

Reports of the Research Committee  
of the  
Society of Antiquaries of London

---

No. III

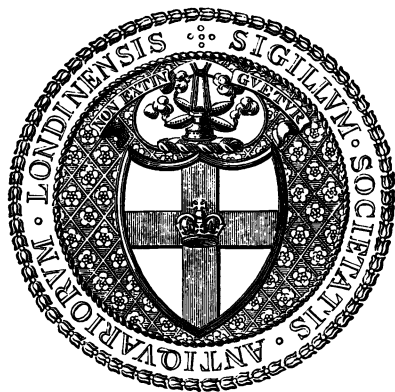
---

Excavations at  
Hengistbury Head, Hampshire  
in 1911-12

By J. P. Bushe-Fox, Esq.

With Appendixes by

G. F. Hill, Esq., M.A., and Professor W. Gowland, A.R.S.M., F.R.S., F.S.A.



Oxford  
Printed by Horace Hart for  
The Society of Antiquaries  
Burlington House, London

1915

# SOCIETY OF ANTIQUARIES

## RESEARCH COMMITTEE

SIR ARTHUR J. EVANS, M.A., D.LITT., F.R.S., *President.*

SIR C. HERCULES READ, LL.D., *Vice-President.*

W. MINET, ESQ., M.A., *Treasurer.*

SIR EDWARD W. BRABROOK, C.B., *Director.*

CHARLES R. PEERS, ESQ., M.A., *Secretary.*

HAROLD BRAKSPEAR, ESQ.

WILLIAM GOWLAND, ESQ., F.R.S.

FRANCIS HAVERFIELD, ESQ., M.A., LL.D.

LT.-COL. WILLIAM HAWLEY.

SIR WILLIAM ST. JOHN HOPE, LITT.D., D.C.L.

D. H. MONTGOMERIE, ESQ.

WILLIAM PAGE, ESQ.

REGINALD A. SMITH, ESQ., B.A.

MILL STEPHENSON, ESQ., B.A.

W. M. TAPP, ESQ., LL.D.

HORACE WILMER, ESQ.

## CONTENTS

|  | PAGE |
|--|------|
| EXCAVATIONS AT HENGISTBURY HEAD, HAMPSHIRE, IN 1911-12;<br>BY J. P. BUSHE-FOX, ESQ. . . . .  | 5    |
| General Summary . . . . .  | 6    |
| The Earthworks . . . . .   | 10   |
| The Flints . . . . .   | 11   |
| The Barrows . . . . .  | 14   |
| The Settlement . . . . .   | 20   |
| The Pottery . . . . .  | 30   |
| Small Objects, &c. . . . .   | 60   |
| <br>   |      |
| APPENDIX I. REPORT ON THE COINS FOUND DURING THE<br>EXCAVATIONS AT HENGISTBURY HEAD; BY G. F.<br>HILL, ESQ., M.A. . . . .  | 65   |
| <br>   |      |
| APPENDIX II. REPORT ON THE METALS AND METALLURGICAL<br>REMAINS FROM THE EXCAVATIONS AT HENGISTBURY<br>HEAD; BY PROFESSOR W. GOWLAND, A.R.S.M.,<br>F.R.S., F.S.A. . . . . | 72   |

# *Excavations at Hengistbury Head, Hampshire, in 1911-12*

By J. P. BUSHE-FOX, Esq.

IN 1911 a scheme was brought forward for extensive building operations on Hengistbury Head. As it had long been known that the site had been inhabited in early times, a movement was started to explore it before the hand of the builder rendered such a scheme impossible. Sir George Meyrick readily gave his permission to the undertaking, and not only has he taken a great personal interest in the work but he has also liberally defrayed a large part of the expense. Mr. Herbert Druitt, who was also keenly interested in the work, has given valuable assistance in many different ways, while Mrs. Eustace Smith generously headed the list with a substantial subscription.

The Research Committee having undertaken the management of the work, I was authorized to start operations in December, 1911, fully believing that a few weeks' work would be all that was necessary, but so much was found that the excavations had to be continued for over six months. In that time an area of over forty-two acres was explored and three large barrows were dug out. During the greater part of this time I had the invaluable help of Mr. Thomas May, without whom it would have been practically impossible to carry on the work in a systematic manner. Most of the drawings of the pottery are his work, and he gave much assistance in writing this report, as also did Mr. R. A. Smith, Mr. F. N. Pryce, and Mr. A. G. K. Hayter. The preparation of the plans and sections was undertaken by Mr. D. Montgomerie, while the plan of the site showing the trenches was made by the staff of the Ordnance Survey.

The name Hengistbury appears to be more or less modern, as in the time of Charles II the headland is called Hynesbury,<sup>1</sup> and in the early twelfth century, in a grant made by Baldwin de Redvers between 1107 and 1155 to the canons of Christchurch, it occurs as Hednesburia.<sup>2</sup>

<sup>1</sup> *Calendar of State Papers, Domestic*, 1665-6, 569.

<sup>2</sup> Dugdale, *Monasticon*, ed. 1830, vi, 304.

