

				Fabric groups l	by weight (kg)
Feature/ Structure	g	5	b	r	m	
Enclosure 1a	(70)	(195)	-	(480)	(110)	
Outer ditch	8%	23%	—	56%	13%	
Enclosure 1a	(15)	(380)	(45)	(675)	(250)	Amph (30) 2%
Inner ditch	1%	27%	3%	48%	18%	TR (15) 1%
Enclosure 1a Total	(85) 4%	(575) 25%	(45) 2%	(1155) 51%	(360) 16%	Amph (30) 1% TR (15) 1%
Enclosure 4	_	-	(140)	(60)	(110)	
		-	45%	19%	36%	
Enclosure 7b	(10)	(800)	(1015)	(505)	(125)	NB. much of fabric
	1%	33%	42%	21%	5%	b is one vessel
Enclosure 8		(50)	(20)	(75)	(20)	
		30%	12%	46%	12%	
Enclosure 13		(1095)	· · ·	(480)	(130)	
		64%		28%	8%	
Enclosure 14	-	(90)	_	(40)	(860)	PC (15) 1%
Enclosure 11		9%		4%	85%	TN (10) 1%
Enclosure 16	<u></u>	(990)		(20)	(120)	NB 72% comprises
cherooure ro		88%		20%	10%	one fabric 's' vessel
Enclosure 17	(10)	(55)	(370)	(480)	(345)	MC (15) 194
Enclosure 17	104	(33)	270/	270/	260/	TNI (25) 204
1 2204	1 70	4%	27%	5/%	20%	TIN (23) 2%
Grave 2296	100	(33)	(85)	(100)	(150)	1 K (5) 1%
F 1 33	-	8%	20%	24%	36%	1 N (45) 11%
Enclosure 23	(5)	(1030)	(20)	(50)	(65)	
	1%	8/%	2%	4%	5%	
Enclosure 24		(270)	—	(580)	(130)	
		28%	-	59%	13%	
Enclosure 26	(5)	(125)	(85)	(45)	(765)	
	1%	12%	8%	4%	75%	
Ring-ditch 3	<u></u>	(35)	(20)	(110)	(10)	
	777	20%	11%	63%	6%	
Ring-ditch 7	(5)	(40)	(185)	(35)	(115)	
	1%	11%	49%	9%	30%	- 20
Gully 672		(835)		(1785)	-	
		32%	-	68%		
Gully 689	<u></u>	(205)	—	(230)	(30)	
100000 - 100000	÷.	44%		49%	7%	
Gully 835		(95)	(10)	(105)	_	
cally or r		45%	5%	50%		
Pit 916	<u> </u>	(110)	-	(520)	_	
		17%		83%		
Gully 1411	(5)	(100)	(110)		(10)	
oully 1411	2%	45%	49%	-	4%	
Ditch 1751	270	(70)	(80)	(145)	(105)	
Diten 1751		1804	20%	26%	26%	
Ditch 2206		(10)	(45)	(125)	(190)	
Ditcil 2200		(10)	(43)	(125)	(100)	
Ditch 2205	5-55	5%	12%	55%	50%	
Ditch 2295		(00)	(5)	(00)	(50)	
D: 1 2207		54%	5%	54%	29%	
Ditch 2297	100	1	(15)	(230)	(450)	
D. 1 2200	-	—	2%	33%	65%	
Ditch 2299		-	(130)		(95)	
			58%		42%	
Hollow 2442	(10)	(245)	-	(580)	-	
V	1%	29%	_	/0%	-	
Overall Total	(135)	(6920)	(2380)	(7515)	(4225)	Amph (30) 0.1%
	1%	33%	11%	35%	20%	TR 5 (0.1%)
						1 N 5 (0.1%)
						(21175)
						100%

Table 6. Phase II pottery proportionsGroups of less than 100 gms have been excluded.

from this ceramic assemblage) the pottery of Phases II and III consists initially of grog-tempered wares, owing more to the Hertfordshire area than to Essex, continuing to be imported during Phase II, from an unknown source perhaps on the edge of the main Belgic industry and used alongside the more local material of fabric group r. As time passes, the grog-tempered ware goes out of use, and products of another tradition, in the micaceous fabric group become current alongside group r. The distinct repertoire of forms used in each fabric tradition suggests that, while they all originate from a common source each tradition has its own distinct immediate roots. The repertoire of the micaceous fabrics with biconical bowls, butt beakers and Gallo-Belgic copies, sets it rather further apart from the other two, with shouldered bowls and the absence of butt beakers and Gallo-Belgic shapes; its origins are probably removed further from theirs.

This speculation makes little contribution towards a solution of the dating problems. The forms represented in all three fabric groups are those which would be instinctively placed 'early', but since the two fabric groups which continued, r and m, would appear to continue in East Anglia in a gradual evolution, it is difficult to place a specific date to the end of Phase III; in the absence of definitively Flavian forms, some time in the 60s and 70s seems plausible.

Feature/ Structure	g	5	b	r	m	
Enclosure 1b	(345)	(405)	(150)	(835)	(410)	
Inner Ditch	16%	19%	7%	39%	19%	
Enclosure 1b	(15)	(260)	(635)	(285)	(515)	
Outer Ditch	1%	15%	37%	17%	30%	
Enclosure 1b	(65)	(95)	(250)	(55)	(165)	
Fences etc.	10%	15%	39%	9%	26%	
Enclosure 1b	(425)	(760)	(1035)	(1175)	(1090)	
Total	10%	17%	23%	26%	24%	
Building 1	-	(60)		(145)	(45)	
0		24%	-	58%	18%	
Building 2	—	(15)		(190)	(15)	TR (5)
	-	6%		86%	6%	2%
Building 5	(80)	(65)		(20)	-	
	48%	40%		12%		
Total	(505)	(900)	(1035)	(1530)	(1150)	(5120)
	10%	17%	20%	30%	22%	100%

Table 7. Phase III pottery proportions

Groups of less than 100 gm have been excluded.

Phase IV

(Fig. 146; Nos 162-171)

Enclosure 1b, Outer Ditch, the uppermost fill

The upper levels of the ditch, on the south side of the enclosure, received a major dump of rubbish during Phase IV, which levelled it off.

Unillustrated

Sherds of coarse Nene Valley colour-coated ware, Oxfordshire redslipped.

Samian ware, Dr 15/17 South Gaulish, Flavian. Two worn fragments, form and fabric indicate a fairly late date for the form. (CJ) 1111.

- 162. MGW with bosses and dimples. 2276 (12). This is what used to be called 'Romano-Saxon' but is now seen as part of the mainstream of Late Roman pottery. It is interesting to see that the micaceous fabric continues almost unchanged.
- 163. MGW 327 (15).
- 164. MGW, self-slipped. 2243 (19).
- SG 2243 (18). The standard Late Roman shell-gritted ware of Eastern England.

166. GW2 890 (14). It is impossible to tell whether this is a residual sherd from the earlier phases or a continuation of the earlier tradition.

Gully 363

167. **GW1** 2572 (1).

Gully 431

Contained no illustrable pottery; most characteristic was a single sherd of Nene Valley colour-coated ware.

Layer 4190

The rubbish deposit between the main excavated area and the Travenol warehouse.

- CC1 cream with a brown slip. 4190 (165). An extraordinary form for which no parallel can be found.
- 169. Oxfordshire mortarium, white slip on orange, with brown, pink and white rounded quartz trituration grits. 4190 (166).
- 170. MH with light horizontal faceted burnish. 4190 (168).

171. GW1 4190 (167).

Phase IV: Discussion

The group from 4190 (Fig. 146, Nos 168–171) is clearly of fourth century date, characterised by the Much Hadham necked jar (No. 170) with support from the mortarium and the wide mouthed bowl (Nos 169 and 171). The evidence is strong enough to use this group as a fixed point in the dating of the curious colour-coated bottle (No. 168) if another should ever be found.

The other material is more equivocal. While the pottery from the upper layers of the outer ditch of Enclosure lb (Fig. 146, Nos 162–6) and from the gullies *363* and *431* is late in appearance, none is as distinctive as the *4190* group and could equally be of the preceding century.

XVIII. Cremated bone

by Jacqueline I. McKinley

Five cremations were received for examination. Three of the cremations had been recovered in urns, two from pits, all were considered to be Bronze Age. There had been considerable plough damage.

Methods

Each cremation was passed through a series of three sieves, 10mm, 5mm and 2mm mesh size, to obtain percentages of fragmentation by weight within these size groups. The maximum fragment size for skull and long bone was also taken. Identifiable bone was separated out for further analysis.

Age was assessed from the stages of epiphyseal and suture fusion (McMinn and Hutchings, 1985) and the degree of degenerative changes to the bone. Age categories rather than age in years are used in view of the difficulties surrounding the accurate assessment of age for adult individuals over 25/30 years. The age categories used are;

young adult 18-25yrs

mature adult 25-40yrs

older adult 40yrs+

Sex was assessed from the sexually dimorphic traits of the skeleton (Bass 1987). Three levels of reliability are used; ?? for possible, ? for probable and unquestioned sexing. These levels are necessary because of the paucity



Fig. 146 Roman pottery, unphased (161) and Phase IV (162-171), scale 1:4

of information and/or unclear dimorphism.

Full details are presented in Table 39, in microfiche.

Results

Pit 5815

Total weight = 660.5gm

Weight identifiable bone = 158.4gm (24.0%)

Percentage of bone in each sieve:-

10mm = 35.9, 5mm = 30.0, 2mm = 34.1

Maximum fragment size: skull = 40mm, long bone = 37mm

Skeletal areas as percentage of identifiable bone weight:

skull = 73.9, axial = 4.2, upper limb = 11.8, lower limb = 10.1

Age: older adult.

Sex: ??male

Pathology: 1) Mandibular tooth loss, minimum two left molars.

2) Gross osteophytosis (small bony growths) on surface margins of thoracic/lumbar vertebral body. Mild osteophytosis in finger phalanx and ulna distal head.

3) Slight exostoses (bony growths) along palmar sides of proximal/middle finger phalanges.

4) Slight pitting in lateral articulation surface of clavicle. Comment: Bone well reduced (white) and very dirty from charcoal staining.

Pit 5813

Total weight = 454.5gm

Weight identifiable bone = 47.5gm (10.4%)

Percentage of bone in each sieve:

10mm = 24.4, 5mm = 37.3, 2mm = 34.3

Maximum fragment size: skull = 24mm, long bone = 34mm

Skeletal areas as percentage of identifiable bone weight: skull = 34.1, axial = 24.8, upper limb = 16.6, lower limb = 24.4

Age: young/mature adult.

Sex: ??female

Comment: Bone well reduced (white) and very dirty from charcoal staining.

Urn 5823

Total weight = 601.3gm

Weight of identifiable bone = 273.2gm (45.4%)

Percentage of bone in each sieve:

10mm = 64.5, 5mm = 30.3, 2mm = 5.1

Maximum fragment size: skull = 43.0mm, long bone = 41.2mm

Skeletal areas as percentage of identifiable bone weight: skull = 67.3, axial = 10.6, upper limb = 15.1, lower limb = 6.9

Age: mature adult.

Sex: ?male

Pathology: 1) Congenital absence of right mandibular 3rd molar.

2) Slight periodontal disease (gum infection — pyorrhoea — causing resorption of alveoli margin) around mandibular molar socket.

Comment: Bone well reduced (cream) and fairly clean. Animal: Fragments of burnt bone from a small mammal.

Urn 2897

Total weight = 506.9gm

Weight of identifiable bone = 102.6(20.2%)

Percentage of bone in each sieve:

10mm = 36.4, 5mm = 39.9, 2mm = 23.1

Maximum fragment size: skull = 46mm, long bone = 39mm

Skeletal areas as percentage of identifiable bone weight: skull = 58.9, axial = 11.7, upper limb = 13.7, lower limb = 15.7

Age: older mature/older adult.

Sex: ??female

Comment: Bone well reduced (white) and very dirty from charcoal staining.

Urn 5810

Total weight = 1165.2gm

Weight of identifiable bone = 204.0gm (17.5%)

Percentage of bone in each sieve:

10mm = 31.8, 5mm = 43.1, 2mm = 25.0

Maximum fragment size: skull = 34mm, long bone = 57mm

Skeletal areas as percentage of identifiable bone:

skull = 44.5, axial = 6.0, upper limb = 28.5, lower limb = 21.0

Age: young/mature adult

Sex: ? female

Comment: Bone well reduced (white) and clean. Urn inverted.

Discussion

The collections were mostly small, being about 20% by weight of the total weight of an adult cremation. Urn 5810 was the exception where almost half the expected weight of bone was recovered. A certain amount of the been originally deposited must have been lost because of plough damage, even so, the quantity of bone remaining is not unusual. Total recovery of cremated bone from a pyre appears to have been rare, a sample of bone from each skeletal area is typical. The bone was well cremated, that is the organic content of the bone was fully reduced. The bone was fairly well fragmented, as illustrated by the general equality in percentage of bone recovered from each sieve. This fragmentation is probably partly due to crushing of bone from plough damage. However, as the bone is so well reduced, it may also reflect efficient tending of the pyre, ensuring oxygenation for complete cremation and breakage of the hot brittle bone with the movement. There may also have been some deliberate fragmentation of the bone after collection. As is usual with many cremations, very little of the other pyre debris was deposited with the bone, this must have been deliberately separated out at the time of collection. However, there is a considerable amount of charcoal staining on much of the bone except for that in urn 5810. This would suggest that some of the cremations were treated differently from others after cremation some being cleaned and others not. Methods for collection of the bone from a pyre may have varied and this may be reflected in the condition of the bone. Collection of individual bones including the small bones such as phalanges, from large amounts of wood ash would be very time consuming and necessitate the pyre to be cool first. If the bone were collected en masse and then sieved in some way, either by dropping the ashes in water or winnowing, then the bone would be cleaned, cooled and fractured at one time. This would also enable the easy recovery of small bones as well as the larger ones.

XIX. Small vertebrate remains

Animal bone preservation

Soil acidity rendered the preservation of bone poor. Only where relatively large numbers of bones had been deposited very close together was any real preservation achieved by the creation of a less acidic microenvironment. Even here the bone survived as powder and flakes rather than as coherent fragments which might be even roughly identifiable.

Small vertebrate remains

by Dr Terry O'Connor

Although bone had generally not survived in the acidic sandy deposits at this site, five soil samples from postholes of Phase II and Phase III buildings contained some small faunal remains. In contexts 2663, 2665 and 3025 small bones were preserved in a partly burnt condition, whilst in 2945 and 3309 chalky deposits within the posthole fills provided suitable conditions for bone preservation. Identifications are given in Table 40 (microfiche).

