WETWANG SLACK:

An Iron Age cemetery on the Yorkshire Wolds.

by

John Strickland Dent.

A thesis presented for the degree of

Master of Philosophy

at the University of Sheffield

January 1984.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF PLATES

LIST OF TABLES

ACKNOWLEDGEMENTS

A list of those who contributed to the excavation of Wetwang Slack cemetery and the post-excavation work which followed would indeed be long. The principle participants at the excavation stage were Humberside Joint Archaeological Committee which administered the work (in particular Dr. Ian Stead its Chairman and Chris Knowles its Secretary) and the digging team. The make up of the latter changed from time to time, but the long serving members were Glyn Storry, Jean Dawes, Ken Turnbull, Mark Savage, Henry Owen-John, Phil Voice, Roger Simpson and Jim Ronay.

Finds from the graves were conserved by members of the Conservation Laboratories of York Archaeological Trust and the Inspectorate of Ancient Monuments and Jim Spriggs and Glynis Edwards had prominent roles at this stage. The vast collection of human skeletal material was treated by Jean Dawes, who at times found herself living in what amounted to an ossuary, and animal bones were examined by Sally Scott. Non-ferrous grave goods, with the exception of the pottery, were drawn by Sheena Howarth.

The staff of W. Clifford Watts (Landlimes) Limited have been helpful throughout the long excavations, in particular Jack Warcup, Mick Ward and Shane Kennington.

In the business of writing, I owe much to Ian Stead, who was a useful moderating force behind my earlier publications, and to John Collis for guidance in the compilation of the present work.

My knowledge of the archaeology of Eastern Yorkshire owes much to conversations with Tony Brewster, the late Cecil Grantham, Eric Grantham, Terry Manby and Herman Ramm, while for useful advice and information about the broader background of the European Iron Age I am indebted to Professor Christopher Hawkes and Professor Roy Hodson.

No study of the Wetwang Slack cemetery would have been possible without the recovery of the information by the excavation staff, and of these Glyn Storry deserves a special mention. His quietly efficient method of excavating graves and cleaning skeletons to a superb standard made it possible for large numbers of burials to be examined in the very short time available for their recovery. In spite of unavoidable gaps it would not have been possible to compile the archive to its present degree of fullness without his services throughout the period of excavations.

SUMMARY

This work is an examination of a large Iron Age cemetery which was excavated by the writer at Wetwang Slack on the Yorkshire Wolds between 1975 and 1979.

The chief features which make this site exceptional are the large number of inhumation burials involved (446), the unusually good stratigraphical evidence for the relative chronology of the cemetery, and the extensive remains of the contemporary settlement which the cemetery served.

In an introduction British Iron Age studies and the extent of archaeological research in the region are summarised to indicate the extent of knowledge at the time when excavations were underway.

Part 1 describes the circumstances of excavation and the location of the site, isolates the ditched enclosures and graves which were the principle constituents of the cemetery, and details the types of burial which were encountered.

In Part 2 the evidence for a relative chronology of the cemetery is considered at length and from the stratification, the artifacts, and some changing characteristics recognisable among the burials and enclosures different chronological horizons can be recognised. Unlike artifacts found on settlement sites those found in graves can reasonably be assumed to have been in use up until the time of their burial. For this reason the cemetery provides a much needed guide to the relative date of artifacts, many of which are types with a widespread distribution.

The skeletal evidence is examined in Part 3 for evidence of physical type, disease etc. and the data is searched for signs of social organisation.

The settlement evidence in the form of buildings, land boundaries and trackways is described in Part 4 and the inter-relationship of burials and settlement is examined.

Finally, the cultural affinities of the whole complex with the East Yorkshire "Arras Culture" and other traditions of Iron Age Britain are sought and an interpretation is given which identifies population growth as a principle underlying cause of changes which took place in society, settlement patterns and economy in the region during the Iron Age.

ABBREVIATIONS

Ant. J.	Antiquaries Journal
Archaeol. Camb.	Archaeologia Cambrensis
A.E. 1965, etc.	Excavations Annual Report (1968 onwards Archaeological Excavations) Ministry of Public Building and Works (1970 onwards Department of the Environment)
Arch. Journ.	Archaeological Journal
B.M.	British Museum 1905. A Guide to the Antiquities of the Early Iron Age, 1st Ed., 1905
Bull. Inst. Arch. London	Bulletin of Institute of Archaeology of London
Cornish Arch.	Cornish Archaeology
Current Arch.	Current Archaeology
Derbys. Arch. J.	Derbyshire Archaeological Journal
Proc. Prehist. Soc.	Proceedings of the Prehistoric Society
Proc. Soc. Ant. London	Proceedings of the Society Antiquaries of London
Ulster Journ. Arch.	Ulster Journal of Archaeology
World Arch.	World Archaeology
Yorks. Arch. Journ.	Yorkshire Archaeological Journal

Plate 1. A typical crouched inhumation from Wetwang Slack (burial 342).

Plate 2. Aerial view of the eastern part of the cemetery undergoing excavation in August 1975.

(Photos: author)

INTRODUCTION

The Iron Age cemetery at Wetwang Slack on the Yorkshire Wolds was excavated between 1975 and 1979 and elements of the contemporary settlement were still being recorded as recently as August, 1983. Although these excavations had their origin in an urgent need to meet the threat to prehistoric material posed by commercial gravel extraction, their continuation over the years was justified by a realisation that here was a rare opportunity to study a large area of ancient landscape virtually down to the last post hole.

When the excavation of the cemetery began Iron Age studies were enjoying something of a revival. The 1958 conference entitled "Problems of the Iron Age in Britain" had seen the formal exposition of C.F.C. Hawkes "The A.B.C. of the British Iron Age" (Hawkes 1959) in which a series of successive invasions (Hallstatt, La Tène, Belgic) formed the basis of an historically orientated classification. This had provoked F.R. Hodson's reply in which he ultimately formulated a classification based upon the cultural interpretation of archaeological material in the manner recommended by V.G. Childe (Hodson 1964,b). Little followed for a decade, until in 1974 two general textbooks were published by D.W. Harding, who followed Hawke's classification and B. Cunliffe who inclined more towards Hodson's approach. While these were both useful collections of material they failed to satisfy students of the New Archaeology who saw neither the historical approach nor the concept of culture as the whole answer to Iron Age problems.

Hawkes' and Hodson's schemes were the only formal attempts to classify British Iron Age material in the tradition of Reinecke (1909/1965) and Dechelette (1914). The reception which both received may have discouraged scholars who in later years committed themselves only to loosely structured suggestions of how the period should be approached. T. Champion (1975) argued that existing approaches to Iron Age studies in Britain were too divorced from the continent and that Britain was an inherent part of Europe which could not be dealt with in isolation. J.R.

Collis (1977) developed this fundamental point, along with other approaches, and sketched out a three-fold classification of the Iron Age within Britain which corresponded broadly with Early, Middle and Late La Tene on the continent.

While the insular Iron Age in general was the subject of these debates, some scholars were making progress with regional assemblages of material. The most relevant of these to Wetwang Slack cemetery is the work of I.M. Stead. One of Hodson's students, Stead chose for his doctoral research the distinctive group of Iron Age burials from Eastern Yorkshire which had not been examined in detail since 1906 (Greenwell 1906), although it had been given the name of "Arras Culture" by Childe in his general assessment of British prehistory (1940, 216). Stead employed the cultural approach to the material and confirmed the unity of the group by excavation on several sites. Continental influence was strong, particularly among the burial rites, but although Stead originally sought an origin on the Marne he was latterly obliged to identify the "Arras Culture" as just one of a number of La Tene burial groups which existed in Europe during the Iron Age. "The La Tene Cultures of Eastern Yorkshire" (Stead 1965) was the most complete account of the area which was available for most of the period when excavations at Wetwang Slack were under way. This was augmented by shorter works by Stead (1971, 1975, 1977), but his major re-assessment, "The Arras Culture" (1979) appeared only as the cemetery excavations were being completed. In this Stead admitted that the term "Arras Culture" could only be applied to burials. Settlements of the period had yet to be demonstrated.

What appeared to be contemporary settlement was found, with La Tene burials, by T.C.M. Brewster in Garton Slack, but only sparse details were available for some years (Brewster 1975) and even the final publication, as a microfiche, is in a form obstructive to study (Brewster 1981). The finds in Garton Slack have an immediate relevance to Wetwang Slack for the two are one and the same site, distinguished only by a parish boundary.

The excavation of the cemetery took place at a time when some scholars were striving to fit Britain into the European Iron Age and the background of the burials in the region was being clarified by the researches of Stead. Little excavated information about settlements was available, but the growth of aerial photography was rapidly extending the number of burial sites and possible settlements. Although he dealt mainly with a later period H.G. Ramm stimulated interest in the region with his book "The Parisi" (1978), in writing which he was able to call upon a vast amount of knowledge about the area gained through nearly two decades of research.

This summarises the theoretical background to Iron Age studies at the time of excavation, and the research carried out by individuals in the area. At the time of excavation the immediate need was to recover the evidence in the most comprehensive way possible, and the result was a site which is exceptional for the extent and variety of its material. Previous researches into the Iron Age archaeology of the area lend weight to the evidence from Garton Slack and Wetwang Slack, but they add little that is not represented in it. It is indeed fortunate that the opportunity to examine the gravels of the valley was taken, for this scale of excavation has rarely been seen and is unlikely to be repeated.

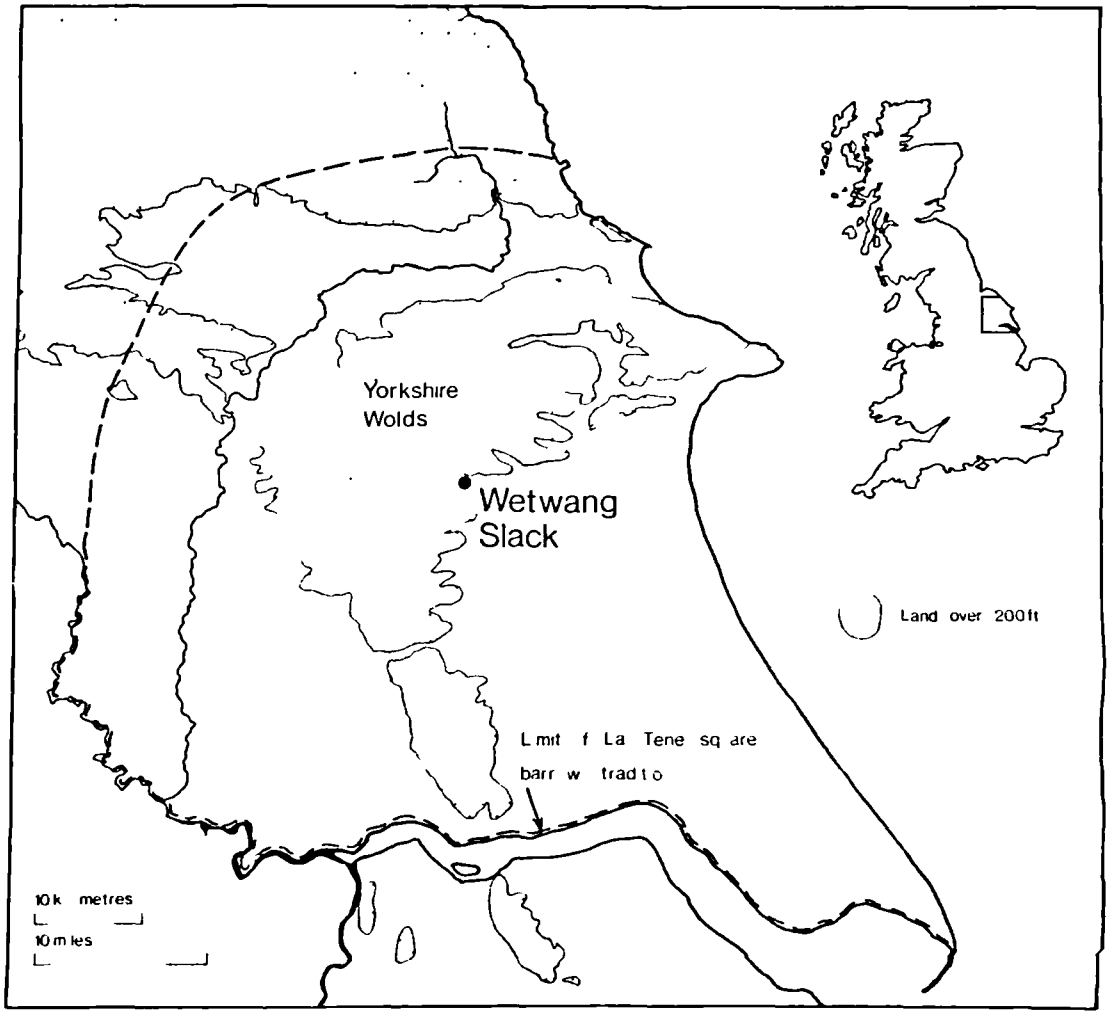


Fig.1.1 The location of Wetwang Slack and the distribution of the Yorkshire La Tène burial tradition (the Arras Culture).

PART 1: THE CEMETERY - GENERAL DESCRIPTION

1.1 THE LOCATION OF THE SITE

Wetwang Slack lies in the central section of the Yorkshire Wolds and is a section of dry valley where this happens to pass from west to east through the parish of Wetwang. (Figs. 1.1 and 1.2). At the close of the last, Devensian, glaciation the chalk rock of the Wold tops was eroded and the valleys filled up with gravel in the extremely wet conditions which prevailed. The soils on the hill-slopes have tended to creep downhill over the centuries and are deepest on the valley floors. Even so the covering in Wetwang Slack appears to have been relatively thin even at the foot of the slope until the removal of a plantation of trees on the hill crest in the 19th century led to further erosion and deposition.

The Iron Age cemetery lay on the flat ground floor of the valley close to the southern side at a height of 50 m O.D. (National Grid Reference SE 945600). To the north the valley floor is flat for some 200 m before it begins to rise to Life Hill, two kilometres away at a height of 155 m O.D.

The valley is dry until Elmswell is reached, five kilometres to the east. Here springs rise and Elmswell Beck flows southwards until with other tributaries it forms the River Hull. This shortage of surface water coupled with the poor soils was a serious obstruction to agricultural development at Wetwang in the 18th century. Cattle had to be driven three miles for water, and fodder had to be imported while barley, oats and peas were grown as the land was considered too poor for wheat. (Howorth 1980, 6 - 7). During the Iron Age the soils may have been more productive, but even so they would have been less fertile than clay based soils further east in the plain of Holderness and on the eastern Wolds where morainic deposits capped the chalk (Boylan 1977).

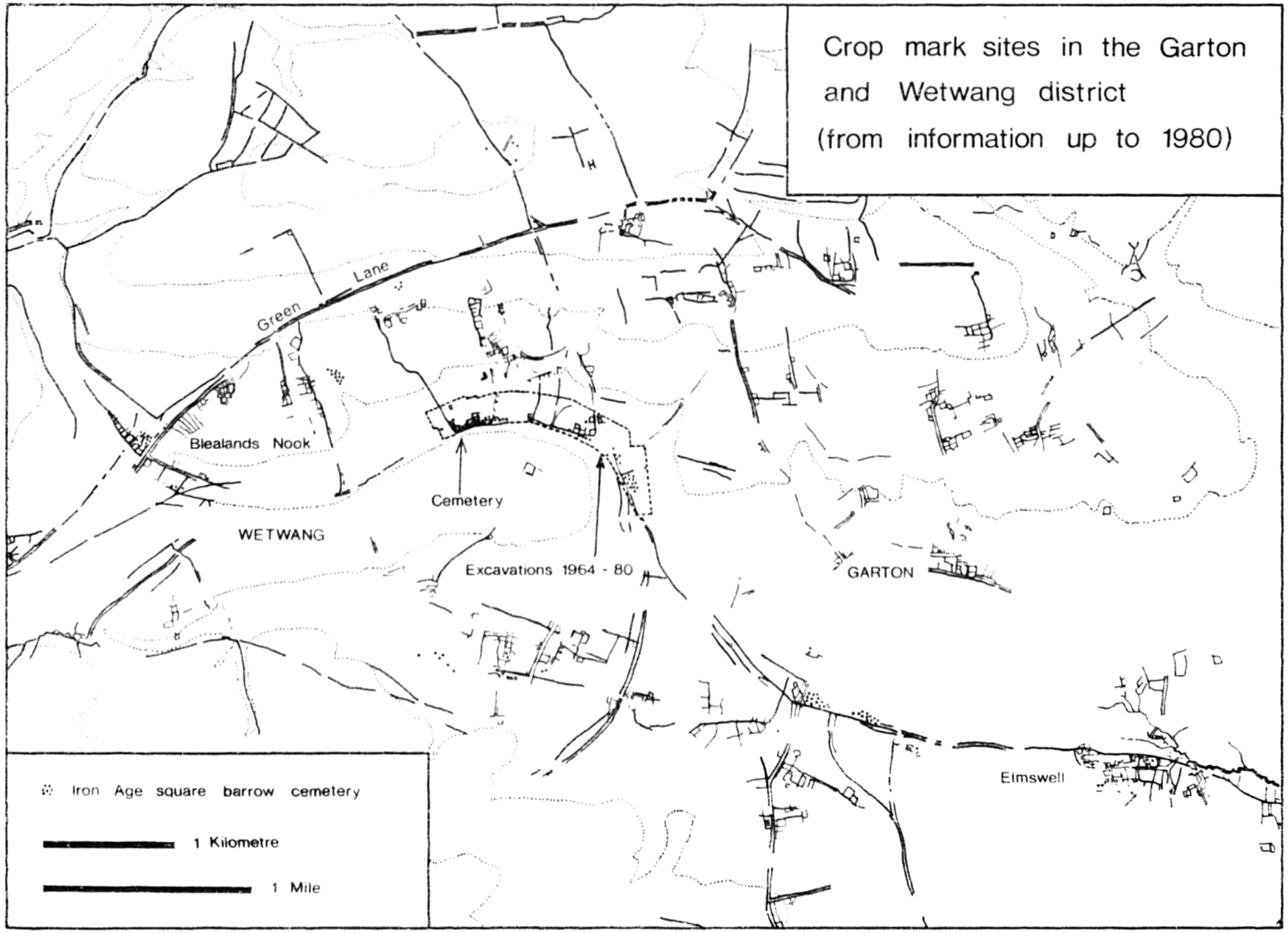


Fig. 1.2 The Wetwang district: archaeological sites and the location of the Iron Age cemetery.

1.2 HISTORY AND TECHNIQUES OF EXCAVATION

The site lies at the upper end of Garton Slack midway between the villages of Garton-on-the-Wolds and Wetwang. To the south and east J. R. Mortimer examined a large number of burial mounds in the 19th century, including one (number 37) which lay inside the excavated area (Mortimer 1905). In addition to this work the valley has seen the excavation of a large Iron Age cemetery on Driffield (Eastburn) Aerodrome (Sheppard 1939) and the examination of Late Iron Age and Roman sites at Blealands Nook (Mortimer 1905, 194-8) and Elmswell (Congreve 1937, 1938; Corder 1940).

In 1963 an old chalk pit at Garton Slack Gatehouse was re-opened by W. Clifford Watts of Bridlington, on the site of 19th century finds of "British urns and weapons" (O.S. 6", 1855).

No sooner had the quarry begun work than skeletons were unearthed by the machines and these were reported to the local police, who in the absence of a professional archaeological service informed two local enthusiasts, C. N. and G. E. Grantham, who carried out the initial recovery of material and brought the site to the attention of the Inspectorate of Ancient Monuments. T. C. M. Brewster carried out excavations in the valley in 1965, 1968, 1969 and then on a full-time basis from 1970 to 1975 by the end of which time the quarry had crossed the parish boundary into Wetwang Slack.

Since April, 1975 the supervision of archaeological work in the valley has been carried out the writer, who conducted continuous excavations from 1975 to 1981 and has maintained a watching brief since that time.

The excavations in Garton and Wetwang Slacks received government funding because archaeological features on the flat valley floor were in immediate danger of destruction with the removal of the underlying chalk gravel (Fig. 1.3). The first site to be examined, by Brewster in 1965, was a known Early Bronze Age barrow (Mortimer 1905, number 37) and its survival as a slight eminence justified the removal of top soil by hand. This method could not be employed for the remaining sites, however, for the area concerned was very considerable and the extent of the rigg and furrow showed

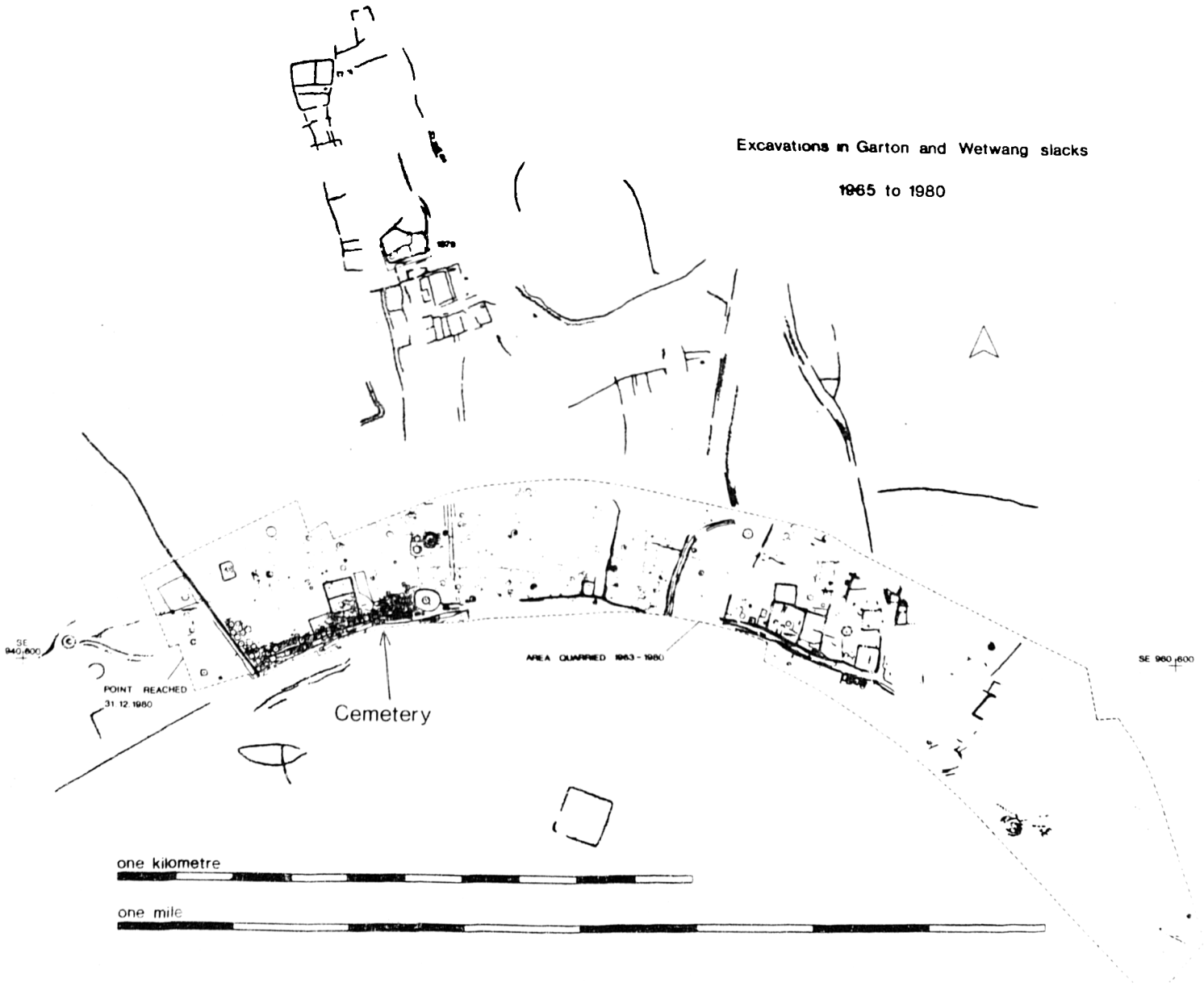


Fig. 1.3 Plan of the areas of Garton Slack and Wetwang Slack excavated between 1965 and 1980.

that the soils on the valley floor had been under the plough at least since medieval times. To meet the time limit imposed by the gravel quarry the top soil was removed by box scraper (pulled by bulldozer), motorised scraper and tractor shovel. This was done by the quarry as a necessary preliminary to gravel extraction and the archaeological work was carried out in the interval between stripping and quarrying, a period which varied according to the rate at which the quarry worked. It was rarely possible to predict the existence of features from aerial photographs for the crops were unresponsive to underlying disturbances and the existence of the Iron Age cemetery was not suspected before it was revealed by the quarry machines. The full extent of the cemetery was thus unknown and was only established with its complete exposure. This prevented any long-term planning and it was necessary to maintain a team on the site all year round.

With the removal of top soil the clean gravel would be revealed and artificial disturbances in this would be clear (Plate 2). After the summer of 1975 a continuous metric grid was employed which could be extended each time a new area was cleared. Although the machines were fairly tidy in their operation the archaeological features needed to be cleaned by hand before excavation. Plans of the whole site were drawn at 1:50 and 1:100 and later reduced to 1:500, and graves were planned at 1:5. When a burial had been cleaned black and white photographs (at $2\frac{1}{4}$" square) and colour transparancies (at 35 mm) were taken. The grave was then planned and the skeleton was lifted and removed for restoration and study.

Extensive ploughing in the medieval period and since has taken a serious toll of the archaeological evidence. On the flat valley floor the plough had penetrated to the gravel surface and consequently no ancient floor levels or old soils survived except where these had subsided into earlier features. Furthermore, dependence on the quarry's own machinery meant that the excavator was sometimes powerless to prevent further damage to the gravel surface itself. The interrupted circuits of some round house plans illustrates the extent to which the central area of the valley floor had been denuded by these means. Where the ground sloped up steeply to form the south side of the valley hillwash in the Iron Age and later had helped to preserve early levels, and at least one burial

survived which would otherwise have been lost to the plough (number 261). Here, however, it was the quarry machines which did the most damage in their endeavours to produce a clean gravel surface and information about these early levels is far from complete.

In contrast to the Great Wold Valley where the chalk gravels are interleaved with sands and contain numerous erratics (Stead 1979, Plate 4 a), the chalk gravel in Wetwang Slack is derived from the western Wolds and contains virtually no foreign material. In consequence, it favours the preservation of bone and the standard of the skeletons from the cemetery was often very good from the point of view of anatomical study. Nevertheless, in the graves of infants often only the skull and long bones were represented. In one case (number 51) the existence of an infant was surmised wholly on the evidence of three neighbouring graves. The small proportion of infant burials (Table 3.1) may indicate that there had been others, perhaps buried in the mounds or in the fill of the surrounding ditches, but that these had been either destroyed by plough or chemical action or were not recognised during excavation. The cemetery contained evidence of four hundred and forty-six burials; some of these were recovered intact, some had been damaged by the plough or other activity, some survived as a small number of disturbed bones, and some were conjectured from enclosures which apparently lacked central graves, but which could once have contained burials laid on the old ground surface in the same manner as number 261. Hence, the excavated burials represent a substantial proportion of those formerly buried, but damage done by the plough and by chemical action prevents us from knowing the original number.

Once the contents of a grave had been removed the separate elements were conserved. Human bone was examined by Jean Dawes who was able to measure the most fragile samples in situ, and animal bone was identified by Sally Scott. Artifacts requiring urgent attention were dealt with by the conservation laboratory of York Archaeological Trust and then drawn by Sheena Howarth. The bulk of the ironwork was taken to the Ancient Monuments Laboratory. Once there radiographs were made of the finds, but conservation treatment could not be carried out at once. Because of this the writer made

drawings of the artifacts from the radiographs and the untreated objects themselves. At the time of writing these drawings still form the main record of the grave goods. Because the quarry worked from east to west and the amount of archaeological material threatened was unknown, it was difficult to appoint schedules for publication. At first it appeared that this could be done on a period basis and a group of early Bronze Age barrows which was excavated in 1975 has already been published (Dent 1979). With time, however, it became clear that the material was inter-related to too great an extent to permit separate publications. At the same time it was desirable to make a start on the treatment of the information and so a numbering sequence was started for the cemetery which ran from east to west (fold out plan). The only reports which were available for earlier finds from the valley were of an interim nature (Brewster 1971, 1975, A.E. 1965, 1968, 1969 - 1974), but it was possible to examine the finds and documentation from early rescue work carried out by the Granthams in the 1960's. The 1970 - 1975 excavations have now been published as a microfiche (Brewster 1981), and the Grantham's Iron Age finds have been published in summary form (Dent 1983a, Appendix B).

The Iron Age cemetery was found only after continuous excavation had been taking place for five years. Large numbers of features were found covering several different periods and the classification of this evidence is not always straightforward.

A preliminary division into funerary and non-funerary materials may be made. The former category would contain a large number of inhumations and a smaller number of cremations as well as enclosing ditches and associated post holes, pits and slots. As far as the Iron Age burials are concerned, the shape of the enclosing ditch and the type of grave goods distinguish them from earlier ones, but unaccompanied isolated crouched inhumations are difficult to date and could be earlier than, contemporary with or later than the cemetery. In order to minimise the possible error, isolated burials

have not been included unless there was evidence of a square enclosing ditch. Isolated enclosures have been included in the group when the size and shape suggested an Iron Age date.

The second group of features, those of a non-funerary nature, include linear ditches and pit alignments, structural elements, pits and miscellaneous features such as wells. Again these cover several periods and the evidence of date is often circumstantial. Round houses and four-post structures, both typical Iron Age features, are readily identifiable and it is these which represent the settlement contemporary with the cemetery. Their relationship to each other and to linear earthworks and trackways is of great importance here for it provides a contemporary background to the funerary evidence which is the chief object of this study.

1.3 THE LAYOUT OF THE CEMETERY

The cemetery consisted of a nucleus of burials and enclosure ditches, as well as a small number of outlying enclosures and/or graves. The number of enclosures was 238, of which all but 18 contained a central grave cut. These were spread in a dense mass along the southern edge of the valley floor in a line east-west for some 400 m and the maximum width of the group was 100 m, this being so at the western end, where the axis of the cemetery turned through a right-angle for a short distance. The enclosures formed a straight edge along the western side of the cemetery, and with the exception of a few outliers, this was the case also on the south. The northern edge of the group was irregular, the varying thickness of the group being reflected on this side, but not on the south. Three concentrations of enclosures and graves were noticeable, at the west end, in the centre, and towards the eastern end where the group abutted an oval ditched enclosure within which were the remains of a presumed plough - flattened round barrow of Early Bronze Age date (Dent 1979, Barrow "B"). Beyond this, to the east, a few enclosures with graves gave a straggling termination the the cemetery. Enclosures without graves were mostly situated at the western end of the cemetery or existed as outliers. Graves which lacked enclosures were mostly cut into the enclosure ditches of other graves. The straighter southern and western sides of the cemetery broadly coincided with linear ditches which may be traced

from crop marks or from earlier excavations over several hundred metres along the valley or up the slope to the north. Some of these were not continuous, burial 239 with its enclosure was situated astride the ends of two such ditches.

The enclosures and the graves represent the two principle components of a commonly occurring funeral monument, although the two were clearly not always found in combination.

1.4 ENCLOSURES

Burial enclosures were defined by ditches of varying depth and thickness. The most substantial ditches did tend to enclose some of the largest areas, as for example in the case of D152, D155, D255 (the prefix "D" is given to the number of the central primary burial to denote the enclosure ditch). These were 0.42 m, 0.61 m and 0.73 m deep respectively, but one of the largest enclosure ditches, D410 which enclosed a burial platform 9.2 m across, was only 0.21 m deep. The shallowest ditches can in many cases be easily recognised from the cemetery plan because part of their circuit had been lost to the plough or during top soil removal. Most of these enclosed small areas, for example D28 : 35 m; D149 : 4.0 m; D188 : 4.5 m; D266 : 44 m; D347 : 4.0 m; D445 : c.3.0 m. There appears to have been some correspondence between the size of the burial area and the amount of soil and gravel dug out to enclose it. The shape of the enclosures was usually quadrangular or sub-rectangular. The sides were normally slightly convex and some small enclosures appear almost oval (D25, D309), circular (D441), or even sub-triangular (D270, D279). The term "square" would be applicable, with some licence, to the great majority of examples.

1.5 GRAVES

The second structural element of the funerary monument is the grave. It is in this that the most intimate evidence for ritual is to be found, and in many cases where an enclosure was lacking, the grave must be assumed to have been the complete monument.

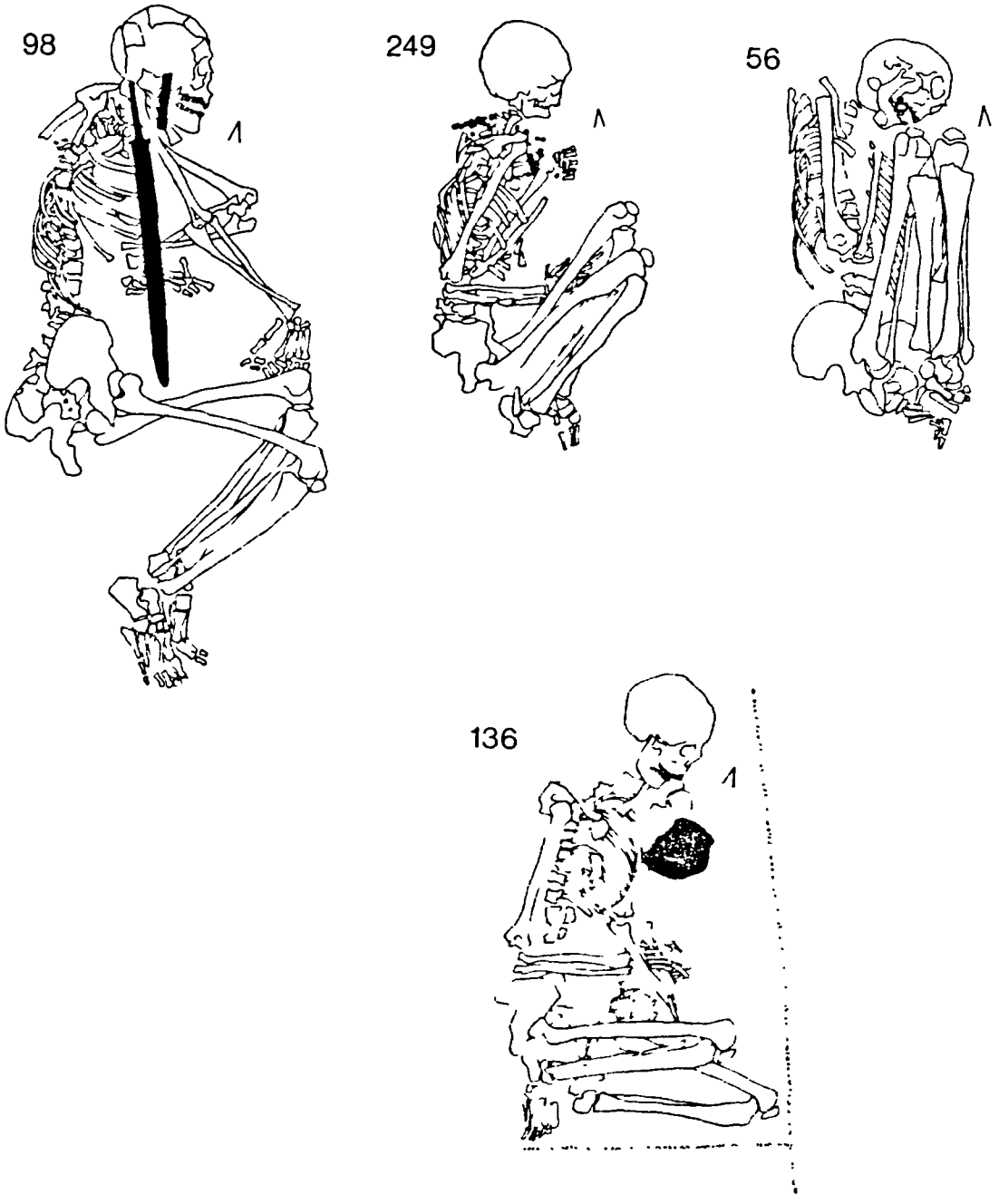


Fig.1.4 Attitudes of burial: flexed (98), crouched (249) and contracted (56).
Burial 136 illustrates the relationship between the skeleton and the traces of a coffin or cist.

As used here a "burial" is a funerary deposit of burnt or unburnt human remains, whether in a grave, or on the ground surface under a covering. A "grave" is the pit excavated to contain one or more burials.

Only 23 graves did not conform to a north-south alignment; in all but one of these the orientation was to some extent dictated by existing ditches. Burial 186 lay on an east-west axis and was unique among the graves inside enclosures.

Two basic types of grave may be readily identified: primary graves central to a ditched enclosure and secondary graves cut into the burial platform or around its edges after the digging, and sometimes the silting of the ditch. The first group of graves varied considerably in depth, from examples that were so shallow that much of the burial had been ploughed away, to others over one metre deep. The largest grave, number 19, measured 2.59 m by 2.08 m by 1.19 m. It should be noted that other graves with a large area were nowhere near as deep; number 152 : 2.74 m by 1.05 m was 0.51 m deep; and number 255 : 3.17 m by 1.12 m was 0.23 m deep.

Secondary graves showed a degree of variation also. Twenty-seven burials were made in graves which were cut off-centre or disturbed the original burial.

In the cases where the secondary grave was cut into the earlier primary there was usually some sign of an overlap (c.f. numbers 131/132/133) or the earlier burial was undisturbed because of the greater depth at which it lay (c.f. numbers 21/22, 31/32). A drastic overcutting of the earlier grave could destroy all traces of the burial; the grave of burial 205 almost completely destroyed all traces of number 204.

One hundred and seventy graves were located around the sides of enclosures, either cut into the filled-up ditch or just outside it. These graves varied a good deal in size for the age range of the individuals buried was greater than in the primary central burials. Almost all of the children were found in these graves (42 out of 43 infants; one infant was a secondary which cut the primary grave -

number 174). The graves were up to 1.3 m deep, but were not normally large in area. Since many were found accidentally during quarrying area dimension are far from complete.

Such was the crowding in some parts of the cemetery that primary graves of some enclosures sometimes cut into the ditches of earlier ones (e.g. numbers 149, 223, 309).

One burial, number 261, was found resting on an old soil at a height of 0.06 m above the ground surface at the centre of an enclosure. This suggests, not that the body was necessarily laid on the old land surface, but rather that the grave cut was very shallow and did not reach the gravel sub-soil. Eighteen enclosures apparently lacked central graves, but this suggests that a shallow burial once existed. Bones of 427 individuals were found in the cemetery, and in one case, number 51, a small pit is believed to have been an infant burial, like its three close neighbours, even though no bones survived. The total number of individuals for which there was evidence was, thus, 446.

1.6 GRAVE LAYOUT - BURIALS AND GRAVE FURNISHINGS (FIG. 1.4)

All the Iron Age burials excavated were inhumations; there was no evidence that cremation played any part in the funerary sites, as it had done on the same site in the Early Bronze Age (for the use of both rites in the same grave see Dent 1978, *Barrow "B", burial 4.*

All the skeletons were articulated, except where there was evidence of later disturbance, and this and the completeness of the well preserved examples suggest that burial followed death immediately. There was no hint that the bodies might have been exposed.

The attitude and orientation of the body could be determined in 362 cases. In the majority (285) the body was crouched, that is, the thighs formed an acute angle with the trunk. In 6 of these the thighs and the spine were approximately parallel and the term "contracted" might be appropriate. A large number of burials were flexed, that is, one or both thighs formed an obtuse angle with the trunk, and this posture accounted for 75 burials. Exceptions to

these attitudes were few. Although a few skeletons were laid on the back with the knees drawn up, these usually inclined to one side, and only one skeleton was found on its back with legs extended (number 388). The most unusual position was that adopted by burial 93 which was arched backwards on its side.

In 289 cases the body lay on the left side, while the number which laid on the right - 89 - was significantly fewer. Of those which lay on the left 241 had the head towards north, 41 south, 5 east and 2 west. Of those which were on the right side the head was towards north in 65 cases, south in 17 cases, east in 6 cases and west in 1 case.

The clear preference for a position in which the body lay on one side with the legs bent is notable. A general wish to lie on the left side is also clear, while of the orientations the north first, then the south were the directions in which to lay the head. Some of favoured these aspects were, apparently, virtually invariable (posture), but there was a more choice over the direction in which the body faced and in which the head lay (orientation).

Although re-use of the same site for a grave was common enough, and sometimes resulted in the disturbance of an earlier burial, occasions when two burials shared the same grave were few (54/55, 228/229, 347/348). Both bodies shared the same posture and orientation in the first two graves, but the heads were at opposite ends of the grave in the case of the third, which suggests that the differences in the choice of orientation were not chronological.

There was a limited amount of evidence for grave furnishings, which may be due to the deterioration of organic materials over the centuries. Wooden coffins or cists were suggested by rectangular stains in gravel fills, by the rare survival of a lime crust which preserved the face of the timber planks (136, 168), by iron clamps or dogs (270), by traces of the timber surviving as corrosion on grave goods (59), or by charcoal derived from them (57). The position of the timber in 57 and 59 suggests that in addition to four sides the wooden structure also consisted of a base, while the ability of bones to tilt or turn with the decay of the corpse, as in 209, suggest that there was also a lid. So too does wood

replacement in corrosion products on the upper side of an iron object in burial 98. A tradition for timber cists certainly existed (Petersen 1969, Dent 1983a, Appendix "A") in the Early Bronze Age, but the largest Iron Age example was smaller (c. 1.75 m in length) and most of the structures could have been portable. No coffin nails were found but the joints could have been glued to withstand pressure, although there were traces of overlapping corners in the grave of burial 136. Two animal skeletons from burial 186 could not have been placed along the sides of the grave if this space was already backfilled to support a timber framework. Whether or not these structures were portable remains an open question.

There is some slight evidence to suggest that these frames - cists or coffins - might have been cushioned. A brooch from burial 34 contained in its corrosion fibres of rush or sedge identified (by Miss E. Crowfoot). No clear traces of a structure were seen, but the grave contained enough room for one. Similar material, with the appearance of matted grass or straw, was preserved as a lime impression in a burial excavated in Garton Slack on 18th February, 1965. There is no direct evidence of date from this burial, but it was in an area occupied by Iron Age burials (Dent 1983a, Appendix "B"; the find is in the Grantham collection, Driffield). Such a lining need not be confined to the inside of a frame; a plain grave pit could have been furnished in this way.

1.7 GRAVE GOODS

Only 96 burials were accompanied by grave goods, that is, 21.5% of the total. The artifacts consisted of dress fastenings, other ornaments, weapons, animal bones and pottery.

Evidence for the dressing of the body for burial comes from the artifacts which have survived in the graves. Of these 43 were brooches, in one case accompanied by two dress pins. Two other graves contained iron pins, while another six contained artifacts for fastening cloth; two had iron staples, one had an iron hook and three contained small bone points (number 346 had seven such points). An examination of the corrosion on iron brooches suggested that these had been used to fasten woollen textiles:-

"The yarns are coarse, some with noticeably coarse fibres, and their appearance suggests all were wool and the only weaves throughout were four-shed twills" (unpublished report by Miss E. Crowfoot).

Clearly dress fastenings constituted a substantial proportion of the grave goods at Wetwang Slack. Some occurred in combination with items of jewellery and bracelets, and it is likely in these cases that the body was dressed as though alive. The bone points, however, and the two iron staples which were both found on the face, suggest that some were not in normal dress, but could have been wrapped in winding sheets. Twenty-six graves contained objects of personal ornament, such as bracelets, rings and beads, but no brooches or other dress fastenings. Unlike the brooches, these items need not have been removed in the everyday course of changing clothes and they could have been worn during sleep, although one would have thought that bead necklaces would have been an encumbrance. Their presence in the graves does not necessarily indicate that they were specially placed upon the body for burial. Only one artifact showed signs of deliberate preparation in this way: the bracelet from burial 236 was slipped on to the wrist but not fastened; it would have remained closed if this had been done.

Most of the grave goods buried with the dead adorned the corpse in some way and the application probably took place before the funeral. Some indeed may have already been on the body at the moment when the individual died. Others quite possibly were placed with the body when it was already in the grave. In particular the sword and shield in burial 92 could have come into this category, and so too could the pottery vessels and animal bones which presumably indicate that an offering of food was deemed to be appropriate. These did not occur in large numbers: only six pottery vessels were found in graves and four of these were buried with pig bones. Another ten graves contained sheep or pig bones and in one of these a complete young pig had been buried with a young goat (number 186). Two complete young pigs could have been represented by the bones in burial 402, while in burial 117 and 239 a complete forequarter was included. Otherwise the humerus alone indicates that small cuts of meat were buried.

1.8 GRAVE INFILL

The graves were cut through the top soil into the gravel sub-soil and were apparently backfilled with the same material. On the southern edge of the cemetery where the gravel provided only a thin covering to weathered chalk lumps beneath these small blocks of chalk were disturbed in cutting graves and were occasionally incorporated in the backfilling. In one case, burial 18, the body appeared covered with such blocks, but although no direct evidence of one was found the stones could have been placed on top of a wooden structure.

The decay of such structures may explain why there was frequently a darker matrix to the gravel towards the centre of the grave. This could have been the result of gravel subsiding over a decayed coffin or cist which would allow increased percolation of soil from above. A darker centre to grave fills was very common, but was most noticeable in larger, and deeper, graves. The overall uniformity of grave infills suggests that the process was a simple one which was not used in itself as a method of distinction between different social groups.

1.9 SYNTHESIS

From the long agricultural history of the valley, represented by the parallel furrows of medieval strip systems, it was clear at the time of excavation that the ancient contours of the site - the products of ditch digging, mound building and similar landscaping - had long since been removed and the site levelled. A large number of graves were found in the cemetery - at least 446 people are believed to have been buried - and more than one half of these had been surrounded by a rectilinear ditched enclosure. Those which were not inside enclosures were, in most cases, cut into their ditches. Enclosure burials showed considerable variation in depth, and one skeleton was actually lying above the chalk gravel surface, which suggests that other similar burials had been removed by the plough in enclosures where no central grave cut was recognised. Such variation in depth was less marked among graves cut into ditches, which were more consistently deep. This suggests that additional covering was provided to burials inside enclosures, and this must

have been particularly necessary for burials in very shallow graves or even on the land surface. The provision of a mound inside quadrilateral ditched enclosures was a feature of Iron Age burials at Cowlam and Pexton Moor (Stead 1979, 22, 35 - 6).

From the evidence of the graves themselves, it appears that the burial attitude conformed with a convention which required that the body lay on its side with knees bent, but there was more choice over the way the body faced and the orientation of the head, mostly within a general north-south alignment. The difference between wooden cists and coffins cannot be distinguished, so that whether the body was arranged for burial in the grave or before its arrival at the cemetery is unknown. In the case of graves where a wooden structure was missing, this would have been done on site.

A lining may have been provided to the grave or grave structure and the existence of dress fastenings and ornaments in some cases suggests that everyday dress, or even "best" was worn for some burials. When no such grave goods were found it is still possible that completely organic clothing and fastenings were worn. This being so, the arrangement of seven bone points or pins in one grave recalled the fastening of a shroud rather than everyday costume.

The inclusion of animal bones and broken pots in the grave suggest a form of food offering, although why the pots should be incomplete is far from clear. It may be that food was taken from a funeral feast and placed in the grave, and if so the breaking of pottery, in the modern Greek style, could have formed part of the ritual. It is interesting to note that the humeri of sheep were sometimes present; this is in contrast to pig humeri which have usually been associated with Iron Age burials in the region (Stead 1979, 17 - 18).

PART 2 : RELATIVE CHRONOLOGY

2.1 INTRODUCTION

The first part of this work has described how the cemetery was excavated and the features which constitute it. A full list of burials with their attributes is given in Appendix 1. It is clear from the very number of these that all were not buried at the same time or even within a few years of each other. It is not enough to consider the burials simply as "Iron Age", for no valid analyses of the group can be carried out without some idea of the order in which burials were made and at the duration of the cemetery.

The evidence for a chronological seriation of the burials consists primarily of a large number of stratigraphical relationships which were observed among graves and enclosure ditches and which were the product of overcrowding within the cemetery. These do not constitute a complete sequence of burials, however, but a number of linked groups. In order to assess the most likely relationship between these groups I shall use different theoretical models to suggest the possible ways in which the cemetery developed, By this means it should be possible to isolate one or two patterns which best fit the evidence.

When the growth patterns of the cemetery can be identified by these means artifacts from the graves may be used, to identify approximately contemporary burials and to construct a series of typologies for the different classes of artifact.

From the use of artifacts it should be possible to isolate chronological horizons within the group, and once this is achieved other aspects of the burials may be examined for ritual or morphological changes which may have occurred almost imperceptibly with the passage of time.

These techniques will be employed here in order to formulate a relative chronology for the group. Ultimately it should be possible to ascribe absolute dates to such a sequence, but for this the

Wetwang Slack evidence alone is insufficient, and other information is necessary which will be discussed in Part 5.3.

2.2 STRATIGRAPHY

2.2.1 RELATIONSHIPS AMONG GRAVES AND ENCLOSURES

The first category of evidence to be considered before a sequence of burials may be suggested is that which comprises the stratigraphical relationships observed during the excavations. Slightly more than half of the burials were found at the centre of an enclosing ditch and it seems unlikely that any significant interval separated the infilling of the grave and the digging of the ditch. Thus in this cemetery both graves and enclosure ditches should be equally good indicators of relative date. However as many of the relationships between different graves depend upon the contemporaneity of these two features it is as well to be aware of the possibility that this might not always be the case.

In the majority of examples an enclosure contained only one burial and the ditch was ascribed to this burial (e.g. D20). In some cases, as outlined in Part 1.05, one or more subsequent burials had been made inside the enclosure (e.g. 22, 132, 133, 415). In such cases the earliest burial in an observed sequence or the most central grave was normally assumed to be the one contemporary with the ditch although the most likely grave need not have been the earliest to use the site (in particular burials 4, 184, 309 and 378). The stratigraphical evidence of the enclosing ditch could be compromised where the identification of the central burial is in question. There was some suggestion of a recutting of the ditch around burial 13 which would presumably reflect the time when burial 14 was inserted. In this case the primary central burial need not be contemporary with the final stage of the enclosure. In the case of burial 204 only a small part of the earlier grave-cut and a single bone survived to indicate that burial 205 was secondary. If the removal of the earlier grave and its contents had been thorough burial 205 would appear like any primary burial, and the enclosure would have been attributed to it. If a surface burial like No. 261 had been disturbed, and no bone had survived, then the only visible grave would appear to be contemporary with

the surrounding ditch. Hypothetically, then, a burial at the centre of an enclosing ditch might not be contemporary with that ditch. In practice it is likely that the examples where this was the case have been recognised, but lurking doubts suggests that the evidence be considered in the following order of merit:

(a) graves which cut other graves
(b) graves which cut or were cut by enclosure ditches
(c) enclosure ditches which cut other enclosure ditches

Even before these the three double graves numbers 54/55, 228/229 and 347/348, should be mentioned where in each case two individuals were interred at the same time. These are the only cases where two contemporary burials can be identified (Appendix 2: i).

The basic archaeological evidence for the order of burials comes from the cases where graves overlapped. These were relatively uncommon as the majority of graves were well separated from their nearest neighbours. Even where there was an overlap the uniform filling which was a characteristic of most graves made a positive identification of the stratigraphical succession difficult, and the sequence was observed with the greatest confidence where the disturbance of bones or otherwise indicated which were the earlier and later skeletons. For example, if one skeleton overlay the grave cut of another it must have been secondary. Alternatively where a second grave had been cut to a greater depth than one already in existence the skeletal material from the earlier burial would be disturbed, probably incomplete, and perhaps represented by only a single bone in the fill of the later grave (for example burials 3 and 204). A full list of graves which were stratigraphical linked in this way is given in Appendix 2 : ii.

The most reliable stratigraphical evidence for neighbouring burials, after the cases where graves actually intersected, is that derived from the cutting of a grave fill by an enclosure ditch, or vice-versa. Very few graves were certainly cut by ditches but the number of burials found on the line of a ditch suggest that the opposite sequence was common. Unfortunately, while there were many graves found in this position only a small number were visibly cut

into the ditch filling, and in the first season of excavations a large number of secondary graves of this kind were found accidentally by quarry machinery. Graves cut into and graves cut by enclosure ditches are listed in Appendix 2 : iii and iv.

Less certain than the relationships between a central burial and a burial cut into or cut by its enclosing ditch, is the relationship between two central burials of which the enclosing ditches overlap. These ditches normally contain a graded filling of gravel and flint in the primary silting and at the corners particularly the topmost filling usually consisted of a darker soil fill. These contrasting fills frequently allowed the relationship of overlapping enclosures to be identified, but where soil conditions were not suitable this could not be achieved (Plate 2). In some cases shallow ditches had been completely removed by plough action or by quarry machinery. A complete list is given in Appendix 2 : v.

2.2.2 RELATIONSHIPS OF BURIALS WITH OTHER FEATURES

The re-use of the site over many years had left numerous non-funerary features which were cut by or cut the graves or enclosure ditches. In the central area of the cemetery for example a farm of late Iron Age and Roman date contained many features which disturbed the fills of graves and ditches in that area, sometimes completely obliterating the evidence (for example burials 157, 195, 203). In view of the linear plan of the cemetery it is useful to record the occasions when features following the same lines - ditches and slots - were *intersected by or cut across* burials or their enclosures (Appendix 2 : vi and vii). A group of such features (Fig. 2.2, C. D. E. F) was cut by the ditches of burial enclosures and this establishes that a linear boundary of some significance was already in existence when these burials were made. Later ditches (Fig. 2.2, A and B) themselves recut in places, cut across the enclosures and graves of existing burials. A crouched burial cut into the filling of ditch A (No. 15) while it lacks an enclosure, is in keeping with other burials cut into enclosure ditches. It thus suggests that ditch B was cut while burials were still being made in the cemetery.

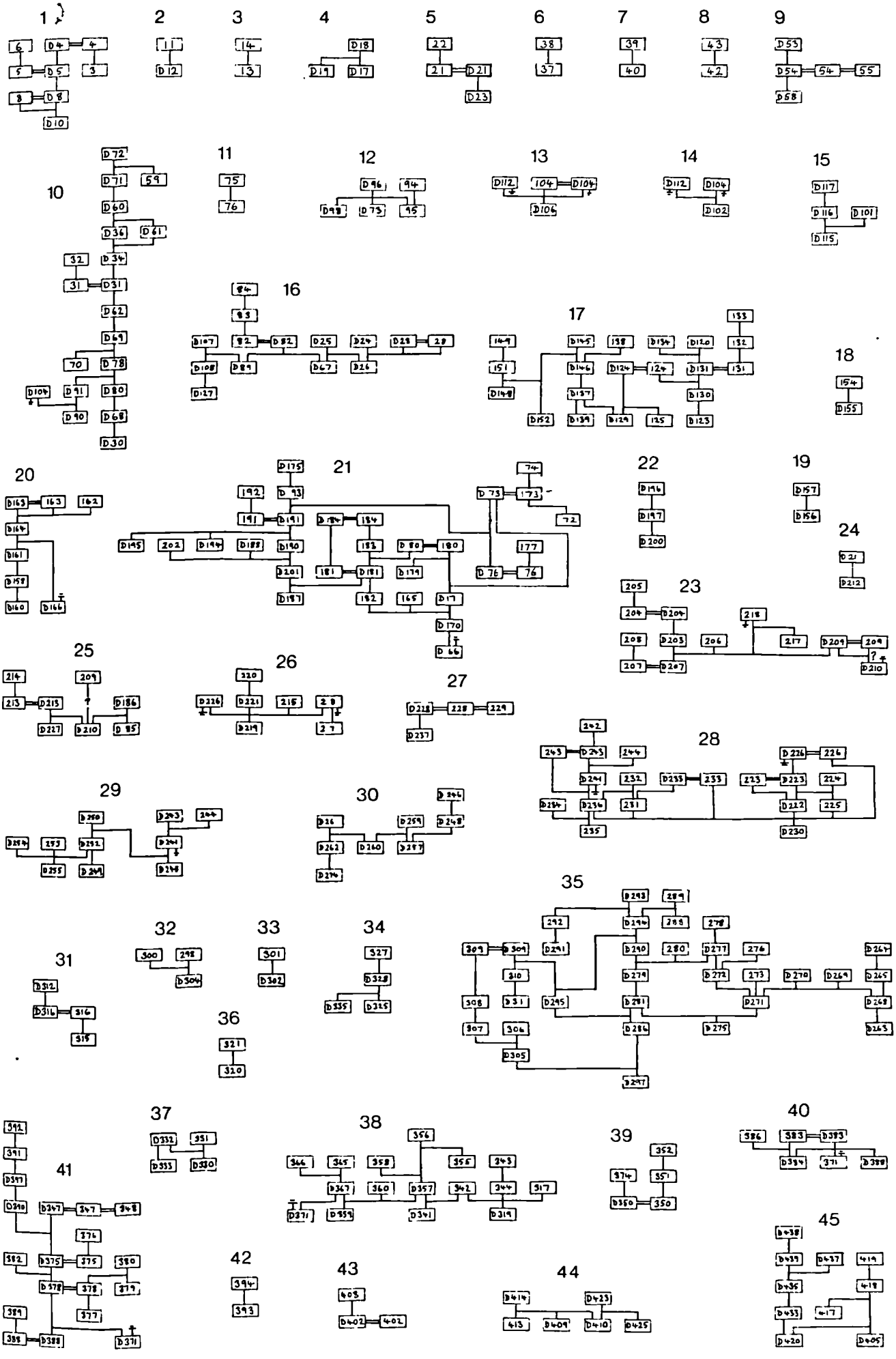


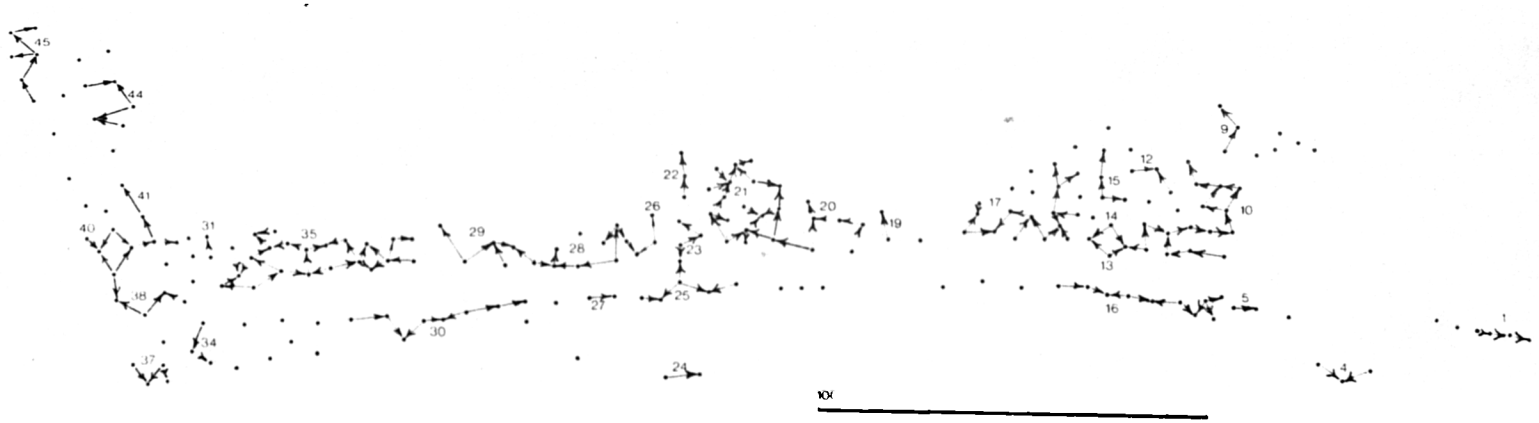
Fig.2.1 Stratigraphical sequences among burials and enclosure ditches (prefixed D) using the Harris system (Harris 1975).

2.2.3 VISUAL PRESENTATION OF THE EVIDENCE

The burials and their enclosures which were linked in these ways and are listed in Appendix 2 provide the bases for a visual representation of the stratigraphication (Fig. 2.1) which employs the matrix system first formulated by E.C. Harris (Harris 1975). Forty-four separate trees illustrate these relationships, and these range from cases where only two burials were involved to elaborate chains of some length (Matrix 10 contains twelve enclosures in a continuous sequence). In a number of cases burials on the line of enclosure ditches suggested that they were secondary to the ditch, but because of nature of their discovery this could not be demonstrated. It is quite probable, for example, that burials 424 and 426 were cut into the east ditch of the enclosure D425, but the graves were not seen until the enclosure ditch had been emptied. In consequence, although both burials are likely to have been inserted into this ditch, their relationship to the later west ditch of enclosure D423, which shared the same line, cannot now be known. Questionable relationships of this sort have not been included in the tables.

The only uncertain relationship included in the tables is that between burials 209 and 210 (matrices 23 and 24). Here doubt concerns not the stratigraphical succession, but the identification of the north ditch of enclosure D210. It appears that during the construction of a large linear ditch (Fold out plan, "A") through the cemetery, the line chosen crossed the northern part of the existing enclosure which contained burial 210. The northern ditch of the enclosure was isolated in this way and it is here that the enclosure was overlapped by the neighbouring grave and enclosure of burial 209. Another possible interpretation of this northern ditch is that it represents the western end of a slighter linear ditch which was largely overcut by the later one, as was the case to the south east of burial 30.

At this stage the stratigraphical relationships between burials, either direct or inferred from the presumed contemporary enclosing ditches, have been catalogued (Appendix 2) and relative chronological sequences have been constructed from them (Fig. 2.1). These do not constitute a single chain which contains both the



a. Stratigraphical sequences plotted onto a plan of the cemetery

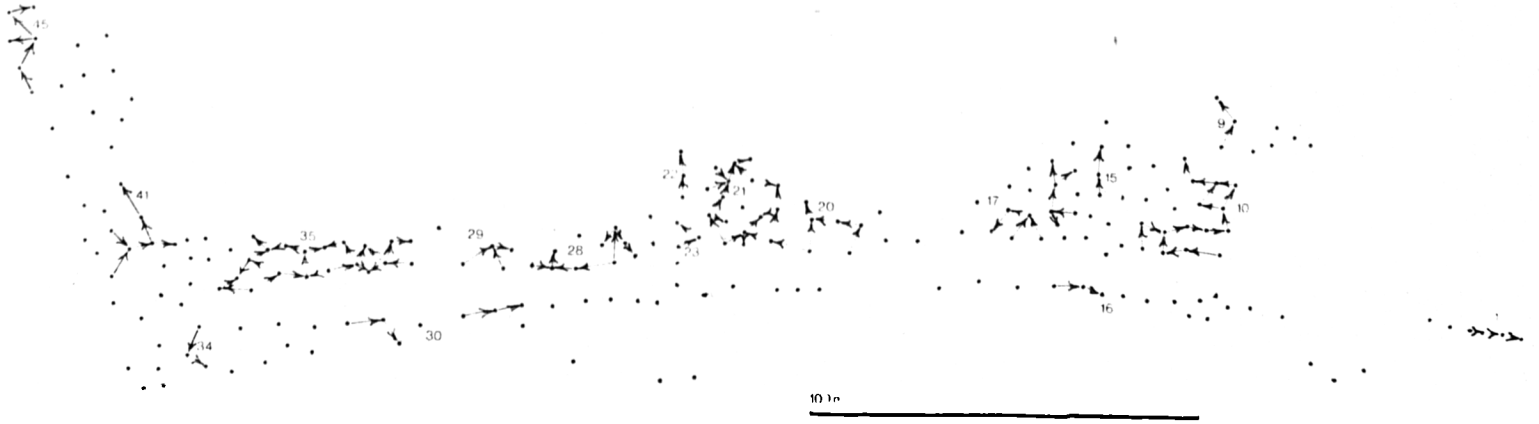


Fig. 2.2

b. Ditto, but with chains of less than three burials excluded

earliest and latest burials of the cemetery as its extreme limits, nor is it likely that such a chain can be constructed. The evidence comprises localized groups of burials scattered throughout the cemetery and while these are insufficient to provide a complete sequence, they may by comparison suggest directions in which the cemetery is likely to have developed and thus may indicate the areas where the earliest and latest burials are likely to have been made. If such chronological zones can be recognized it may be possible to assess the approximate date of burials lacking stratigraphical links by virtue of their relative location.

The correlation between relative chronology and space cannot be shown on the Harris tables, and the chains formulated from the stratigraphical evidence must be transferred to a plan of the cemetery. To avoid confusing detail only primary burials with enclosures are represented (Fig. 2.2.a) and even so it is difficult to obtain from these a clear visual impression of the way in which the cemetery developed. A further editing of the information, thereby leaving on the plan only sequences of three or more burials (Fig. 2.2.b) gives a clearer picture, but this suggests that the growth of the cemetery was influenced by different factors at different times. In order to understand more clearly what these factors might have been it is worth considering some theoretical models which suggest possible ways in which the cemetery could have developed.

2.2.4 CONCEPTS OF CEMETERY DEVELOPMENT AND ILLUSTRATIVE MODELS

Even in the largest groups of burials, and that at Wetwang Slack must by Iron Age standards be numbered among them, it is the case that there was at first only one grave which started the chain of burials which constitute the cemetery. This existed for a time as an isolated burial before a second was made close to it. If the first burial occupied an area of broadly homogeneous land use, for example if it was in the middle of a meadow, then there would be an horizon of 360° which could be used for a second burial, and this second burial could be made immediately next to the first, or it could be at a distance from it (Fig. 2.3.2.a). If on the other hand the first burial was made at or close to the junction of two different zones of land use, then the available horizon for burial

Theoretical models of cemetery development (see text).

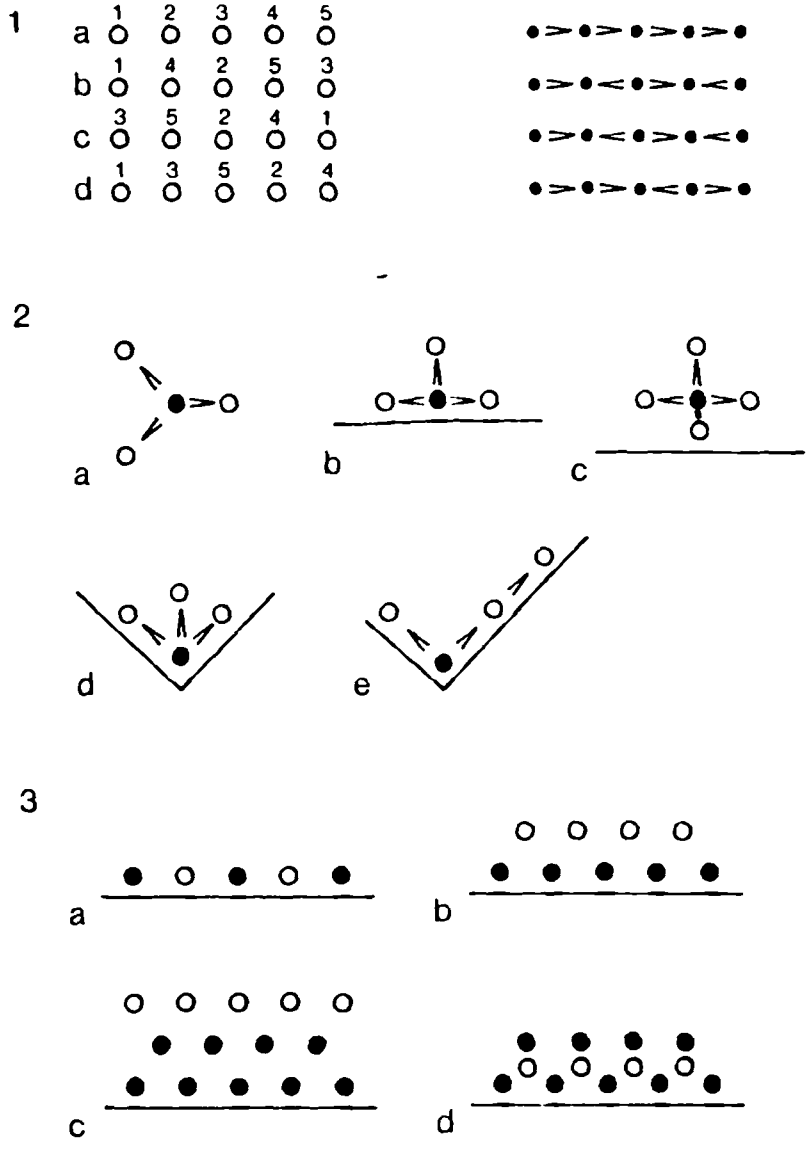


Fig. 2.3

might be reduced to only 180° (Fig. 2.3.2.b) or if a complete horizon was maintained limitations would be placed on the distance at which a second burial could be made for part of that horizon (Fig. 2.3.2.c). The stratigraphical relationships set out in Appendix 2 : vi indicate that by the time some of the burials were made at Wetwang the site available for them was close to or lay along a boundary, and this suggests two areas of different land use. It may be that such a position was deliberately chosen, and if so then a situation at the junction of two linear boundaries might have been doubly desirable. If so then the available horizon for making a second burial could be even more restricted, with a choice of perhaps 90° or less for expansion (Fig. 2.3.2.d). The position of burials 239 and 255 relative to earlier ditches or slots could indicate that they were made at points on the same east-west line where some significance was attached to breaks on the south and north respectively, possibly to be interpreted as access to a central trackway from the land on either side of it. At the west end of the cemetery the course of the linear ditches, not all of which need be later than the earliest burials, suggest that here too might have been a junction of some significance, to the east of which the burials were clearly confined.

If the existence of a boundary or perhaps a trackway attracted burials, then at the junction of two the more important might attract, with time, a greater number of burials (Fig. 2.3.2.e). The stratigraphical sequence in Matrix 10 (Fig. 2.1) indicates that where burials were made at the sharp angle between existing ditches, the earliest burial, number 30 was made at the angle and subsequent burials and enclosures were made along the more important east-west ditch before any were added to the north.

In summary, if the first burial in a group were to be in the open it would leave far more scope for the subsequent development of a large group than would one made close to or on the line of a boundary. Even less scope would be left by a burials made inside the junction of two linear boundaries, but it does appear that such restricted sites were used, possible of necessity, or possible because they were for other reasons desirable locations for disposing of the dead.

If a boundary was sufficient reason for the location of the original burials, then it is likely to have influenced the siting of subsequent burials. Thus, although in one situation already suggested (Fig. 2.3.2.b) an horizon of 180° exists for expansion, it is likely that further burials would be made close to the same boundary (Fig. 2.3.3.a) rather than away from it. Such burials might be made immediately next to the existing one, but more probably an interval would separate them. With the addition of further burials this space would gradually be filled until all the space along the boundary was occupied by burials (Fig. 2.3.3.a; for comparison, Fig. 2.2 chains 4, 16, 25, 30). If the boundary was a sufficiently strong focus for burial then once the space beside it was filled a second line of burials would begin to form (Fig. 2.3.3.b). This is clearly what happened at Wetwang in some instances (Fig. 2.2, chains 10, 20, 21, 35). As a second line was filled a third might similarly begin to form (Fig. 2.3.3.c) as may have been the case among the mass of burials at the east end of Wetwang cemetery (Fig. 2.2, chains 10 and 17).

With the growth of the cemetery the living population would gradually become more and more accustomed to the concept of a large, compact cemetery, far removed from the thoughts of the earlier inhabitants who probably gave little conscious thought to the problems of future generations. A change in attitudes might have led to the use of small spaces between earlier burials in order to occupy a place as close as possible to the original focal boundary (Fig. 2.3.3.d), and as an alternative to a position in a third, fourth or fifth row of burials. There is some indication that burials were made in such positions, one common feature being that not only did their enclosure ditches overlap their neighbours' but frequently the grave itself overlapped the neighbours' ditch, so closely were they spaced (for example burials 104, 124, 145, 149, 180, 223, 226, 233, 243, 270, 309, 383).

The models of cemetery development so far described have emphasised the limited options available for expansion imposed by a restricted horizon. To some extent the course of development can be conjectured when it appears that, as at Wetwang the burials were made along one or more linear features which prevented their expansion in every direction of the compass. A linear plan would

emerge in such circumstances, and once the available space along the focal boundaries became exhausted growth would be directed away from, not along them. It seems likely that the linear plan of Wetwang cemetery was the result of growth in one direction, but a study of the stratigraphical evidence (Fig. 2.2.a) seems to indicate that there was growth both eastwards and westwards. This requires a further series of models to help in the interpretation of the burial chains incorporated in the Harris matrices.

In Fig. 2.3.1.a a continuous sequence of close order burials provides a chain of arrows all of which follow the same direction. Such close order development is to be seen at Wetwang, for example in matrix 10, but is atypical of cemetery growth. More frequently a space will be left between burials which will subsequently be filled. Fig. 2.3.1.b and c show that lines of burials developing in this way from opposite directions can leave an identical stratigraphic record, but Fig. 2.3.1.d demonstrates how a general indication of growth may be obtained from the greater number of arrows favouring one direction. Applied to the Wetwang cemetery the predominant trend may be best seen in Fig. 2.2.b which includes only sequences of three or more burials. Here the southern-most line of burials contains four chains which indicate eastward development and none which point west. By implication the western end of the cemetery is the original core of the group and this suggests that the junction of two boundaries may have formed the original attraction of the site as a burial place. The more elaborate earthworks of the east-west line suggests that this was the more important, and so the models illustrated in Fig. 2.3.2.d and e seem to be borne out. The stratigraphical sequences among burials which lie on the north side of the linear ditch A (Fold out Plan and Fig. 2.2 Appendix 2 : vi) appear to bear little relation to those to the south of it, and this suggest that those to the south were already in existence by the time that dense groups developed on the northern side. This is confirmed by the general northward trend of the stratigraphical chains, in conformity with models suggested earlier (Fig. 2.2.b and c). Stratigraphical communication between the lines of burials is denied by linear ditch A, but even so, continuous burial enclosures only existed at the west end of the cemetery (west of burial 297) and in the middle, where an overlap between burials 209 and 210 may have

survived the digging of linear ditch A. Elsewhere it seems certain that a gap existed between the two most southerly lines of burials. At the eastern end there is some evidence that the lines were separated by an earlier ditch, mostly removed by ditch A, but closer to the west end, the line of burials between numbers 263 and 286 maintains an equal distance from linear ditch A itself and might have been inserted following the digging of that ditch and the construction of an accompanying bank, which excavation suggested had lain on the northern side. One burial is known from the filling of this ditch (No. 15) but as this was not accompanied by an enclosure ditch and thus could be later than other burials, it is not in itself proof that the ditch was cut while the cemetery was in use. Alternatively ditch A was, like graves in the middle of the cemetery cut by enclosure ditches in the first century A.D.

This raises the possibility that while the early burials of the cemetery developed along a linear feature which was in part defined by ditches, in the later stages the presence of a new and very obvious linear ditch may have provided a new focus for burials. Since this ditch would have effectively divided the cemetery in two it may be that subsequent burials were added on one side only, and the stratigraphication indicates that this would have been to the north. If further burials and enclosures followed the digging of the ditch the likelihood that these would respect it precludes the identification of such burials by stratigraphical means.

In summary the stratified sequence imply that the earliest burials were made at the west end of the later cemetery at the focal point provided by the junction of two linear features. The major of these extended west-east and the main bulk of burials subsequently developed along it in this general direction. At first burials were probably spaced out and only with time were the gaps filled in. The construction of an earthwork along the middle of the cemetery may have interrupted its formation. Subsequently burials were made on the north and the general trend was for burials to spread across the valley floor in this direction, with some burials being made in gaps among existing enclosures. Hypothetical models offer likely ways of group development and some of these correspond with the trends just described. The next stage is to examine the

ways in which this sequence may be correlated with other forms of evidence, of which the obvious one for immediate comparison is the objects found in the graves.