## 6 REPORTS OF THE SOCIETY OF ANTIQUARIES

The Head is situated to the E. of Boscombe and SE. of Christchurch, and forms the point of a narrow stretch of low-lying land bordered on the south by the sea and on the north by Christchurch Harbour and the river Stour. The river Avon also flows into Christchurch Harbour, a large, shallow lagoon very suitable for the flat-bottomed boats of the early inhabitants (fig. 1). The Head rises in places to about 100 ft. above the sea level and is composed of Bracklesham beds containing concretionary masses of ironstone and sandstone, the former of which was not so very long ago worked for the sake of its iron. There are several round barrows on the top of the Head, two of which were completely excavated. At the foot of the Head on the north and stretching westwards are current-bedded sands with layers of pebbles, probably a continuation of the sands with shingle of the Boscombe Cliffs. In prehistoric times earthworks were thrown up across the low-lying ground about 1200 ft. west of the foot of the Head, thus converting it into a promontory fort of large area. The coast is rapidly being washed away by the sea; since 1907 thirty-five feet have gone from the sea end of the earthworks, and as much as forty feet in places from the face of the Head itself.

Just inside the north end of the earthworks are two round barrows and what appears to be a mutilated long barrow (pl. XXXIV). The largest of these (no. 1) was completely excavated. The low-lying land which slopes down to the harbour inside the earthworks on the north and west of the Head was trenched, as shown on the plan (pl. XXXIII). By referring to the plan (pl. XXXIV), it will be seen that the settlement was situated on the north side under the shelter of the Head on ground sloping gently to the edge of the harbour. Very little of the dwellings remained. Some of them appear to have been hut-circles, others are only represented by hearths and layers of clay, the latter being probably the floors of wattle and daub huts, many fragments of daub marked with the impression of wattle having been found.

The excavated area was honeycombed with rabbit burrows, and in consequence everything was much disturbed, and in no instance was it possible to tell the exact size or shape of any of the dwellings, but the remains of the clay floors were more often of an oval or oblong form than round or square. The site appears to have been inhabited from the earliest times, as many flint implements were discovered. The latest objects belong to about the fourth century A.D. The inhabitants carried on many crafts, such as working in several different metals, possibly minting coins, making articles of glass and Kimmeridge