The burnt bones from 2663, 2665 and 3025 were associated with abundant carbonised grains of barley, apparently the charred remains from a burnt grain store (see p.178). Partly burnt bones of small rodents, including the house mouse (Mus sp.), from these contexts are plausibly interpreted as the remains of granary pests. The other small vertebrate remains from these post-holes and from 2945 and 3309 presumably represent the fauna living in and around the buildings and their thatch, including indeterminate small birds, starling (Sturnus vulgaris), pygmy shrew (Sorex pygmaeus), frog (Rana temporaria) and indeterminate small lizards. Bones of lizards were present in four of the five samples. Their unusual frequency must be related to the location of the site in an area of mainly dry sandy heathland. Within this area of heath, however, deposits of sandy clay loam apparently resulted, as today, in locally impeded drainage and wetter habitats potentially suitable for frogs. The only domestic species identified is sheep, which is represented by small numbers of lower limb and foot bones.

XX. Land molluscs

by Peter Murphy (Table 8)

In view of soil acidity at this site it was not anticipated that shells of land mollusca would, in general, survive. However 3309, the fill of pit 3308 within Building 5, Phase III, included some chalky material derived from the erosion of an associated dwarf wall and this had raised soil pH to levels where preservation of shells occurred. The sample from this feature was a dark yellowish-brown (10YR 4/4; moist) stony sand with patches of degraded chalk, and included charcoal, charred cereals and weed seeds, chips of large mammal bone, some small mammal vertebrae and limb-bones and mollusca. Shells were extracted by the method of Evans (1972, 44). Specimens from a 5kg sample are listed in Table 8.

The concentration of shells in the soil was low and the assemblage shows low species diversity. Open-country taxa (*Pupilla*, *Vallonia*, *Helicella*) comprise 23% of the total excluding *Cecilioides*. Snails characteristic of shaded conditions are rare: shells of *Oxychilus* account for 7% of the total. The remaining species are catholic, occurring in a wide variety of habitats, both shaded and open. Considered in isolation, the assemblage seems to indicate a mesic habitat within a generally open local environment. This is consistent with the archaeological context of the sample: the building would have provided protected conditions within the open settlement area. The presence of bone fragments has already been noted and this, together with the high combined percentage of the facultative carnivores *Vitrina pellucida* and *Oxychilus* sp. (36%), indicates that some food refuse was allowed to accumulate in the vicinity.

A DESCRIPTION OF A DESC	
Cochlicopa sp.	(1)
Pupilla muscorum (Linn)	2
Vallonia excentrica Sterki	12
Vallonia sp.	17
Vitrina pellucida (Müller)	44
Oxychilus sp.	11
Limacid plate	1
Celilioides acicula (Müller)	13
Helicella itala (Linn)	4
Trichia hispida (Linn)	40
Cepaea nemoralis (Linn)	4
Cepaea sp.	4
Cepaea/Arianta	12

Table 8. Mollusca from 3309

XXI. Plant remains and the environment by Peter Murphy

Summary

Samples were collected from a few Beaker Pits and Bronze Age cremations, but most samples came from mid-late Iron Age contexts (Phase I), early Roman features (Phases II–III) and a few late Roman features (Phase IV).

Crop plants identified in the Iron Age and Roman samples are spelt, emmer, barley and oats. The larger assemblages consist mainly of grain and are thought to represent predominantly prime products. The distribution of cereal remains within one Phase I pit are consistent with an interpretation of this feature as a storage pit. Postholes of a Phase III roundhouse produced assemblages of barley with some remains of grassland plants, possibly charred animal fodder. Another pit-fill produced assemblages interpreted as semi-clcaned wheat spikelets mixed with semi-cleaned barley grains. Smaller assemblages comprising a 'background scatter' across the site also consist largely of grain. It is suggested that the sample composition indicates that Fison Way was a nett cereal consumer site.

Remains of heathland plants, including heather, occur from Phase I onwards, but were not present in Beaker and Bronze Age samples. This is consistent with recent pollen analysis at Hockham Mere indicating a spread of heathland from about 300 BC. An Iron Age expansion of settlement onto marginal sandy soils seems to be indicated.

Introduction

The fills of the archaeological features at this site consisted predominantly of freely-draining acid sands and gravels derived from glacial outwash gravels and blown sand deposits. In parts of the site there were deposits of sandy clay loam, resulting in impeded drainage. Preservation conditions for biological remains were extremely poor: the carbonised plant remains are the only significant source of information about the environment and agrarian economy of the site. Even these are not generally well-preserved. Nevertheless the botanical remains recovered have provided information on vegetation in the vicinity and on crop production and processing.

Methods

Eighty-eight bulk samples were collected from Iron Age and Roman features, together with eight smaller samples from Bronze Age cremations and two bulk samples from a Beaker pit. Processing on site, using a simple water flotation tank (Williams 1973) was initially planned. However, a proportion of the samples had a high clay content, which made disaggregation difficult and seriously reduced the efficiency of recovery. To ensure consistent recovery rates between samples, on-site flotation was abandoned and the samples were processed in the laboratory, where near-complete extraction of carbonised plant remains could be achieved. For practical reasons sample size had to be reduced: 10kg samples were normally processed. After disaggregating the dried soil samples in hot water, the flots were separated by flotation and repeated wash-over, using a 500 micron collecting mesh.

The flots were dried and sorted under a binocular microscope at low power. Almost all samples included some uncharred contaminants, notably fine fibrous roots and seeds of arable weeds. Most of these were easily separated from the carbonised seeds and discounted, though weathered uncarbonised seeds of Chenopodiaceae were often difficult to distinguish from carbonised specimens, particularly where they were fragmented (see note in Table 42 (microfiche)). Carbonised fruits, seeds and fragments of spikelets, rachis and straw were extracted and identified by comparison with modern reference material. Small charcoal fragments were ubiquitous, but only certain categories of charcoal were extracted for identification. Fragments larger than 6mm from the Beaker and Bronze Age contexts and from charcoal-rich deposits of Iron Age and Roman date were identified. In addition fragments from other samples which appeared, on external characteristics, to be of the family Ericaceae were picked out for high-power examination of fractured sections. Plant remains identified are listed in Tables 41-42 (microfiche).

Floristic composition of the assemblages

1. Remains of crop plants

No carbonised remains of crops were present in the Beaker and Bronze Age samples. Samples from Iron Age and Roman contexts produced remains of spelt, (*Triticum spelta* L), emmer (*Triticum dicoccum* Schübl) and six-row hulled barley (*Hordeum vulgare* L. emend Lam.), with traces of wild or cultivated oats (*Avena* sp).

The wheats are represented by grains, rachis internodes, spikelet forks, glume bases and 'spikelet bases' (forks lacking internodes and with only the extreme basal part of the glumes surviving). From characteristics of size and morphology defined by Helbaek (1952) and Hillman (forthcoming) all the well-preserved wheat spikelet fragments are identified as spelt and emmer, though specifically identifiable fragments are rare. The wheat grains are almost all in a very poor state of preservation and have



Plate LVI Grains of barley (Hordeum vulgare) from Building 2 (photo: Malcolm Howard)

therefore not been specifically identified, but elongate forms of spelt/emmer-type predominate. No remains of free-threshing wheats were identified.

Most grains of barley are similarly poorly-preserved, distorted and with porous surfaces, though well-preserved grains were recovered from post-holes 2662 and 2664 (Pl. LVI). Most of these have angular cross-sections, sometimes with traces of lemma and palea adhering. No intact lemma bases have survived. Asymmetrical lateral grains are present in these samples, though due to distortion overall ratios of twisted to straight grains cannot be determined. However six-row hulled barley is certainly present. Barley rachis fragments were recovered from only four samples: single internodes and fragments from Gully 1565, and the outer ditch of Enclosure 1b, and a node with two partial internodes from Pit 506. The specimen from Gully 1565 is 2.9mm in length, approximately 1.0mm across the basal node, and shows faint traces of marginal pubescence.

The remains of oats (*Avena* sp) comprise only naked grains and awn fragments. In the absence of floret bases it cannot be determined whether a weed species or a cultivated oat is represented. Charred cereal culm nodes and other culm fragments occur sporadically.

2. Remains of wild plants

Plants from several distinct habitats are represented in the samples by fruits, seeds, fruitstones, nutshells and charcoal.

a) Weeds

In the Iron Age and Roman samples, fruits and seeds of weeds are frequent, though rarely abundant. Taxa include Raphanus raphanistrum (wild radish), Silene cf. alba (white? campion), Stellaria media-type (chickweed), Spergula arvensis (corn spurrey), Atriplex sp. (orache), Chenopodium album (fat hen), Malva sp. (mallow), Medicago/Trifolium sp. (medick or trefoil), Vicia/Lathyrus sp. (vetch or tare), Vicia cf. tetrasperma (smooth tare), Polygonum aviculare (knot grass), P.lapathifolium (pale persicaria), P.lapathifolium/persicaria (pale persicaria or redshank), P.convolvulus (black bindweed), Rumex sp. (dock), R.acetosella (sheep sorrel), Urtica dioica (nettle), Plantago lanceolata (plantain), Galium aparine (cleavers), Centaurea sp. (?cornflower), Bromus mollis/secalinus (bromegrass) and other Gramineae (grasses).

Raphanus raphanistrum, Spergula arvensis and Rumex acetosella are prevalent on acid soils and these

three plants presumably formed part of the weed flora of cereal crops grown on sandy and gravelly soils either in the vicinity of the site or on the river terraces. Terrace and upland soils in this area are generally acid, coarse-textured, stony and excessively well-drained (Corbett 1973). The frequencies of leguminous weed seeds are generally low: seeds and cotyledons of Vicia/Lathyrus sp. were recovered from only seven samples, usually in small numbers apart from in Hearth 504 (Phase I), which produced eleven cotyledons and a seed of V. cf. tetrasperma. Jones (1978) has argued that a rise in the frequency of vetch seeds in samples from successive phases of an Iron Age settlement at Abingdon, Oxfordshire indicates progressive nitrogen depletion of the arable land. No such trend is apparent at Fison Way. It seems that soil nitrogen levels were maintained either by manuring or by a system of long fallows. The presence of the autumn-germinating weed species Galium aparine implies that at least some of the cereals were autumn-sown.

b) Wetland and grassland plants

Rare fruits and seeds of Ranunculus acris/repens/bulbosus (buttercup), Prunella vulgaris (self-heal), Carex sp. (sedge) and Eleocharis palustris (spike-rush) were recovered. These are all typically grassland plants; buttercups, sedges and spike-rush are associated with damp soils. Jones (1978, 105) considers that the association of carbonised remains of such plants with cereals indicates that cultivation extended onto poorly-drained land but it is also possible that some seeds of grassland plants reached the site with hay and became mixed with cereals at some stage after harvesting. Soils in Breckland generally are very well-drained, but damp or wet soils occur at the margins of the river floodplains and also in the vicinity of the site where a discontinuous impervious sandy clay loam horizon has resulted in locally impeded drainage (MacPhail 1986).

c) Heathland plants

(Pl. LVII)

Many of the samples from Iron Age and Roman contexts included fragments of ericaceous charcoal, most of which were too small for close identification. Carbonised capsules of *Calluna vulgaris* (heather) were present in 'grave' 646 and Pit 506 (Phase I), and four contexts of Phases III and IV produced very large deposits of *Calluna* charcoal with capsules, seeds, leaves and young shoots (Pit 3329, Inner ditch, Enclosure 1b). These deposits are very simi-



Plate LVII Charcoal of heather (Calluna vulgaris) from pit 3329 (photo: Malcolm Howard)

lar in composition to a layer consisting largely of carbonised *Calluna* remains from the base of the turf-stack at Gallows Hill. This layer was just above a buried soil, an immature soil formed on blown sand (MacPhail 1986) and was dated to 1600 ± 70 bp or 350 AD (HAR–2905). It is thought to represent remains of heath vegetation cleared by burning before construction work began at this site. The dense deposits of *Calluna* charcoal in pits at Fison Way could represent remains of heather collected locally for use as litter, flooring, bedding or thatch and subsequently burnt either intentionally as refuse or accidentally, though the presence of *Calluna* charcoal in the Phase III hearth 6852 seems to indicate some use of heather as fuel.

Calluna is the dominant ericaceous plant on dry Breckland heaths today. One other heath plant represented by carbonised remains in the Fison Way samples is *Carex* cf. *arenaria* (sand-sedge). *Carex* nutlets matching this species came from hearth 498, Pit 506, and Pit 587, though possible deformation during charring means that this identification must remain tentative. *Carex arenaria* (sand-sedge) occurs widely in the Breckland, most conspicuously nowadays as extensive pure communities developing on blown sand in areas where rabbits were formerly abundant (Petch and Swann 1968, 243; Corbett 1973, 28). No remains of heath plants were recovered from Beaker or Bronze Age contexts.

d) Trees and shrubs

Non-ericaceous charcoal fragments were identified only from the Beaker and Bronze Age contexts and from a single charcoal-rich deposit (5871: Phase II) which seemed to have been burnt *in situ*.

Most of the charcoal from the Beaker and Bronze Age contexts consists of very small fragments with deformed cell structure. Amongst the fragments larger than 6mm only oak (*Quercus* sp.) was identified. The sample from context 6565 includes oak charcoal with very narrow rings, showing little growth of 'late wood'. This could perhaps indicate growth in shaded conditions.

The outer ditch of Enclosure la included large fragments from branches of ash (*Fraxinus* sp.) about 35mm in diameter with small fragments of oak charcoal (*Quercus* sp.) from mature wood, ericaceous charcoal (probably *Calluna*) and unidentified diffuse porous charcoal. Charred fragments of hazel nut shells (*Corylus avellana*) were extracted from eight Iron Age/Roman samples, a single fruitstone of haw (*Crataegus monogyna*) came from 2662, the porch post-hole of Building 2b and carbonised seeds of elder (*Sambucus nigra*) were present in five samples.

Sample composition and taphonomy

The samples of cereals and weed seeds from the site fall into two main categories: small samples consisting of a 'background scatter' derived probably from a variety of sources, and larger samples which appear to have been produced by a single activity or event. Interpretation of most larger samples in terms of specific crop processing activities is possible, but the background scatter of grains, chaff and weed seeds is less easily interpreted.

1. Pit 131

This feature was of the type usually described as a grain storage pit. Samples were taken in order to establish whether the distribution of charred cereal remains within its fill could be interpreted in the light of experimental results reported by Reynolds (1974, 1981), and also, if possible, to determine the crop stored. A central column sample and a further sample from the edge of the pit at its base were collected. A full list of charred plant remains identified is given in Table 42 (microfiche) and the results are summarised in Table 9.

The upper fills of this pit produced only low concentrations of poorly-preserved cereal grains, most of which were unidentifiable, together with rare wheat

Layer	Depth (cm)	Cereal grains/ kg of soil	Spikelet fragments/ kg of soil
256	0-20	0.2	0
256	20-40	1.2	0
256	40-55	0.8	0
257	55-75	0.8	0.2
259	75-90	0.6	0.2
259	90-105	0.2	0
259	105-110	6.0	0
259	(at edge of pit base)	12.4	0

Table 9. Summary of concentration of cereal remains in fill of pit 131

spikelet fragments. At the base of the pit, however, cereal remains were more abundant, particularly towards the edge of the pit base where they were associated with clay fragments. The sample from the edge included some grains which had become fused together, and were extremely badly distorted.