1.3 ARTIFACTS

The use of Artifacts

The previous section dealt with relative sequences of burials which could be identified from the stratigraphical evidence during excavation, and in some instances it was possible to demonstrate direction of cemetery growth from such sequences. The dating of these sequences must however be achieved by means other than stratigraphy, and it is the artifacts from such burials which have in the past been used to achieve this (Greenwell 1906, Childe 1940, Stead 1965, 1979). The present section is not, however, concerned with the absolute, dating of the cemetery, but with the use of artifacts found in the graves as another aid to the construction of a relative chronology.

Although less than one quarter of the burials were accompanied by artifacts the exceptional stratigraphical evidence does mean that the order in which some of these items were buried can be ascertained purely by archaeological means which owe nothing to unsupported typological theories. Where a sequence of graves contained artifacts of the same class the difference between them should represent the evolution of that class with the passage of time. If changes are detectable in this way, then the occurrence of similar artifact types in different parts of the cemetery has a greater significance for it identifies burials which should be close in date but which may be widely separated in space. This would also, of course, apply to similar artifacts from different cemeteries.

Functional Groups

The artifacts initially may be grouped according to function. In order of frequency these were fastening devices, personal ornaments, containers and weapons.

Fastening Devices

Textile remaining as corrosion products on some artifacts suggest that individuals were in many cases buried in woollen garments. The simplest method of fastening cloth is with a pin, and a small number of these were found made in both iron and bone. The iron examples showed some variation in design, but all possessed a ring at the opposite end to the point. Only four such pins were found. It may perhaps be conjectured that the ring would be the point of attachment of a string or cord which could be connected to the body to prevent the accidental loss of the object, which was secured merely by the friction of the cloth against the shank. A loop in the shank of three of the pins may have been a device to collect the folds of cloth and prevent the pin becoming loose.

Although the most basic type of fastening device the pin was not the most common. A major problem with pins is that they tend to be sharp and when they are worn in the clothing they may accidentally cause harm to the body. The offensive potential of a hat pin are well enough known from its frequent use in a comical context, but the safety-pin is less lethal. Although it is now mainly used to fasten kilts and babies' nappies and has enjoyed a brief renaissance recently as an essential item of "punk" wardrobe the safety pin was in existence during the Bronze Age in Central and Southern Europe (Alexander and Hopkin 1982). Although a brooch is now regarded as a principally ornamental artifact it must have originated as a pin with a built-in device to guard the point and to prevent the cloth from slipping free. This was done either by employing tension within the object itself, created by bending the metal into a spring, as in the safety pin or button badge or by using the pressure from compressed folds of cloth to hold the pin in the closed position. This second device is frequently employed on ornamental brooches today and is more effective than at first appears likely. The brooch is the most common type of artifact found in Iron Age burials and in this respect the Wetwang Slack cemetery is no exception; forty-three brooches were found in the graves.

Other techniques were apparently used to fasten cloth: iron staples found with burials 56 and 61 and a horseshoe-shaped pin from burial 121 are unusual but this characteristic diminishes their usefulness as guides in the construction of a chronology.

Two main types of fastening device, the pin and the structurally more complex brooch, were represented in the graves. Although only four pins were found, and two of these were in the same grave, their form shows variation which may have a chronological significance. There is much variety among the brooches and it is likely that this class of artifact saw the greater number of fashion changes during the period of the cemetery's use.

Personal ornaments

The parts of the body which were most frequently found adorned were the neck and shoulders, the wrists and hands, and the feet.

Some form of pendant worn at the throat was relatively common. Ten necklaces of glass beads, and one necklace of jet or shale beads were supplemented by isolated beads or rings of glass, jet, amber, chalk, bronze or iron. The variation among these was great,; only the glass beads showed consistently recurring forms and since these total more than five hundred they constitute an important element of the evidence, although the actual styles represented may have changed only slowly.

Bracelets were worn on the wrists but only thirteen were found in all. Nevertheless decorative elements and fastening devices are a useful guide in the search for similar types, and this class of artifact is of some importance for the links which it provides with other cemeteries.

Toe rings were worn in two instances, and finger rings probably in three, but these are not of much assistance in the formulation of relative chronology. Among the personal ornaments the important groups are the glass beads and the bracelets.

Containers

Occasionally a burial was accompanied by food and bones from joints of meat survived in fourteen of the graves. In four cases an incomplete pottery vessel accompanied the bones and two other burials contained broken pots, which suggests that up to the time of their burial they were in use as food containers. Their value as chronological indicators is reduced by their incompleteness, paucity, plain appearance and by the likelihood that such basic pottery could have changed little over several centuries. Although pottery is normally the most common type of artifactual evidence found on domestic sites it is poorly represented in the cemetery and of limited use as a guide to chronology.

Weapons

One grave contained an iron sword and an iron fitting which probably came from a wooden shield (burial 92), and another contained a spearhead (211). It hardly seems likely that classes or artifact so poorly represented will be of great assistance in the construction of a relative sequence for the cemetery.

Approaches to a typology

The classes of artifact which were well enough represented in the cemetery to repay investigation in greater detail are brooches, pins, glass beads and bracelets. The next stage, the identification of distinct types within these groups, is a process which has most frequently relied upon the intuitive approach. Existing studies of the classes listed above tend to employ the technique (Fox 1927, Dunning 1934, Guido 1978, Stead 1979, Dent 1982). While this method may be a useful way of identifying sharply contrasting types its major disadvantage is that marginal material finds its way into unsuitable groupings for the sake of tidiness. The short-comings of the intuitive approach were well demonstrated by Hodson, who asked archaeologists to classify the same group of artifacts with quite different results (Doran and Hodson 1975, Fig. 9.5).

It was these failings which prompted Hodson to experiment with mathematical techniques in order to arrive at an objective division of the material. Hodson tested La Tène brooches, Hallstatt swords and Palaeolithic handaxes in this way (ibid. Chapter 9). He measured dimensions and angles and fed this data into a computer. By means of clustering techniques he was then able to suggest a series of groupings, some of which corresponded with the archaeological evidence (particularly those identified by K means and Average linkage techniques: ibid. Figs, 9.11 and 9.13).

Such an approach would be appropriate for the classes of artifacts from Wetwang Slack if the objects occurred in sufficiently large numbers. Unfortunately this is not the case, for even though the number of brooches from burials is greater than the sample used by Hodson, he was able to select a good cross section from a collection of hundreds, whereas a representative sample of the Wetwang brooches would be too small to be useful. Clearly the mathmatical approach has much to recommend it and some progress might be made, in the absence of more significant information, by the identification of artifacts of similar proportions. It seems reasonable to expect that artifacts of the same type will tend to have similar proportions even though they might differ in actual size. Although this assumption may be valid it should be remembered that at the same time quite different types might share similar proportions. A scatter diagram which plots two dimensions of an artifact is a simple method of representing the proportions visually. Such a diagram might be a useful starting point for the analysis of different classes of artifact for it has the additional advantage that artifacts linked by stratification can be indicated while a third dimension can be indicated by the artifact marker. If such an approach is not found to be useful, intuitive techniques may have to be used.

The classes of artifact which are likely to be of use in the construction of a relative chronology are : 1 brooches, 2 pins, 3 bracelets, 4 glass beads. It is now time to examine each of these classes in turn.

2.3.1 CLASS 1 : BROOCHES

Of forty-three brooches forty were iron and three were bronze, so that because of corrosion products many cannot be measured to within c.0.5 mm of their original size. The ironwork was drawn prior to cleaning by the Ancient Monuments Laboratory. To do this I compared the object itself with 1:1 radiographs which showed the original shape more clearly and which revealed features such as inlay and bronze rivets otherwise concealed by corrosion.

The length and heights/depths of the brooches were measured and a scatter diagram drawn from them (Fig. 2.4a). This forms the basis for a series of different approaches to the classification of the group. From this a number of diagrams have been drawn to test the use of various criteria as typological guides, and the measure of stratigraphical support can be gauged from the arrows.

{Some brooches are incomplete but provide important stratigraphical evidence or need to be included for their exceptional form. The original dimensions for brooches from burials 115, 155 and 180 have been estimated from comparisons with what appear to be similar artifacts.}

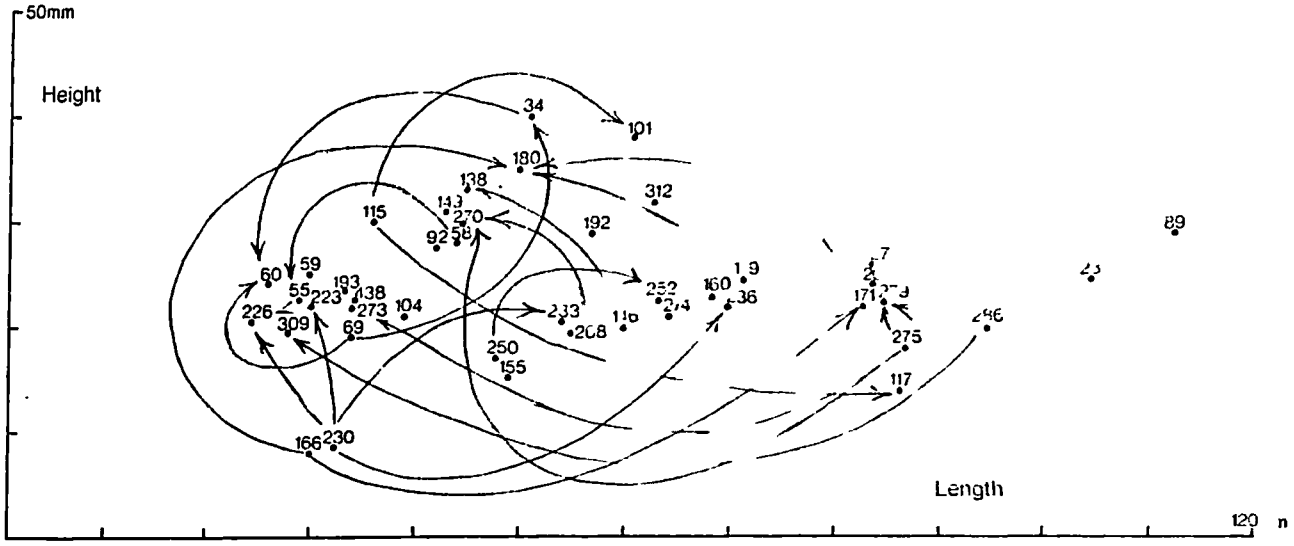
Physical Proportions

The brooches with the closest proportional similarity will lie along the same axis and this will be a straight line radiating from the crossing of the dimensional axes. Such a proportional axis appears to divide the brooches into two groups, one long and fairly low, the other short in relation to the height (Fig. 2.4b). Where relationships are known from the stratigraphy these suggest that if the difference is a chronological one, then the second group are likely to be later. One brooch in the first group was later than one in the second; this was the brooch from burial 117.

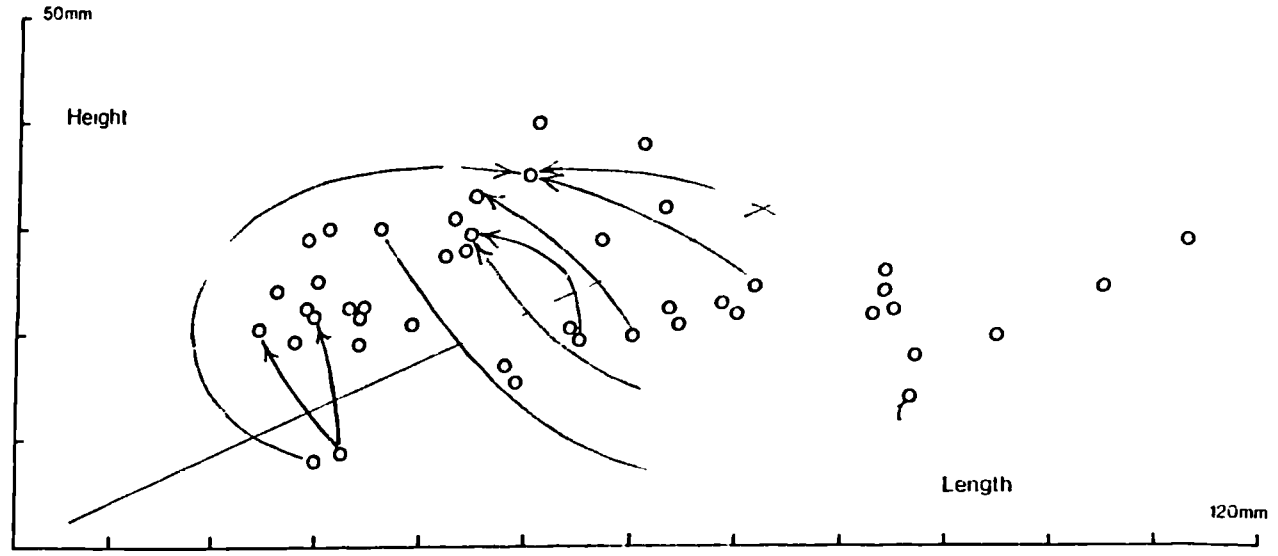
There is much more variation among the longer, lower brooches than among the shorter, higher group, and the stratigraphy suggests that there might also be chronological differences, with brooch No. 117

Artifact analysis: Class 1 (brooches) based upon a scatter diagramme of brooch dimensions.

a. Stratigraphical relationships.



b. Grouping by proportions.



c. Construction: springs, hinges and hybrid forms.

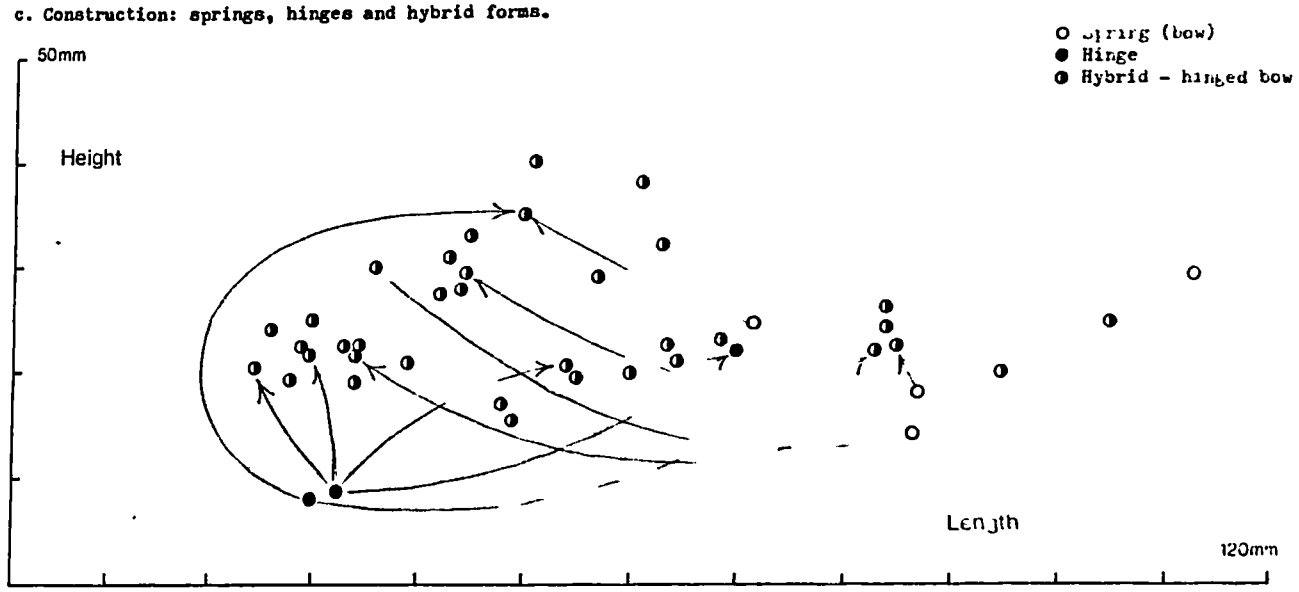


Fig. 2.4

and possibly others coming sometime after the rest of the long brooches. Although proportionately long the brooches 166 and 230 are much shorter than the others in the group in addition to which they are unusually wide.

Constructional techniques: springs and hinges

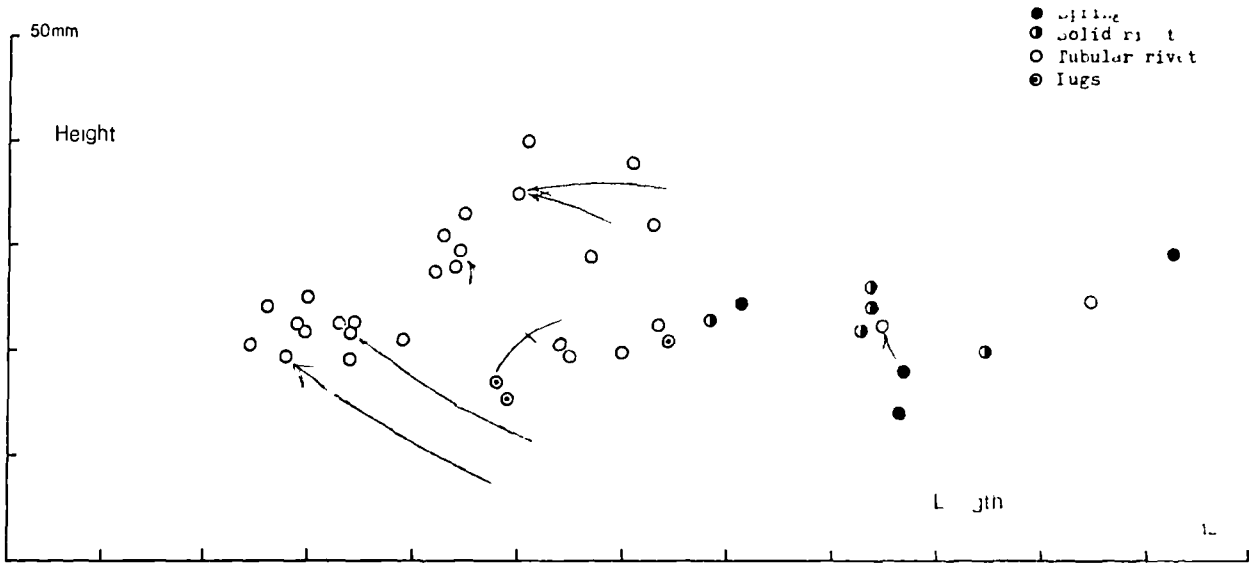
Two basic methods of closing a brooch were identified earlier. The first was by means of a spring to keep the pin in the catchplate, as in a safety pin, and the second was by means of a hinged pin. In identifying the fastening mechanisms of the brooches a problem arises. This is that not in every case is it clear whether or not there was a spring or a hinge. Springs were few; brooches from burials 89, 117 and 175 probably had springs, while that from 179 is less certain. The reason for the uncertainty is that the bulk of the brooches from the cemetery are constructed like safety-pins but have a hinge. There is no reason why a brooch which employs a hinged pin should necessarily resemble one with a spring; brooches from burials 166 and 230 are quite unlike the safety pin forms. This use of a hinge on a brooch which would normally have a spring suggests that such brooches are a hybrid form which combines features of two completely different principles. If so then there may also be a chronological difference among the brooches in the cemetery (Fig. 2.4c). The stratigraphical evidence certainly suggests that this is so and that the supposed hybrid form is later. Only in one case was a brooch with a spring (and there is little doubt that this was a genuine spring) buried in a grave (No. 117) after one which almost certainly had a hybrid construction (No. 115).

Constructional techniques: type of hinge

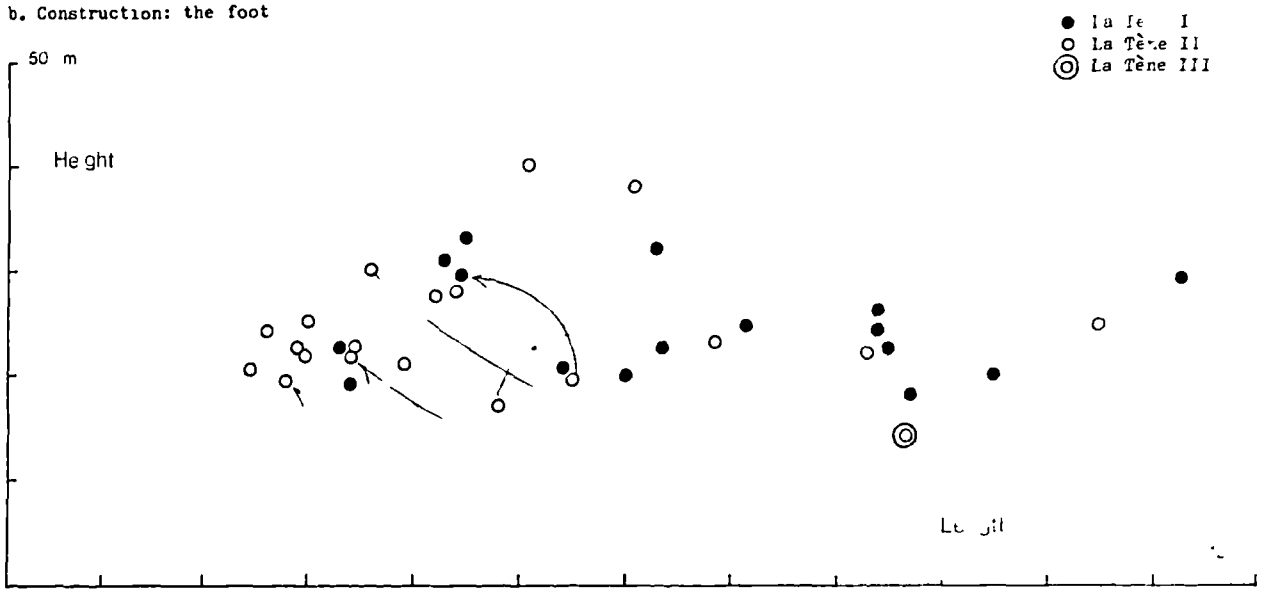
The bulk of the brooches resembled, if they did not operate in the same way as, safety-pins, and this form is traditionally called "bow brooch" from the tendency of the spine to curve as the result of the inherent tension of the spring. The brooches from the cemetery which were not made in this style were those from burials 166, 230 and 236. The hybrid forms of brooch incorporate various methods of attaching the pin.

Artifact analysis: Class 1 (brooches), continued.

a. Construction: the head



b. Construction: the foot



c. Construction: the bow

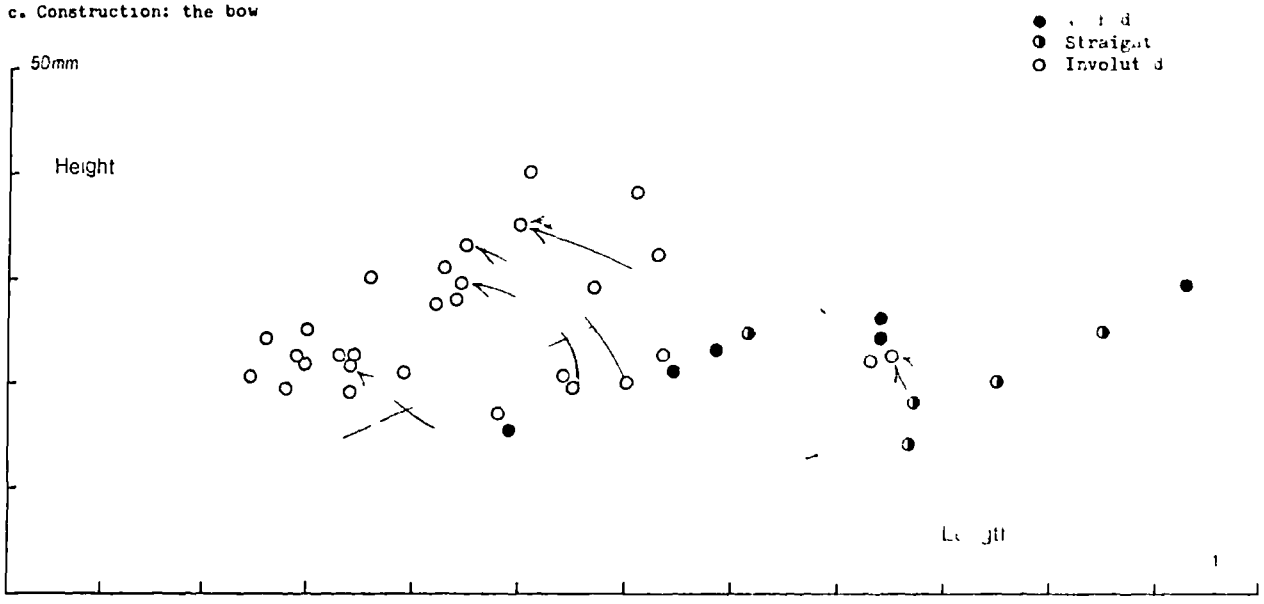


Fig. 2.5

In the majority of cases although the pin is hinged an attempt to retain some vestige of the spring appearance is maintained. In brooch No. 160 this is achieved remarkedly well; in others the resemblance of the hinge to a spring is very remote. Normally the separate pin is held in place by a rivet which passes through the centre of the pseudo-spring but sometimes it is suspended from lugs which hang beneath (in the case of brooches 155, 250 and 274). Sometimes the rivet through the pseudo-spring is solid and well concealed and is only visible on a radiograph (for example numbers 205 and 327). More frequently the rivet is made of a metal tube (usually bronze) and is very obvious; this is usually found in combination with a pseudo-spring made from three metal discs rather than from coiled wire. These types of hinge have been recognised on Iron Age brooches from other cemeteries in the area (Stead 1979, Fig. 25).

Fig. 2.5a represents bow brooches with springs and hybrid forms in which the pin is hinged upon a solid or tubular rivet through the centre of a mock-spring, and in which the pin is held by a rivet between two lugs. The stratification suggests that the forms with a tubular rivet are consistently later than other forms. In view of the remoteness of this type from the sprung brooch it seems that a definite typological trait may be recognised here. Brooches with a solid rivet were made with more attempt to copy a true spring than those with a tubular rivet. A measure of resemblance to a spring is the extent to which the chord - the external transverse link between the two outer coils - is recognisable. This is once again noticeably a feature of the longer, lower brooches, and seems to be a useful typological characteristic.

Constructional techniques: the foot

The foot of a bow brooch is the spare end of wire beyond the section which has been flattened and turned to make the catchplate for the pin. The finishing of the foot was recognised by O. Tischler in the nineteenth centry as an important typological feature of La Tène brooches (Tischler 1885) and Hodson's analysis of the sample of fibulae from Münsingen has tended to support this (Doran and Hodson 1975, Figs. 9.11 and 9.13). In the earliest La

Tène brooches the spare foot end of the brooch was turned back towards the bow for safety's sake and to maintain the neat proportions of the brooch. This manner of dealing with the foot is typical of brooches in La Tène I in Déchelette's system (Déchelette 1914) and La Tène A and B in Reinecke's system (Reinecke 1909). The next stage saw the attachment of the foot to the bow by means of a collar, and this is characteristic of La Tène II (La Tène C). The reason for this is uncertain but many of the La Tène II brooches from Münsingen are elongated forms while in central Europe heavy bosses on the foot are common. The greater stability which the attached foot imparted may have led to these developments, or the desire to make such brooches could have been the reason why the foot became attached in the first place. Brooches typical of La Tène III (La Tène D) lost the separate foot element; instead the end of the bow was turned into a larger catchplate element which was sometimes perforated to retain a suggestion of the earlier construction.

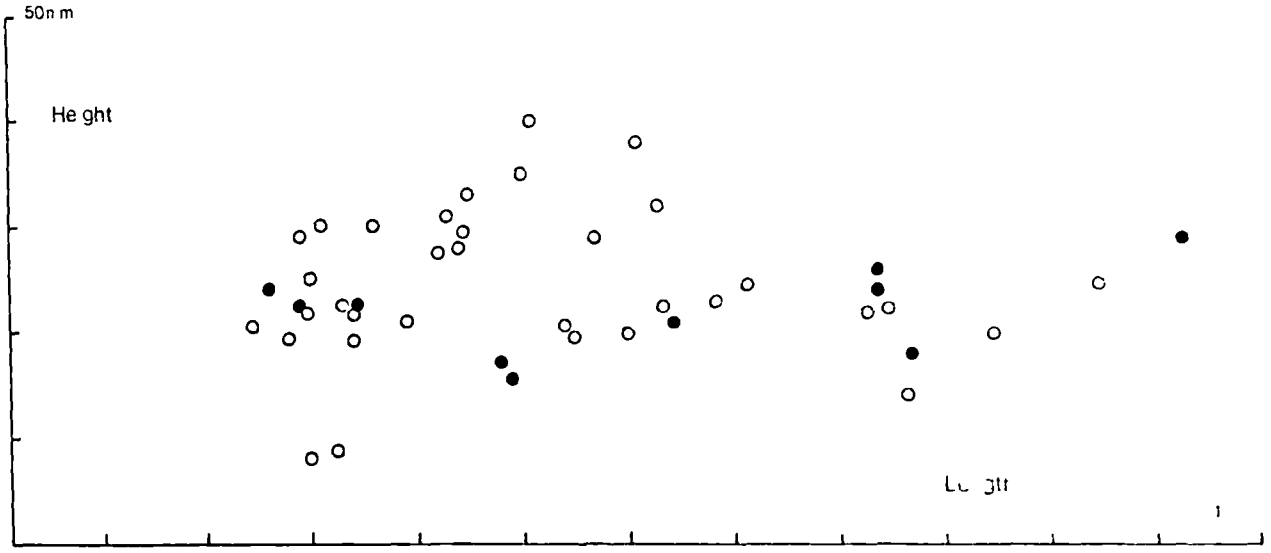
These three stages are also recognisable among the Wetwang Slack brooches (Fig. 2.5.b) and stratigraphical relationships support the continental evidence to a degree. Long, low brooches made in the La Tène I manner (La Tène Ib to use Viollier's system : Viollier 1916) are earlier than short, high brooches with La Tène II construction. In the middle range, and among some short brooches there were cases where La Tène II construction appeared to precede La Tène I brooches. The only La Tène III brooch, No. 117, was buried after one with La Tène II characteristics (No. 115).

While the general sequence suggests that changes in construction took place along similar lines to those on the continent the La Tène I method appears to have remained in use during the La Tène II stage. The construction of the foot alone thus cannot be used as a rigid basis for a typological sequence.

Constructional techniques: the bow

A good deal of variation is evident in the proportions of the brooches and since these are based upon the relationship of the length to the height this is to a large extent dependent upon the shape of the bow. As mentioned above brooches with springs

a. Applied ornament



b. Pure hing d f rm

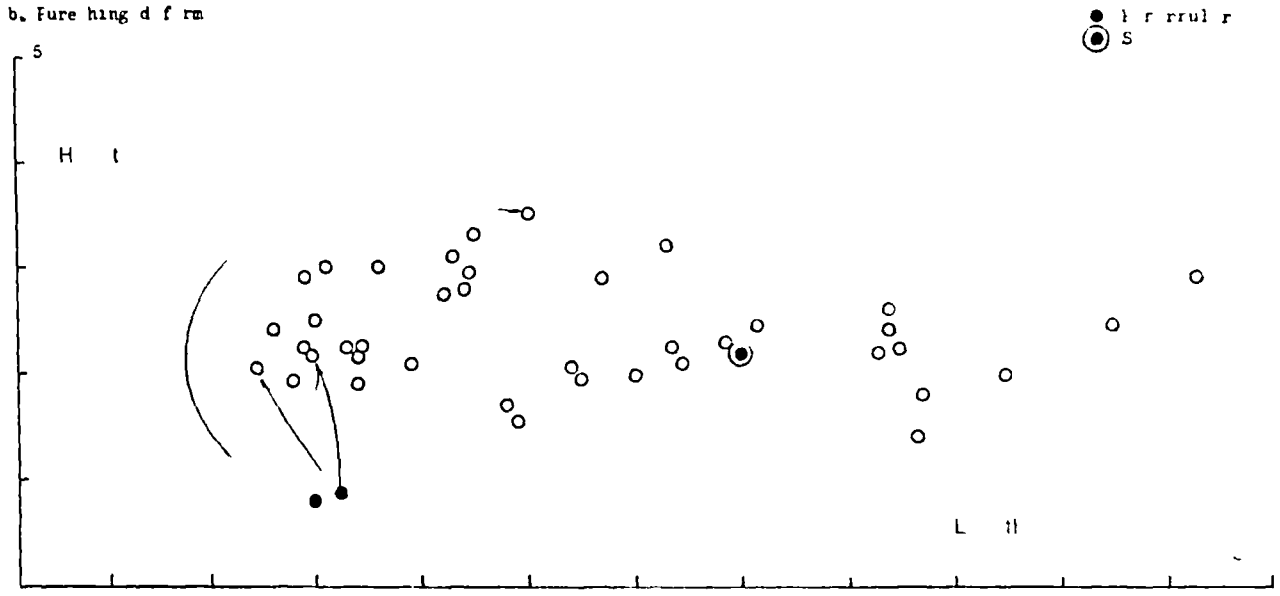


Fig. 2.6

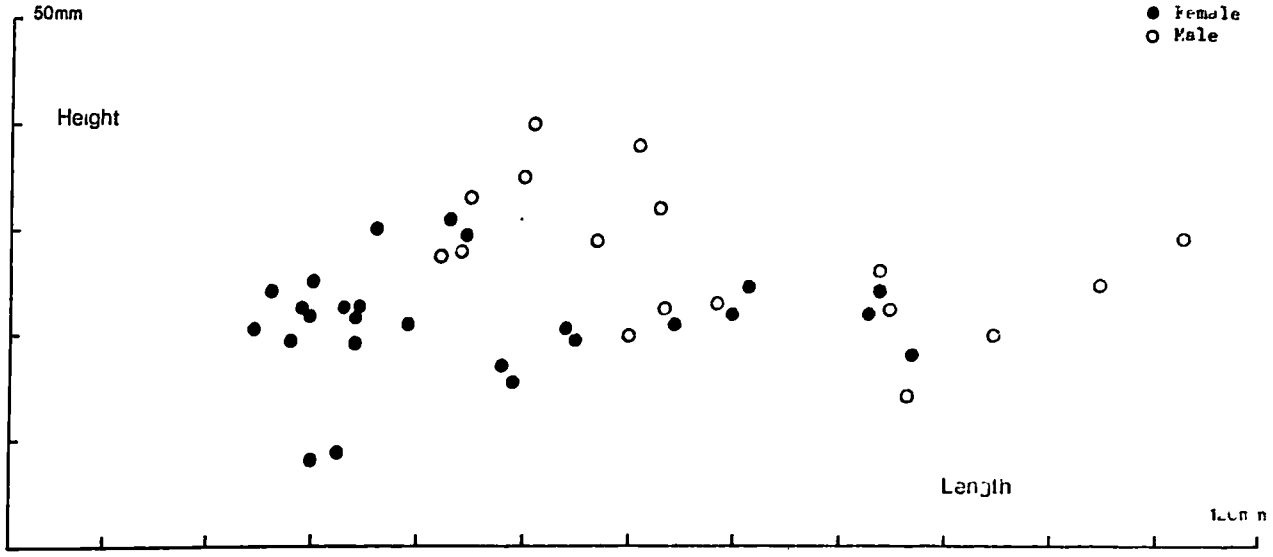
incorporate a good deal of inherent tension. This will tend to influence the shape of the bow. The safety-pin has a long flattened bow with a spring of one coil and this construction was used on early versions of the bow brooch, some of which had arched bows, some straight bows and some recurved bows (B.M. 1905, Fig. 26). These shapes are also present among the bow brooches from Wetwang Slack. There is an important difference, however, between brooches with one-coil springs and those with multiple coils which are balanced on either side of the bow. The latter, because of the angle at which the bow enters the spring, have greater thrust and this favours a bow with a marked convex arch. The convex arched bow is virtually universal among brooches on the continent in the early stages of La Tène I. Very few of the Wetwang Slack brooches have an arched bow, even where there is a spring rather than a hinged pin. Some have an elongated flat bow while in the majority of cases the bow is concave. These characteristics are in marked contrast to brooches on the continent, and they may be the result of the use of a hinged pin which imparts little tension on the bow of the brooch.

There are no direct stratigraphical links between brooches with arched bows and other forms (Fig. 2.5c). Three brooches with flat bows did however precede two with recurved bows. Conversely one brooch with a recurved bow (115) was buried before the flat bowed brooch from burial 117 which has already been mentioned for its La Tène III construction. Of further interest is the degree of curvature among recurved bows. In three cases brooches with recurved bows but with long, low profiles preceded brooches with recurved bows and short, high profiles. This suggests that the brooches with long flat bows were succeeded by brooches with long recurved bows and that these were in turn succeeded by brooches with short recurved bows.

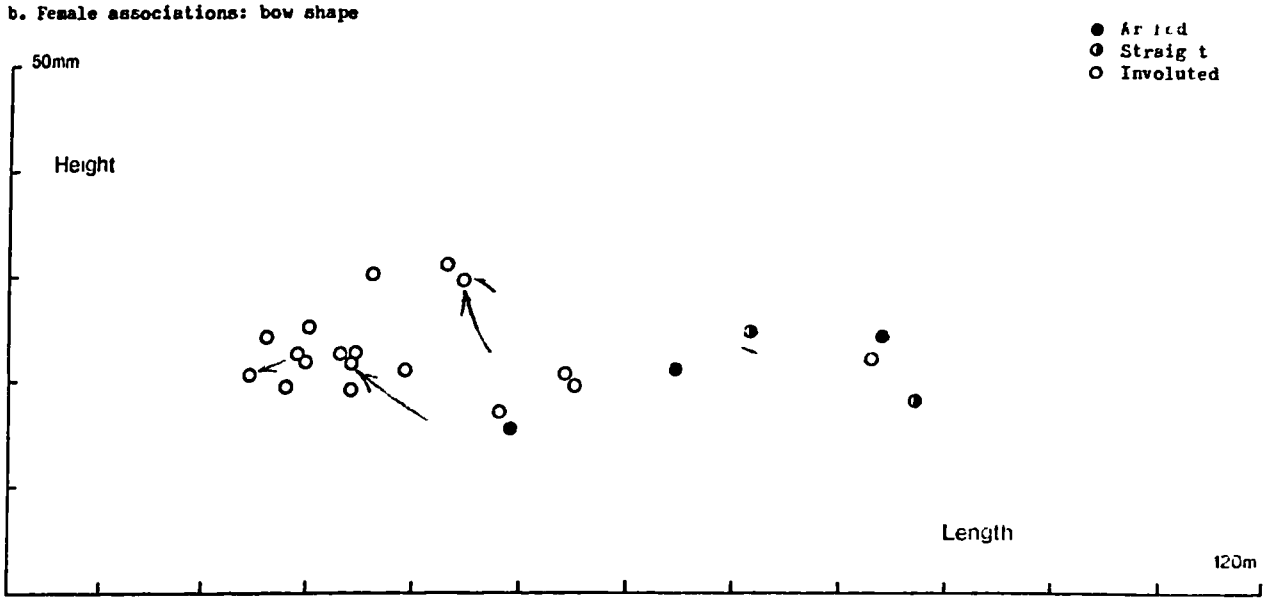
Construction: ornament

Several brooches in the group were decorated in some way (Fig. 2.6.a). Two of these (Numbers 115 and 160) had the foot decorated by engraved designs but others were decorated by the attachment of pieces of coral or stone. Only bow brooches were decorated in this way and ornament was usually concentrated at the foot. Two clear

a. Male and female associations



b. Female associations: bow shape



c. Male associations: bow shape

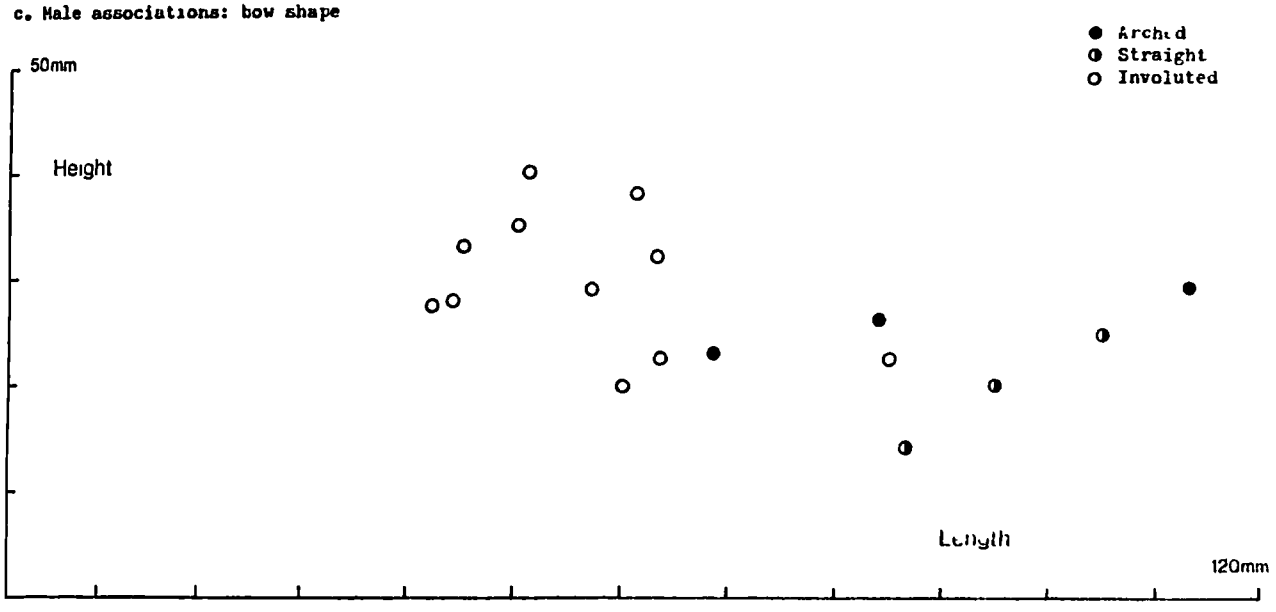


Fig. 2.7

exceptions are the brooches from burials 155 and 274. Although the bow was retained as a feature the upper part of these brooches presented extensive surfaces which were decorated with pieces of inlay. The inlay in No. 274 was certainly coral and while most had been attached by means of an organic composition two studs were fastened by rivets. The inlay of No. 155 may also have been coral and this was entirely attached by a compound which had deteriorated.

Three brooches from burials 55, 60 and 438 had pieces of inlay attached to the foot by means of rivets; in two cases this was certainly coral but in the third (No. 60) the ornament had been replaced by the products of iron corrosion.

The foot of the brooch from burial 89 was decorated with a circular arrangement of three pieces of (?) coral held by bronze rivets inside which was a stud of another material. A bronze stud decorated the foot the brooch number 327 in a similar way and holes, possibly for rivets, were features of the foot in the case of brooches 205, 268 and 275.

Three beads, possibly of amber, were attached to the foot and either side of the mock spring in the case of brooch 250. This partly explains why the pin of this brooch was suspended from lugs beneath the mock-spring.

There are similarities between the mode of decoration on brooches 155 and 274 and also between those on brooches 55, 60 and 438. These may be significant features for the purposes of classification.

Size

Brooches have been plotted onto a basic scatter diagram in order to identify examples which shared similar proportions. Where this was so brooches were not necessarily similar in size, and actual dimensions should be examined lest these should in themselves be a significant typological feature.

Although a certain amount of evidence cited above suggests that longer brooches were earlier than shorter ones it should be stressed that this refers to brooches of different proportions. Large elongated brooches are not necessarily earlier than small elongated brooches, in fact there is evidence for that the contrary may be true (Fig. 2.6.b). Nor are small brooches with compact proportions necessarily any later than large ones.

The chief factor which influenced the size of a brooch appears to have been the sex of the wearer (Fig. 2.7.a). In general small brooches were worn by women, larger by men. When this factor is taken into account male and female burials can be analysed separately using approaches already described. In doing this some stratigraphical links are lost but the grouping of similar characteristics is more coherent (Figs. 2.7.b and 2.7.c).

Conclusions

Several different approaches have been tested against the evidence of the physical proportions of the brooches and against the stratification of the burials. An initial examination seemed to suggest that proportions varied with time but as has just been shown grouping was obscured by a disparity in size between similar brooches depending on whether they were worn by a woman or by a man.

The method of fastening was a useful feature and it emerged that the majority of the brooches were based upon the bow brooch even though most of these had a hinged pin.

Among new brooches significant characteristics were the fastening mechanism and the construction of the foot but while these emphasised the apparent chronological progression from long, low brooches to short, high ones this development could be more clearly seen to correspond with changes in the shape of the bow. Decorative elements also seemed to suggest certain groupings.

Class 1: brooch types.

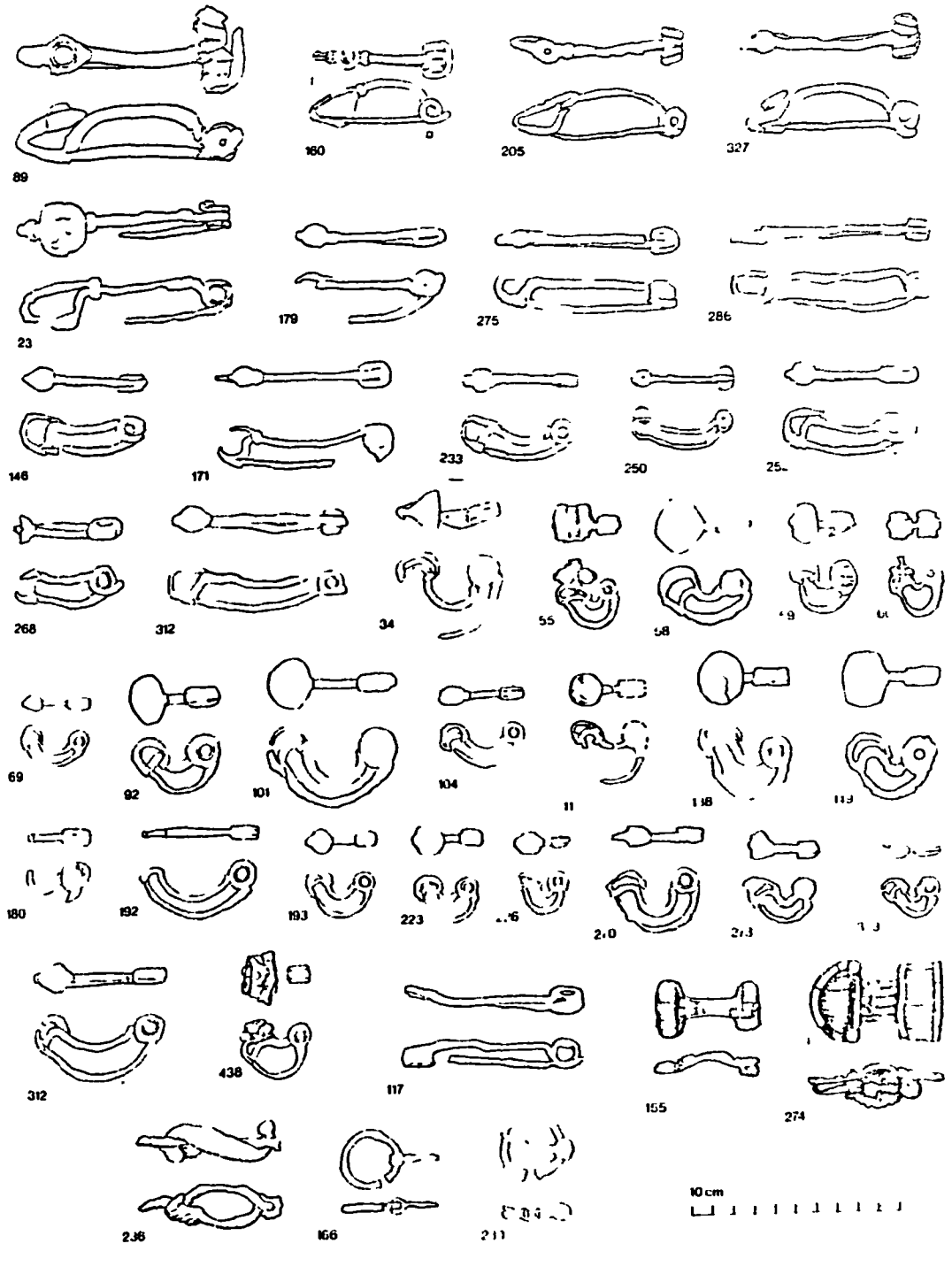


Fig. 2.8

Type 1: nos. 89, 160, 205, 327; Type 2: nos. 23, 179, 275, 286; Type 3: nos. 146, 171, 233, 250, 252, 268, 279; Type 4: nos. 34, 55, 58, 59, 60, 69, 92, 101, 104, 115, 138, 149, 180, 192, 193, 223, 226, 270, 273, 309, 312, 438; Type 5: no. 117 Type 6: nos. 155, 274; Type 7: no. 236; Type 8: nos. 166, 230.

In examining various constructional features above different types seemed to be suggested by varying criteria some of which could easily have been in use at the same time as others. The principle categories which may be identified in this way seem to be:

1. Arched bow brooches (La Tène I and II)
2. Flat bow brooches (La Tène I and II)
3. Long involuted bow brooches (La Tène I and II)
4. Short involuted bow brooches (La Tène I and II)
5. Flat bow brooches (La Tène III)
6. Inlaid bow brooches
7. S Brooches
8. Penannular brooches

The characteristics of these groups and the reason for their identification may now be summarised (Fig. 2.8).

Type 1. Arched bow brooches (La Tène I and II)

This type is chiefly suggested by the shape of the bow. Of four brooches with convex bows only one had a spring (89) but the other three were so made that although the pin was hinged on a solid rivet they would have appeared to have had a spring. Three were of La Tène I construction but the fourth (160) was made in the La Tène II manner. This group broadly corresponds with the brooches called "arched bow" by Stead (1979, 64). No direct stratigraphical relationship with other brooches exists.

Class 1 (brooches); distribution.

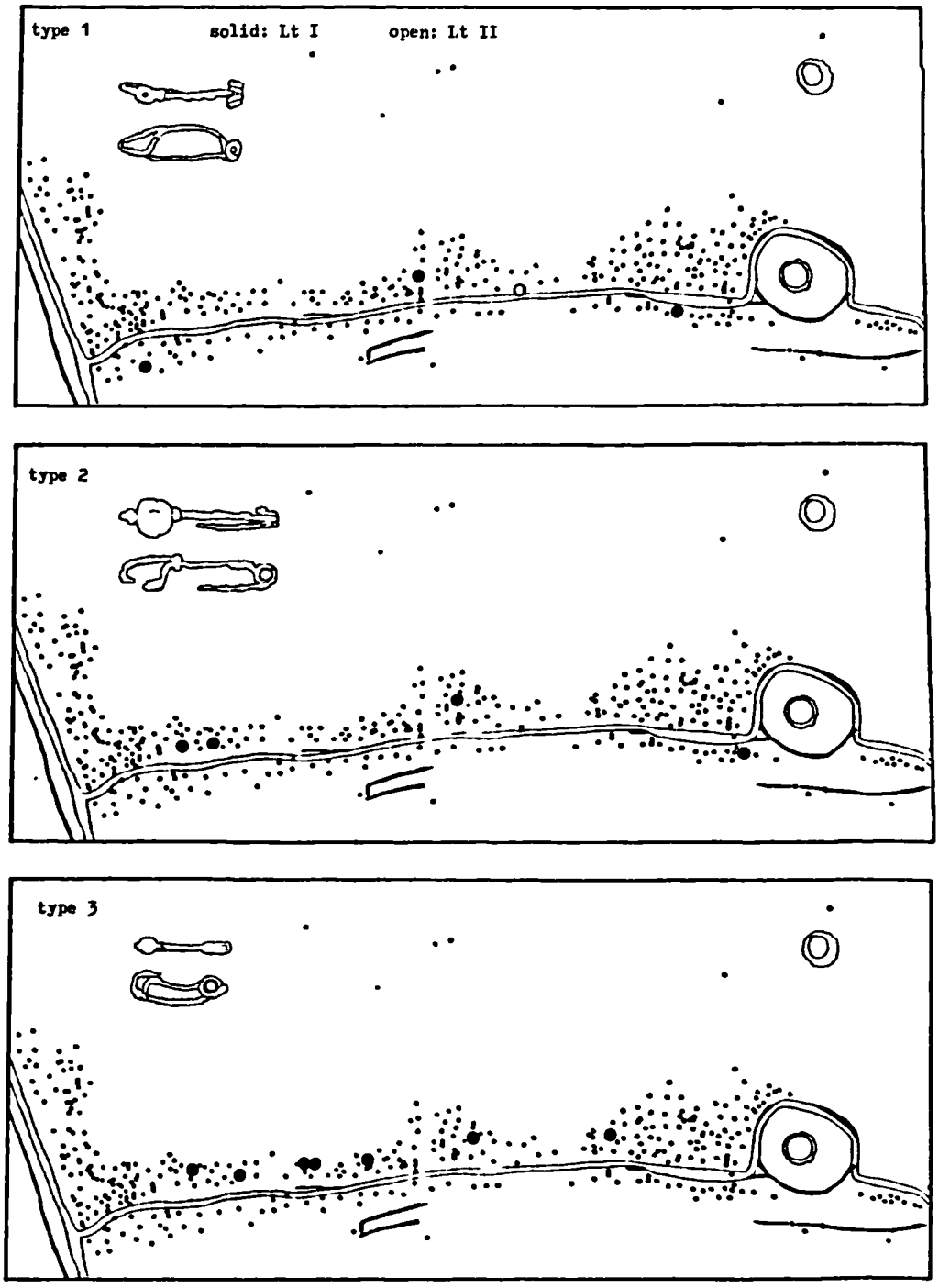


Fig. 2.9

Type 2. Flat bow brooches (La Tène I and II)

As with the previous group this type is distinguised chiefly by the shape of the bow and corresponds with the form variously named :flat-bowed" (Fox 1927, 89), "straight bow" (Watson 1947, 180) "flattened-bow" and "rod-bow" (Jope 1961, 26, 27). The chief characteristic is, as the various names suggest, the shape of the bow. Three of the brooches have La Tène I foot construction and only one (No. 23) is made in the La Tène II manner. One, perhaps two of the brooches have springs (275 and 179) while of the remainder one has a solid rivet to hold the pin (286) and the other swivels on a tubular rivet (23), a type which the stratification suggest was a later development. In three instances a flat bow brooch preceded an involuted bow brooch in the stratification (Fig. 2.5.c).

Type 3. Long Involuted Bow Brooches (La Tène I and II)

The concave shape of the bow gives this brooch its familiar name, which was first coined by Sir Arthur Evans (Evans 1915, 571). As a group these brooches are mainly suggested by the coherent cluster which they form on the scatter diagram. Of seven brooches in the group four have La Tène I and three have La Tène II construction. One has a solid rivet through the false spring to hold the pin and another has the pin suspended beneath the false spring by means of lugs; the remainder have a tubular rivet. The external chord is still represented on four of the brooches. One of the brooches (No. 279) was stratifield later than flat bow brooches 275 and 286. Three of the brooches preceded short involuted brooches in the succession (146, 171 and 268).

Type 4. Short involuted brooches (La Tène I and II)

The brooches of this group have a pin hinged on a tubular rivet and the twenty-two brooches of this type have a mixture of La Tène I and La Tène II construction. Several stratigraphical relationships indicate that most other brooch types are earlier. The exception is type 5 (burial 117) which followed No. 115 in the stratification.

Class 1 (brooches): distribution, continued.

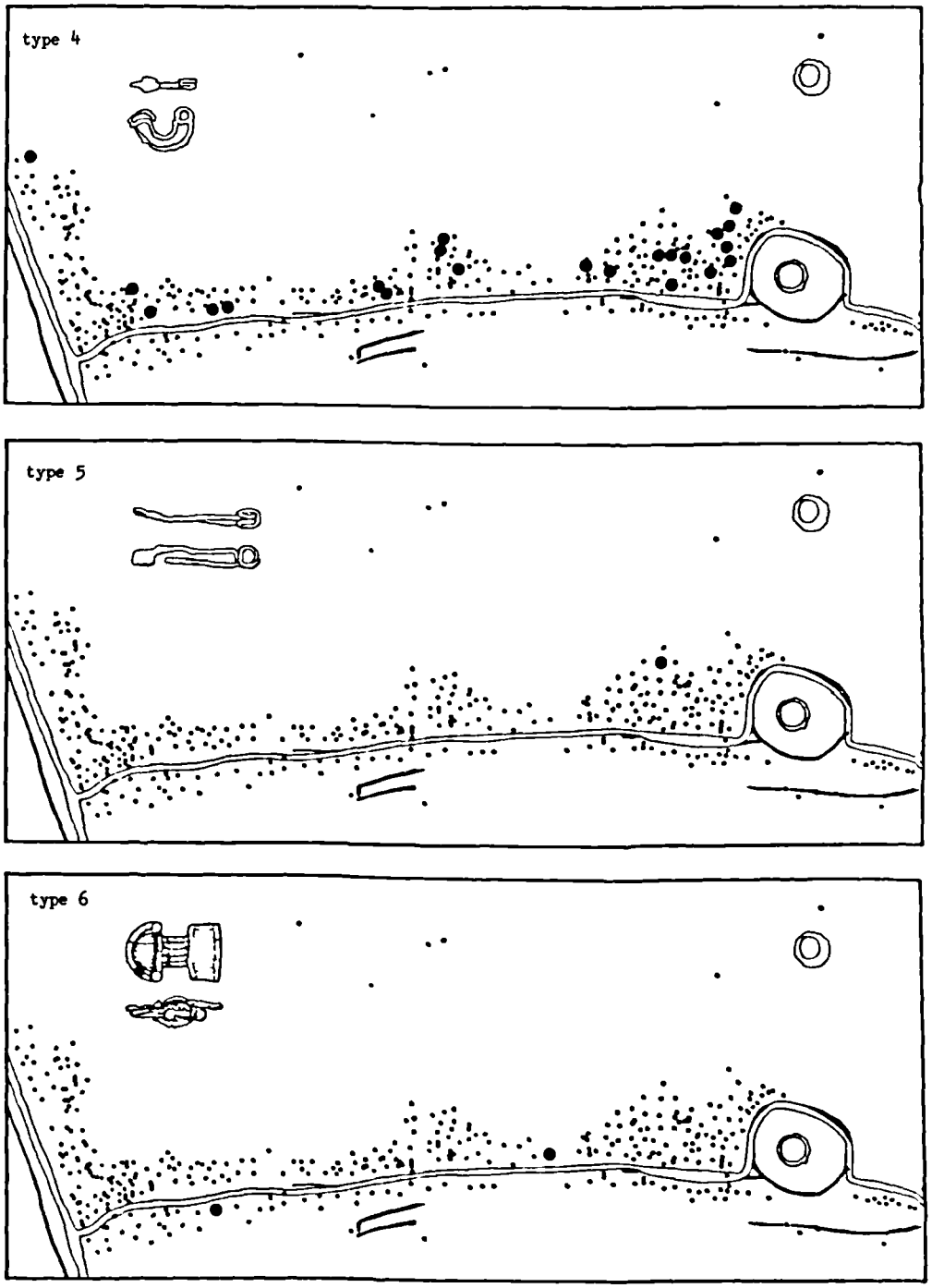


Fig. 2.10

Type 5. Flat bow brooch (La Tène III)

Although this is similar to other flat bow brooches in its proportions it was recognised at various stages as being quite anomalous because of its stratigraphical relationship with No. 115. Only one example (No. 117) is represented. It has a two coil spring with external chord and this, with the long flat bow is in stark contrasts to the preceding group of short hinged brooches with involuted bows. On the other hand a somewhat earlier brooch from burial 275 shares both the spring and the flat bow, but has La Tène I construction.

Type 6. Inlaid bow brooches

Two brooches No. 155 and 274, have the basic elements of a bow brooch, but these are extended and exaggerated in order to provide a platform for elaborate decorative inlay. They form no clear part in a brooch typology for they are exceptional products, not links in a typological tree. Neither has direct stratigraphical links which relate it to other brooches, but both come from graves within enclosures which were cut by the linear ditch A (Appendix 2 : vii), and are unlikely to be among the latest burials in the cemetery. A name for this type does not already exist, for only one another example appears to be known. This is now lost, but was among the finds from the cemetery at Arras:

> "An ornament of two parts, a parallelogram and a heart, united by a kind of bridge. A kind of composition had been included within the brasswork, round, of about the size of a large rusk, and three of these go over the bridge of the brooch. It fastens with a tongue exactly like our modern brooches." (Greenwell 1906, 301).

Type 7. "S" brooches

One brooch in this category was found in the cemetery (No. 236). The type owes little or nothing to the bow brooch and is closer in construction to type 8, the penannular, one of which

Class 1 (brooches):distribution, continued.

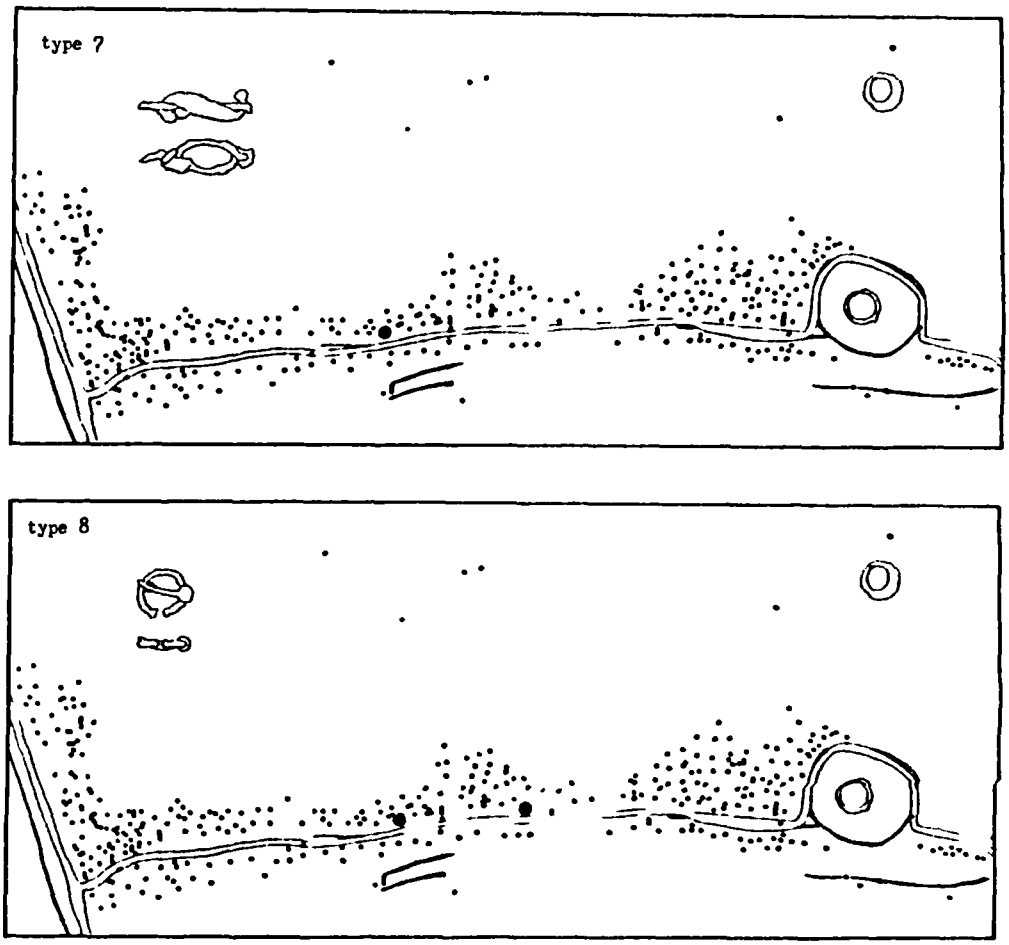


Fig.2.11

preceded it in the stratification. Two examples from non-funerary contexts have been found in the same valley (Brewster 1981, Fig. 125; Dent 1983a, Fig. 4, No. 8) where an Iron Age date is probable. The type has also been found in Roman contexts but generally with a flatened S plate (Feacham, 1951, Fig. 9, and 1968, Fig. 2; Stead 1980, Fig. 61, Nos. 16 and 17). Wetwang Slack examples may be regarded as being typologically ancestral to the Dragonesque fibula (Feacham, 1951 and 1968).

Type 8. Penannular brooches

The brooches from burials 166 and 230 fall into the long recognised category of penannular brooches. The most readily distinguished from bow brooches by inituitive means, this type was recognised primarily by its fastening technique and by its discrete grouping on proportional grounds (Figs. 2.5.c and 2.7.b). Major studies of such brooches have been published (Fowler, E, 1960; Simpson 1979) and the origin of the type is far from settled, although pre-La Tène prototypes are known from the continent (Alexander 1964, Rowlet 1966).

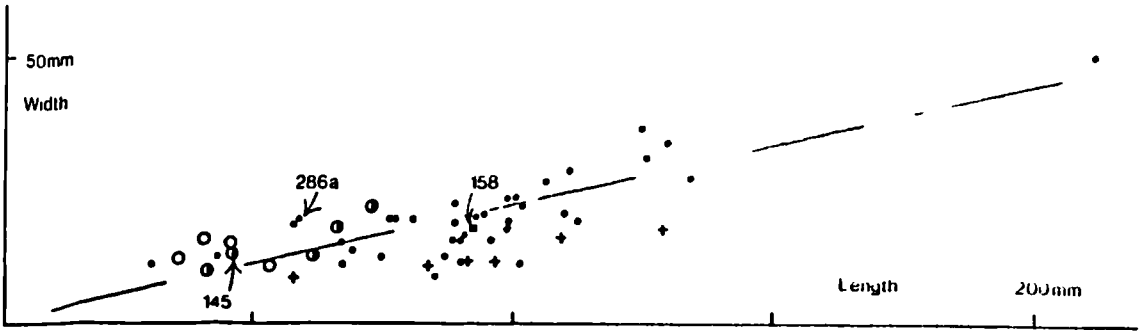
2.3.2 CLASS 2 : PINS

Only four pins were found in the cemetery (Nos. 145, 158, 286;a and 286;b) and no two could be said to closely resemble each other. Among the brooches the sample was large enough for some distinct types to be identified from the recurrence of a particular design. Among the pins this is not the case and if these are to be approached in the same way as the brooches a larger sample is needed. The pin enjoyed widespread use in Britain during the Iron Age and pins with a ring-head were one of the classes of artifact which Hodson considered to be characteristic of indigenous native culture (the Woodbury Complex: Hodson 1964,b). An early corpus of insular pins was compiled by Dunning and this provides a workable number of examples for comparison.

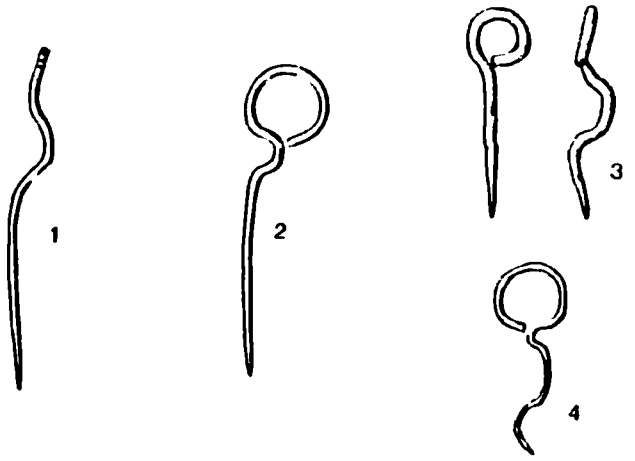
Class 2 (1 ins)

a. Analysis based upon dimensions and loop form

+ type a
• type b
O type c
O type d
■ sp. no. 1,8



b. Basic types



c. distribution of pins at Wetwang Slack.

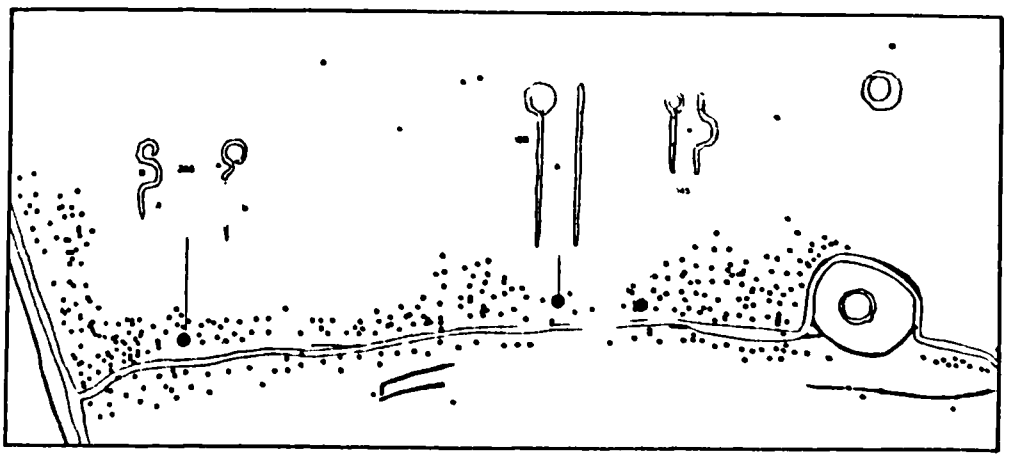


Fig. 2.12

Another useful group of pins is that from the Upper Thames Basin published by Harding (Harding 1972, 170, Plate 173). A table (Appendix 2.2) of the dimensions of these pins includes also those of five pins from Eastern Yorkshire, and from this scatter diagrams have been drawn to observe possible grouping (Fig. 2.12a).

Forms of Pin

The sample contains fifty-eight pins. Of these seven have a relatively simple finish but all share a swan's neck profile with a loop, the purpose of which would probably have been to hold fast some of the folds of cloth and thus keep the pin from slipping out of place. Forty-six of the pins have the head of the shank turned into a ring, and some form of circular arrangement, either as a disc, a wheel or as a circular setting for an inlay is a feature of the five remaining pins. A swan's neck loop is a found on most of these pins (a notable exception being the pin from burial 158) and usually this lies in the same plane as the ring-head.

On a few examples however the loop lies at right angles to the ring or circular head (for example from burial 145 and on a pin from Garton Slack (Dent 1983a, Fig. 8,G), and this was a feature of those pins which Dunning termed "involuted" (Dunning 1934, 279). Another small group (four examples) has a second set of twists to the shank, and this provides, in effect, a second loop. The treatment of the head and the loop, because of these variations, appears to be a useful basis upon which to analyse the sample.

The length and width of the pins are compared in a scatter diagram (Fig. 2.12.a). The proportions of the pins in the sample appear to be consistent and only one unusually large example occurred, from Sawdon, which could have been found with a burial (Stead 1979, 77, 103). Pins with swan's necks but with only simple heads had, partly from their simplicity, rather more slender proportions than those with ring-heads. "Involuted" pins and those with a double loop were characteristically small. Four basic types may perhaps be recognised (Fig. 2.12b):

(1) pins with a swan's neck only
(2) pins with a ring-head and swan's neck loop

(3) "involuted pins"

(4) pins with a ring-head and double loop

Sexual Differences

It was found earlier that where examples of a brooch type varied in size the burial associations implied that in general females wore smaller brooches and larger examples were worn by males. Some such sexual bias might also be observed in the case of pins and this would be simple to test. The major shortcoming of the sample in this respect is that very few of the pins were found in graves and even those which were cannot necessarily be ascribed to a particular gender. The burial evidence may be summarised as follows:-

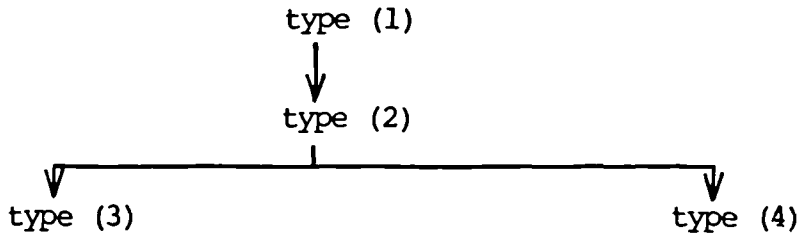
Source	Sex	Pin Group	Length (mm)	Reference
Harlyn Bay, ?38 Cornwall	unknown	2	87	Whimster 1977, 88
Garton Slack 17	unknown	3	72.5	Dent 1983a 11-12
Danes Graves 41	"probably female"	2	125	Stead 1979, 100; Mortimer 1898,120
Wetwang Slack 145	female	3	46	
Wetwang Slack 158	male	-	92	
Wetwang Slack 286,a	male	2	59	
Wetwang Slack 286,b	male	2	58 (at least)	

Pin types 2) and 3) were represented in graves (Fig. 2.12c). The involuted pin from burial 145 was small for its group and was found

with a female, but no great significance may be attached to the fact in view of the shortage of supporting evidence. Of the more usual type of ring-headed pin (2) three examples were found, of which both the examples found with a male were smaller than that "probably" found with a female. The unclassified pin from burial 158 was found with a male burial and was in the middle size range for pins in general. On this evidence there is no need to suppose that sex is a factor which affected the dimensions of pins.

Theoretical Typology

The simplicity of the pins with a swan's neck loop in the shank suggests that these were the earliest form to be used, and the step from those to pins with a ring headed terminal is a short one. Thus types (1) and (2) should be chronologically distinct and would be made in that order. Types (3) and (4) are perhaps best seen as variants of type (2) and would presumably have been developed during or at the end of the period when type (2) was popular. While types (3) and (4) are probably evolved from type (2) they could be parallel developments and one type need not have been given rise to the other. Typologically a likely order of development would have been:



Such sequence is in agreement with the typological study of pins which was published by Dunning in 1934 and in fifty years his interpretation has not been superseded. If this was indeed the way in which this class of artifact was developed there should by now be chronological evidence to support it, and here the stratification of the burials at Wetwang Slack if of little direct help.

Stratigraphy

Of the four pins found two were associated in the same grave with a flat bow brooch with La Tène I construction (286, a and b). The overall dimensions of the pins are similar but a has (a) much longer loop than (b), and they clearly do not constitute a pair. The pin from burial 145 was buried after the ditch of the adjacent burial 146, in which was a long involuted bow brooch, had silted up. Since brooches with involuted bows are later than those with flat bows this supports the suggestion that involuted pins (type 3) are later than at least some ring-headed pins of type (2). The unclassified pin from burial 158 had a ring-head but no swan's neck; it was buried some time after the La Tène II bow brooch from burial 160.

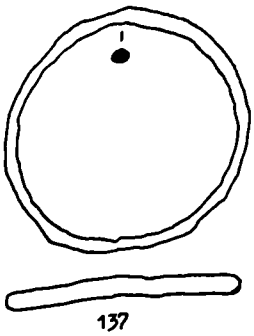
Pins, because of the small number of them, have little help to offer in the construction of a relative chronology for the cemetery. In spite of this the stratigraphical relationship of pins to brooches helps to place the rather unusual variety, the involuted pin, and this will have a bearing upon the dating of other examples, in particular the important pin from Garton Slack. At the same time it helps to clarify the chronological relationship between the penannular brooch and the involuted pin. One hypothesis suggested this type of pin as a prototype for the brooch (Fowler 1960, 156, Fig. 4) but this is not supported by the Wetwang Slack evidence, in which the stratigraphical chains 146-145 and 230-233 show that penannular brooches were buried before long involuted bow brooches and that the latter type was buried before the involuted pin.

2.3.3 CLASS 3 : BRACELETS

Thirteen bracelets were found in eleven graves (Burials 60 and 155 each contained two) of which six are bronze and seven iron, (Fig. 2.13). Only six have any ornamental features and five of these are bronze. All are solid, unlike the example from a grave in Garton Slack (Dent, 1983a Fig. 8,E) which had been made from sheet bronze.