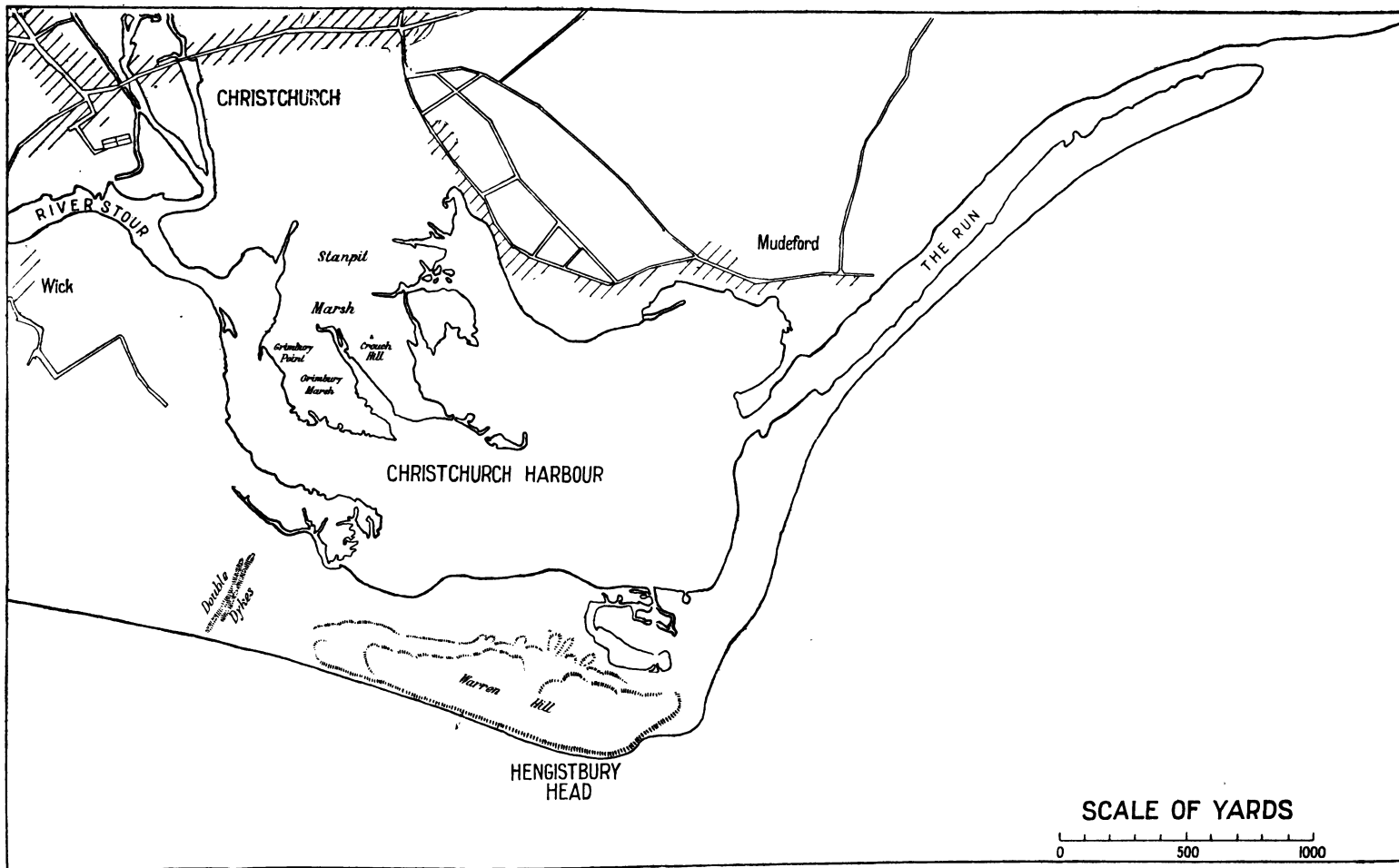


FIG. 1. Sketch map of the district around Hengistbury Head (based upon the Ordnance Survey Map with the sanction of the Controller of H. M. Stationery Office).

shale, weaving, and net making. The salt in the soil had destroyed all objects of bone, and the small objects in metal were few and in bad condition. Pottery was found in large quantities, but owing to the rabbits the stratification was uncertain. It was, however, kept in groups as much as possible, and every effort made to obtain a chronological series. Some of the types do not appear to have been found before, and others, although they have parallels in other places, are new to this country. The latter form most important links between Britain and the continent in prehistoric times.

Although direct connexion between this country and the continent in pre-Roman times is now a recognized fact, little really definite evidence has been produced. Several brooches of the Hallstatt period are recorded as having been found in these islands, but the evidence of their finding is in most cases very unsatisfactory.<sup>1</sup> Sir A. Evans gives a list of a few articles belonging to the same period.<sup>2</sup> The fine cordoned bucket found at Weybridge, and datable to about the sixth or seventh century B.C., is a representative object of this period.<sup>3</sup> Of the La Tène period<sup>4</sup> (400 B.C. to 50 A.D.) the finds are more numerous. Between 30 and 40 brooches of the period between 400–250 B.C. have been listed,<sup>5</sup> and many more examples belonging to the following 300 years have been found. Of the pottery very little has been recorded earlier than the first and second centuries B.C. Perhaps the most interesting group is that from Aylesford, which has been dealt with by Sir A. Evans.<sup>6</sup> It would be waste of time to go over the evidence already brought together by him in his article on this group, showing the connexion of these cordoned and pedestal urns with others in Belgic and Eastern Gaul and in the Rhenish and Alpine districts. He has also traced them back to their bronze and pottery prototypes in the Illyro-Italic area. This Aylesford group has been assigned to the last century B.C., but some of the forms are so closely allied to examples from Northern Italy of the fourth and fifth centuries B.C. that one is almost tempted to place the finer cordoned pieces slightly earlier. It will be seen then that, although there are quite a number of articles of Hallstatt and La Tène type in this country, no site has produced a complete series of both or even of the latter.

At Hengistbury Head there can be no question as to the authenticity of the finds, and although the stratification was not good,

<sup>1</sup> *Proc. Soc. Ant.*, xxi, 9.      <sup>2</sup> *Ibid.*, xxii, 128.      <sup>3</sup> *Ibid.*, xxi, 464.

<sup>4</sup> The following dating has been followed: Hallstatt, 9th–5th cent. B.C.; La Tène I, 400–250 B.C.; La Tène II, 250–100 B.C.; La Tène III, 100 B.C.–50 A.D.

<sup>5</sup> *Glastonbury Lake Village*, i, 185.

<sup>6</sup> *Arch.* lii, 317.

a very definite sequence could be established. The main points in this sequence can be fixed with some accuracy.

The earliest pottery from the settlement is without doubt intimately connected with that of SW. France and the Pyrenees. That this is not an isolated discovery in Britain is shown by the remains from All Cannings Cross Farm, Wiltshire, where exactly the same types have been found unmixed with later wares. The finding of two groups of similar pottery on different sites indicates a definite period and civilization. The period of the French examples we know to be the first Iron Age (Hallstatt period). The excavations at Hengistbury show that this pottery must be earlier than the third or fourth century B.C., and that it is not like our known Bronze Age pottery is evident; this leaves only the Hallstatt period in which to place it.

To judge by the continental parallels, some of the earliest Hengistbury cordoned, omphalos, high-shouldered, and graphite wares cannot well be put later than the third or fourth century B.C. Many of these have for their prototypes the bronze and pottery vessels of the Illyro-Italic people.

The large mass of pottery, the many different types, their gradual degeneration, and their total disappearance before the introduction of the Belgic, Arretine, and Mont Beuvray types show that the occupation before the first appearance of Roman influence must have lasted several centuries.

The invasion of Italy by the northern tribes in the fourth and fifth centuries B.C. may well account for the introduction of Illyro-Italic designs and technique north of the Alps. Captives brought back by these tribes would continue the industries in the manner learnt in their fatherland. Their masters, appreciating the greater beauty or utility of the work, would undoubtedly assimilate the southern technique and designs. Traders passed backwards and forwards bartering goods. The large number of early amphora fragments found at Hengistbury shows that wine was certainly brought into this country before the Roman occupation.