Reynolds (1974, 127–8) notes that viable grain stored in a pit of this type forms a 'skin' of germinated grain lining the pit wall. It seems possible that the fused grains from the edge of pit 131 may be the charred remnants of such a skin produced during a firing of the pit to dry it out and destroy micro-organisms prior to re-use. Reynolds has demonstrated experimentally that firing does result in the charring of residual cereal grains and the concentration of charred cereals at the base of pit 131 certainly would be consistent with such a firing. So far as the type of crop stored is concerned, the high proportion of indeterminate grains inevitably leads to some uncertainty, but of the grains identified in layers below 90cm depth, fifteen were of barley and three of wheat. This might indicate successive use for both wheat and barley storage.

2. Building 2, Post-holes 2662 and 2664

Contexts 2663, 2665 and 3025 were the fills of post-holes which formed the secondary doorway inserted into the back wall of Building 2 (Phase III). They produced very similar seed assemblages and this, together with their proximity to one another, leaves little doubt that the assemblages had a common source. Each of the three samples produced assemblages consisting mainly of six-row hulled barley grains associated with unidentified, poorly-preserved, cereal grains, wheat grains, some grass or cereal culm nodes, seeds of arable weeds, grassland and heath plants with a few seeds and fruitstones of wild fruits (Table 42).

The predominance of barley grains, and the absence of light cereal chaff, implies that the assemblages consist largely of semi-clean grain prepared for bulk storage (Hillman 1984, 10). However, the grass/cereal culm nodes

and seeds of grassland taxa (Prunella vulgaris, Plantago lanceolata, Carex spp. Gramineae) could indicate some admixture of hay and/or straw with the barley. In this respect the assemblages from these features are broadly comparable to carbonised assemblages of grassland plant seeds, grass culm fragments and barley from Roman contexts at Culver Street, Colchester which were associated with herbivore coprolites and are interpreted as burnt stable or byre sweepings including spoilt fodder (Murphy forthcoming). In the Culver Street assemblages, however, barley grains make up no more than about 15% of the total seed count, the remainder being largely of seeds from grassland taxa. Nevertheless high phosphate levels from these post-holes of Building 2 do suggest the possibility that stock were kept in the vicinity of these features. The seed assemblages thus could be interpreted as the carbonised residue left from an accidental fire in a fodder store associated with a byre or stable.

These samples also produced charred remains of wild fruits, which are otherwise rare at the site. Only five samples from the site (including these three) produced seeds of elderberry (*Sambucus nigra*), and 2663 contained the only fruitstone of haw (*Crataegus monogyna*). One possible interpretation is that these wild fruits were stored, either dried or preserved by some other means, in the same building as the barley and that mixing occurred after carbonisation.

3. Pit 506

(Table 10)

Contexts 2748 and 2750 were the top two layers of the unphased pit 506. Both samples produced barley and wheat grains with wheat chaff (mainly of emmer) and seeds of arable weeds. In 2748 the wheat grain: glume base ratio approximates to the 1:1 ratio expected in two-grained spikelets (assuming that the unidentified cereal grains are of wheat and barley in the same ratio as for those identified, and excluding spikelet bases from the calculation). This sample therefore seems to consist of a mixture of semi-cleaned wheat spikelets with semicleaned barley grains.

In summary, then, these larger assemblages from Fison Way are all thought to consist of prime products with some impurities: there are no large samples consisting of crop processing waste. Interpreting the majority of samples from the site individually in terms of activities and processes is, however, very difficult for the assemblages are generally very small and each assemblage is likely to include material from more than one source. The general predominance of grains over spikelet and rachis fragments is, however, worth noting.

Discussion

Jones (1984) has emphasised that Iron Age agrarian economies involved elements of specialisation and of interdependence between sites. To appreciate fully the significance of the cereal assemblages from Fison Way comparison with contemporary sites in the area is therefore necessary. Large assemblages of Iron Age and Roman cereals have been obtained from other sites in the Breckland: West Stow, Suffolk, Brandon, Suffolk and Fengate Farm, Weeting, Norfolk (Murphy 1983, 1985 and forthcoming). These sites are all located on terraces of the Rivers Lark and Little Ouse and are thought to represent

Feature		Pit	506	Building 2		
Context no.		2748	2750	2663	2665	3025
Cereal indet	ca.	59	64	80	52	49
Cereal indet	ca.fr.	+	+	+	+	+
Cereal/grass	cn.	1	_	2	1	8
Hordeum sp	ca.	7	13			_
Hordeum sp	ri.	<u> </u>	lfr		-	_
Hordeum vulgare L	ca.	<u> </u>	—	131	85	94
Triticum sp	ca.	32	19	6	3	14
Triticum sp	ri.	6	<u> </u>		_	_
Triticum sp	spb.	27	2	_	_	
Triticum sp	gb.	42	1			-
Triticum spelta L	gb.	2cf	<u> </u>	<u> 2000</u>		_
Triticum dicoccum Schübl	spf.	11	4		_	_
Triticum dicoccum Schübl	gb.	21	5		-	-
Avena sp	ca.		<u> </u>	1	lcf	1
Avena sp	afr.	+		_	_	-
Raphanus raphanistrum L		lfr	-		1	_
Atriplex sp			1	+	+	
Chenopodium album L		+	+	+	+	+
Vicia/Lathvrus sp	co.	-	-		1	_
Crataegus monogyna Jacq.				1		
Polygonum aviculare agg		1	—	1	_	1
Polygonum lapathifolium/persicaria		22	4		_	_
Polygonum convolvulus L		5	4	1		
Rumex acetosella agg		3			_	_
Rumex sp		3	2	4	2	1
Polygonaceae indet		1	1	1		1
Calluna vulgaris (L) Hull	cap.	-	2		_	—
Ericaceae	ch.	+	+		_	+
Prunella vulgaris L				-		1
Plantago lanceolata L		-	_	3	-	-
Galium aparine L		_	-	3	_	1
Sambucus nigra L		-		1	2	3
Centaurea sp	fr.	1	-		-	
Carex arenaria-type		-	2		—	-
Carex sp		2	-	1	1	_
Bromus mollis/secalinus		4	6		-	-
Gramineae indet		1	1	4	5	5
Indeterminate		5		7	6	3
Sample wt (kg)		10	10	10	10	10

Table 10. Carbonised plant remains from pit 506 (unphased) and Building 2 (Phase III) Taxa are represented by fruits and seeds unless otherwise indicated. Abbreviations:

afr — awn fragments; ca — caryopses; cap — capsules; ch — charcoal; cn — culm nodes; fr — fragments; gb — glume bases; ri — rachis internodes; spb — spikelet bases; spf — spikelet forks.

farming settlements. The range of crops present is very consistent. Spelt and six-row hulled barley are the main cereals at all these sites, and traces of emmer, free-threshing wheat, rye and wild or cultivated oats occur sporadically. The composition of assemblages from almost all contexts at these sites is also similar. With the exception of an assemblage from an oven at Fengate Farm, samples from these sites consist predominantly of weed seeds and cereal chaff with relatively small amounts of grain. They represent fine sievings from cereal processing (Hillman 1984, 12 and table 1), usually with some admixture of material from other stages of crop processing. In the Iron Age and Roman assemblages from West Stow and Brandon weed seeds are the predominant component, but in the Roman assemblages from Fengate Farm wheat glume bases and rachis internodes are more common. These variations may be related to different methods of harvesting. However, the points of relevance here are that all these assemblages consist largely of waste from crop processing and, with the one exception noted above, there are no deposits of prime grain.

The assemblages from these sites on the river terraces are thus very different in composition from the Fison Way assemblages, which, as we have seen, consist

of a few fairly large deposits of prime products and a 'background scatter' mainly of grains with some chaff and weed seeds. Such variations between sites may be explained in terms of the status and functions of sites and their environmental contexts (Hillman 1984; Jones 1984, 118-122). Both the location and size of the Fison Way site suggest that it is likely to have been a consumer of agricultural products rather than a farming settlement. It lies on very poor sandy soils which, from at least the Iron Age, appear to have been covered by heath vegetation and were prone to wind erosion (see below). The site is about lkm from the river. Evidently the site's location was influenced more by considerations of status and defence than by agricultural requirements. Sites on the terraces, by contrast, were conveniently situated to exploit valleyfloor pasture, and stock supported on these productive grasslands could have provided manure to maintain the productivity of arable fields on the gravel soils of the terraces and the calcareous soils of the valley slopes (Murphy 1983). It therefore seems probable that the Fison Way site was supplied with cereals by subsidiary settlements on the terraces. Moreover the composition of the cereal assemblages implies that most crop cleaning took place at the river terrace sites, which, it is argued, were

Years bc/ad	Pollen data (Hockham Mere)	Palaeosols	Carbonised plant remains
500 ad	Tree and shrub pollen reduced to 60% by <i>c</i> . 350 ad	Buried soil at Gallows Hill Immature soil formed on blown sand	Large deposits of carbonised <i>Calluna</i> <i>vulgaris</i> remains at Gallows Hill and Fison Way
0	Pollen of cereals becomes prominent after c. 50 bc. Sharp increase in <i>Calluna</i> pollen from c. 300bc		Cereal cultivation (mainly Triticum spelta and Hordeum vulgare) from 1st cent. B.C. Carbonised remains of Calluna present. Tree and shrub taxa: Fraxinus, Quercus, Corylus, Crataegus, Sambucus.
500 bc	Decline in pollen concentrations of all tree taxa except <i>Fraxinus excelsior</i> and rise in herb pollen values from c. 550 bc.		
1000 bc	253	Podzolisation well advanced in some areas by <i>c</i> . 850 bc.	
1500 bc	?Small temporary local clearances, before c. 550 bc.		Beaker and Bronze Age contexts contain oak (<i>Quercus</i>) charcoal, some slow-grown. No ericaceous charcoal. Rare cereal weed remains (including <i>Bromus</i>).
2000 bc			

Sources Bennett (1983), MacPhail (1979), Perrin *et al* (1964), this report. Table 11. Summary of palaeoecological data

the sites of production, and that the Fison Way site was receiving semi-cleaned grain and spikelets. In this respect the results obtained contrast with those from the hillfort of Danebury, Hampshire, which Jones (*ibid*) suggests acted as a central location for the processing, storage and redistribution of unprocessed crops brought in from a large territory. There is no reason to suppose, from the available evidence, that the cereals arriving at the Fison Way site represented more than the site's subsistence requirements.

Environment

(Table 11)

The site at Fison Way is about 11km to the south-southwest of Hockham Mere, an infilled lake basin at which several palynological studies have been made (Godwin 1944, Godwin and Tallantire 1951, Sims 1978, Bennett 1983). Changes in pollen frequencies registered in the Mere sediments must relate in part to vegetational changes on the extensive area of high-level glacial gravels, lying between the site and the Mere (Corbett 1973, 65). Pollen results from Hockham Mere are thus of direct relevance to the environmental history of the site.

The most recent study by Bennett (*ibid*) indicates that substantial forest clearance did not begin in this area until c. 550 bc, though there were earlier temporary clearances on a small scale. The spread of heath vegetation, following clearance, began at about 300 bc, and pollen of cereals does not become prominent until c. 50 bc. It is against this background that the carbonised plant remains must be interpreted.

Beaker and Bronze Age contexts at Fison Way produced only sparse assemblages of carbonised plant remains. All the charcoal identified was of oak (*Quercus* sp.), some of which had very narrow rings and may have come from trees grown in shaded conditions, perhaps in woodland. No remains of heathland plants were present. A single caryopsis of *Bromus* sp., a common cereal weed, from 5823 suggests that there may have been some cereal cultivation, but no carbonised remains of cereals were recovered. These rather poor results could fit with Bennett's suggestion that before c. 550 bc clearances for agriculture were small and temporary. Evidence from other sites suggests that pre-Iron Age clearances and farming were predominantly on the more agriculturally-productive calcareous soils in the Breckland rather than the mainly acid sandy and gravelly soils of the area between Hockham Mere and Thetford (Murphy 1984).

Bennett's pollen results from Hockham Mere suggest that permanent large-scale woodland clearance, associated with cereal farming and followed by soil deterioration and the spread of heathland relate to an Iron Age expansion onto the more marginal sandy and gravelly soils: areas of land which today are extensively planted with conifers (Corbett 1973, 53). The carbonised plant remains from Fison Way are consistent with Bennett's results. Samples from contexts of all Iron Age and Roman phases produced carbonised remains of Ericaceae, and some large deposits of charred remains of Calluna vulgaris came from late Roman contexts. These clearly indicate the proximity of heathland from at least as early as the first century BC. Trees and shrubs identified from charcoal and from carbonised nutshells, fruitstones and seeds are Fraxinus sp. (ash), Quercus sp. (oak), Corylus avellana (hazel), Crataegus monogyna (hawthorn) and Sambucus nigra (elder). Ash is the only tree whose pollen concentrations do not decline after c. 550 bc at Hockham Mere and Bennett (*ibid*, 482) suggests that it persisted by invading cleared ground. Generally ash is more common on damp calcareous soils, being fairly drought-sensitive (Wardle 1961) and the ash charcoal from Fison Way is perhaps most likely to have come from valley floor woods rather than from trees growing on the dry acidic soils around the site. The remains of hazel, hawthorn and elder presumably represent fruits and nuts collected from areas of scrub.

Evidence for the effects of clearance on soils comes from two sources. Firstly radiocarbon dates on humus in the B horizon of several Breckland podzols indicate that podzolisation was well advanced in some areas by *c*. 850 bc (Perrin *et al.* 1964). Secondly a soil buried beneath the late Roman turf-stack at Gallows Hill was immature and had formed on blown sand (MacPhail 1986).

Podzolisation and wind erosion would have occurred after clearance permitting the expansion of heath vegetation except where soils were continuously manured and marled for cultivation.

The information available on habitat change in this area is summarised in Table 11.

XXII. Radiocarbon determinations

Six charcoal samples, all relating to the later stages of the site's use, were submitted to Harwell Low Level Measurements Laboratory. Calibrations are published here with two standard deviations.

Phase II:

HAR-5102 2000BP ± 70 (Cal. BC 190-AD 130)

Context 3781 Enclosure 1a, inner ditch; a layer of charcoal immediately above the primary fill, belonging to Phase II, probably its end (Fig. 43, S833).

HAR-5460 1700BP ± 80 (Cal. AD 130-540)

Context 5871 Enclosure la, high in the fill of the outer ditch. Archaeologically this should belong to the end of Phase II.

Phase III

HAR-5459 1650BP ± 80 (Cal. AD 220-590) Context 6852 Enclosure 1b, lowest fill of inner ditch. This layer should belong to the end of Phase III.

Phase IV

HAR-5073, 5074 and 5075 1510BP ± 50 (Cal. AD 420-640), 1470BP \pm 60 (Cal. AD 430–660), 1430BP \pm 60 (Cal. AD 530-680).