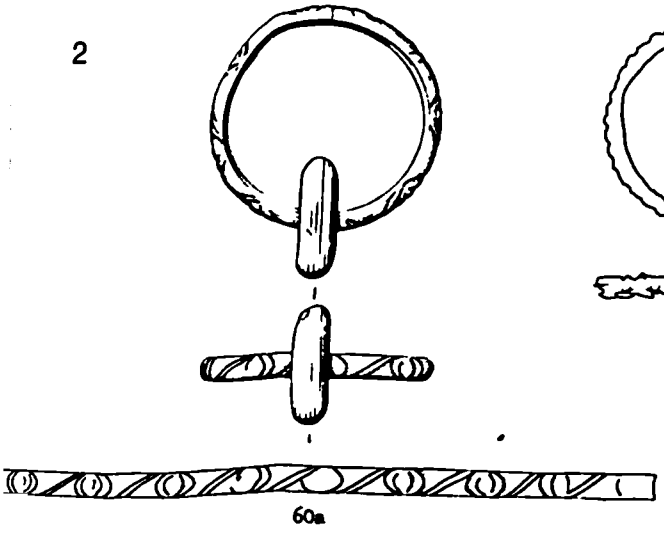
Class 3 (Bracelets): Types

1

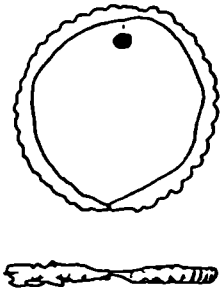


137

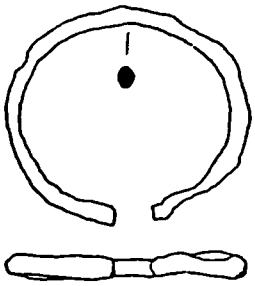
2



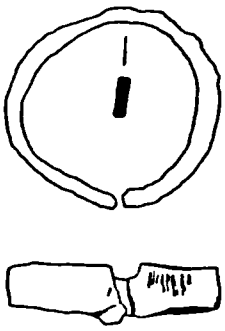
60a



60b

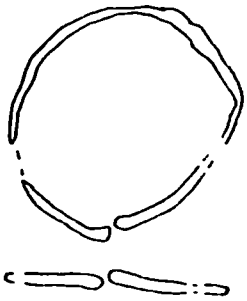


132



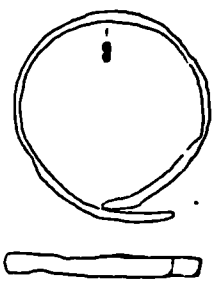
133

2 or 3

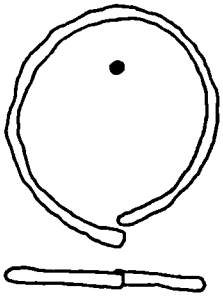


349

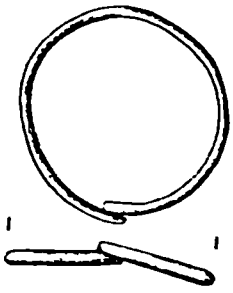
3



57

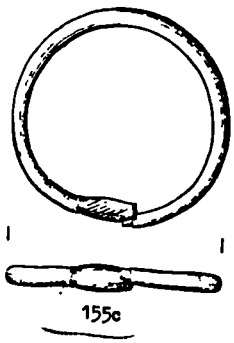


124

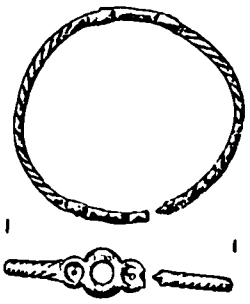


155b

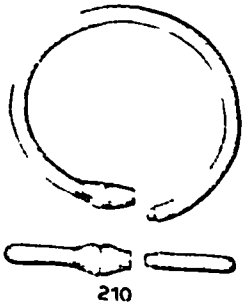
4



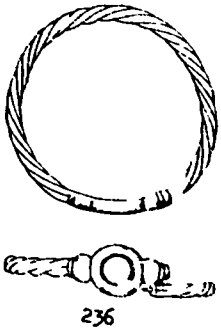
155c



160



210



236

Fig. 2.13

Basic Forms

A mathemetical approach to the problems of classification has been attempted with some limited success with regard to brooches and pins, but the bracelets, made to fit a standard human wrist, tend to share similar dimensions and this method of analysis was found to be of little practical help.

With the failure of this approach at a simple level (and the sample is too small to employ more elaborate clustering techniques) it is necessary to examine the few distinctive features of these bracelets for similarities which may be characteristic of discrete groups within the general class of artifact. With one exception (that from burial 137 is a continuous ring of iron) all the bracelets are fashioned to allow expansion and are basically a metal bar turned into a circle. The terminals of these were treated in three basic ways, so that with No. 137 the following techniques may be identified (Figs. 2.13, 2.14, 2.15)

(1) Continuous ring (No. 137)

(2) Abutting terminals (Nos. 60a, 60b, 132, 133, ?349)

(3) Overlapping terminals (Nos. 57, 124, 155b, ?349)

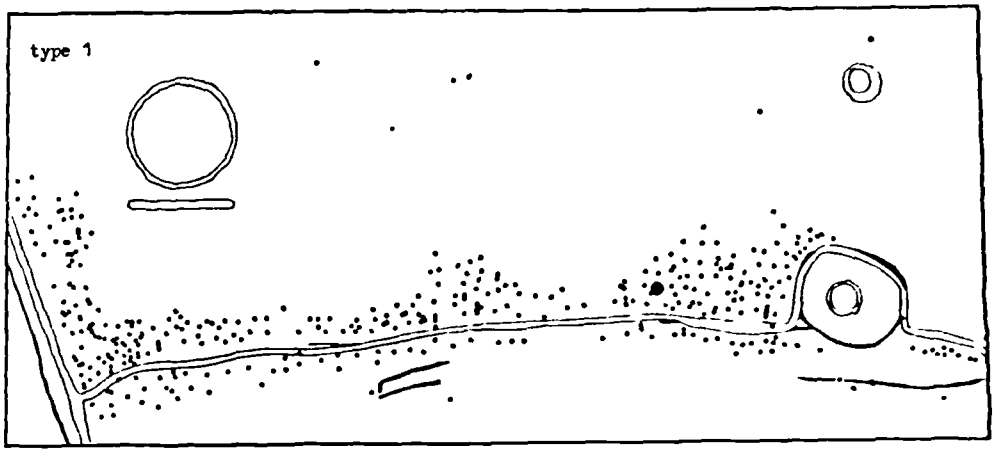
(4) Mortice-and-tenon terminals (Nos. 155c, 160, 210, 236)

(The fragmentary nature of the bracelet from burial 349 leaves some doubt as to the precise nature of the closing method).

Construction and Ornament

Variations in form and decorative techniques are easier to detect on bronze bracelets than on iron ones which have suffered from the effects of corrosion. In most cases the body of the bracelet appears to be circular or oval in section and is plain. All the bracelets in groups (1) and (2) fall into this category. In four

Class 3 (Bracelets): distribution



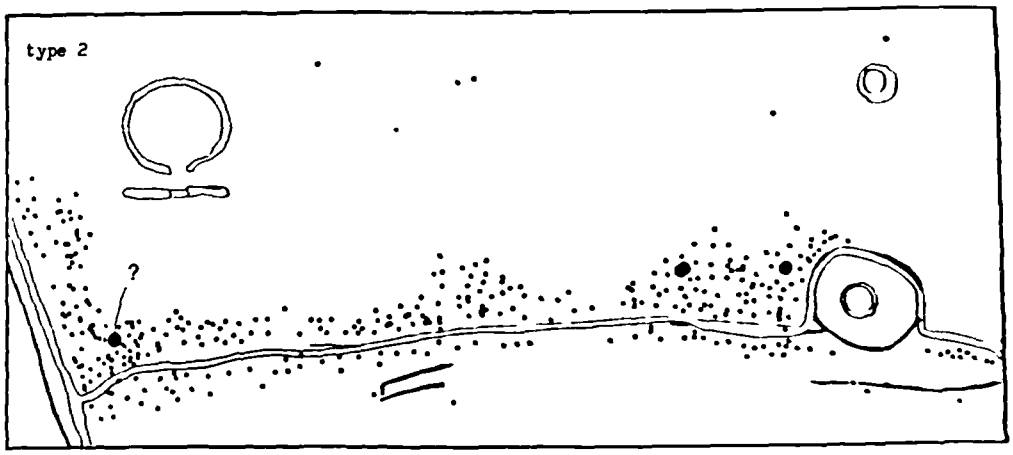


Fig. 2.14

cases this is not so; the example from burial 133 is rectangular in section and is made from a flattened iron bar, while the complete circuit of another (60b) is beaded, the only instance of recognisable decoration on an iron bracelet. The bronze bracelets from burials 160 and 236 are both made to resemble twisted wire, but the former is so worn that much of this effect is lost on the outer face.

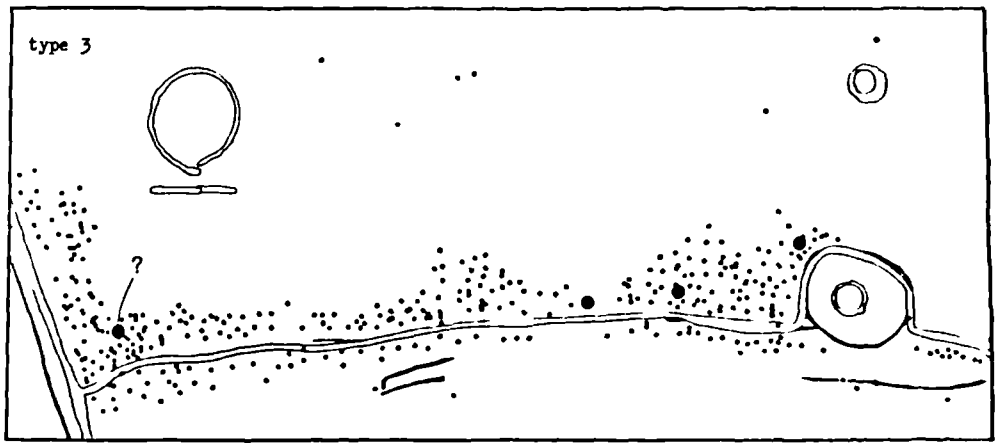
Extensive decoration, other than the unusual treatment of the bracelets just described, occurs only around the circumference of a bronze bracelet with abutting terminals (60a) and takes the form of series of eye-like motifs linked by a running scroll. Otherwise decorative elements are confined to specific zones of the bracelets with mortice-and tenon terminals. In all four cases the "mortice" terminal is expanded to accommodate the socket and this provides some scope for either cast, engraved or applied ornament. Here again the bracelets from burials 160 and 136 show strong similarities for the terminal in each case is an annulet flanked by swollen mouldings. In the case of 160 these mouldings were once decorated with pieces of pink shell or coral held by rivets and the whole decorative element of annulet with inlaid mouldings was repeated on the diametrically opposite face of the bracelet.

From the evidence of decorative elements only the bracelets from burials 160 and 236 show a sufficiently close similarity to suggest that they may constitute examples of a discrete sub-group of *group* (4). Furthermore there *are good* parallels for the twisted body and the use of inlay among the grave goods at Arras (in particular from Arras W24; Stead 1979, Fig. 27,3). This is, however about as far as this method of classification can be taken with any confidence.

Stratification

Classification has been, at the first stage, based upon the basic construction of the bracelets. Of the four groups isolated above only the last may be considered as a relatively subtle design. The others embody only the most elementary techniques for producing a circle of metal, and for this reason it is unlikely that any chronological significance can justly be attached to them. It is a

Class 3 (Bracelets): distribution, continued



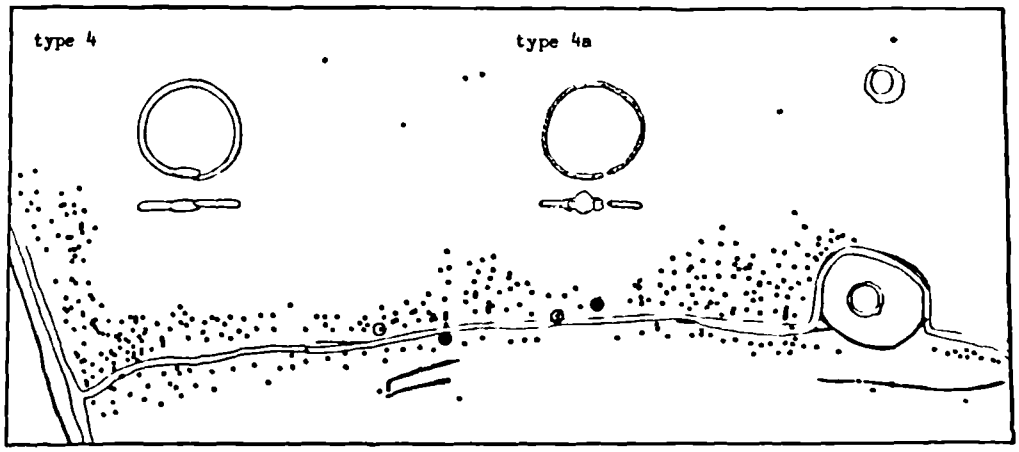


Fig. 2.15

plausible notion that type (4) with the mortice-and-tenon joint developed from the simple butt-joint of type (2), but this is of little use in the construction of a relative chronology for the cemetery, as type (4) bracelets come from burials which occurred in the early stages of their stratification chains while those of type (2) occurred late in theirs. While the bracelets may have little part to play in the understanding of the development of the Wetwang Slack cemetery the distinctive type (4) may ultimately be of some use for the relative dating of other sites.

2.3.4 CLASS 4 : GLASS BEADS

The most numerous artifacts from the cemetery were without doubt glass beads of which more than five hundred were found, most of them as constituents of ten necklaces. As with bracelets there is little variation in the dimensions of these beads upon which to base a classification. As all the beads were found with females there are no grounds for examining possible sexual differences. An obvious criterion for grouping would be colour, and the number of different coloured glasses used to make a single bead.

Colour

The vast majority of the beads are made of the blue glass. Other glasses are green, brown, white, yellow or colourless. Intensity of colour is likely to vary but this is difficult to measure. Spectrographic chemical analysis is an obvious approach to the identification of particular forms of glass, but although some of the beads have been examined by Julian Henderson his findings are not yet available. Only blue glass was used by itself for beads, other colours appearing in combination, and usually in small quantities. A table of the distribution of different coloured glasses and their use as combinations is given in table 2.1.

Table 2.1 : Glass Beads : Colours and Combinations

Burial	Blue	Green	Brown	Yellow	White	Colourless	1 colour	2 colours
64	2	-	-	-	-	-	2	-
102	-	-	-	1	-	1	-	1
139	34	-	-	-	-	-	34	-
155	42	-	-	-	-	-	42	-
209	18	-	-	-	-	-	18	-
210	70	-	-	-	-	-	70	-
236	63	14	14	-	-	-	63	14 (*1)
249	63	12	12	-	4	-	59	16 (*2)
257	52	-	-	-	-	-	52	-
268	-	-	-	1	-	1	-	1
270	1	-	-	-	-	-	1	-
274	49	1	-	-	-	-	48	1
277	1	-	-	-	-	-	1	-
284	55	1	-	-	-	-	54	1
376	76	1	-	-	-	-	75	1

*1 Green and Brown

*2 Green and Brown - 12; White and Blue - 4

Since only blue glass was used on its own for beads, colour alone is insufficient grounds for a classification. Only 35 beads out of a total of 554 (6.3%) contained colours other than blue, and these were decorated in various ways. Some monochrome beads were also decorated, but the majority (443, that is 79.9%) were plain. After colour, decoration forms the second body of information upon which to base a classification of the beads.

Decoration

Two principle techniques were used to decorate beads, frequently in combination. The first consists of moulding or cutting the glass to effect a change in shape, while the second employs the application of glass of a contrasting colour.

The first method was used to produce a melon-shape which represents the greatest contrast to the plain annulets that constitute the bulk of the finds. Other beads were decorated by cutting or impressing wavy lines or circular channels into the body. The centre of the circle appears pronounced in one or two cases and this may be due to moulding and polishing.

The second method produced three distinctive types of finish. In one a series of circular depressions were made in the surface of a bead and these were then filled with glass of another colour. When cool this in turn was partly ground away and then the depression filled with glass of the colour of the body, the whole being finished off again by grinding. Only four beads of this type were found, with burial 29a, and these had white glass between a body and "eyes" of blue. A second form also had spots of contrasting colour filling hollows in the body of the bead, but in these cases the spots were surrounded by one or more annular channels of the type already mentioned. The colours used in the manufacture of these beads were blue, green and brown. The third form of decoration was apparently trailed over the body of the bead and ground, or "marvered", in. Two beads were found which employed this technique, and these had spirals or zig-zagging spirals in yellow glass on a clear colourless body (from burials 102 and 268).

Class 4 (Beads): distribution

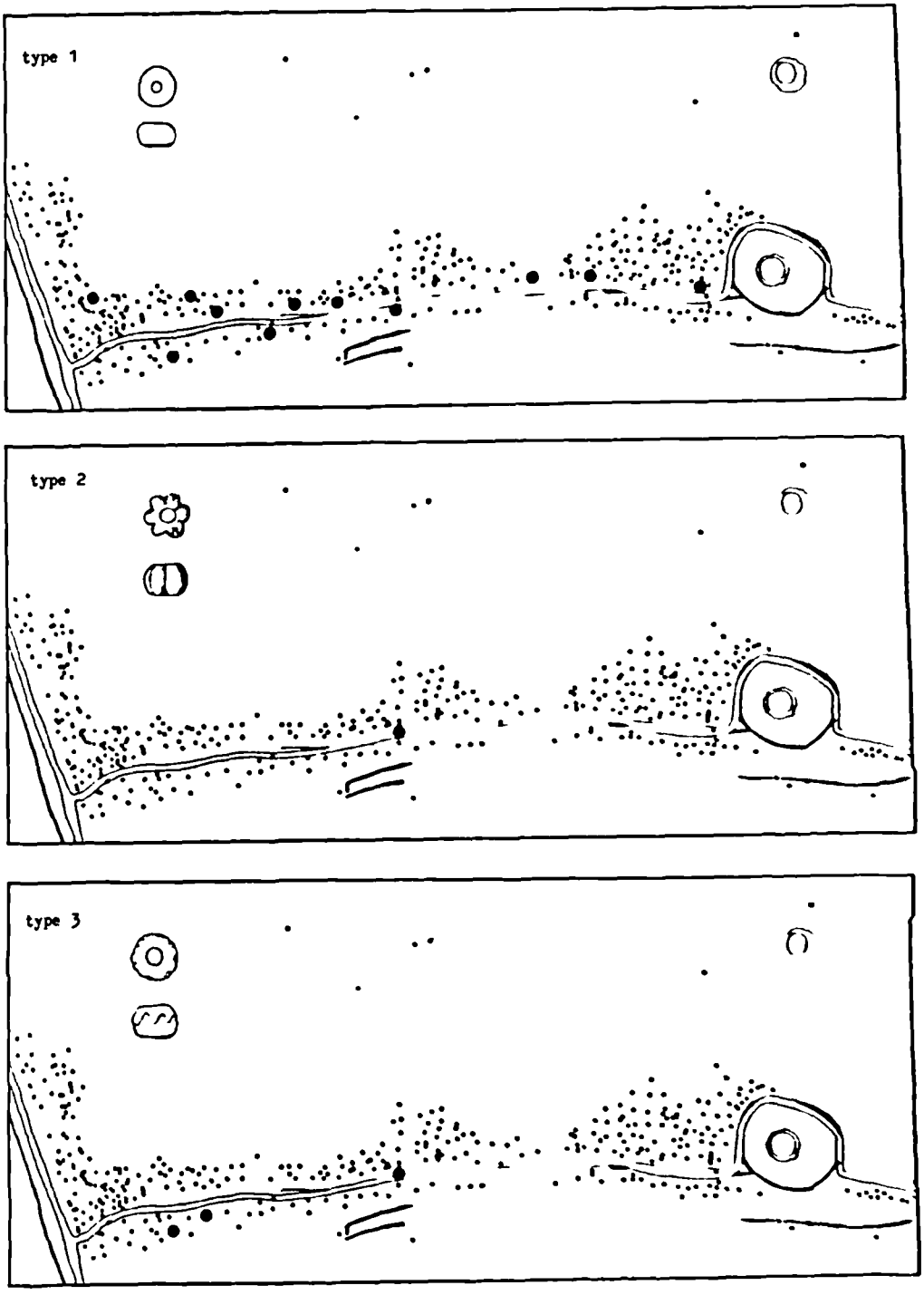


Fig. 2.16

The types distinguished on decorative grounds may be summarised as follows:-

1)	Plain			(Fig.2.16a)
2)	Melon shape	) shape		(Fig.2.16b)
3)	Zigzag channel	) based		(Fig.2.16c)
4)	Impressed annulets	) decoration		(Fig.2.17a)
5)	Impressed annulets and central spot of contrasting colour	)) colour		(Fig.2.17b)
6)	Layered or "stratified" eyes	) based) decoration		(Fig.2.17c)
7)	Contrasting trail decoration, zigzags and spirals	)		(Fig.2.18a)

Two classifications have dealt with British Iron Age beads, one of which is general to the British Isles (Guido 1978) and the other more locally concerned with Iron Age burials of East Yorkshire (Stead 1979, 78-80). Most of the forms distinguished above were recognised in these classifications, and the correlations are:

1) Guido Group 6 (iv)
2) Unclassified
3) Guido Group 5; Stead type iv (?)
4) Guido Class 1, type I; Stead type i (?)
5) Guido Class 3 (?)
6) Guido Class 1, type II; Stead type iii
7) Guido Classes 10 (No. 268) and 11a (No. 102)

The correlation of (3), (4) and (5) with types in these classifications requires some explanation. The zigzags and annulets of other beads in most cases are produced by filling channels or hollows in the body of the bead with a contrasting colour. Some beads from Arras (Stead, type i) clearly retain white or yellow inlay in their annulets while others have lost theirs. This implies that the cut channels on beads from Wetwang

Class 4 (Beads): distribution, continued

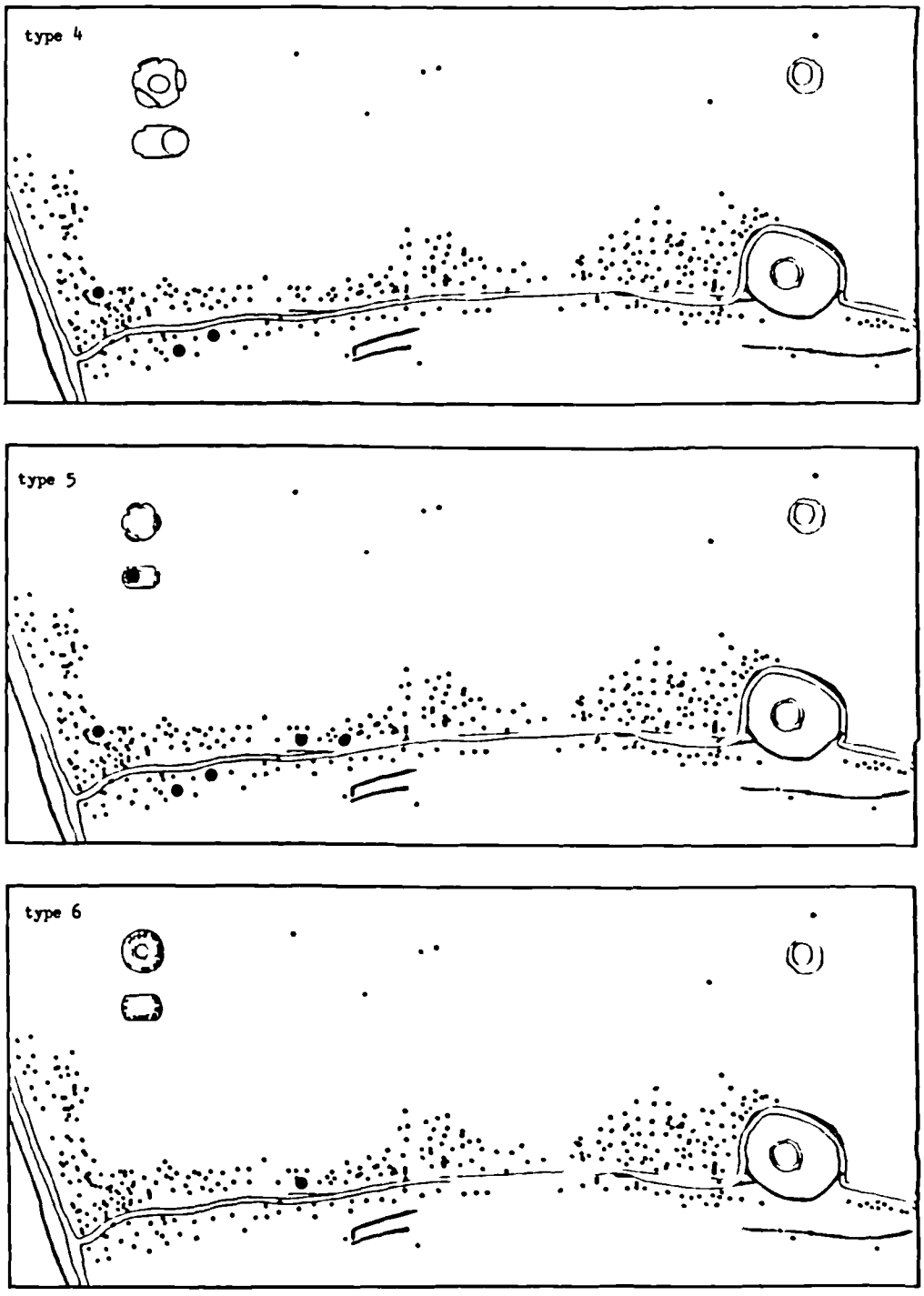


Fig. 2.17

Slack once contained a white or coloured inlay less durable than the white glass used in beads of type (6), and that such inlays have been completely eroded. Although great care was taken to look for such inlays in the treatment of these finds no trace was found. With the exception of types (1) and (2) all forms would have two or three contrasting colours or tones when complete.

Relative Chronology

The association of beads of different types in the same grave demonstrates contemporary use and these imply types 1, 2, 3, 4, 5 and 6 were in use at the same time (Fig. 2.18b). The burials which produced these necklaces may have been stratigraphically linked in only one case (209 may be later than 210, see part 2.2.3). Otherwise they are spread along the southern side of the cemetery in positions which suggest that they are not the earliest burials, nor are they the latest. Later, to judge from the probable lines of development outlined in Part 2.2.4, are the single beads of types (1) and (7) from burials 102, 268, 270 and 277. Among these beads the type (1) bead from 270 was stratified later than the type (7) bead from 268.

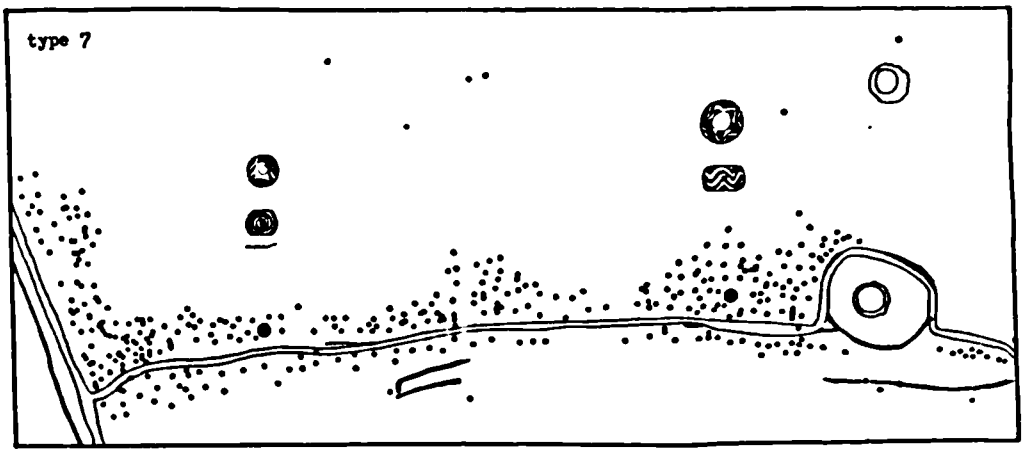
Associations

Brooches were found with three necklaces. Two of these were inlaid forms (155 and 274) and the third was the "S" brooch found with burial 236. This last preceded in the stratification a long involuted brooch (233), a class of brooch represented in a fourth association where it accompanied a type (7) bead (268). Three of the necklaces were also associated with bracelets with mortice-and-tenon fastenings (155, 210 and 236). A single bead of type (1) was found with a short involuted brooch (270).

It is unfortunate that the chronological relationship of the majority of bead types cannot be more precisely determined. It seems likely that these types enjoyed a long popularity and locally this is suggested by the occurrence of similar beads (equivalent perhaps to type (3)) in graves from Cowlam and Arras (Stead 1979, 78-80) even though the metalwork from the two graves suggests a considerable disparity in age (ibid. 91). The use of necklaces in

Class 4: Glass beads

a. Distribution (continued)



b. Associations

GLASS BEADS		1	2	3	4	5	6	7 (102)	7 (268)
Earlier Graves	64	2							
	139	34							
	155	42							
	209		16	2					
	210	70							
	236	63				14			
	249	59				12	4		
	257	52							
	274			47	1	1			
	284	46		2	6	1			
	376	73			2	1			
Later Graves	102								1
	268								1
	270	1							
	277	1							

Fig. 2.18

an earlier group of graves contrasts with the later burial of a few beads, always individually, but in two cases of quite different type. The cultural associations of beads were examined by Guido in her classification, and these suggested that types (3) to (6) were of "continental origin or inspiration" while those of type (7) were of "British design and origin" (Guido 1978). Type (2) beads have not previously been found in a British Iron Age context, but they are probably to be identified with beads classified by D. Viollier (1916, 66, Pl.32 type 2) which were found in association with his type 3 in graves at Aarwangen 3:4, Ollon V and Pratteln 7d. Type 3 is probably to be identified with Wetwang Slack type (6), so that these Melon beads should also fall into Guido's category of "continental origin or inspiration". The grave from Aarwangen was dated to La Tène 1c by Viollier.

2.3.5 SUMMARY

In this examination of the artifacts four classes (brooches, pins, bracelets and glass beads) have been investigated in order that their chronological significance may be understood. Different forms within each class have been identified as objectively as possible short of using a computer, a step which was not justified by the small size of the samples. Stratification was the principle means by which types were sorted into a relative sequence, but where this sort of evidence was lacking a probable typology was suggested. Contemporary use of different classes or types of artifact was indicated by their occurrence together in graves. A visual representation of the relative chronology suggested by these artifacts is given in Fig. 2.19 in which they are related to the broad stylistic stages of La T`ne I, II, III, the division between these representing the earliest use of the appropriate constructional techniques, after which earlier methods might still persist.

Having examined the stratigraphy and the artifacts the next stage is to look for variations in the burial monument itself which might correspond to temporal change and thus contribute to the construction of a relative chronology.

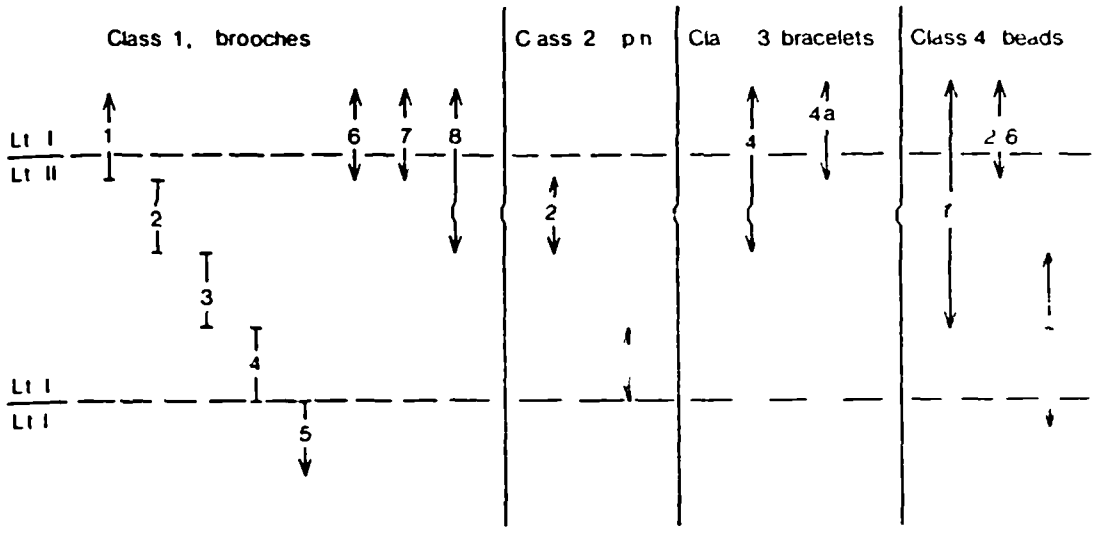


Fig. 2.19

Class 1, type 8 is extended into Lt II by a variation with type 2 brooch at Huntow (Stead 1979, 1)
Class 3, type 4 is extended further into Lt II by a variation with a type bracelet at Burton Fleming (Stead 1979, Fig. 9, no.1 and 2
Class 4, type 7 is extended into Lt III by a variation with a Lt III brooch from Loughey, Co.Down (Jope 19 , Fig.1, no.1

2.4 BURIAL MONUMENT

The cemetery was described in Chapter 1 and there was little uniformity among the constituent elements of the funerary remains. Some of the differences are likely to have been the result of social factors, and this is particularly true of the quality of the burials and whether or not there was an enclosing ditch. Other variations in the form of burial and in the structure of the associated monument may have been the product of unconscious change with the passage of time. Particular attributes where this may have been the case are: the size of the enclosure, the size of the grave and the layout of the grave.

2.4.1 ENCLOSURE SIZE:

The areas which were enclosed by ditches ranged from small platforms, such as that occupied by burial 442 which was 2.9 metres wide, to large blocks up to 9.2 metres across (numbers 304, 410). There is some justification for supposing that large enclosures are likely to be earlier, but very small enclosures may have been constructed at all stages of the cemetery's use.

A large proportion of the bigger enclosures is situated at the Western end of the cemetery, and this includes numbers 304 and 410, the two largest examples. There was some stratigraphical evidence, cited in Part 2.2.4 to suggest that this was the area where the first burials were made. Elsewhere the largest enclosures occupied the lowest or lower positions in the stratigraphical chains, and some, notably numbers 155, 230, 236 and 274 were cut by an earthwork (Fold out plan, "A") which was constructed while the cemetery was growing. A few of the largest enclosures also had exceptionally wide ditches; for example 152, 155, 170, 255, 274, 304.

Small enclosures were, apparently, constructed at several stages. One example, number 209, was cut by the linear ditch A and the grave goods included glass beads like examples found inside the large enclosure of burial 274. Another small enclosure, 249, contained beads like some from burials 236 and 274, both

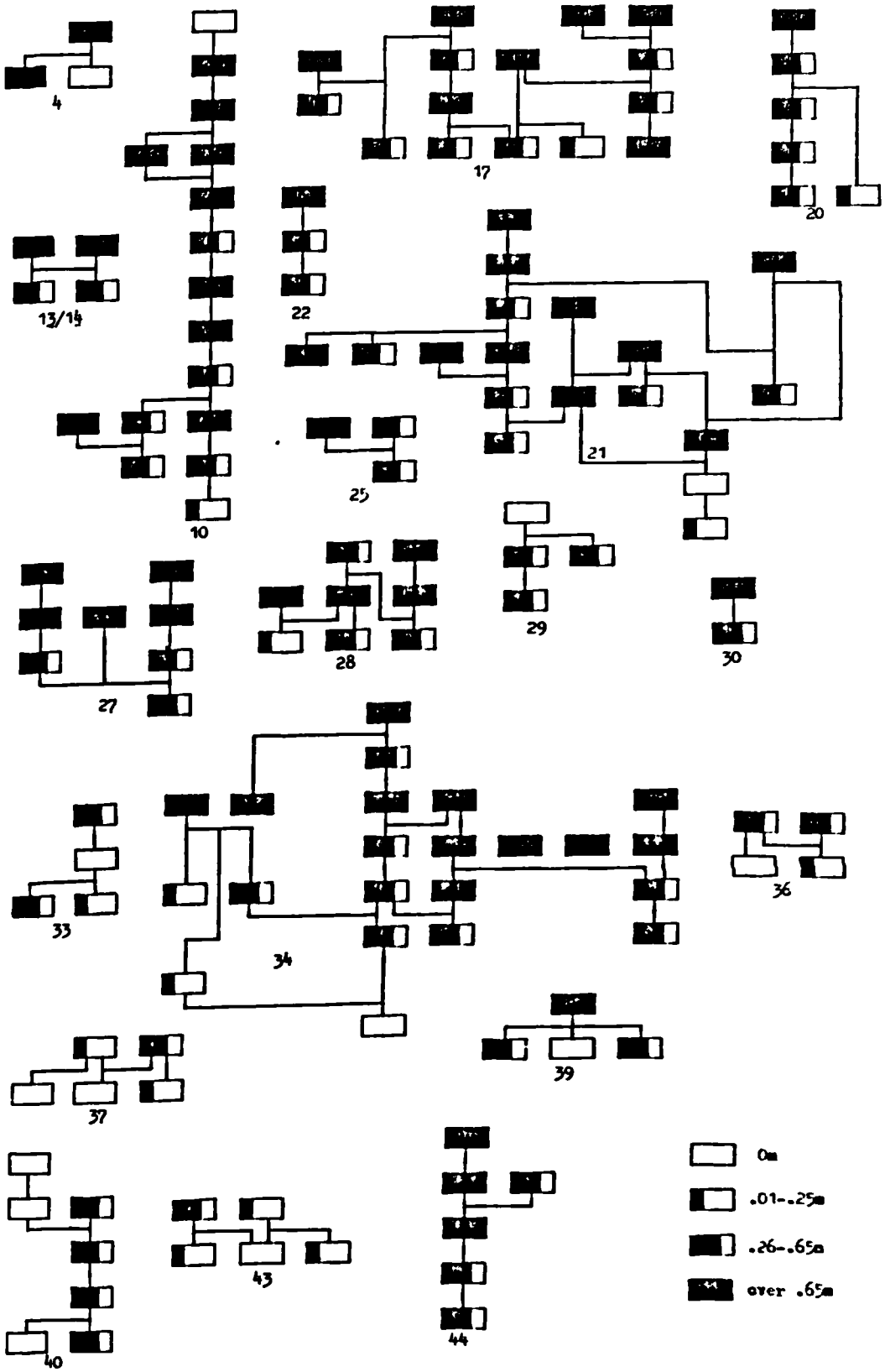
substantial enclosures which were cut by linear ditch A (Fig. 2.18 for beads). Another type of artifact which recurred inside small enclosures is the short involuted brooch. These were found with burials 104, 149, 180, 193, 223, 226, 270 and 309. The majority of the smaller enclosures occupied the northern fringes of the cemetery or positions in which they were among the latest burials in a stratigraphical chain. Somewhat earlier like the burials with glass bead necklaces already mentioned is burial 327, which contained a brooch with an arched bow and La Tène I construction, but which lay at the centre of a tiny enclosure. Some small enclosures, for example numbers 74, 181, 270, 346, had very narrow and shallow ditches. That around 57 was only apparent as a stain.

The two sizes of enclosure described above, represent the extremes and a large number of intermediate sizes are more typical of the cemetery. It does seem to be the case that very large enclosures were more common in the earlier stages while medium sized and small examples were also used. In the later stages no very large enclosures can be demonstrated, but a large number of unusually small examples are to be found, not infrequently associated with a developed class of artifact, the short involuted brooch.

2.4.2 GRAVE SIZE

Factors other than chronological ones are likely to have influenced the size of graves. In cases where a timber coffin or lining was inserted, the area of a grave may well have been greater than in cases where there was no wooden container. The provision of such a container may have depended upon the social status of the individual, and graves cut into the ditches of enclosures and which probably did not contain such a structure, were usually smaller in area than those which occupied a central position inside an enclosure. It is difficult to see an change in the area of graves which can be directly related to the passage of time.

The depth of a grave may have varied in proportion to the amount of soil which would ultimately cover the body. Graves cut into ditches were more consistently deeper than were those inside enclosures where a covering mound would have been constructed. The variation among the latter group does correspond, to a limited



Grave depth compared with stratigraphy using the Harris system (Harris 1975)

Fig. 2.20

extent, to chronological change as represented in the stratification chains (Fig. 2.20). Those central burials which were 0.25 metres deep or less (including those where the burial had been removed by ploughing) usually occupied the lower positions in the stratigraphical chains. Few enclosures without a surviving burial were found in the upper stages of a sequence, and with one clearly late exception (No. 72) these tended to be at the Western end of the cemetery.

Central graves of over 0.65 metres deep conversely occupied the upper positions in the stratification matrices. While shallow central graves tended to be in earlier positions and deep ones were generally later, there was no neat progression from one to the other. Burials in the depth range 0.26 - 0.65 metres were common and several examples in matrix 40 preceded two enclosures whose burials have not survived (Nos. 390, 397). One enclosure with no extant grave cut (No. 72) succeeded eight with burials of over 6.5 metres deep. With the shallower burials in the series no particular type of artifact was consistently associated with a narrow range of grave depths, but ploughed-out grave goods naturally did not survive. Among the deeper burials however, the involuted brooch was common and twenty-five examples classified in Part 2.3 as "short" came from graves over 0.65 metres deep, only three of which did not have enclosure ditches. Also found in graves of this range were the flat bow brooch with La Tène III construction (No. 117) and the involuted pin (No. 145).

In summary, while "earlier" central burials did not tend to be deep, and some were very shallow, there was a good deal of variation among them, not clearly related to the passage of time. Among the "later" or "latest" burials however, there were far fewer exceptions to the general form of grave which was deep, generally over 0.65 metres and sometimes over 1 metre below the surface of the gravel subsoil.

2.4.3 GRAVE LAYOUT

The arrangement of the body in a grave and of furnishings and grave goods are aspects of burial which could be dependent to a large extent upon social and economic factors. For example, although the

number of stratigraphically "early" graves which contained grave goods is probably smaller than the number of such graves in the later part of the sequence, the range of objects is sometimes quite exotic and bronze objects are more common than in later burials. Of the brooches represented in the cemetery, half are of a particular late type, the short involuted brooch. These aspects of the cemetery deserve closer attention, but this is information derived from a relative chronology rather than data which contribute towards one.

One aspect of the burials which may have varied with time is the position in which the body was arranged in the grave. There are few exceptions to a normal posture in which the body rested upon the side with the knees drawn up to a greater (crouched) or lesser (flexed extent). Only one skeleton was extended on its back with the head looking up (No. 388). In the majority of cases the head was towards North and the body lay on the left side. It is interesting to note the frequency of this position on other cemetery sites in the region, and indeed, in Southern Britain in general (Whimster, 1977). Exceptions to this most usual practice occurred at all stages in the stratigraphical tables (Fig. 2.21), but there may have been rather more exceptions at the Western end of the cemetery (matrices 30 to 45) and among the more southerly situated burials, that is, among those which are likely to have been earlier. The position of the body could be determined in 388 cases, of which 241 were in the "normal" position (62%). When the earthwork, ditch A was cut through the cemetery it isolated 99 burials, and these are all likely to have been in existence at the time. Of these the position of the body is known in 81 cases, of which 43 were in the "normal" posture on the left side and with head to North, that is, 53%. This figure falls short of the average for the cemtery and suggests that there was slightly greater uniformity in layout among the later graves, but it is possible that this would be less obvious if burials which have been lost to the plough had survived. All five of the burials found on the old land surface beneath barrows at Cowlam were laid on the left side with head to north (Greenwell 1877, 208-13).

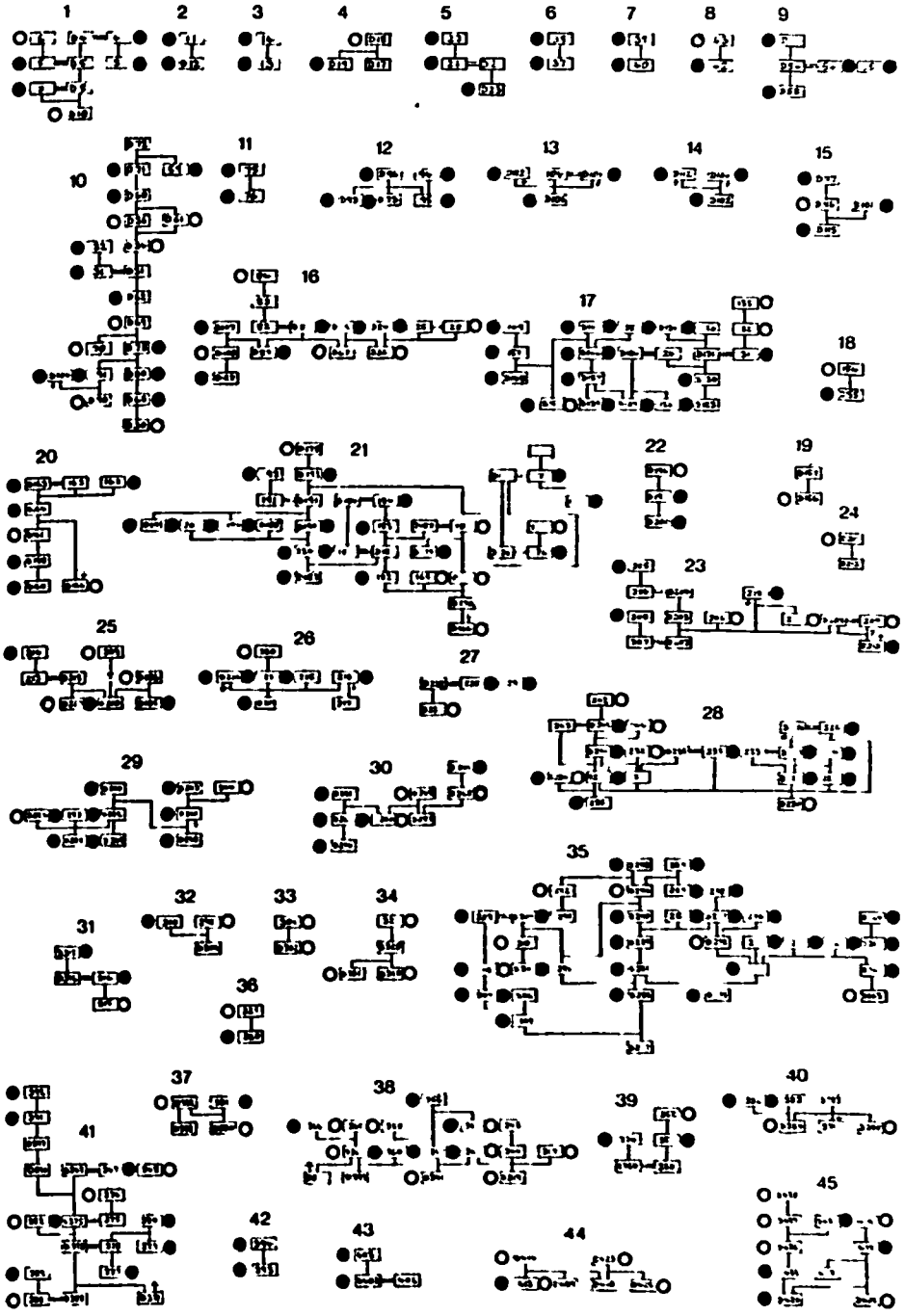


Fig. 2.21

Body position compared with stratigraphy using the Harris system (Harris 1975)
Solid circles: left side, head north; open circles: other positions

2.4.4 SUMMARY

Among the attributes of the burial monument some chronological changes were noted. The size of platform and the depth of graves may be more useful in the formulation of a relative chronology that the slight variation in the popularity of a single burial position. In no case, however, is the change sufficiently well established for a burial to be fitted into the sequence on the basis of one or all three of these factors. All three point towards the later stages of the cemetery as that at which change was clearly taking place. The extent to which this was the case may be more clearly seen when the inter-relationship of these trends is examined.

2.5 INTER-RELATIONSHIPS AMONG BURIAL ATTRIBUTES

The primary source of evidence for a relative chronology consist of the stratified sequences of burials, examined in section 2.2 above. Directions of development are suggested by these sequences, even where breaks occur, and theoretical models of cemetery growth give a good deal of credibility to them.

A few classes of artifact show consistent grouping and a degree of typological change; this is particularly true of the brooches. The stratification and the artifacts provide a rough sketch of the relative chronology of the cemetery, and it is usually possible to distinguish earlier from later burials. Some change is also detectable in the morphology of the funeral monument, with a different emphasis being given, by the later stages of the cemetery, to enclosure size, grave depth and burial position. This last body of information has been examined in detail and the different attributes may now be looked at in combination.

From a comparison of this site with other cemeteries in the region at Cowlam, Arras and Danes Graves (Stead 1979), it is clear that the enclosures were once occupied by mounds which have since been removed by the plough. The size of these mounds will have varied with the size of the enclosure and where the latter was very small the mound must have been correspondingly slight, unless extra

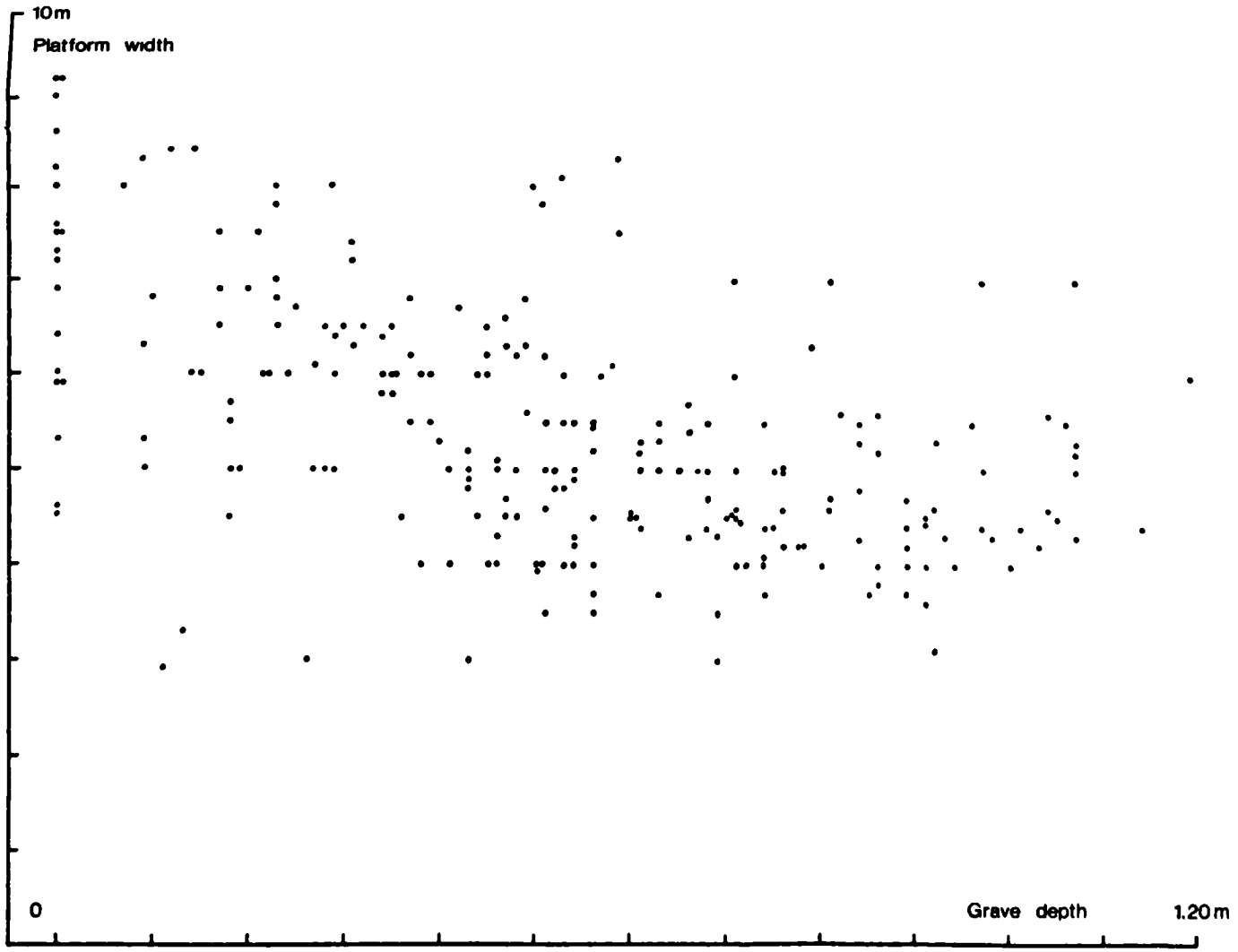


Fig. 2.22

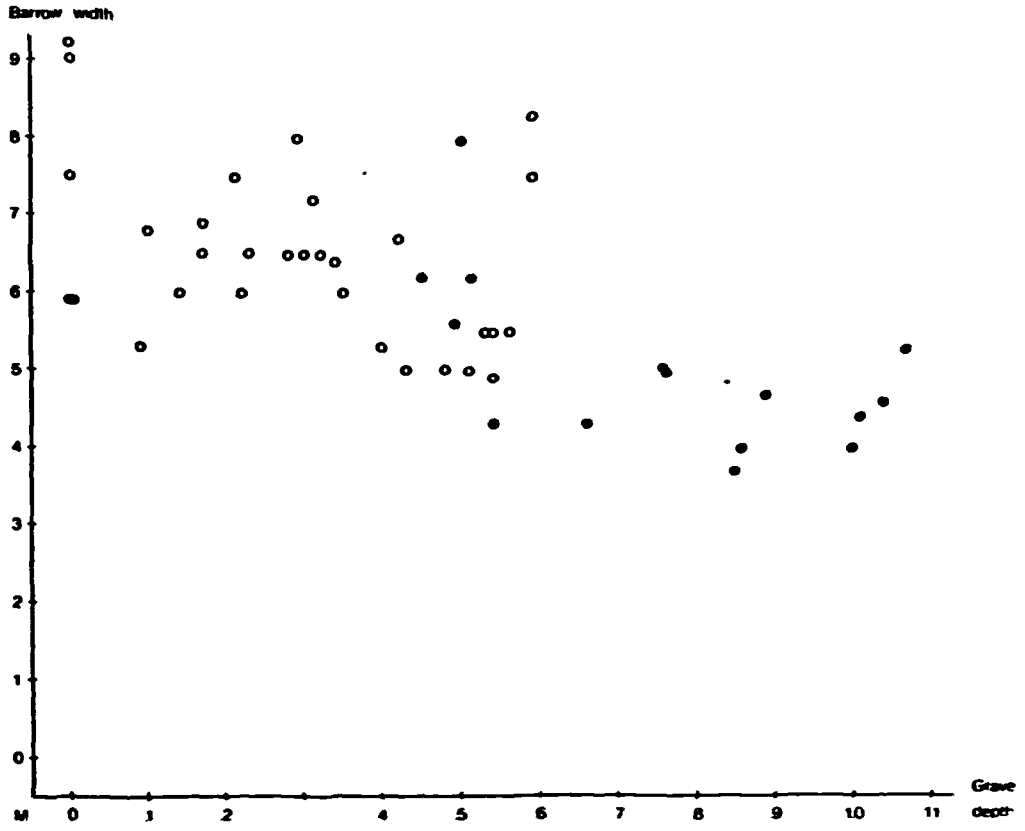
Scatter diagramme of platform width compared with grave depth

material was used in addition to that derived from the ditch. In this light it is interesting to compare the size of the enclosure, and thus the presumed covering mound, with the depth of the central burial, and this may easily be represented in the form of a scatter diagram (Fig. 2.22). This suggests that shallower graves occurred in combination with enclosures which were in general larger, usually at least 5 metres across, while deeper graves were more obviously a characteristic of smaller enclosures.

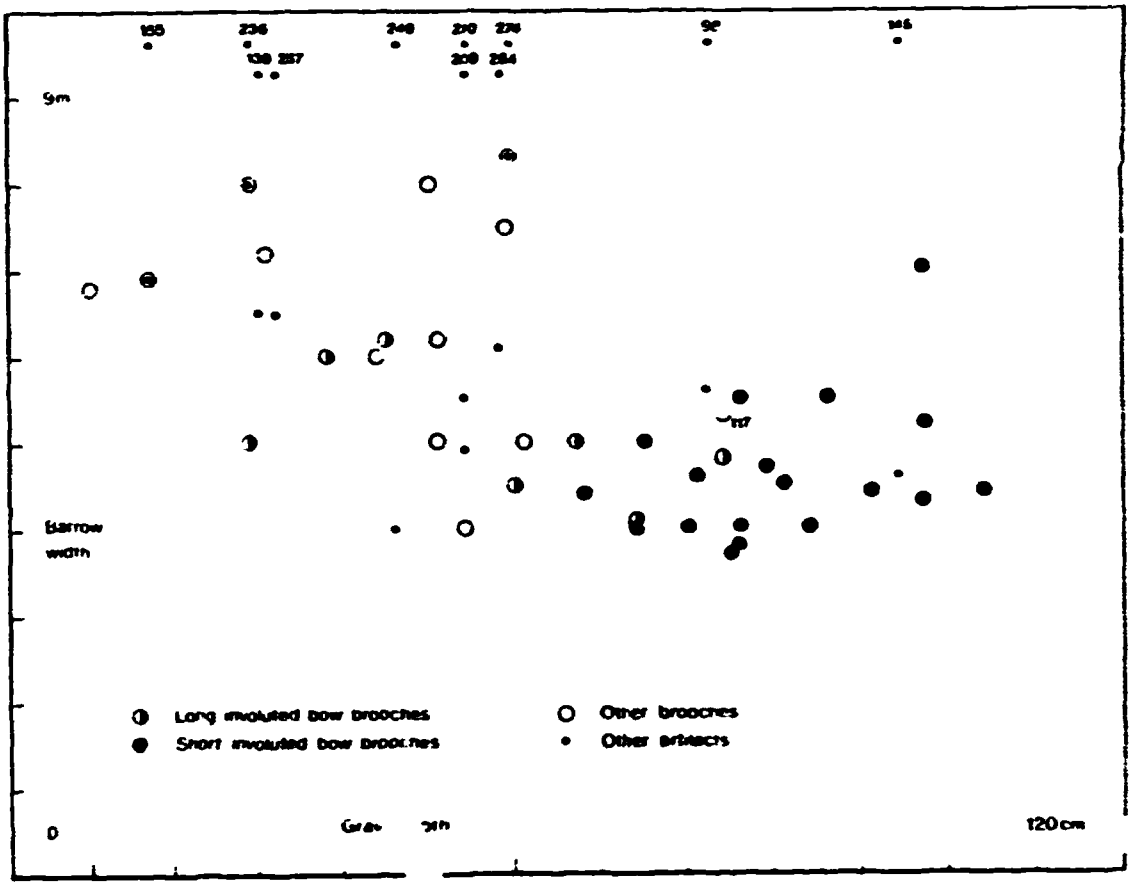
Chronological differences can, perhaps, be best illustrated by identifying only those burials with enclosures which were either cut by, or respected the line of, the linear ditch which bisected the cemetery while it was still in use. These confirm that the trends which were identified earlier among the size of enclosures and the depths of graves correlate with chronological change (Fig. 2.23a). Another approach is to compare burials with the more useful artifact associations (Fig. 2.23b).

These suggest that a wide range of artifacts, already distinguished as "earlier" was found with burials with a greater variety of enclosure size, but with generally shallower graves. The "later" objects, including the short involuted brooches, were consistently found in small enclosures and deeper graves (the only large enclosure contained a double burial, 54/55).

Long in-voluted brooches straddled the two groups and suggest a transitional interval between the earlier and later groups. Different morphological types of monument were identified from these criteria using cluster analysis on the 1904S computer at Hull University. A sample of 200 burials was examined using Ward's method (Wishart 1971) which distinguished between enclosures without extant burials, those with a middle range of grave depths, and those with deep graves and small enclosures (Fig. 2.25 and 2.26). The groups with surviving burials correspond broadly with the earlier and later groups of artifacts.



a. Chronological differences represented by burials separated by linear earthwork A measured against platform size/ grave depth. Open circles= earlier; solid = later



b. Grave goods compared with platform size/ grave depth

Fig. 2.23

The scatter diagram based upon apparent stratigraphical differences forms a suitable basis for a comparison with the third burial attribute, body position (Fig. 2.24). Burials which did not conform to the most usual layout, that of lying on the left side with head to North, were clearly more common among those of the earlier group defined on stratigraphic grounds. The distinction was not so clear when grave goods were the criterion for chronological differences, but of twenty nine involuted brooches, twenty two (75%) were associated with the most common burial position, which suggests a much greater degree of conformity in the later years of the cemetery's use.

In this process of establishing grounds for a relative chronological sequence, there is one group of burials about which rather less may be said than any other. These are the burials which have long been lost to the plough and which are represented only by enclosure ditches. Since these have been lost nothing may be said of artifacts which may have accompanied them, nor of the orientation and posture of the body. Stratification suggests that they are an early form, as to some extent, do parallels from other sites. In many cases these would have constituted the more impressive mounds, to judge from the size of the platforms and the width of their ditches, and as such they are more likely to have been constructed before the cemetery became too crowded. Burials with smaller mounds are more likely to have had deeper grave cuts, but this was not always the case; burials 442 and 443 and enclosures of 3.3 metres of less across and neither grave exceeded 0.13 metres in depth. A change to smaller enclosures and correspondingly lower mounds was accompanied by a move to significantly deeper graves. This appears to have taken place at about the time when short involuted brooches were developed.

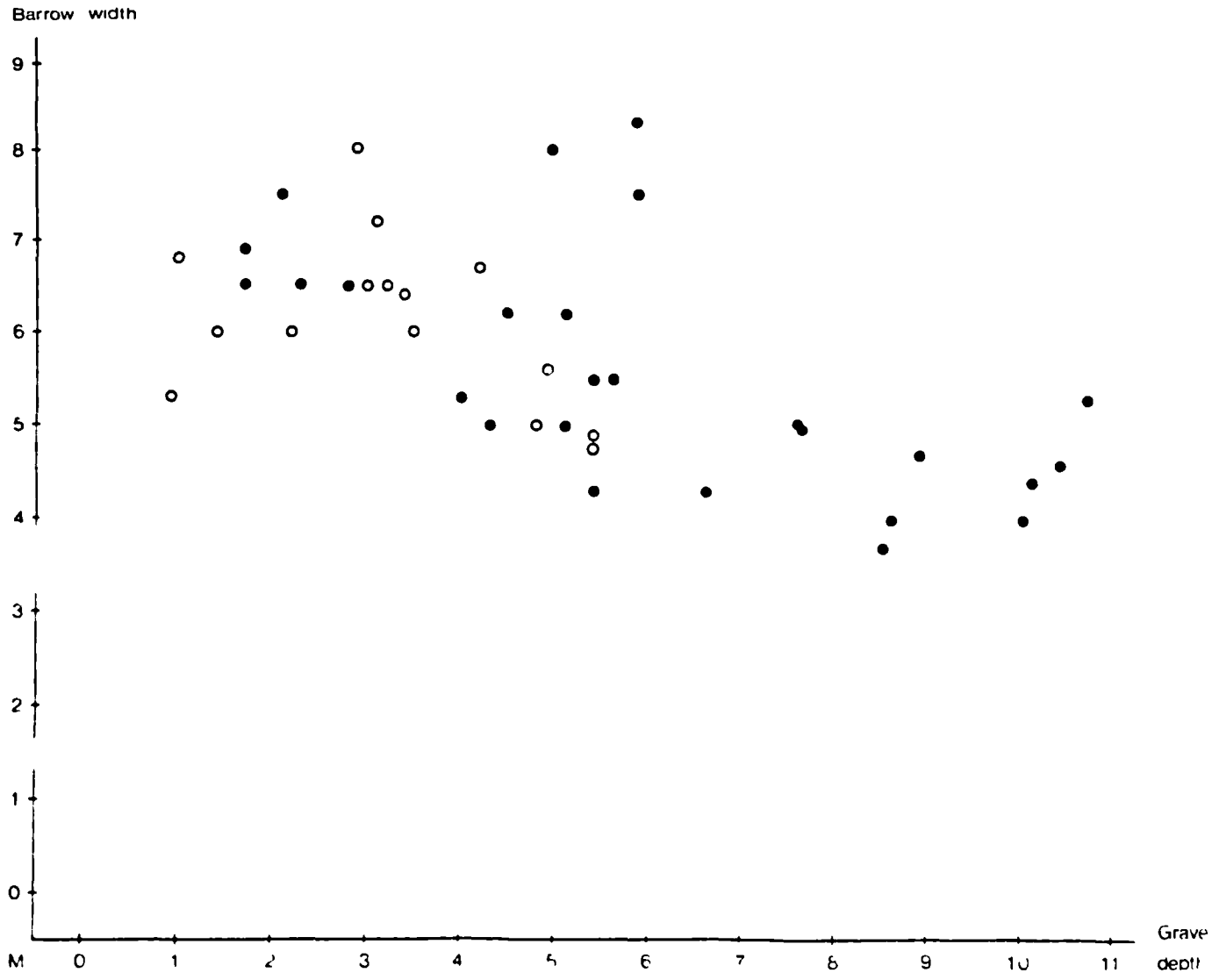


Fig. 2.24 Orientation measured against barrow size Grave depth as an indication of relative date.
Solid circle : body on the left side with head to north. Open circles: other position.

2.6 THE DEVELOPMENT OF THE CEMETERY

An understanding of how major cemeteries developed is an essential pre-requisite to the use of the information incorporated within it. The large cemetery of Münsingen-Rain (Hodson 1968) is the classic example of a cemetery where the burials have been placed in a chronological order using a number of criteria and different approaches, and the result forms one of the principle yardsticks against which other Iron Age sites are measured. Whereas the cemetery at Münsingen is rich in artifacts but poor in its documentation of other aspects of burial, the reverse is true at Wetwang Slack. Artifacts, however, are the best evidence for the identification of contemporary groups of burials, and this is something which stratification by its nature cannot demonstrate. Because of the paucity of finds at Wetwang Slack it is unlikely that a complete seriation of burials can be achieved and a large number of burials will occupy "grey areas" between a few reasonably well established horizons. Much discussion has been given to the evidence for a relative chronology within the cemetery and stratigraphy, artifacts and burial attributes have been examined in turn. It is now time to compare all these in order to arrive at the best interpretation of how the cemetery developed.

Stratigraphy provides a series of sequences or chains of burials which have been indicated on a plan of the cemetery (Fig. 2.2). These present a less confusing picture when only sequences of three or more burials are included (Fig. 2.2.b). These suggest that the earliest burials were made at the western end of the cemetery, for along the southern side the bulk of the development is eastwards, with exceptions occurring where enclosures filled spaces in the line of burials. The two stratigraphical chains in the short branch which leads north from this angle also suggest that development was away from the corner. Burials lying on the northern side of the cemetery indicate that in general development was away from the southern side once this line was complete. Some of this northward development took place after the cemetery had been bisected by a linear earthwork. Not all burials with enclosures were constructed on undeveloped ground; some were apparently sited next to the earthwork where small spaces still

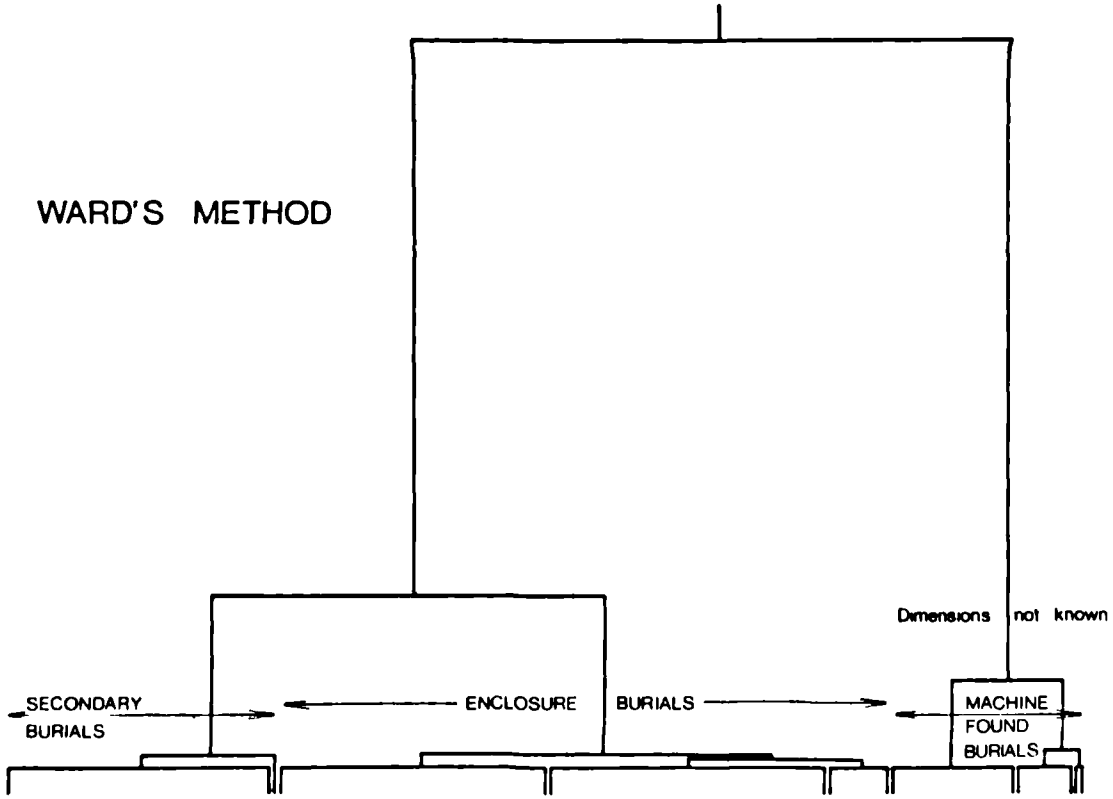


Fig. 2.25 Cluster analysis of 200 burials using Ward's method

existed between earlier enclosures. The reasonably straight sides which are a feature of the southern and western edges of the cemetery are an indication that here burial had ceased with the full use of the available ground. The ragged appearance of the northern edge of the cemetery on the other hand suggests that this was where burials were being added at the time when the practice was discontinued.

The most useful class of artifact for the identification of broadly contemporary horizons in the cemetery is that of brooches. An evolutionary process may be detected among the bow brooches although those with elaborate coral inlay (type 6) should be treated as exceptions to the general trend. Penannular and "S" brooches do not belong to this mainstream and their value as chronological milestones is tempered by their long popularity, for both persisted into the Roman period.

The earliest form of bow brooch is likely to have been the type with an arched bow (type 1 : Fig. 2.9). Three examples with La Tène I construction came from contexts ranging along the cemetery, two of which (89 and 327) were on the southern margins. Burial 327 at the western corner, was the third in a chronological chain and was immediately preceded by an enclosure with no surviving burial, suggesting that this was one of the later burials in this area. Burial 89 was in the eastern part of the cemetery and preceded its immediate neighbours. The position of burial 205, the third with a La Tène I form, is puzzling for this was the second burial within an enclosure which from its position could be quite late, but it may be that a nucleus of burials formed here quite early in the process of cemetery development. The single burial with a La Tène II brooch of this type (No. 160) lay east of this supposed nucleus.

Although no direct stratigraphical links were found, the development of the flat bow brooch (type 2 : Fig. 2.9) from examples with an arched bow is a reasonable assumption, and this is reinforced by two examples (Nos. 275 and 286) which were found inside enclosures which appeared to respect the chronologically significant linear earthwork, ditch A. (Two enclosures containing arched bow brooches, 89 and 160, were crossed by this ditch). One

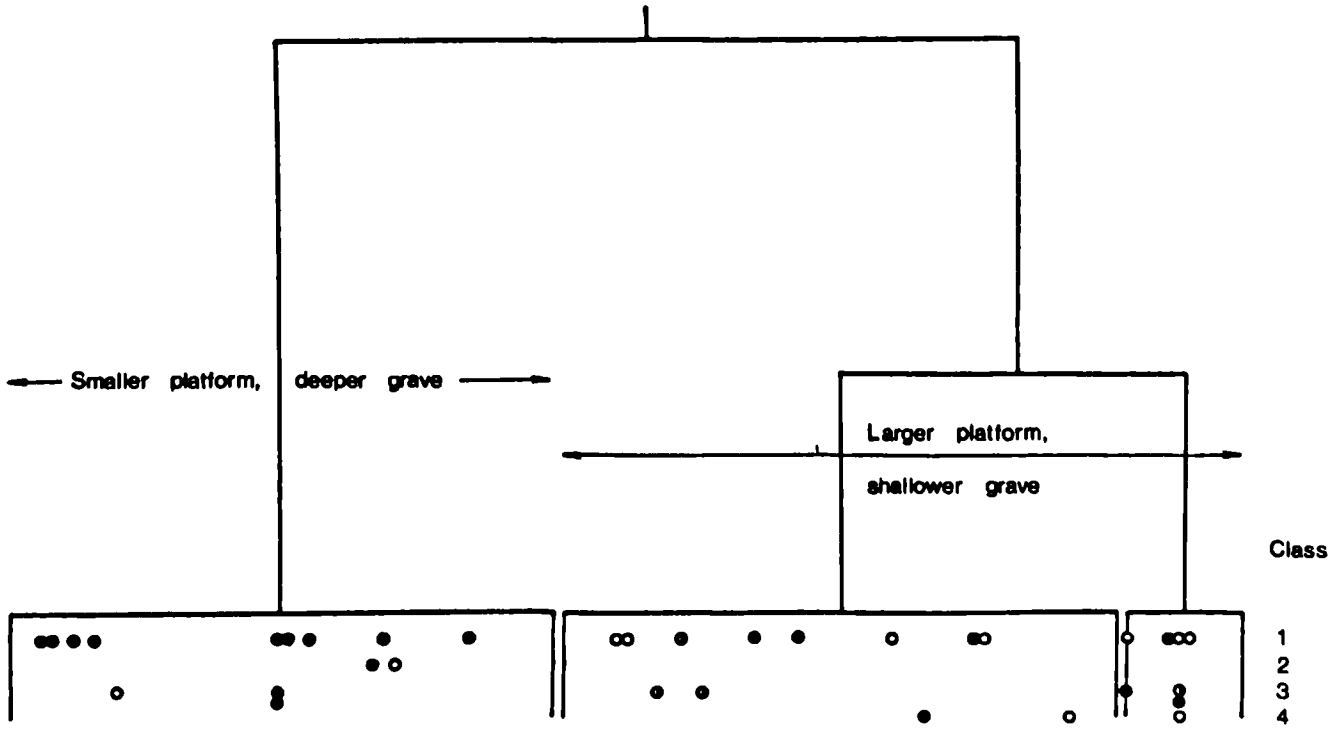


Fig. 2.26

Section of a cluster analysis dendrogram (from Fig.2.25) comparing artifacts with barrow types.
Class 1: solid circles= type 4; half circles= type 3; open circles= other
Class 2: solid circle= type 3; open circle= sp.158
Class 3: solid circle= type 4; half circle= type 3; spot and circle= type 2; open circle = type 1.
Class 4: solid circle= type 7; open circle= type 1

flat bow brooch, from burial 23, was found at the eastern end of the cemetery, and this brooch had the La Tène II construction found first of all on the arched bow brooch from burial 160. The three other brooches with flat bows (Nos. 179, 275 and 286) were found in the centre or close together near the western end of the cemetery, but all on the north side of the linear ditch A.

Brooches with a long involuted bow (type 3 : Fig. 2.9) mostly occupied enclosures which lay on the northern side of the linear earthwork, but which were separated from it by an existing line of burials. Only one brooch, No. 268, was found in the first line. No brooches of this type were found in the large block of burials at the western end and only one was found on the fringe of the dense group of enclosures at the eastern end of the cemetery.