Whether the finds of continental types indicate the actual movement of communities or parts of communities to this country it is difficult to say. During one period at Hengistbury we appear to have several different types occurring together, that are closely allied to wares in such diverse places as the Armorican peninsula, the Aisne district, and Bavaria. That the Aylesford series should be so different from that of Hengistbury is curious. More curious still is the lack of most of the Hengistbury types at Glastonbury and Wookey Hole and from the explored sites in the neighbourhood of Devizes, but as Christchurch Harbour was convenient for Channel traffic and well adapted for the boats of the period, it is



not improbable that much of the pottery found on the Head was acquired direct from continental ships and never penetrated inland to any great extent.

The fact that the pre-Roman pottery of the Glastonbury district is so closely allied to a type found in the Armorican peninsula suggests that the inhabitants of these two districts belonged to the same community. Julius Caesar records that the Veneti, who inhabited part of the promontory, were accustomed to sail to Britain, and had large flat-bottomed ships made of oak, fastened with iron rivets and furnished with leather sails.<sup>1</sup> Strabo writes that the Veneti opposed the Roman arms in order to preserve their trade with Britain, and Caesar says that they sent to this country for help,<sup>2</sup> points which show that the two people were closely allied. Caesar also tells us that in many of his Gallic campaigns he found Britons among his enemies. This was a little before the middle of the last century B. C. If the ties were then so close it is probable that the two countries had long been intimately connected.

The finding of such a large number of the late cast British coins, many of them in mint condition, with Roman examples dating down to the middle of the second century A. D., is of great interest. The fact that coins of this description were in use at such a late date clearly indicates that the inhabitants of this locality were little affected by the Roman occupation, which began nearly a hundred years before.

## THE EARTHWORKS.

### PLATES I, XXXIV, XXXV.

The earthworks were carefully surveyed and sections and contours taken by Mr. D. Montgomerie at the points indicated on pl. XXXIV.

They must have been much longer originally, as the coast has suffered greatly from erosion. It is difficult to estimate the rate of this erosion, but between the years 1907 and 1912 35 ft. had disappeared from the south end. At this point a very perfect section could be obtained (pl. XXXV, AB). Cuts were also made at CD and GH, and contours taken at EF and KL. As will be seen from the sections, the earthworks consisted of a double rampart and double ditch of gravel and sand resting on, and cut into, an original surface of the same material. The main

<sup>1</sup> *De Bello gallico*, Book iii, ch. 8, 13.

<sup>2</sup> *Ibid.*, ch. 9.

rampart appears to have been about 8 ft. to 10 ft. high and 45 ft. wide at base, the main ditch 35 ft. wide and 12 ft. deep; the outer rampart 5 ft. high and 30 ft. to 40 ft. wide at base, and the outer ditch 6 ft. deep and 20 ft. wide.

The main rampart may have been raised at different periods, as a thin layer of dark sand probably representing a surface level occurs in it (pl. XXXV, A B, G H). The contour of the defences is much altered by the silting up of the ditches and superincumbent layers of soil and blown sand, the outer ditch being now practically invisible. The position of the entrance or entrances is doubtful. One probably existed near the north end (opposite the cottage), as the rampart curves slightly inwards on either side of the opening. There are other gaps in the middle and near the south end, but the direction of the ramparts and ditches on either side of these shows no deflection or broadening as for defence, and the openings are probably of a more or less modern date.

The northern end has been much altered and denuded, but it seems to have curved round to the eastwards for a short distance, part of it being still of commanding profile.<sup>1</sup>

Nothing was found in making the sections to give a clue to the date of the work, but the position of the finds at Site 1 (pl. XXXIV), some of which date from La Tène I, suggests that the rampart had been made before their deposit.

### THE FLINTS.

Worked flints, flakes, chips, cores, &c., were found on every part of the site and have been reported on by Mr. Reginald Smith. They are all of types generally regarded as neolithic with the exception of one or two palaeolithic examples, for instance the flake (fig. 4), which evidently came from the gravel-bed. Worked flints were found in close association with La Tène pottery, but they may well have been lying on or in the soil before the people of that period inhabited the site. One scraper was found embedded in a clay floor, but this again may be chance. The flints from the barrows have been dealt with under that section.

On both Sites 3 and 30, where pottery of class A (p. 30), Hallstatt period, was found practically unmixed with later wares, a large number of worked flints, flakes, cores, &c., was met with. Flints

<sup>1</sup> Dr. Williams-Freeman, in his *Introduction to Field Archaeology as illustrated by Hampshire* (p. 377), states that 'a map of the eighteenth century shows a return of the bank at (the southern) end, similar to that on the north'.

## 12 REPORTS OF THE SOCIETY OF ANTIQUARIES

were also found in larger proportions than elsewhere on Sites 2 and 31, where pottery of class A occurred.

### SITE 3.

Fifteen round scrapers of various sizes.  
Three small side-scrapers, one finely serrated.  
One square-nosed implement like those found at Laverstock near Salisbury (Salisbury Museum) (fig. 2).  
White nosed-scraper made from thick oval flake.  
Black do., very similar.  
A few long blades ; the smaller ones used at edges.  
One dozen cores of various forms and a large quantity of flakes, chips, &c.

### SITE 30.

One oval flake, finely worked on front.  
One heavy steep-ended scraper.