Context 3304 Enclosure 1b, from a pit dug into the middle fill of the inner ditch during Phase IV, or later. These dates fall into the same order as that expected from the archaeological sequence. The only area of conflict is over the date of the end of Phase III, in the full Roman period or later, from the radiocarbon determinations (HAR 5459), and in the third quarter of the first century AD on archaeological and historical grounds. The deposit and a similar one in 6326 in an analogous position consists entirely of heather, and large heather deposits on the site otherwise belong to Phase IV (Pit 1307, Pit 3329 and the Gallows Hill turf stack (Lawson 1986, 67)) and this may indicate that this part of the ditch remained open for some time after the end of Phase III.

XXIII. Phosphate and magnetic susceptibility surveys of the ploughsoil and determinations from features by David Gurney

Introduction

(Figs. 147, 148)

The phosphate and magnetic susceptibility surveys included a ploughsoil Pilot Survey on a 25m grid over part of the site, a subsequent ploughsoil 5m survey over the whole of the excavated area and samples from subsoil features. Together, these surveys involved the analysis of 3400 samples.

Sample collection and pre-treatment

The samples were collected by the excavation team, and initial processing was carried out by David Wicks. The samples were air-dried and passed through a 5.6mm mesh (magnetic susceptibility sub-samples) and a 1.4mm mesh (phosphate sub-samples).

Method of phosphate (P) analysis

The samples were analysed for inorganic phosphate (Gurney 1985A, 2-3) using the molybdenum blue method of Murphy and Riley (1962) adapted for archaeological fieldwork by Dr M.J.Hughes and Dr P.T.Craddock of the British Museum Research Laboratory. For a summary of the method see Sieveking et al. 1973, 192-199 and Craddock, Gurney, Pryor and Hughes 1986, 363-4. The help and support of Dr Craddock and the British Museum Research Laboratory is gratefully acknowledged. The results are expressed in milligrams of phosphate per 100g soil (mg P/100gm). One mg P/100gm = ten parts per million.

Method of magnetic susceptibility (MS) measurement

The magnetic susceptibility samples were measured using a Littlemore Type 780 differential inductance bridge. This was kindly loaned by the Ancient Monuments Laboratory, and Dr A.J.Clark provided much assistance and guidance. The initial readings on the inductance bridge, in e.m.u./g x 10⁻⁶, were converted to SI/Kg x 10⁻⁸, and in the site archive and in this report, all values are given in the latter form.

Soil pH and bone preservation

The soil pH of the Freckenham series has been given by Corbett (1973, 105) as between 3.9 and 4.6 (in water) and between 2.8 and 4.0 (in CaCl₂). In acid soils with a pH less than 5.6, there is no reason to believe that rapid leaching of phosphates is a problem (Cook and Heizer 1965, 13).

The survival of bones was, as expected, rarely encountered on the site, but in a few instances bone did survive where chalky material was present, or where large deposits of bone had produced an abnormal micro-environment. A number of the features on the site had a grave-like appearance, but excavation provided no evidence for the presence of inhumations. Phosphate samples were taken from several of these 'graves'. The human skeleton is particularly rich in phosphates (Hamond 1983, 47, 48 (fig.1), 49), and therefore the presence of an inhumation should substantially enhance natural phosphate levels, even when the skeletal remains do not themselves survive.

Processing of the results

The survey readings were kindly processed by Mr A.Bartlett of the Ancient Monuments Laboratory, using the Data General Nova 4 minicomputer at the Physics Department, University of Surrey. Full details of the treatment of the data are given in Ancient Monuments Laboratory Report No. 4975 (on microfiche).

Full results of such surveys are not usually published, as the number of samples involved runs into thousands and any attempt to present these related to grid coordinates or features would be prohibitively costly. The printed report is therefore a synthesis of the results. The full report is on microfiche, and the detailed results are in the site archive.



Fig. 147 Phosphate survey, plotted by dot density, scale 1:5000

Phosphate samples from features

(Figs 149 and 150)

Introduction

In total, 442 samples from 174 contexts were analysed. The range of sample values was from 6 to 360mg, the mean value was 47mg, and the standard deviation was 38. Forty-six samples from twenty-one contexts provided results equal to or greater than the mean plus one standard deviation (85mg).

Full details of all feature samples are contained in the site archive. The following results and discussion is restricted to those areas of the site where for various reasons comprehensive sampling strategies were adopted, and/or areas where high P readings were obtained. Five such areas are described.

Features in the north-west corner of the excavated area

Results

Sampling in this area of the site concentrated around and in four 'graves', 2063, 2065, 2067 and 2069 (Enclosure 25, Phase II). Twenty-one samples were taken from fill 2064 of 2063 and seven high results were obtained, the highest of which (120 and 140mg) came from the basal fill at the east end. The basal fill 2066 within 2065 was sampled on a 25cm grid, and of the twenty-eight samples taken, half gave results greater than 85mg. The high and low readings were fairly evenly distributed across the base of the feature. The maximum value was 150mg.

The fill 2068 of 2067 had two high values at the top of the profile (88 and 91mg), while a sample from the base of the profile had a value of 200mg.

The fill 2070 of 2069 was sampled at three *loci*, and two high results of 91 and 94mg were obtained.

One further high P value came from this part of the site, from 3288 (Enclosure 14; Phase II); this was 110mg.

The sand subsoil was also sampled on a 25cm grid around the 'graves'. Sixty-four samples had a mean value of 33mg.

Discussion

The tentative on-site interpretation of a number of features as 'graves' is by no means disproved by the P results. On the contrary, when the results from these features are compared to the subsoil mean value (33mg) and the site feature mean value (47mg), it is clear that the fills of these features are considerably enhanced. Sampling was not sufficiently detailed to make it clear if there were consistent horizontal enhancements in these features (in 2065 high and low values were mixed at the sampled level), but the features themselves and the rela-



Fig. 148 Electromagnetic susceptibility survey, plotted as dot density, scale 1:5000



Fig. 149 Scale 1:25

tively high P levels encountered combine to reinforce the initial interpretation.

Ring-ditches within Enclosure 7 (Phase II)

Results

Twenty-eight samples were taken on a 20cm grid, 2cm above the base of *1325*, a feature (?grave) within Ringditch 1. The results range in value from 11 to 67mg, with a mean value of 34mg. The three highest values (61, 64 and 67mg) were from adjacent sampling points in a line running transversely across the feature 80cm from its east end.

Three samples were taken from 1067, Ring-ditch 2a.

One of these had a value of 190mg, associated with a MS result of 71 SI (see below).

3315 was a possible grave within Ring-ditch 2a or its successor 2b. All the fills of this feature were sampled, and the results are plotted on the section illustrated (Fig. 149). Very high P levels were encountered in 3498 (220 and 240mg).

Discussion

The P results from 1325 exhibit some patterning with a line of three high values across the base of the feature. This remains enigmatic, and P values are not sufficiently enhanced here to suggest the presence of an inhumation.

The results from 3315 are more conclusive. The high P values from 3498 are strongly suggestive of the presence of an inhumation, and it is interesting that the Ring-ditch 2a (1067) around 3315 also provided a very high result.

Buildings and features within Enclosure 1 (Fig. 150)

Results

646 was a 'grave' within Enclosure 2, assigned to Phase I. Of twenty-nine samples from fill 647, the highest value was 55mg and the mean was 20mg. Seven samples were taken from 3269, and the highest value was 94mg.

735 was a 'grave' immediately outside Enclosure 2,



Fig. 150 Scale 1:200

assigned to Phase I: ten samples were taken, ranging from 16 to 94mg with a mean of 54.

894 was the eavesdrip gully of Building 1 assigned to Phase III. Nine samples were taken with a range of 14– 22mg and a mean value of 18mg. The gully also has a low MS value (see below).

Building 2 (Phase III) was sampled fairly extensively compared to other features and Buildings 1 and 3. The fill 871 of the eavesdrip gully 870 was sampled at sixteen places, and the values range from 6 to 37mg with a mean value of 21.5mg. Eleven samples were taken from the ring of post-holes which represent the wall-line of the building; these range from 6 to 32mg, with a mean value of 20mg. Eleven samples were also taken from the postholes for the roof supports, and these range from 10 to 64mg, with a mean value of 23mg. The post-holes of the porch on the east side of the building both produced results of 26mg. One other feature was sampled, posthole 2312, and this had a value of 30mg. Excluding the exceptional results from the secondary post-holes 2662 and 2664 (see below), the forty-one samples from Building 2 have an overall range of 6 to 64mg, a mean value of 21.5mg, and standard deviation of 10.5.

2663 and 2665 were the fills of the secondary postholes 2662 and 2664 on the south and north sides respectively of the entrance on the west side of Building 2 (Phase III). Both post-holes had abnormal sooty fills with charred cereal remains (see below). 2663 gave a P value of 220mg, and 2665 a value of 360mg, the highest value obtained from the site.

982 was the eavesdrip gully of Building 3 (Phase III). Eight samples were taken with a range from 14 to 31mg and a mean of 21mg. The gully also has a low MS value (see below).

3185, the fill of a north-to-south gully just east of Building 4 (not assigned to phase) had a value of 200mg.

Discussion

The most important aspect of the P results from this area of the site is that the eavesdrip gullies of the three buildings (1, 2 and 3) belonging to Phase II provide no evidence for P enhancement. The evidence suggests that there was little, if any, accumulation of domestic occupation debris in the vicinity of the buildings. This suggests that they might not have been for 'domestic' occupation, or that if they were, they were either unused or occupied for only a short period of time. The results here may be contrasted with P values from Iron Age ring-gullies at Maxey, Cambridgeshire, where P values reached 120mg in structures which were probably short-lived and/or peripheral to the main settlement focus, and Romano-British structures at the same site but at the nucleus of the settlement area, where P values were regularly in excess of 300mg (Gurney 1985B, 199 and figs 147-149).

Post-holes 2662 and 2664 raise questions to which there are no satisfactory answers. The very high P values were obtained from sooty fills containing charred cereal remains (predominantly of six-row hulled barley) and burnt small mammal bones, conceivably the debris from the remains of a granary or stable fire (see report by Peter Murphy, Chapter IV, XXI above). It is possible that the high P values derive from the cereal remains (cereals rank quite highly as a source of P; Hamond 1983, fig.1), and of course from the remains of the small mammals. Elsewhere on the site, deposits containing abundant carbonised wheat remains (2748 and 2750 in pit 506) had low P values (29 and 30mg). Large charred deposits containing dense remains of *Calluna vulgaris* (heather) (3303 and 3304 in pit 3329) had values of 61 and 38mg.

At Cefn Graeanog, Gwynedd, N.Wales, Conway (1983) found localised areas of P enhancement corresponding to small features containing burnt clay and charcoal spreads, and it was suggested that one reason for these enhanced values might be the fixation of phosphorus on to iron oxides formed at elevated temperatures. The low P values from other charred cereal deposits at Thetford would however suggest that there is no simple explanation for the exceptionally high P values encountered in post-holes 2662 and 2664.

What is clear is that the soil which was used to fill these post-holes had a very different origin and history to the fills of the other post-holes of Building 2, and that the eccentric fills and P values of 2662 and 2664 need bear no relation to the original design of Building 2, its use, or indeed, its use in its secondary phase. What we have here are two post-holes which for some reason were filled with material not found elsewhere on the site. Fortunately we can isolate this event from the lower P values found elsewhere in Building 2.

'Grave' 646 provided a value of 94mg from one sample, but the generally low P values of the thirty-five other samples would not suggest the presence of an inhumation.

Miscellaneous features south of Enclosure la

 Results
 100mg

 797 in pit 796
 100mg

 799 in pit 798
 91mg

 2384 in 2257
 94mg

 2627 in 512
 88mg

(none of these features were assigned to phase with certainty).

Features within Enclosure 8

Results

1259 in 'grave' 1258 (Phase II) 120mg (associated with a high MS value of 104 SI (see below)).

Magnetic Susceptibility Samples from Features

Results

Fifty-seven samples were analysed from forty-five contexts. The range of values was 14–230 SI, with a mean value of 43 and standard deviation of 36. Only five samples had values greater than the mean plus one standard deviation (79 SI), and these were as follows:-

303	mi or nearm 504	250 51
535	fill of hearth 534	175 SI
1259	fill of 'grave' 1258 within	86 and 104 SI
	Enclosure 8	
	(associated with a high P result of	
	120mg (see above))	
586	fill of pit 585	98 SI
Othe	r results were:	

1067 Ring-ditch 2a (associated with a high P result of 190mg (see above)) 71 SI

894	eavesdrip gully of Building 1; 6 samples (associated with low P	15–28 SI
	results (see above and Fig. 150))	
982	eavesdrip gully of Building 3; 4	15-28 SI
	samples (associated with low P	
	results (see above and Fig.150))	
982	eavesdrip gully of Building 3; 4	30-36 SI
	samples (associated with low P	
	results (see above and Fig. 150))	

Discussion

The fills of hearths 504 and 534 are sufficiently enhanced for these features to be confirmed as areas of pyrotechnical activity of some kind. These two features stand apart from the other sampled features, and the results here are very high (230 and 175 SI) when it is recalled that the site feature mean was only 43 SI.

The extent to which the MS of soils can be enhanced by heating depends upon a number of factors. A single fire will only increase the MS of the soil to a depth of c. 1 cm, the organic content of the soil and the nature of the material being burnt will both affect the 'reducing power' within the soil, and the amount of iron oxides available for conversion to maghaemite will also determine the MS acquired by the soil during heating (Tite and Mullins 1971, 216–217).

At Maxey, near Peterborough, the MS samples from a late Iron Age oven produced, for that site, an exceptionally high range of values, from 536–611 SI (mean value 566 SI) (Gurney 1985B, 196). All that can be surmised from the results from the hearths sampled here is that compared to the site 'norm', these features are considerably enhanced. The results do not allow us to estimate either how long the hearths were in use, nor the purpose for which the hearths were being used.

The other important finding from the feature samples is that the eavesdrip gullies of Buildings 1 and 3 (Building 2 was not sampled) provided values consistently below the site mean. This matches the very low P values obtained from these buildings (both P and MS results are illustrated on Fig. 150), and confirms the suggestion that these buildings are unlikely to have been used as dwellings.

Conclusions

(Figs. 148, 150)

The main resources of the phosphate and magnetic susceptibility surveys were devoted to the ploughsoil survey on a 5m grid. The findings of the Pilot Surveys suggested that there was some patterning of high results, but the implementation of the more detailed surveys has certainly allowed much closer definition of areas of enhancement, and this in turn has permitted a more detailed interpretation of the ploughsoil results in the light of the subsequently exposed and excavated subsoil features.