Brooches with short involuted bows (type 4 : Fig. 2.10), the final form in this evolutionary process, formed the bulk of the brooches and rather more than half were found in the more northerly burials. The remainder occurred in stratigraphically late positions among earlier burials, close to the now ploughed out northern bank of the axial linear earthwork. The dense group of burials at the western end of the cemetery was clear of these brooches, with the exception of three (309, 312 and 438) which were found on its fringes. This group was the only one to contain a possible sub-group of very similar brooches. These were the examples from burials 55, 60 and 438, which were embellished with decorative studs, possibly coral in each case, and the similarity suggests that they were closely contemporary. This is particularly interesting because whereas burials 55 and 60 were situated close together at the eastern end of the cemetery, burial 438 was in one of the two most northerly graves at the western end of the cemetery. This suggest that the whole northern fringe of the cemetery was in use for burial in the late stage.

A flat bow brooch from burial 117 (type 5 : Fig. 2.10) is remarkable for its use of La Tène III construction and it was stratified later than a short involuted bow brooch from burial 115. It occupied a position on the northern fringe of the cemetery and was part of the large group of burials at its eastern end, where rather more than half of the short involuted brooches were found.

The remainder of the brooches are likely to have been available at the same time as some form or forms of bow brooches, but as no two brooches were found in the same grave the degree of contemporaneity is unknown. The lavish variety of bow brooch in which coral forms the decorative inlay was represented by two examples, both from large enclosures which were cut by linear ditch A (Nos. 155 and 274). While one lay close to the western nucleus of burials the other occupied the narrowest point of the cemetery, between the central and eastern blocks of burials (Fig. 2.10).

Both the penannular brooches (166 and 230) were found inside enclosures later crossed by the line of linear ditch A, and both were from the central section of the cemetery. The "S" brooch from burial 236 was a later neighbour to burial 230 and also preceded the cutting of the linear ditch (Fig. 2.11).

The association of both the inlaid bow brooches (155 and 274) and the "S" brooch (236) with bead necklaces draws attention to glass beads as a chronologically significant class of artifact. These beads (types 1 to 6) were popular over a long period cannot be expected to show the frequent changes in design, which were a feature of brooches, but their distribution may be significant. Of the ten large bead necklaces seven came from enclosures which were cut by the linear earthwork "A" (Figs. 2.16, 2.17, 2.18); these include two which lay east of the mid-point in the cemetery. The remainder of the necklaces all came from the western half but only two were found, and these on the very fringes, among the dense group of burials at the western end. One, 367, was a secondary grave at the centre of an enclosure well up in a stratigraphical chain (matrix 41). The only necklace to be found in the heart of this western group (No. 336) was made of shale bends, and was also found in a secondary grave. Finds of single beads or a pair were restricted to burials which lay to the north of ditch A and could all have been later (burial 84 was found by quarry machinery and chronologically useful information may have been lost). Two of the beads from these graves were of forms quite distinct from those in the large bead necklaces (type 7) and the others were undecorated. In two cases (268 and 270) single beads were associated with involuted bow brooches.

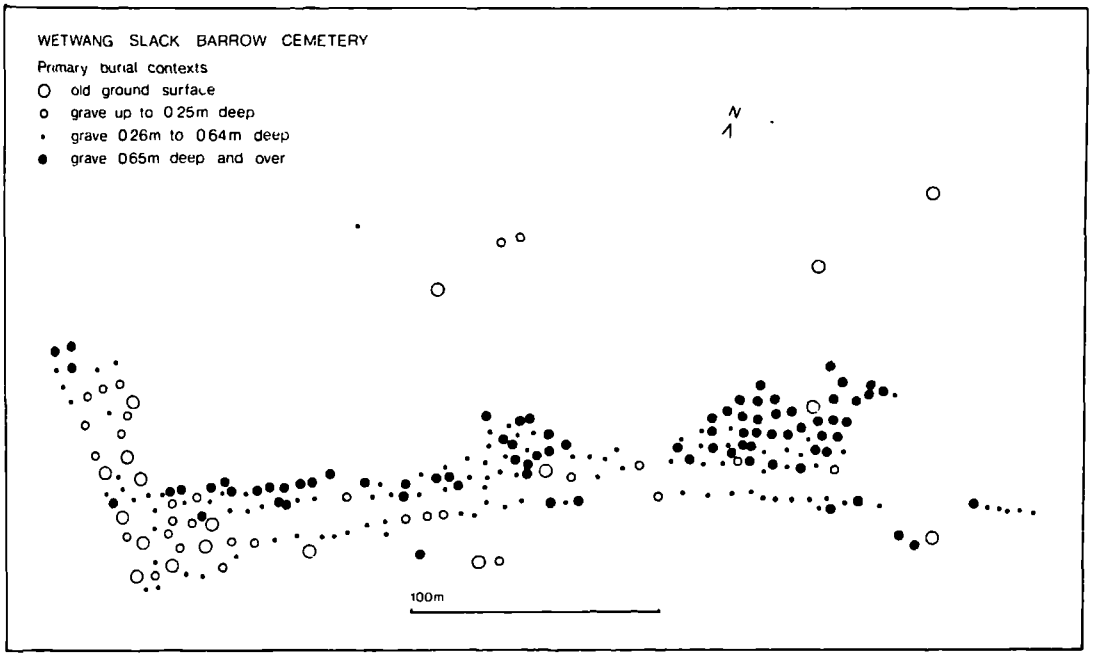
The other single class of artifact which produced recurring forms of similar design was that of bracelets. Bracelets with mortice-and-tenon fastenings were found in four enclosures, all of which were later crossed by the line of linear ditch A (155, 160, 210 and 236). These burials were all situated in the central area, and this could reinforce the suggestion that a nucleus of burials formed here. The similarity between bracelets from burials 160 and 236 draws these together in time, but although both accompanied brooches one was an arched bow brooch with La Tène II construction while the other was an "S" brooch.

An initial nucleus of burials at the west end of the cemetery, followed by an eastward growth gains some support from an examination of the artifacts. Whereas the arched bow brooch from 327 was the latest in a short stratification chain, that from 89 was earlier than its immediate neighbours. This suggests that at the west end burials were already well established when the eastern part of the cemetery was still being developed. In the centre a third brooch again occupied a relatively late position in a chain, and this might indicate that a second cluster of burials developed soon after that at the west end. Most of the large bead necklaces occupied the space between the groups, but while they were not found in primary positions at the west end, they were included in some of the earliest burials in the central area. This, and the similar bracelets from burials 160 and 236, suggest that glass bead necklaces and arched bow brooches were contemporary. One flat bow brooch (No. 23 with La Tène II construction) was buried at the eastern end of the cemetery probably before the whole group was bisected by linear ditch "A". Two other flat bow brooches were found in graves (275 and 286) which not only respected the line of this ditch but were also situated in the space between the western and central clusters of burials. This space was filled with other burials including one with a long involuted brooch (No. 268). Other burials with these brooches were made in a second line of burials which was separated from the linear ditch by an existing line of enclosures. Later short involuted brooches were buried in graves in available spaces close to the linear earthwork or on unused space further from it. Most of the spread over formerly open space was at the eastern end where a large cluster of later burials grew up and on a smaller scale in the centre, where an

existing cluster has already been suggested. The burial (117) which contained a brooch with La Tène III construction should be regarded as one of the latest to be made in the large eastern cluster.

The probable development of the cemetery may thus be deduced largely from the stratigraphical and artifactual evidence, but the chronological changes apparent in burial attributes may add some refinements to the scheme. When the primary enclosure burials are drawn in plan the trend from generally shallower to very deep graves is seen to correspond with the development of the cemetery as it has been suggested above (Fig. 2.27). The importance of burials without surviving graves (and thus grave goods) is emphasised, for the majority are found at the western end of the cemetery among others of which the grave cut was very shallow (0.25 metres or less). Eastwards the more southerly burials tend to be deeper, but still in the middle range. Burials on the northern fringes, and clustering towards the centre and at the eastern end are those deep graves which were most frequently associated with short involuted brooches. Such brooches were found with a number of burials which were stratigraphically late but which were sited in small spaces between existing mounds close to the axial linear earthwork (Fig. 2.10). The enclosure size and grave depth suggests that others in this class may include burials 124, 145, 149, 181, 188, 241, 243. The slightness of these enclosure ditches and their vulnerability to the plough is emphasised by examples which have not survived as a complete circuit and by D57 which was not seen at the time of excavation but was recognised later on an aerial photograph. Some graves associated with short involuted brooches (59, 138, 273) were more substantial than the usual forms of flat grave, as was 218, and it seems likely that these once had enclosures which have since been destroyed by agricultural processes.

On the basis of their depths outlying burials, which have not featured prominently so far due to their lack of grave goods, appear to be earlier types, and this is consistent with the apparently condensed nature of the cemetery in its later stages in which virtually all available space among established enclosures seems to have been used and there seems to have been much greater economy in the use of land for burial.



Morphological changes in funeral monument compared with spacial differences.

Fig. 2.27

The division of this process of development into separate phases must necessarily be an artificial one, but it will be convenient, particularly in the light of artifact evidence, to extend the simple two stage division, suggested by the construction of the axial earthwork, into four phases (Fig. 2.28).

Phase 1

The earliest burials were made at the junction of two linear features, one of which was certainly in use as a trackway in the Late Iron Age and Roman periods. No diagnostic artifacts were found among these burials and this will have been due partly to the use of shallow or surface burials sometimes in large enclosures, which have been removed by ploughing. Isolated burials of this type may have been made at this time, some possibly in areas later absorbed in the cemetery.

Phase 2

This early nucleus expanded eastwards and possible northwards during this phase. Arched bow brooches were used as well as penannular, "S" and inlaid brooches, and glass bead necklaces were popular. Towards the end of this phase La Tène II brooches, including one with a flat bow, made their appearance. A second nucleus of burials may have begun to grow up in what was to become the central part of the cemetery. Burials were often in graves of moderate depth (0.26 to 0.64 m) and some had large enclosures. Isolated burials could equally well belong to this phase as earlier. The end of the period is marked by the construction of an earthwork which roughly followed the two boundaries along which the cemetery was developing. In practice this bisected the cemetery, leaving a large number outside the new enclosure which it defined.

Phase 3

All subsequent burials lay inside the new earthwork and the earliest of these may have filled the space which separated the western block of burials from the developing cluster to the east. Two of these were accompanied by flat bow brooches and a third by a

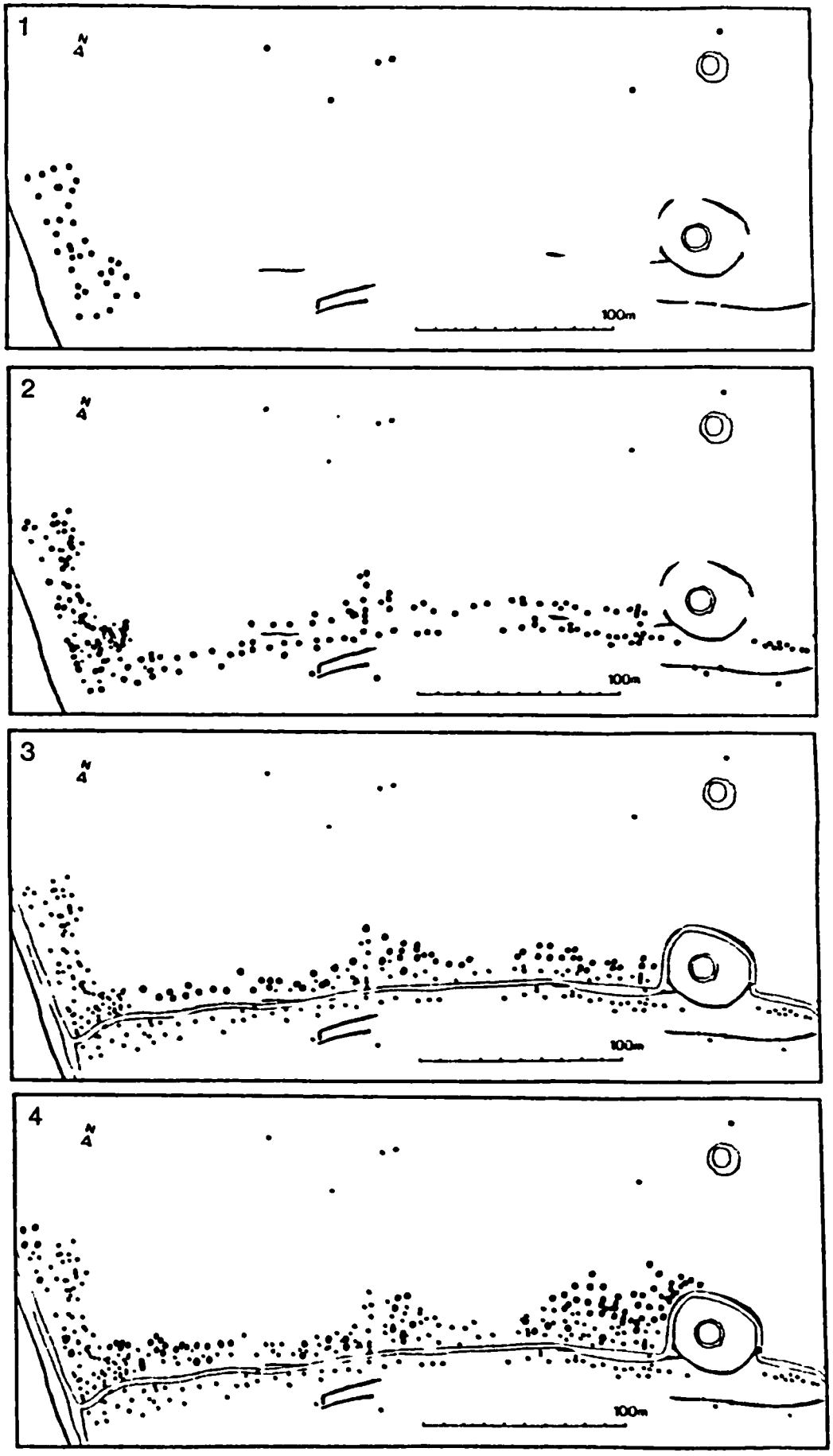


Fig. 2.28 Four stages in the development of the Wetwang Slack cemetery

long involuted brooch. The latter type was characteristic of a thin band of burials which was added to the northern margin of the existing cemetery close to the east-west boundary. Graves were deeper than had been usual, some exceeding 0.65 metres. Finds of isolated glass beads of different pattern from those in use earlier were made in two of these burials (102, 268).

Phase 4

This thickening of the central and eastern part of the cemetery continued and a large nucleus of burials developed on the east where further linear development was impeded by a northward sweep of the linear earthwork where this diverted around an existing burial mound of Early Bronze Age date (Dent 1979, Barrow A). Spaces among earlier mounds were used, particularly where these lay close to the earthwork, and a few burials were added to the north-west end of the cemetery. Central graves were deep, mostly over 0.65 metres deep, and enclosures were smaller than had been common before. Short involuted brooches, a La Tène III brooch, an involuted pin (145) and an iron sword (92) were associated with burials of this phase. The phase ended with the abandonment of the cemetery.

PART 3: THE SKELETAL EVIDENCE

3.1 INTRODUCTION

Human bones provide evidence from which it is possible to draw inferences about physical characteristics, life expectancy, mortality and disease, biological distance and population. A careful study of the skeletal remains from Wetwang Slack was made by Jean Dawes and her as yet unpublished report forms the basis for the earlier part of this chapter.

Dawes has described how she studied the human bones from the cemetery of St. Helen-on-the-Walls, York (Dawes and Magilton 1980) and she approached the Wetwang Slack sample in much the same way. Her report on the bones is a synthesis of collected bone measurements and observations, and contains much analytical material to which the writer has been able to add but little. My own contribution was chiefly confined to a development of Dawes' recognition of disparate robustness in long bones as a possible factor affecting body position (which yielded negative results) and of congenital abnormalities as an aid to recognizing family groups and population growth. Some tabulation of information and clustering techniques were carried out by Dawes who compared them with the York skeletons (ibid).

This type of evidence has its limitations. The basic information which can usually be obtained, even from fairly fragmentary bone samples, is: age, sex and stature. Infants cannot be sexed under normal conditions, but Dawes has compared the ilia of the Wetwang Slack infants with those of a large sample of Late Iron Age or Early Roman date which was found 600 m to the east in Garton Slack (Dawes, in Brewster 1981. p. 693). This large group enabled Dawes to identify males and females from the sciatic notch in a way which is not normally possible when only a small sample is available for study. The assessment of age is made in adults from the degree of wear on the molars and pre-molars. It is usually assumed that this is constant among different populations, although other features, such as the complete fusion of skull sutures, suggested that several individuals from Wetwang Slack were older than their teeth

indicated. The possibility of differential wear patterns corresponding to diet has not been closely pursued, but a higher or lower proportion of, for example, quern-ground flour is very likely to have influenced wear. In the absence of a better system tooth attrition is the criterion used here.

As it happens a large proportion of skeletons in the 17 - 25 year old range, indicated not only by tooth wear, but also by "wisdom" tooth eruption, gives some support to a large population in the next range upwards (25 - 35 years). It was fused cranial sutures among this group which suggested that the estimates might be too young. Techniques currently being pioneered (by C. Sampson and others) promise an improved method of ageing skeletons, and estimates of population etc. made here may have to be adjusted accordingly.

While bones may carry signs of disease, they are of limited use for identifying the cause of death since most of the diseases concerned are not terminal. Violent death may be indicated, but here again signs can be lost through erosion and damaged suffered by soft organs will not be recognizable.

A major shortcoming at the present is an absence of comparative material. Until the large sample of Iron Age skeletons from Burton Fleming is published only a residual sample of bones from early excavations is available to represent the Iron Age population of other sites in the region. An unfortunate tendency to overlook the importance of bones has in the past been regrettably common and not only in Britain (for a comparable situation in a Classical context see: Dent, forthcoming). This has precluded, for example, comparison of the East Yorkshire material with the contemporary population from the large cemetery of Harlyn Bay, Cornwall (Whimster 1977b), and from supposedly akin populations on the Marne, a shortcoming which is being reduced through the researches of I. M. and S. Stead (Stead S., 1981. 169 - 172).

The problems presented by the skeletal evidence do not greatly reduce its value, and the later parts of this chapter will examine the physical evidence, with other features of burial, in the light of recent theoretical developments, to look for signs of social

TABLE 3.1 Age and Sex distribution.

	Male		Female		Sex Unknown	Total		
Age range	Cases	Mean Total	Cases	Mean Total	Cases Unknown	Cases	Mean Total	% of Total
Newborn and prem.	2	0	1	0	14	17	0	4.33
0 - $2\frac{1}{2}$	1	1.25	2	2.5	11	14	17.5	3.57
$2\frac{1}{2}$ - 6	3	12.75	2	8.5	8	13	55.25	3.31
6 - 10	6	48.0	3	24.0	7	16	128.0	4.08
10 - 14	2	24.0	1	12.0	4	7	84.0	1.78
14 - 17	8	124.0	3	46.5	3	14	217.0	3.57
Child total	22		12		47	81		20.66
17 - 25	21	441.0	36	756.0	0	57	1197.0	14.5
25 - 35	46	1380.0	88	2640.0	0	134	4020.0	34.18
35 - 45	50	2000.0	59	2360.0	0	109	4360.0	27.8
45 +	7	350.0	4	200.0	0	11	550.0	2.8
Adult total	124		187		0	311		79.33
Overall total	146		199		47	392		
Average age		30.0		0.39			27.1	

(adapted from J.D.Dawes, forthcoming)

structure. If the conclusions of this work appear inconclusive it will be because scholars such as P. J. Ucko (1969), L. Binford (1972) and others have pointed out too many possible interpretations of archaeological evidence for any single one to gain unquestioned acceptance.

3.2 PATHOLOGY

3.2.1 PHYSICAL CHARACTERISTICS

Possibly the most obvious value of skeletal material is as evidence for the physical appearance of past populations. In this respect the Wetwang cemetery provides the largest available sample of unburnt bones which has so far been found in a British prehistoric context. From a close examination of these, Dawes has concluded that the population was somewhat shorter than the norm, with the average male standing at 1.67 metres (5ft. 6 ins.) and the average female at 1.56 metres (5ft. $1\frac{1}{2}$ ins.). The skulls of both sex groups were dolichocephalic, that is long and narrow with high vaults and long, fairly narrow faces. Noses were long and narrow, although they were wider in females, and eye sockets were fairly square.

Variations in the robustness of leg bones within the individual may have been influenced by a general bias to the left or right sides which could also have been influenced whether the individual was left or right handed. A search, at the writer's suggestion, for any correspondence between differently developed femora and tibiae (thigh and shin bones) and a preference for burial on the left or right side suggested that the two were unrelated.

3.2.2 LIFE EXPECTANCY

The possible failure to recognise in the ground the remains of very small children may account for the unusually small number of recorded infants of less than $2\frac{1}{2}$ years. These account for less than 8% of the total examples where age could be assessed with a reasonable degree of accuracy (Table 3.1). This shortage of infants, a feature also observed by Ian Stead in his excavation of

the Burton Fleming cemeteries (Stead 1979, 15), might have been due to the removal of covering mounds which could have contained the small graves needed for young children without these leaving traces in the gravel sub-soil. Some 12% of the skeletons were those of children between the ages of $2^1/_2$ years and 17 years, and the overall proportion of individuals of 17 years and below was 20.6%, the majority of which (where the sex could be identified) were males. A further 14.5% of the population died before the age of 25 years, and 34.1% between the ages of 25 and 35 years. In the age group 17 - 35 there was a marked difference in the rate at which the two sexes were affected. Some 62.3% of the accurately aged female population died in the age range 17 - 35 while this accounted for only 40.3% of the males. Another 27.8% of the population died between 35 and 45 years and a very few individuals lived beyond 45 years (2.8%), none of them beyond 60 years of age. Some idea may be obtained of the average life expectancy from the figures if the total mean ages are added up from each age group and the sum is divided by the number of individuals. Where the sex could be determined the following averages were found: males 30.0 years; females 30.39 years. This is surprising in view of the higher mortality noted in young adult females but is due to a higher proportion of males who died as children. The overall average life expectancy is lower, 27.1 years, and this incorporated a larger number of very young individuals whose sex could not be determined. A figure somewhere between 27 years and 31 years appears to be indicated and it is certainly true that few individuals would be considered elderly by modern standards.

3.2.3 MORTALITY AND DISEASE

Mortality statistics showed some trends which are likely to have been the result of illness or traumatic experiences. The high proportion of females which died between the ages of 17 and 35 years as compared to males in the same group is likely to have been the result of child bearing and the hazards which it involves; in one example (burial 309) an unborn baby was still inside the pelvis when the mother died. A high proportion of the children found were males and while the reason for this is not clear it does suggest that females had as good or better chances of survival; there is no evidence of detrimental treatment of female children, and the total

number of females from the cemetery was significantly higher than that of males (see Table 3.1). Some 18% of the population died between the ages of 14 and 25 and this may have been due to diseases such as tuberculosis, the dangers of which tend to have been forgotten since the disease was effectively eradicated earlier this century.

Terminal illnesses cannot usually be identified from the surviving bones, although problems of the soft organs may occasionally have left some traces. An abscess in the pelvis of burial 386 and calcareous growths (gallstones and the like) were found among the bones of 215, 257 and 318. The production of white blood cells to combat infection could be suggested by structural changes which were frequently observed in the long bones of adults. Arthritic spines were recognised in about one third of the adult population (37% of the males and 32% of the females) and other parts of the body, including knees, hips and shoulders were affected. Tuberculosis could have contributed to some of these bone conditions and rheumatoid arthritis was recognised in the hands and/or feet in fourteen cases.

Such conditions may reflect a general deterioration in health at an earlier age, and diet may also have played a part. So far no X-ray analysis has been carried out to recognise signs of arrested development in the bones (Harris's lines). Among the teeth there was no noticeable incidence of hypoplasia which would reflect periods of undernourishment in the formation of the enamel. Dental disease was common but was largely limited to cases of caries (cavities), periodontal disease (the loosening of the teeth through gum erosion), abscesses and calculus (tartar). While these conditions may be due to diet and mouth hygiene, some of them can be hereditary.

While the sort of ailments which are represented in the skeletal evidence may reflect a generally poorer state of health than at the present day, and this could have led to an earlier death, actual damage to the bone also resulted from injuries which were sustained by accident or by deliberate wounding. Broken noses, ribs and one forearm could have been the results of falls and they had been allowed to heal. A broken leg which did not heal and became

infected may have led to the eventual death of one male (burial 307). A blow with a sharp edged weapon to the skull of burial 114 was probably terminal and compares with burial 211 in which an iron spearhead was found in the stomach region of a female adult. A blow with a blunt instrument to the skull of burial 119, another male, may have had time to heal before death occurred. The left scapula of burial 13 had two holes which could have been inflicted during life. These cases of wounding serve to remind that warfare as well as illness would have lowered life expectancy, although only one burial, number 98 had weapons (a sword and shield) as grave goods.

3.2.4 BIOLOGICAL DISTANCE

Interest in the study of biological distance has revived as part of the general renaissance of funerary archaeology. Computers have greatly facilitated the processing of large numbers of anatomical measurements and they are able to give an objective assessment of the material which lacks the racist undertones which marred the subject in the earlier half of this century (for example, Brothwell, 1972). The basic premise is that closely related populations will exhibit similarities in their skeletal make-up which are the result of genetic affinity. The strongest similarities are likely to exist among the members of a family and these will be diluted among close communities and regional groups and clear dissimilarities might be expected between groups of different racial origins.

Chronological factors will have an effect also, and a static population will develop physically with the passage of time. The Wetwang Slack group of skeletons may be examined, firstly as a part of the regional group and secondly as a collection of individuals among whom family groups might be identified.

Regional Characteristics

Cluster analyses were carried out on 71 male and 106 female skulls from the cemetery by Jean Dawes using CLUSTAN IC programmes (Dawes 1980 66-83, Wishart 1971). These analyses drew on measurements of a maximum of thirty cranial variables and the Wetwang group was

compared with other samples, from various periods and places, but mostly from the North of England. The group with which they were most consistently coupled was that which consisted of Iron Age skulls from other cemeteries in East Yorkshire, but this affinity was noticeably closer among the male population than among the females (Dawes 1980 Figs. 28-31). The sample from other cemeteries in the region was, however, small. There was no particularly close link with earlier Neolithic and Bronze Age groups nor with Roman or Anglian populations, although these were closer than medieval groups. One of the problems with this approach is that while the Wetwang Slack sample is large, other well preserved cranial collections are usually small in numbers, and no other regions have yet produced suitable data for British Iron Age populations.

Groups Within the Cemetery

Cranial measurements also formed the basis of analysis within the cemetery and for this all suitable skulls were used. A number of variations were observed. The chronological factors discussed in Part 2 formed the basis of a division of the sample into an earlier and a later group. When the measurements of the skulls in these two groups were compared, the means were too close to support any suggestion of physical development while the cemetery was in use. It is possible, however, that variations could have been the result of genetic factors. Metopism, survival of the medio-frontal suture, is a feature which is transmitted genetically and is thus a useful guide in a search for possible family groups. Jean Dawes concluded that a "practically certain" case of close family relationship was that of two females (burials 22 and 95) who were facially similar, displayed metopism and who also shared similar sutural bones and had some third molars absent, probably congenitally. While these two burials were both at the eastern end of the cemetery they were apparently disparate chronologically and they do not necessarily indicate that a single family was using the part of the site for a long time. Burial 95 was relatively late and by that stage a large proportion of the burials overall were being made in that area. A stronger case for family grouping, but with weaker evidence, is that of two males, burials 120 and 134 which were metrically similar and shared third molar absence but between which there was a more limited correlation of sutural

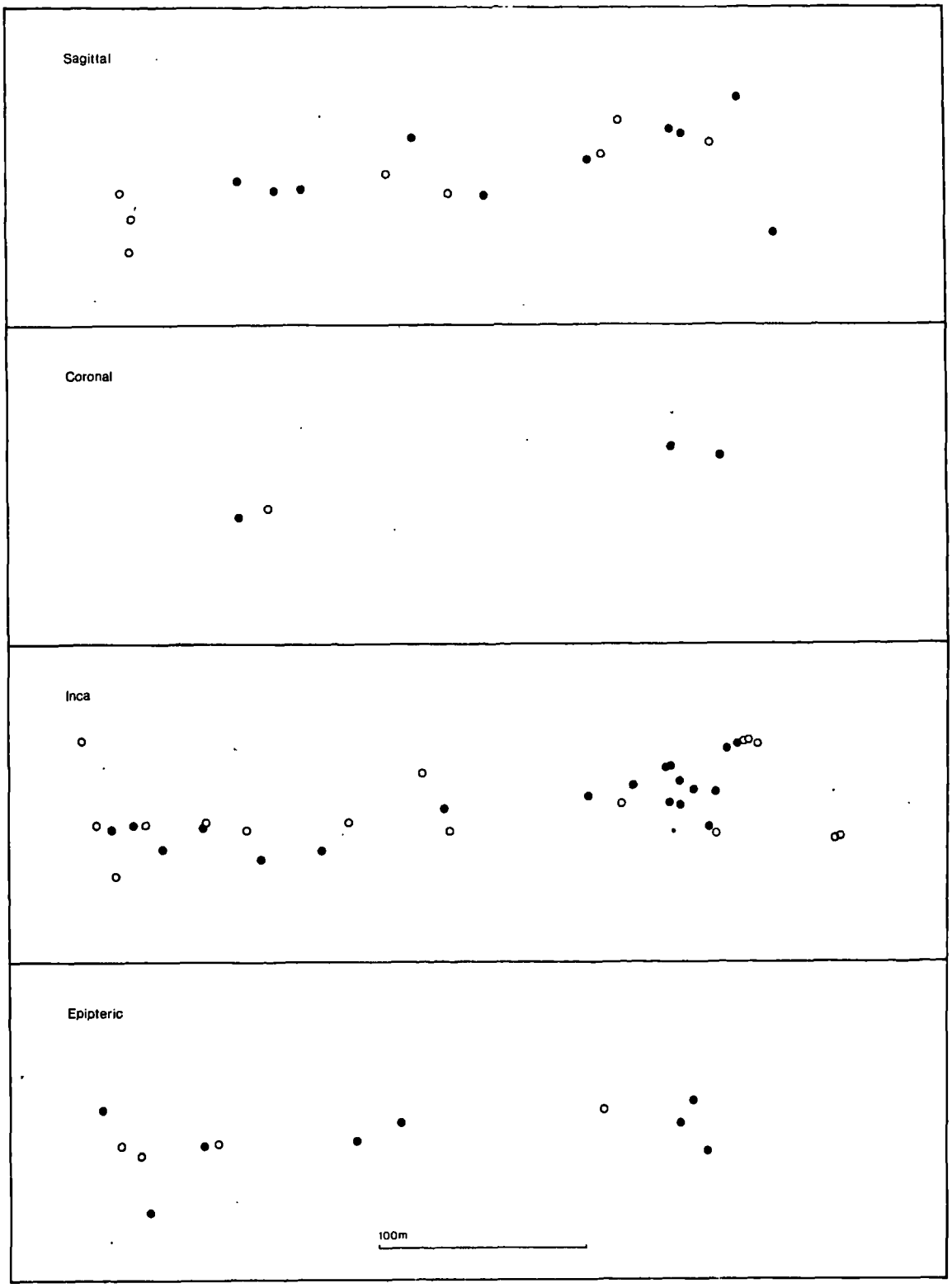


Fig.3.1 A search for family grouping. Here genetically transmitted bone anomalies are plotted on a plan of the cemetery. Open circles= males; solid circles= females; dots= unknown

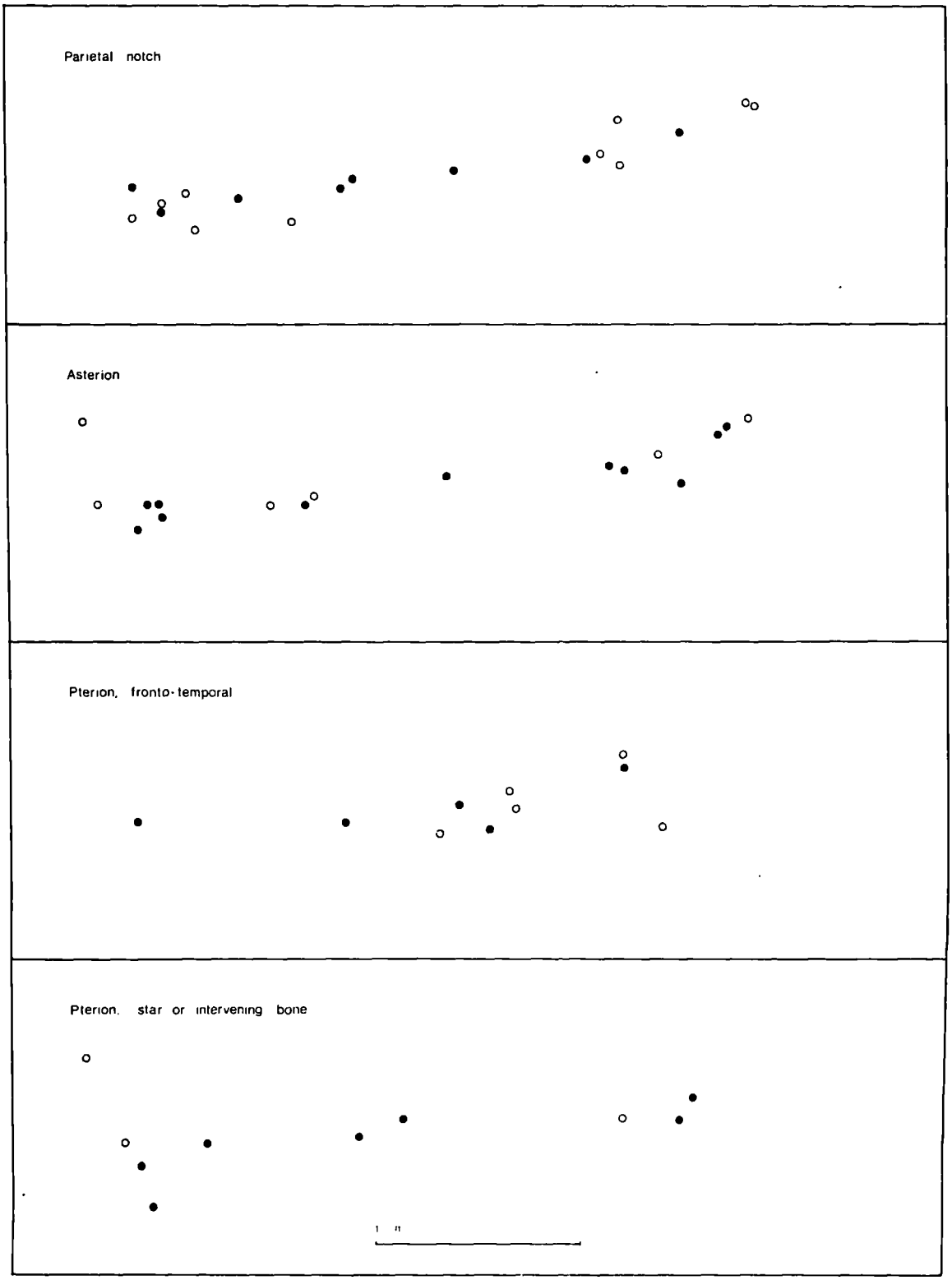


Fig.3.2 A search for family grouping, continued.

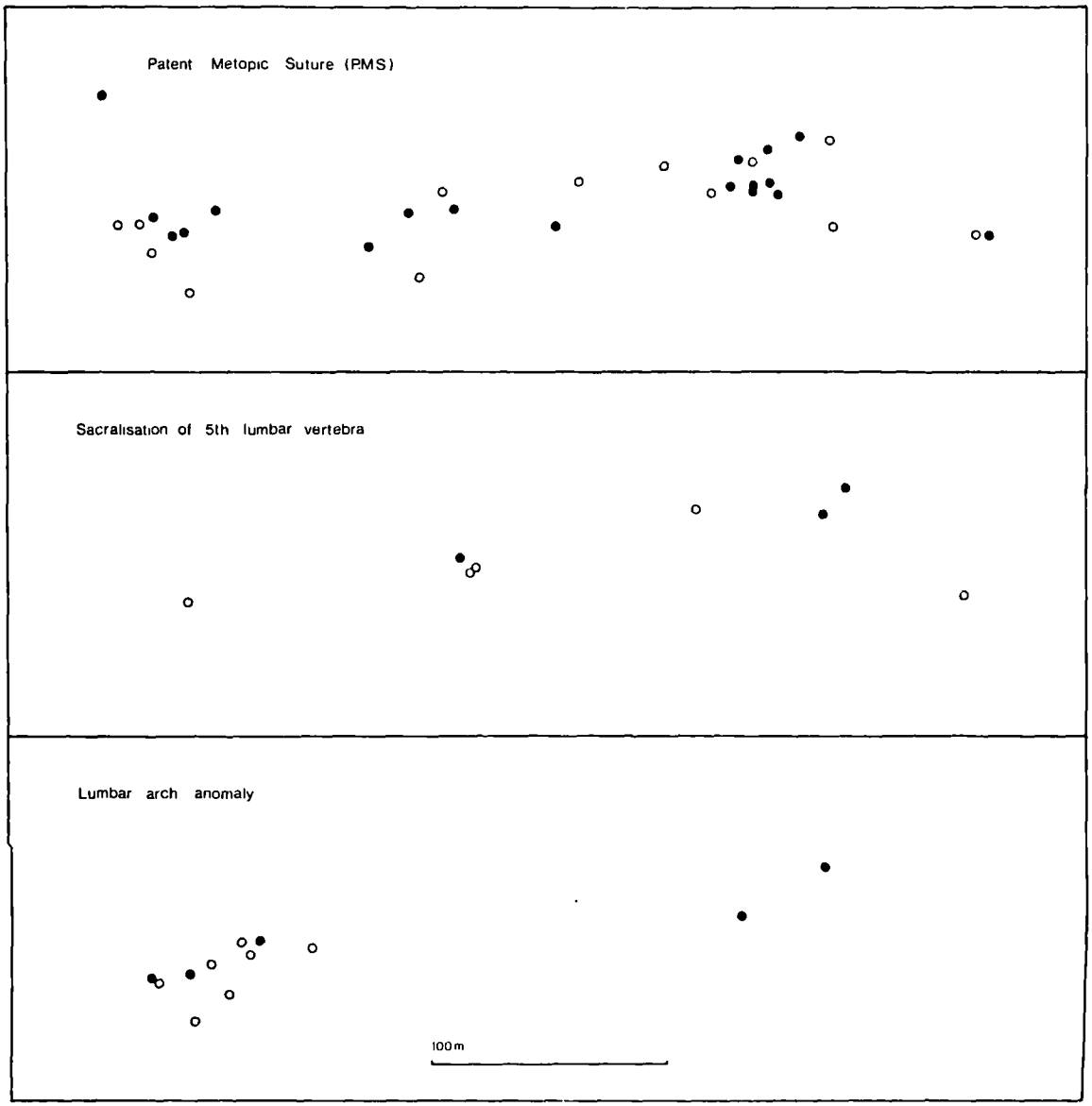


Fig.3.3 A search for family grouping, continued.

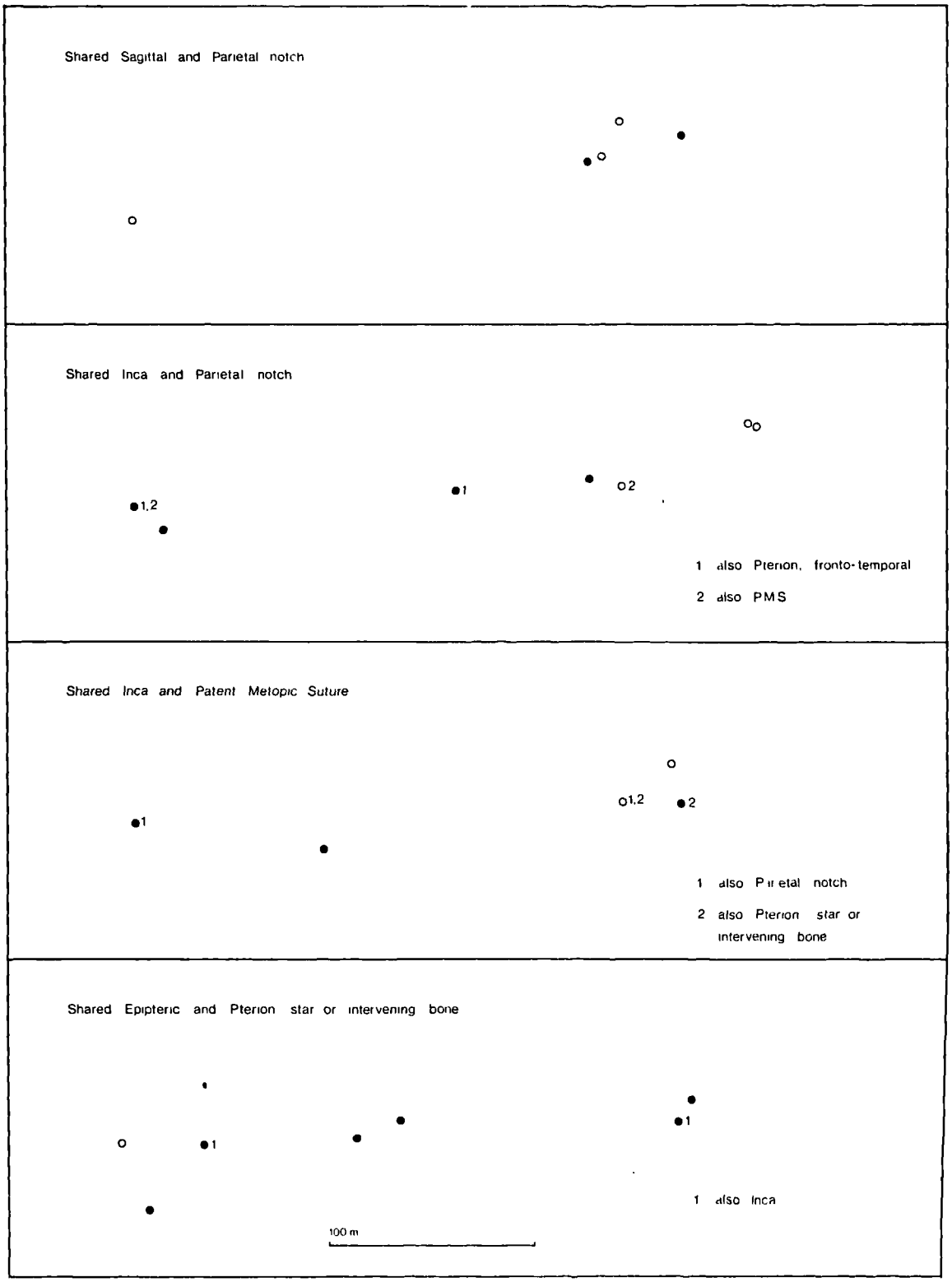


Fig.3.4 A search for family grouping, continued.

bones. The burials were, however, in adjacent enclosures and must have been chronologically close. They were, like burial 95, among late burials at the eastern end of the cemetery.

Sutural bones and other bone anomalies with genetic characteristics could provide evidence of family grouping. To examine this possibility particular features have been plotted from the plan of the cemetery both as isolated features and where they were found in combination with other forms of anomalies (Figs. 3.1 to 3.4). The results of this are somewhat inconclusive, for although there are a few cases of shared anomalies in adjacent graves (in particular among those with Inca bones and unusual lumbar characteristics) the likelihood of clear clustering is tempered by several factors.

Firstly, the occurrence of anomalous bones is a matter of chance and not all members of a family need have them. A particular feature may lie dormant and several generations may elapse before features re-appear, producing a "throwback". This could be the reason for the apparent similarity between the two females mentioned above (burials 22 and 95). Particular anomalies will be of limited use for the identification of family groups for in a small community inter-marriage will have spread these anomalies to other families and with time the population may well have shared them. There is no certainty that the Wetwang community was not already well intermixed genetically by the time that the first burials were made. One interesting feature is the apparent frequency of the feature known as Patent Metopic Suture among later burials. Examples from central burials within enclosures were compared with chronologically significant morphological features of the funerary monument and with the distribution of brooches (Fig. 3.5). Of eighteen cases half were from graves 0.65 metres or more deep, a characteristic of the latest burials, and of these four were accompanied by short involuted brooches. This suggests an acceleration in the incidence of metopism towards the end of the period of burial. This may reflect a concentration of this feature through marriage within the community, or it could be the result of an increase in population.

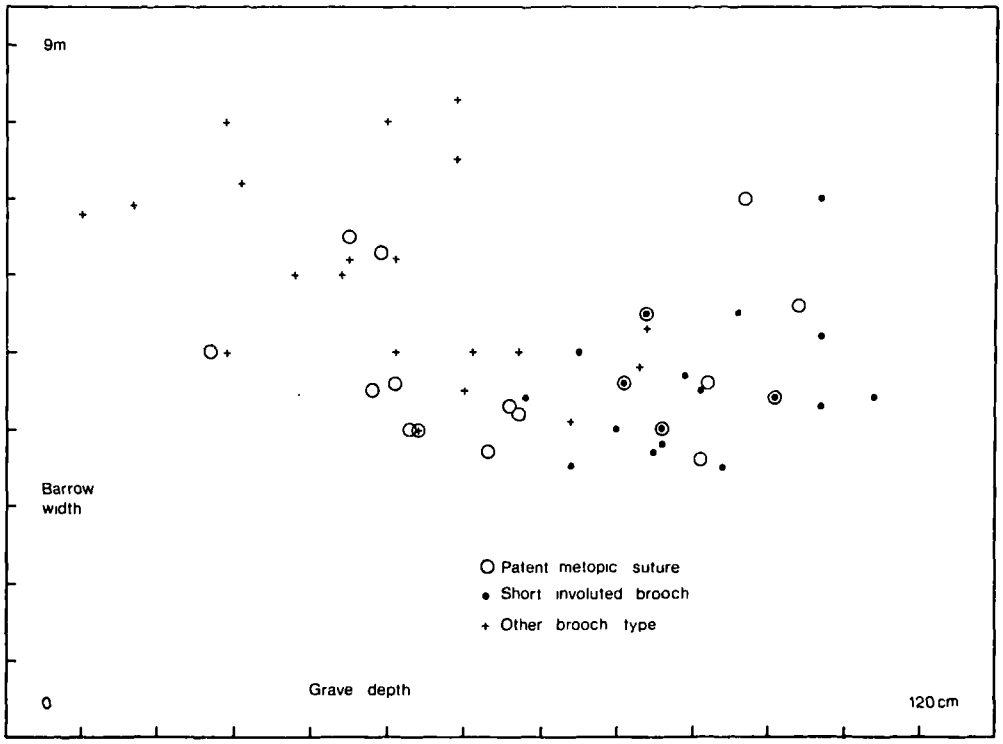


Fig.3.5 Incedence of Patent Metopic Suture plotted against brooch types and barrow width/ grave depth as indicators of chronological change.

The constraints which were placed upon the availability of space for burial by the distribution of existing graves clearly affected the ways in which the cemetery developed and will also have limited the extent to which particular family plots will have remained usable. As memory of earlier generations faded it may have been easier for a family group to shift to a new part of the cemetery, and there may indeed have been little choice for some once a substantial part of the cemetery had become disused following its exclusion from the new enclosure which was created by the construction of an earthwork across the site. An example where burial may have continued is suggested by burials with an anomaly in the fifth lumbar vertebra, in which the lumbar arch had not fused from childhood. This was a rare feature, with only twelve examples, and of these, ten were at the western end of the cemetery in a discrete group. While the majority were probably earlier than the linear earthwork, four were probably late, being in the ditches or central to enclosures with deep central graves. If this was a genuine attempt to remain close to family graves then it suggests that this was at times a strong factor in the decision of where a burial should be made. Three of the four later burials in this group were in ditches which might indicate that family ties affected the quality of burial. A convincing case of family use of an enclosure is demonstrated by the ditch around burial 219. Three burials which cut this ditch shared a feature caused by the fusing of the fifth lumbar vertebra to the sacrum (Sacralization). The significance of this cluster is emphasized by the infrequency of the anomaly, for these were three out of only eight cases in the cemetery (Fig. 3.3).

Marriage will also have affected the pattern for the burial of husband and wife close together is perhaps more likely than their burial apart close to their respective families. In this case one sex may show a tendency to stray more readily than the other and skeletal evidence may help to indicate whether males or females (or both) moved away from the family with marriage. In general there were less males with anomalies than there were females, but this is just a reflection of the overall sex representation among the burials. There was no convincing evidence that either sex was more densely clustered than the other. The best evidence was that of the burials with a lumbar arch anomaly (Fig. 3.3). As has been

described above, ten of the twelve examples were situated at the west end of the cemetery of which seven were males and three females. Both the other cases were females and these were found at the eastern end of the cemetery, possibly evidence that among this group females moved away from what could have been a close-knit family.

3.2.5 POPULATION

Skeletal evidence for the mortality rates is one of the chief requirements in formulating an estimate of population numbers. Other factors are the total number of individuals and the length of time which was covered by the burials. In all three cases uncertainties exist which preclude any great confidence in estimates, but some general idea of the upper and lower limits of the average population figures may be obtained.

The most reliable figure is the average age at death. This would be lowered by a greater number of children and it is possible, even likely to judge from the low proportions found, that more were buried but did not survive for the excavator. The upper end of the age range is also poorly represented. Age was deduced principally from the wear on the teeth and sometimes this appeared to be less than the fused sutures of the skulls suggested. On the other hand a large number of skeletons were of individuals who had died in their late teens or early twenties when the degree of fusion of the epipheses (the detached terminals to a number of bones which fuse once growth has ceased) was a more reliable criterion for age. This suggests that although tooth wear will have varied with diet, the general age estimate may have been approximately correct. A lower average age would reduce the population figure while a higher average would increase it.

The minimum number of individuals buried in the cemetery is finite: 446. However, some burials were isolated from the main concentration and when the cemetery along with adjacent settlement areas was enclosed by earthworks other burials were included in the new area, some of which were excavated by Brewster in Garton Slack (Dent, 1983, a: Appendix B). Others are known as crop marks and clearly there may be other groups as yet undiscovered. It seems

probable that burials of a number of children have not survived and clearly the more that are found, the higher the estimate of population will be.

The duration of the cemetery is clearly most important. Although relative chronology has been discussed, this has not been tied to an absolute time scale. In view of the continental evidence for the chronology of La Tène groups it seems likely that the fifth century B.C. and the first century A.D. are the acceptable limits (Hodson, 1964 a, fig. 6). On the other hand the lack of very early brooches (possibly due in part to the loss of burials through the plough) and the difficulties in relating insular metalwork to continental fashions in the later stages could mean that the actual period of use was relatively short. It seems unlikely, however, that the cemetery was in use for less than two centuries, both from the occurrence of La Tène I and La Tène III brooches in it and from the complexity of its development, and the longer it was in use the smaller must be the population estimate.

To combat these vagaries a sliding scale of value is used for the total of individuals (T) and for the duration of the cemetery (D). The average age at death (A) is taken as 28 years with the understanding that this too is variable, but probably not greatly so. Population can now be estimated using the equation.

$$\text{Population (P)} = \frac{\text{Average Age (A)} \times \text{Total of individual buried (T)}}{\text{Duration of cemetery (D)}}$$

A range of possible values for (P) is given in table 3.2. A population of more than one hundred individuals is reached only if the cemetery lasted less than two centuries or if the number of individuals exceeded those found by some hundreds. This suggests that if different families are to be identified among the skeletons in the cemetery they must have been few and even those were probably closely inter-related.

The estimate of population is naturally an average for the whole period of burial. There is evidence from the way in which the cemetery developed, from the changing form of burial monument and from greater frequency of metopism among the later burials that the

TABLE 3.2

Population estimates based upon a life expectancy of 28 years.

		Duration of cemetery (D)					
		100	2000	300	400	5000	years
Total of individuals buried (T)	450	126	63	42	31	25	
	500	140	70	46	35	28	
	550	154	77	51	38	30	
	600	168	84	56	42	33	
	650	182	91	60	45	36	
	700	196	98	65	49	38	

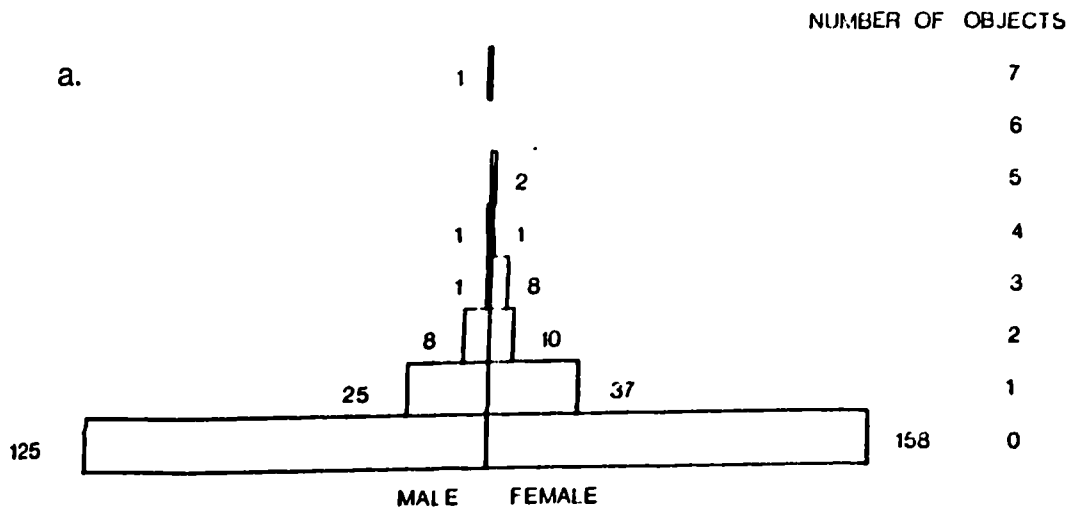
population was not constant and that it was rapidly increasing by the time when the cemetery was abandoned, but ignorance of absolute chronology precludes the assessment of this growth.

3.3 SEX AND AGE AS CRITERIA FOR DISCRIMINATION

Variations in treatment of the dead are sometimes the result of social grouping on the grounds of sex or age. An example of this is the burial of infants in domestic areas during the Late Iron Age and Early Roman period in Wetwang/Garton Slack (Brewster 1975, Dent 1983 a, 7). The principle that variations observed among the funerary evidence can reflect social differences has gained much support since it was developed by Binford and others a decade and more ago (Binford 1972, Shennan 1975). Whether or not there was some form of discrimination on the grounds of sex or age is easily tested by cross-tabulating the attributes against the different sexes and age groups. This was carried out on the 1904S computer at Hull University with the aid of CROSSTABS, one of the options available in the Statistical Package for the Social Sciences (SPSS: Nie, et. al. 1970). These tables form the basis of visual representations of the material (Figs. 3.6 to 3.11) which emphasize the similarities and differences between different age or sex groups. The most likely aspects of burial to have been affected by the sex or age of the individual are: grave goods, type of grave, enclosure size, skeletal position, the provision of a grave structure and the overall position in the cemetery. The greater proportion of women and older age groups is compensated by giving the total attributes as percentages of the sex/age groups.

3.3.1 GRAVE GOODS (Figs. 3.6 and 3.7)

There is no indication that grave goods were buried with one sex group more than with the other, either in the number of objects buried or in the number of materials used. It is noticeable nevertheless that specific types of artifact were confined to burials of one or other sex. For example the 11 necklaces found were all buried with women as were both the inlaid brooches with elaborate coral decoration from burials 155 and 274. Similarly the iron sword and shield fitting from burial 98 were buried with a



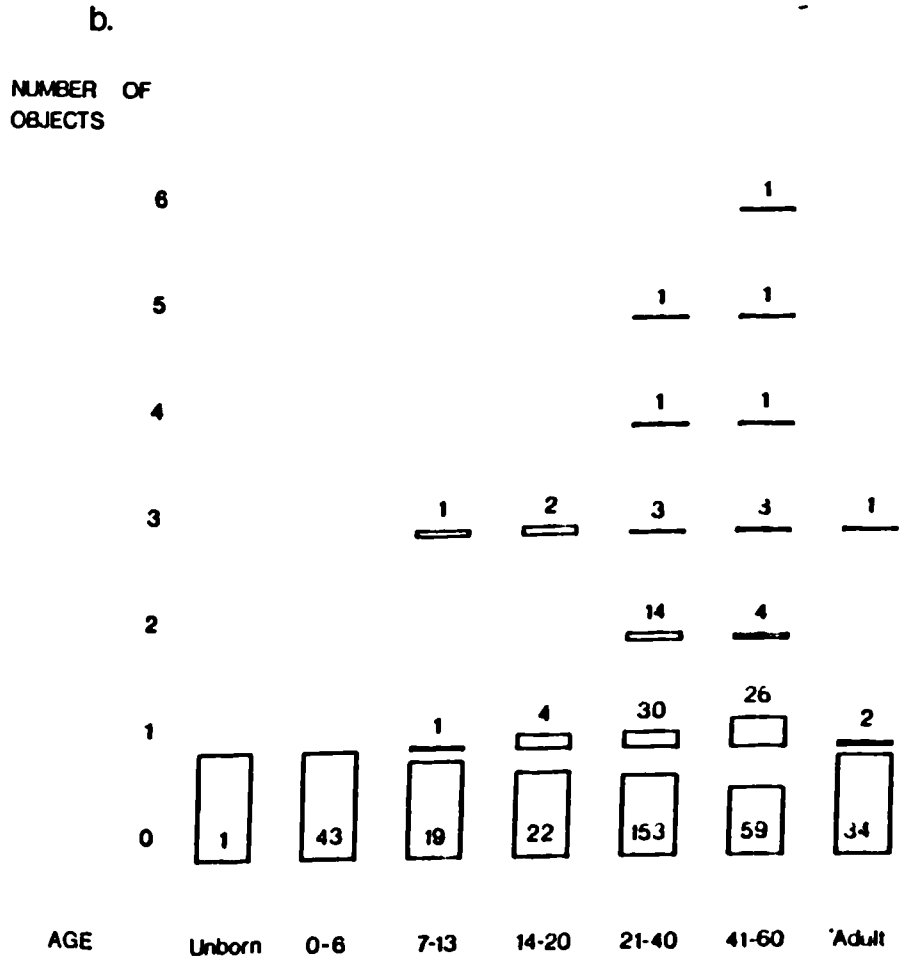


Fig.3.6 The distribution of grave goods among a. Sex groups and b. Age groups. blocks represent percentages; actual numbers are shown.

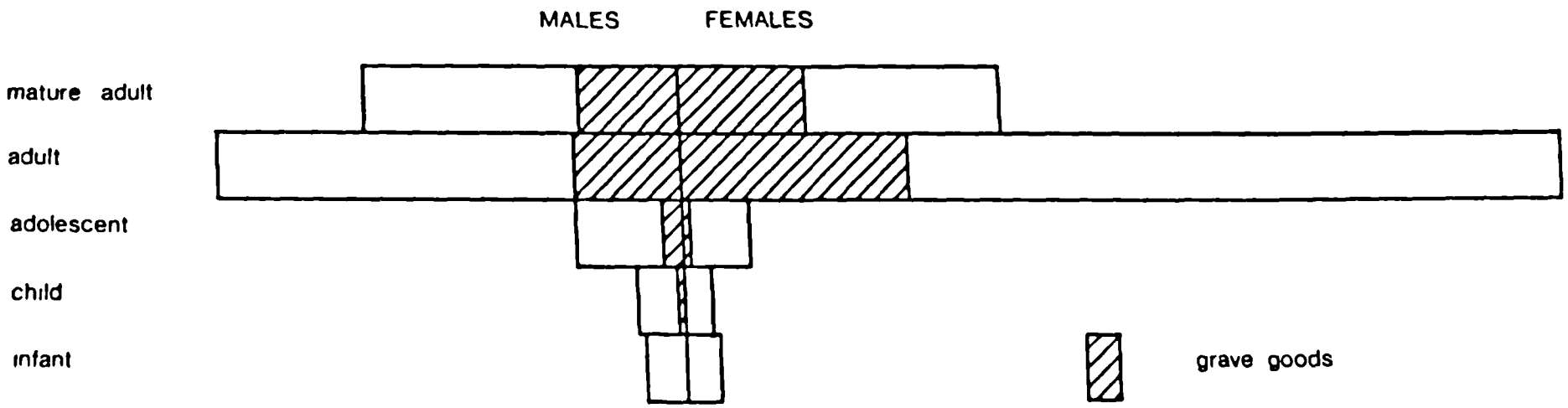


Fig. 7.7 The incedence of grave goods among age groups of different sexes.

male. It was noticeable also that children were not as a rule buried with grave goods and that most of the objects came from adult graves. Bronze beads found with a child, burial 363, were exceptional.

This distribution is emphasized when grave goods are measured against both sex and age groups (Fig. 3.7), from which it appears that although a higher proportion of mature women had grave goods than men in the same age range other age ranges showed no sexual discrimination.

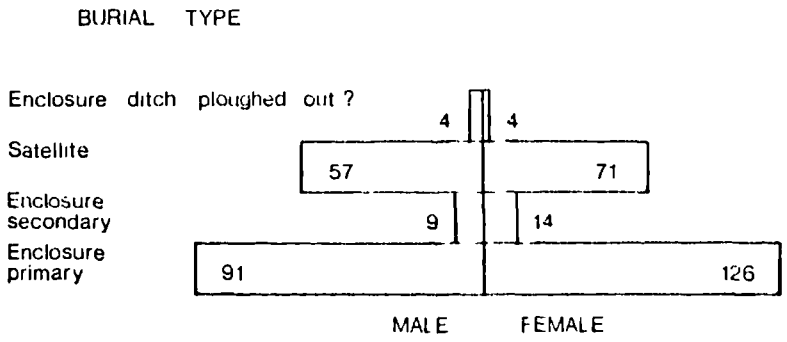
3.3.2 TYPE OF GRAVE (Fig. 3.8)

Four categories of burial were recognised for analysis: (i) primary burials within an enclosure; (ii) secondary burials within an enclosure; (iii) secondary burials on the periphery of an enclosure or in isolation; (iv) burials with characteristics similar to some late enclosure forms, which may at one time have been central to a small enclosure. Sexually the types were evenly distributed in so far that the proportions of either sex in each category were approximately equal. On the other hand it was quite clear that a high proportion of older age groups was buried in primary positions while with the exception of two in the 8 - 12 years range all the children were in secondary locations.

3.3.3 ENCLOSURE SIZE (Fig. 3.9)

No significant sexual bias can be discerned among the variations in platform size, but there is some evidence that size increased in proportion to the age of the individual, although children were normally buried in secondary graves. The analogous enclosures which contained burial mounds at Cowlam (Stead 1979, 35) suggest that larger enclosures would have contained correspondingly larger mounds, representing a proportionately greater expenditure of effort in the construction of the funerary monument.

a.



b.

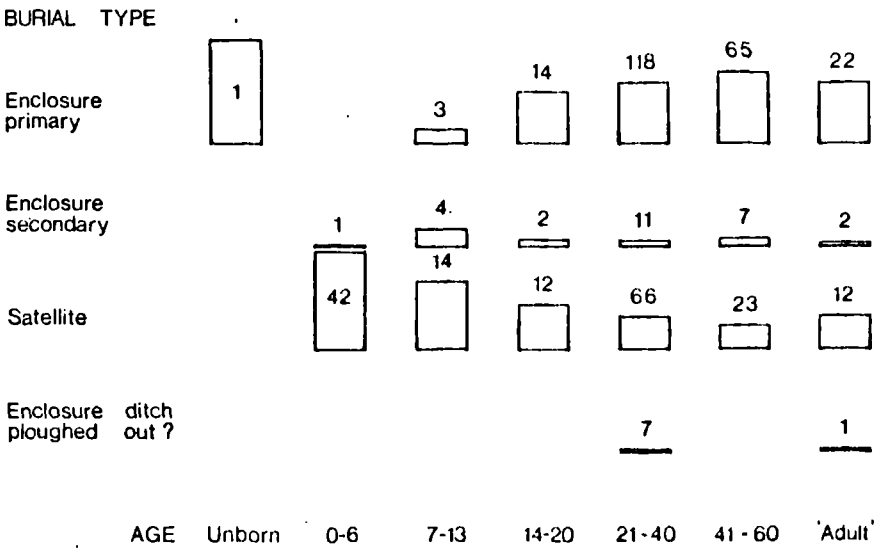
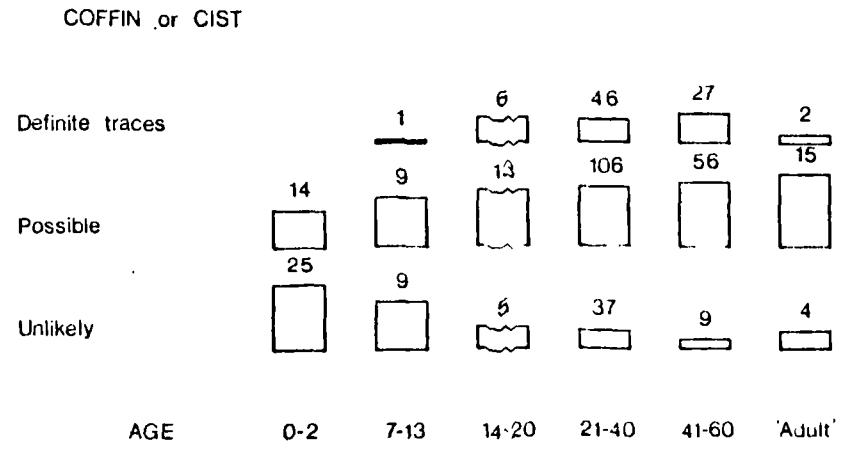


Fig.3.8 The distribution of different burial types in relation to a. sex and b. age. Blocks represent percentages of each age or sex group and actual numbers are shown.

a



b

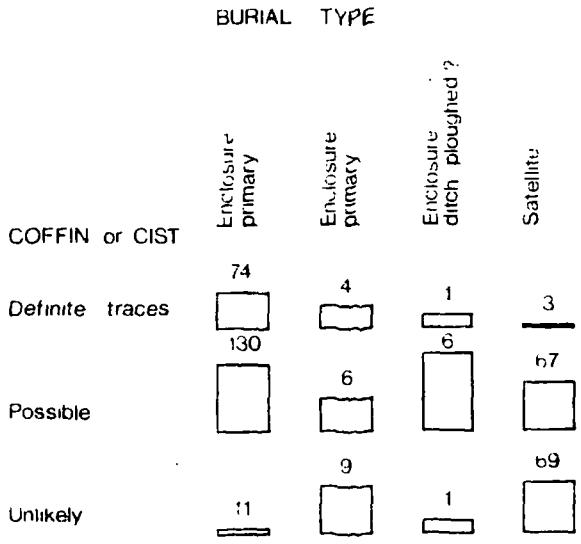


Fig. 3.11 Evidence of a coffin or cist in relation to a. age and b. burial type.

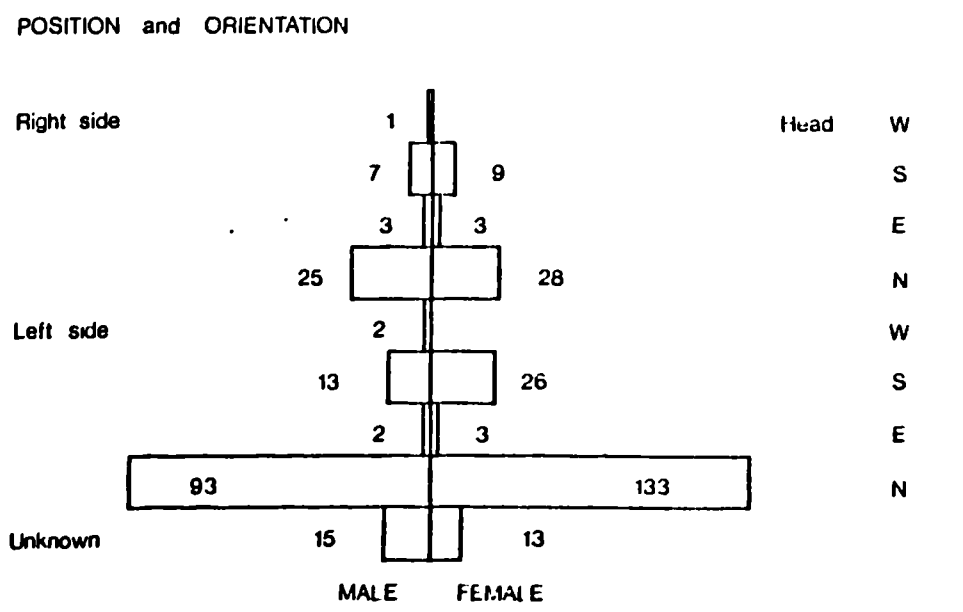
3.3.4 SKELETAL POSITION (Fig. 3.10)

Although there was variation in the position of the body it was almost invariably laid on one side with the legs bent or flexed. Most skeletons were laid on the left side, usually with head to north. Whatever the reasons for these variations they were certainly not sexual nor did this reflect age differences, for there was no particular age or sex group that received special treatment and there is no hint that sexual bias found among Early Bronze Age burials in the region (Tuckwell 1975) re-emerged along with a crouched burial rite in the Early Iron Age.

3.3.5 GRAVE STRUCTURES (Figs. 1.4 and 3.11)

Grave structures, be they timber linings or portable coffins, were observed as rectangular stains in the fill, as tufa-type casts, or as wood survival as iron corrosion (from burials 59 and 270). In many cases there was room in the grave for such a lining but no trace survived, while in others the size and shape of the grave, sometimes combined with physical contact between the skeleton and the sides of the grave, suggested that a timber structure had never existed. As with other attributes discussed so far there was no evidence to indicate that the provision of a grave structure had depended upon the sex of the deceased. On the other hand definite cases of a structure associated with a young person were few while a high proportion of the young came from graves which had probably not contained one. Definite traces, or room for a coffin or lining were more common among adult graves, but here too there were a number of cases where a structure had probably never existed. The provision of some form of grave structure is likely to be related to the type of burial, for in general secondary graves in ditches were smaller and less likely to accommodate a coffin/lining than were those at the centres of enclosures. The position of coffins or cists in primary graves and not, generally, in satellite graves is indicated in Fig. 3.11b.

a.



b.

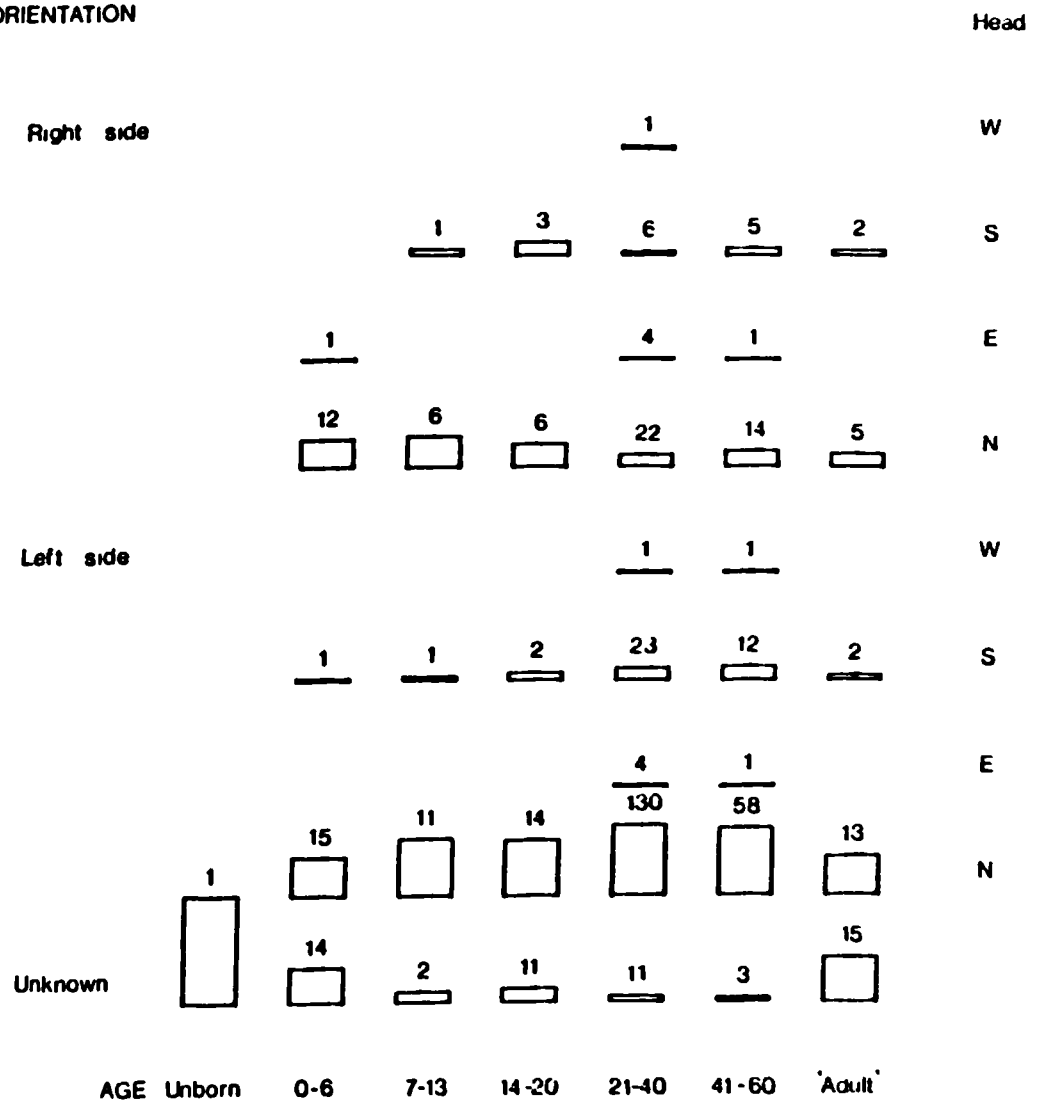
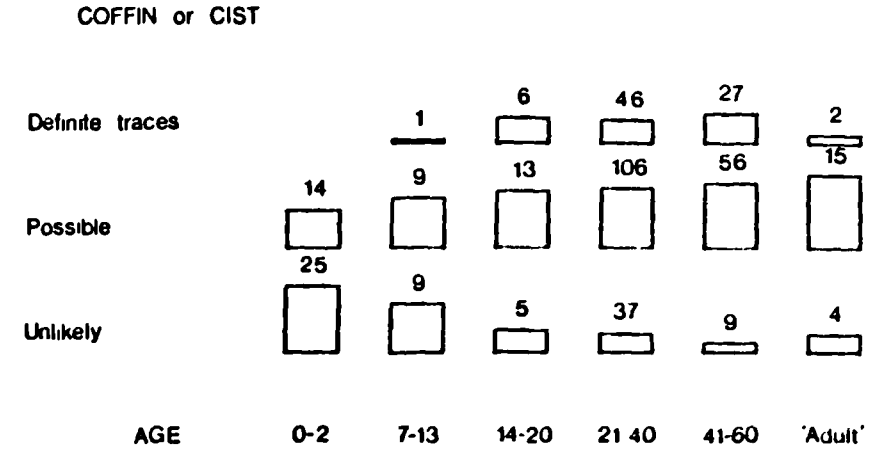


Fig.3.10 Position and orientation measured against a. sex and b. age. Blocks represent percentages and actual numbers are shown.

a



b

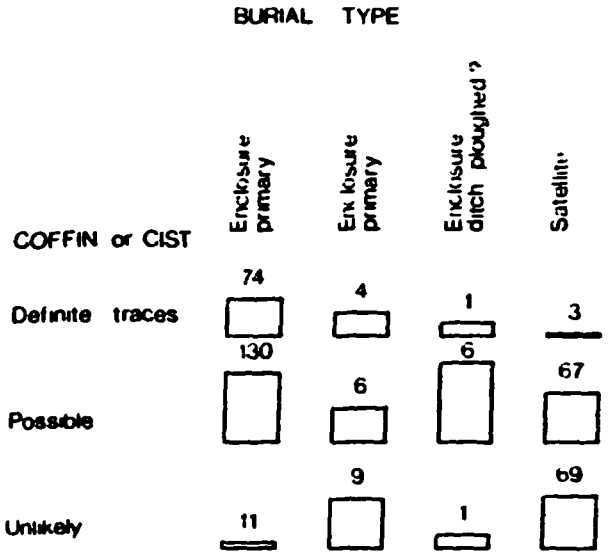


Fig. 3.11 Evidence of a coffin or cist in relation to a. age and b. burial type.