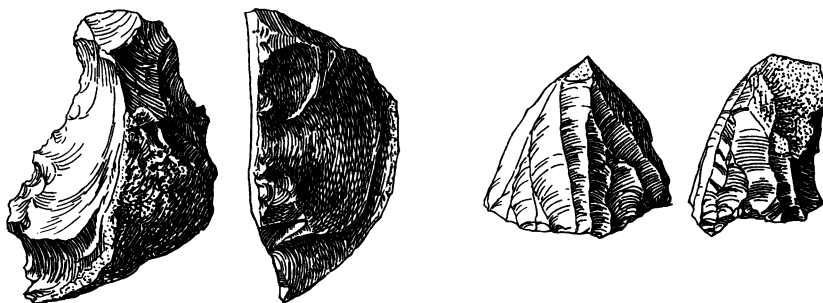


FIG. 2.  $\frac{2}{3}$ .

FIG. 3.  $\frac{2}{3}$ .

Four smaller end-scrapers.  
Two side-scrapers (one a thick blade).  
Thick flakes, unworked.  
One cone with oval base, finely fluted and undercut (fig. 3).  
Nine cores and a fair amount of flakes, chips, &c.

### SITE 31.

Two end-scrapers, five round scrapers, eleven cores, and about 100 flakes and chips.

As well as these flints from definite places, a large number was found scattered over the site, of which the following are the most noteworthy :

One large palaeolithic flake with central rib, the end used as a scraper (fig. 4).

One thick plane, white patina.

A smoky flake with surface-working along the side.

Subtriangular chalcedonic specimen with work on alternate faces and one rounded angle.

Three steep end-scrapers with a light blue patina.

One cream-coloured end-scraper on blade with two longitudinal ridges.

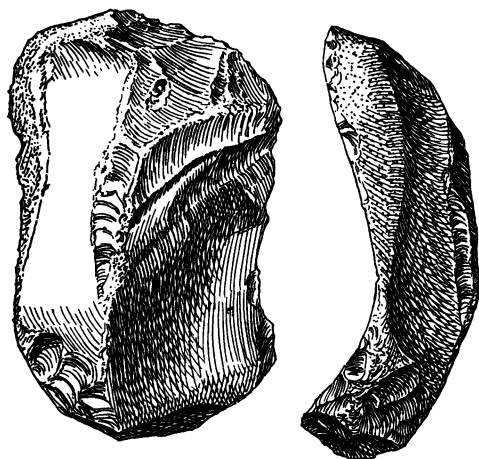


FIG. 4.  $\frac{2}{3}$ .



FIG. 5.  $\frac{2}{3}$ .

One thick oval end-scraper, black lusted with old bruised brown top surface.

Four broad black end-scrapers, irregular top surface (fig. 5).

One end-scraper has a central ridge and rather steep nose, but one of the sloping sides shows that it was chipped from a polished implement (fig. 6).

About seventy or eighty scrapers, more or less round.

Oval implement, flat faces, battered all round edge.

A black-brown round scraper with iron marking.

Chalcedonic round scraper, with crust on upper face.

A whitish blade, triangular section, worked along one side-edge.

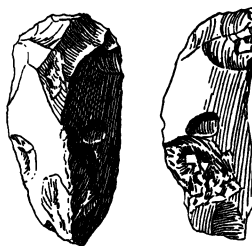


FIG. 6.  $\frac{2}{3}$ .

A white blade like a *lame étranglée* of the Aurignac period : notches along both edges and the end worn smooth (fig. 7).

A rough borer with point of triangular section.

A small chopping tool with broad crusted back.

A grey chopper with crust on thick back (fig. 8).

One yellowish translucent barbed and tanged arrow-head.

About twelve core-like lumps, some of which may have been used as steep-nosed scrapers. They vary in colour from white to black,



FIG. 7.  $\frac{2}{3}$ .

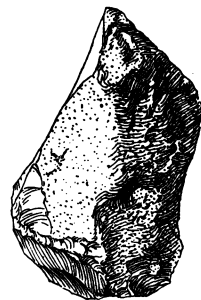


FIG. 8.  $\frac{2}{3}$ .

and the best specimen is a marbled grey with a patch of crust on the top and back, the latter being flat : its height is  $1\frac{1}{4}$  in.

A black core flaked from two platforms.

About twelve pebbles used as hammer-stones.

### THE BARROWS.

Three barrows were completely dug out, the whole of the soil of which they were composed and a foot to two feet below being turned over and examined. All the barrows on the Head, of which there are seven, are of the round type (pl. XXXIII). On the low-lying ground within the earthworks are two round and what appears to be a long barrow.