The centre of the excavated area was occupied in Phase I by Enclosure 9, in Phase II by Enclosure Ia and in Phase III by Enclosure 1b. This series of enclosures does not appear to have been an area of the site where either P or MS values were significantly enhanced, and this can be seen most dramatically on the dot-density plot of the positive P anomalies (Fig. 148). The enhanced areas on the P survey are around the western and northern edges of the survey area, beyond the limits of the excavation, and the only area where P levels are consistently enhanced is just outside the entrance of Enclosure 1a. The area within Enclosure 1a occupied by Buildings 1, 2 and 3 is virtually devoid of positive anomalies.

The MS survey (Fig. 148) exhibits similar patterning, with high MS results on the western and northern sides of the survey area. In the south-west corner of the site, there is a well-defined area where there were no positive anomalies, bordered on three sides by dense anomalies. This area was not excavated, so the underlying archaeology is unknown, but it is possible that this area was occupied by a livestock corral, conceivably Enclosure 13, of which only the eastern end was exposed on the western edge of the excavated area. High P values encroach upon part, but not all, of the area devoid of MS anomalies, and high P values clearly continue to the south and west of the south-west corner of the survey area. The area of P enhancement could of course derive in part from livestock, and in part from occupation debris, and it is only in the MS results that any divide between these two might be apparent.

The MS results from the excavated area show a broad spread of positive anomalies to the west and north of Enclosure la. High MS values encroach to a certain extent upon the interior of the enclosure along its west and north sides, but generally values from the interior are low, particularly above Buildings 1 and 2 and in the eastern half of the enclosure.

The overall picture is therefore one of high P and high MS values around the western and northern edges of the survey area, with the former apparently respecting the western ditch of Enclosure lb and the latter encroaching on the western and northern defences of Enclosure lb. Assuming that the area occupied by the defences associated with Enclosure lb seems an unlikely location for 'domestic' activity, it seems improbable that the areas of MS enhancement above the northern and western defences of Enclosure lb can be associated with activities relating to that enclosure. It seems far more likely that they derive from occupation around Enclosure la in Phase II, or from earlier enclosures in this part of the site.

The general conclusions that can therefore be reached from the ploughsoil surveys are that:-

- In Phase I, Enclosure 9 in the centre of the excavated area does not appear to be associated with areas of P or MS enhancement.
- 2. In Phase II, the area of Enclosure 1a, which encompasses the area of Phase I Enclosure 9, is not associated with areas of P or MS enhancement, although positive MS anomalies do encroach upon the western and northern sides of Enclosure 1a. These, it is suggested, are not related to Enclosure 1a, but appear to be associated with areas of high P and high MS to the west and north, perhaps deriving from activities within a series of enclosures on the peripheries of the excavated area. While these enclosures are also assigned to Phase II, some at least are stratigraphically earlier than Enclosure 1a, and this might suggest that there are areas of domestic occupation and/or livestock corrals which, in Phase II, either pre-date or are contemporary with Enclosure 1a.
- 3. In Phase III, Enclosure 1b which includes the area of Phase II Enclosure 1a, again does not appear to be an area where there is any significant enhancement of P or MS values.
- 4. It therefore seems that within the excavated area, the

series of enclosures Enclosure 9 in Phase I, Enclosure la in Phase II and Enclosure 1b in Phase 3 are not associated with areas of P or MS enhancement. The enhanced areas to the west and north of the excavated area might be associated with activities early in Phase II, before the construction of Enclosure la. As the areas of major enhancement lie beyond the excavated area, the only clue to the phase to which they might be related is the apparent association of high values with the series of Phase II enclosures around the western and northern edges of the excavated area.

5. In the south-west corner of the survey area, there are peaks in both the P and MS results. These peaks do not coincide, but are *c*. 20m apart. The P peak to the east coincides with a concentration of late Roman finds, while the MS peak just to the west coincides with an area of anomalies detected by the magnetometer survey. While to the north high P values appear to respect the north-west corner of enclosure 1b, here, in the south-west corner of the survey area, the combined evidence of high P, high MS, magnetic anomalies and late Roman finds may be indicative of intensive later (Roman) occupation.

Considering briefly the results from features, a number of features which were interpreted as graves, but which provided no evidence for the presence of inhumations, did provide relatively high P results. Sampling was not sufficiently detailed to put the question beyond doubt, but compared to the subsoil mean value of 33mg and overall feature fill mean value of 47mg, the relatively high P values from 'graves' 2063, 2065, 2067 and 2069 suggest that the initial on-site interpretation may indeed be correct. In the case of 'grave' 3315, very high P values were obtained from a layer just above the base of the feature (Fig. 150), and here the presence of an inhumation seems most probable.

The three buildings (Buildings 1, 2 and 3) within Enclosure 1a do not appear to be associated with high P or high MS values (Fig. 150). Two secondary post-holes for Building 2 provided exceptionally high P results, but this does not affect the overall picture, which is that the eavesdrip gullies of these buildings show no evidence from the P or MS results of usage as domestic structures.

Two possible hearths, 504 and 534 provided sufficiently high MS results for these features to be confirmed as being associated with pyrotechnical activities of some kind.

Finally, and perhaps rashly, a few thoughts on the overall interpretation of the surveys are offered. The impression gained from the ploughsoil surveys is that the nuclei of domestic occupation and/or livestock corrals lie beyond the excavated area to the west and north. This seems clear enough. The problem which remains is the explanation of the apparent absence of any wide-scale enhancements of P or MS within the excavated area, relating to the series of enclosures (9, la and lb) which are the principal components of the site.

Whatever the history of this sequence of enclosures, it seems reasonable to assume that, on the evidence of the P and MS surveys, the area occupied by these enclosures seems never to have been either intensively occupied or used for livestock. Furthermore, if at any stage these enclosures were used for any kind of 'domestic' occupation, the nature of that occupation has left little trace in the P or MS evidence, and consequently, any domestic occupation that is envisaged must presumably have been either very short-lived or lacking in intensity. It has been suggested above (see Buildings and features within Enclosure la) that the evidence from the eavesdrip gullies of the three buildings within Enclosure la suggests that if these were 'domestic' buildings, they were either unused or were used only briefly. An alternative explanation for the absence of domestic occupation debris might be that the area was kept meticulously clean, but given that this area includes enclosures assigned to Phases I, II and II, it would be surprising that no build-up of occupation debris took place somewhere within these enclosures if indeed domestic occupation debris was being generated in any quantity. Perhaps more convincingly, the absence of any significant MS enhancement argues that activities which might lead to any burning of the soil were not taking place, as evidence of burning would be far more difficult to remove completely, even if the site were regularly cleared of its rubbish.

An alternative scenario might see the series of enclosures as not being for 'domestic' occupation at all, and a religious interpretation of the site might resolve the problem of why there is little occupation debris. There are of course other interpretations which might be offered, and a single interpretation may well not be valid of all three phases. If these enclosures were for 'domestic' occupation, it must be explained why it was either shortlived or lacking in intensity, and if these enclosures were not 'domestic', then alternative functions for them should be sought.

The results of the phosphate and magnetic susceptibility surveys presented here will not themselves provide the solutions, but they may assist by reinforcing or contradicting interpretations of the site suggested by other categories of evidence.

Chapter 5. Discussion and Conclusions

I. Pre-Iron Age activity: general discussion by Frances Healy

The 1376 pieces of unstratified and residual lithic material retrieved during the excavation can be only a small proportion of the total present on the site before excavation began: 530 pieces out of the 1376 (from contexts 325 and 4500) were either unstratified or recovered from topsoil; these were mainly collected unsystematically from spoil heaps, the bulk of which was formed by stripped topsoil. This strongly suggests that the majority of the lithic material from the site remained unrecovered in the spoil heaps.

The overall character of the collection mirrors that of the massive quantities of material gathered from the surface of the Breckland by and for such collectors as Sturge, Hewitt and Haward late in the last century and early in this one, before and during afforestation, when the heathland cover of the area was often broken by rabbits and windblows. Common features include a relatively high frequency of roughly-worked debitage, sometimes of large size, and the dominance of technology and of finished implement forms by practices and types referable to the Later Neolithic and the Bronze Age, although earlier material is also present. Had the Fison Way material been collected from an eroded surface, it would have been of virtually identical aspect to collections such as that made by Hewitt from his site XXI at Two Mile Bottom, Thetford (Hewitt 1915).

The thousands of pieces of struck flint in the great Breckland surface collections are accompanied only rarely by sherds of contemporary pottery. Material from Hewitt's sites in the Thetford area (Norwich Castle Museum, accession no. 170.955), for example, includes a handful of weathered sherds of Beaker and Peterborough Ware, two of the better-preserved of which are published (Healy, 1984a, fig. 5.5:P35, fig. 5.9:P44). Fison Way provides an extra dimension in the form of 189 residual or unstratified pre-Iron Age sherds in addition to those preserved in contemporary features. Unlike the struck flint from the site, the overwhelming majority of these sherds were residual in Iron Age and Romano-British feature fills. Their small size and abraded state suggests that they were incorporated into them from the then surface and topsoil, rather than from now-destroyed earlier features, and that most of them might not have survived to be excavated if they had remained in the topsoil. Their chronological range extends from the fourth millennium cal. bc (Fig. 135, Nos 1, 2) to the mid-second (Fig. 136, No. 31).

If the 5ha of Fison Way are at all representative of contemporary activity in the Breckland, they indicate that it was intermittent and insubstantial, involving the discard of struck flint and pottery, but seldom involving the digging of subsoil features. The whole would have taken place in the environment described by Peter Murphy (p.180), one of deciduous woodland broken by small, temporary clearings. It has been suggested elsewhere (Healy 1984a, 126–127; Healy forthcoming) that much of the excessively well-drained Breckland may have been

unsuitable for sustained prehistoric cultivation, and may have served primarily as pasture, hunting ground and raw material source for communities whose more lasting settlements may have lain in adjoining areas. Legge (1981) similarly suggests that the Middle Bronze Age economy of Grime's Graves may have been based primarily on dairying, with cultivation confined to the relatively drought-resistant and fertile calcareous slope soils of the region.

The abundant surface flint of the region, often larger and sounder than the gravel flint of neighbouring areas, seems to have been as important a raw material as the *in situ* flint of Grime's Graves and perhaps other mine and quarry sites. Its extensive use at Fison Way, and the corresponding scarcity of obviously mined flint, are matched at Middle Harling in the Thet valley, 12km to the north-east, where knapping debris from pits containing Fengate Ware and from others containing Grooved Ware seems to represent the reduction of local surface material with only one recognisable flake of possibly mined flint (Healy forthcoming).

The frequency of Beaker among the Fison Way pottery contrasts with the scarcity of Beaker of any kind in the much larger collection of pottery from Grime's Graves, Weeting with Broomhill 6.5km to the northwest. Mercer (1981, 113) has interpreted this as reflecting the control of mining and flint-processing by one cultural group (users of Grooved Ware) to the virtual exclusion of another (users of Beaker). Whatever its implications, it is an aspect of the frequent segregation of contemporary Later Neolithic and Early Bronze Age pottery styles demonstrated by Cleal (1984, 137–138).

Middle Bronze Age activity in the excavated area is represented most clearly by dispersed cremation burials. Only two features of the period, *5809* and *5823*, were close to each other, the first containing a Biconical Urn (Fig. 136, No. 32) with a cremation and the second an inverted Deverel-Rimbury urn (Fig. 137, No. 33) with none. Occasional urns in other traditions are a recurrent feature of predominantly Deverel-Rimbury cemeteries (Burgess 1980, 134, 313–314), as are urns buried without cremations. They occurred, for example, in every phase of the cemetery at Kimpton, Hampshire (Dacre and Ellison 1981, fig. 6). Fig. 137–139, Nos 33–35 form the funerary counterpart of the domestic pottery of the postmining occupation of Grime's Graves, to which they relate closely in form and fabric.

Contemporary activity beyond the burials is represented by stray sherds such as Fig. 136, No. 31 and, probably, Figs 135, 136, Nos 25–30, as well as by some of the lithic material, perhaps including the debitage from the top of pit 6464. A copper alloy awl (Fig. 116, No. 1) may also date from this period. This thin scatter of ill-preserved material is a reminder that the exceptional preservation of Bronze Age rubbish deposits at Grime's Graves was due to their having been tipped into tops of almostinfilled mine shafts. The scant, unprepossessing Middle Bronze Age material from Fison Way may be the residue of similar activity, degraded by unfavourable circumstances of preservation.

II. Iron Age and Roman occupation

Chronology

It can be stated with confidence that the principal use of the site belongs to the Iron Age and Early Roman period. To refine that chronology further poses problems.

Phase I

The arguments for dating the pottery, such as they are, are rehearsed above (p.158); apart from that, there are only two groups of independently datable finds, Iron Age coins and brooches.

None of the four coins was found in Phase I contexts; the two that could be assigned to phase, one Icenian and the other of Cunobelin, both belonged to Phase II. The coin of Cunobelin, struck early in the first century AD, is unlikely to have remained in circulation for long after the Roman conquest, being of copper. Indeed, it is so fresh that it may not have circulated at all, but nevertheless should have been of some age when it reached its final resting place in Phase II. The second coin is considered below.

There are two instances of possible brooches in Phase I, the unillustrated iron fragments, which may be part of a brooch (p.128) and the possible hinged pin (Fig. 117, No. 27). The latter should date from the second century BC or earlier, but neither piece can be used as secure dating evidence. More pertinent is the general tenor of the brooches, which certainly indicates a pre-Conquest beginning dated by Donald Mackreth to the first century BC, even though most of the significant pieces are from residual or unstratified contexts. Nos 1, 16-21, and 28-34 are all given dates of manufacture before AD 50, but their possible survival in use is reinforced by the impossibility of supporting an early date of deposition from stratigraphy. Therefore while it is possible that all of these pre-Conquest brooches were in use during Phase I, they could equally have been imported in use a little later, and are of slightly decreased value in illuminating the Iron Age occupation.

Thus we are left with the pottery evidence, with a two-fold subdivision into Ia and Ib which can be applied to some of the features of Phase I. On the basis of rather tenuous, and narrowly-founded arguments, Ia is seen as beginning at some point in the fourth to second centuries BC and Ib as belonging to the first centuries BC and AD.

Phases II and III

These two phases of use of the site cannot be completely differentiated, and where they can, there is little obvious distinction between their finds assemblages. It is therefore convenient and necessary to treat them together. Their chronology depends on three distinct factors:

- Unstratified and residual material, out of its primary context
- ii) Stratified finds
- iii) The external, historical chronology established for the region.

Most of the intrinsically datable material, other than pottery, falls into the unstratified category; this must always be used with caution, but on a site where the main periods of occupation, Iron Age, early Roman and late Roman, produce finds which are relatively easy to distinguish from each other, unstratified finds can be used with some confidence.

Thus the general nature of the brooch assemblage, most of which is unstratified, suggests a date for the end of brooch use on the site in the third quarter of the first century AD. Similarly, the Roman coins, with their pronounced decline in the Neronian-Flavian period, even allowing for the continuation of irregular Claudian asses into the AD 60s, suggest a sharp decrease of coin use on the site in the 60s and 70s. This material can be used as dating evidence for Phases II and III on the grounds that what is easily recognisable as early Roman in date is being applied to the only early Roman activity on the site. It assumes that there is no further early Roman activity represented solely by unstratified finds and that the later Roman use of the site, in Phase IV, was not responsible for the wholesale importing of two-to three-hundred-year old coins and brooches: these seem to be justifiable assumptions.