3.3.6 POSITION WITHIN THE CEMETERY (Fig. 3.12)

The cemetery developed in stages which have been outlined in Part 2. There was apparently no reservation of specific areas for men or women, as in general the two sexes were well mixed in the various parts of the site. It is worth observing, however, that along the southern edge of the site, to the south of the axial linear earthwork the proportion of male primary burials to female is rather less than the overall numbers for the cemetery. Seventeen central burials were of males, while thirty-eight of the burials were females. Also worthy of note is the imbalance among those deep graves with small enclosures which sometimes contained late artifacts and which were laid out along the northern side of the axial earthwork. If two graves which might have lost their enclosures, numbers 138 and 273, are included then sixteen females were buried in these late graves while only two males enjoyed similar positions. No such imbalance is apparent among the late enclosures which line the northern side of the cemetery and which cluster in the centre and towards the eastern end.

As described above children tended to occupy positions around the peripheries of enclosures or as secondary burials inside, but there is no evidence that particular parts of the cemetery were reserved for particular age groups.

3.4 CONCLUSIONS: THE SOCIAL IMPLICATIONS OF THE EVIDENCE

This chapter has dealt with the most personal evidence found in the cemetery: the details of the individuals themselves as represented by the skeletal evidence. What the people looked like, how long they lived, what ailments they suffered from, their physical similarity both regionally and locally, and their numbers are questions which have been examined in turn. The large size of the sample and wide variation in the quality of burial presented an opportunity to search for signs of social ranking and this was attempted by cross-tabulating the various burial attributes so that significant trends could be observed. Sex and age were compared with other attributes as these two criteria are the most common

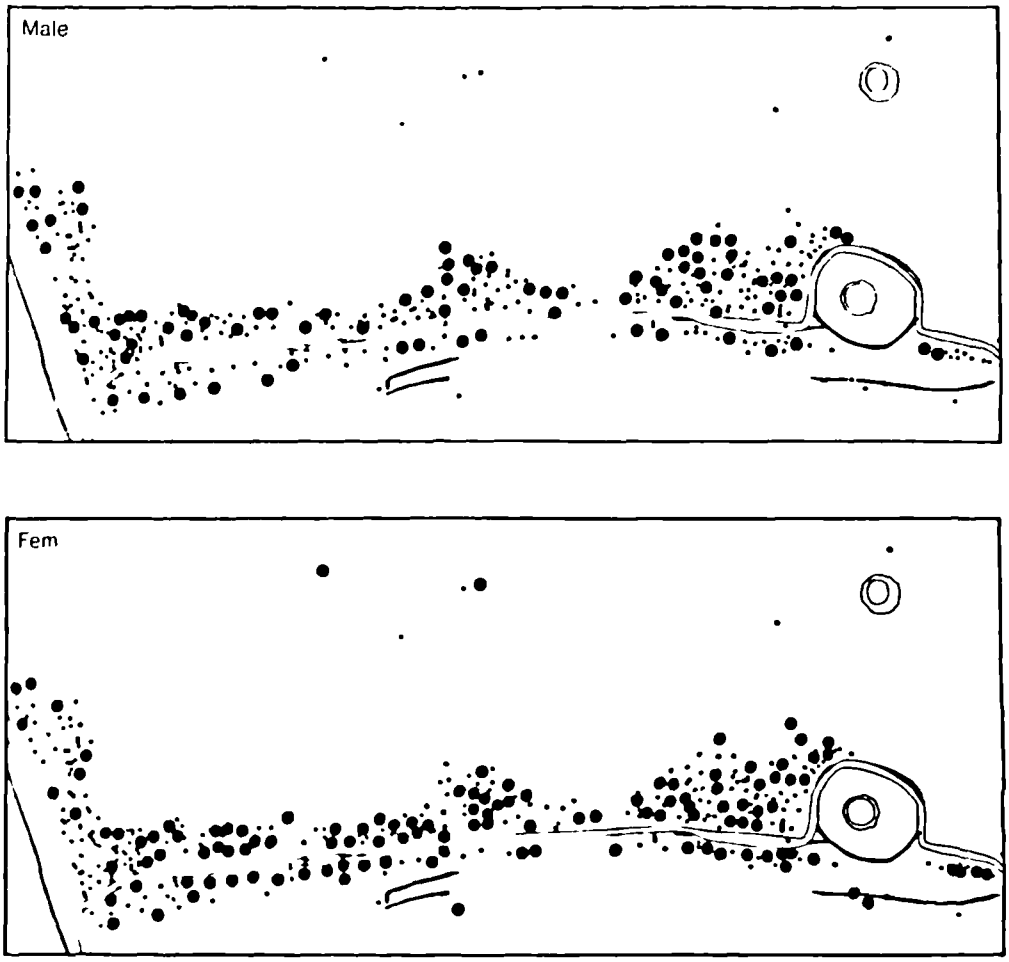


Fig. 3.1 Primary burrows in de en losures: distribution of males and females.

basis for social distinction in primitive societies. There was very little evidence that males and females received different treatment; the wealthiest burials were adult females and there was some slight suggestion that females were more than usually common in some specific locations. Age did affect the quality of the burial, and children occupied secondary positions without grave goods. This cannot have been the only criterion which was employed, however, for many adults were also found unaccompanied and in secondary graves.

Burial quality will frequently depend upon the social status of an individual and this may correspond with her or his personal wealth, either attained during life or inherited. In the grave wealth may be represented by grave goods, but at Wetwang Slack objects appear to have played a small part in the funerary procedure, either because the society was poor in general, or because it did not choose to dispense with its resources in this way. Less than one quarter of the graves contained artifacts, and while the majority came from primary burials insides enclosures there were cases of large enclosures, which must have represented a good deal of expenditure of effort, in which no artifacts were found. There was thus only a partial correlation between grave goods and burial type. The small proportion of brooches and pins could indicate that only about 10% of the individuals went to the grave dressed as in life or may mean that they had the addition of a cloak. Some of these were adult females with bracelets and jewellery while others with jewellery did not have brooches. Brooches were found with both males and females, but jewellery was restricted to females and among adults a larger proportion of women had grave goods than men. Susan Shennan has suggested that a similar distribution in the Early Bronze Age of Slovakia is best interpreted as the acquisition of wealth by women on marriage (Shennan 1975, 286). The occurrence of grave goods with children was rare, a notable exception being three bronze beads from burial 363, and this may imply that children of wealthy parents did not automatically achieve similar status. Alternatively, and perhaps more likely, a shortage of grave goods among children reflects the generally poorer quality of the burial and a general reluctance to bury artifacts in the cemetery as a whole. Artifacts are also

scarce among adults who occupied similar locations to children, that is, in secondary positions inside or round the edges of the burial enclosures.

The various features of burial appear to have been inter-related and the highest quality of burial is represented by a carefully arranged interment in everyday dress with grave goods in a coffin or timber cist at the centre of an enclosure and covered by a mound. The lowest level is represented by a roughly arranged burial, possibly in a shroud, possibly naked, with no grave goods, in a cramped flat grave cut into an enclosure ditch or close to its edge. These limits presumably represent social extremes, but what intervening stages there may have been remains unknown. It is even possible that a lower social order than these may not have qualified for burial here and was disposed of elsewhere, perhaps in isolation. Equally the highest orders may not have been buried in the cemetery but could have a special burial place on another site.

The identification of levels in the quality of burial could be misleading, for sex, age and social status may not have been the only factors involved. Ties of kinship could have overriden other influences; the case described earlier in which three individuals share a rare congenital abnormality of the spine and were buried in the enclosure ditch of burial 219 could be such an example. Here the individuals may have chosen to settle for poor graves because they wished to rest close to relatives even though they may have been entitled to a better quality burial further away. The same may be true also of individuals who were buried in secondary graves inside an enclosure. Necklaces found with burials 336 and 376 suggest that lack of wealth was not an influence in the choice of a secondary position.

These factors are likely to have been closely linked and are among the "dimensional distinctions" which were identified by Binford who suggested that the "social persona" of an individual depended upon their age, sex, social position, sub-group affiliation (including kinship), cause of death and location of death (Binford 1972, 227). Binford drew his material from anthropological sources and his last two "distinctions" cannot generally be identified in the

archaeological record, but the Wetwang Slack evidence does lend some support to his contention that

> **"the form and structure which characterize the mortuary practices of any society are conditioned by the form and complexity of the organizational characteristics of the society itself".**
>
> **(Binford 1972, 235)**

One other factor which affected the nature of the burials is unrelated to social organization and that is time. The absolute chronology of the cemetery has not yet been discussed but it is clear that it was in use for some centuries. During that time changes can be seen in the burials. This is so in the frequency and quality of grave goods.

In the earlier stages of the cemetery metal artifacts were particularly scarce; no very early La Tene brooches were found even though there is good reason to suppose that the earliest burials were made then (from their similarity to early La Tene burials at Cowlam and Burton Fleming: Stead 1979, 35 and 94). Three brooches with arched bows resemble later La Tène I (La Tène B) examples from the continent, and only seven other brooches were buried before the cemetery was re-organized following the enclosure of the northern part. These represent at least four basic types while among the later brooches a maximum of four different styles are represented by thirty-three brooches, of which twenty-two were in the "short involuted bow" class which is the latest type to occur commonly in the cemeteries of the region. Of all the brooches three bronze examples were from earlier graves and the rest were iron. Of the thirteen metal bracelets from the cemetery five were from earlier graves and were bronze; one of iron could also have been early, but of seven bracelets definitely from later graves six were iron and only one bronze. The predominance of short involuted bow brooches suggests that brooches were being buried with greater frequency by the later stages of the cemetery, and this could imply that a greater number of individuals were going to the grave in their everyday dress or wearing more clothes. It also suggests that supplies or iron, a commonly occurring mineral, were

increasingly available. In direct contrast bronze, a commodity available only through far-reaching exchange contacts, was more commonly used for brooches and bracelets in the earlier stages. The scarcity of bronze in later burials was recognized by Stead, who drew attention to the later practice of coating iron with bronze for economy (Stead 1965, 82).

There is thus some evidence that the frequency of metal artifacts in graves was governed by economics and may not accurately reflect different social positions over a long period. Other materials from graves tend to support this hypothesis. Ten glass bead necklaces were found in earlier graves whereas only four finds of single beads were made in later graves. Furthermore, while earlier necklaces contained decorated beads which have common parallels on the continent the two later beads with decoration were forms for which the parallels are insular and for which there is evidence of manufacture from Meare (Henderson 1981). Although coral was used for inlay on earlier as well as very late brooches none occurs on brooches buried in the intervening period. A long involuted bow brooch (No. 250) has decorative studs attached, but these are in a different material, possibly amber. There may then be some reason to suppose that in the earlier period of burial bronze, coral and glass were reaching the area along with continental metalwork styles (as seen in some brooches and bracelets). These imports ceased and iron, growing in availability, was used to make brooches which were increasingly insular in style. Glass beads also showed insular characteristics and other substances replaced coral for inlay work (Stead 1979, 87 for examples). Coral made a re-appearance on brooches in the latest stages of the cemetery, at about the time when La Tène III brooches suggest a new adoption of continental styles.

A change is also detectable in the position of the body and in the type of funerary monument with the passage of time. The change in position was not dramatic but was statistically valid, and took the form of a shift away from variety in orientation towards a greater uniformity, with a rather greater proportion of later burials lying on the left side with head to north. The change in funerary monument took the form of a deepening of the grave which increased fairly dramatically at about the time when short involuted bow

brooches were developing from the longer variety. This was accompanied by an overall standardization of the enclosure size on a smaller scale, which must represent a reduction of the overall size of the covering mound consistent with the provision of deeper graves.

Changes in the availability of raw materials and in the form of burial clearly affect the validity of conclusions to be drawn from the "social persona" of the individual and the position of individual burials within the relative chronology is too imperfectly known to overcome this problem with much confidence. On the other hand chronological changes do themselves suggest a developing social structure.

If my interpretation of the artifacts is realistic then it may not be inappropriate to compare the population buried in the earlier stages with contemporary continental societies which had exchange systems dominated by chieftains who controlled trade with the Classical World (Collis 1978). The absence of very rich graves is not surprising in view of the generally low incidence of grave goods and some burials are indeed locally outstanding. A greater variety in burial attributes was employed in these earlier stages, but a complex social stratification may not have been represented among a population which need have numbered no more than one hundred persons at one time (a point made by Shennan: 1975, 283). The upper echelons of the regional hierarchy in any case would probably be resident elsewhere. A growing insularity during the period may reflect a weakening of the governing power and the number of later burials with their very limited but proportionately numerous artifacts (particularly short involuted bow brooches) suggest an increase not only in raw materials but also in population. The standardization of burials ostensibly suggests a more egalitarian society but these modifications might owe much to pressure on land from a growing populace, a point which will be developed later. It is also possible that a conventional form of burial developed as the population grew and funerals became a more frequent, and thus more easily remembered, occurrence.

PART 4: THE SETTLEMENT EVIDENCE

Iron Age settlement is well represented by large numbers of structures, which fall into the basic categories of buildings, pits, linear earthworks and trackways.

4.1 BUILDINGS

4.1.1 ROUNDHOUSES

More than seventy circular structures have been found on the valley floor. In the great majority of cases these consisted of a penannular wall trench which terminated in post holes on either side of an entrance, and this was usually found in the south-east quarter. This presumably indicates that the door jambs were more substantial than the frame which supported the wall, a method of construction which recalls roundhouses with stake walls at Moel-y-Gaer (Guilbert 1977) and Danebury (Cunliffe 1977). Walls probably consisted in the main of daub or cob and the roofs of thatch. Floors had been removed by ploughing except where they had subsided into earlier pits, when they were found to be of chalk or earth. Although internal post holes were common, and often formed a concentric inner circle it is not clear that these necessarily held supports for the roof, and weaving accessories indicate that some could have belonged to interior furnishings such as looms and other manufacturing equipment. External circles and posts, for example in the case of B.12:4 (Fig. 4.2), are more likely to have been part of the structure and may have been supports for the walls or the remains of an enlargement of the building using a different technique. In a few cases post holes existed along the length of the wall trench, which suggests that post ring and light frame construction were combined. A few houses consisted solely of post-rings, and recall the type of building which has recently been discussed by Guilbert (1981). Earlier post rings from the site were found under Mortimer's Barrow 37 (Brewster 1981, Fig. 11) and in Wetwang Slack

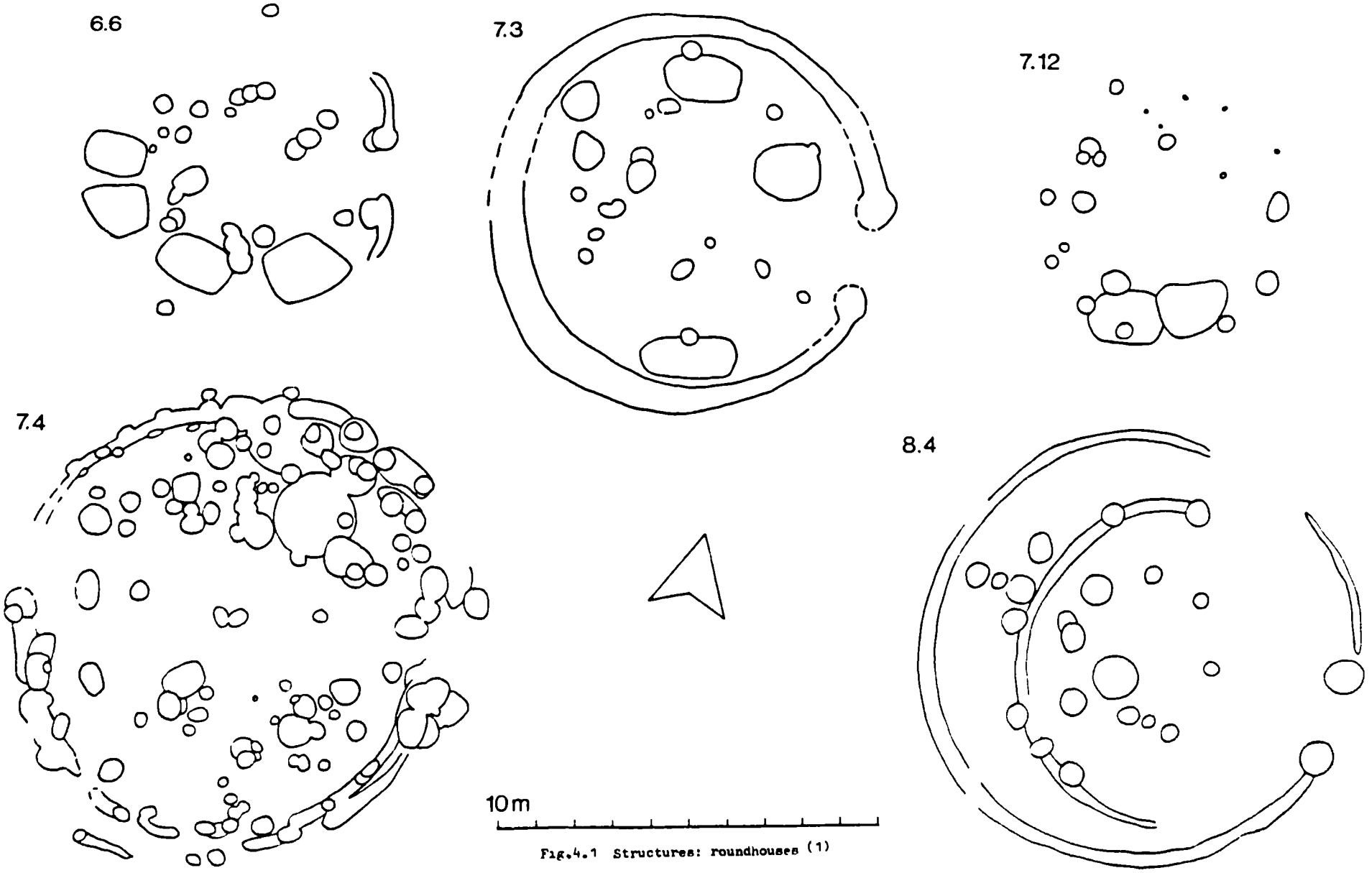


Fig.4.1 Structures: roundhouses (1)

where a radio-carbon date of 1210± 90 b.c. (HARWELL 1879) was obtained. In some cases, for example B.7:12 an apparent post ring house is likely to be the result of excessive plough damage having removed all trace of the circular wall trench. In very few cases had the penannular slot survived the plough with its circuit complete, and sometimes damage was very severe. Drainage gulleys could have existed in a few cases, for example B.12:1, where the outer penannular gulley did not terminate in deeper post holes. Alternatively this could have been a structure which lacked substantial door jambs. Only two buildings had elaborate porch structures (Brewster 1981, Figs. 36 and 426) but there was plentiful evidence that door posts had been replaced and even whole houses rebuilt, sometimes more than once.

"Roundhouse" tends to be a conventional term for the circular buildings which were a standard and probably multi-purpose structure in Iron Age Britain. Guilbert has shown that there is some evidence to show that post-ring and stake built construction on the same site is evidence of different chronological periods (Guilbert 1977, 42) and at Wetwang Slack associations of beehive querns and a La Tène III "Colchester" brooch suggest that roundhouses with post holes in the wall trench belong after the majority of the structures, some of which contained saddle querns as packing in post holes. In Area 7 a building with post settings in the wall trench succeeded a building with simple ring gulley construction. Chronology and purpose are two factors which might have governed the character of the buildings. Post ring buildings like those discussed by Guilbert might be represented by rings of posts found in Garton Slack (Brewster 1981, Figs. 428 and 473) and one of these apparently stood inside a small rectangular enclosure of post holes (ibid. 422). Both are seven metres or less in internal diameter, and the position of the door posts (assumed to be those on the south-east) suggests that in neither case did the wall project beyond the post ring. Some considerable variation in size is found among the houses with wall trench construction (Figs. 4.1, 4.2) which have diameters of between 4 metres and 12.4 metres. Although the bulk of these are in the range 7.5 - 10 metres there is a cluster of smaller examples which were more on the scale of the post-ring buildings just described and these have their peak at diameters of 6.7-6.8 metres (10 examples). The

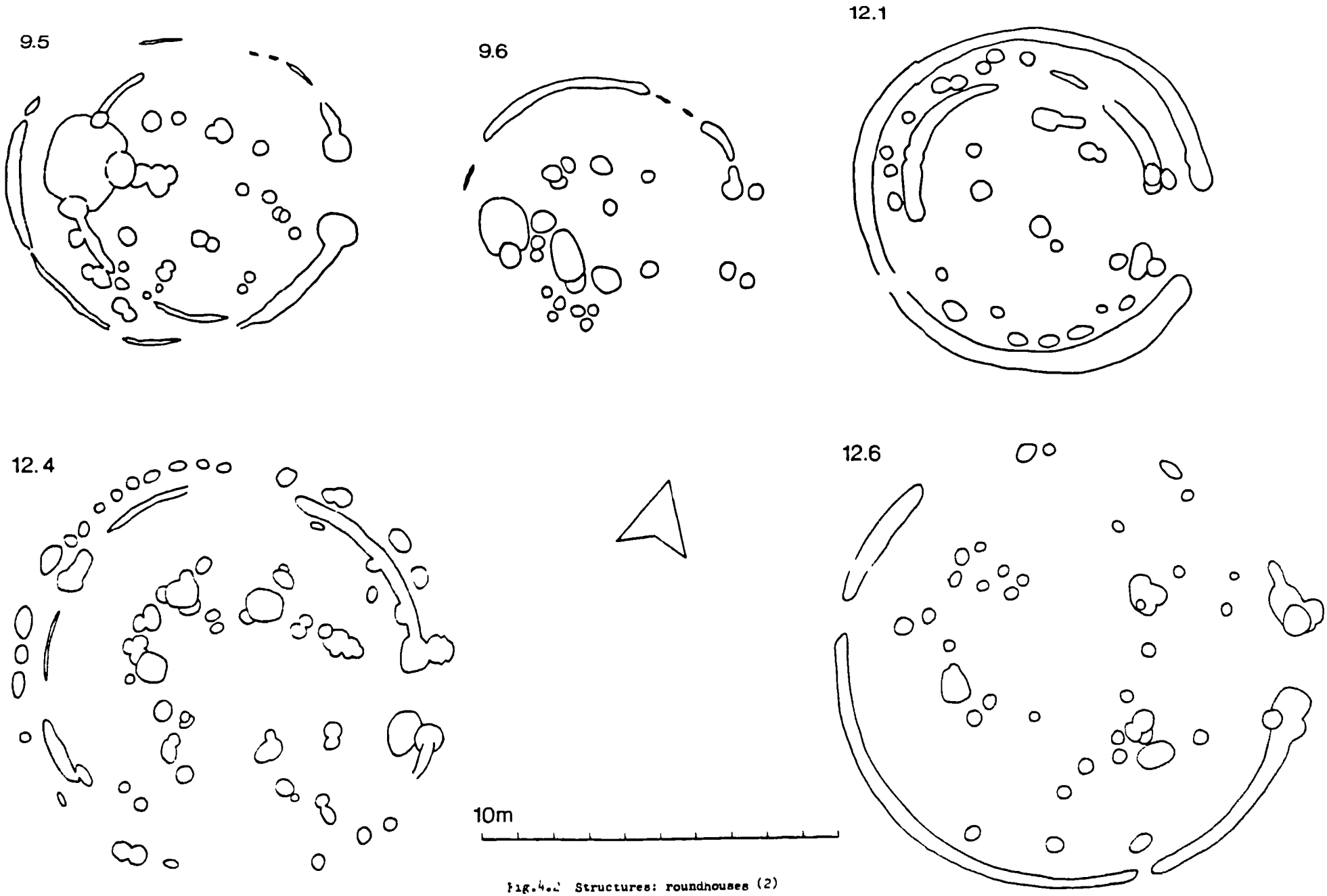


Fig.4.2 Structures: roundhouses (2)

majority of these smaller buildings were found in the western part of the site where they lie towards the northern part of the valley floor. A smaller cluster lies towards the eastern end of the site and three of these are situated close together on the southern edge of the valley floor. There is a certain amount of evidence to suggest that some of these buildings were relatively early. Three of the examples preceded the construction of square barrows on the same site (Brewster 1981, Figs. 103 and 109) and these burials are likely to have been contemporary with the earlier part o the main cemetery. In three other cases (B.8:4, B.9:5, B.12:1) a smaller building was rebuilt to a larger diameter, and in one of these (B.9:5) a pit inside the later building, which cut across the earlier wall trench, contained a brooch and two ring-headed pins comparable to artifacts found in the cemetery. The pottery from Wetwang Slack is still being studied and at this stage cannot help to distinguish chronological differences which might exist between houses of different sizes.

While larger structures evidently developed from smaller ones in some cases variation in size might equally well depend upon the requirements and resources of the owner. Sleeping accommodation, storage and workspace need not all be provided by one building, and several could have been used by single family, some possibly as accommodation for animals. In a few cases there is evidence for use; a pit inside B.9:5 was 2.75 m by 2.00 m and was 1.52 m deep. This probably represents a storage pit and two complete saddle querns were found in the fill, suggesting the processing of grain nearby, if not actually inside the building. The top layer of the pit represents the subsided earth floor of the building and in this was a weaving comb and a bone object perhaps best interpreted as a shuttle (Fig. 4.4). Post holes cutting the pit fill might represent the supports of an upright loom. A somewhat later roundhouse is represented by a sunken floor on which rested six chalk weights which were found in groups of three, two and singly (Brewster 1981, Fig. 451). A large roundhouse in Garton Slack contained a substantial pit to the north of the door (a position of maximum light) in which were three bone combs and two bone "sliders", all objects possibly associated with weaving (Brewster 1981, Figs. 258 and 260; for a similar assemblage with burials, see Millet and Russell, 1982).

Pits, probably for storage, were found in a number of buildings, and these usually occupied positions close to the walls. In Wetwang Slack B.9:5 and B.9:6 both contained a substantial pit at the back of the chamber opposite the door, and Brewster found at least eleven roundhouses with pits in the inner half of the room. This recalls a feature which Drewett noticed in a Bronze Age roundhouse at Black Patch, Sussex. (Drewett 1982). He suggested that well lit areas in houses (those to the north of or just inside the entrance) were used for working while the darker zones (on the south side and toward the rear of the chamber) were used for storage. Two buildings in Wetwang Slack contained pits close to the south wall (B.6:6 and B.7:12) and these recall the arrangement at Black Patch, Hut 3; ibid, Fig. 13). A variation on this is B.7:3 in which two diametrically opposite rectangular pits 0.98 m and 1.18 m deep were sited against the north and south walls respectively (Fig. 4.1). A pit which may have been situated inside the north wall of a roundhouse in Garton Slack (Brewster 1981, Fig. 213 "Grain Pit") contained blacksmith's tools (tongs and two iron "pokers" ibid. Figs. 218, 219) as well as burnt grain which gave a C14date of 180± 70 b.c. (HARWELL 1228) and this suggests that internal pits were used as places of security as well as for the storage of grain.

A major shortcoming of the roundhouses is the dearth of evidence for absolute dating. By their location some buildings appear to be arranged in lines and thus might be contemporary; alternatively they may have stood at different times along a boundary which has left no archaeological trace. Two radio-carbon dates are available: from the Grain Pit in Garton Slack just mentioned and from a door post hole in B.12:6, of 320 ± 100 b.c. (HARWELL). Artifacts from B.9:5 (Phase 2) included an "S" type brooch comparable to that found in burial 236 as well as two ring-headed pins parallelled in burial 286 (Fig. 4.4). A roundhouse in Garton Slack had stood inside a rectangular palisaded enclosure (Brewster 1981, Fig. 303) and was associated with a fairly plain bronze bracelet, an iron penannular brooch and fragments possibly from two others. A small blue glass bead was also among the finds. Here the building was probably contemporary with the cemetery but the metalwork was too simple in form to suggest any close dating. A pit situated inside roundhouse B.7:4, which may or may not have

been contemporary, contained a La Tène III "Colchester" type brooch and this was one of a sequence of buildings inside ditched enclosures which continued in use into the Roman Period. B.7:4 was built with post settings cut into the wall trench and succeeded a simple wall trench roundhouse (B.7:3) of more traditional construction.

Thus there is evidence that the buildings covered a period of some centuries, and some were contemporary with the cemetery. Structural differences could well have been due to changes in techniques and there is some evidence that small houses might have been more common at an earlier stage. Small houses on the other hand lacked internal pits and this might suggest a difference in use. Brewster has suggested that a lack of domestic pits suggests ritual use (Brewster 1975, 113). Social difference apparent in the cemetery might also have been a factor which affected the size of buildings, with the larger possibly belonging to the wealthier elements.

4.1.2 POST SQUARES

Settings of four or more pots in a square are a common feature of Iron Age settlement and while other possibilities have been examined (Ellison and Drewett, 1971) granaries remain the most popular interpretation of them. That they do not represent small houses is suggested by the mutually exclusive areas which post squares and roundhouses occupied at Moel-y-Gaer (Guilbert 1975, Fig. 1) which implies that they served quite different functions, and concentrations of carbonised grain at Crickley Hill, which contrast with minimal grain associated with the roundhouses (ref: P. Dixon, pers. comm.). At Garton/Wetwang Slack post squares occur close to houses but are not so numerous, only 27 definite examples being recognised. There is one square of eight post holes (Brewster 1981, Fig. 289) but the rest have four. The size of the squares varies from c. 1.5 m to c. 3.0 m and some showed evidence of reconstruction or at least the replacement of posts. To judge from B.7:14 and: 15, B.8:3 and B.13:10 the uprights which were protected from the prevailing north-westerly winds survived better. Just as the roundhouses showed a fairly general

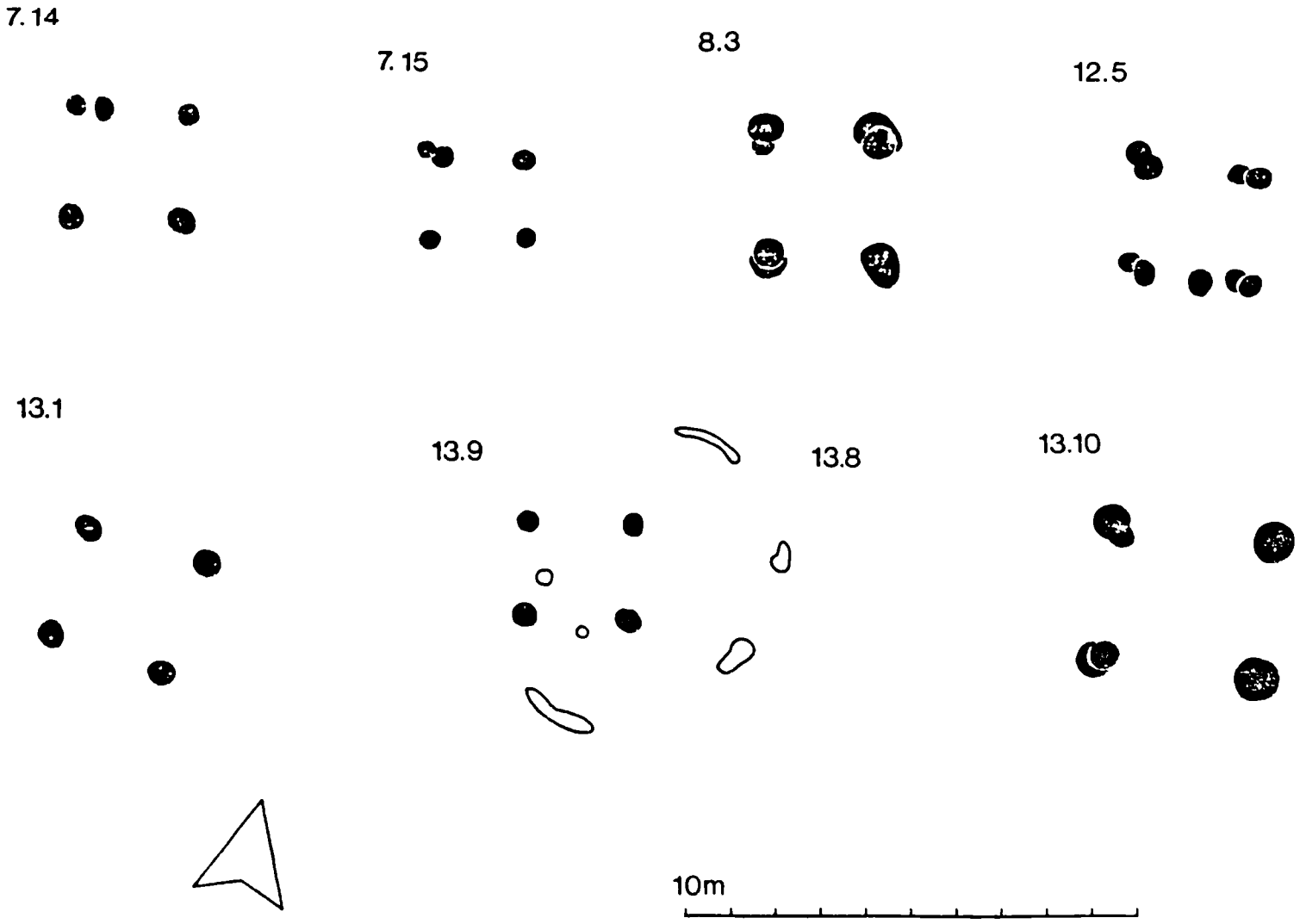


Fig.4.3 Structures: post squares.

orientation toward the south-east the post squares in most cases had their four sides facing the cardinal points, and this particularly noticeable among a large group in Wetwang Slack where this orientation is likely to be related to the alignment of existing linear features (Fig. 4.5).

Dating evidence for these structures is poor although their proximity to roundhouses in many cases suggests that they were in contemporary use. A bronze lace tag from B.13:9 is not closely dateable, although that particular structure can hardly have been in use at the same time as B.13:8, a small roundhouse which occupied the same ground. B.13:1, B.13.9 and B.12:5 all lay in a line followed by a later palisade slot which cut across them.

Not all post holes can be explained in terms of buildings and other structures must have existed; looms have already been mentioned, Drying racks and other structures are to be expected, particularly in relation to industry and agriculture. Semi-circular slots, interpreted by Brewster as ritual enclosures (Brewster 1981, Fig. 353) may have served as windbreaks akin to recent sheep bields. These are likely to belong to the period which followed the abandonment of the cemetery, for their distribution is similar to that of Late Iron Age ditched enclosures and their associated animal burials.

4.2 PITS

Large numbers of pits were encountered by the excavators in both Garton Slack and Wetwang Slack, and in the frequent absence of finds many must be dated by association. Pits in alignment could be identified with relative ease, and these probably date to late Iron Age or Roman enclosure. Some pits can be accepted from pottery, stratification or radio-carbon dating as Neolithic or Early Bronze Age in date. Ditched enclosures of Late Iron Age or Roman date contained large numbers of pits but in an area of such dense settlement some of these could have been left over from earlier activity. An Early Iron Age date can only be ascribed with confidence to pits which were found inside buildings or in close association with them in areas which were not intensively

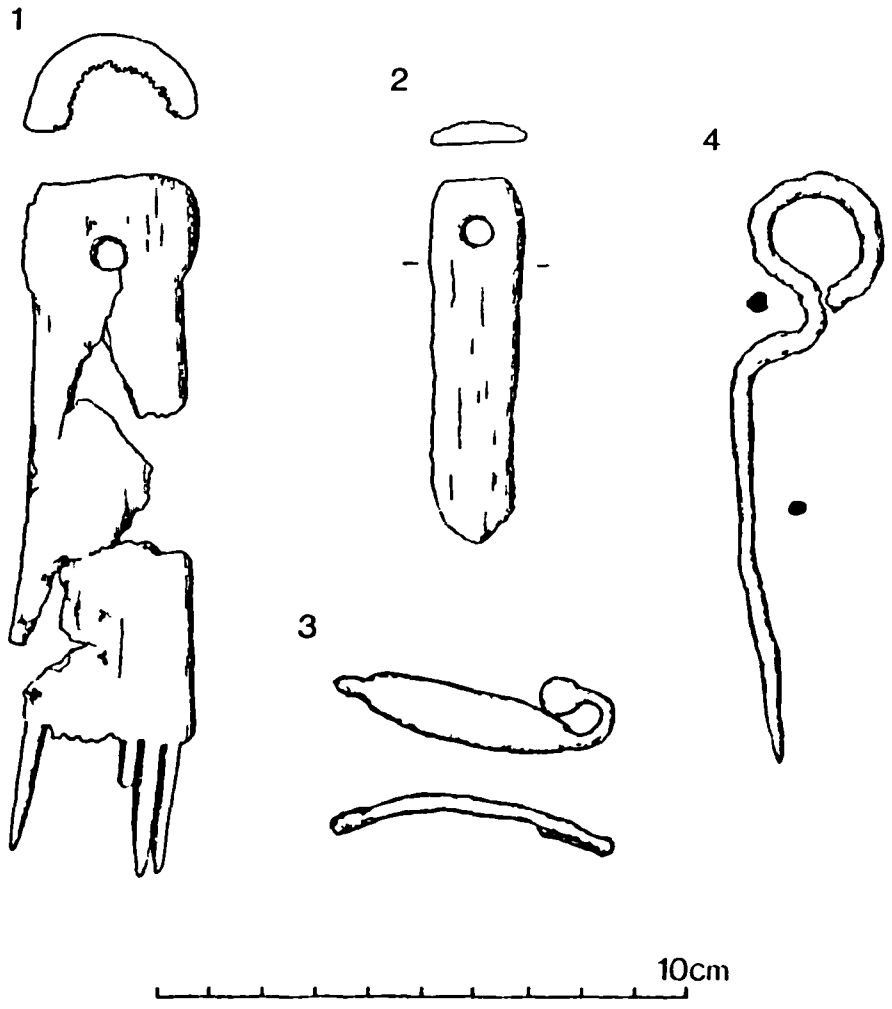


Fig. 4.4 Objects from a larg pit inside roundhouse b.9.5 Fig. 4.2). They are (1) a bone "weaving" comb; (2) a bone "shuttle"; (3) an iron "S" brooch (Class 1, type 7); (4) an iron ring-headed pin (Class 2, type 2).

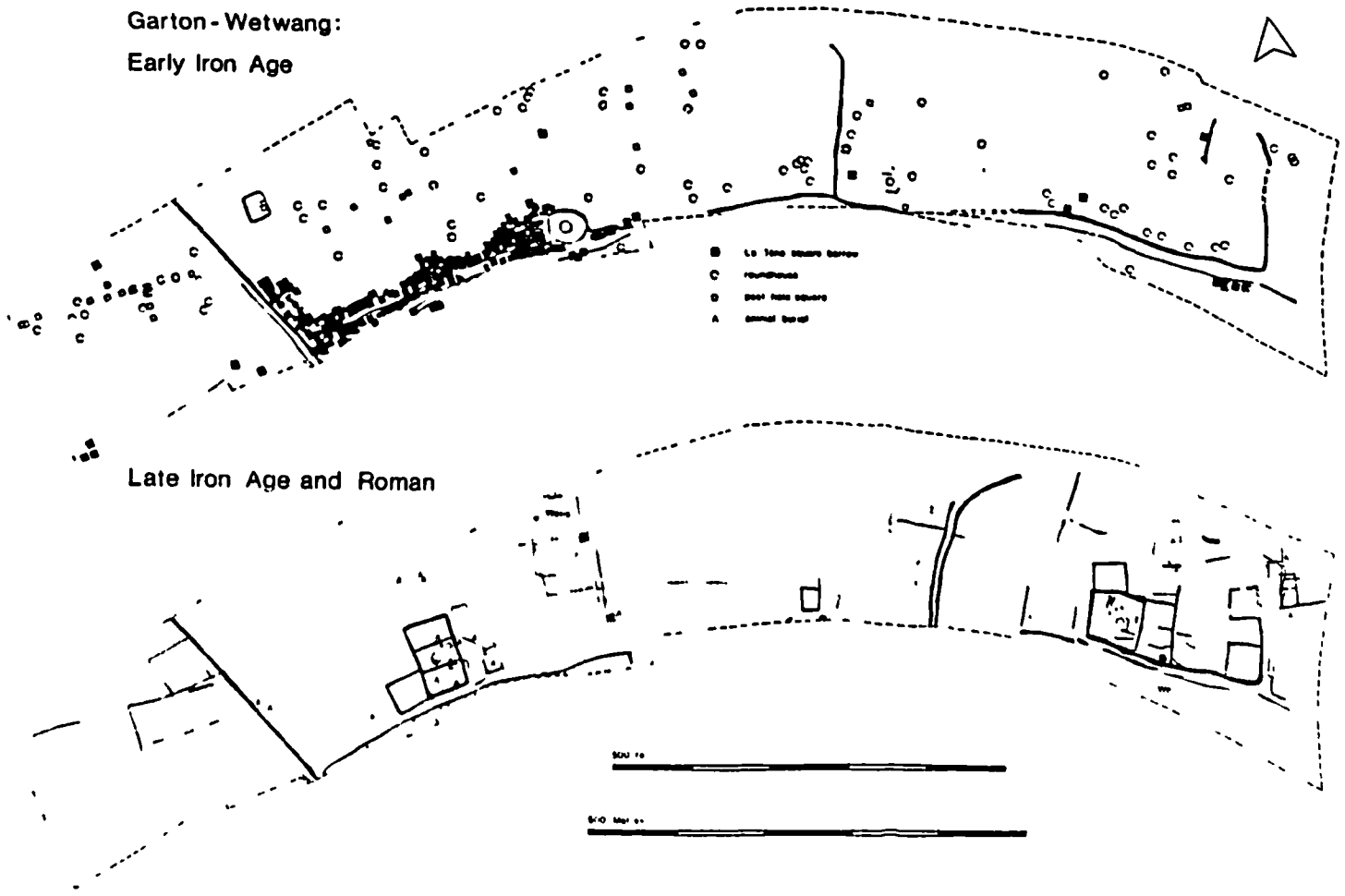


Fig. 4.5 Settlement in Garton Slack and Wetwang Slack as suggested by excavations conducted from 1969 to 1983.

used at other periods, or in cases where there was firm evidence of date in the form of finds or radio-carbon examination. Assemblages of domestic features, both building and pits, occurred in quite convincing isolation, for example around structures 6.10, 9.6 - 9.8, and 13.16 (Fig. 4.6). In each case clusters of pits occupied areas adjacent to the front of houses. The pits varied in size and depth, but in all three cases there was one substantial pit of more than one metre deep. In two cases deep pits also occupied space inside the building close to the rear wall, and other examples of internal pits have been cited above.

The size and shape of these pit show a good deal of variation. Small, shallow pits and large deep pits are represented; also shallow pits with a large surface area and others which were deep in proportion to their area. Most pits were broadly oval but some were distinctly rectangular in shape, while others were simply irregular. In a large proportion of the pits the bottom was flat and the sides were fairly straight and steep, occasionally with a slight undercut. In the cases of rectangular pits the shape so resembled that of many graves that it is quite likely that, like graves, these had been intended to contain a timberframe or box (a cist in the old sense of"chest"). Although such structures have been recognised in graves, where this would have decayed in-situ, they might well have been removed before a disused pit was filled in. Brewster records traces of a wooden chest from one pit (1975, 114). A sunken timber-lined chamber would be suitable for storage purposes and experiments with grain have led to the widespread acceptance of pits as storage space on Iron Age sites elsewhere. (Reynolds, 1974). The bell-shaped profile often seen associated with such pits was precluded by the unsuitable nature of the chalk gravel subsoil in Wetwang Slack. Such storage space inside buildings would afford extra security for the storage of valuables. A pit in Garton Slack, which could have been inside a building, contained blacksmiths' tools and burnt grain which gave a C14 date of 180 ± 70 b.c. (Harwell 1228: Brewster 1975, 115; 1981 Figs. 214, 215).

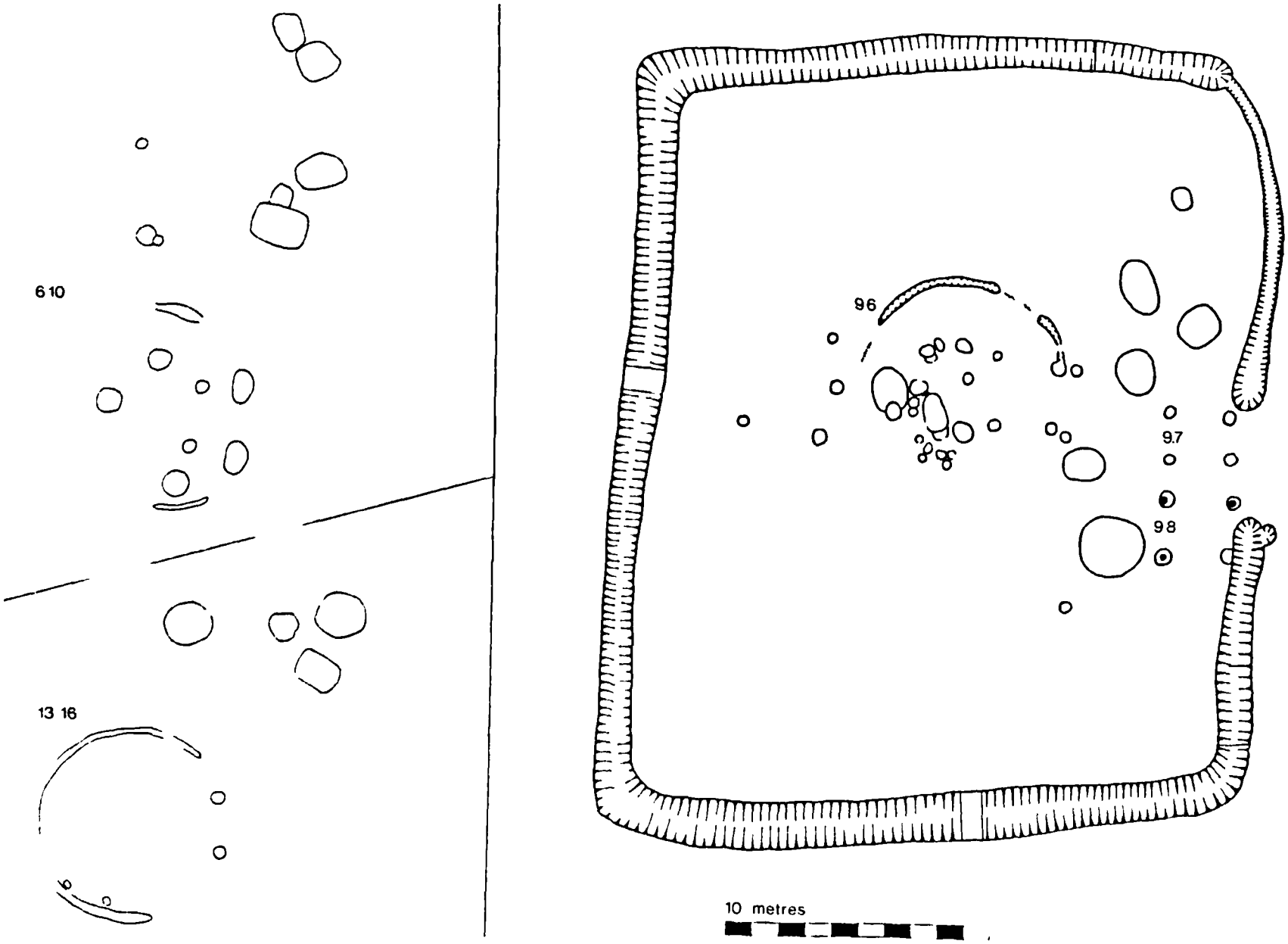


Fig.4.6 Examples of domestic structures with associated pits; one group consisting of a roundhouse and two post squares stood inside a palisaded enclosure which was later replaced for part of its length by a ditch.

Another pit in Garton Slack (Site 11; Brewster 1981, Fig. 258) had lain inside a roundhouse and in it were found three bone "weaving" combs and two bone "sliders" cylinders of bone with a lateral slot cut in and decorated with compass-drawn circles (ibid. Fig. 260 for comparison see Millet and Russell, 1982). It seems probable that some of these pits were used for storage, not only of grain, but also of other commodities. Others may have been used as working hollows, although there is no satisfactory evidence of this, and others simply as a source of gravel, possible for floors (although the floors which survives were of earth or chalk). Once disused pits may have been convenient for the disposal of rubbish, and querns, pottery, animal bone and artifacts have been found in them. Some however were backfilled with clean gravel, which implies the opening of a new pit elsewhere. In addition to the radio-carbon date listed above, others of 390$\pm$ 80 b.c. (Harwell 1235) and 190$\pm$ 80 b.c. (Harwell 2486), and finds of pins and brooches suggest use contemporary with the cemetery. A small group of pits cut by burials 142, 146, 148 and 155, or by their enclosing ditches, represent activity in an area later used for burial.

4.3 LINEAR FEATURES

So far the smallest settlement elements have been briefly described: buildings and their associated pits. It is now time to turn to the larger structural elements which are represented by lines of post holes and pits, by slots, gulleys and ditches. Boundaries marked by these features are the only ones which have survived in the archaeological record, but others must have existed as surface features such as turf banks, hedges and so on, which did not penetrate the gravel subsoil. The existence of such boundaries is demonstrated for example by the existence of buildings built in rows. In terms of scale these linear features may be divided into small enclosures and major boundaries. Wheel ruts and hollow ways which have a close relationship with the latter group indicate that trackways should also be considered, even though these might leave little archaeological trace.

4.3.1 SMALL ENCLOSURES

Although the buildings mostly stood in the open a few were found inside enclosures. A palisaded slot with an eastern entrance enclosed an approximately square area of c.400 sq. m. in Garton Slack (Area 14) inside which was a roundhouse and associated pits. A larger area of c.570 sq. m. was contained by a rectangular palisade slot in Wetwang Slack (Area 9), again with a break on the east, and within this was a roundhouse and two post squares (B.9:6, 7 and 8) as well as associated pits. In a second phase the palisade was replaced for much of its length by a ditch. A palisade may also have been employed between roundhouse B.9:4 and 5 partly to enclose the area between and in front of those buildings. Finds from all three suggest Early Iron Age occupation, and these would have been in use at the same time as the cemetery.

A number of small ditched enclosures occupied positions adjoining linear earthworks on the southern side of the valley floor and three of these contained roundhouses. The first to be excavated was in Garton Slack (Sites 8 and 10) and was approximately 60 m square internally. This was adjoined by other enclosures and the whole complex covered more than three hectares. The second was 300 metres to the west and was small, only 21 m by 18 m internally. The third was in Wetwang Slack and measured 80 m by 48 m internally with an eastern entrance. This had begun its life as a series of smalled fenced areas. A smaller enclosure 41 m by 36 m adjoined this to the west while to the east were other small enclosures representing two phases, one of which was constructed with a funelled entrance. The group all overlay the central part of the Iron Age cemetery. The main enclosure was re-cut and subdivided into three equal areas following the Roman conquest. These different enclosures produced chalk figurines of a local Iron Age form and two La Tène III brooches were among the finds, as were beehive querns, in stark contrast to the saddle querns associated with unenclosed roundhouses. Burials of infants also contrast with their inclusion in the earlier cemetery and animal burials indicate one aspect of the economy. Other small enclosures were formed by ditches, slots or lines of pits. Two of

these enclosed burial mounds while others contained, partly or completely, areas which might best be interpreted as fields. Two of these were found to the north-west of the cemetery in Wetwang Slack and both take the form of slots for fences or palsades (Fig. 4.5). The sides of one measured 46.5 m x 48 m x 48 m x 51.5 m which suggests that they had been roughly paced out to fifty paces per side. The second was bounded on the north by a slot 98.5 m long and on the west by a second of 52.5 m. Again this suggests construction using units based upon ten paces. The second of these enclosures was reconstructed on its north side. Both enclosures touch but are not parallel and this suggest that they may not have been in contemporary use. The larger cut across post holes of roundhouses and squares but no satisfactory evidence of date was found. The presence nearby of a substantial linear earthwork (passing to the east) suggests that the enclosures are earlier, for the more northerly could be expected to align on the earthwork if the latter were already in existence. This would date the enclosures to the earlier period of the cemetery's use, for the earthwork is a continuation of that which bisected the cemetery.

4.3.2 MAJOR BOUNDARIES

The southern edge of the valley floor appears to have been a major boundary, from at least the Early Iron Age through into the later Roman period. Intermittent lengths of ditch which followed this line were a focus for the first burials in the cemetery, and a few graves or their enclosures actually cut the ditches. A date as early as the later Bronze Age would not be inconsistent with the evidence from other linear earthworks in the region (Manby 1980, 327-8). An Early Bronze Age ring ditch with food vessel burials was enclosed by this system and provides a quem terminus post quem for the series. A second boundary of some significance is that which runs northward across the valley floor and which defined the western end of the developed cemetery. A corresponding return lower down the valley was found in Garton Slack (Area 6), again close to a small group of burials in rectangular enclosures. These boundaries were more substantially marked by the major earthwork which was cut through the cemetery when La Tene II brooches were being included in graves. The ditch

of this earthwork silted up before it was cut by ditched enclosures with roundhouses in the Late Iron Age when it formed a focus for agricultural activity. The major north-south boundary at the western end of the cemetery was re-cut, but the section which ran east from this was not. Parallel to this east-west section on its southern side was a slighter sequence of ditches which required re-cutting due to the effects of hill wash. Late Roman pottery was found in the upper fill of these.

Other north-south ditches exist in Garton Slack, one of which (Brewster's Ditch C) terminated at the southern edge of the valley floor where it appears from the published drawings to turn eastwards under Main Ditch 1 (the equivalent to linear Ditch A in Wetwang Slack). Another (Ditch B) also terminates at Main Ditch 1 although the relationship is not clear, while a series of ditches on Site 14 evidently crossed over the silted-up Main Ditch 1. A slighter ditch crossed the valley floor and passed by burial 440 and this marked the eastern termination of a line of elongated pits or slots as well as the western boundary of a line of post holes more than 200 metres long. Two double rows of post holes followed a northward course from Brewster's Main Ditch 1 to the east of his Ditch C. Other subdivisions within the main settlement enclosures exist as crop marks to the north of the valley floor (Fig. 1.3).

4.3.3 TRACKWAYS

Wheel ruts, hollow ways and surviving metalled surfaces demonstrate that the southern edge of the valley floor was used as a road or trackway in the Roman period, and similar hollow ways show as crop marks leading northwards from the valley floor. One of these joins the valley road at the point where Brewster's Main Ditch 1 swings north and this illustrates the dual function of trackways as boundaries, one still commonly seen on Ordnance Survey Maps where Parish boundaries follow roads.

Hollow-ways, wheel ruts and patches of metalling are likely to be features of major thoroughfares which carried a great deal of traffic. This would be the case with the trackway along the valley for it produced an important link between areas which had no permanent water supply and the springs lower down the valley at Elmswell. The metalled surface survived here where it had been pressed into underlying ditches and later hill wash deposits had protected it from the plough. Patches of gravel and fragment of Roman tile indicated that a road had also followed the line of the earlier boundary ditch which ran northwards from the western end of the Iron Age cemetery. Possible wheel ruts interpreted by the excavator as sledge grooves, were found crossing the valley floor on the north side of an Iron Age cemetery in Garton Slack (Brewster 1981, 89; Dent (1983a, Fig. 7). Metalled surfaces were also found over filled up ditches crossing the valley floor some 400 mm to the east of the cemetery. This suggests that in the Roman period at least four side roads led across the valley floor to meet a major road which followed the valley.

That some of these roads represent continued use of earlier trackways there can be little doubt. The cemetery in Wetwang Slack grew up around a road junction and so, probably, did a contemporary cemetery north of Garton Slack gatehouse. The major boundary ditch which cut through the Wetwang Slack cemetery followed the line of three of these roads, and this suggests that their origin must be sought at least as early as the first Iron Age burials.

Most of these trackways are easily recognisable because they were bounded by linear ditches. Other trackways may not have been marked in this way and unless excessive traffic wore hollow ways or wheel ruts to the subsoil they will have left little trace in the form of archaeological features. The existence of such roads would be a matter of speculation were their approximate position not indicated by features other than those which have been listed above.

Groups of roundhouses lying in lines across the valley floor have already been noted and common linear boundaries which influenced this setting out could have been unmetalled access tracks which would connect them to the axial road along the valley. In Wetwang Slack, as excavations proceeded eastwards these clusters of buildings became increasingly distant from the road which formed the main focus of the cemetery and a number of linear features, of various periods, suggest that a second axial road existed. In Garton Slack at the point where Brewster excavated a burial with square enclosures and chariot fittings (Area 11) there was evidence for only one east-west road. West of this a more northerly linear feature is represented, firstly by the north ditch of a Late Iron Age enclosure in Area 19 and by a line of post holes some 200 m long in areas 27 and 29 and again in Wetwang Slack Areas 1, 3 and 6. Further west it is represented by the north side of Late Iron Age Early Roman enclosures in Wetwang Slack 6 and 7 and eventually in areas 12, 13 and 14 by lines of slots at least 200 mm long. This linear feature has an established length of some 850 m. If it were simply a boundary then it would have been a major one, but this is not supported by the emphemeral way in which it must have been marked. More probably it was a road or trackway which followed a shorter route than its more southerly counterpart between Garton Slack and Blealands Nook, a major junction of trackways 2.5 km to the west.

The line of this track was crossed by three major ditch system within the excavated area but one of these, at the western end of the cemetery, also cut across the established line of the more southerly route. These earthworks could have been bridged without structural elements leaving archaeological traces. On the other hand smaller scale structures, slots, ditches and fence lines, cut across the line of the more northerly route and the probable Late Iron Age or Roman date of these suggest that by that time this route was no longer used. Its survival in the archaeological record is in no small measure due to its continued use as a boundary. It had gone out of use as a trackway by the end of the Iron Age its early origins are even less clear. A small number of Iron Age burial enclosures were constructed alongside it in Garton

Slack (Area 14) and in Wetwang Slack (Areas 6, 7 and 8). These either lacked surviving burials or contained shallow or fairly shallow graves, which suggests that they were contemporary with earlier burials in the cemetery. Lines of roundhouses in Wetwang Slack were at 90° to this route, and clustered around it rather than round the more southerly road. Post squares and roundhouses in areas 12 and 13 actually followed its line and a radio-carbon date of 320 - 100 b.c. was obtained from one house in area 12(B.12:6). This route must, like that to the south, have been in use by the Early Iron Age. A factor that raises interesting possibilities is the distribution of Early Bronze Age burials (Fig. 4.7), several of which lay along this line. It would not be surprising to find that standing round barrows had been used to line up later linear features, but only one substantial ring ditch survived to demonstrate the size of a mound on the line of this route; other burials were presumably covered by turf mounds and the size of these must remain unknown. One very small barrow which lay on this route was a represented by an area little more than 1 m across which contained a central cremation inside a circular ditch (Garton Slack, Area 29). Such a small monument is unlikely to have eclipsed much larger mounds as represented by ring ditches to the north and south of the line, and it seems likely that this burial, which may belong to later stages of the Bronze Age, was made when the route was already in use. The position of several Early Bronze Age barrows excavated by Mortimer in Garton Slack (Mortimer 1905, Nos. C53-C56, C63 and C76; Dent 1983,a, Fig. 1) suggests that these could have been deliberately laid out from an existing trackway.

4.4 THE INTERRELATIONSHIP OF SETTLEMENT FEATURES AND BURIALS

Early Iron Age settlement and burials were organised within an existing framework of trackways and boundaries. Although the survival of Early Bronze Age Trackways is a possibility there is no reason to believe that settlements had survived from that period. A later Bronze Age date for linear ditches cut by Iron Age Burials would be consistent with evidence culled from the few excavations so far carried out on the linear dyke systems of the Yorkshire Wolds (Manby 1980, 327).

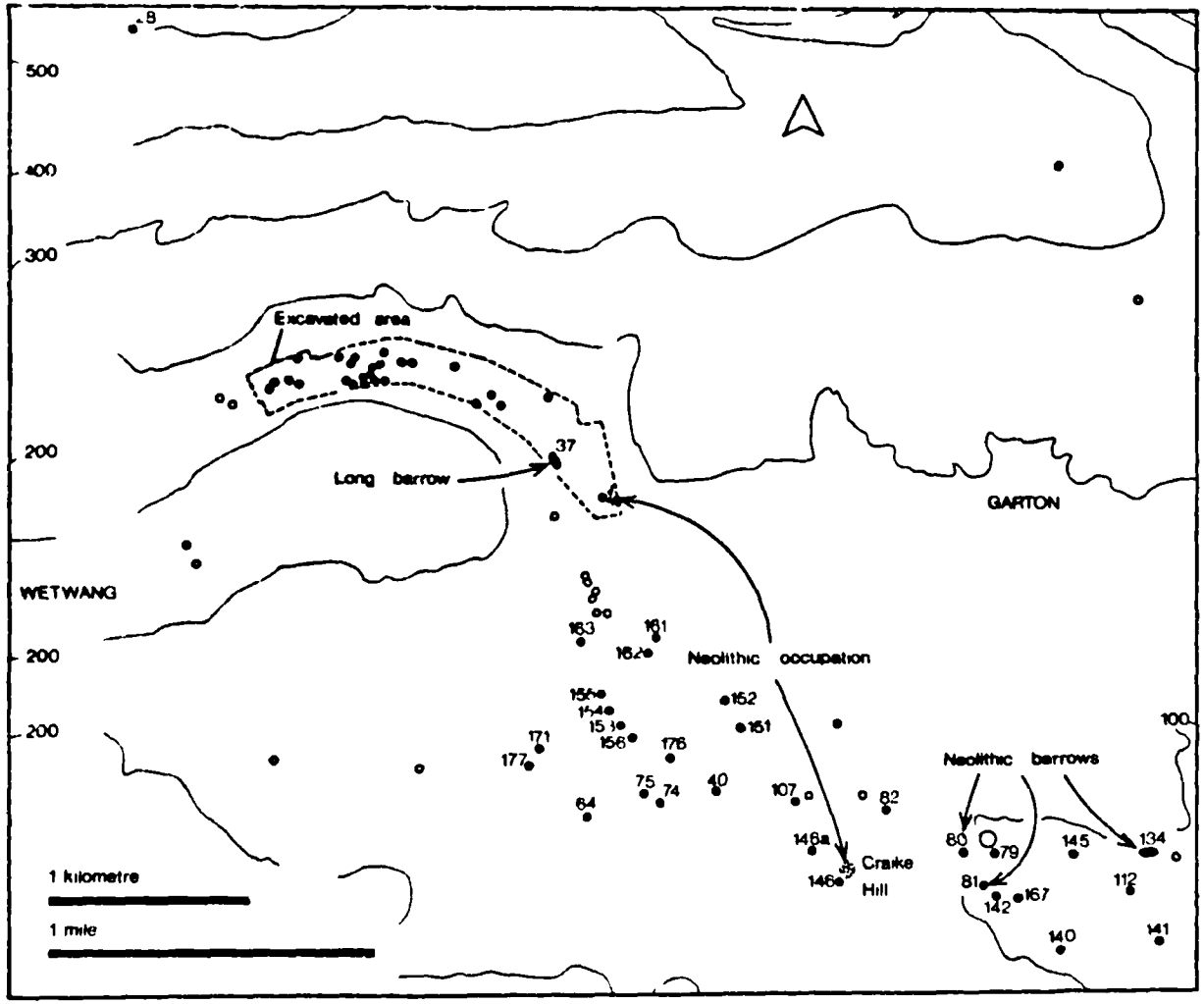


Fig. 4.7 Neolithic and Early Bronze Age barrows in the valley. Open rings represent unexcavated sites known from aerial photographs. Neolithic occupation sites are shown stippled and numbers are those given to barrows by J.R.Mortimer (1905).

In the area of valley floor covered by the excavations two major trackways converged to continue as one eastwards. The line of the more northerly appears to have been the focus of domestic activity, with buildings being constructed from it in a rectilinear pattern which suggest that rows of structures were separated by unmarked fields. The more southerly route became an important nucleus for burials and with time supplanted the northerly route in importance. The construction of major ditches along the former route in La Tène II accompanied a re-organisation of burials, and no definitely later burials are known outside the southwest corner of the enclosure formed by these ditches. Some early buildings were enclosed by small palisades or by ditches, and these lay along the line of the more northerly route, but after the cemetery had gone out of use more substantial ditched enclosures were constructed along the more southerly route and by this stage the northern route might have existed only as a boundary. By the Roman Conquest settlement on the valley floor was limited to a few enclosed occupation sites spread along what was by this time the main road along the valley. These are perhaps best interpreted as ditched farms and a number of animal burials in and around them, as well as an enclosure in Wetwang Slack (Area 6) with a funnelled entrance and possible shelters in Garton Slack (Area 19) indicate that they were concerned with stock rearing. The buildings within the enclosures are few by comparison with the large number which existed earlier. This suggests a shift in the population, which the cemetery evidence suggests was increasing, and this must have been away from the valley floor, for the cemeteries to the west and east indicate that land in those directions was already occupied by neighbouring communities. The most probable direction of this movement would be northwards to the slope overlooking the valley floor. This was the centre of the area enclosed in La Tène II by earthworks and cropmarks have shown that here was an extensive system of ditched enclosures. So far this area has undergone only limited excavation, in 1979, but the results support a long occupation in the Iron Age.

4.5 EXCAVATIONS AT WETWANG GRANGE, 1979 (Fig. 4.8)

An area of 0.4 hectares was stripped by machine in September, 1979 to assess the extent of plough damage on the enclosure which lay on the northern slopes of the valley. Although this was considerable a long sequence of Iron Age feature was found.The earliest of these were a pair of hollow ways which climbed the slope and converged in the excavated area. The chalk base of these was rutted by wheeled traffic and no contemporary finds were made. The filling of these however was cut by two substantial kidney-shaped pits, possible small quarries, which contained pottery similar to material from the early structures on the valley floor. At least two further structural phases, represented by intersecting slots, followed this phase before a substantial ditched enclosure was constructed on the site. This had an entrance on its southern side with a slot for what may have been a gate sill. In this ditch was Iron Age pottery but nothing later. The enclosure ditch was recut and its interior partitioned by ditches on a smaller scale. These were backfilled in the second century A.D. Two post ring roundhouses may have been contemporary with the earlier enclosure, as might a post square. A slight slot survived around part of one wall circuit and this recalls houses in Wetwang Slack (Area 7), again in ditched enclosures, which had apparently combined a circular slot with a ring of posts in their construction. Infant burials were found in the vicinity of this house and this suggests that it was occupied after the cemetery had gone out of use, for infants were also found in the Late Iron Age enclosures on the valley floor. Chalk figurines were found in the enclosure ditches, as well as industrial material:scrap bronze, slag, crucible and mould fragments. Fragments of human bone from the latest features includes an articulated trunk and forearm and their burial coincides with the disuse of this part of the site. No earlier adult burials were found from which such material could be derived.

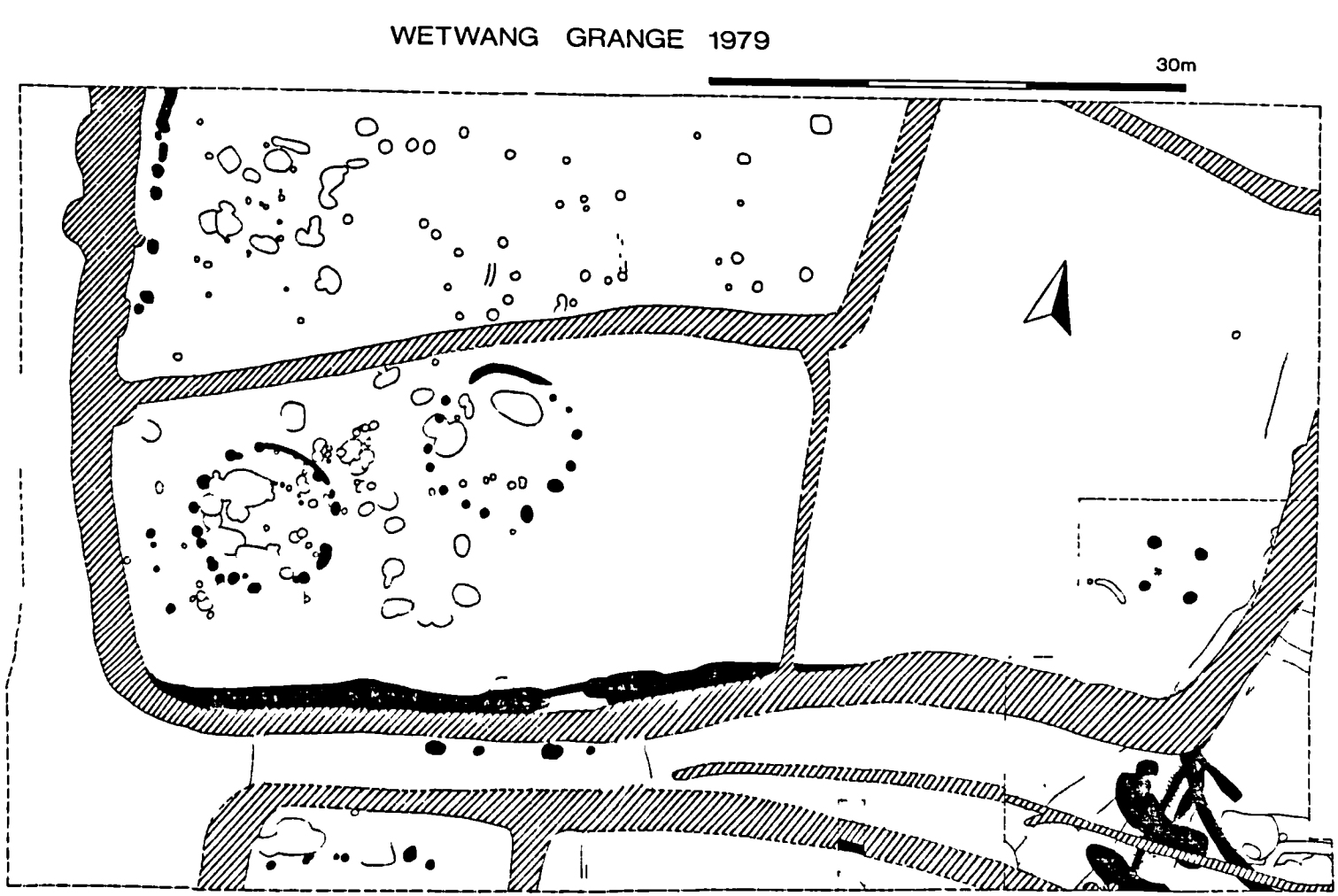


Fig. 4.6 Settlement remains found at Wetwang Grange in 1979. In the south-east corner of the cleared area several phases were recognised, extending back to the Early Iron Age. The earliest consisted of two converging hollow ways (stippled). Two roundhouses and a post square stood inside a Late Iron Age ditched enclosure, which was originally entered from the south (shown solid). Recut with subdivisions this and other enclosure ditches and slots (hatched) remained in use until the second century A.D. when this part of the site was abandoned.

4.6 CONCLUSIONS

Open settlement on the valley floor in the Early Iron Age was laid out along one of two alternative trackways which linked the higher reaches of the valley with surface water to the east. The second trackway became used as a focus for burials and a cemetery grew up at what was to become the south-west corner of a roughly quadrilaterial area of some two square kilometres in size. Other early burials are known at the south-east corner (from excavations) and from close to the north-west corner (from aerial photographs which characteristically show no sign of a central grave). The contraction of open settlement on the valley floor is likely to have accompanied the decline of the more northerly road which formed its nucleus. The area to the north of the valley floor, where sampled by excavation, has provided evidence of occupation from the Early Iron Age and a nucleation of settlement here would explain both the abandonment of the valley floor as a residential area and the enclosure in La Tène II of the area of which it is the centre. The cemetery continued to develop within this enclosure and with its abandonment early in La Tène III part of its area was re-used for animal husbandry, along with other sites on the fringe of the settlement enclosure where this borded the main road along the valley.

The settlement and burial evidence in combination appear to indicate a tripartite sequence of development. Open settlement was replaced by nucleated settlement with substantial boundary ditches. This in turn expanded to make full use of marginal areas some of which had previously been used for burial. The most likely reason for these changes has already been suggested by evidence from the cemetery: population growth.

PART 5: WETWANG SLACK IN ITS BROADER CONTEXT

5.1 INTRODUCTION

In the foregoing chapters the cemetery has been described and its evolution traced, the skeletal and artifactual evidence has been examined and the archaeological features which constitute the domestic background to the burials have been outlined in order to reconstruct the development of settlement patterns in the valley. Although reference has occasionally been made to other sites this has been done sparingly in order to avoid the formation of preconceptions regarding the relationship of this with other sites.

It is now time to consider the extent to which the site compares with others in the area, and then to look further afield for more general similarities among contemporary communities.

5.2 WETWANG SLACK, THE ARRAS CULTURE AND IRON AGE SETTLEMENTS IN EAST YORKSHIRE

The large group of Iron Age burials know as the "Arras Culture" was first so styled by V.G. Childe (1940, 216), but the unifying features which are its chief characteristics have been systematically identified more recently by Stead (1961, 1965, 1979). These consist of four-sided ditched enclosures, inhumations which usually lie on one side in a crouched or flexed position, the occasional inclusion of a two-wheeled vehicle, and artifacts in the European La Tène tradition. With the exception of a vehicle the Wetwang Slack cemetery displayed these features, which were, even so, reproduced in the Garton Slack "chariot" burial which must surely have been the product of the same settlement.

While Wetwang Slack cemetery clearly belongs within the Arras Culture there are differences between Wetwang and other sites in the region, just as there are variations within the cemetery itself. A comparison with the different sites is necessary in order to assess more accurately the unity of Arras burial tradition. The evidence will be examined at three levels, firstly

as the funerary monuments themselves and secondly in the size and layout of the cemeteries and finally associated settlement patterns.

5.2.1 FUNERARY MONUMENTS

Enclosure ditches or squarish upstanding mounds have been recognized at most of the excavated Arras burial sites (Stead 1979, 97 ff.). Burials which apparently lacked enclosing ditches have been found at Acklam (Dent 1983c) and Grimthorpe (Stead 1968), but in the cases of the larger cemeteries and many smaller groups a ditch was recognised at the time of excavation or was subsequently found from the air. The size of these enclosures corresponds with the range of dimensions seen in Wetwang Slack. That the ditches once enclosed covering mounds is demonstrated by the co-existence of the two at Arras itself, at Skipwith Common and at Pexton Moor where both features were recognised at the time of excavation. More recently rectangular ditches have been recognised at Beverley Westwood and Danes Graves where they enclose mounds which were once examined by Greenwell and Mortimer. It is clear that the Wetwang Slack enclosures must once have contained mounds, and the shorthand term "square barrow", as suggested by Stead (1979, 29) may be applied to the funerary monuments. Working almost exclusively from aerial photographs Whimster (1981, 88) deduced that the depth of the burial, on or below the old land surface, was to a large degree inversely proportional to the height of the covering mound as indicated by the size of the enclosure and the width of its ditch. This phenomenon has recognised at Wetwang Slack where the difference is seen to be chronological. Large enclosures with very early La Tène grave goods from Cowlam and Bell Slack, Burton Fleming (Stead 1979, 94 and 99) contained burials which lay above the chalk surface or in a shallow grave.