#### BARROW I.

This (pl. II and fig. 9, no. I) was near the earthworks on the low-lying ground, and was composed of gravel and sand and measured about 100 ft. in diameter and 7 ft. high in the centre. It contained a cremated burial in a reddish-brown urn of the overhanging rim type measuring 13 in. high and  $10\frac{1}{2}$  in. in diameter at the mouth. The rim was decorated with three horizontal lines of cord impressions, and on the lower part of the hollow moulding below were two rows of depressions (pl. II, no. 1). It was found inverted 4 ft. 3 in. below the surface and contained burnt bones,

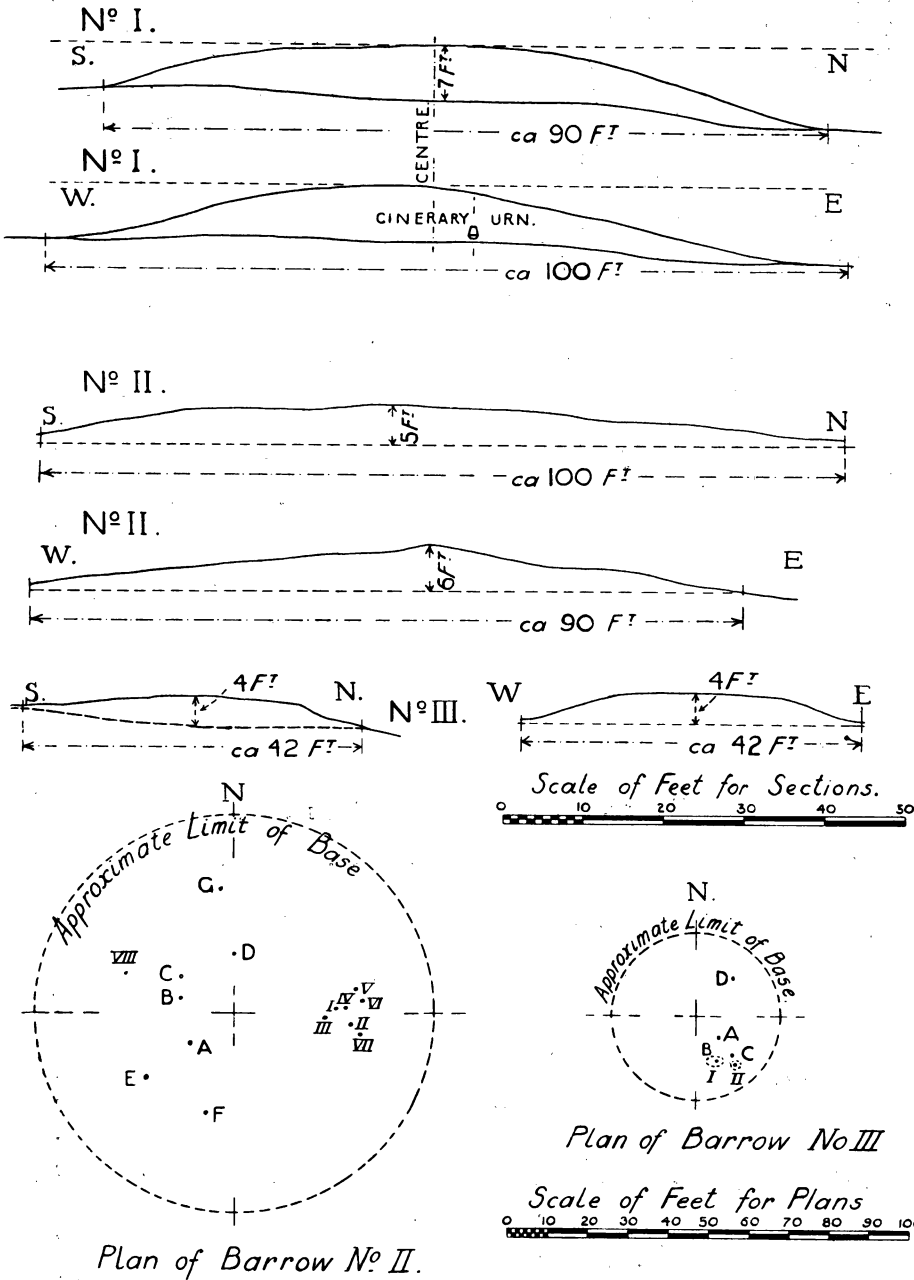


FIG. 9. Plans and sections of barrows.

on which Dr. W. Wright reports as follows: 'Fortunately the upper ends of the two humeri are preserved; these show the upper epiphysis in process of uniting with the shaft. It is therefore possible to state that the age of the individual to whom they belonged was twenty years or thereabouts. A tooth of a rodent, possibly a badger, was found with the burial.'

The charcoal with this burial was submitted to Mr. A. H. Lyell, who states that it is all oak.

The urn also contained:

(1) An incense cup  $2\frac{1}{2}$  in. high and  $4\frac{1}{4}$  in. in diameter, with ten oblong openings round the body  $1\frac{1}{4}$  in. high and  $\frac{1}{2}$  in. to  $\frac{3}{4}$  in. broad separated by vertical bands decorated with lines of cord pattern. On the lip are two rows of incised herring-bone pattern bordered with cord pattern. Within the lip is a single row of herring-bone, and a similar pattern above the base (pl. III, no. 1).

(2) Two cones of thin gold (pl. III, no. 2, and fig. 10), probably the covering of wood or lignite objects.

There are similar cones of thin gold on a large jet globular object,



FIG. 10.  $\frac{1}{4}$ .