Of the stratified metalwork, the brooches, though few in number, are important. Stratified examples include three significant types, the Colchester derivative with rear-hook spring fastening in Phase II, and the Aesica and Hod Hill types in Phase III. All of these are dated by Donald Mackreth to the AD 40s, 50s and 60s, with a possible continuation into the 70s for the Hod Hill.

Only three coins were found stratified in contexts of these two phases, an irregular Claudian as, the Trinovantian copper coin discussed above which is considered to be residual from Phase I, and an Icenian silver coin inscribed ECEN; this is one of the series which Allen ascribes to the Icenian client kingdom period, of the 40s and 50s, a date which he supports from the large numbers and fresh condition of coins of the ECEN/ED/ECE series in the hoards, attributed to the Boudiccan revolt (1970, 16). The other two Icenian coins from the site, an Early Face-Horse and a Boar-Horse type B, would both be earlier on his chronology, but are shown by their occurrence in the hoards to continue in use into the client kingdom period.

The stratified pottery presents the largest corpus of chronological data; both the samian ware and the Gallo-Belgic imports are predominantly Claudio-Neronian with some Neronian-Flavian pieces, which supports the generally early aspect of the coarse wares.

The stratified finds cannot be used to put a close date on the Phase I/II transition, but if the hypothesis is accepted that the Romanised potting tradition with its strong Belgic traits expanded with the Roman army and the advance of Romanisation, then a date in the AD 40s or 50s would be appropriate. The end of Phase III, in the absence of unequivocally Flavian forms, should then lie in the AD 60s or 70s, a total life for the two phases of two to four decades.

Is this relatively short chronology reasonable in view of the high level of activity? There seems little alternative in view of the evidence, slight though it may be. Allowing for some exaggeration of the number of Phase II and III features by the difficulty in recognising Phase I features which were levelled in Phase II and the coherent nature of Enclosures Ia and Ib, neither of which need have been in use for any great length of time, this is perhaps less of a problem than it would appear at first.

The Phase II and III enclosures were clearly the result of a major investment of resources, and thus must have been of considerable importance and status; precisely what that status was is discussed below. Under such circumstances the site would be expected to be at the forefront of cultural development and to be among the first sites in the area to receive goods resulting from Romanisation. Since it lies within the tribal area of the Iceni, and Phase II cannot be far removed in date from the establishment in the mid 40s of the client kingdom, it might be expected that imported pottery, in the form of samian ware and Gallo-Belgic products, as well as the expanded Belgic-related industry, would also appear on site in that decade.

The establishment of Enclosure la with its attendant structures, and its use and modification into Enclosure lb, might be fitted into a relatively short space of time, especially since the demolition of the timber structures of Enclosure lb, rather than their rotting *in situ*, would allow for a relatively short life for the latter. Therefore, it is conceivable that Phases II and III belong entirely to the two decades from the mid 40s to the mid 60s. And it is in this terminal date that we encounter the problems.

No matter how objective and archaeologically-based the reasoning, it is impossible to consider the Icenian tribal area in the third quarter of the first century AD without reference to Boudicca and the revolt of AD 60. To attempt to do so is self-deception: the arguments for dating finds categories such as Icenian coinage and brooches are related to AD 60 as a dating horizon, and the whole issue is too well-established in our thinking to be ignored. It will appear from our subconsciousnesses in any consideration of the period. So how is this site to be related to the events of AD 60 and their aftermath?

Furthermore, of course, there were two Icenian revolts. The first, of AD 47, is assumed to have been either a small-scale affair, or restricted to a small part of the tribe, since only thirteen years later we hear of the Iceni enjoying the special privileges of a client-kingdom, hardly the circumstances to be expected had the whole tribe risen in revolt. The absence of any hiatus or signs of any dramatic event at the beginning of Phase II or during it or its successor allows us to forget that first insurrection.

The second, Boudicca's rebellion of AD 60, was a more dramatic affair. Even allowing that the dramatic account of Tacitus is the result of eye witness accounts which might serve to raise the event to greater importance than it would otherwise have had, it was still an occurrence which shook the province. Yet no archaeological site in the Icenian area has previously produced any good evidence for the Roman exactions which, Tacitus relates (Annals XIV, 38), followed its suppression. Excavated sites which seem to have been in use during this general period, such as Ashill and Thornham (Gregory 1977 and 1986) are assumed in the absence of such evidence to have been abandoned before the revolt, or first occupied after it, so strong is the belief that the Boudiccan revolt must have left some archaeological traces on its home ground.

The evidence that we have such traces here is not strong, but is highly suggestive; a site with substantial enclosing, although not defensive, ditches which were constructed and then expanded somewhere within the AD 40s, 50s and 60s comes to an end and almost all of the timber involved in its construction is deliberately removed. The very small number of surviving traces of posts suggests that the timbers were sufficiently unrotted to be removed without breaking, and therefore had not been in the ground for considerable lengths of time. A small number of pieces of Roman military metalwork were found. It is fundamentally unlikely that a site which might have defensive potential, and which must, because of the labour and resources invested in it, have been of the greatest importance to at least part of the community, would have remained untouched during the post-Boudiccan reprisals when 'any tribe that had wavered in its loyalty or had been hostile was ravaged with fire and sword' (Tacitus Annals XIV, 38–9 transl. Ireland 1986, 70). Under such circumstances it would be expected that the timberwork would be demolished, by a military or military-controlled labour force in order to level the site and to reduce its potential both as defensive structure and as a tribal focus. Such an operation would be expected soon after the suppression of the revolt.

Such a picture fits the evidence, not so closely as to arouse suspicion, but closely enough to inspire some confidence. Without the literary evidence for the revolt and retribution, the end of Phase III would be fixed, by reference to stratified artifacts, in the AD 60s or 70s. The evidence of Tacitus allows this to be refined, with some confidence, to the early 60s.

Phase IV

Pottery of this phase from the excavations was of third to fourth century date, but late Roman finds from metaldetecting might suggest a slightly earlier date for the beginning of Phase IV. The Roman coins show relatively, but perhaps not significantly, low levels from the Flavian to early Antonine period, with a resurgence in numismatic period VII (AD 161-180). Of the seven coins of AD 69-180, five were found in the concentration of finds immediately north of the west end of the Travenol warehouse, and the other two over the main excavated area. Roman coins of the third and fourth centuries, particularly of AD 260-374, were found either in the concentration referred to above, or over the excavated area. It is uncertain whether the Flavian to early Antonine finds were contemporary losses or, perhaps more likely, old coins still in use in the mid-Antonine period, or even in the mid third century AD, at one of which times the site in general was reoccupied, but with a focus to the southwest of the Phase II and III enclosures, below and just to the north of the Travenol warehouse.

Function

From its location, on the south end of the chalk ridge overlooking the river crossings at Thetford, the site has an immediate strategic importance, much further from the river than the tactically-sited earthworks of Thetford Castle, but dominating the river, and those earthworks, as well as standing astride north-to-south communications along the chalk. Its position equally gives it a wide aspect, with clear views on all sides, and, particularly, distant horizons to the south and west.

The environmental evidence suggests that this was equally true in the Iron Age and Roman period. The woodland which stood in the vicinity in the Late Neolithic/Early Bronze Age was cleared, perhaps as part of the expansion of farming early in the Iron Age onto the marginal sandy soils in Breckland. This led to podzolisation and erosion, allowing the formation of heathland, and it is in this sort of environment that we must see both the Iron Age and Roman uses of the site, an open waste with fine dramatic views, of little use for farming other than as marginal grazing land. Its far horizons would have been reciprocated, and any structures would also have been visible from considerable distances.

In such a position, the site is unlikely to have been involved in large-scale arable agriculture, and the evidence from Peter Murphy's environmental studies demonstrates that grain was generally imported in a semicleaned state, and that there was no processing of grain on site. Its need for grain must have been supplied by primary production sites elsewhere, probably in the river valleys to the south and west. The environmental evidence suggests that grazing would have been possible but the absence of preserved bone prevents this from being tested. Whether animal products were imported like the grain is uncertain.

Deposits of burnt plant material, largely consisting of heather, have been found on the site itself, and on the Gallows Hill turf-stack 300m to the south (Lawson and Le Hegerat 1986), all with radio-carbon dates in the late Roman period. The scatter of late Roman finds over the excavated area and the silver coin hoard from the Gallows Hill site (Green 1979) suggest the possibility that the area around the Phase IV nucleus, under the Travenol warehouse, was kept clear of vegetation. While the burning of heather might indicate attempts to manage grazing land efficiently, the quantities of third and fourth century finds suggests more intensive activity. This might equally be explained by manuring of the surface in an attempt to bring the heath back into cultivation, or to enhance its potential as pasture, or by the sheer volume of traffic around a regularly-visited location.

Had the site been concerned with intensive stock rearing, high phosphate levels would be expected. The ploughsoil survey demonstrates clearly that these do not occur in the area of Enclosure 1, but are restricted to areas to the west and north of the field, extending right to its limits. On the west side, indeed, the phosphate concentrations appear to respect the enclosure, implying that they were the result of activity contemporary with the enclosure's use, but prevented from impinging on it. The concentrations along the north edge of the field, where observation of the construction of the Thetford bypass revealed what is presumably a continuation of the occupation features excavated in 1980–2, indicate a further intensive use.

The area immediately west of the middle of the west side of Enclosure 1, curving around into the south-west corner of the field, yielded high levels both of phosphates and electro-magnetic susceptibility in the ploughsoil surveys which might indicate concentrations of human occupation. The same is true of an arc from the middle of the north side of that enclosure into the north-west corner of the field. But the fact that the high areas of magnetic susceptibility continue, to meet in the area of Enclosure 1, suggests that the two factors, phosphates and electromagnetic susceptibility, might be largely independent of each other, the phosphates relating to animals concentrated in paddocks or pens outside Enclosure 1b, and the magnetic susceptibility to intense heather burning in Phase IV. The truth is likely to be more complex than this and a combination of domestic activity of Phases III and IV, and possibly of earlier periods to the west and north of Enclosure 1, animal pens in a similar area, and a more general phenomenon of deliberated burning of vegetation in Phase IV is responsible. Under these circumstances, it

is clear that, at least in Phases II–IV the site was a consumer rather than a producer of cereals, and while the evidence for Phase I is less good, it is probably justifiable to extend this back to the beginning of the Iron Age use of the site; it was first founded on heathland, for reasons other than arable agriculture. The poor preservation of bone, with the large areas of land enclosed by ditches and gullies in Phases I–III would allow the suggestion that stock raising was the economic basis of the site, but as will be discussed below, alternative and more convincing functions can be put forward for many of the enclosures, suggesting that the site, throughout its Iron Age and Roman life, was not a prime producer of animal products either but was a consumer site in most of its aspects.

In Phases I-III, the Iron Age and Early Roman site, there is a distinct scarcity, not only of evidence for agricultural production, but for domestic occupation of any sort. The total weight of pottery from stratified deposits of Phases I-III was less than 37kg, a tiny total for two vears of excavation when compared with the 35kg of pottery from a single summer's excavation of an area of 250 square metres at the roughly contemporary site at Burgh, Suffolk (Martin 1988). Compared with this, finds of two categories were notably numerous, metalwork including brooches and coins, and fired clay loomweights. The former can be regarded as disproportionately represented because of the metal-detector recovery, or rather all previously excavated samples of material from late Iron Age-Early Roman sites should be considered as having grossly under-represented assemblages of metalwork because detectors were not used. In the case of the loomweights, however, it is difficult to see how any distortion of sampling has occurred.

It is not accurate to regard loomweights as 'domestic'. Since weaving is thought of as a female occupation there has been a tendency to regard it as domestic, whereas bronze-casting, which like weaving requires processed raw material and specialised plant and working conditions, is nevertheless regarded as a male-associated and therefore 'industrial' activity. The two processes should be regarded as analogous and the presence of loomweights as evidence for a weaving industry in Phase I and possibly also in II. Only one spindlewhorl was found, which suggests that much of the yarn arrived on the site, or on the excavated part of it, ready-spun, in the same way as grain arrived cleaned and copper alloys ready smelted. In this aspect too the site was a consumer.

A common characteristic of sites with intensive domestic occupation is the presence in feature fills of charcoal flecking and small fragments of burnt clay, the remains of fires disturbed and distributed across the occupied area. Here, they were uncommon, largely localised in hearths and in small pits which seem to have been used for the disposal of the remains of fires.

So if the domestic and agricultural functions are regarded as minimal, what was going on at Fison Way? Certain stages of industrial production undoubtedly, casting in investment moulds and pellet moulds, for the production of decorated metalwork and coin blanks, iron smithing on a small scale, the storage and grinding of wheat and barley, and the use of the sling for military, security, or hunting purposes. But these activities need a context; without the domestic occupation the site might appear to be an Iron Age/Early Roman industrial estate, little different from the modern development imme-

diately to its south.

A specific review of its structural history, phase by phase, is required to suggest such a context.

Phase I

Despite our incomplete knowledge of the structural aspects of Phase I, it is obvious that, unlike the two succeeding phases, it is not dominated by any single structure. The concentration of features in a strip from the middle of the excavated area in the south to the north-west corner, seems to be real, and not distorted by sampling. Insofar as the Iron Age phase can be subdivided, we have features of Phase Ia, from perhaps as early as the fourth century to the first century BC, in the south part of the site. Within this early subphase, several successive stages can be discerned, with the D-shaped Enclosure 6 and the rectangular Enclosure 9 both followed by the apparent track and partial enclosure, Ditch system 2, which is earlier in date than the final form of the horseshoe-shaped Enclosure 2 with a central grave-like feature. This latter enclosure also post-dates Enclosure 28 and Pit 2640 which in their turn are later than the deposition of a large quantity of metallurgical debris associated with the manufacture of decorated objects of copper alloy. Enclosure 20 to the south and the storage pit 131 cannot be related to this sequence. It is quite possible that Phase Ia consists of no more than a single enclosure and associated features being relocated at various times. It is also possible that Enclosure 2, with its putatively funerary significance acted as a focus for planning, and lasted in use for a considerable period. Thus in its original, horseshoeshaped plan it was respected in the laying out of Enclosure 9, and still recognised when Ditch system 2 was dug, partially enclosing it. At a later date the west side of Enclosure 2 was extended northwards, after Ditch 725 in Ditch system 2 had gone out of use. In this model Enclosure 6 might be contemporary either with the original version of Enclosure 2 or with Enclosure 9. The functions of all are quite uncertain.