Unfortunately grave goods from the later stages of the cemetery period are difficult to correlate with enclosure sizes and grave depths, and the best recorded examples, from the Burton Fleming cemetery, await publication. Three short involuted bow brooches were recovered from burials in Garton Slack in the 1960's as well as a long example, but unfortunately none can now be assigned to

particular graves, although the positions of these are known (Dent 1983, a, Fig. 7, Nos. 1, 4, 5 and 15; Fig. 8, A-D). The depth of one grave was not recorded but the others were 0.40 m., 0.45 m. and 0.75 m. Only one ditch survived and this enclosed an area c.5.5 m. across within which was the deepest grave. Also found in a deep grave (0.95 m.) was a bronze involuted pin and a glass bead of Guido's "Oldbury" type (ibid. Fig. 7, No. 17, Fig. 8, G and H; Guido 1978 : Class 6). These artifacts may be late in view of the involuted pin from burial 145, but the comparison is not a straightforward one. Despite the shortage of excavated supporting evidence it does seem likely that the changes in the burial monument seen at Wetwang were taking place at other cemeteries.

One of the principle features which distinguishes the Wetwang Slack cemetery from other excavated examples is the large number of secondary graves. A few secondary graves were recognised at Burton Fleming where they occurred in the ditches of large enclosures which had lost their central burials (Stead 1979, 15). There were also a few cases of superimposed central burials, which had in one case disturbed the primary (ibid.). The small proportion of secondary burials at Burton Fleming might be explained by the extended nature of the cemetery, where in contrast to Wetwang Slack there was seldom any overlap between neighbouring barrows and thus abundant space for the construction of enclosures. Dense groups of barrows were excavated at Danes Graves and some re-use of the primary positions was found there (Barrow 46 contained five skeletons and a child was found in the mound of Barrow 15 : Stead 1979, 100), but the perimeters of the mounds were not examined and so the most likely areas for secondary graves were missed. At Eastburn the enclosures were very dense-some fifty burials were found in an area of 0.5 hectares - but although some might have occupied secondary positions the brief published description ascribes a circular ditch to each one (Sheppard 1939, 37. Secondary burials which included several infants, were found in enclosure ditches in Garton Slack (Dent 1982, a, Appendix B). It seems likely that the selection of a primary or secondary position for a grave depended partly upon the amount of space available on the desired site, as well as upon social, economic or family factors.

When the position and orientation of the skeletons is considered it is not the Wetwang cemetery but a group of fifty-four east-west aligned graves at Burton Fleming which is exceptional. Whimster compared the positions and orientations of burials from Danes Graves, Burton Fleming, and Wetwang Slack (a preliminary sample of 210 burials) and concluded that there was a similar preference for burial on the left side at each site comprising between 78% and 84% of the total (Whimster 1981, Fig. 39). In orientation there was a marked preference at all three sites for having the head to the north, with the south as the next most popular option (ibid. Figs. 40-42). Some of the east-west aligned graves at Burton Fleming had square enclosures; the only brooch associated with one of these burials was of La Tène III construction and enclosures tended to be small with shallow ditches (Stead 1979, 14-15, Figs. 2 and 3).

As far as the burial sites and funerary monument evidence permit it is possible to see the Wetwang Slack cemetery as typical of the Arras Culture in most respects. The unusually high proportion of secondary burials may be due to the compactness of the group and the failure of the excavators to explore the whole area at Danes Graves. The exceptional group of burials in terms of funerary rite consists of the east-west orientated graves from Burton Fleming which may date to the years following the main floruit of the Arras Culture.

5.2.2 CEMETERY PATTERNS

As a result of the growth in aerial recconnaissance large numbers of Iron Age burial sites are now known in the area bounded by the Rivers Ouse and Humber, the Tabular Hills and the North Sea. These have been catalogued by Ramm (1973, 1974), Loughlin (Loughlin and Miller, 1979) and Whimster (1981, Appendix D.2). Plans or photographs of several larger groups have been published : Arras, Burton Fleming/Makeshift, Scorborough, Skipwith, Cowlam, Grindale, Burton Fleming/Bell Slack (Stead 1979, Figs. 1-4, Plates 1-2, 6-7), Foxholes, Slingsby, Carnaby (Whimster 1981, Figs. 34-38), Danes Graves (Ramm 1978, Fig. 5), Burton Fleming/Maiden's Grave Farm (Loughlin and Miller 1979, Plate 3), Rillington (Dent 1982, Plate 33, Turnbull 1983, Fig. 1) and Garton Slack (Dent 1983, a, Fig. 7).

Plate 3. A small group of ploughed barrows at Cowlam. The apparent absence of a central grave is an early feature.

4. A large cemetery at Burton Fleming. A few burials have visible enclosure ditches, but in the majority of cases only the grave shows clearly which is a characteristic of late burials.

(Photos: author)

The most up to date list of sites was compiled by Whimster as part of his research into Iron Age burial practices (Whimster 1983). Working from crop marks of varying quality Whimster listed 113 sites. The majority of these were small and consisted of isolated squares, pairs or groups of three. In only twenty-six cases were ten or more enclosures identified, and cemeteries containing over one hundred flattened barrows numbered only seven (including Garton Slack - Wetwang Slack). Whimster identified central grave pits at forty sites, but not all the enclosures at these sites had visible grave marks. The size of enclosures varied, as at Wetwang Slack, and small barrows of c.6 m. or less were commonly found in large, dense groups. The central grave was usually the most obvious feature of these barrows, and in some cemeteries the enclosing ditches showed faintly, if at all. In contrast large enclosures with broad ditches and little or no sign of a central grave were commonly found in isolation, or as small groups.

Whimster recognized that the difference between these two extreme types could be chronological, and suggested that the earliest type of barrow was large and intended to cover surface burials, which be conjectured were a common method of disposal in Prehistory but one which left little chance of archaeological detection (ibid., 111, 195). Small barrows with correspondingly deep graves should represent the other chronological extreme and their occurrence only in large, uniform groups argues that they date to a later stage of development. The chronological evidence from the Wetwang Slack cemetery confirms that this relative chronology is correct, but it is clear that there was not a gradual deepening of graves. Rather, both shallow graves and surface burials were in use at the same time, and both types have produced early La Tène I brooches (at Bell Slack and Cowlam : Stead 1979, 64 and 94). Very deep graves seem to have been a late development and involuted (particularly short involuted) brooches are characteristic of grave goods from them. The size of the barrow enclosures is quite variable for the early period, whereas the late enclosures are more uniformly small.

The chronological difference found in the form of the burial monuments at Wetwang Slack can thus be seen to be representative of the region as a whole. Once earlier and later burials are distinguished, by virtue of their form, some progress may be made towards an understanding of how cemeteries developed. Working from aerial photographs those enclosures which apparently lack central graves present few problems, but where there are traces of a grave different depths will be reflected only in the clarity of the crop marks. A more reliable guide to the identification of late graves is the apparent lack of an enclosure ditch in conjunction with even spacing between clear grave marks, in the manner which burials are revealed at, for example, the cemeteries of Bell Slack and Maiden's Grave Farm (both Burton Fleming Parish; for reference, see above). The three types of burial identified may be summarised as follows:-

(a) enclosures without apparent central graves - an early form.
(b) enclosures with central graves.
(c) clearly marked graves without apparent enclosures - a late form.

Several cemeteries in the Burton Fleming - Rudston area have been plotted by Robert Pengelly (Stead 1979, Fig 5) and three form a particularly suitable subject for this approach. Two in Bell Slack and another at Maiden's Grave Farm share the ground with the crop marks of "droveway" settlements and demonstrate the compactness which has already been seen at Wetwang Slack (Fig. 5.1).

In Bell Slack two distinct cemeteries cluster along a ditched road or trackway. In Group 1 two type "a" enclosures lie on opposite sides of a branch lane, and fourteen of type "b" occupy the areas on either side. A third type "a" enclosure lies further back from the roadside level with the northern end of the cemetery. Of at least seventy-five plough-flattened barrows in this cemetery fifty-eight are of type "c", twelve of these lie in the southern part of the cemetery, separated from the road by the type "a" and "b" enclosures, the remaining forty-six occupy a small area of about 0.5 hectares and cluster very densely along the roadside, much in the manner of burials in the eastern part of the Wetwang Slack cemetery.

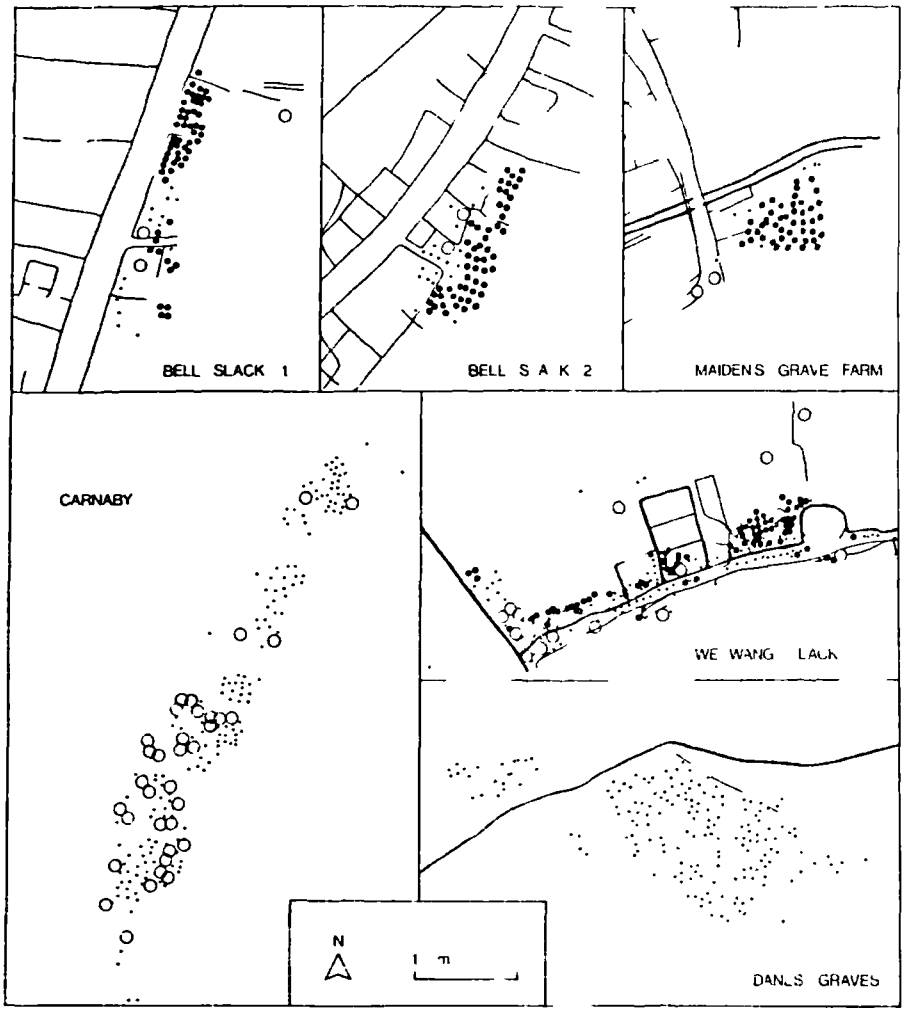


Fig. 5.1 emetery plans. Enclosures without visible ditches and graves without visible ditches are shown as open circles and solid circles respectively, with the exception of Wetwang Slack (where central graves deeper than 0.6m are shown solid) and Danes Graves where burials are shown without differentiation.

In Group 2 five type "a" barrows occupy positions along the same road, but spread over 200 metres. Whereas all the plough-flattened barrows in Group 1 respected the road two of the type "a" barrows in Group 2 actually lie between the ditches of the road. Nineteen type "b" enclosures extend the cemetery southwards and away from the road and some of them respect a branch lane which joins the road from the east. Fifty-three type "c" barrows extend the cemetery further away from the road but do not significantly increase the length of the cemetery. A particularly interesting feature is the group of fields or domestic enclosures which adjoin the road at this point, for these occupy the same ground as type "a" and "b" barrows, but are apparently respected by all the examples of type "c". which is a strong indication that part of the cemetery was reclaimed for other purposes before the late barrows were constructed.

At Maiden's Grave Farm fifty-four barrow sites consist of two type "a", eight type "b" and forty-four type"c" structures. The cemetery adjoins the point where a substantial double ditch which, probably represents a plough flattened linear dyke, coincides with a less substantial pair of linear ditches. There appears to be a break in the former at the crossing point (Loughlin and Miller 1979, Pl.69) and if the latter represent a trackway, as seems likely, then presumably this indicates that the linear dyke was constructed to accommodate an existing thoroughfare. From the relative position of the cemetery the latter should be no later than the Early Iron Age. Both the type "a" barrows were situated between the ditches of the presumed trackway at a point where a side road entered from the west. Five type"b" barrows lay close to the dyke while one occupied a position at the side of the trackway. The type "c" barrows all occupied an area of approximately 0.6 hectares which lay clear of both the trackway and the dyke.

These three cemeteries respond well to soil conditions and regularly produce clear crop marks which can be analysed in the manner described above. In each case the site chosen for burial was next to a road, and early types of barrow were present as well

as larger numbers of smaller late barrows. Whereas early types were loosely spaced late barrows were tightly bunched and it is possible to see, in Bell Slack at least, a form of simple horizontal stratigraphy.

Cemeteries with a similar density of burials are those at Scorborough, Danes Graves and Eastburn, but these are not cultivated sites and no crop marks exist to indicate the relative dates of the barrows. The Scorborough cemetery contains about 120 unploughed barrows and these all lie within an area of no more than two hectares (Stead 1979, Fig. 4). This compactness is comparable to the sites just described and the fact that the great majority of the mounds are small is consistent with the evidence of size at the Burton Fleming and Wetwang Cemeteries. The largest barrows are few in number - a dozen or so -and their position at the north-western end of the cemetery and along the south-western edge suggests that these were the focal points. A number of medieval earthworks impinge upon the site, and it is possible that some of the ditched enclosures might be earlier. A track which runs through the middle of the cemetery might likewise be medieval or earlier.

At Danes Graves a similar number of surviving barrows can be counted in a wood, in an area of some 2 hectares (Ramm 1978, Fig. 5). Crop marks reveal the existence of others to the west and south and surviving earthworks suggest that the north-eastern side of the cemetery was defined by a linear ditch. A later, more substantial earthwork bisects the site towards the northern side. One of the more southerly graves contained an involuted brooch with a dismantled chariot, and Mortimer, who carried out several excavations on the site, observed that the northerly burials produced few artifacts while those to the south were more productive (Mortimer 1911, 45-6). If the relative scarity of grave goods among earlier burials at Wetwang Slack is a true indication of economic changes in the region then the poorer parts of Danes Graves may have been developed before the more southerly, wealthier areas. This suggests that as with other sites described here, the early burials were made close to linear earthworks, which may or may not have been the side of trackway, and that there was horizontal growth away from this.

At Eastburn in 1938 fifty graves (a figure which is suspiciously round) were recorded in an area of about 0.5 hectares, and ditches were observed around the graves. Later linear ditches in the same area contained pottery of the later 1st century A.D. (Corder, P. in Sheppard 1939, 42-44). This is another example of a condensed cemetery and here the later ditches recall the enclosures which replaced the Wetwang Slack group.

A contrast to these numerous but densely spaced burials is provided by very extensive cemeteries in which there was less emphasis upon the conservation of space. Few such cemeteries are known but plans have been published of those at Arras and Carnaby and of that which is centred upon a field named "Makeshift" between Rudston and Burton Fleming.

The Arras Cemetery once numbered hundreds of barrows but today very few show even as crop marks. The barrows are spread over several hundred metres on a chalk plateau to the east of Market Weighton Wold. Although there is some clustering on the south-east and in the centre of the cemetery this nowhere reaches the density found on the sites just described. Moreover there are no linear earthworks or enclosures to provide a focus for burials, although there are dykes to the east and leading off the plateau to the lower ground in the valleys. No late grave goods have survived from Arras, but the early date of the excavations would have prejudiced the survival of any iron artifacts, for nearly all the metal from the site is bronze, or of substantial iron construction. Burials on the chalk surface were recovered from Arras, but no particular grave goods can be ascribed to them.

No excavations have taken place at Carnaby where a cemetery of about 200 ploughed barrows has been revealed by some exceptionally clear crop marks. So clear are the marks that enclosure ditches show in almost every case, even though the intensity of many grave marks suggests that they are deep, and therefore likely to be late. Unlike Arras the cemetery has a linear plan, the burials being spaced at over some 600 metres in a north-south direction. Type "a" barrows show a preponderance in the southern part of the site

and towards the western side, while the smallest barrows, which are also the most closely spaced, are on the eastern side. This suggests that if a linear feature dictated the development of the group, then this must have been unmarked and thus most probably a trackway.

At Makeshift, Burton Fleming, an even larger cemetery developed in two lines which joined more or less at right angles. The northerly of these two branches extends over some 800 metres and the westerly over 700 metres and the whole contained more than 300 barrows. A linear dyke defined the group on the south, and may have dictated the development of the western branch, but the northern branch, although it followed no ditches, was also markedly linear, and as at Carnaby it seems probable that there was once a trackway which had followed the western side of the Gypsy Race stream. This trackway can be recognised to the north of Makeshift where it entered an area of ditched enclosures beside the Maiden's Grave Farm cemetery. The Makeshift cemetery excavations furnished a similar range of grave goods to Wetwang Slack, but in addition this cemetery contained the distintive group of east-west orientated burials described earlier. Thus while it was in use at the same time as the Wetwang Slack cemetery, it is possible that in this cemetery the square barrow tradition continued when it had gone out of use elsewhere.

In large cemeteries the difference between compact groups and extended groups is noticeable. The former, moreover, are frequently found in areas enclosed by ditches. Ditched roads pass close to all the Burton Fleming groups of this type and so also at Wetwang Slack and possibly Danes Graves. The cemeteries of Arras, Carnaby and Makeshift are not related to ditched droveways, and at these sites the burials are well spread out even though grave goods indicate that they were contemporary with those in nucleated groups. This difference may be related to different land uses. Droveway settlements were presumably put to arable use, whereas the open areas crossed by unditched roads may be considered as pasture. Whereas burial mounds cannot happily be incorporated into arable fields, in pasture once overgrown, barrows may be grazed. It would be an advantage to limit the size of cemeteries in areas under the

plough, while such restrictions need not apply in areas of pasture. Nearly all the cemeteries described here lie on the floors of valleys. One noticeable exception is the Arras cemetery. Settlement enclosures in the vicinity of this group lie on lower ground while the barrows were constructed on the hill top where thinner soils which would be more appropriate to grazing than to arable farming.

Before passing on to the question of settlement patterns in greater detail it will be appropriate to consider the chronological make up of the cemeteries in relation to smaller groups. At Wetwang Slack 7.5% of the barrows lacked central grave cuts while deep primary graves, sometimes with involuted brooches in them, constituted some 34.5% of the total burials in the cemetery. Among the Burton Fleming cemeteries the proportion of late graves is much higher:

	"early" type "a"	Type "b"	"late" type "c"
Bell Slack 1	3 (4%)	14 (19%)	58 (77%)
Bell Slack 2	5 (6%)	19 (25%)	53 (69%)
Maiden's Grave Farm	2 (4%)	8 (15%)	44 (81%)

While a growth in the population would produce a greater frequency of burial in the later period, the numbers of later burials in the Burton Fleming Cemeteries are so disproportionate that other factors must have been at work. The most likely reason for such large numbers of late burials at these sites is that scattered burial was practised for most of the period and these particular clusters of burials were still small by the later stages of the Arras Culture when a decision was taken to restrict burial to specific small areas. This could correspond with the stage at which the Wetwang Slack cemetery was reorganised and earlier parts of it were absorbed into the road area. The latest "datable" artifacts from isolated barrows are two flat bow brooches from Huntow and Garton Slack, forms which were current at the time of the Wetwang re-organisation. At Carnaby, although a count of the late graves cannot be achieved objectively from the aerial photographs, the early type "a" enclosures constitute 16% of the

known total and suggest, with the evidence from Wetwang Slack (already discussed in Part 2.5), that some cemeteries began to grow from the earliest stages of the Arras culture, even though they did not attract all the burials until a much later stage.

5.2.3 SETTLEMENT PATTERNS

The burials in Wetwang Slack may be seen as one element in a settlement pattern which includes roads, boundaries, buildings and enclosures. In the Early Iron Age settlement consisted of a strip of houses, with space for fields, which followed the sides of a trackway for a distances of at least 1.5 km. In time, I suggested, this settlement shifted to the slopes on the northern side of the valley, where a more concentrated village grew up. The development of this area led to the enclosure of the surrounding land and reorganisation of the burials on the valley floor. Later the cemetery was abandoned and ditched farmsteads were constructed on part of its area, as well as at other points along the roadside on the valley floor.

The Early Iron Age landscape incorporated a series of fairly obvious land boundaries which were an inheritance from the Later Bronze Age. Although relatively little excavation has been carried out on these linear dykes what evidence there is for their date points to their existence by the time the first Arras burials were made (Manby 1980, 327-8). Also dating from the same period, if not before, were many of the roads and trackways which criss-crossed the landscape. An example of contemporaneity is found at Sir Tatton Sykes' Monument, where a linear dyke forms the boundary between the parishes of Garton on the Wolds and Sledmere. Here cropmarks in the adjacent field show that the earthwork was crossed by a trackway at a point where a break-in the earthwork coincided with the apex of a re-entrant in its course. This layout appears to have been deliberate so that the dyke should have been constructed when the trackway was already in existence. Pottery found under the bank of the earthwork immediately to the west has the finger impressions which John Barrett has shown to be characteristic of the Later Bronze Age (Barrett 1980). A similar sequence might be represented at Maiden's Grave Farm, Burton Fleming, where as we

have seen a double dyke was constructed with a break at the point where a trackway crossed its line. The south eastern corner of the junction subsequently attracted an Arras culture cemetery (Fig. 5.1). Some dykes are several kilometers or more in length, although sometimes there are breaks where deep valleys or low lying meadows cut across the line. The construction of these earthworks achieved the first enclosure of the Wolds by defining limits between neighbouring blocks of land. Each of these blocks might have contained several settlements in the Iron Age, and possibly before. There is no direct evidence as yet for continuity of occupation on actual settlement sites from the Later Bronze Age into the Early Iron Age, but although occupation sites probably shifted over the years, the land divisions (dykes) continued to shape the basic units and many are still parish boundaries today.

These boundaries were to endure and the following centuries saw the process of their subdivision develop. The earliest of the large Iron Age settlements - Garton/Wetwang Slack - is an extended and open site with few boundary ditches save those which were probably to prevent animals straying from roads onto fields. Buildings or burial mounds were apparently constructed with little constraint in a landscape where space was plentiful. A smaller, more compact settlement as that at Rillington (Fig. 5.2) where exceptionally clear cropmarks have shown roundhouses with entrances on the south east as well as ditches and square barrows. A cluster of a dozen or so houses, varying in size from about 7.0 metres to nearly 20 metres, mostly formed a double row of buildings 160 metres long. This lay adjacent to the ditches of a trackway or large enclosure at a point where these abutted a ploughed out round barrow and turned through 90°. To the north of the houses, within a few metres, were several square barrows, and beyond these a group of at least eleven followed the linear ditches. At this stage the openness of the site resembles that found at Garton/Wetwang. Later the area of former houses was occupied by rectilinear enclosures which cut across both square barrows and roundhouses. To the west of the site excavation by Percival Turnbull found late Iron Age pottery in similar ditches (Turnbull 1983, Figs. 3 and 4). Rillington is virtually unique in the area as a site at which roundhouses have been revealed in some quantity as crop marks. The

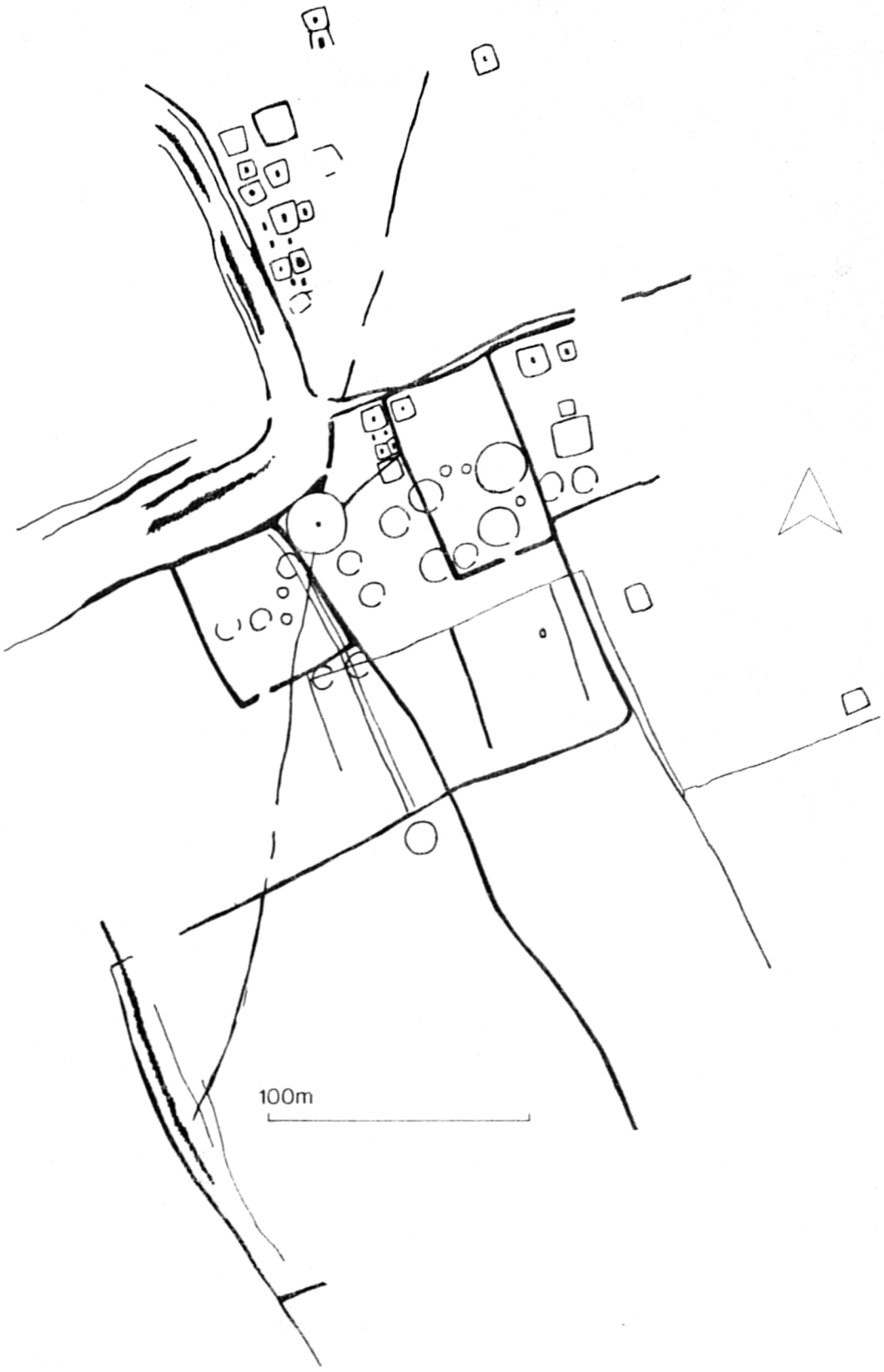


Fig. 5.2 Crop marks at Rillington, North Yorkshire. Square enclosures, including some without visible graves, and roundhouses are seen in close association, a pattern complicated by the ditches of trackways, fields and prehistoric Late Iron Age ditched enclosures like those in between Slack and Carton Slack. Plotted from photographs taken by Tony Pacitto (Cent 7492, Fl.73) and incorporating information from the National Monuments Record.

damage inflicted by the plough was too great in Wetwang Slack to give any hope that further buildings would be revealed in this way, and that is probably the case at the majority of sites.

Iron Age settlements consistently appear as crop marks only when ditches were employed to define the boundaries within them. Excavated evidence suggests that this was common towards the end of the Iron Age but not much earlier. Ditches replaced timber palisades or fence lines in the settlement to the north of Wetwang Slack in the final stage of occupation before the Roman Conquest. Elsewhere rectilinear enclosures, usually adjoining trackways or other linear boundaries were common in the first century A.D. at Blealands Nook, Brantingham, Bridlington Old Town, Driffield, Elmswell, Harpham, Langton, Rillington, Rudston, Seamer, Welton and Wetwang-Garton (Dent 1983, b; wheel-made and hand made Iron Age pottery was found in a rectangular ditched enclosure by the writer at Brantingham villa in August, 1983). Some of these represent isolated farms which may have belonged to a village community . Elmswell is more characteristic of a larger type of settlement in which the central feature is a trackway flanked by series of enclosures. This form - the droveway settlement - is a common feature of the Wolds.

Some droveway settlements extend from some distance. That in Bell Slack is 1.7 kilometers long and must surely be interpreted as a "village". Excavations there by Ian Stead showed occupation in the Roman period (Stead pers. comm.) but the relationship of enclosures and burials at the Bell Slack 2 cemetery suggests that some of the smaller enclosures were constructed over the earlier part of the cemetery but before the later barrows were constructed. These small enclosures measure 25 m. to 40 m. across and cluster on either side of the droveway in the southern part of the settlement. Larger enclosures, up to 200 m. deep, extend back from the trackway and sometimes contain one or more smaller enclosures on the inside. The implication is that the smaller enclosures would have contained buildings while the larger areas were arable fields. The Bell Slack 2 cemetery argues that burial was not interrupted by the ditching process and the fact that no early type "a" barrows lie between the ditches of the droveway suggest that this was enclosed

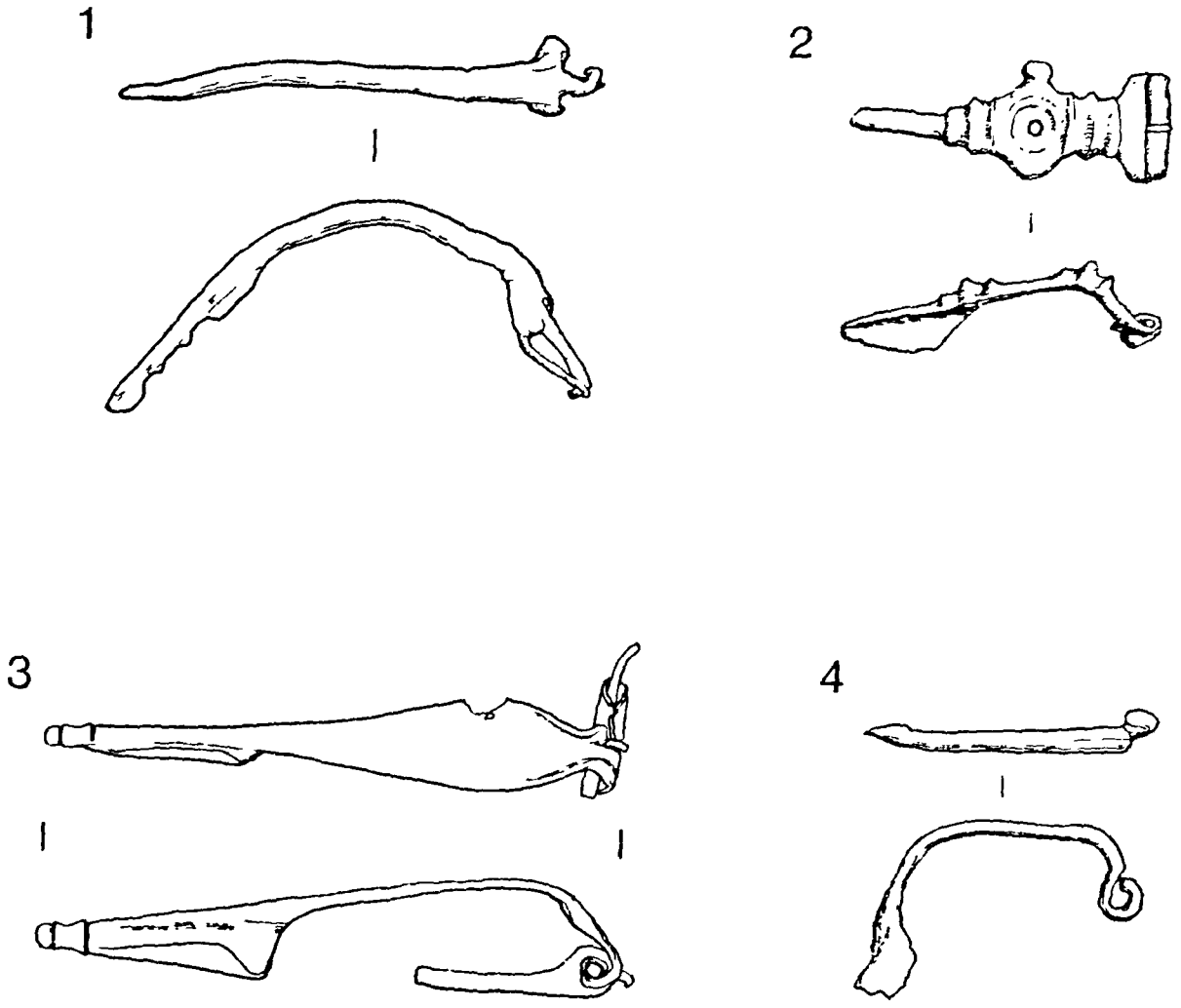


Fig. 5.3 Brooches from Blealands Nook, Wetwang Parish. A Colchester brooch (1) and a Hod Hill brooch (2) are pre-conquest forms in East Yorkshire. Two other brooches (3 and 4) are difficult to place, but have some La Tene III affinities and may be pre-conquest (all bronze : Scale 1:1)

and the ditches cut to clarify divisions among an existing open settlement like that in Wetwang-Garton Slack. At Blealands Nook also Arras burials may have respected existing enclosure ditches (Dent 1983b, Fig. 2.). Extensive excavations have not taken place on the site since the nineteenth century but surface finds of late Iron Age and early Roman brooches, and of a coin series dating from the late first to fourth centuries, suggest that again an Iron Age settlement endured into the late Roman period.

Continuity of settlement is difficult to demonstrate; Bell Slack and Blealands Nook may be unusual in that they could have started as open linear settlements, been enclosed and continued through. At Wetwang Slack the areas of domestic activity appear to have shifted over a relatively small area. This may have been more typical of the process of settlement development. The constant feature in such a settlement would be the area which a community used, that is the arable fields, the pasture, the woods and the waste land which was in continuous use. These are the areas which probably endured.

Geographically these settlement zones show a preference for lower ground particularly along valleys and in the Iron Age the majority of the burials were away from the Wold tops. Settlement in the valleys continues the distributional pattern which can already be observed in the Later Bronze Age (Manby 1980, 321, Fig. 3) and must have become essential as the population increased and placed a greater strain upon the water supply.

5.2.4 ARTIFACTS

The grave goods from Arras Culture burials which have been published include a very few pieces which deviate from a common mainstream of styles. Among the brooches the most problematical piece is probably the inlaid bronze brooch from Danes Graves 95 (Stead 1979, Fig. 24.5). Another inlaid brooch from Arras (A6 : Stead 1979, 73, Greenwell 1906; 301) can now be identified with a form represented by two examples from Wetwang Slack (155 and 274) which belong relatively early in the Arras sequence. A La Tène III brooch from Burton Fleming is not on its own when compared with No. 117, although the two are quite different in all respects other than that they share the solid foot/catchplate. Among the main

classes which commonly occur -brooches, bracelets, beads and pins - similar objects can usually be found among different cemeteries, and the closeness of these cemeteries is such that it would be very surprising if a common artifact tradition did not exist.

Three strains of material might be found among these artifacts, namely objects which were imported, objects which were locally made but copy imports, and objects which were locally made to local patterns. Although the coral used for inlay was undoubtedly imported, the objects which it adorns were not. Glass may have been imported and the conformity of the stratified eye beads to a pattern with a very wide European distribution suggests that these were made abroad. Zig-zag beads with good white glass trails may also be imports, but beads which have lost their inlay, and some from Arras which have a soft white inlay suggest a local substitute for white glass, while the latest beads are types which were more clearly manufactured within these islands. Artifacts which closely resemble continental styles are earlier brooches - "Marzabotto", "Münsingen" and penannular forms -and knobbed and mortice-and-tenon bracelets. The use of La Tène II construction on arched bow brooches from burial 160 and from Burton Fleming (Stead 1979, Fig. 36, No. 2) suggest that continental fashions were followed fairly strongly until after the introduction of that method of manufacture. After this the brooches at least show no continental influence until the adoption of the La Tène III solid foot-catchplate. Local development of styles is evident in brooches from the first appearance of the flat bow brooch through to the short involuted brooches which are the latest form to occur commonly.

Of great value is the evidence which artifacts provide of industrial and social development and more importantly of the chronology of the Iron Age in the region. In broad terms these artifacts appear to indicate that foreign exchange was strong in the early stages of the Arras Culture, that is, during La Tène I. In La Tène II there was a break in outside contact when local eclipsed continental styles and there was a bronze, glass and coral famine. At the end of La Tène II, as most cemeteries were passing out of use, outside contact was gradually restored. Late in La

Tène II coral once more appeared on brooches, after an interlude when various substitutes had been employed. At about the same time the adoption of the La Tène III method of brooch construction indicates renewed acceptance of one foreign fashion, while the increasing use of bronze for such brooches from domestic sites between their first appearance and the Roman Conquest, indicates that a shortage of bronze was followed by an increasing importation of that commodity.

Contact with the continent and the classical world varied in intensity throughout the period. This was almost certainly reflected in contemporary social conditions. Before such inter-relationships are explored it will be as well to determine as precisely as possible the absolute chronology of the Iron Age in the region.

5.3 ABSOLUTE CHRONOLOGY

In his recent discussion of the chronology of the Arras Culture Stead sought to construct a relative sequence as a preliminary to absolute dating, but came to the conclusion that the evidence was insufficient (1979,91). The situation has now improved with the collection of the stratigraphical evidence from Wetwang Slack, information which was unavailable to Stead at the time when he was writing. The second stage of Stead's discussion was the absolute dating of individual pieces from burials, and he had earlier explored the use of radiocarbon to this end (1977, 224-5). Unfortunately the results which he obtained from four human bone samples from Burton Fleming were too far from the mark to inspire confidence. To these may now be added five samples from Garton Slack and four from Wetwang Slack (Fig. 5.4). The samples chosen from Wetwang Slack were from relatively early (155 and 236) and late (98 and 117) burials, but although this relative dating was maintained in the results there was only a gap of thirty years between burials 98 and 155 while 98 and 117 were separated by a space of 290 years when they could have been virtually contemporary. The probable degree of error was smaller at Wetwang Slack and this may have been due to the larger sample of bone used

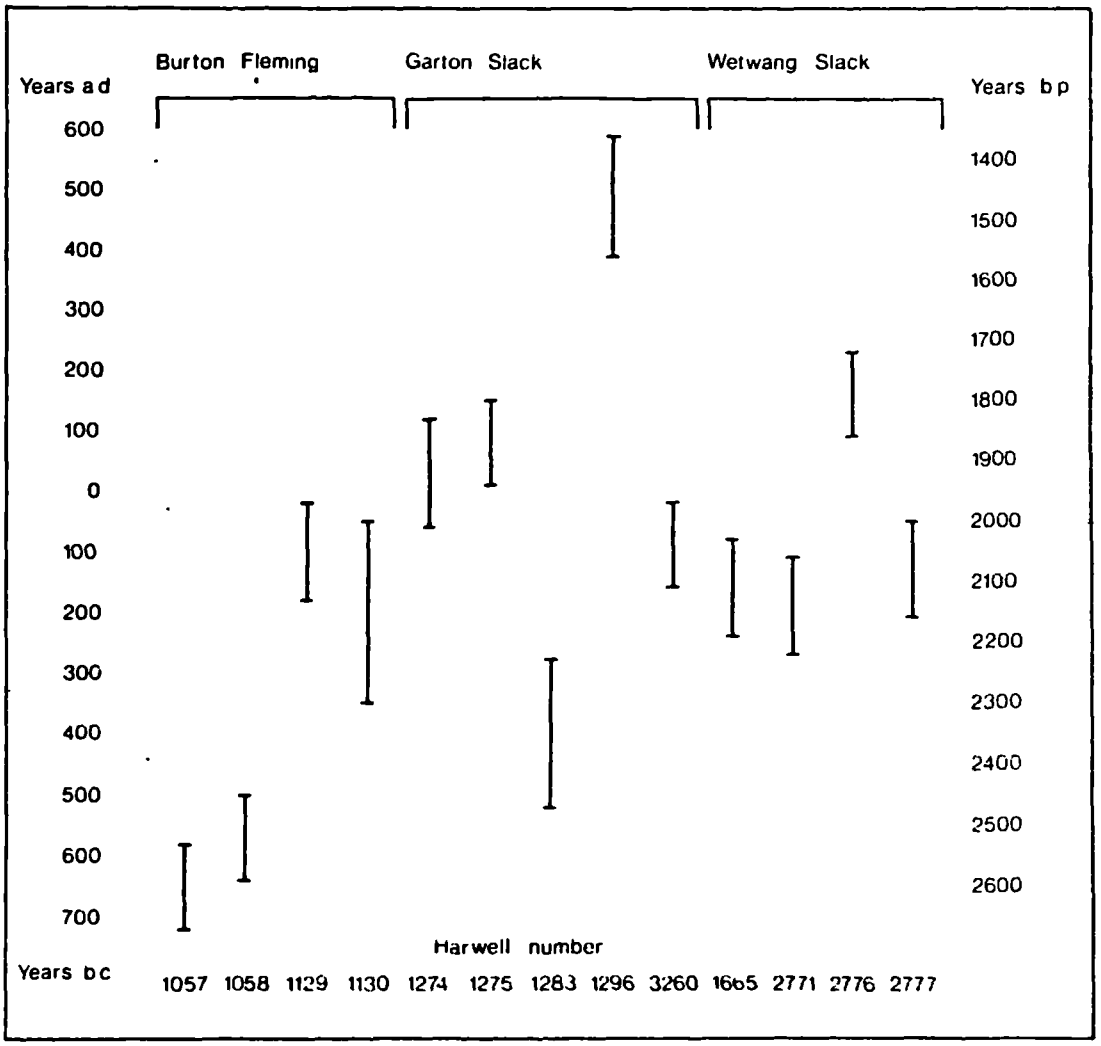


Fig.5.4 Radiocarbon dates for Arras Culture burials determined from human bone samples. Sources are: Burton Fleming - Stead 1977; Garton Slack - Brewster 1981.

(complete post-cranial skeletons were submitted) but the results are still not sufficiently close for this method of dating to serve any useful purpose in the construction of a chronology.

As little progress was to be made with this technique Stead looked for close parallels for the grave goods in order to date them by comparative means. Burials from Cowlam and Bell Slack contained grave groups of characteristically early La Tène material, which included brooches in the "Marzabotto" style. These burials are comparable to finds from the early stages of the Swiss cemetery of Münsingen-Rain and so are the Cowlam bracelet and glass bead necklace (Hodson 1968 horizons A-D). Brooches from later horizons which from their abundance there take their name from the Münsingen cemetery are longer and their influences can be detected in arched bow brooches from Arras, Burton Fleming and now Wetwang Slack (burials 89, 160, 205 and 327). Of these brooches that from Wetwang Slack 160 is particularly interesting in so far that is constructed with the foot attached to the bow in manner typical of La Tène II, although at Münsingen this feature first occurred on brooches with a very different, more elongated profile. Also of interest is the bracelet from 160 which finds its closest parallel in a grave inside the ritual structure of Libenice, Bohemia. Moreover the Libenice bracelet was found with two La Tène I "Münsingen" brooches very like the Wetwang La Tène II example, and one of the associated anklets was finished off in a manner which recalls the bracelet from burial 210 at Wetwang Slack (Rybová and Soudský 1962, Plate XIV). This suggest that the brooch from 160 was manufactured not long after the first use of La Tène II construction. The appearance of the La Tène III solid foot/catchplate element at Burton Fleming and now in burial 117 is the third point of contact. Although these do not conform to the mainstream of La Tene III brooches their apperance is unlikely to have come about before the development of this constructional technique. Three points of contact with continental La Tene material are thus suggested by these finds and the examples recognised by Stead have now been augmented by Wetwang Slack finds, but absolute dating of the continental material itself is fraught with difficulties.

Hodson tackled the problem of both British and Continental La Tène chronology in 1964 (Hodson 1964,a) and in spite of a vast amount of field work on Iron Age sites during the last twenty years not very much can be added to his conclusions. Hodson, like Stead, was obliged to use associations as dating evidence rather than objectively determined laboratory methods. The Münsingen cemetery, which contained an horizontally stratified sequence provided the best yardstick against which to measure other La Tène material. The cemetery covered the period of La Tène I and much of La Tène II. No classical imports were found in the cemetery so dating relied upon classical features in the artistic motifs of the grave goods or upon the discovery of similar La Tène objects in "classical or historically dated" contexts. Broadly, there were indications that Münsingen I (= La Tène I) began before 400 B.C. and that Münsingen II (= La Tène II) had started by about 200 B.C. La Tène III, not represented at Münsingen, probably began in the first century B.C. (Hodson 1964, 133-135, Fig. 60.

In all probability this extremely vague dating could now be clarified by a thorough examination of recent finds, on a European scale and with particular attention being paid to laboratory dating techniques, but this is far beyond the scope of this study. One of the important pieces of evidence for the dating of La Tène II, to which my attention was drawn by Professor Hodson, is the dendrochronological evidence which has come from the site of La Tène itself. The great majority of the brooches from La Tène (28 out of 36) are La Tène II types (Vouga, 1923, pl. XX). The remainder are Hallstatt or La Tène I (6 examples) or La Tène III (2 examples). Such is the dominance of La Tène II material that timber dated by dendrochronology is highly likely to have been felled when La Tène II brooches, and swords, were in use on the site. Two timbers, a plank and a pile, in all probability from the structure known as Pont Vouga were dated to 278 B.C. and a shield to 256 B.C. from the a sequence anchored by Roman bridge piles at Cologne, then thought to date to AD. 310 (De Navarro 1972, 354). The Cologne piles have now been dated to AD.337, so that the La Tene dates should be advanced by 27 years to 251B.C. and 229B.C. (Hollstein 1980). This argues, more cogently than an art/ historical approach, that La Tène II had already begun by the

middle years of the third century B.C.

The need to date British material at one remove from this continental chronology would not arise if such absolute dates could be obtained within Britain. Although sites such as the so-called "Lake Villages" at Glastonbury and Meare have the required conditions - waterlogging in combination with plentiful artifacts - it has not yet been possible to link diagnostic artifacts to calendar dates (Morgan 1981).

Very few absolute dates can be applied to La Tene metalwork with confidence. Although British material is one remove from continental pieces there is no particular need to suppose that a significant time lapse separated the manufacture of similar forms in Switzerland and Britain any more than it did in, for example, Switzerland and Champagne. The dating of "Marzabotto" brooches on the continent thus suggests that the Cowlam and Bell Slack grave groups belong to the period around 400 B.C. or earlier. The La Tène I arched bow brooch which closely resembles the "Münsingen" form would belong, like its continental counterparts, in the fourth century B.C. The beginning of La Tène II by the middle of the third century B.C. and the similarity of the brooch from burial 160 to La Tène I shapes suggests that the brooch was made before or around 250 B.C. The commencement of La Tène III in the late second/early first century B.C. indicates that the cemetery went out of use no earlier than that date. Thus the development from arched bow to short involuted bow took at least a century, possibly more. The enclosure of the Wetwang Slack cemetery and its re-organisation would most probably have taken place in the later third century B.C., at a time when flat bow brooches were popular.

5.4 THE CULTURAL SETTING

The existence of particular burial features over much of Eastern Yorkshire, which Childe first styled the "Arras Culture", can now be augmented by contemporary domestic remains. In looking at the archaeological evidence available Stead realized that the concept of an Arras Culture is applicable only to the use of distinctive

burial rites (1979, 90). The domestic material includes circular buildings, ring-headed pins and weaving combs which are all type fossils of what Hodson once defined as the Woodbury Culture, a tradition in which an absence of a regularly occurring burial rite is implicit (Hodson 1964,b,101, Fig. 1). Hence two distinct "cultures" appear to be represented among the burials and the settlement remains of what must have been a single group of people. This paradox is further complicated by the interpretation which is placed upon the two groups (Hodson, ibid. 99 ff.) The Woodbury Culture was intended to represent an indigenous tradition which persisted from the Bronze Age through to the Roman period. In contrast the Arras Culture represented an intrusion from the continent. The Arras Culture was moreover one of the mainstays of the Marnian invasion hypothesis (Childe 1940, 212ff.) although its exceptional nature was rather camouflaged in Hawkes scheme for the British Iron Age where it appears under as the rather nondescript classification of "Eastern Second B" (Hawkes 1959, Fig. 2).

The continental features of the Arras Culture have been trimmed down by Stead and Whimster who between them have shown that artifacts found with burials are not unique to the area (Stead 1979, 89-90) and that crouched or flexed burials with a preference for the same orientation occur widely in southern Britain, occasionally in association with "Woodbury Culture" settlements (Whimster 1977, 1981). In reality only the practice of chariot burial and the use of square enclosure ditches can be readily identified as continental features, and the latter are becoming rather more widespread in their distribution, although numbers are always small outside East Yorkshire. The appearance of both chariot burials and square enclosures need not have been simultaneous, but it seems probable that this was the case, particularly as the vehicles from Pexton Moor and nearby Cawthorn were not dismantled prior to burial as (unlike later examples) and were old land surface burials in the Cowlam tradition (Stead 1979, 220). A general similarity between early forms of Arras Culture square barrows, as revealed as crop marks, and examples in other areas, mainly in Eastern England (Whimster 1981, Fig. 45), suggests that the square ditched element was initially widespread but only developed as a permanent feature of burial in Eastern

Yorkshire. A concentration around areas linked to the eastern seaboard supports an external source for the burial practices, although, as Stead has emphasised, the arrival of ideas need not have accompanied large numbers of immigrants (1979, 93).

As far as the origin of the Iron Age inhabitants of Eastern Yorkshire are concerned the excavations in Wetwang Slack have repeated the evidence from graves which was already available, but the settlement remains now point to indigenous origins for the more fundamental aspects of life such as the agricultural economy and social organisation. Although the Culture model is no longer as popular as it was when Hawkes and Hodson put forward their interpretations of the British Iron Age it is still the basic method of ordering archaeological evidence. For this reason there has been a need to clarify the cultural setting of the burial and settlement remains in Wetwang Slack. The position now seems clear. The everyday culture reflects a continuing local settlement pattern while aspects of the burials were probably introduced to this and other areas at the beginning of La Tène I, that is, at the same time as continental metalworking styles and direct imports of coral and glass. Beyond this the culture model is of very little use.

The Wetwang Slack complex carries implications about the ways in which society, settlement and economy developed over several centuries and to these we now turn.

5.5 SOCIETY, SETTLEMENT AND ECONOMY

It seems probable that open settlement developed in the tracts of land which had been created by the construction of boundary dykes and subdivided by roads in the later stages of the Bronze Age. Both dykes and roads appear to have been in use when early square barrows were constructed, but to what extent open settlements may have preceded the burials is not know. The linear settlement in Wetwang/Garton Slack was well over a kilometer long and consisted of clusters of roundhouses spread along a road, probably with fields between then which have left little or no archaeological traces. The existence of arable ground adjacent to the road is

suggested not only by the spacing of the houses but also by groups of four-post buildings which if correctly interpreted as granaries reflect cereal production. Radiocarbon dates of 320± 100 b.c. (HAR 4425) and 390 ± 80 b.c. (HAR 1235) belong to this early stage of activity. Burial inside a square enclosure was introduced into the area in the fifth century and the thin scatter of these on some sites suggests that sometimes settlement was dispersed as well as open. From this early stage the Wetwang Slack cemetery began to develop at a junction of linear earthworks or roads. The growth of a permanent cemetery is an indication that the community which it served had stabilized, and neighbouring cemeteries established as finite the area of valley over which this community could hope to exercise control. Artifacts from earlier Arras Culture graves suggest long range contacts which brought bronze, coral and glass to the region, presumably in company with other, perishable commodities. Some of these were worked into artifacts by local craftsmen who also looked towards the continent for much of their inspiration. Variations in the size and quality of barrows and burials was greatest at this stage and this perhaps reflects a greater degree of social division. A small number of graves with rich goods were in sharp contrast to the vast majority in which artifacts were absent. The richest of the cemeteries of this period which has so far been excavated is Arras where three chariot burials were found as well as many other burials, all of which, apparently, belong to the earlier stages of the cemetery period. The social ladder found in individual settlements presumably projected upwards into the regional government, and particularly rich cemeteries like Arras might represent communities where the regional leaders had their homes.

Estimates of the population at Wetwang Slack were necessarily based upon a variable time scale, but a duration of about 350-400 years is now suggested which indicates an average population of between about 35 and 50. A significant mid-point to the cemetery is represented by the re-organisation which took place some time after the beginning of La Tène II. On the evidence of La Tène itself this could have occurred before the end of the 3rd century B.C. On the basis of position, stratification, grave goods and monument form 228 burials could be ascribed to the earlier period while 181

appeared to be later (37 burials were not obviously one or the other). These two figures, although clearly not realistic for a definitive population estimate (as they represent less than 100% of the recovered burials) may suggest relative levels of population during the earlier and later period. Comparison is made using the population equation described in part 3.2.5, that is, assuming an average age of 28 years:

duration of burial phase in years

number of burials	100	150	200	250
181 (later phase)	50	30	25	20
228 (earlier phase	63	42	31	25

The results of this break down are far from conclusive, for the duration of the two phases is still not precisely known. A relatively long earlier phase of perhaps two centuries seems quite likely while a short later phase of only about a century would provide reasonable evidence for population growth (from c.31 individuals to c.50 individuals), but greater parity in duration would reduce the evidence for population growth and even reverse it.

A change in the settlement in Wetwang Slack is detectable by the time that La Tène II influence was beginning to be felt in the brooches, that is, by about the middle of third century B.C. The road around which the open settlement clustered apparently went out of use and was superseded by the more southerly route which ran past the cemetery. This probably occurred after the linear settlement had begun to shift, apparently to a site on the hillside to the north. Here a more nucleated village developed in which the houses occupied a central position and the fields lay around the outside. This area was enclosed by earthworks which brought the cemetery into the settlement area while excluding the arterial road, possibly to prevent animals straying off it on to cultivated fields. The enclosure approached 2 ^{2}km in size and not all of the land in it would have been under the plough for pasture, woodland

and "waste" could also have been included. Some of the valley floor to the west, where arable fields had formerly stood, could also have been used as pasture.

This change in the settlement pattern could have been partly due to overworking of arable on the valley floor, to pressure created by growing numbers within the community and by accompanying social changes of which one symptom, or cause was the drying up of outside contacts. The decline in long range exchange links with the classical world was not a local feature, but was felt throughout Europe north of the Alps. In La Tène II the artifacts in the graves showed a development of insular craftsmanship and design which owed very little to continental influence. The use of bronze declined and glass beads of British manufacture appeared in small numbers to replace the earlier bead necklaces. Coral, used on brooches in La Tène I, was not used on flat bow or long involuted bow brooches; instead substitutues of amber, stone or paste were employed. The contrast seen earlier in the size of burial enclosures diminished and there were fewer rich graves, which includes some of the burials in the area with dismantled chariots. Rulers who were unable to prevent this decline of outside contacts may have experienced increasing difficulty in maintaining their position, and this may have led to a softening of the hierarchical structure. By the end of this phase ditches were being cut to mark the edge of previously open fields and in Bell Slack they appear to have been used to enclose land which was reclaimed from the cemetery. Regulation of burials in accordance with boundaries marked by ditches was a feature by this stage at Maiden's Grave Farm, Bell Slack, Blealands Nook and probably elsewhere. Arable areas can sometimes be distinguished from pasture and this indicates a mixed economy.

The final stage in most cemeteries saw the development, among arable fields, of groups of small barrows with deep graves packed into small areas. This appears to represent the last widespread use of barrows for burial and presumably reflects an increasing awareness of the pressures and problems created by a growing population in a community with a finite amount of living space. Whether or not these mounds reflect an increasingly egalitarian

society is unclear, but this stage did apparently see a restoration of some outside trade. This is reflected, for example, in the reappearance of coral as decoration for short involuted brooches from Wetwang Slack and Eastburn (Stead 1979, Fig. 26 No. 3). Shortly after the burial of such brooches the appearance of a brooch made in the La Tène III manner indicates what may have been the first local reaction to continental fashions since the beginning of La Tène II. At the same time a sword and shield from Wetwang Slack provide an early example of a warrior burial, a form which was to be popular in East Yorkshire and elsewhere in La Tène III (Collis 1973).

The end of the period of the cemeteries coincided with the La Tène II - La Tène III transition, which is difficult to date on the continent, never mind in Britain. The abandonment of cemeteries over a substantial area at about the same time is noteworthy, but it is impossible to say whether or not this was the result of a single decision or whether the inevitable result of similar population pressures. In view of the way in which similar changes in barrow morphology are represented at different sites it rather looks as if burial had for some time been subject to central influences.

After the abandonment of the cemetery in Wetwang Slack the ground was used for agricultural purposes. Animal burials suggest that the mounds were grazed where they were not levelled for house enclosures and pens. How quickly this took place is difficult to determine, for the date of the latest barrows is not at all clear. A Colchester brooch indicates use in the earlier part of the first century A.D., but this came from a pit inside a roundhouse which was not the first on the site (Dent, 1983a, Fig. 6, No. 5). Other first century brooches from Blealands Nook (Fig. 5.3) and Garton Slack (Dent 1983a, Fig. 6, Nos. 4 and 6) are from occupation sites which adjoined the main road along the valley in the Late Iron Age. Burials in the Makeshift cemetery at Burton Fleming which had an east-west orientation could belong to the period which followed the disuse of the other major cemeteries. Some of these were covered by slight barrows, as indicated by insubstantial ditches (Stead 1979, Figs. 2 and 3). One contained a La Tène III brooch and

swords were found in ten others. There may be some reason to suppose that most weapons burials were later than the decline of the large cemeteries. At Acklam and Grimthorpe isolated sword graves were probably not covered by barrows, although the skeletons were crouched in the Arras manner (Dent 1983,c). These resemble flat graves which were found in Garton Slack and Wetwang Slack where stratigraphy indicated a date no earlier than the Late Iron Age. Infant burials around Late Iron Age structures and in domestic enclosures indicate that young children were no longer buried with adults. Thus a series of scattered inhumations maintained the earlier burial rites, and some were accompanied by weapons. Wounds found on bones indicate that war was a general hazzard in the Iron Age, but these late weapon burials, and the occurrence on pre-conquest sites of chalk figurines of "warriors" suggest that the incidence of violence was increasing with a rise in the population (Dent 1983,c).

The evidence for expansion of settlement after the decline of the Arras Culture and the continuation of new farmsteads into the Roman period, sometimes to become villas in the later stages of Imperial control, is now substantial, but a full account of it is unnecessary here. A brief discussion of this period of rural settlement is in press at the time of writing (Dent 1983, b) and to the evidence for pre-conquest occupation on villa sites may now be added the discovery, by the writer, of wheel-turned shouldered and cordoned jars in a Late Iron Age ditch deposit beneath one of the stone building of Brantingham Roman Villa in August, 1983. This pottery has its closest parallels among the finds from Dragonby (May 1970, phases 1 and 2) and after a preliminary examination Valery Rigby has suggested a date at the beginning of the first century A.D. (pers. comm.).

5.6 SUMMARY

The site of Wetwang Slack presents a rare opportunity to study a changing settlement in direct comparison with the burials of its inhabitants. In looking for a cultural context for the material it became apparent that the settlement and burials belonged to two

district groups if traditional classifications were used. As one of these (the Woodbury Culture) was strictly concerned with settlement and the other (the Arras Culture) contained only burials these apparent differences were not irreconcilable. On the other hand the first is thought to be an indigenous tradition while features of the second show stronger links with contemporary continental material than with any foregoing British assemblages.

This paradoxical situation poses problems of origin which will have a bearing on the question of continuity through from the Later Bronze Age. Within the Early Iron Age, however, the combination of burials and settlement provides a very useful guide to how the landscape was peopled and how these communities changed their surroundings over a period of several centuries. In the fifth and fourth century B.C. the population lived in open villages. At the top of a stratified social scale may have been a figure - chieftain or king - with control over the region who was able to enjoy extensive exchange links with the continent and ultimately the classical world. The strength of these links, shown as burial aspects, raw materials and fashions is one of the more impressive pieces of evidence in support of the invasion hypothesis. By the third century the growth of a large cemetery at Wetwang reflects the permanence of the settlement even though the layout of buildings and fields shifted to form a more nucleated structure on the hillside to the north.

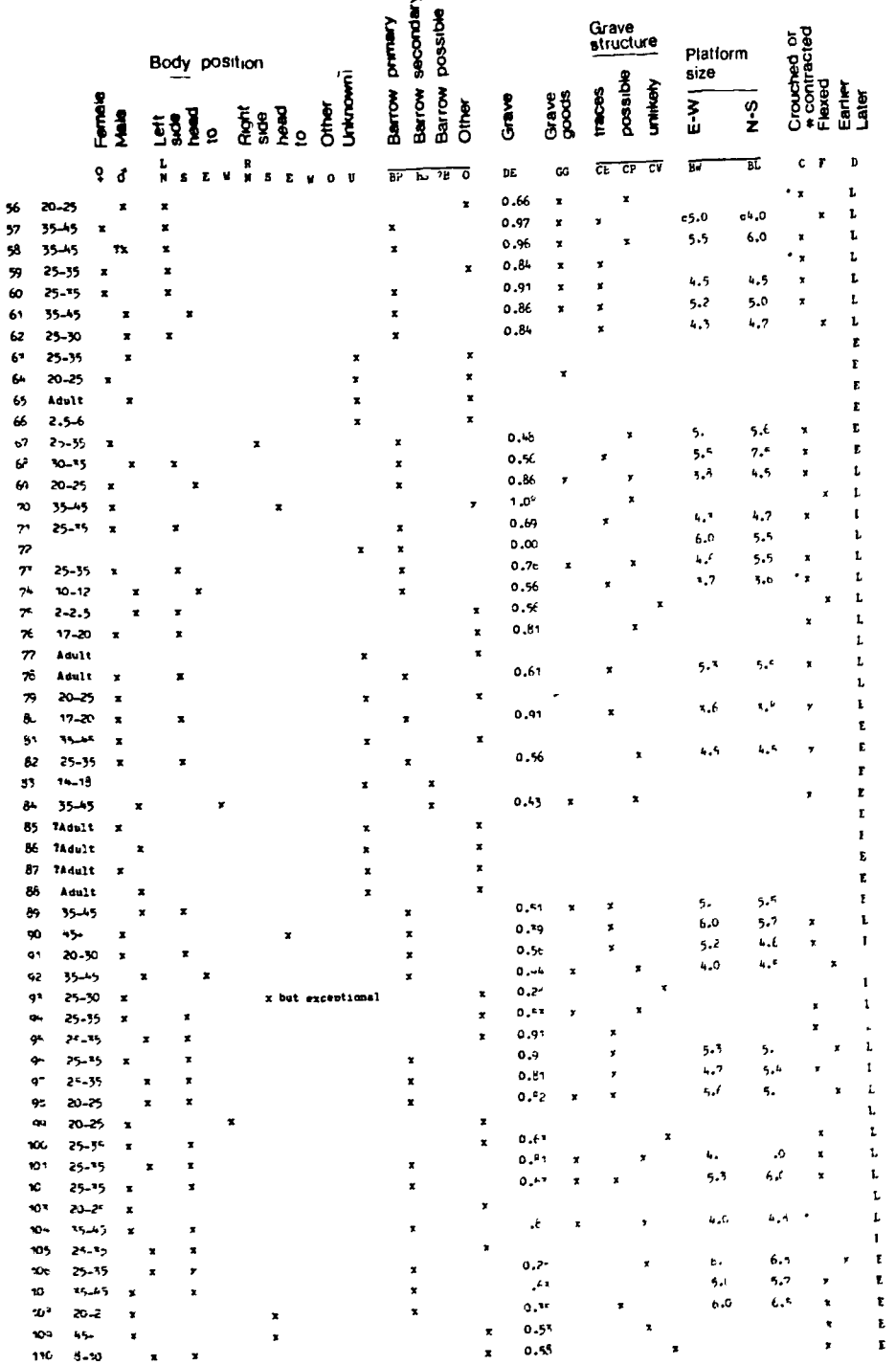
In the third century there was a decline in imports and insular metalwork ceased to show strong similarities to continential prototypes, a process which apparently coincided with the emergence of the first art which was distinctively British (Jacobsthal Style IV : Stead forthcoming). During this period British village settlements, as opposed to homesteads of the Little Woodbury/ Gussage All Saints variety (Bersu 1940, Wainwright 1979), are difficult to recognise, but do appear to be open, not enclosed by ditch complexes (Mucking, Essex: Jones 1974; Stanton Harcourt, Oxon: Harding 1974, 26-28, Fig. 3).

Gradual enclosure and re-organisation of such settlements, possibly on new sites, took place during the second century B.C. and this process continued into the first. Whereas a linear settlement had given way to a more compact form at Wetwang Slack, the elongated plan was retained elsewhere and at this time burial was clearly considered secondary to agriculture in importance. The abandonment of the large cemeteries and their re-use as agricultural land was consistent with the development of the available land to contain a growing population. Imported commodities, and possibly artifacts such as the anthropoid sword from North Grimston signal that contacts with the continent were re-established during the later second and first centuries B.C. Weapons from this and other parts of Britain, in conjunction with actual wounds on bones, suggest that social changes were taking place which were not accomplished without a good deal of stress. East Yorkshire provides an example of an area apparently affected by warfare which nevertheless completely lacked hill forts during the Iron Age. The definition of yards, roads, fields and other boundaries by ditches, fences, hedges and walls is a feature which is most commonly seen on Late Iron Age sites, and the need to mark them in this way is probably due to the larger number of people living in a finite area of land. New features in the first century B.C. and later are single farmsteads, usually within rectlinear ditched enclosures which more often than not adjoin trackways. These appear to represent a new phase of settlement, in which the population of the villages expanded to outlying farms and these continued as a feature of Roman Britain. The Late Iron Age saw innovations such as wheel made pottery and coinage which represent fundamental changes in commerce. In the south and east cremation as a burial technique became popular and the economy of this system is demonstrated at King Harry Lane, St. Albans, where 481 burials occupied an area of less than 0.4 hectares (Stead 1969). These features have been interpreted as indications of a further series of invasions, but the evidence which is now accumulating suggests that a steep rise in population may account for a number of changes during the Iron Age and that this was an important factor in determining the rate at which social, ritual and commercial development took place, whether or not the mechanisms by which they were accomplished came from across the English Channel.

APPENDICES

APPENDIX 1.1 : TABLE OF BURIALS.