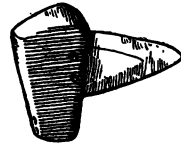


FIG. 11.  $\frac{1}{4}$ .

which may have been a staff head, found in Clandown Barrow, Martinstown, Dorset. They were in an urn of very similar type to the one found in this instance, and the barrow also contained an amber cup, a lozenge-shaped plate of gold, a bronze knife dagger, and a small pottery vessel.<sup>1</sup> A lignite cone covered with gold leaf was found in a barrow at Upton Lovel, Wilts., with two small boxes (?) of gold with conical lids—these were also probably the outer casing of lignite or wood. This barrow also contained other gold and amber objects, a grape vase and a small urn with overhanging rim of a similar type to the Hengistbury example. The burial was an incineration.<sup>2</sup>

(3) A small bronze blade in an amber handle with two rivet holes and two holes in the end for suspension (pl. III, no. 2, and fig. 11);

<sup>1</sup> Abercromby, *Bronze Age Pottery*, pl. CVIII, o, 26.

<sup>2</sup> *Ibid.*, pl. CVIII, o, 1 c, and Hoare, *Ancient Wilts.*, pls. X, XI, p. 99.

probably an amulet. There are records of two similar objects having been found in this country : (a) in a bell-shaped barrow at Normanton, Wilts., with other gold objects ; burial, incineration. In this instance the amber was decorated with fluted bands of gold, and the blade appears to have been fastened with two rivets ;<sup>1</sup> (b) at Manton, near Marlborough, in a barrow with other gold, lignite, amber, and bronze objects, an incense and a grape cup. The burial was not a burnt one. An urn with overhanging rim was also found in this barrow, but not with the burial.<sup>2</sup>

(4) Three amber beads (pl. III, no. 2).

There were only a few flints showing the work of man from this barrow. Mr. Reginald Smith gives the following note on them :

White flint implement like half a 'Thames pick', roughly triangular section, and curved cutting edge at the end.

Three side-scrapers made of small flakes.

End-scraper on thick double-ridged blade (fig. 12).

Ten round end-scrapers.

Six cores, irregular.



FIG. 12.  $\frac{2}{3}$ .

#### BARROW II.

This barrow contained three cremated burials and was situated near the highest point on the Head ; it measured about 100 ft. in diameter and 6 ft. high in the centre (pl. IV ; XXXIII ; and fig. 9, no. II). It was largely composed of sand, and contained flints in profusion showing the work of man. About half-way between this barrow and Barrow III a trench 138 ft. long was dug, but not a single flake was found. It is a curious fact that these two barrows should have contained such a large number of flints and that none should have come from this trench between them.

Mr. Reginald Smith reports on the flints as follows :

Eighteen round scrapers, irregular, half a dozen showing degrees of white patina ; two black steep-ended scrapers.

Five end-scrapers on blades, with more or less patina (one figured, fig. 13).



FIG. 13.  $\frac{2}{3}$ .

<sup>1</sup> Hoare, *Ancient Wilts.*, pl. XXV, p. 201.

<sup>2</sup> *Wilts. Arch. and Nat. Hist. Mag.*, xxxv, 1.



Eight selected cores, longest 2·7 in. : one is roughly conical with yellowish patina, and may be an implement (cone).

One ovate implement, much like hand-axe, the edges quite sharp, length  $2\frac{7}{8}$  in.

Two flakes used as side-scrapers.

Broken triangular arrow-head, thin smoky flint, finely chipped.

One flake curiously suggestive of *burin busqué* or busked graver of Aurignac style (fig. 14).

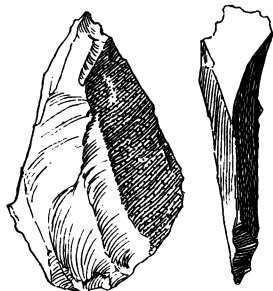


FIG. 14.  $\frac{2}{3}$ .

A very large number of chips, flakes, &c.

The following pottery was found in this barrow. For distribution see plan, fig. 9.

A. Fragment of a brown urn with overhanging rim decorated with a row of circular depressions, no grit in clay. Diameter of lip, 11 in. A few small fragments of bone and one tooth found with it. Depth from surface, 3 ft. 4 in.

B (pl. IV). Large buff-brown urn with two handles, the neck decorated with a lattice pattern in corded lines below the rim.  $20\frac{3}{4}$  in. high, diameter of mouth, 14 in. Particles of white grit in the clay. The bottom of the urn was 4 ft. from the surface. In it were some fragments of bone which Dr. Wright says represent a person who had reached adult age. In connexion with this urn were several flints fractured by fire, including one round scraper, one scraper, one thick blade, and a knife with rounded thick back, trimmed transversely. The charcoal was all oak.

C (pl. V, no. 2). Small dark brown to black roughly made urn with splayed lip, with no grit in clay and undecorated,  $4\frac{1}{2}$  in. high. A slight hollow moulding beneath lip. 3 ft. below the surface. A scraper found with it.

D (pl. V, no. 3). Similar to last, with hollow moulding below lip,  $5\frac{3}{4}$  in. high. 2 ft. from surface. A burnt flint with it.

E (pl. V, no. 1). Upper part of dark brown urn, no grit in clay : overhanging rim  $2\frac{1}{2}$  in. deep, decorated with four rows of drop-shaped depressions. A single row of similar depressions on the shoulder and a few on the broad sunk band between. Diameter of rim,  $13\frac{1}{2}$  in. A few small fragments of bone were found with this urn. The burnt wood was all oak. 3 ft. from surface.