In the north-west corner of the excavated area, Pit Group 2 is shown as belonging to Phase la. The author must confess to being most uneasy about this attribution. It is based on the predominance of gritty fabrics in one of the pits, 1749, which is something of an outlier, but smaller quantities of similar pottery also occur in other pits. Since the two pit groups, 1 and 2 are so similar, and so close together, it would seem more likely that they are contemporary. The outlying nature of Pit Group 2 in relationship to other known Phase la features emphasises this. The answer perhaps is that Group 2 belongs to the end of Phase la and was replaced in Phase lb, soon afterwards, by Group 1. This is easier to accept if both groups share a common function, perhaps containing free-standing posts, although an alternative use simply as open pits, in a sort of nucleated version of the pit alignments known on gravel sites, is worthy of consideration.

In Phase 1b the emphasis shifts to the north of the excavated area, with a strong suggestion of more lying undiscovered to the north. Two enclosures, 7a and 10, of which at least the former is considerably larger than any in Phase 1a, conform to a single alignment, with perhaps a wide roadway between them. Pit Group I, outside the north-west corner of Enclosure 7 could be seen as lying within a block of land partly defined by two ditches running off its west side. With its succession of ditches, 7a

clearly had a comparatively long life, although in the prevailing conditions on the site, impoverished soil, heathland vegetation and soft sand subsoil, ditches would have filled in quickly if not regularly cleaned out. Since its final form runs into Phase II, Enclosure 7 can clearly be seen as running down to the end of Phase I, and must therefore have contained Ring-ditch 2a, which also had a second version in Phase II. Other small features at the north side of Enclosure 7 might belong to it. To the south-east, Ditch 4876, with its deposit of crucibles and investment moulds is clearly of Phase I but cannot be assigned to a subphase.

There are marked contrasts between la and lb: la has a relatively long stratigraphic sequence, while lb, for all the complexity of Enclosure 7, could be seen as a single event. The earlier subphase is devoid of any obvious signs of planning, which is hinted at in lb, with the alignment of the two enclosures. Enclosure 7, furthermore, is far larger than anything in la, and it is possible to postulate a gradual increase in enclosure size through la, lb, II and III.

Phase 1a and 1b, an alternative model

A word of caution is required on the subdivision of Phase I, on which the above is based. While the spatial separation of those features in which gritty fabrics predominate from those where sandy fabrics are most common can be taken as confirmation of the chronological separation, through settlement movement, it could equally be used to support other interpretations. Pottery forms and fabrics vary not only with time but also with function and status. In the recent past the pottery assemblage on a peasant small-holding had significant differences from that in use in an upper-class town house. While the two would share some forms and fabrics, others would be unique to the particular requirements of the establishment. Those forms and fabrics in common would vary in their relative proportions. These differences would be the results of several factors: the economic, what could be afforded; the functional, what was required; and the social, what was expected. Where two such assemblages overlap in time, but are not co-terminous, another factor is brought into play. Where there is no independent dating and the function and status of the two assemblages are uncertain, interpretation is even more difficult.

Let us assume, for the sake of argument, that there are functional distinctions across the area occupied in Phase I. There is a hint of this in the location of the two areas of metal-working debris, Enclosure 28 and Ditch 4876, in the south. Add to this the concentration of pottery assemblages dominated by gritty fabrics from Enclosure 6 southwards, and those with sandy fabrics to the north, and the marked difference between the relatively simple, and probably larger enclosures in the sandy area, and the complex pattern of smaller more fragmented enclosures to the south and here we have a strong case for functional differences.

The fact that there are early traits present in the gritty Iron Age pottery which are absent from the sandy (always assuming that these traits have been correctly identified as early on other sites and that chronological and functional distinctions have not been confused there), simply adds another thread to the argument. The settlement history, as revealed by the excavated sample, might begin with 'gritty' activities in the south, which continue to the end of the Iron Age; at a late stage they are joined by 'sandy' activities in the north.

To overlap 'Phase' la with lb in this way helps to explain the similarities in alignment for example between the east side of Enclosure 7 and the track in Ditch system 2, and the way that it and 1374 could be seen as dependent on the south side of Enclosure 7. While there is no difficulty in seeing this sort of continuity of alignment even on a purely chronological model, with obsolete land-divisions continuing to be visible in the form of partly-filled ditches, hedges and banks, the overlapping of subphases provides an explanation that is, in some ways, simpler.

No matter which model is used the function of the site in Phase I is not clear. On the face of it, it would be taken as a domestic site, farming and pursuing industries including metal-working and weaving. But in the absence of good domestic evidence the answer is far from clear. The ring-ditch within Enclosure 7 and the strange pit groups are indicators that something out of the way was happening on the site, but it is not clear how far the conclusions reached below, with regard to Phases II and III, can be applied to I.

Phase II

Bearing in mind the cautions expressed above, that some of the features apparently dating to an early stage in Phase II may in reality be Phase I, levelled off at a later date, we can distinguish two broad subdivisions in Phase II, Enclosure la with its attendant landscape, and its predecessors.

Mostly clearly predating Enclosure la is the final version of Enclosure 7, perhaps with Ring-ditch 2b within it. Enclosure 7b is cut by a long gully 835/1107 which also predates Enclosure la. None of the other Early Roman features in the north part of the excavated area need be of this stage, and many of them are stratigraphically later than Enclosure 7b. The east side of Enclosure 13c is parallel to the west side of Enclosure la and the two might therefore be contemporary. However, 13c was cut by Ditch 570, which in turn was earlier than Enclosure 26. Other ditches which appear to conform to a planned rectilinear layout, grouped with 570 as Ditch system 1, also post-date 13c, and the whole must be earlier than Enclosure 26, and concomitantly, than la.

Even allowing for some of the features in the Enclosure 13 complex being in reality of Phase I, but given a place spuriously in II by later levelling, there is still a frantic burst of activity in the early stages of Phase II in the south-west corner of the site. This saw the construction, successively, of Enclosures 13a, 13b, Track 3, Enclosure 13c, Ditch 2292, Enclosure 17 and Ditch System 1, all before Enclosure 26.

Now the plan of Enclosure 26, and its relationship to the fence trenches of Enclosure 1b indicate that its construction and use should be contemporary with the use, if not the construction, of Enclosure la. It appears to respect la, and a band around the outer lip of that enclosure's outer ditch. That same band is respected by Enclosure 4, but not by ring-ditches 2b and 3, which nevertheless respect the north edge of the outer ditch, or are respected by it. This would allow the following sequence: Enclosure la is constructed, along with Ringditches 2b (which may already have existed in Enclosure 7b) and 3, at some point in the Enclosure 13-Ditch system 1 sequence, possibly at about the same time as Enclosure 13c. A little later, an external bank, possibly from ditch-cleaning, is added, partly covering the two ring ditches, and Enclosures 2 and 26 are later than this. Ringditch 4 follows Enclosure 4. The enclosures around the north side of Enclosure 1a, 8, 14, 23, 24, 27 and Ringditches 5, 6 and 7, probably belong with 1a and appeared at some stage during this process. This is expressed diagrammatically as Fig. 151, which represents the hypothesis of best fit.

This effectively shortens the sequence which needs to be fitted into Phase II, and it is shortened still further by the attribution of an unknown number of its earliest stages to Phase I. But even so there is a great deal of activity here which needs to be fitted in to the late AD 40s and early 50s, to still leave room for Enclosure 1b before AD 60. The picture of relatively frantic activity still holds good, with what would appear to be almost constant work somewhere on the site. If there were a total of ten or a dozen stages of work involved, this would mean perhaps one modification a year. Some of these modifications were major, the construction of Enclosure 1a for example, and would have required a large labour force in order to complete them in a reasonable period, while others would



Fig. 151 Suggested structural sequence within Phase II



Fig. 152 Suggested reconstruction of Building 2

involve the destruction of earlier features which may have been only a year, or months old. This is not a picture of leisurely evolution, but of an organised programme of work, which would require some firm central control and direction.

To a certain extent, this picture of frenzy depends on the acceptance of the short time scale dictated by the hypothesis that the site went out of use in the aftermath of the Boudiccan revolt. Even if this is rejected, the pottery evidence still demands that the end of Phase II should come within a further twenty years, and a picture of intense, if not frenzied, activity still applies.

Central to the understanding of Phase II is Enclosure la, a large, roughly square enclosure which appears to have been constructed primarily to contain a single circular building. There is likely to have been a bank between its two ditches, and presumably one within its inner ditch too, although no structural evidence survives. The bank which is suggested by the gully 618 must have been very different from the classic hill-fort rampart, and while the outer entrance had substantial posts, it does not appear to be a strongly defensive structure in the hill-fort tradition, more likely an impressive timber structure of the Western Ranch style. The ditches and their attendant structures were probably intended to contain and define rather than to defend. The contained area, 75m x 65m, or substantially less when allowance is made for an internal bank, focused on Building 2a, which was clearly integral to the plan of the enclosure, with its doorway aligned on the entrance.

The reconstruction drawing of Building 2 (Fig. 152) was executed by Piers Millington-Wallace who had worked on the excavation in a supervisory capacity, but whose experience of Iron Age circular buildings and their reconstruction was limited. In producing this reconstruction he was working very much from first principles, with few archaeological preconceptions. It is therefore particularly interesting, for reasons which will become clear later, than he and the author arrived independently at the same conclusion, that the post-holes of the inner ring contained timbers far larger than those which would be required to support the roof of a conventional round house. Posts 0.4m to 0.55m in diameter would be capable of bearing a considerable load, and furthermore timbers of this size are likely to have come from longer trunks. It is therefore suggested that the central part of the building was two-storied, a small tower some 6m in diameter, with the outer ring effectively supporting a lean-to roof. The four features on the edges of the eaves drip gully, set out on two diameters perpendicular to each other, are shown on the reconstruction as relieving members, taking some thrust from the roof. They might equally be seen as buttresses to the wall, but their regularity of planning suggests perhaps that they were conspicuous and of major structural significance. This need not, of course preclude them from being secondary to the original construction,



Plate LVIII Reconstruction of the site in Phase II on a late spring day, seen from the north-east

to correct a structural miscalculation, and perhaps they would fit best with the Phase III modification, to counter some instability caused by piercing the wall for the new west door. If the reconstruction is correct in using these four slots for outriggers along the roof line, then the apex of the roof must have been at least 8m high to achieve the minimum 50° rake of thatching (Fearn 1976, 9).

The enclosures to the north and north-west of Enclosure la in Phase II appear to belong with it, and there are relatively few sequences. The ditch of Enclosure 23 was the source of the Phase II metalworking debris, indicating, unusually, that the manufacture of decorated copper alloy objects and of silver coins was going on side by side. It is likely that this was contemporary with and just outside Enclosure la. The importance of the discovery of the pellet moulds is that, despite some controversy, they can reasonably be identified as the remains of an Iron Age-style mint, and there seems no reason to regard this collection as residual from Phase I. Thus we have confirmation of what in the past has been confident supposition, that the production of Icenian silver coinage continued into the client kingdoms. The analytical results suggest that both the copper alloy casting and the coining used raw materials brought from elsewhere, thus separating what today we might see as high status craft activities from lower status industry.

The other enclosures, however, are very different. They and the ring-ditches almost all contain 'graves'. In the absence of human bone it is difficult to be dogmatic about the identification of the rectangular, straight-sided, flat-bottomed, roughly body-sized features. But enough of the fills sampled had enhanced phosphate levels localised at the base of the features, and the features were sufficiently clustered both spatially and in their dimensions, to allow this interpretation to be advanced with some confidence. All seem to have been unaccompanied inhumations. That cremations were absent is no surprise, since the rite of cremation in the late Iron Age is confined to the Belgic triangle, from south Suffolk to Cambridgeshire and down to North Kent (Whimster 1981, fig. 52). The Roman introduction of cremation, as part of social Romanisation, need not have made any impact in client kingdoms in the first few years after AD 43. Given the generally localised nature of Iron Age burial as described by Whimster, we may here have a distinctive tradition in north East Anglia, which would certainly account for the dearth of Iron Age burials previously recognised from the region, and for some of the many undated human remains reported to Norfolk archaeologists every year.

It is instructive that the graves are of varied orientation, but often in groups of similar alignment, and in enclosures of varying sizes, from the small circular or subsquare ring-ditches to the much larger rectilinear Enclosure 16. There is no reason to assign most of them to any other phase but II, and it appears that there were about sixty burials of Phase II in the area to the west and north of Enclosure 1a. Several of them share their enclosures with timber structures, and invariably the timber structures are separated from, or surrounded by, the graves. In no cases in Phase II did the structures contain below-ground burials. They range from the rectilinear post-hole structure 12 in Enclosure 27 to the circular 'buildings' within 8 and 14, via the curving post-built screen-like structure in Enclosure 17. 'Ring-ditch' 5, with its flimsy defining feature might be a structure of this type and so be an exception to the general rule. Not surprisingly, being smaller, the ring-ditches contained many fewer burials, one or two as a rule, while the enclosures might contain as many as nineteen. The variation in burial practice revealed is surprisingly wide.

To the south of Enclosure la, and probably built relatively late in its life, was Enclosure 26, conceived on a similar scale to la itself, defined by ditches more like those of the large enclosure than any previous one on the site, and also having an entrance to the east. The whole of the south part of the excavated area in Phase II is devoid of burials, and here there is clear evidence of area specialisation. Like la, Enclosure 26 seems to have contained a great deal of open space, and the only feature which seems likely to have been contemporary with it is the hollow 2442. Instinctively, the author favours the steambath interpretation for the soot and pot-boilers found in the hollow, although this would entail the water being brought to the spot in containers, and the stones heated in fires whose precise location cannot be traced. The pits within the hollow would, under this interpretation, be primarily for the disposal of soot and burnt stones. Given the apparent similarities between Enclosures la and 26, it is likely that they were closely related in function and that the activities within 26 served la in some way.

Phase III

It is not the desire for suspense which prompts us to move on at this point, but the need to consider the Enclosure 1 complex as a whole, and not to fragment the discussion by interpreting each of its phases entirely independently. The massive expansion of Enclosure la to 1b, late in the AD 50s if the short, historical chronology is accepted, swept away most, if not all, of the extramural features of Phase II. A few, such as Enclosure 27 and Ring-ditches 6 and 7, might have survived, by virtue of being outside the newly-enlarged enclosure, or may have been first constructed in this phase, but the general picture is much more of Enclosure 1b standing in splendid isolation as opposed to its predecessor surrounded by funerary satellites. It would have been useful in this regard to have excavated a much wider strip beyond the outer ditch, but the 5ha stripped seemed more than enough at the time.

As in la, the interior of Enclosure lb contained a great deal of open space. Even allowing for the bank, an extended version of that which stood between the inner and outer ditches of la, and which now stood on the inner lip of the inner ditch, the vast majority of the enclosed area must have been empty. This would have been a stark contrast with the massed fences, up to nine deep, filling the space between the new inner and outer ditches. To call them 'fences' gives a specific impression, of uprights joined by horizontals, and despite the very close spacing suggested, from 0.25m to 0.5m, this is how they were first envisaged. It was the suggestion of Graham Webster that first raised a different prospect, what he called 'an artificial oak grove'. This was made at such an early stage of the excavation that it seems a vast leap of reasoning, but one which has grown in credibility as the excavation and the later consideration of the site progressed. It is a tribute to his insight that he saw in minutes what it took the excavator years to accept. It is most convincing when seen in the context of the enclosure as a whole.