		Female ♀	Male ♂	Body position: Left side head to	L	S	E	W	Right side head to	N	E	W	O	U	Other	Unknown	Barrow primary BP	Barrow secondary BS	Barrow possible PB	Other O	Grave DE	Grave goods GG	Grave structure: traces CB	possible CP	unlikely CV	Platform size: E-W Bw	N-S BL	Crouched or * contracted C	Flexed F	Earlier E	Later L
1	20-25	x			x															x	0.23			x				x		E
2	2½-6		x							x										x	0.37				x			x		E
3	3-4															x				x										E
4	25-35	x			x													x			0.41			x		4.0	c5.0	x		E
5	Adult	x			x													x			0.27			x		5.0	c5.0	x		F
6	30-40	x								x									x		<0.27				x			x		E
7	12-14															x				x										E
8	35-45	x			x													x			0.49			x		c4.5	c4.5	x		F
9	20-25	x														x				x										E
10	25-35	x				x												x			0.46			x		5.0	c5.0	x		E
11	35-45		x		x															x	0.84				x			x		E
12	35-45		x		x													x			0.51			x		5.5	5.6	x		E
13	14		x		x													x			0.60			x		3.5	3.5	x		E
14	45+		x		x														x		0.67			x					?	L
15	20-25	x			x															x	0.76			x				x		E
16	35-45		x							x										x	0.46				x					F
17																x		x			0.00					7.	8.5			E
18	6-18	x								x								x			0.68			x		5.0	5.0		x	E
19	25-35	x			x													x			1.19		x			6.0	6.0		x	E
20	35-45		x															x			0.63			x		5.5	5.5	x		E
21	20-25	x			x													x			0.66		x			5.7	5.	x		F
22	35-45		x		x														x		<0.66			x				x		E
23	35-45		x		x													x			0.61	x		x		c5.0	5.5	x		E
24	25-35	x			x													x			0.69			x		4.0	4.0	x		E
25	9-10			x?	x													x			0.43			x		3.0	3.3	x		E
26	35-45	x				x												x			0.57	x		x		5.5	4.4	x		F
27	25-35	x														x				x										E
28	25-35	x				x												x			0.46			x		3.5	4.6	x		E
29	16			x												x				x										E
30	20-25			x		x												x			0.27			x		7.0	7.2	y		E
31	25-35			x												x		x								4.5	4.2			L
32	25-35	x			x														x		0.74		x					x		L
33	35-45			x?							x									x	0.74									L
34	25-35			x			x											x			0.68	x		x		4.4	4.5	x		L
35	18-21	x				x														x										L
36	24-35	x					x											x			0.89			x		4.2	5.0	x		L
37	23-25			x		x														x	0.57			x				x		L
38	1	x														x				x	0.30				x					I
39	25-35			x		x														x	0.61			x				x		L
40	35-45	x				x														x	0.28			x					y	L
41	35-45			x		x														x	0.74			x				x		L
42	2-4					x														x	0.54				x				x	I
43	25-35			x						x										x	0.46			x				x		L
44	25-35	x				x												x			0.71			x		c5.0				L
45	20-25			x												x				x										L
46	20-25			x		x												x			1.0.		x			c5.0	5.0	y		L
47	25-35			x		x												x			0.51			x		3.5	3.4	x		L
48	25-35	x				x												x			0.71			x		4.5	c3.4	y		L
49	0.5					x														x	0.51				y					L
50	0.5															x				x	0.23				x					L
51	?															x				x	0.30				x			y		L
52	0									x										x	0.35								x	L
53	35-45	x				x												x			0.81	x			x	7.	7.0			L
54	20-25	x				x												x			1.07			x		7.0	6.7	x		L
55	25-35	x				x												x			1.07	x		x		7.0	6.7	y		L


Body position
Grave structure
Platform size
Female
Male
Left side head to
Right side head to
Other
Unknown
Barrow primary
Barrow secondary
Barrow possible
Other
Grave
Grave goods
traces
possible
unlikely
E-W
N-S
Crouched or contracted
Flexed
Earlier
Later
♀
♂
L
R
N
S
E
W
O
U
BP
BS
BE
O
DE
GG
CE
CP
CV
BW
BL
C
F
D
but exceptional

				Body position																Grave structure			Platform size				
		Female	Male	Left side head to				Right side head to				Other	Unknown	Barrow primary	Barrow secondary	Barrow possible	Other	Grave	Grave goods	traces	possible	unlikely	E-W	N-S	Crouched or contracted	Flexed	Earlier Later
		♀	♂	L N	S	E	W	R N	S	E	W	O	U	B	BS	?B	O	DE	GG	CB	CP	C?	Be	EL	C	F	
111	Adult		x	x													x										L
112	35-45	x		x										x				0.66			x		4.?	c5.1	x		L
113	20-25	x				x											x	1.09		x						x	L
114	17-20		x	x										x				.74	x	x				c5.6	x		L
115	25-35	x		x										x				0.84	x	x			5.	5.?	x		L
116	25-?5	x			x									x				0.79			x		6.3	5.	x		L
117	35-45		x	x										x				0.84	x	x			5.3	6.0		x	L
118	20-25	x		x										x				0.9?		x			4.5	7.5		x	L
119	20-24		x	x										x				0.32		x			?.1	4.?	x		L
120	20-2?		x	x										x				0.89			x		4.0	5.?		x	L
121	17-1?		x	x										x				0.74	x		x		?.7	4	x		-
122	35+		x			x											x	0.49				x			x		
123	20-25	x		x										x				0.7?			x		4.	4.	x		[illegible]
124	2?-3?	x		x										x				0.7?	x	x			.C	4.?	x		
125	Adult	x		x										x				0.1?			x		c4.?	c5.	x		
126	20-25		x	x													x										[illegible]
127	2?-?5	x		x										x				.??		x			6.?	6.	x		[illegible]
128	20.2?		x						x					x				0.27		x			6.	?.		x	.
129	25-?5		x	x										x				0.46	x		x		4.?	4.?	x		
130	25-?5	x		x										x				0.5?	x	x			5.?	?.			
1?	Adult		x	x										x				0.6?			x		5.2	?.	x		
132	35-45	x						x							x			0.66	x			x				x	
??	35-45	x						x							x			0.20	x		x				x		
13?	25-?		x	x										x				0.5?		x			.	?.?	x		[illegible]
1?5	20-2?		x	x										x				0.7?				x	4.	?.?		x	[illegible]
?6	?5-4?	x		x										x				0.7?	x	x			4.6	?.	x		L
1??	20-25	x		x										x				0.76	x	x			4.2	?.?	x		-
?3	25-??		x	x												x		0.46	x		x					x	L
139	25-35	x			x									x				0.30	x		x		6.?	5.5	x		E
140	2.5-6		x					x									x	0.45			x				x		E
141	2.5-6	x		x													x	0.40			x				x		E
142	35+		x?		x									x				0.5?		x			8.1	7.2		x	E
?3	25-35		x							x							x	0.69				x			x		E
14?	2.5-6	x		x													x	0.51				x			x		L
1?5	35-45	x		x										x				1.04	x	x			4.6	4.	x		1
14?	25-35		x	x										x				0.??	x		x		6.0	5.?	x		
?7	?5-45	x		x										x				0.5?		x			c4.?	4.	x		
[illegible]	35-4?		x	x										x				0.5?		x			4.	[illegible]	x		
1??	25-3?	x		x										x				0.3	x		x		[illegible]	4.	x		
15?		x		x													x	0.3				x					
15?	17-18?	x		x													x	0.6?									
152	35-45		x	x										x				0.5?		x			7.?	[illegible]			
[illegible]	25-?	x												x				0.17			x		[illegible]	5.?	x		
15?	25-32		x				x										x	1.??	x			x				x	
[illegible]	25-3?	x		x										x				.??	x	x			[illegible]	3			
15?	25-?5	x						x						x				0.2?		x			6	6			
[illegible]													x	x				0.5?					5	6.			
[illegible]	[illegible]		x	x										x				0.?	x	x			.	5.?	x	x	
[illegible]	C		x							x							x					x	7.	6?		x	x
[illegible]	?5-??		x	x										x				.5?	x		x						
[illegible]	?5-4?		x					x						x				0?	x	x			4.?			x	
[illegible]	[illegible]	x		x													x	0.6				x	ε	6?.?	x		-
[illegible]	[illegible]	x		x										x				1.0?			x		0.5?	6.		x	
[illegible]	?5-4?		x	x										x				0.6?		x					λ		
[illegible]	?2-?	x						x									x	1.4?				x					

		Female	Male	Body position: Left side head to	N	S	E	W	Right side head to	N	S	E	W	Other	Unknown	Barrow primary	Barrow secondary	Barrow possible	Other	Grave	Grave goods	Grave structure: traces	possible	unlikely	Platform size: E-W	N-S	Crouched or # contracted	flexed	Earlier	Later
		♀	♂		L					R				O	U	PP	BS	B	O	DE	GG	CB	CP	CV	E-W	N-S	C	F	E	L
166	20-25	x				x										x				0.10	x		x		6.8	5.0	x		E	
167	14-18					x										x				0.65	x		x		5.0	5.3	x		E	
168	25-35	x		x												x				0.63		x			3.7	4.1	x		E	
169	35-45	x		x												x				0.74			x		5.5	5.5	x		E	
170															x	x				0.00					9.0	7.0			E	
171	20-25	x							x							x				0.67	x		x		5.0	5.5		x		L
172	18-20		x	x															x	0.75				x			x		L
173	25-35	x		x												x				0.74		x			4.4	c4.4	x			L
174	0														x		x			0.12				x						L
175	Adult								x							x				0.80		x			3.0	4.5	x			L
176	25-35	x?		x												x				0.57			x		6.0	5.5				L
177	8-10		x						x								x			0.56	x			x				x		L
178	25-35		x	x															x	0.90				x						L
179	25-30	x		x												x				0.44	x		x		5.0	6.				L
180	35-45		x				x									x				1.1	x		x		4.6	4.7	x			L
181	25-35	x		x												x				0.79			x		4.	4.	x			L
182	25-3	x		x															x	1.25			x				x		F	
183	2 -30	x		x															x	0.66				x						
184	25-3	x		x														x		1.07			x		5.7	3.5	x		I	
18	35-45		x	x												x				0.54			x		6.0	c5.	x		E	
186	35-45		x						x							x				0.47	x		x		6.5	5.			E	
187	5-35	x		x												x				0.40			x		5.3	6.5	x		F	
18	25-35	x		x												x				1.05			x		4.	4.2	x		L	
189	7-3	x		x															x	1.11				x				x	L	
190	20-25	x		x												x				0.91			x		4.	4.	x		L	
191	Adult		x												x	x				-					4.5	4.5			I	
192	25-35		x	x														x		0.84	x	x					x		I	
193	35-45	x		x												x				0.74	x			x	4.0	c4.0	x		L	
194	25-35		x	x												x				0.60		x			c4.5	c4.5	x		L	
195	35-45	x		x												x				0.70				x	c4.5	c4.5			L	
196	35-45		x			x										x				0.66				x	5.4	5.4	x		L	
197	20-25		x	x												x				0.56				x	4.0	5.2	x		L	
198	25-30	x		x															x	0.91				x			x		L	
199	0														x				x	0.53									L	
200	35-40		x	x												x				0.39				x	5.5	5.4	x		L	
20	4-15		x	x												x				0.54			x		5.0	4.5	x		L	
202	25-3		x	x															x	1.11				x						
203															x	x									5.	5.				
204	Adult														x	x									6.0	5.			E	
20	Adul	x		x														x		0.2	x			x					F	
206	0	?	x						x										x	0.4					x					
207	?Adult		x												x	x									5.0	4.0			E	
20	35-45	x		x														x		0.4				x			x		E	
209	35-45	x					x									x				0.54	x	x			4.	c4.5	* x		F	
21	35-40	x		x												x				0.	x			x	5.5	5.	x		F	
211	25-35	x									x					x				0.17	x			x	c7.5	c7.5		x	L	
212															x	x				0.00					c7.	c5.5			E	
213	Adult	?x													x	x													E	
214	30-3		x	x														x		0.5			x				x		E	
215	30-40	x		x															x	0.8				x				x	E	
216	20-25	x									x								x	0.40					x		x			
21	Adult		x												x	x							x						E	
218	25-35	x		x														x		1.03				x			x		I	
21	25-30	x		x												x				0.4			x		6.0	5.5	x		F	
220	20-25	x											x						x	0.90				x			x		L	

		Female	Male	Body position: Left side head to				Right side head to				Other	Unknown	Barrow primary	Barrow secondary	Barrow possible	Other	Grave	Grave goods	Grave structure: traces	possible	unlikely	Platform size: E-W	N-S	Crouched or # contracted	Flexed	Earlier	Later
		♀	♂	L	N	S	E	W	P	N	S	E	W	O	U	BP	RS	B	O	DE	GG	Cb	cP	CV	B=	BL	C	F	D
221	35-45		x		x											x				0.45			x		c6.0	5.4	x		L
222	35-45		x		x											x				0.45			x		6.5	6.3		x	L
223	35-45	x								x						x				1.07	x		x		4.3	4.5	x		L
224	17-18		x		x														x	0.68				x				x	E
225	Adult	x			x														x	>0.43				x					E
226	35-40	x			x											x				1.01	x		x		4.4	3.5	x		L
227	35-45		x							x						x				0.39			x		5.5	5.0	x		E
228	Adult		x		x											x				0.17				x	6.5	6.0	x		E
229	30-40		x		x											x				0.17				x	6.5	6.0		x	E
230	30-40	x								x						x				0.39	x		x		7.2	6.6	x		E
231	8-9	?x			x														x	0.65			x					x	F
232	6-7		x?							x									x	1.23			x				x		F
233	30-40	x			x											x				0.54	x		x		4.1	5.1	x		L
234	35-45	x			x											x				0.3			x		5.5	6.0	x		L
235	1				x														x	0.30				x					F
236	35-45	x							x							x				0.2	x		x		5.	7.5	x		E
237	Adult	x								x						x				0.14			x		cb.5	5.	x		F
238	35-45		x		x														x	0.1			x				x		E
239	25-3		x		x											x				0.93	x				7.	7.		x	
240	Adult	x				x										x				0.15			x		cb.	cb.0	x		I
241	25-35		x		x											x				1.00			x		4.	4.0	x		-
24	35-45	x											x						x	1.03			x				x		
243	25-35	x			x											x				0.75			x		4.4	4.5	x		I
244	25-35		x										x						x	1.12	x		x					x	I
245	17-20	x			x											x				0.47	x	x			6.7	6.2	x		I
246	25-30	x			x											x				0.43				x	c5.0	c4.5	x		F
247	20-25	x				x										x				0.43			x		5.2	5.0		x	F
248	20-25	x				x										x				0.42			x		6.2	c5.0		x	F
249	35-45	x			x											x				0.48	x		x		4.0	4.1	x		E
250	35-45	x			x											x				0.60	x	x			4.5	4.3	x		L
251	5-35	x								x									x	1.15				x			x		F
252	35-45		x		x											x				0.84	x	x			4.8	5.3	x		L
253	25-35		x		x														x	0.80				x				x	
254	25-30	x					x									x				0.71		x			6.0	5	x		L
255	25-30		x		x											x				0.23			x		7.4	4.7	x		-
256	4-17		x												x				x										
257	25-30	x								x						x				0.32	x	x			4.5	4.5		x	E
258	4-17	x					x												x	0.23			x				x		E
259	35-45		x				x									x				0.44			x		4.5	4.0	x		E
260	35-45	x			x											x				0.46				x	5.1	4.0		x	E
261	Adult		x		x											x				0.06			x		4.4	4.5	-		E
262	35-45	x			x											x				0.35			x		6.5	5.9	x		E
263	40-45	x				x										x				0.40			x		5.6	.9	x		L
264	25-35		x?		x											x				0.39			x		4.4	4.7	x		L
265	35-45		x?		x											x				0.28			x		4.3	4.6	x		L
266	45+		x		x														x	0.80				x			x		L
267	0													x					x	0.44				x					L
268	25-35	x			x											x				0.45	x		x		6.2	6.6	x		L
269	25-35	x				x										x				0.97	x	x			4.4	4.1	x		L
270	35-45	x			x											x				0.39	x	x			4.7	4.4	x		L
271	35-		x		x											x				0.76			x		5.0	5.1	x		L
272	35-45	x									x					x				1.03			x		4.2	4.4	x		L
273	35-40	x			x														x	1.05	x		x				x		L
274	35-45	x			x											x				0.59	x	x			8.7	7.0	x		E
275	Adult	x			x											x				0.51	x			x	6.2	6.3	x		L

				Body position																Grave structure			Platform size				
		Female ♀	Male ♂	Left side head to N	S	E	W	Right side head to N	S	E	W	Other	Unknown	Barrow primary	Barrow secondary	Barrow possible	Other	Grave	Grave goods	traces	possible	unlikely	E-W	N-S	Crouched or * contracted	Flexed	Earlier Later
276	0.5			x													x	0.94			x					x	L
277	35-45	x		x										x				0.93	x		x		[illegible].3	[illegible].7	x		L
278	30-35	x		x													x	[illegible].05							x		L
279	35-45	x												x				0.29	x		x		5.0	.9	x		L
280	35-45		x	x													x	.74			x				x		L
281	25-35	x		x										x				.54			x		4.3	[illegible]	x		L
282	35-45	x							x					x				[illegible].22				x	6.0	c6.4			L
3	45+		x		x												x	.25			x				x		[illegible]
284	[illegible]-45	x						x						x				.[illegible]	x		x		6.1	*5.0	x		E
5	13-21	x		x										x				.2[illegible]		x			6.5	5.5			E
6	[illegible]-45	x												x				.50	x	x			[illegible].0	[illegible]	x		L
287	child												x				x										[illegible]
288	45+	x		x													x	1.03			x				x		L
289	20-25			x													x	[illegible] 03				x				x	L
290	?-35		x	x										x				0.72			x		4.0	4.0	x		L
291	35-45		x	x										x				0.86		x			c4.5	c5.0	x		L
292	25-35	x			x													.90				x				x	L
293	[illegible]-30	x		x										x				.92					4.6	4.3	x		L
4	25-35	x												x				.61			x		4.4	4	x		L
295	-35		x	x										x				.41	x		x		5.0	[illegible].0	x		L
296	20-25	x		x													x	0.61			x					x	?
297													x	x				.00					6.0	7-8			E
8	6-7			x													x	0.38			x						E
299	25-35		x					x									x	0.82			x				x		E
300	0											x					x	.44				x					E
301	25-3	x								x							x	.60				x			x		W
30	30-35		x					x						x				0.18			x		.7	5.	x		F
303	35-45	x		x										x				0.43		x			6.8	6.3	x		E
304													x	x				0.					9.[illegible]	7.[illegible]			E
305	25-30	x		x										x				0.[illegible]			x		7.5	6.	x		E
306	35-45		x	x													x	0.6[illegible]			x				x		E
307	25-35		x	x													x	.3[illegible]				x			x		F
308	15-17	x		x													x	.[illegible]				x			-		F
309	35-45	x		x														.5	x	x			[illegible]	[illegible]			.
31[illegible]	0							x										.[illegible]									
3[illegible]	25-3[illegible]	x			x									x				.[illegible]			x		c.	[illegible].	x		
3	25-3[illegible]		x	x										x				.					.	.	x		[illegible]
[illegible]	40+	x		x													x	.[illegible]							x		[illegible]
3[illegible]	[illegible]	x						x									x	[illegible]				x					
3[illegible]	40+	x						x										.							x		
3[illegible]	35-4[illegible]	x		x										x				.[illegible]					[illegible].	[illegible].	x		[illegible]
3	[illegible]5-[illegible]					x											x	[illegible].				x					[illegible]
31[illegible]	35-4[illegible]		x					x									x	.[illegible]				x					
[illegible]	25-3[illegible]		x					x						x				.					5.	.	x		
3[illegible]	30-3[illegible]	x		x													x	.							x		[illegible]
[illegible]	1[illegible]		x					x									x	.							x		[illegible]
[illegible]	35-							x									x	.[illegible]			x						[illegible]
3[illegible]	[illegible]-3[illegible]		x	x													x	0.[illegible]							x		E
3[illegible]	10-12							x										0.			x					x	F
3[illegible]	20-25	x						x						x				.[illegible]			x		6.[illegible]	c[illegible]			F
[illegible]	[illegible]25-[illegible]5							x									x	0.7[illegible]			x						[illegible]
[illegible]	4[illegible]+		x			x								x				0.[illegible]	x				c[illegible].				F
[illegible]													x	x				0.					6.[illegible]	.			E
3[illegible]	[illegible]-4[illegible]	x		x													x	0.[illegible]			x				x		E
[illegible]	Adul.	?x						x						x				0.24				x	6.	4	x		E

		Female	Male	Body position: Left side head to	E	W	Right side head to	E	W	Other	Unknown	Barrow primary	Barrow secondary	Barrow possible	Other	Grave	Grave goods	Grave structure: traces	possible	unlikely	Platform size: E-W	N-S	Crouched or # contracted	Flexed	Earlier Later
		♀	♂	L N	S	E	R N	S	E	W	O	U	BP	BS	BB	O	DE	GG	CS	CP	CV	Ew	Ns	C	F	D
331	35-45	x			x								x				0.43			x		c4.9	c4.0		x	E
332	14-15		?x					x					x				0.45			x		4.0	3.0	x		F
333											x		x				0.00					5.9	7.2			E
334	35-45		x								x					x	0.63				x				x	E
335	Adult	x			x								x				0.34			x		6.4	5.	x		E
336	15-16						x							x			0.49	x			x				x	F
337	2.5-6										x					x										E
338	Adult	x		x											x		.5			x					x	E
339	2.5-6						x									x	0.50			x					x	F
340	25-35	x		x												x	0.49				x				x	F
341	Adult		x					x					x				0.09					c.9	5.	x		-
342	25-35	x		x												x	0.61			x				x		F
343	2 -3	x				x										x	0.				x				x	F
344	6-1							x									.46			x				x		-
345	12- 4		x				x						x				0.					5.7	5.			
346	35-45		x										x				0.64	x	x			3.	3.7	x		L
347	35-45		x	x									x				0.56					c4.0	3.			-
348	45-	x				x							x				0.5			x		c4.7	3.	x		L
349	35-45	?x				x										x	0.4	x			x			x		E
350	3.5		x								x		x				< .2					co.	. .			E
351	Adult		x	x													0.2								x	-
352	5-9		x				x							x			.3							x		F
353	23-25	x					x										0.37			x				x		
354	30-3	x		x													.37				x				x	F
355	35-45			x													.6									
356	25-35	x		x										x			.5									
357	25-	x		x									x				0.62			x		4.		x		F
358	5-9		x													x	0.7									-
359											x		x				.00					.5	.9			E
360	35-	x		x												x	.4	x						x		E
361	-9	x		x												x	.26									F
2	-9		x												x		.06							x		E
3	-3																.	x						x		E
4	2-10			x													.							x		E
5	4-17		x													x	.									E
6	9-9	x		x													.45							x		E
7	12-16		x										x				.20					.9	.7		x	E
8	.5-6		x																		x			x		E
9	-1	x		x																						E
10	4-40							x								x	.34			x						
11											x		x				.					1.2	.2			F
12	7-9			x												x	.21				x			x		E
13	.5-3			x													.15			x					x	E
14	-6			x													.19			x					x	E
	35												x				.3					.2	.4	x		-
16	5-15	x															.27									x
17	-25		x	x												x	.6			x						-
2	7- 3		x										x				.3			x		.	.			E
19	-35		x	x										x			.			x					x	L
20	-.		x	x										x			.				x					E
21	5-9			x										x			.40			x				x		F
22	15-	x					x									x	. 2				x			x		?
23	35-40		x	x									x				.48			x		6.6	7.4	x		L
24	45-		x				x						x				0.54			x		- 2	.4	x		E
25	70-30	?x		x												x	0.40				x			x		E

No.	Age	Female ♀	Male ♂	Body position: Left side head to N	S	E	W	Right side head to N	S	E	W	Other O	Unknown U	Barrow primary B	Barrow secondary BS	Barrow possible BP	Other O	Grave DE	Grave goods GG	Grave structure: traces CB	possible CP	unlikely CV	Platform size E-W Bw	N-S Bw	Crouched or contracted C	Flexed F	Earlier Later D
386	35+		x	x												x		1.03			x				x		L
387	2-2.5							x									x	0.40			x				x		E
388	25-30		x									x		x				0.34				x	5.?	6.5			E
389	35+		?x	x											x			0.16				x			x		E
390													x	x				0.00					8.0	6.0			E
391	30-40	x		x													x	0.4?	x			x			x		E
392	25-35	x		x													x	0.60				x			x		E
393	6-?0												x				x										E
394	30-40	x		x										x				0.5?			x		4.0		x		E
395													x	x				0.0?					5.?	5.?			E
396	8-10							x									x	0.2?			x				x		E
397													x	x				0.00					8.?	?.			E
398	2-2.5				x												x	0.??			x				x		E
399	25-30	x		x													x	0.20				x				x	E
400	Adult	x		x										x				0.1?	x		x		8.?	.?			E
401	0												x				x	0.22			x						E
402	25-?5	?x		x										x				0.0?	x		x		c	c7.?	x		E
403	?5-4?	x		x													x	0.5?			x				x		?
404	25-?5	x											x		x												E
405	Adult		x						x					x				0.09			x		6.?	8.?	x		?
406	Adult											x					x	0.??									?
407	Adult												x				x										E
408	0-0.?							x									x	0.??									?
409	20-??	x							x					x				0.2			x		c?.?	c?.	x		?
410													x	x				0.00					?.?	9.?			?
411	0-0.?							x									x	0.20				x					?
412	0.5-1			x													x	0.5?			x				x		?
413	??+		?x	x													x	0.73			x				x		E
414	?+	x			x									x				?.?7			x		?.?	?.?	x		?
415	??-40	x		x											x			?.?5				x			x		?
416	25-30		x	x													x	.97			x					x	?
417	Adult	x											x				x										?
418	?5-4?	x		x													x	0.8?									?
419	?5-35		x								x					x		0.94	x		x				x		?
420	?5-4?		x	x										x				.31			x		?	?.?			
421	?0-25		?x	x										x				.1?	x		x		?.5	?.5	x		?
422	?.?							x									x	.20				x					?
423	Adult		x											x				0.23			x		?.0	?.4	?		
424	0											x					x	0.?5				x					?
425	Adult	x						x						x				0.09			x		c5.?	c7.4	x		
426	5-17		?x					x									x	0.6?			x				x		?
427	0												x				x	0.43			x						?
428	Adult		x										x	x				0.60					c4.5	c4.?			?
429	?5-30	x			x									x				0.49		x			?.?	?.0	?		?
430												x					x	.40			x						?
431	?5-30	x						x									x	0.67			x				x		?
432	30-35		x	x												x		.94		x					x		?
433	2?-35	x		x										x				0.36			x		?.5	4.0	x		?
434	0			x													x	0.49				x					?
435	35-45		x		x									x				0.71	x	x			7.0	7.0	x		?
436	0											x					x	0.44				x			x		?
437	35-45		x	x										x				0.47			x		?.7	5.?	x		?
438	?5-40	x			x									x				1.07	x		x		5.2	5.4	x		L
439	25-30	x						x						x				0.?8			x		5.5	5.7	x		?
440													x	x				0.00					7.3	7.?			?
441													x	x				0.00					4.	4.5			?
442	35+	x							x					x				0.31			x		2.?	3.7		x	?
443	10-12			x										x				0.1?			x		?.?	3.2		x	?
444													x	x				0.00					4.6	4.?			?
445	35+	x		x										x				0.26			x		c3.0	c3.0	x		
446	25-30	x		x										x				0.4?			x		4.5	5.?	x		?

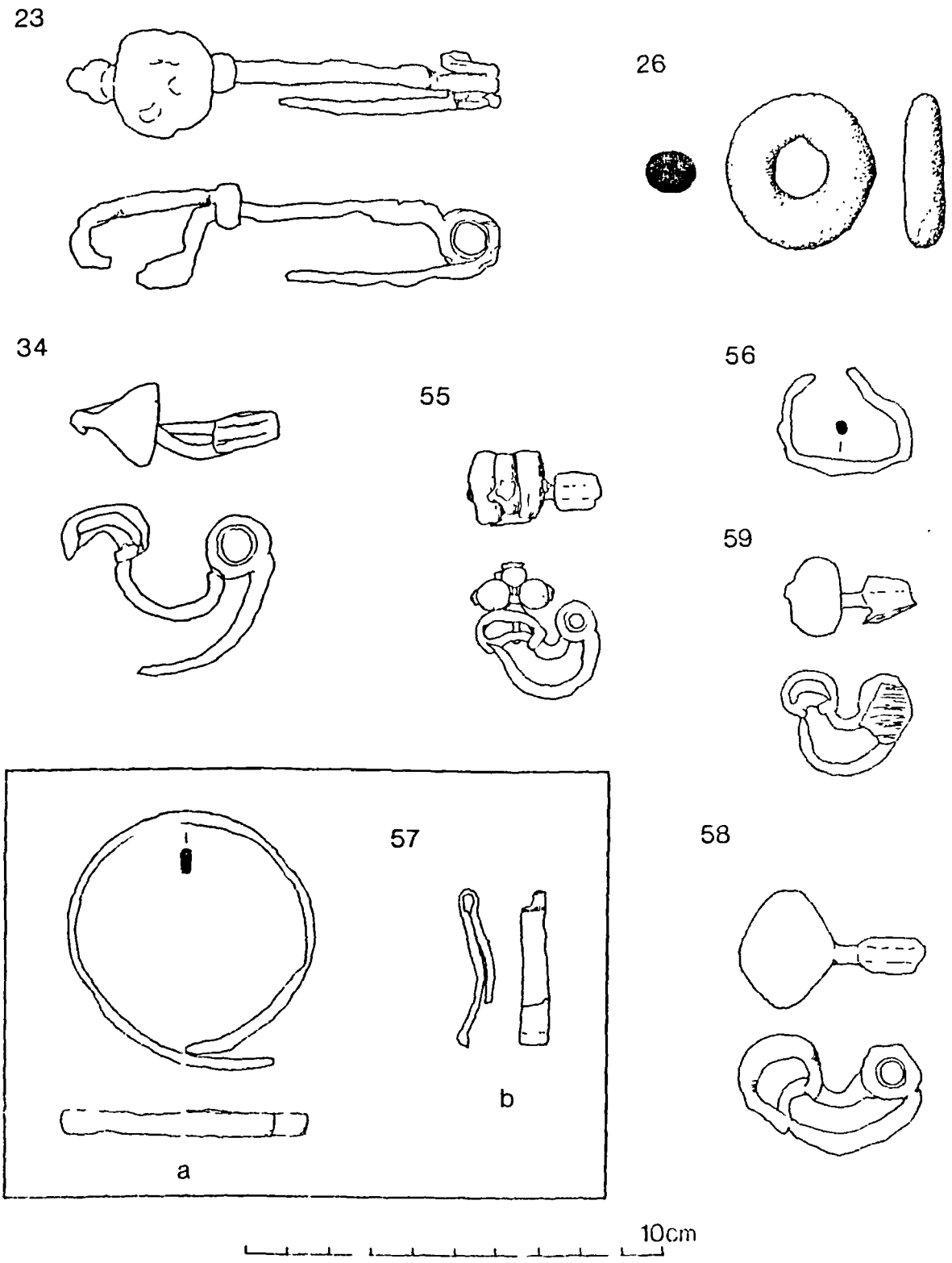
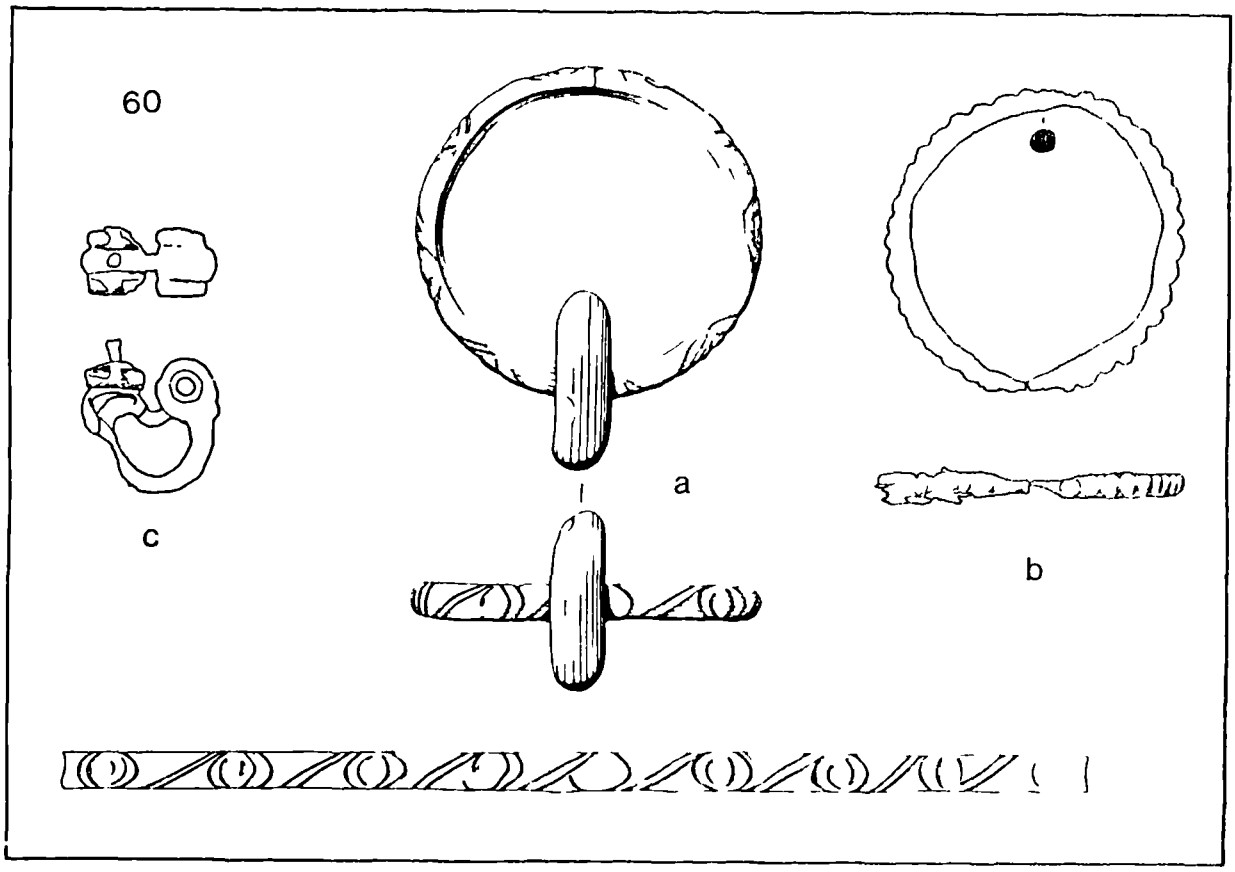


Fig. 41 Grave goods: 23, 34, 56, 57, 58, 59. Iron; 26, Iron, bronze and coral; 55: chalk or lime.ton.



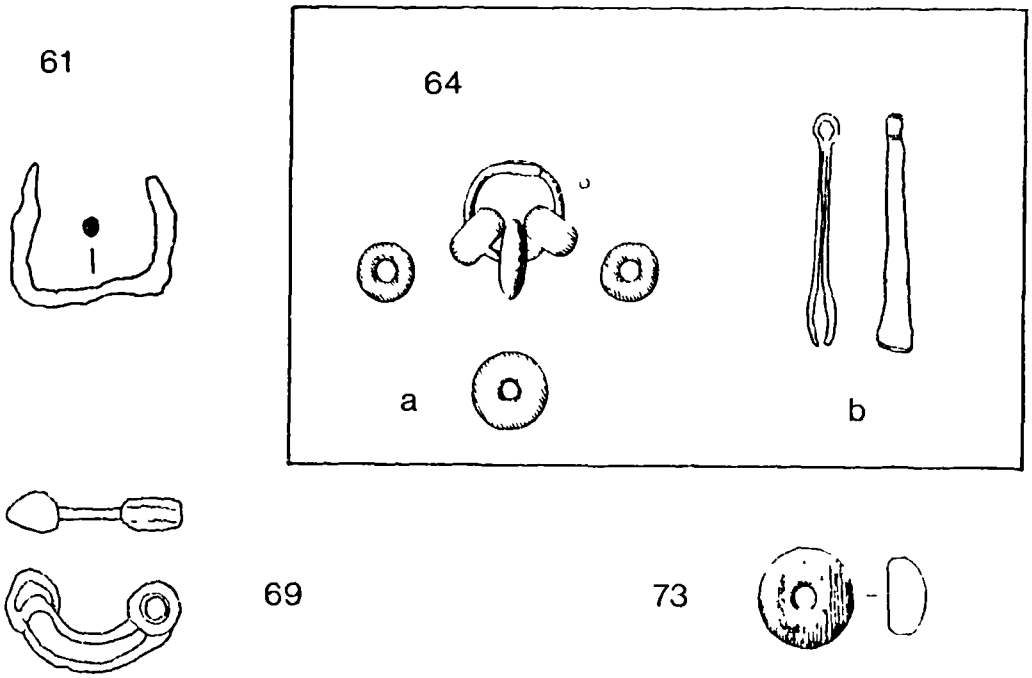


Fig. A2 Grave goods: 60b and c, 61, 64b, 69 : iron; 60a : bronze and shale; 64a : bronze, glass and amber. 73 : amber.

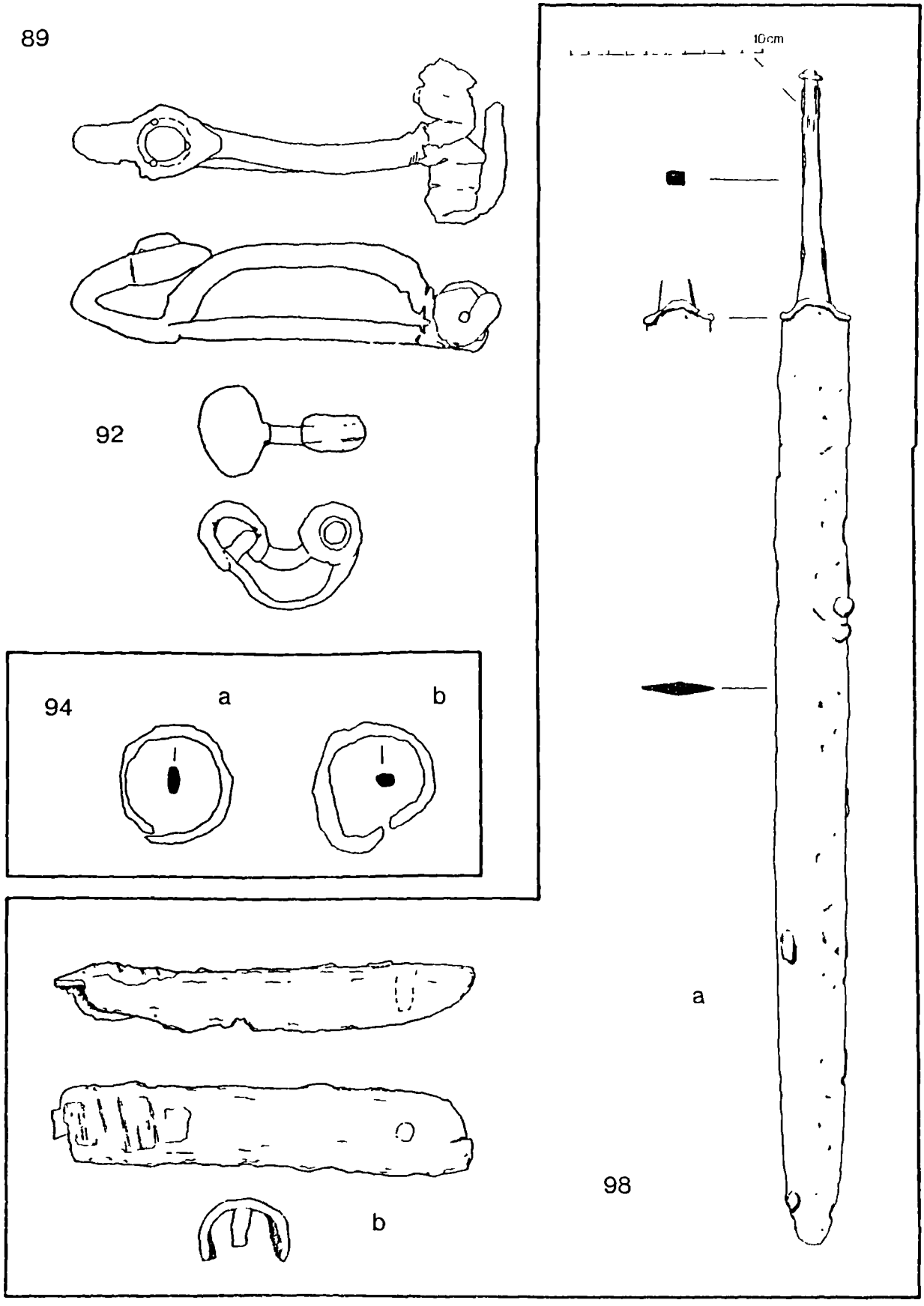


Fig. A3 Grave goods: 92, 94, 98: iron; 89: iron, bronze and coral.

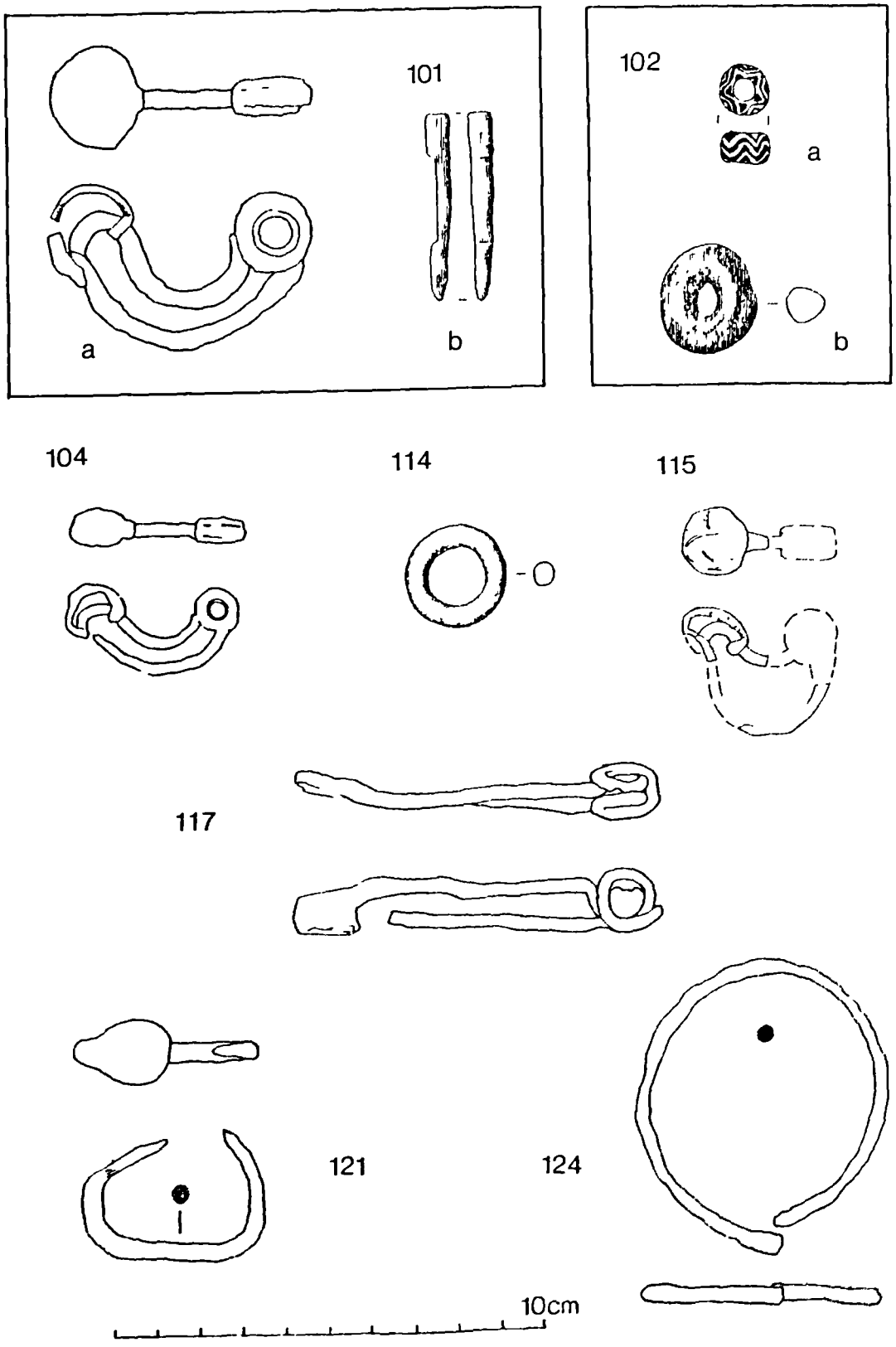


Fig. A4 Grave g od : (1a, 1 b, 1 , , 1, 4: ir n; 1 b, 14: bone; 10 a: gle s; 1 b. jet or .hale.

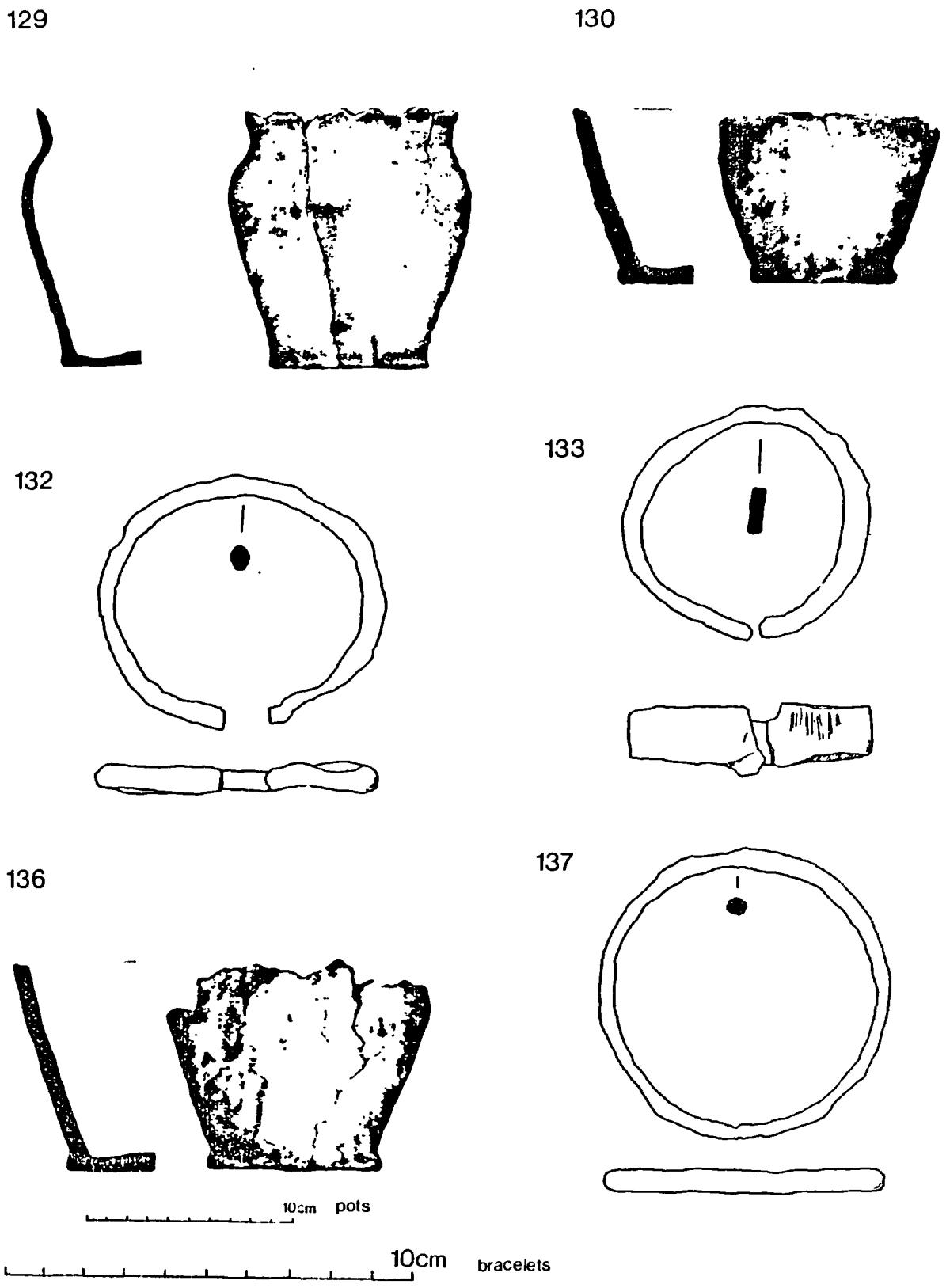
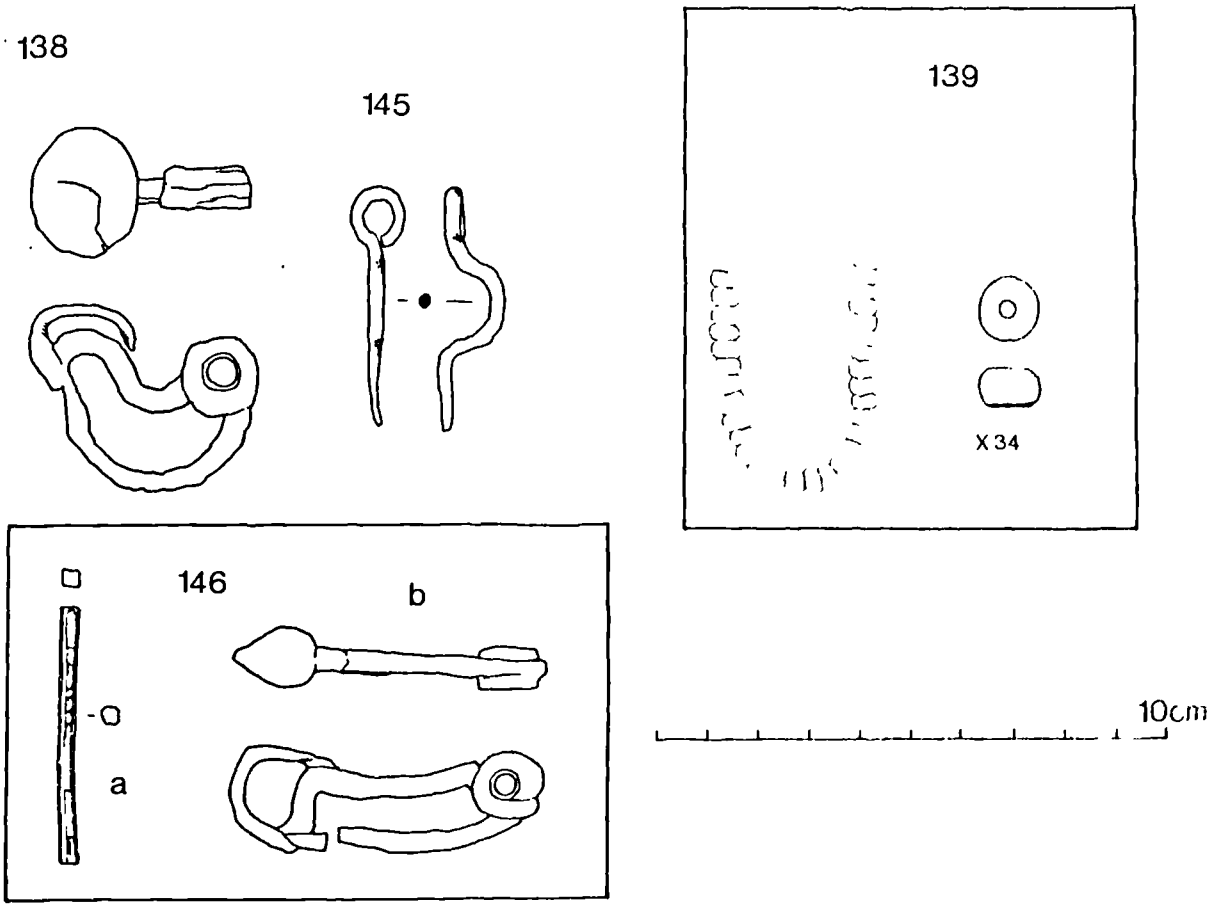


Fig. A5 Grave goods: 132, 133, 137 : iron; 129, 130, 136 : pottery.



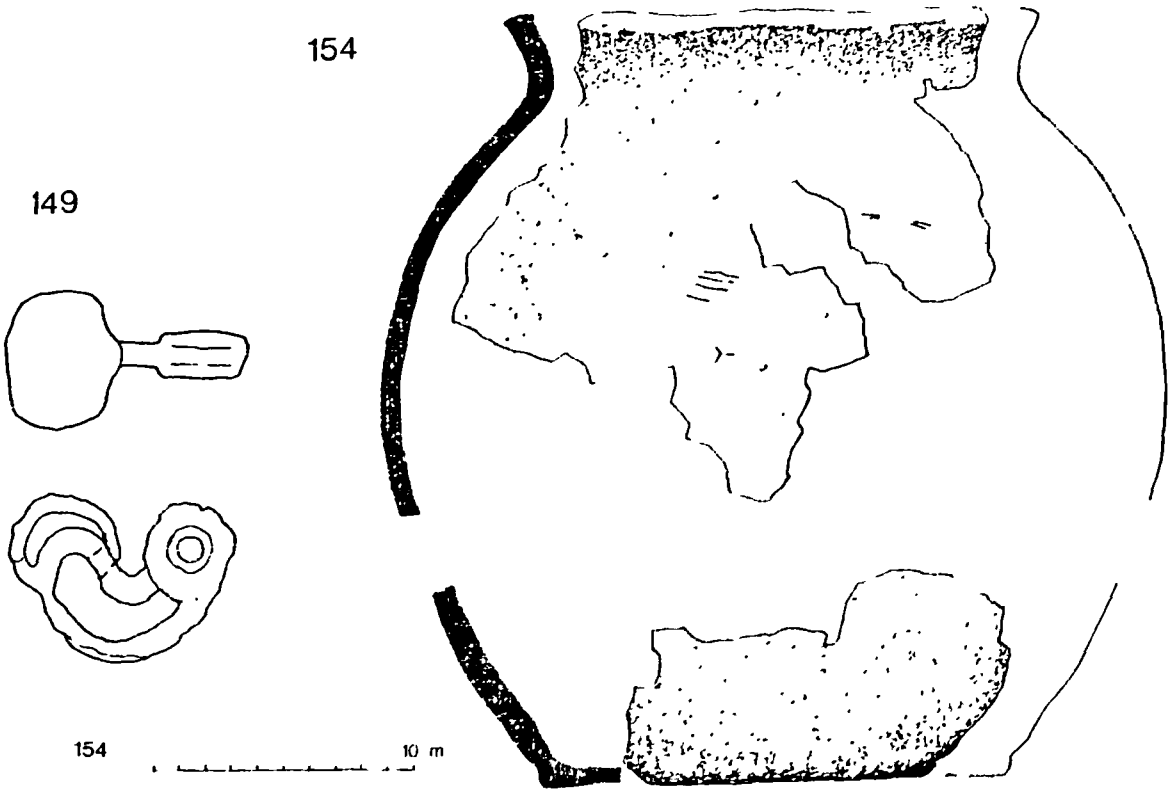
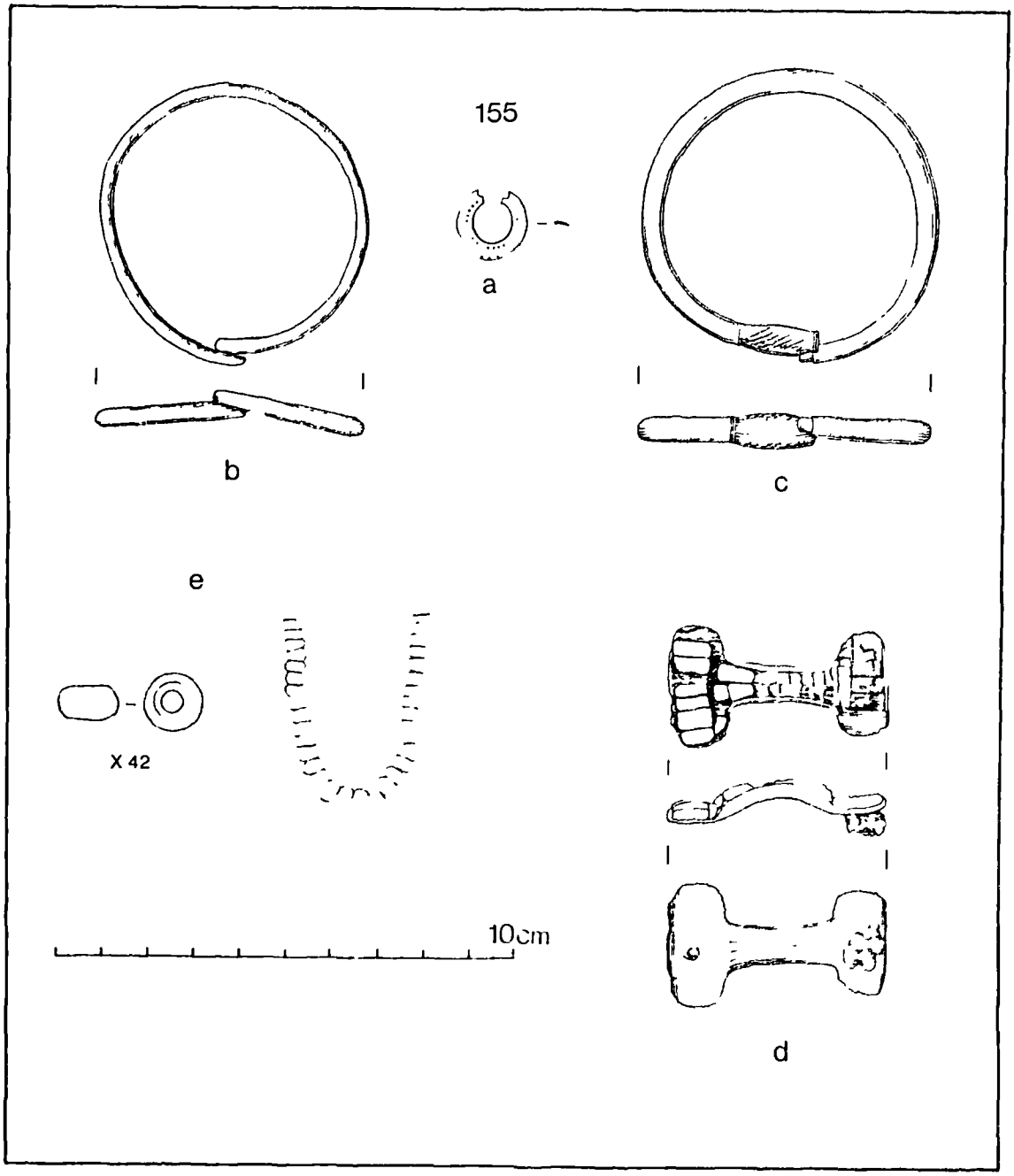


Fig. A6 Grave goods: 138, 145, 146b, 149 : iron; 146a : bronze; 139 : glass; 154 : pottery.



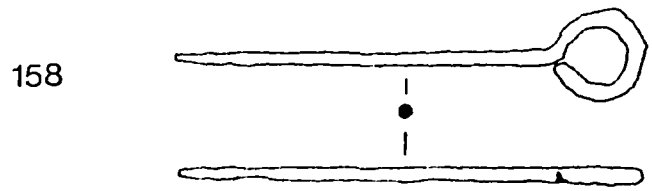


Fig. A7 Grave goods: 158 : iron; 155a, b, c : bronze; 155d : bronze, iron and ? coral; 155e : glass.

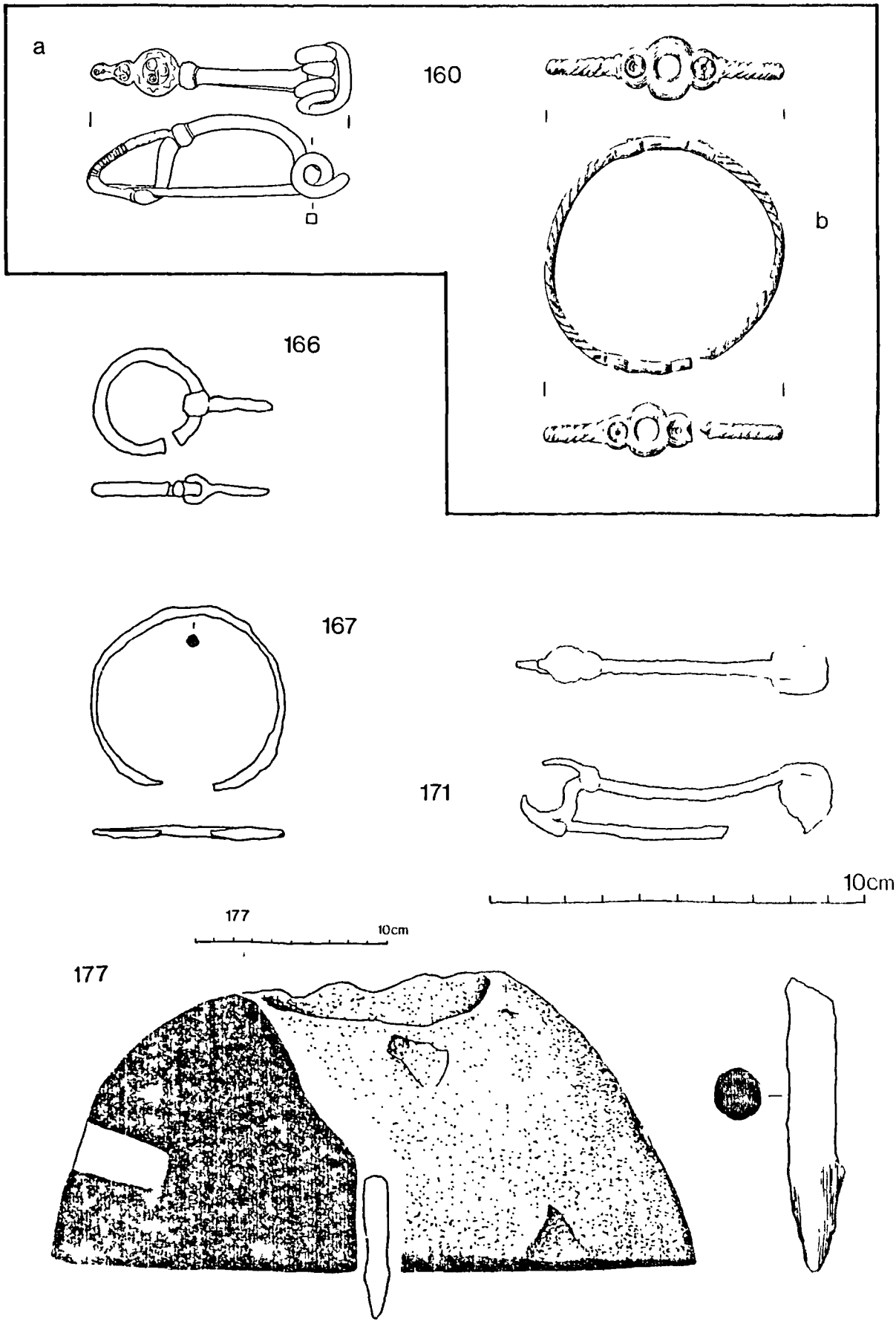


Fig. A8 Grave goods: 166, 167, 171 : iron; 160a and b : bronze; 177 : gritstone and iron.

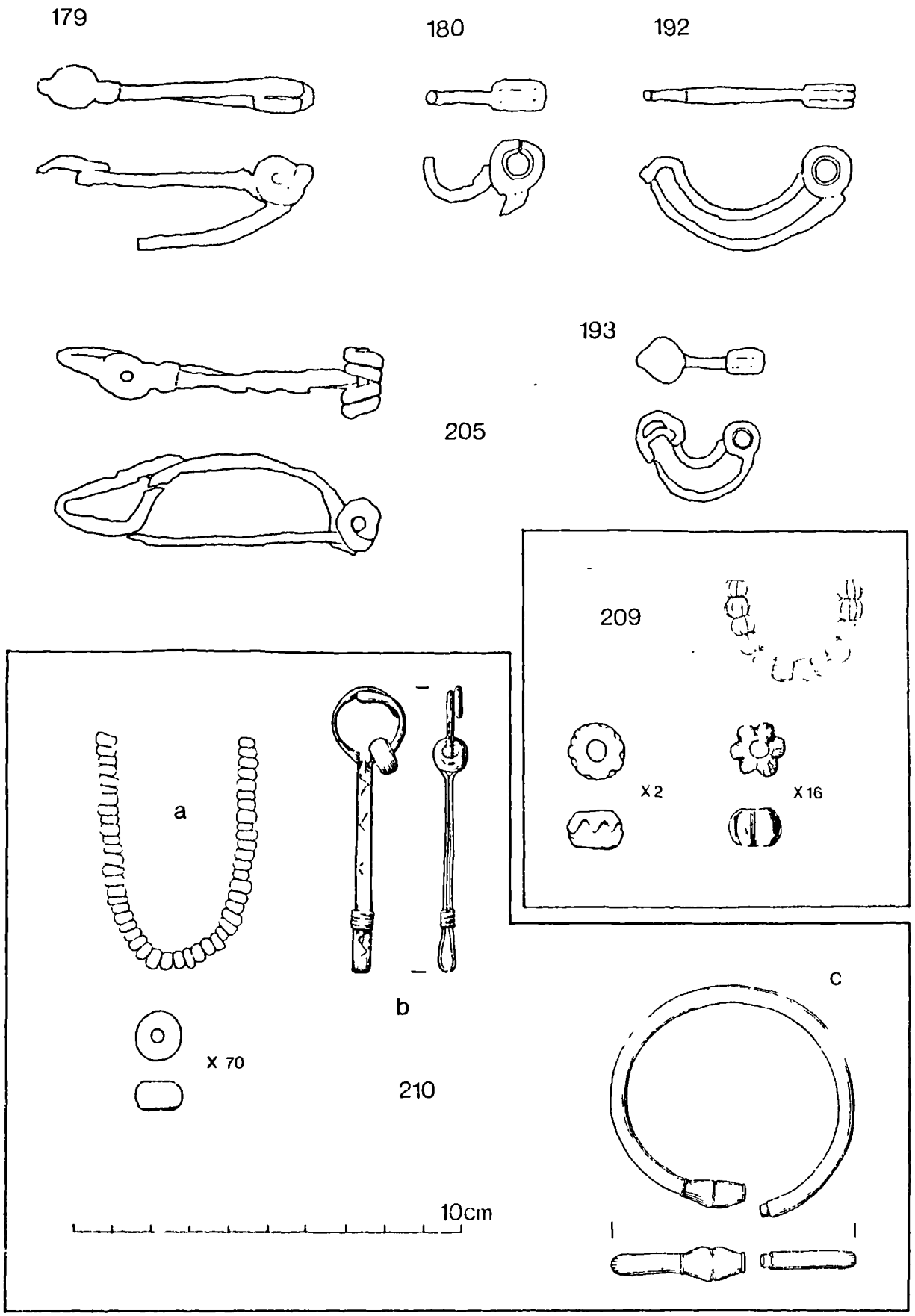


Fig. A9 Grave goods: 179, 180, 192, 193, 205 : iron; 210c : bronze; 210b : bronze and glass; 209, 210a : glass.

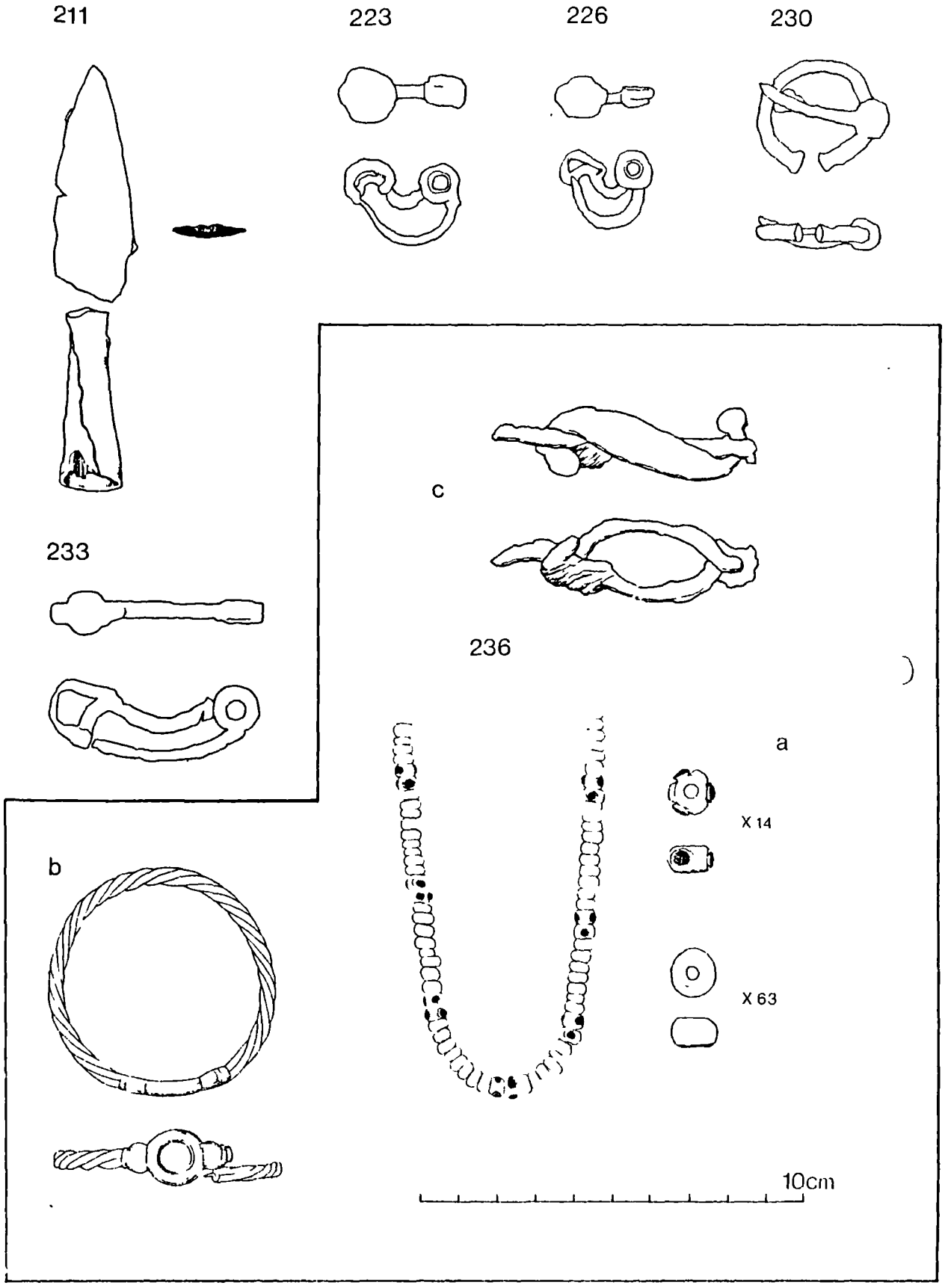


Fig. A10 Grave goods: 211, 223, 226, 230, 233, 236c : iron; 236b : bronze; 236a : glass.

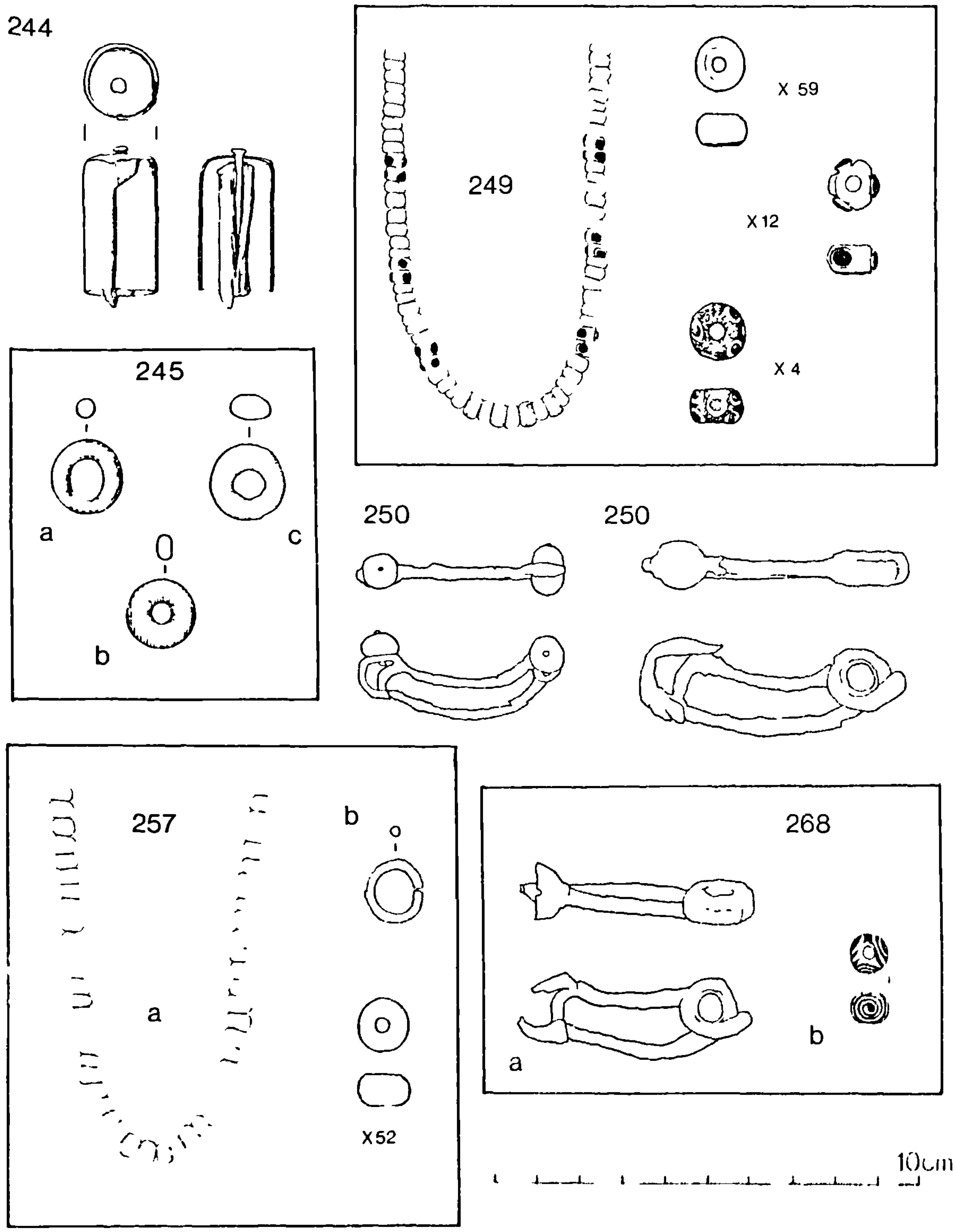


Fig. A11 Grave good[illegible]: iron; [illegible] iron and [illegible]; [illegible], 2[illegible]a, [illegible]: bronze; 249, 2[illegible]a, [illegible], gl[illegible]; 24[illegible]c: [illegible]ber; 2[illegible]b: [illegible]et or shale.

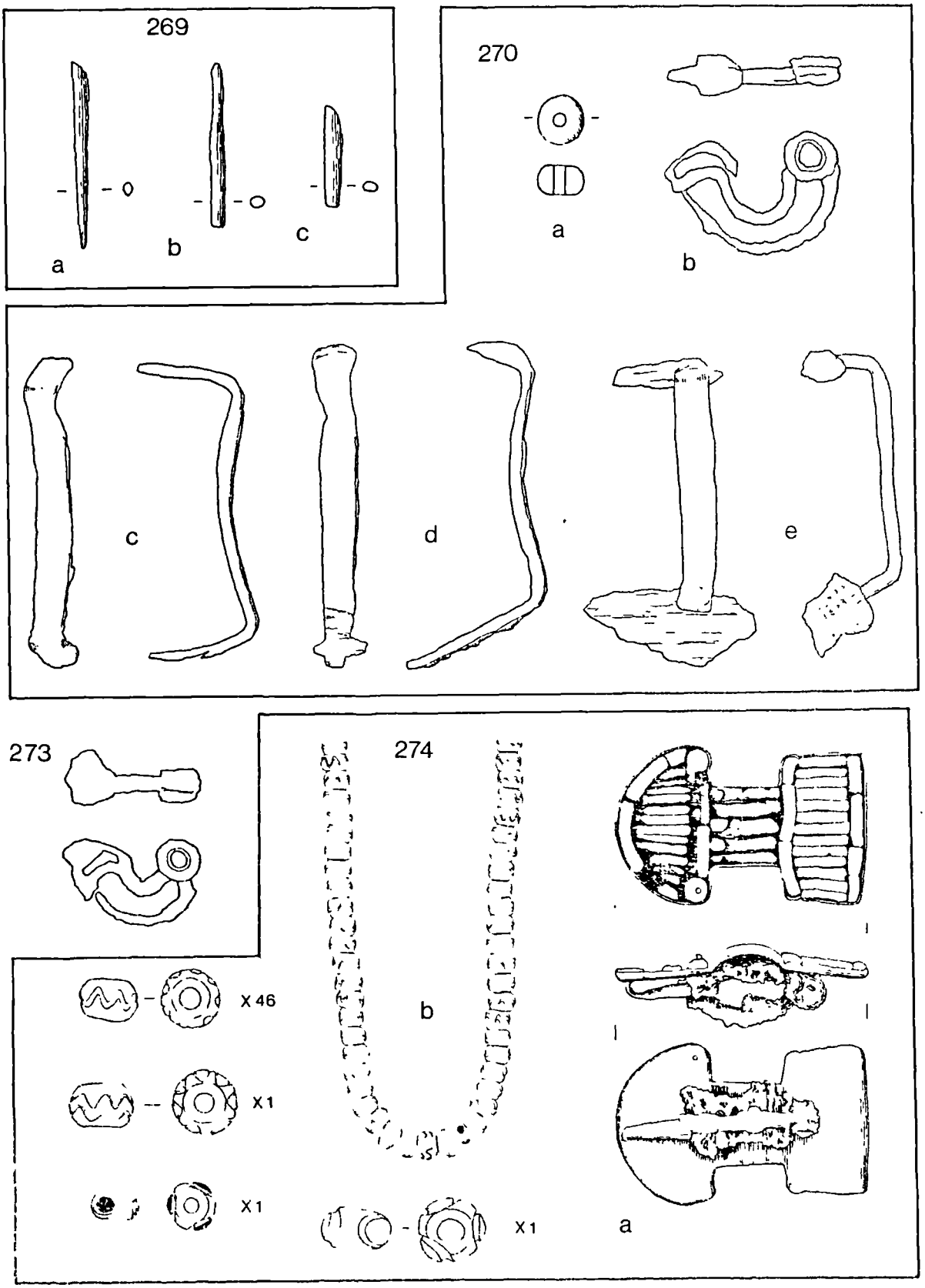


Fig. A12 Grave goods: 270b, c, d, e, 273 : iron; 274a : bronze, iron and coral; 270a, 274b : glass; 269 : bone.

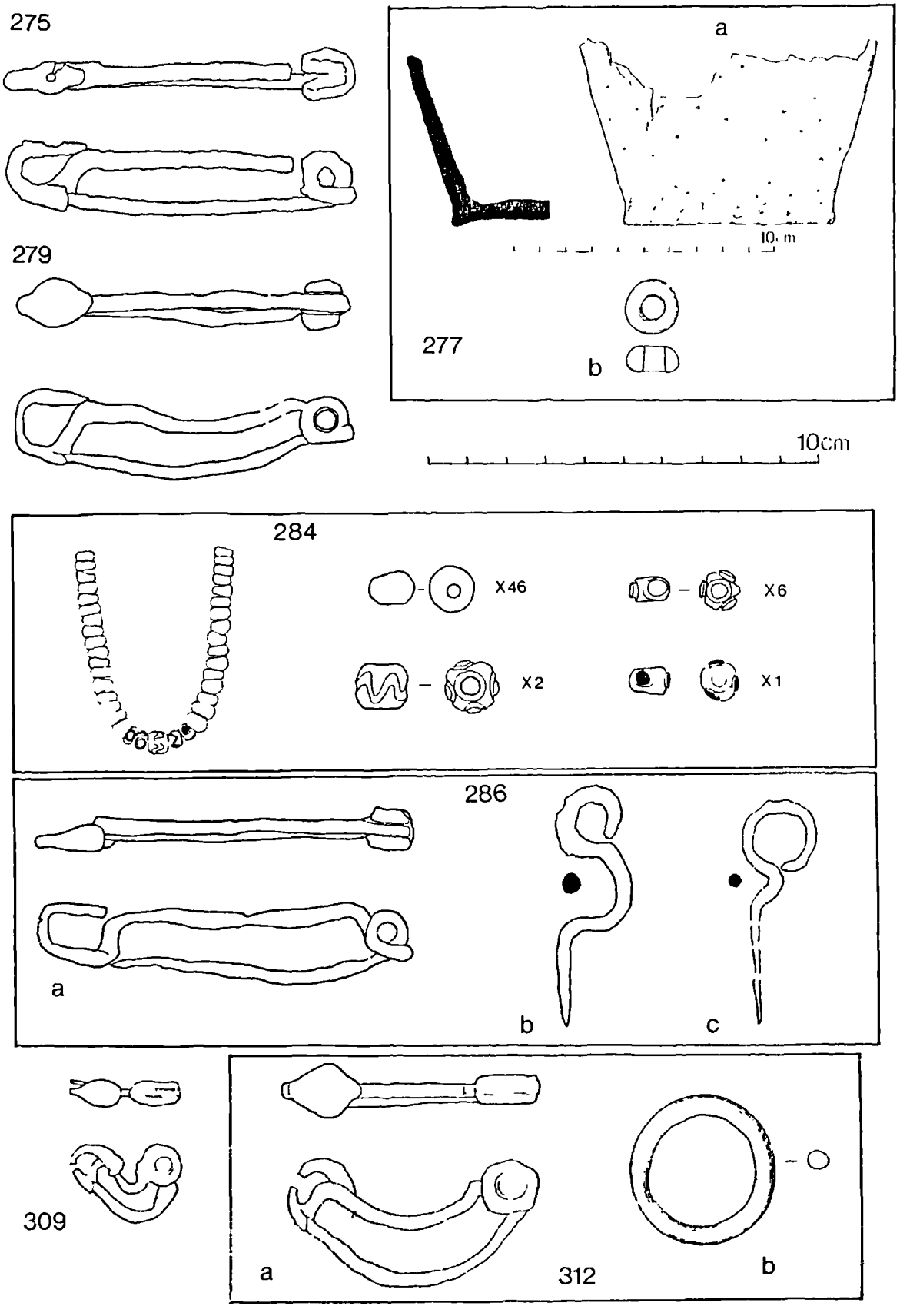


Fig. A13 Grave goods: 275, 279, 286, 309, 312a : iron; 312b : bronze; 277b, 284 : glass; 277a : pottery.

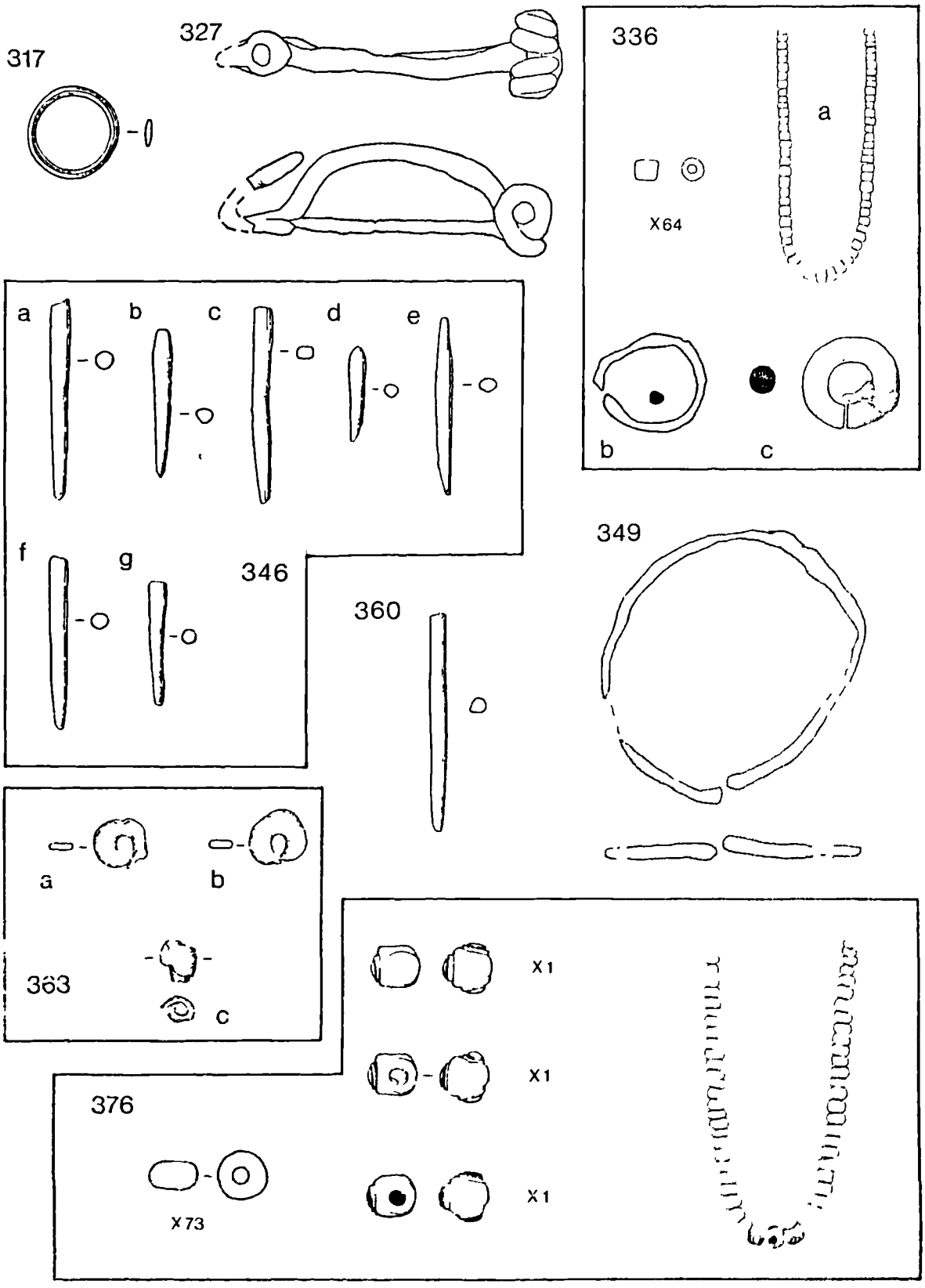


Fig. A14 Grave good : 327, 336 b, c, 349 : iron; 317, 363 . bronz ; 346, 360 : bone; 376 : glass, 336a : j r or shale.

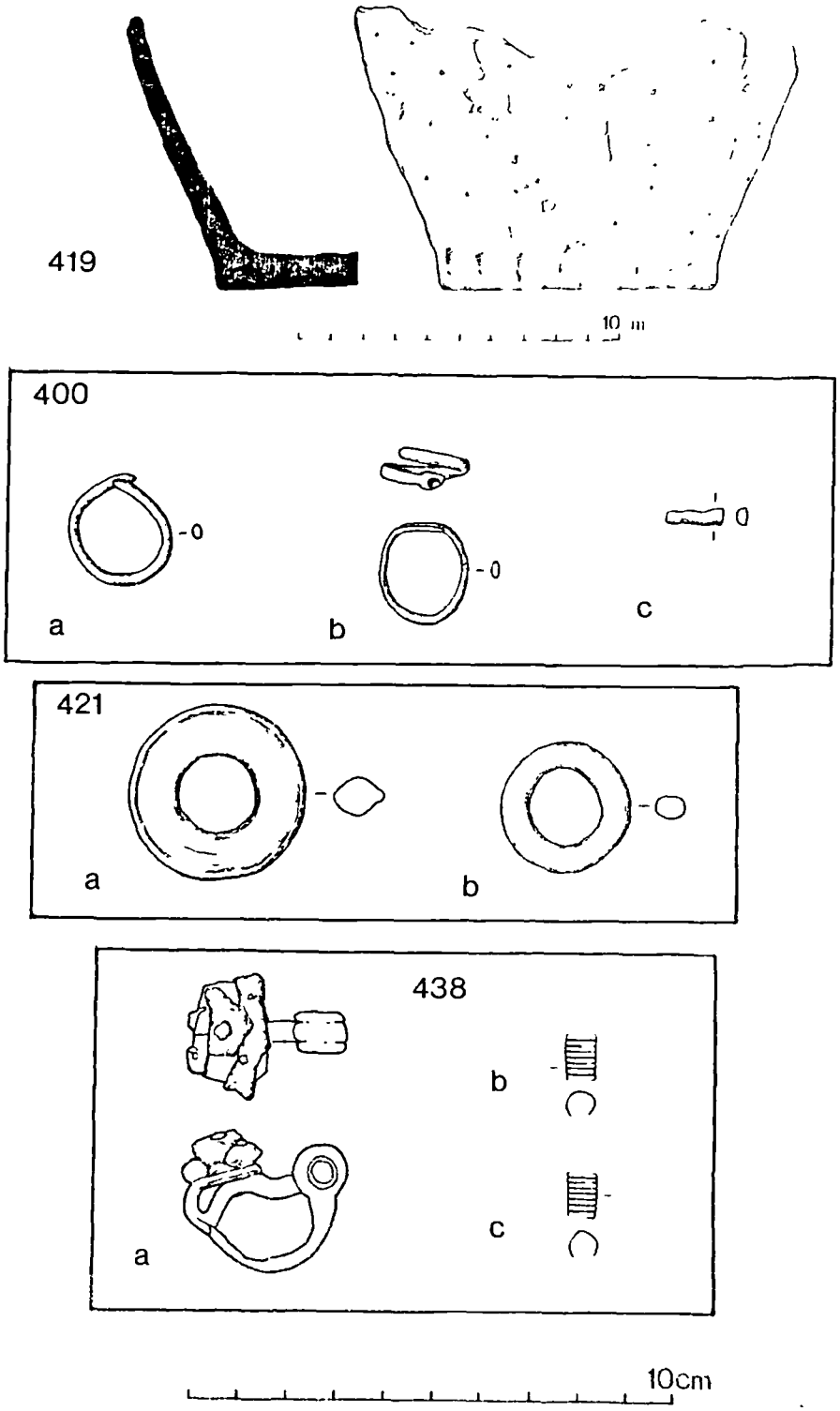


Fig. A15 Grave goods: 400c : iron; 438a : iron, bronze and coral; 400 a, b; 438b, c : bronze; 421a : jet or shale; 421b : bone; 419 : pottery.

APPENDIX 1.2 : GRAVE GOODS

23 (a) Iron Brooch
26 (a) Limestone Ring
34 (a) Iron Brooch
53 (a) Pig Bones
55 (a) Iron Brooch
56 (a) Iron Staple
57 (a) Iron Bracelet
(b) Iron Tweezers
58 (a) Iron Brooch
59 (a) Iron Brooch
60 (a) Bronze Bracelet
(b) Iron Bracelet
(c) Jet Ring
(d) Iron Brooch
61 (a) Iron Staple
64 (a) Pendant
(b) Iron Tweezers
69 (a) Iron Brooch
73 (a) Amber Bead
84 (a) Pig Bone
89 (a) Iron Brooch
92 (a) Iron Brooch
94 (a) Iron Toe Ring
(b) Iron Toe Ring
98 (a) Iron Sword
(b) Iron Shield Mount
101 (a) Iron Brooch
(b) Bone Point
102 (a) Glass Bead
(b) Jet Bead
104 (a) Iron Brooch
114 (a) Bone Finger Ring
115 (a) Iron Brooch
117 (a) Iron Brooch
(b) Pig Bones
121 (a) Iron Fastener
124 (a) Iron Bracelet
129 (a) Pot
(b) Pig Bone
130 (a) Pot
(b) Pig Bone
132 (a) Iron Bracelet
133 (a) Iron Bracelet
136 (a) Pot
(b) Pig Bone
137 (a) Iron Bracelet
138 (a) Iron Brooch
139 (a) Glass Necklace
145 (a) Iron Pin
146 (a) Bronze Rod
(b) Iron Brooch
149 (a) Iron Brooch
154 (a) Pot
155 (a) Bronze Earring
(b) Bronze Bracelet
(c) Bronze Bracelet
(d) Bronze Brooch
(e) Glass Necklace
158 (a) Iron Pin
160 (a) Bronze Brooch
(b) Bronze Bracelet
161 (a) Pig Bone
166 (a) Iron Brooch
167 (a) Iron Ring
171 (a) Iron Brooch
177 (a) Quernstone
179 (a) Iron Brooch
180 (a) Iron Brooch
186 (a) Pig Skeleton
(b) Sheep Skeleton
(c) Animal Bone
(d) Animal Bone
192 (a) Iron Brooch
193 (a) Iron Brooch
205 (a) Iron Brooch
209 (a) Glass Necklace
210 (a) Glass Necklace
(b) Pendant
(c) Bronze Bracelet
211 (a) Iron Spearhead
223 (a) Iron Brooch
226 (a) Iron Brooch
230 (a) Iron Brooch
233 (a) Iron Brooch
236 (a) Glass Necklace
(b) Bronze Bracelet
(c) Iron Brooch
239 (a) Pig Bones
244 (a) Bronze Ferrule
245 (a) Bronze Ring
(b) Jet/Shale Ring
(c) Amber Ring
249 (a) Glass Necklace
250 (a) Iron Brooch
252 (a) Iron Brooch
257 (a) Glass Necklace
(b) Bronze Ring
268 (a) Iron Brooch
(b) Glass Bead
269 (a) Bone Point
(b) Bone Point
(c) Bone Point
270 (a) Glass Bead
(b) Iron Brooch
(c) Iron Clamp
(d) Iron Clamp
(e) Iron Clamp
273 (a) Iron Brooch

274 (a) Bronze Brooch
(b) Glass Necklace
275 (a) Iron Brooch
277 (a) Pot
(b) Pig Bone
(c) Glass Bead
279 (a) Iron Brooch
284 (a) Glass Necklace
286 (a) Iron Pin
(b) Iron Pin
(c) Iron Brooch
295 (a) Pig Bone
309 (a) Iron Brooch
312 (a) Iron Brooch
(b) Bronze Ring
317 (a) Bronze Ring
327 (a) Iron Brooch
336 (a) Shale Necklace
(b) Iron Ring
(c) Iron Ring
346 (a) Bone Point
(b) Bone Point
(c) Bone Point
(d) Bone Point
(e) Bone Point
(f) Bone Point
(g) Bone Point
349 (a) Iron Bracelet
360 (a) Bone Point
363 (a) Bronze Bead
(b) Bronze Bead
(c) Bronze Bead
376 (a) Glass Necklace
391 (a) Pig Bone
400 (a) Bronze Ring
(b) Bronze Ring
(c) Iron Fragment
402 (a) Pig Skeleton
(b) Pig Skeleton
419 (a) Pot
421 (a) Shale Ring
(b) Bone Ring
435 (a) Pig Bone
438 (a) Iron Brooch
(b) Bronze Binding
(c) Bronze Binding

CATALOGUE (Figs. A1 - A15)

DRESS FASTENINGS

BROOCHES (CLASS 1) Types are those listed in Part 2.3.1

Burial 23: Type 2, Lt II; iron, 103 mm long. It has a three coil mock spring with external chord and tubular bronze rivet. The foot disc is large, 25 mm across. Male of 35-45 years.

Burial 34: Type 4, Lt II; iron, 50 mm long. It has a three coil mock spring with tubular bronze rivet, there is a "stop" behind the head, and the collar is bronze. Male of 25-35 years.

Burial 55: Type 4, Lt II; iron, 30 mm long. It has a three coil mock spring with tubular bronze rivet. The broad foot is adorned with three pieces of coral held in place by bronze washers on a central iron rivet and a transverse double bronze rivet. Female of 25-35 years.

Burial 58: Type 4, Lt II; iron, 44 mm long. It has a three coil mock spring with tubular rivet, the foot is broad and there is a "stop" behind the head. Male of 35-45 years.

Burial 59: Type 4, Lt II; iron, 32 mm long. It has a two or three coil mock spring with tubular rivet. The foot is broad and wood grains survive as oxide at the site of the head. Female of 25-35 years.

Burial 60: Type 4, Lt II; iron, 26 mm long. It has a three coil mock spring with external chord and tubular rivet. Iron oxide has replaced two pieces of inlay, possibly coral, on the foot, and the position of a third is indicated by a central iron rivet. Associated with two bracelets and a jet or shale ring. Female of 25-35 years.

Burial 69: Type 4, Lt I; iron, 34 mm long. It has a three coil mock spring with tubular bronze rivet. The narrow foot shows no sign of a collar. Female of 20-25 years.

Burial 89: Type 1, Lt I; iron, 112 mm long. It appears to have a four coil spring with external chord, although it is possible that there could have been a rivet. The foot has white inlay fastened by three bronze rivets in a circular arrangement and turns back at an angle towards the bow which is elongated. Male of 35-45 years.

Burial 92: Type 4, Lt II; iron, 42 mm long. It has a three coil mock spring with tubular rivet and broad foot. Male of 35-45 years.

Burial 101: Type 4, Lt II; iron, 61 mm long. It has a three coil mock spring with tubular rivet, and a broad foot. Associated with a bone pin. Male of 25-35 years.

Burial 104: Type 4, Lt II; iron, 40 mm long. It has a three coil mock spring with tubular rivet, and a narrow foot. Female of 35-45 years.

Burial 115: Type 4, Lt II; iron, once perhaps 36 mm long. Only the catch plate, part of the pin and the circular foot survive. The foot is coated with bronze which after cleaning shows traces of curvilinear decoration. Female of 25-35 years.

Burial 117: Type 5, Lt III, iron, 86 mm long. It has a long straight bow and a two coil spring with external chord. The catchplate is solid. Associated with the bones of a pig. Male of 35-45 years.

Burial 138: Type 4, Lt I, iron, 45 mm long. It has a three coil mock spring with tubular rivet. The broad foot shows no sign of a collar. Male of 25-35 years.

Burial 146: Type 3, Lt I; iron, 60 mm long. It has a three coil mock spring with a tubular rivet. The foot is broad. Female of 25-35 years.

Burial 155: Type 6; bronze, 48 mm long. The standard elements of head, bow and foot are made from a single flattened plate. The head is subrectangular and 22 mm wide. A low bow 24 mm long and 7 mm wide joins this to the foot which is similar to the head, but 4 mm wider. The edges of the plate are turned up and the hollow created has been filled with pieces of inlay held in place by a black composition. This inlay may be coral and was pinkish when found although it now has a white appearance.

Rectangular pieces were laid side by side in a row on the head and foot and six pieces form a double line along the bow. Several pieces are now lost. The iron pin and catchplate have gone, but the iron hinge of two lugs and a central rivet survive and are suspended beneath the head.

Associated with two bronze bracelets, a bronze earing and a necklace of glass beads. Female of 25-35 years.

Burial 160: Type 1, Lt II; bronze 68 mm long. It has a four coil mock spring with external chord and solid rivet. The foot is a disc decorated with a triskele inside an indented circle. A second triskele and a two volutes, each of diminishing size continue the decoration round to the catchplate. Associated with a bronze bracelet. ?Male of 25-35 years.

Burial 166: Type 8, iron, 25 mm in diameter. The terminals are slightly splayed and the pin is straight, not humped. Female of 20-25 years.

Burial 171: Type 3, Lt II; iron, 83 mm long. It has a three coil mock spring with a solid rivet. The foot is narrow and circular. Female of 25-35 years.

Burial 179: Type 2, Lt I; iron, 72 mm long. It appears to have a two coil spring with external chord, and radiographs do not show a rivet, although the head is rather narrow like examples with a hinged pin. The disc foot has a projecting tongue. Female of 25-30 years.

Burial 180: Type 4; iron, originally 40-45 mm long. The foot, catchplate and pin are missing. Male of 35-45 years. It has a three coil mock spring with a tubular rivet, and there is a "stop" behind the head.

Burial 192: Type 4, Lt I (?); iron, 56 mm long. It has a three coil mock spring with a tubular rivet. The foot is missing but there is not sign of a collar. There is a "stop" behind the head. Male of 25-35 years.

Burial 193: Type 4, Lt II; iron, 33 mm long. It has a three coil mock spring with a tubular rivet and a circular foot. Female of 35-45 years.

Burial 205: Type 1, Lt I; iron, 83 mm long. It has a false spring of four coils with external chord and solid rivet. The disc foot has a central perforation and a projecting tongue. Female of over 35 years.

Burial 223: Type 4, Lt II; iron, 30 mm long. It has a three coil mock spring with a tubular rivet and a circular foot. Female of 35-45 years.

Burial 226: Type 4, Lt II; iron, 25 mm long. It has a two coil mock spring with a tubular rivet and a circular foot. Female of 35-40 years.

Burial 230: Type 8, iron, 31 mm by 29 mm. The terminals are slightly expanded and the pin is curved. Female of 30-40 years.

Burial 233: Type 3, Lt I; iron, 54 mm long. It has a mock spring, possibly of three coils, with tubular rivet. The disc foot has a projecting tongue. Female of 30-40 years.

Burial 236: Type 7; iron, 67 mm long. The normal head, bow and foot arrangement is here replaced by an ogival plate which is broad in the middle but narrows towards the ends which are expanded into discs. The plate is curved into a bow, and the pin, which is humped, hinges around the narrow part of one end, while the opposing end serves as a catchplate. Fabric remains survive on the pin. Associated with a bronze bracelet and a necklace of glass beads. Female of 35-45 years.

Burial 250: Type 3, Lt II; iron, 48 mm long. The pin is suspended from two lugs beneath the head, which has a red stone bead, possibly amber, on either side held by a bronze rivet. Another similar bead is attached to the foot in the same way. Female of 35-45 years.

Burial 252: Type 3, Lt I; iron, 63 mm long. It has a three coil mock spring with external chord and tubular rivet. The disc foot has a projecting bifid tongue. Male of 35-45 years.

Burial 268: Type 3, Lt II; iron, 55 mm long. It has a two coil mock spring with a tubular rivet and external chord. Only half of the disc foot survives but this shows a central perforation. Associated with a glass bead. Female of 25-35 years.

Burial 270: Type 4, Lt I; iron, 44 mm long. It has a three coil mock spring with a tubular rivet, the foot is spade shaped and there is a "stop" behind the head. Associated with a glass bead and three iron clamps. Female of 35-45 years.

Burial 273: Type 4, Lt II, iron, 32 mm long. It has a three coil mock spring with a tubular bronze rivet and a circular foot. Female of 35-40 years.

Burial 272: Type 6, bronze, 64 mm long. The head is trapezoidal, almost rectangular, and 37 mm wide. The bow is 20 mm wide and 18 mm long. The foot is a semicircle 40 mm wide. The edge is turned up all round and the surface is covered with pieces of coral set in a black composition. Two circular studs are held by bronze rivets on the foot, one of which has a quartrefoil head. Narrow pieces of inlay are laid parallel in rows on the head, bow and foot, while broader pieces following the edges define the head and foot elements.

The iron pin is suspended from a rivet held between twin bronze lugs which project from the underside of the head. The catchplate is bronze and hangs beneath the foot. Iron corrosion has preserved the folds of cloth held by the pin.

Associated with a necklace of glass beads. Female of 35-45 years.

Burial 275: Type 2, Lt I; iron, 87 mm long. It appears to have a two coil spring with external chord, and radiographs do not show a rivet. The foot is elongated with a central perforation. Adult female.

Burial 279: Type 3, Lt I; iron, 85 mm long. It has a three coil mock spring with a tubular bronze rivet. The circular foot is slightly elongated into a short tongue. Male of 35-45 years.

Burial 286: Type 2, Lt I; iron, 94 mm long. It has a three coil mock spring with external chord and solid rivet. The foot is narrow and lies in line with the bow. Associated with two ring-headed pins. Male of 35-45 years.

Burial 309: Type 4, Lt II; iron,, 28 mm long. It has a three coil mock spring with tubular rivet, a narrow foot, and a "stop" behind the head. Female 35-45 years.

Burial 312: Type 4, Lt I; iron, 63 mm long. It has a three coil mock spring with a tubular rivet. The disc foot has a slight tongue and there is a "stop" behind the head. Associated with a bronze ring. Male of 25-30 years.

Burial 327: Type 1, Lt I; iron, 76 mm long. It has a four coil mock spring with external chord and solid rivet. The foot is pear-shaped and has a central bronze stud. Male of over 45 years.

Burial 438: Type 4, Lt II (?); iron, 32 mm long. It has a three coil mock spring with a tubular rivet. The broad foot is attached to the bow by a bronze rivet which continues upwards to secure a piece of coral. Two more pieces are held by three iron and one bronze rivets. The bronze rivets have quartrefoil heads. Associated with two bronze tags. Female of 35-40 years.

Brooches have been discussed in Part 2 as one of the classes of artifact with important implications for the formulation of a chronology. In general the closest parallels are to be sought among other Iron Age cemeteries of the region (Stead 1979, 64-73; Dent 1983a, Appendix B) although the types are nearly all represented in other parts of Britain (Hawkes and Simpson, forthcoming).

PINS (CLASS 2) Types are those listed in Part 2.3.2

Burial 145: Type 3; iron, 46 mm long. It is made from wire and has a high humped pin with a small ring 10.5 mm diameter lying in the opposite plane. The type has been called the "involuted pin" and well known examples were found at Park Brow, Meare and Cold Kitchen Hill (Dunning 1934, Fig. 5). Female of 35-45 years.

Burial 158: iron, 91 mm long. It is made of wire with a ringhead 17 mm in diameter. The shank is straight and there is no swan's neck. Male of 17-18 years.

Burial 286:

(a): Type 2; iron, 59 mm long. It is made from wire up to 5 mm thick and the ring is 17 mm across. This is smaller than the swan's neck loop element which is enlarged at the expense of the shank.

(b): Type 2; iron, at least 55 mm long. It is made from wire 2.5 mm thick but is very poorly preserved. A ring 18 mm in diameter survives with the beginning of the swan's neck which appears to lie in the same

plane and is likely to have incorporated only a small loop. Fragments of the shank survive but do not permit an accurate measure. Associated with an iron brooch. Male of 35-45 years.

Pins were one of the classes of artifact which were discussed for their chronological significance in Part 2.3.2. The pins from Wetwang Slack and from other Yorkshire burials are forms which occur widely in Britain (Dunning 1934).

Other examples of fastening devices are more fully described below.

OTHER FORMS OF FASTENING

a) Bone points.

Burial 101: 43 mm long. It is 6 mm wide and tapers to a point. Half of the central section is cut away to produce a flat surface 21 mm long. This is comparable to some examples from Meare and Maiden Castle which have been named "notched points" (Cotton 1967, 298, Fig. 84; Wheeler 1943, Fig. 105, No. 10) and which were interpreted as accessories for weaving. Associated with an iron brooch. Male of 25-35 years.

Burial 269: (a): 46 mm long. It is 4 mm wide and tapers to a point
(b): 41 mm long and 3 mm wide
(c): 25 mm long and 4 mm wide

These were scattered around the body in the coffin cavity. Female of 25-35 years.

Burial 346: (a): 49 mm long and 5 mm thick
(b): 35 mm long and 4.5 mm thick
(c): 48 mm long and 4 mm thick
(d): 23 mm long and 4 mm thick
(e): 43 mm long and 3 mm thick
(f): 41 mm long and 4 mm thick
(g): 30 mm long and 3.5 mm thick
These were distributed around the skeleton, seemingly at random. Male of 35-45 years.

Burial 360:

a): 52 mm long and 4 mm thick. Female of over 35 years.

The majority of these artifacts are trimmed splinters of bone and do not always have points. The random positioning suggest that they served as shroud pins rather than decorations of everyday dress. The pin from Burial 101 was associated with a short involuted brooch. The others were not associated, but spatially cover a wide span of time, ranging from early (B.360) to advanced (B269,346).

b): Miscellaneous forms of cloth fastening.

Burial 56: A piece of iron wire 77 mm long and 3 mm thick bent into three parts. Male of 20-25 years.

Burial 61: A piece of iron wire 74 mm long and 3 mm thick bent into three near-equal parts. Male of 35-45 years.

Both these were found on the face (one actually in mouth) which suggests that the whole body had been wrapped, and the shroud closed at the head.

Burial 121: An iron pin or hook 42 mm long and 30 mm wide. It is made from a pointed shank 95 mm long which is bent almost into a loop. The blunt end is flattened into a disc or oval 15 mm across. Male of 17-18 years.

These three artifacts constitute variations on the pin priciple, but whereas the two plain staples might be intended as purely functional, the disc on the third object recalls the foot on brooches and the expanded heads or rings on pins (particularly the discs on two involuted pins from Meare:Dunning 1934, Fig. 5,3). All these objects were found in contexts equivalent in distribution to short involuted brooches, and are probably to be seen as contemporary with them and with the involuted pin from Burial 145.

PERSONAL ORNAMENTS

Artifacts with a purely ornamental function may be distinguished from dress fastenings even though the later not infrequently carried some form of decoration.

BRACELETS (CLASS 3) Types are those listed in Part 2.3.3

Burial 57: Type 3; iron, 58 mm by 61 mm. It is made from a plain iron strip 5.5 mm wide and the ends overlap by 20 mm. Associated with a pair of iron tweezers. Female of 35-45 years.

Burial 60 (a): Type 2; Bronze, 67 m by 64 mm. The joint is a straight butt and the body is decorated with nine eye-like motifs linked by scrolls. The body passes through the perforation of a jet or shale ring 34.5 mm in diameter.

(b): Type 2; iron, 58 mm by 58 mm. The joint was apparently a straight butt and the body was decorated with continuous knobbing. Both were associated with an iron brooch. Female of 25-35 years.

Burial 124: Type 3; iron, 59 mm by 67 mm. It is made from a piece of wire 3 mm thick and the ends overlap by 3 mm. Female of 25-35 years.

Burial 132: Type 2; iron, 67 mm by 61 mm. It is made from a piece 5.6 mm thick and there is a gap of 11 mm between the terminals. Female 35-45 years.

Burial 133: Type 2; iron, 61 mm by 57 mm. It is made from a strip of metal 10 mm wide and 3.5 mm thick with terminals 15 mm wide which are 2 mm apart. Female of 35-45 years.

Burial 137: Type 1; iron, 71 mm by 71 mm. It is a continuous ring of metal 5 mm thick. Female of 17-25 years.

Burial 155 (b): Type 3; bronze, 60 mm by 60 mm. It is made from a piece of wire 4 mm by 2 mm which has rounded ends which overlap by 9 mm. Female of 35-45 years.

(c): Type 4; bronze, 67 mm by 63 mm. The lug is cylindrical and the socket terminal is swollen, defined by a grooved band at each end, and is decorated with spiral hatchings which are worn away on the outer face. Associated with a bronze bracelet, bronze earing, bronze inlaid brooch and necklace of glass beads. Female of 25-35 years.

Burial 160 (b): Type 4a; bronze, 65 mm by 62 mm. The lug is pointed and the socket terminal is an annulet flanked by two circular zones which

once had inlay held by bronze rivets. An identical but slightly larger decorated zone is diametrically opposed and still retains some of the pink inlay, which may be shell. The body is cast to resemble twisted wire and is worn on both outer and inner surfaces. Associated with a bronze brooch. ?Male of 25-35 years.

Burial 210 (c): Type 4; bronze, 65 mm by 61 mm. The lug is cylindrical and the socket terminal is swollen and decorated with a waisted plastic moulding with a raised band at each end. Associated with a pendant, tweezers and a necklace of glass beads. Female of 35-45 years.

Burial 236 (b): Type 4a; bronze, 57 mm by 58 mm. The lug is pointed and the socket terminal is an annulet flanked by two swollen mouldings; the body is cast to resemble twisted wire. Associated with an iron brooch and a necklace of glass beads. Female of 35-45 years.

Burial 349: Type 2 or 3; iron, 68 mm by 59 mm. It is made from wire 3.5 mm thick and the ends do not quite overlap. Incomplete. Female of 35-45 years.

GLASS BEADS (CLASS 4) Types are those listed in Part 2.3.4

Burial 64: Type 1; 2 examples 11-14 mm diameter, 5-6 mm thick. Associated with bronze ring, amber bead and iron tweezers. Female 20-25 years.

Burial 102: Type 7; 1 example 11 mm diameter, 7 mm thick. Associated with a jet or shale bead. Female of 25-35 years.

Burial 139: Type 1; 34 examples 10-12 mm diameter, 5-7 thick. Female of 25-35 years.

Burial 155: Type 1; 42 examples 8-12 mm diameter, 5-7 mm thick. Associated with bronze brooch, 2 bronze bracelets, bronze ear-ring. Female of 25-35 years.

Burial 209: Type 2; 16 examples, 14-15 mm diameter, 10-11 mm thick. Blue
Type 3; 2 examples, 13 mm in diameter, 9 mm thick. Green.
Female of 30-35 years.

Burial 210: Type 1; 70 examples 8-11.5 mm diameter, 3.5-6 mm thick. Associated with bronze ring, bronze tweezers, bronze bracelet. Female of 35-45 years.

Burial 236: Type 1; 63 examples 8-10 mm diameter, 3.5-7 mm thick.
Type 5; 12 examples 11-11.5 mm diameter, 7-8 mm thick, Greenish-blue on brown.
Type 6; 4 examples, each with 9 eyes, 11.5-12 mm diameter, 6.5 - 7.5 mm thick.
Female of 35-45 years.

Burial 257: Type 1; 52 examples 11-12 mm diameter, 6-9 mm thick. Associated with bronze ring. Female of 20-25 years.

Burial 268: Type 7; 1 example 9 mm diameter, 6 mm thick, with two of the spirals joined. Associated with an iron brooch. Female of 25-35 years.

Burial 270: Type 1; 1 example 12 mm diameter, 7 mm thick. Associated with iron brooch and three iron staples. Female of 35-45 years.

Burial 274: Type 3; 46 examples 14-15.5 mm diameter, 9-11.5 mm thick. Blue.
1 example with double zigzag 15.5 mm diameter, 11.5 mm thick, Blue.
Type 4; 1 example 16 mm diameter, 10 mm thick. Pale Blue.
Type 5; 1 example 11 mm diameter, 6.5 mm thick. Greenish blue on pale blue.
Associated with a bronze brooch. Female of 35-45 years.

Burial 277: Type 1; 1 example 12.5 mm diameter, 6 mm thick. Associated with pot and sheep bone. Female of 35-45 years.

Burial 284: Type 1; 46 examples, 4 mm - 9 mm thick.
Type 3; 2 examples, one 9 mm diameter, 6 mm thick, one 12mm diameter, 11 mm thick Blue.
Type 4; 6 examples 9-10 mm diameter, 5-6 mm thick blue.
Type 5; 1 example 9 mm diameter, 5 mm thick. Greenish blue on pale blue.
Female of 35-45 years.

Burial 376: Type 1; 73 examples 9-12 mm diameter, 3.5-7 mm thick.
Type 4; 1 example with double channels 12 mm diameter, 9 mm thick. Pale Blue.
1 example with double channels and with a cross cut into the centre of each eye 12 mm diameter, 9 mm thick. Pale Blue.
Type 5; 1 example with double channels 11 mm diameter, 9 mm thick. Greenish-blue on Pale Blue.
Female of 25-35 years.

OTHER FORMS OF NECK ORNAMENT

In addition to the glass beads rings or beads of other substances were also found, usually close to the neck, and these often exhibited wear on the perforation consistent with suspension from a thread or thong. Beads of organic substances have not survived, although it is likely that they existed in conjunction with the examples of single glass beads, which on their own would not be readily noticeable as ornaments, nor would they be sufficiently weighty to hang properly from a thread. One necklace of shale or jet beads was found and the same medium was used for larger beads or rings from other graves.

Bronze, iron, chalk and amber were similarly used. In two graves composite pendants were made by linking objects on a bronze ring.

JET OR SHALE BEADS OR RINGS

Burial 102: 25 mm by 22 mm, 8 mm thick; perforation 8 mm by 5 mm. Associated with a glass bead of type 7. Female of 25-35 years.

Burial 245: 16 mm diameter, 3 mm thick; perforation 5.5 mm. Associated with one amber bead and a bronze ring. Female of 17-20 years.

Burial 336: 64 examples 4-7 mm diameter 2-6 mm thick. Associated with two iron rings. ?Female of 15-16 years.

Burial 421: 36 mm diameter, 7 mm thick, lathe turned with outward facing central ridge and a perforation 16 mm. Associated with a bone ring. Found near the wrist and possibly not a neck ornament. ?Male of 20-25 years.

The use of shale for bracelets is well attested on the continent and at Burton Fleming during La Tène period (Stead 1979, 75, Fig. 29.3). A small necklace was found at Arras, A.5 with a bronce torc, and a jet ring 29 mm in diameter was found in burial A14 (ibid. 98). While the necklace from Burial 336 and the ring from Burial 245 are likely to belong to an early horizon, the ring from Burial 102, both from its position and from its associated with a glass bead of type 7 is likely to be contemporary with La Tène II.

BEADS OR RINGS OF BRONZE

Burial 64: 19 mm diameter 2 mm thick with ends which overlap by 10 mm. Associated with and linking together two beads of type 1 and one amber bead. Female of 20-25 years.

Burial 210: 19 mm diameter 2 mm thick with ends which overlap by 13 mm. Associated with a glass bead of type 1 and a pair of tweezers, which it linked together, and a necklace of type 1 beads and bronze bracelet. Female of 35-45 years.

Burial 245: 16 mm diameter 3.5 mm thick, solid cast. Associated with one amber ring and one jet ring. Female of 17-20 years.

Burial 257: 14 mm by 13 mm, 2 mm thick, abutting ends. Associated with a necklace of type 1 beads. Female of 25-35 years.

Burial 312: 37 mm diameter, 4.5 mm thick, solid cast. Associated with an iron brooch. Male of 25-30 years.

Burial 363: 3 bronze beads; two "closed horseshoe" shaped 13-14 mm wide and 1-2 mm thick; one made from rolled sheet 10 mm long and 8 mm wide. Child of 8-9 years.

The bronze rings vary in date from relatively early examples associated with bead necklaces to a late one found with an involuted brooch.

OTHER BEADS OR RINGS

Burial 26: Chalk or magnesian limestone 36 mm diameter and 9 mm thick, perforation 13 mm. Female of 35-45 years.

Burial 64: Amber 14 mm diameter, 5 mm thick, perforation 2.5 mm. Associated with two glass beads of type 1 and a bronze ring. Female of 20-25 years.

Burial 73: Amber 18 mm diameter, 14 mm thick, perforation 4 mm. Female of 25-35 years.

Burial 167: Iron 50 mm by 49 mm, 3 mm thick. The ends are 13 mm apart. This was found against the left forearm of an adolescent of 14-18 years.

Burial 245: Amber 17 mm diameter, 9 mm thick, perforation 6 mm. Associated with one jet or shale ring, and one bronze ring. Female of 17-20 years.

Burial 336: (b): Iron ring; 27 mm by 24 mm, 2 mm thick, abutting ends.

(c): Iron ring; 24 mm diameter, 6 mm thick, abutting ends. Associated with a necklace of jet or shale beads. ?Female of 15-16 years.

The majority of neck ornaments belong to an early stage of the cemetery. Later graves with beads or rings are few: four single glass beads from Burials 101, 268, 270 and 277 (two accompanied by involuted brooches); one bronze ring found with an involuted brooch in Burial 312; one amber bead from Burial 73; and jet or shale rings from Burials 102 and (possibly) 421. The use of large bead necklaces in La Tene I is typical of burials elsewhere, and the decline in the quality of grave groups may be observed also at Münsingen (Hodson 1968).

OTHER TYPES OF ORNAMENT

EAR-RINGS. Only one possible example was found, which from its position seemed likely to fall into this category.

Burial 155: Bronze. A penannular sheet 15 mm across and 0.5 mm thick. The front is slightly convex and is decorated with two rows of triangular indentations. The terminals resemble crab's claws and the position, against the right side of the skull, suggests that they had grasped the lobe of the ear. Associated with two bronze bracelets, a bronze brooch and a necklace of glass beads. Female of 25-35 years.

FINGER RINGS

Burial 114: A bone ring 23 mm diameter and 4 mm thick. Found among the bones of the right hand. Male of 17-20 years.

Burial 317: A bronze ring 22 mm in diameter. It is a continuous ring 6 mm wide and less than 2 mm thick. It was found on the first finger of the left hand. Female of 25-30 years.

Burial 421: a bone ring 26 mm in diameter and 45 mm thick. Found among the bones of the left hand. Associated with a jet or shale ring. ?Male of 20-25 years.

TOE RINGS

Burial 94: (a): an iron ring 28 mm by 20 mm with slightly overlapping ends, made from a strip 7 mm wide. It was found on the first toe of the left foot.

(b): an iron ring 34 mm by 30 mm with open ends, made from a piece of wire 4 mm thick. It was found on the first toe of the right foot. Female of 25-35 years.

Burial 400: (a): a bronze ring 21 mm by 22 mm with ends which overlap by 4 mm, made from wire 2 mm thick. Found on the right foot.

(b): a bronze ring 18 mm by 20 mm with ends which overlap by 9 mm made from wire 3 mm thick. One terminal is flattened with a circular depression in the outer face. It was found on the left foot. Female adult.

Some of the single finds of glass beads could have been worm as ear rings and a bronze "ear ring" was found in a grave to the east of the Wetwang Slack cemetery by Brewster (Brewster 1981, Fig. 503). Otherwise there is nothing to compare with the continental La Tène ear rings. Finger rings on the other hand have been found at Arras (A4 and A15 : Stead 1979, 98). The only other example of a toe ring from a Yorkshire grave was a bronze ring from a grave at Burton Fleming (ibid., 14). The Wetwang Slack rings show a wide range within the chronology of the cemetery.

TWEEZERS

Three examples of tweezers were found, but no other toilet articles.

Burial 57: iron, 37 mm long. These are bent and one terminal is missing. The other is 7 mm wide. Associated with an iron bracelet. Female of 35-45 years.

Burial 64: iron, 45 mm long. These are 3 mm wide at the spring, and 6.5 mm wide at the terminals. Associated with a pendant. Female of 20-25 years.

Burial 210: bronze, 58 mm long. The slender faces are decorated with incised zigzag and there is a moveable collar of pinched bronze strip which serves to close the tweezers when not in use. Part of a pendant, it was associated with a bronze bracelet and a necklace of glass beads. Female of 35-45 years.

Burials 64 and 210 belong to an early horizon, whereas spacially Burial 57 seems to lie among the latest burials.

The example from Burial 210 has a slider which is paralleled on a mutilated pair from the Queen's Barrow at Arras (burial A4), which was found with a nail cleaner, a glass necklace and types 4 and 4a bracelets (Stead 1979, 98).

WEAPONS

Weapons were found in only two graves.

Burial 98: a) Iron sword, 595 mm long. The blade is 470 mm long and a steeply arched hilt-guard 38 mm across separated it from the tang. This is 10 mm thick and rectangular in section; it has traces of a wooden handle and this was held in place by a circular washer 13 mm across and the end of the tang was burred over. There was no trace of a scabbard and this may not have been buried. The sword lay on top of the body with the hand grip near the head.

b) Iron binding, 109 mm long at 20 mm wide. It is a half-cylinder 15 mm deep, made from an eliptical piece of iron so that the sides are curved at the ends. Two nails one of which survives, fastened this to a wooden back, the grain of which ran along the object. Fibres survive on the outside of the object as replacement and these could belong to the coffin lid. It is possible that the wooden object of which this was a part was a shield and that this was attached to the central spine, the remainder being of organic materials. A similar binding was found at Burton Fleming with a sword and shield under. (I.M. Stead, pers. comm.). The burial was that of a male of 20-25 years.

Burial 211: Iron, a spearhead 108 mm long. The blade is 20 mm wide and the socket is rolled from a flattened tong. Part of the middle section is missing. The wooden shaft survives as iron replacement inside the socket. The burial was that of a female of 25-35 years and the spearhead was found in the stomach region with the point against the spine which suggests that the spear was embedded in the body when it was buried.

Burial 98 is an example of a "warrior" burial like others from East Yorkshire and other parts of Britain (Collis 1973). Within the cemetery sequence it is late, and probably belongs to the transition from La Tène II to La Tène III, but this is relatively early when compared with other examples, for which a La Tène III date is usually accepted (ibid.).

Burial 211 was accompanied by a weapon for a different reason, for it was this which killed the women concerned. Such evidence as this for violent death is not limited to the Late Iron Age, but is strong evidence for warfare during the period. (Dent 1983,c).

MISCELLANEOUS OBJECTS

Burial 146: a bronze rod 49 mm long and 3 mm thick. The section is square with bevelled edges, rather than octagonal. It appears unfinished and its purpose is not clear. A knobbed bronze rod found with a probable burial at Loughey, Co. Down, was interpreted as part of a clasp (Jope 1957, 81). Associated with an iron brooch. Male of 25-35 years.

Burial 244: a bronze ferrule 31 mm long and 17.5 mm in diameter. The tube is a piece of rolled bronze, once soldered with tin. The circular end is not attached but is a disc of bronze held in place by a central bronze nail, around which the replaced wood fibres survive. A ferrule was found as part of the equipment in the cart burial in Garton Slack (Brewster 1981, Fig. 253, 2). Male of 25-35 years.

Burial 438: two bronze tags 8.5 mm long made from sheet metal. (b) has seven transverse grooves and has been wrapped around a square-sectioned object; (c) has eight grooves and could have been wrapped around a tapering circular-sectioned object. Both were found almost end to end at the feet and may have been lace tags or shoe ornaments. Associated with an iron brooch. Female of 35-40 years.

The following objects are unlikely to have been buried because of any possible attachement which the deceased may have had for them, as both sacred and useful pupose in the grave.

Burial 177: the top stone of a gritstone beehive given 340 mm by 356 mm and 154 mm tall. There are two diametrically opposed holes for handles and the central perforation is panelled from the top as a hopper. The iron point 74 mm long and 13 mm in diameter was in position when found with traces of the wooden plug which had held it in place in the bottom stone. The head of a male child of 8-10 years rested against the stone, which was on its side. It appears that this was intended as a support for the head.

Burial 170: three iron staples or "dogs" for securing wood (c) is 73 mm long with prongs 25 mm long; (d) is 800 mm long with prongs 15 mm and 36 mm long; (e) is 61 mm long with prongs and 23 mm long. Each retains to to a varying degree the remains of wood grain which it originally pinned. These three objects were incorporated into the fabric of the coffin. Associated with a glass bead and an iron brooch. Female of 35-45 years.

POTTERY

Burial 129: a small, squat jar 128 mm tall. The body is reddish brown with small calcite grits and the surface is blackened both inside and out except near the rim. About one third of the rim and the accompanying shoulder was missing when the pot was buried. A sheep bone was found inside. Male of 25-35 years.

Burial 130: the lower part of a small jar 85 mm tall. The fabric is grey with a light brown surface, blackened on the lower part of the exterior and base. A sheep bone accompanied the pot. Female of 25-25 years.

Burial 136: the lower part of a jar 102 mm tall. The fabric is dark grey with a little grit and the surface is lighter with a browner appearance. The inner surface is sooted, and there is a slight expansion at the base. It was already broken when it was placed in the coffin. A sheep bone was inside the pot. Female 35-45 years.

Burial 154: a globular jar 296 mm tall and 304 mm across. The gritty fabric is grey and the surface is a light reddish brown, blackened towards the rim. This is erected and flattened on top. The base is slightly pinched out. Only fragments of the vessel were buried, mainly beneath the head of the deceased, but others were scattered in the grave fill. Male of 25-35 years.

Burial 277: the lower part of a jar 68 mm tall. The fabric is dark grey with calcite grits of up to 4 mm long, and the base is elevated on a slight foot ring. It was found with a sheep bone. Female of 35-45 years.

Burial 419: the lower part of a jar 87 mm tall. The body is dark grey with calcite grits and is reddish brown on the external surface but blackened internally. Male of 25-35 years.

A curious feature of vessels from Arras culture contexts is that they were very often incomplete when buried, which suggests that quality was not considered important and that they served a purely utilitarian purpose. Thus it is not surprising to find fine wares absent from burials.

What is surprising is the very small number of graves which contain pots (1.3%) by comparison with Burton Fleming (22%) and Danes Graves (15%) but unfortunately the Wetwang Slack pots are not sufficiently well distributed chronologically for any signs of typological change to be recognised. None of the pots need be very early.

ANIMAL BONES FROM GRAVES (identified by Sally Scott)

Burial 53 Forequarter of unidentified species. With a Female of 35-45

Burial 84 Right humerus of mature sheep. With a Male of 35-45

Burial 117 Right front quarter of immature pig. With a Male of 35-45

Burial 129 Left humerus of mature sheep. With a Male of 25-35

Burial 130 Right humerus of mature sheep. With a Female of 25-35

Burial 136 Left humerus of mature sheep. With a Female of 35-45

Burial 161 Right humerus of mature sheep. With a Male of 35-45

Burial 186
a) Complete immature goat.
b) Complete immature pig.
c) Scapula of unidentified species.
d) Scapula of unidentified species. With a Male of 25-45

Burial 239 Left front quarter of immature pig. With a Male of 25-35

Burial 277 Left humerus of mature sheep. With a Female of 35-45

Burial 295 Left humerus of mature sheep. With a Male of 30-35

Burial 391 Left humerus of mature sheep. With a Female of 30-40

Burial 402
a) Very badly crushed and damaged; possibly forequarter of unidentified species.
b) Similar condition to (a), but the right humerus of pig recognisable. With a Female of 25-35

Burial 435 Left humerus of mature sheep. With a Female of 25-35

Of these animal bone inclusions nine examples were sheep, four definitely pigs and one goat. Mature animals were represented by single bones, these being in the humeri of sheep, while younger animals occurred as complete beats or as forequarters. Although other cases of goats or sheep have been found at Danes Graves (Mortimer 1911, Fig. 2) and in Calais Wold (Mortimer 1905, 163) finds of single humeri have usually been ascribed to pigs. In the light of the positive identification as sheep of all such bones at Wetwang Slack it is possible that some of the early identifications were made by non-specialists in the belief that pig humeri were common grave goods in the Iron Age.

APPENDIX 2 - CHRONOLOGICAL INFORMATION

APPENDIX 2.1: STRATIFICATION TABLES

The basic evidence for a relative chronology is the relationship between the burials which were observed during excavation. Examples of contemporary burials sharing the same grave were encountered {(i) below} as were various relationships between different graves, between graves and enclosure ditches and between different enclosure ditches {(ii) to (v) below}. Unless there is evidence to the contrary it is assumed that an enclosure ditch (designated "D" followed by burial number) was contemporary with the central burial. Also given here are the cases where linear ditches and slots were cut by or cut graves or burial enclosures {(vi) and (vii) below}.

From these observed relationships Matrix tables have been constructed according to the principles set out by E. C. Harris (Harris 1975). An index to these {(viii) below} accompanies their illustration (Figure 2.1).

An asterisk* denotes that grave goods were found with the burial.

(i) Double burials in one grave.

54 and *55
228 and 229
347 and 348

(ii) Graves cut by Graves

Earlier	Later	Earlier	Later	Earlier	Later
3	4	172	173	320	321
5	6	173	174	344	343
13	14	176	*177	350	351
21	22	183	184	351	352
31	32	191	*192	355	356
37	38	204	*205	375	*376
40	39	207	208	377	378
42	43	213	214	378	380
76	75	217	218	379	380
82	83	225	224	388	389
83	*84	231	232	*391	392
95	*94	289	288	393	394
131	*132	307	308	417	418
*132	*133	308	*309	418	*419
151	*149	315	316		

(iii) Enclosure Ditches cut by Graves

Earlier	Later
D10	8
D12	11
*D26	28
D106	*104
D130	*124
*D137	*138
*D139	*138, *145
*D146	*138
D148	*149
*D155	*154
D164	162, 163
D170	165 182
*D171	*180
*D179	*180
D181	183
D187	184, 202
D201	202
D207	206, 218
(*D210	*209)?
D219	215, 218, 220
D221	220
D222	*223, 224
*D230	*223, *226, 224, 225, *233
	231, 232
*D236	232, 243
D241	242, *244
D243	242
*D245	*244
D243	242
*D245	*244
D255	253
*D268	*270
D271	*270, *273
D272	276
*D275	*273, 276
*D277	278
*D279	280
D281	280
*D286	280, 289
D290	289
D291	292
D294	289
D297	306, 307, 308, *309
D304	298, 300
D302	301
D305	306, 307, 308, *309
D311	310
*D312	313
D319	*317, 342, 343, 344
D328	*327
D330	331
D341	342
D346	313
D350	374
D357	356, 358
D359	358, *360
D367	365, 366
D371	365, 366
D378	382
D384	383, 386
D390	392
D397	*391, 392
*D402	403
D405	418, *419
D420	418, *419

(iv) Graves cut by Enclosure Ditches

Earlier	Later
*59	D72
70	*D61, *D69
95	D96
125	*D124
172	D173
181	D184
182	D181, D184
225	*D223
231	*D233
235	D234
292	D293
310	*D309
413	D414

(v) Enclosure Ditches cut by Enclosure Ditches

Earlier	Later
D5	D4
D8	D5
D10	D8
D17	D18
D19	D18
*D23	D21
*D26	D24, D25, D28
D30	D31, D62, D68
D31	*D34
*D34	D36, *D60, *D61
D36	*D60
*D54, 55	D53
*D58	*D54, 55
*D60	D71
*D61	*D60, D71
D62	D31, *D61
D67	D25, D82
D68	D62, D69, D78, D80
*D69	*D61, D62
D71	D72
*D73	D96
D78	*D69
D80	D78
*D89	D82, D107
D90	D78, D91, *D104
D91	D78
*D98	D96
*D102	*D104, D112
D106	*D104, D122
D108	D107
*D115	*D101, D116
D116	*D117
D123	*D124, *D130
D127	D108
*D129	*D124, *D137
*D130	*D124, D131
D131	D120, D134
*D137	*D146
*D139	*D137, *D145, *D146
*D146	*D145
D148	*D149
D152	*D145, *D149
D156	D157
*D158	*D161
*D160	*D158, *D161
*D161	D164
D164	D163
*D166	D164, D170
D170	*D171, *D180, D181, D184
*D171	D173, *D180
D176	D173, D175, *D193
*D179	*D180
D181	*D180, D184
D185	*D186
D187	D181, D184, D188, D201
D190	D191

(v) Enclosure Ditches cut by Enclosure Ditches - Continued

Earlier	Later
D191	*D193
*D193	D175
D194	D191, *D193
D195	D191
D197	D196
D200	D197
D201	D188, D190
D203	D204
D207	D203, D204, *D209
*D210	*D186, *D209, D213
D212	*D211
D219	D221, *D226
D222	*D223, *D233
*D223	*D226
D227	D213
*D230	D222, *D223, *D226, *D233, *D236
*D236	D241, D243
D237	D228, D229
D241	D243
*D245	D241, D243, *D250
D248	D246
*D249	*D250, *D252
*D252	*D250
*D225	*D252, D254
*D257	D248, D259
D260	D259, D261
D262	D261
D263	D264, D265, *D268
D265	D264
*D268	D265, *D269, *D270
D271	*D269, *D270, D272
D272	*D277
*D274	D262
*D275	D271, *D277, *D279, D281
*D279	*D277, D290
D281	*D279
*D286	*D279, D281, D290, D294, *D295
D290	D294
D294	D293
*D295	D294, *D309
D297	*D286, *D295, D305, *D309
D305	*D309
D311	*D309
D316	*D312
D325	D328
D328	*D327
D330	D331, D332
D333	D332
D335	D328
D341	D357
D359	D357, D367
D371	D367, D378, D383
D375	D347, 348, D390
D378	D375, D390
D384	D383
D388	D378, D383
D390	D397
D409	D414
D410	D414, D423
D420	D433

(v) Enclosure Ditches cut by Enclosure Ditches - Continued

Earlier	Later
D425	D423
D433	*D435
*D435	D437, *D438, D439
D439	*D438

(vi) Graves and Enclosures Later than Linear Ditches A, C, D, E and F

A:	C:	D:	E:	F:
15	D17	*D239	*D239	D255
	D18			
	19			

(vii) Graves and Enclosures Earlier than Linear Ditches A and B

A:					B:
*D26	*(D139)	*(D209)	*D257	D325	D19
D67	* D155	* D210	*D274	D333	247
D68	*(D160)	*(D230)	D285	D335	D261
*D89	*(D166)	*(D236)	D297	338	D302
D106	(D170)	(D237)	D304	D341	303
D108	(D187)	D248	D305	D359	

Linear ditch "A" was recut during the construction of domestic enclosures during the first century A.D. Burial enclosures cut by recut version of ditch "A" are denoted by brackets. In most cases there is little doubt that the enclosure would also have been cut by the original ditch "A".

(viii) Index to Stratigraphical Tables (Harris Matrices: Fig. 2.1)

Burial	Matrix	Burial	Matrix	Burial	Matrix
3	1	58	9	116	15
4	1	59	10	117	15
5	1	60	10	120	17
6	1	61	10	123	17
8	1	62	10	124	17
10	1	67	16	125	17
11	2	68	10	127	16
12	2	69	10	129	17
13	3	70	10	130	17
14	3	71	10	131	17
17	4	72	10	132	17
18	4	73	12	133	17
19	4	75	11	134	17
21	5	76	11	137	17
22	5	78	10	138	17
23	5	80	10	139	17
24	16	82	16	145	17
25	16	83	16	146	17
26	16	84	16	148	17
28	16	89	16	149	17
30	10	90	10	151	17
31	10	91	10	152	17
32	10	94	12	154	18
34	10	95	12	155	18
36	10	96	12	156	19
37	6	98	12	157	19
38	6	101	15	158	20
39	7	102	14	160	20
40	7	104	10, 13, 14	161	20
42	8	106	13	162	20
43	8	107	16	163	20
53	9	108	16	164	20
54	9	112	13, 14	165	21
55	9	115	15	166	20, 21

(viii) Index to Stratigraphical Tables (Harris Matrices: Fig. 2.1 - (Continued)

Burial	Matrix	Burial	Matrix	Burial	Matrix
170	21	208	23	248	30
171	21	209	23, 25	249	29
172	21	210	23, 25	250	29
173	21	211	24	252	29
174	21	212	24	253	29
175	21	213	25	254	29
176	21	214	25	255	29
177	21	215	26	257	30
179	21	217	26	259	30
180	21	218	26	260	30
181	21	219	26	261	30
182	21	220	26	262	30
183	21	221	26	263	35
184	21	222	28	264	35
185	24	223	28	265	35
186	24	224	28	268	35
187	21	225	28	269	35
188	21	226	26, 28	270	35
190	21	227	25	271	35
191	21	228	27	272	35
192	21	229	27	273	35
193	21	230	28	274	30
194	21	231	28	275	35
195	21	232	28	276	35
196	22	233	28	277	35
197	22	234	28	278	35
200	22	235	28	279	36
201	21	237	27	280	35
202	21	241	28, 29	281	35
203	23	242	28	286	35
204	23	243	28, 29	288	35
205	23	244	28, 29	289	35
206	23	245	29	290	35
207	23	246	30	291	35

(viii) Index to Stratigraphical Tables (Harris Matrices: Fig. 2.1) - (Continued)

Burial	Matrix	Burial	Matrix	Burial	Matrix
292	35	348	41	409	44
293	35	350	39	410	44
294	35	351	39	413	44
295	35	352	39	414	44
297	35	355	38	417	45
298	32	356	38	418	45
300	32	358	38	419	45
301	33	359	38	420	45
302	33	360	38	423	44
304	32	365	38	425	44
305	35	366	38	433	45
306	35	371	38, 40, 41	435	45
307	35	374	39	437	45
308	35	375	41	438	45
311	35	376	41		
312	31	377	41		
315	31	378	41		
316	31	379	41		
317	38	380	41		
319	38	382	41		
320	36	383	40		
321	36	384	40		
325	34	386	40		
327	34	388	40, 41		
328	34	389	41		
330	37	390	41		
331	37	391	41		
332	37	392	41		
333	37	393	42		
341	38	394	42		
342	38	397	41		
343	38	402	43		
344	38	403	43		
347	41	405	45		

APPENDIX 2.2: ARTIFACT TYPOLOGY: CLASS 2 (PINS) - TABULATED DIMENSIONS OF 58 PINS

	Provenance	Length	Breadth	Ring Diam.		Loop Length	Loop Height	Loop Angle	Reference	
1	All Canning's Cross, Wilts	> 76.5	45	-		18	19.5	0°	Dunning 1934,	Fig. 2, 1
2	Woodeaton, Oxon	91.5	12	-		15	11.5	0°	do.	Fig. 2, 2
3	Jordan Hill, Dorset	109.5	16.5	-		19.5	9	0°	do.	Fig. 2, 3
4	Ham Hill, Somerset	96.5	12	-		27	11.5	0°	do.	Fig. 2, 4
5	Woodeaton, Oxon	129	18	-		16.5	16.5	0°	do.	Fig. 2, 5
6	Hammersmith, Middx.	101.5	11.5	6		15	9	0°	do.	Fig. 2, 6
7	Peterborough, Northants	> 36	15	28	(Disc)	21	13.5	90°	do.	Fig. 2, 7
8	Woodeaton, Oxon	112.5	19.5	19		16.5	11.2	0°	do.	Fig. 3, 1
9	Hunsbury, Northants	90	16	16		15	11.2	0°	do.	Fig. 3, 2
10	Harlyn Bay, Cornwall	87	13	13		11.2	7.5	0°	do.	Fig. 3, 3
11	Meare, Somerset	99	18	16.5		13.5	7.5	0°	do.	Fig. 3, 4
12	Hammersmith, Middx.	43.5	12.7	12.7		9.7	6	0°	do.	Fig. 3, 5
13	Little Solsbury Hill, Somerset	126	31.5	31.5		24	16.5	0°	do.	Fig. 3, 6
14	Ham Hill, Somerset	130.5	34.5	33		27	18.7	0°	Dunning 1934,	Fig. 3, 7
15	Hammersmith, Middx.	102	22.5	21		19.5	13.5	0°	do.	Fig. 4, 8
16	Holt, Worcestershire	110.2	21	15		22.5	13	0°	do.	Fig. 4, 9
17	Sawdon, N. Yorks.	212.2	51	49.5		21	13.5	0°	do.	Fig. 4, 10
18	Woodeaton, Oxon	40.5	15.7	15.7	(Double Loop)	18.7	6.7	0°	do.	Fig. 4, 11
19	Glastonbury, Somerset	30.7	11.2	11.2		17.2	5.2	0°	do.	Fig. 4, 12
20	Cold Kitchen Hill, Wilts.	45.7	15	14.2	(Double Loop)	27.7	12	0°	do.	Fig. 4, 13
21	Park Brow, Sussex	61.5	12.7	19		25.5	12	90°	do.	Fig. 5, 1
22	Cold Kitchen Hill, Wilts.	41	9.5	10		14	9.5	90°	do.	Fig. 5, 2
23	Meare, Somerset	66	18	12.5	(Disc)	27	13.5	90°	do.	Fig. 5, 3
24	Whitelot Bottom, Sussex	84	10.5	-		16.8	7.8	0°	do.	Fig. 6, Le
25	Whitelot Bottom, Sussex	106.6	27	21.6		18	15	0°	do.	Fig. 6, Right
26	Castle Law, Perth	100.8	24	24		16.5	10.9	0°	do.	Fig. 7, 1
27	Bonchester Hill, Roxburgh	134.8	27.7	27.7		24	13.5	0°	do.	Fig. 7, 2
28	Monifieth, Forfar	94.5	21	18		24	10.5	0°	Dunning 1934,	Fig. 7, 3
29	Loch Moidart, Inverness	99	24	24		16.5	10.5	0°	do.	Fig. 7, 4
30	Dunagoil, Bute	67.5	11.2	11.2		10.5	7.5	0°	do.	Fig. 7, 5
31	Dunagoil, Bute	> 40.5	21.7	21.7		18	10.5	0°	do.	Fig. 7, 6
32	Inverkeilor, Forfar	75	12.9	12.9		9	6.9	0°	do.	Fig. 7, 7
33	Traprain Law, Haddington	93	20.2	20.2	(Solid)	12	10.5	0°	do.	Fig. 7, 8
34	Garton Slack, E. Yorks.	72.5	22	18	(Hollow Cup)	22	15	90°	Dent 1983a,	Fig. 8, G
35	Kilham	85.5	9	9.4		10.5	9	0°	Stead 1971,	Fig. 6, 1
36	Wetwang Slack	111	29	26		25	17	0°	Dent 1983a,	Fig. 4, 3
37	Wetwang Slack	89	19	19		14	9	0°	-	
38	Danes Graves	125	37	37	(Wheel)	25.5	13.5	0°	Stead 1979,	Fig. 30, 3
39	Burial 145	46	13	10.5		19	12	0°	Fig. A6	
40	Burial 158	92	18	18		-	-	0°	Fig. A7	
41	Burial 286 a	59	20	15		22	20	0°	Fig. A15	

	Provenance	Length	Breadth	Ring Diam.		Loop Length	Loop Height	Loop Angle	Reference
42	Burial 286 b	58	19	19		11	9	0°	Fig. A13
43	Chinnor, Oxon	77.5	20	20		19	10.5	0°	Ant. J. 31, 1951, 146, 1
44	Chinnor, Oxon	81	20	19		18	12.5	0°	do. 2
45	Chinnor, Oxon	90.5	12	12		16.5	10.5	0°	do. 3
46	Woodeaton, Oxon	58	9	-		14	9	0°	Harding 1972, P 173, B
47	Woodeaton, Oxon	96	16	16		17	11	0°	do. G
48	Woodeaton, Oxon	88.5	16	16		14	9	0°	do. H
49	Woodeaton, Oxon	89	23	16		16	11	0°	do. J
50	Woodeaton, Oxon	67	15.5	15.5		16	11	0°	do. K
51	Woodeaton, Oxon	69.5	14	14		15	11.5	0°	do. L
52	Woodeaton, Oxon	53	11	9.5	(Double Loop)	19	9	0°	do. M
53	Woodeaton, Oxon	35.5	12	12	(Double Loop)	14	4	0°	do. R
54	Woodeaton, Oxon	77	20	18.5		13	9	0°	do. N
55	Woodeaton, Oxon			12		14	9.5	0°	do. P
56	Woodeaton, Oxon			11		11.5	7	0°	Harding 1972, P 173, Q
57	Crowland, Lincs.	99.5	19.5	19.5		18	11.5	0°	May 1976, Fig. 66, 1
58	Giant's Hills, Lincs.	91	17	16.5		17.5	7.5	0°	do. 2

APPENDIX 3 - HUMAN REMAINS

APPENDIX 3.1: INHERITED BONE ABNORMALITIES

WORMIAN BONES AND ADDITIONAL CRANIAL SUTURES

Sagittal

18, 34, 48, 73, 95, 134, 138, 145, 168, 185, 198, 224, 255, 263, 272, 334, 358, 377.
Note 9 males giving total (18)

Coronal

35, 95, 266, 273.

Inca

11, 12, 23, 28, 32, 44, 45, 46, 47, 57, 69, 96, 80, 83, 90, 93, 95, 123, 126, 145, 185, 187, 197, 244, 248, 262, 271, 288, 190, 320, 347, 362, 376, 382, 384, 421.
N.B. 16 males, 20 females = 36 total.

Epipteric

27, 70, 80, 138, 220, 242, 279, 288, 329, 352, 379, 399.
Note 5 males, 7 females = 12 total.

Parietal Notch

46, 47, 73, 126, 134, 138, 145, 183, 243, 245, 259, 273, 295, 297, 299, 318, 320, 358, 376.

Asterion

38, 46, 57, 80, 101, 124, 137, 188, 253, 255, 266, 314, 317, 348, 356, 384, 421.

Pterion Front Temporal

89, 133, 134, 160, 161, 168, 183, 186, 245, 376.

Pterion Star or Intervening Bone

70, 80, 126, 220, 242, 288, 355, 329, 379, 421.
Note this makes 3 males, 7 females = 10 total.

Patent Metopic Suture

5, 8, 22, 39, 59, 79, 80, 95, 101, 108, 104, 112, 115, 126, 148, 161, 168, 222, 226, 239, 242, 248, 293, 317, 327, 343, 358, 376, 377, 383, 429.

ANOMALIES OF THE LUMBAR VERTEBRAE

Sacralisation of L5

11, 36, 44, 135, 215, 217, 220, 318.

Lumbar Arch Anomaly

38, 113, 266, 278, 280, 290, 299, 307, 320, 327, 358, 370.

A useful summary of these abnormalities and their location is given in Brothwell, 1972a, 38 ff., 94 ff.

Bibliography

Alexander, J. (1964) "The origin of penannular brooches" Proc. Prehist. Soc. 30 (1964), 429-430.

Alexander, J. and Hopkin, S. (1982) "The origins and early development of European fibulae", Proc. Prehist. Soc. 48 (1982), 401-416.

Barrett, J.C. (1980) "The pottery of the later Bronze Age in lowland England", Proc. Prehist. Soc. 46 (1980), 297-319.

Bersu, G. (1940) "Excavations at Little Woodbury, part 1", Proc. Prehist. Soc., 6 (1940), 30-111.

Binford, L.R. (1972) "Mortuary practices : their study and potential", An archaeological perspective, 208-243.

Boyland, P. (1977) The Ice Age in Yorkshire and Humberside (York).

Brewster, T.C.M. (1971) "The Garton Slack chariot burial, East Yorkshire", Antiquity 45 (1971), 289-292.

(1975) "Garton Slack", Current Arch. 51 (1975), 104-116.

(1981) The excavation of Garton and Wetwang Slacks" (published as a microfiche by the Royal Commission on Historical Monuments).

Brothwell, D.R. (1972a), Digging up bones

(1972b) "Palaeodemography and earlier British populations", World Arch. 4, No. 1 (1972), 75-87.

Champion, T. (1975) "Britain in the European Iron Age", Archaeologia Atlantica, 2 (1975), 127-145.

Childe, V.G. (1940) Prehistoric Communities of the British Isles.

Collis, J.R. (1973) "Burials with weapons in Iron Age Britain", Germania 51 (1973), 121-133.

(1977) "An approach to the Iron Age" in Collis, J.R. (ed.) The Iron Age in Britain:a review (Sheffield).

(1978) "The European Iron Age", Current Arch. 61 (1978), 51-4.

Congreve, A.L. (1937) "A Roman and Saxon site at Elmswell, East Yorks. 1935-1936", Hull Museums Publications 193 (1937).

(1938) "A Roman and Saxon site at Elmswell, East Yorks, 1937", Hull Museums Publications 198 (1938).

Corder, P. (1940) "Excavations at Elmswell, East Yorkshire, 1938", Hull Museums Publications 207, (1940).

Cotton, M.A. (1967) The Meare Lake Village, Vol. 3 (Taunton).

Cunliffe, B. (1974) Iron Age communities in Britain

Cunliffe, B. (1977) "Danebury, Hampshire; second iterim report on the execavations 1971-5", Ant. J. 56 (1977), 198-216.

Dawes, J.D. and Magilton, J.R. (1980) The cemetery of St. Helen-on-the-Walls, Aldwark. The Archaeology of York 12/1.

Déchelette, J. (1914) Manuel d' Archaeologie, ii, 3me partie, Second age du fer ou epoque de La Tène.

De Navarro, J.M. (1972) The finds from the site of La Tène, Vol. 1.

Dent, J.S. (1978) "Wetwang Slack", Current Arch. 61 (1978), 46-50.

(1979) "Bronze Age burials from Wetwang Slack", Yorks. Arch. Journ. 51 (1979), 23-30.

(1982) "Cemeteries and settlement patterns of the Iron Age on the Yorkshire Wolds", Proc. Prehist. Soc. 48 (1982), 437-457.

(1983a) "A summary of the excavations carried out in Garton Slack and Wetwang Slack, 1964-1980", East Riding Archaeologist 7 (1983), 1-14.

(1983b) "The impact of Roman rule on native society in the territory of the Parisi", Britannia 14 (1983), 35-44.

(1983c) "Weapons, Wounds and War in the Iron Age", Arch. Journ. 140 (1983), in press.

(Forthcoming) "Burials in Classical Cyrenaica", in Barker, G. (Ed.) collected papers on the archaeology of Cyrenaica (British Arch. Reports).

Doran, J.E. and Hodson, F.R. (1975) Mathematics and computers in archaeology (Edinburgh).

Drewett, P. (1982) "Later Bronze Age downland economy and excavations at Black Patch, East Sussex", Proc. Prehist. Soc. 48 (1982), 321-400.

Dudley, D and Jope, E.M. (1965) "An Iron Age cist-burial with two brooches from Trevone, North Cornwall", Cornish Archaeology 4 (1965), 18-23.

Evans, A. (1915) "Late Celtic dagger, fibula and jet cameo "Archaeologia (2nd series) 14 (1914-1915), 569-572.

Feacham, R.W. (1951) "Dragonesque fibulae", Ant. J. 31 (1951), 32-44.
(1968) "Note on Dragonesque fibulae", Ant. J. 48 (1968), 100-102.

Fowler, E. (1960) "The origins and development of the penannular brooch in Europe", Proc. Prehist. Soc. 26 (1960), 149-77.

Fox, C.F. (1927) "A La Tène I brooch from Wales : with notes on the typology and distribution of these brooches in Britain" Archaeol. Camb. 82 (1927), 67-112.

Greenwell, W (1877) British Barrows (Oxford).
(1906) "Early Iron Age burials in Yorkshire", Archaeologia 60 (1906) 251-324.

Guido, C.M. (1978) The glass beads of the Prehistoric and Roman periods in Britain and Ireland
(Reports of the Research Committee of the Socieity of Antiquities of London, 35).

Guilbert, G.C. (1975) "Planned hillfort interiors", Proc. Prehist. Soc. 41 (1975), 203-221.
(1977) "The Northern Welsh Marches : some recent developments" in Collis, J.R. (ed.), The Iron Age in Britian - a review (Sheffield) (1981).

Harding, D.W. (1972) The Iron Age in the Upper Thames Basin (Oxford)
(1974) The Iron Age in Lowland Britain (London.

Harris, E.C. (1975) "The stratigraphic sequence : a question of time", World Arch. 7 (1975), No. 1, 109-121.

Hawkes, C.F.C. (1959) "The ABC of the British Iron Age", Antiquity 33 (1959), 170-182.

Henderson, J. (1981) "A report on the glass excavated from Meare Village West 1979", Somerset Levels Papers, 7 (1981), 55-60.

Hodson, F.R. (1964a) "La Tène chronology, continental and British", Bull. Inst. Arch. London. 4. (1964), 123-41.

(1964b) "Cultural grouping within the British pre-Roman Iron Age", Proc. Prehist. Soc. 30 (1964), 99-110.

(1968) The La Tène cemetery at Münsingen-Rain (Acta Bernensia 5).

Hollstein, E. (1980) Mitteleuropäische Eichenchronologie, Rheinische Landesmuseum Trier, Trierer Grabungen und Forschungen, 11.

Howarth, P. (1980) Driffield: a country town in it's setting 1700-1860 (Hull).

Jones, M.U. (1974) "Excavations at Mucking, Essex; a second interim report", Ant. J., 54 (1974) 183-199.

Jope, E.M. and Wilson, B.C.S. (1957) "A burial group of the first century A.D. near Donaghadee, Co. Down, Ulster Journ. Arch. 20 (1957), 73-95.

Loughlin, N. and Miller, K. (1979) A survey of archaeological sites in Humberside.

Manby, T.G. (1980) "Bronze Age settlement in Eastern Yorkhire in Barret, J. and Bradley, R. (Eds.). Settlement and society in the British Later Bronze Age, British Arch. Reports 83 (Oxford).

May, J. (1970) "An Iron Age square enclosure at Aston-upon-Trent, Derbyshire : a report on the excavations in 1967". Derby Arch. J. 90 (1970), 10-21.

(1976) Prehistoric lincolnshire (History of Lincolnshire, 1).

Millet, M. and Russell, R. (1982) "An Iron Age burial from Viables Farm, Basingstoke", Arch. Journ. 139 (1982), 69-90.

Mortimer, J,R. (1898) "The opening of a number of the so-called "Danes Graves", at Kilham, E.R. Yorks. and the discovery of a chariot-burial of the Early Iron Age", Proc. Soc. Ant. London, 2nd series, 17 (1897-1899), 119-28.

(1905) Forty years researches in British and Saxon burial mounds of East Yorkshire (London).

(1911) "Danes Graves", Trans. East Riding Ant.Soc. 18 (1911), 30-52.

Nie, N., Bent, D. and Hull, C.H. (1970) SPSS : Statistical package for the social sciences (New York).

Petersen, (1969) "Early Bronze Age timber graves and coffin burials on the Yorkshire Wolds, "Yorks. Arch. Journ. 167 (1969) 262-267.

Ramm, H.G. (1973) "Aerial reconnaissance and interpretation", Yorks. Arch. Journ. 45 (1973) 208-210.

(1974) "Aerial reconnaissance and interpretation", Yorks. Arch. Journ. 46 (1974) 151-153.

(1978) The Parisi (London).

Reinecke, P. (1909/1965) Mainzer Ausfsätze zur Chronologie der Bronze-und-Eisenzeit (Habelt,Bonn).

Reynolds, P.J. (1974) "Experimental Iron Age storage pits : an interim report", Proc. Prehist. Soc. 40 (1974), 118-131.

Rowlet, R.N. (1966) "Penannular fibulae in the Marne Culture", Antiquity 40 (1966), 133-136.

Rybová, A. and Soudský, B. (1962) Libenice, keltska svatyněve Střednich Čechách

Shennan, S. (1975) "The Social Organization at Branc", Antiquity 49 (1975), 279-287.

Sheppard, T. (1939) "Excavations at Eastburn, East Yorkshire", Yorks. Arch. Journ. 34 (1939) 35-47.

Simpson, G. (1979) "Some British and Iberian penannular brooches and other early types in the Rhineland and the "Decumates agri", Ant. J. 59 (1979), 319-342.

Whimster, R. (1977a) "Iron Age burial in southern Britian, "Proc. Prehist Soc. 43 (1977), 317-327).

(1977b) "Harlyn Bay : the excavations of 1900-1905 in the light of recent research", Cornish Arch. 16 (1977), 60-88.

(1981) Burial practices in Iron Age Britian, British Arch. Reports 90.

Wishart, D. (1971) Clustan IA user manual (St. Andrews).

Stead, I.M. (1961) "A distinctive form of La Tène barrow in Eastern Yorkshire and on the Continent", Ant. J. 41 (1961) 44-62.

(1965) The La Tène Cultures of Eastern Yorkshire (York).

(1968) "An Iron Age hill-fort at Grimthorpe, Yorkshire, England", Proc. Prehist. Soc. 34 (1968), 148-90.

(1969) "Verulamium 1966-8", Antiquity 43 (1969), 45-52.

(1971) "Yorkshire before the Romans : some recent discoveries" in Butler, R.M. (Ed.) Soldier and civilian in Roman Yorkshire, 21-43.

(1975) "The La Tène cemetery at Scorborough, East Riding", East Riding Archaeologist 2. (1975) 1-11.

(1977) La Tène burials between Burton Fleming and Rudston, North Humberside", Ant. J. 56. (1977), 217-226.

(1979) The Arras Culture (York).

(1980) Rudston Roman Villa (Leeds).

Forthcoming The Battersea Shield (British Museum).

Stead, S. (1981) "L'étude athropologique des squelettes humains" (à Tinqueux, Marne), L'Age du fer en France septentrionale (Rheims), 169-172.

Tischler, O. (1885) "Die Gewandnadeln oder Fibeln" in Meyer, A.B., Gurina in Obergailthal (Kärnthen), Dresden.

Tuckwell, A. (1975) "Patterns of burial orientation in the round barrows of East Yorkshire", Bull. Inst. Arch. of London 12 (1975), 95-117.

Turnbull, P. (1983) "Excavations at Rillington, 1980", Yorks. Arch. Journ. 55 (1983), 1-9.

Ucko, P.J. (1969) "Ethnography and archaeological interpretation of funerary remains", World Arch. 1, No. 2 (1969), 262-280.

Viollier, D. (1916) Les sepultures du Second Age du Fer sur le plateau Suisse.

Vouga, P. (1923) La Tène.

Wainwright, G.J. (1969) Gussage All Saints : an Iron Age settlement in Dorset, Dept. of Environment Archaeological Reports No. 10.

Watson, W. (1947) "Two brooches of the Early Iron Age from Sawdon, North Riding, Yorkshire", Ant. J. 27 (1947), 178-182.

Wheeler, R.E.M. (1943) Maiden Castle, Dorset (Reports of the Research Committee of the Society of Antiquaries of London, 12).