The new, enlarged structure contained not one, but



Fig. 153 Suggested reconstruction of Phase III entrance, seen from the east

five circular structures. The original Building 2 of Phase II, modified by the addition of a west door, was accompanied by similar, double-doored buildings to north and to south. These two were less massively constructed than Building 2, and were perhaps more conventional and single-storied. Their conventionality was more than compensated for by the two strange structures, Buildings 4 and 5 almost certainly of Phase III, and probably contemporary with Buildings 1 and 3, but very much unlike them; perhaps not buildings so much as circular walled precincts with walks through them toward the circular buildings behind. A space of some 80m separates the area of buildings from the entrance into the enclosure, towards which all five buildings more or less face. The approach to the enclosure from the east was not investigated, but as a visitor passed through the outer entrance he would have found himself in a corridor, lined by vertical timbers of some description. This led to a massive gateway, probably an array of four large posts marking, but not blocking, the entrance through the bank into the central court, with the buildings beyond.

This is the structure which marks the culmination of the development of the site. Through Phases II and III the site was increasingly dominated by a single enclosure, perhaps starting in Phase I as Enclosure 7 and ending as Enclosure 1b. Other activities apparently decreased in importance so that in the latter stages of Phase II the site was largely devoted to the enclosure and to its satellite burials, and in Phase III even they disappeared, with the possible exception of two equivocal features within Building 4.

Suddenly, after an apparently short life, Enclosure lb came to an end, was dismantled and the site saw a hiatus until later Roman use, perhaps 200 years later, centred on the low knoll just to the south-west and below the Travenol warehouse. The great gold and silver Treasure, supported by the peak of coins in AD 364–378 (Davies and Gregory 1991), indicate the existence of a late Roman temple site, and this late Roman site, under the Travenol warehouse, is surely no more than a successor to the late Iron Age and early Roman enclosure to its northeast.

The apparently 'high status' activities in Phases I and II, minting and the manufacture of decorated metalwork, together with the extraordinary investment of resources involved in the construction of the Phase III enclosure, led to an initial hypothesis of a tribal centre for the client kingdom, the 'Boudicca's Palace' theory. But



the absence of domestic activity and the scarcity of imported luxury goods, particularly the absence of amphorae soon rendered this untenable. Nevertheless, its status as a tribal centre is still valid, with a largely ceremonial or religious site providing the context for the metalworking and coining in Phase II. By Phase III the ceremonial had swamped all else. The Phase II burials were perhaps attracted to the great ceremonial centre like the graves of kings to Westminster Abbey. And it was almost a shock, after the completion of the two-storied reconstruction drawing of Building 2, to realise that the result was, to all intents and purposes, a timber version of a Romano-Celtic temple.

The absence of large numbers of votive objects is perhaps an argument against interpreting the site in this way. The copper-alloy oak leaf from Enclosure 17 (Fig. 117, No. 21) is perhaps one such, but unless the large number of brooches is to be interpreted as the result of votive offerings, then there is no other good evidence. However, the importance of votives on temple sites should not be over-exaggerated. Since their presence in surface collections, or collections without good structural associations, is often used to interpret sites as temples, particularly in the Roman period, there are a large number of Romano-British temple sites devoid of votives. Of the six certain Norfolk temples, two at Hockwold (Gurney 1986a, 49-92) three at Caistor and one at Crownthorpe (Gurney 1986b), only the two former produced votive objects, the others being recognised entirely by their structural remains. Iron Age religious sites are normally recognised by their continuous use into the Roman period, when clear structural remains or the numbers of votive objects suggest such an interpretation. Under such circumstances the absence of votives is little reason for disqualifying the Fison Way enclosure.

The best parallel is the Iron Age phase at Hayling Island, Hants. (Downey, King and Joffe 1980) where a circular building, 10m in diameter, stood within an enclosure roughly 20m square. Here there were large numbers of Iron Age objects, leaving little doubt about its interpretation as a shrine, and its similarity to Phase II of the Fison Way site.

The evidence for Celtic religious practices in clearings and also associated with rectangular enclosures is familiar and needs no rehearsal here (Ross 1970, 178-183). Less familiar is its association with house-like buildings, but there are parallels, such as Ivy Chimneys, Witham, Essex (Turner 1982, 5 and fig. 7) where a Romano-Celtic temple of the late third to early fourth century overlay an Iron Age circular building which was separated by some distance from the neighbouring Iron Age settlement area, and seems very likely to have been a temple. Interesting too at that site is the location of a pottery kiln within the temenos, and very close to the temple building in the late third-early fourth century. This close association of religion and industry is reminiscent of the situation at Fison Way, and starts the thought that the production of Roman pottery at Ivy Chimneys and of coins and decorated metalwork at Fison Way was not a solely economic concern, and that these activities might have been within the sphere of influence of religious establishments, not simply to make money or to supply the requirements of the rituals, of temple staff and of visitors, but because the very activity had some religious or ceremonial significance.

A similar association of an Iron Age circular building with Roman religious activity can be seen at Maiden Castle (Wheeler 1943, 124–7 and 135) where a circular building was rebuilt in the fourth century AD; finds from that building included a copper alloy statue base and the base of a statue of Diana and a hound in Italian marble. These, together with the location of the Romano-Celtic temple some 10m to the north-east (where incidentally there was a predominance of coins of AD 364–378), suggest a late Roman religious use. At Frilford, Berks., a penannular ditched enclosure surrounding a six-post wooden structure was replaced by a circular Roman temple (Cunliffe 1974, 296).

The association of Celtic religious practices with rectangular enclosures is well-known, but not all rectangular enclosures are the sites of Iron Age temples. The range of rectangular, often multi-ditched, crop-marks in Essex is wide, with sites such as Rainham, Orsett Cock, Mucking and Hadleigh (Priddy and Buckley 1987, figs 38 and 41, 63 and 66) for which no convincing religious function could be argued, but which morphologically are related to Fison Way. Amongst them, however, are two multiple enclosures which are certainly associated with Romano-Celtic temples, Great Chesterford, where the precinct wall within the enclosure ditches replaced a palisade (Priddy and Buckley 1987, 64, and Priddy 1986) and Gosbecks, Colchester.

It is appropriate, indeed it is ironically so, that we should return to discuss the Gosbecks site here, after it proved to be an initial red herring (p. 1). Having first been self-deceived into identifying the Fison Way site as a Romano-Celtic temple establishment by comparison with Gosbecks, it is entirely appropriate that the writer should reverse the process. The Gosbecks temple (Hull 1958, 261-267) stood in the corner of a square enclosure, 51m across, defined by a massive V-profiled ditch far larger than any of those of our Enclosure 1. While the form of the temple and finds of third and fourth century coins indicate that the Romano-Celtic temple was of the familiar late Roman date, a coin of Cunobelin and a jar of mid-late first century AD type in the lowest fill of the ditch suggest that the enclosure began life, like ours, some two centuries earlier. That its function then should also have been religious is a reasonable supposition. Beyond the ditch were three parallel walls, referred to in the literature as a 'portico' and presumably envisaged as a walled walk-way around the outer limits of the inner temenos. No-one has yet explained why a portico should require three walls. Are they rather a cognate of the Phase III fences? Are we seeing here a translation of a Celtic idea, seen in its original form at Fison Way, into a Romano-British form?

The grove-like aspect of Fison Way, surrounded by close-spaced vertical timbers, perhaps with branches left on them to enhance the impression, would fit well with the later worship of Faunus, a woodland deity, evidenced by the Thetford Treasure. Within the inner ditch the great open space in front of the buildings would be the equivalent of a clearing in the forest. Such measures would be the only way of achieving a clearing in the forest on the Breckland heights.

A site of such size and with religious and ceremonial significance would be a prime target for the post-Boudiccan measures. Demolition of the wooden structures, with timber perhaps recycled into military stores would remove a potential focus for renewed insurrection. The small numbers of Roman military fittings found on the site might well have been lost from the equipment of troops supervising or carrying out the demolition. The alternative explanation, that they were being recycled in the metalworking industry, is less attractive, in the absence of large quantities of obvious scrap metal. Copper alloy for decorated metalwork was perhaps brought onto the site in the form of small ingots (Fig. 118, Nos 43 and 44). The rogue high phosphate levels together with remains of fodder found in the post-holes of Building 2 clearly belong to this demolition, and by their sheer contrast with the cleaned grain and low phosphates of other deposits underline how the end of Enclosure 1 must have differed from its use.

It now remains to put the site in some proper regional context: our knowledge of site distribution and even basic material culture in the late Iron Age and client kingdom period in northern East Anglia is still poor, and until the pottery from Romano-British sites has been extensively and closely studied for possible occurrences of pre-Flavian material, it is difficult to see Fison Way against an early-to mid-first century landscape. In the absence of other likely religious sites of the period it is difficult to draw structural parallels, but at least some indication of the distribution of Icenian activity can be assessed from the Icenian coins, which seem to have been in circulation in the critical period, c. AD 10 to c. AD 60.

There is a clear concentration of coins (Fig. 154), both Icenian and coins of the Trinovantes/Catuvellauni on the fringes of a block of Grade 4 and 5 land which constitutes Breckland (Ministry of Agriculture, Fisheries and Food 1972) and along its principal river valley, that of the Thet and Little Ouse, while the Breckland heath proper is almost devoid of them. The south edge of the Breckland soils, with the gold coin hoard at Freckenham, appears to mark the south limit of the main spread of coins, with predominantly Catuvellaunian/Trinovantian coins to the south and south-west, but Iceni coins on the Fen islands, at Soham, Chatteris, Stonea and March. In north-central Suffolk Icenian coins predominate, with very few Iron Age coins of any sort in the north-east until Covehithe, but a good number from the major Roman sites at Coddenham and Hacheston and their surroundings, on the rivers Deben and Orwell. This distribution led Edward Martin (1988, fig. 60) to suggest a southern boundary for the Iceni along the watershed between the Stour-Orwell-Deben river system to the south and the Lark-Little Ouse-Waveney system to the north, a line roughly east to west through the middle of Suffolk.

Martin's boundary runs through a zone where Iron Age coin finds are relatively scarce, with areas of relatively large numbers of coins to the north, around south Breckland and along the Thet-Little Ouse valley and to the south around Coddenham and Hacheston. This might imply a relatively unpopulated or coin-deficient 'frontier zone' with evidence for the strongest trading contacts immediately beyond that zone. It is then significant that these two concentrations of coins each contain relatively large numbers of coins from the other side of the frontier zone. This would place the Fison Way site in or just behind the area of first contact between the Iceni and their southern neighbours.

An alternative model would be that the watershed would be unlikely to be densely settled, and therefore have few coins anyway, for physical reasons, and that the frontier would be represented by the area where Icenian and Catuvellaunian/Trinovantian coins are most closely associated, a north-west-to-south-west band from south Breckland to the Coddenham/Hacheston area, not conforming strictly to geographically deterministic factors as Martin's model. This would place the Fison Way site much closer to the frontier.

There is a striking concentration of coin hoards in the area of Breckland and the Fens. With the exception of Freckenham, these are all attributable to the end of the coin series, and so presumably to the circumstances surrounding and after the revolt of AD 60. The Chatteris, March and Stonea hoards can easily be seen as coins concealed on refuges on the Fen islands, perhaps in the months immediately after the revolt, when large numbers of refugees might have fled to these inaccessible spots. This is less likely in Breckland, where the hoards are rather in an area rich in single finds, and with coins from



Fig. 154 Scale 1:5,000,000



Fig. 155 Scale 1:5,000,000

outside the area indicating a much more 'normal' occupation and trading pattern. These hoards then are perhaps those of individuals or local representatives of tribal authority concealing wealth in one of the more densely inhabited parts of the Icenian tribal area. This would place the Fison Way site in the tribal nucleus.

The general picture, as Edward Martin pointed out, is further confirmed by the distribution of decorated metalwork (Fig. 155), in this case mainly horse-gear with enamelled or moulded decoration, from a short while before the Roman conquest, and presumably continuing in use, and possibly in manufacture, for some time after it. Here the area of the Deben and Orwell valleys is less well represented and it is Martin's east-to-west line, rather than the present writer's north-west to south-east line that forms a convincing boundary to the area of the finds. Thus we have a discrete area, suggested by the distribution of coins and confirmed by that of decorated metalwork of finds which can be regarded as having a close connection with the Iceni. One of the richest areas in these finds is the edge of Breckland, and the valley running throughout it, and overlooking this valley stands the site at Fison Way. Of the sites in the Icenian area which produce moulds for coin blanks (Fison Way, Woodcock Hall, Saham Toney and Needham) the two former are in this same area.

What this concentration of finds means is open to dispute: whether it represents a centre of population or an area where the recycling system for metal was less efficient is uncertain. But if it does have any significance as an Icenian focus, then the presence at its heart of a great religious site, located on high ground above the valley is easy to understand.
Appendix

The Iron Age harness mount and the Roman gold finger ring

In 1983 the writer was shown an Iron Age copper alloy harness mount, said at the time to have been found near Brettenham, about 6km from the Fison Way site, and in the vicinity of a known Roman site. It was returned, temporarily as it was then thought, to the finder, with the understanding that Norfolk Museums Service would attempt to acquire the piece. However it was subsequently sold into the antiquities trade and never seen again by Norfolk archaeologists. It had not been drawn, measured or photographed.

A little later the present writer acquired a photograph of the piece together with a photograph of a gold finger ring, with the information that both had been found on the Fison Way site in the months after the excavation was completed. This information seems to be reliable, and Fison Way should be regarded as the most likely provenance for the finds.

In the absence of any other records, prints from copy negatives of the two are published here, together with a drawing of the harness mount, made from the original photograph, but without any reliable scale.

The harness mount

(Pl. LX, Fig. 156)

A flat copper alloy plate with the remains of a single stud projecting to the rear. The plate takes the form of a central circle surrounded by four quarter circles. The central circle, and a smaller one within it filled with red enamel, are both defined by pairs of grooves on either side of a zone of short notches, while four cells of red enamel define a reserved zone of the same shape as the plate, but running in the opposite direction.

Each arm of the main plate is ornamented with a pair of linked lobes, with a red enamel circle at their junction, and defined on two sides by cells filled with red enamel. All these reserved zones and the central red enamel circle are defined by fine lines.

This piece was said to have been found immediately west of the excavated area, close to the south-west corner.



Pl. LXThe Iron Age harness mount



Fig. 156 Iron Age copper alloy harness mount, scale uncertain (see Appendix)

Finger ring (Pl. LXI) A gold finger ring with openwork on either side of the bezel, which contains a single garnet. It was said to have been found in the area of Late Roman finds north of the west end of the Travenol warehouse, and there is no suggestion that it was ever part of the Thetford Treasure.



Pl. LXIThe Roman gold finger ring

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