F. This pot was 4 ft. from the surface and 2 ft. in the natural soil. It was standing in water with a large amount of burnt matter round. It appeared to be inverted, but could not be moved as it turned into mud when touched.

G. It was just possible to tell there had been a pot here, but

owing to the presence of water it was turned into mud. 3 ft. 6 in. from surface. No bones nor burnt wood.

Seven small pockets measuring about 1 ft. in diameter and 5 in. to 10 in. deep were met with, as shown on the plan (fig. 9). They were about 3 ft. to 3 ft. 6 in. from surface and contained burnt matter. Burnt layer no. VII measured 2 ft. 6 in. in diameter and was 3 ft. down. With the exception of one small piece of alder the burnt wood from all of these was oak.

BARROW III.

This barrow (pl. VI and fig. 9) was situated a little to the west of Barrow no. II. It was composed of gravel and sand, and measured about 42 ft. in diameter and 4 ft. high in centre. Fragments of several small pots were found in it, but nothing to suggest a burial. For distribution of the pottery, see plan, fig. 9.

A (pl. VI). Dark brown to black clay free from grit. Overhanging rim type. Two rows of incised herring-bone pattern on rim and one on the sunk band below, body plain, 6 in. high,  $5\frac{1}{4}$  in. in diameter. Nothing with it. Depth from surface, 3 ft.

B. A few fragments of an urn apparently similar to A. Nothing with them. Depth from surface, 2 ft. 6 in.

C. A few undecorated fragments, probably belonging to a small urn. Nothing with them. Depth from surface, 3 ft.

D. Only a few fragments, much black soil and burnt stones. Depth from surface, 8 in.

Burnt layer no. I, 4 ft. by 2 ft. 6 in., 1 ft. 6 in. below surface. Much burnt wood, all of it oak.

Burnt layer no. II, 2 ft. in diameter, 1 ft. 6 in. below surface. A few small fragments of pot and much burnt wood, all oak.

There was a fair number of flints from this barrow. Mr. Reginald Smith's report on these is as follows :

- One spear-head.
- One small borer (fig. 15).
- One prismatic tool with the side edges battered (fig. 16).
- Two good steep-ended scrapers on blades.
- One crescentic flint.
- One good side-scraper, lustrous surface.
- Three other thin blade scrapers, rather patinated.

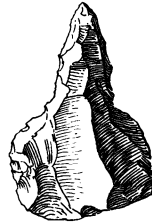


FIG. 15.  $\frac{2}{3}$ .



FIG. 16.  $\frac{2}{3}$ .

- Two round scrapers, and a few cores.
- Several rough ditto, various sizes.
- One flake is used as scraper at bulb end.
- One core has most of the pebble crust remaining.
- Specimen of raw material.
- One oblong implement with one of the longer edges used as a scraper: steepest there.
- Heavy oval scraper with edge jagged from use.

## THE SETTLEMENT.

### DESCRIPTION OF SITES (pl. XXXIV).

1. On the natural subsoil under 3 ft. 10 in. of blown sand was a heavily burnt layer about 1 ft. thick. This burnt layer measured about 55 ft. at the edge of the cliff and ran for 92 ft. inland. It contained burnt human bones, charcoal, one or two bronze ornaments, much bronze which had been melted by heat, corroded iron, and burnt pottery, some of the latter cracked and distorted by fire. The pottery appeared to be all pre-Roman and included no. 3 class B and fragments of classes D and G. There were also a few flint scrapers.

To judge by the large amount of heavily burnt matter and the presence of burnt human bones, it seems probable that cremation had taken place at this spot. Mr. Lyell states that the charcoal submitted to him from this site is all oak, with the exception of one small piece of *Pinus sylvestris*.

2. A fair amount of pottery of class A came from this spot, as well as some worked flints and a large number of flakes and splinters.

3. Six small fireplaces made of clay and stones were found here. The soil was of a very clean nature, but it contained a large amount of pottery of class A, one bronze object (pl. XXIX, no. 6), a number of worked flints, and about 500 or 600 flakes, &c. (p. 11). There were only four or five later pieces of pottery found. The area that produced finds measured about 98 ft. by 44 ft.

4. About 30 in. from the surface was an oval depression measuring about 40 ft. by 26 ft. filled with black earth 1 ft. to 1 ft. 6 in. deep in the centre and gradually getting thinner towards the sides. This contained pottery, mostly of the early La Tène periods, many pieces of daub, and iron slag which Professor Gowland states indicates that the refining of iron was carried on here.

5, 6. Two occupied spots with a little burnt clay in small patches, burnt wood, &c., and a fair amount of pottery. It was

impossible to say if the sites had been hut circles or not. The pottery was all pre-Roman.

Area of no. 5, 19 ft. by 9 ft. Area of no. 6, 11 ft. by 14 ft.

7. On the natural soil about 3 ft. down was an oval patch of burnt clay about 3 in. thick, 5 ft. 8 in. wide, and 4 ft. long. A layer of burnt matter surrounded it.

8. A roughly oval layer of clay, burnt red in places and measuring 12 ft. 3 in. by 5 ft. 10 in., and 6 in. thick. On the north edge was a rough hearth or fireplace composed of stones and clay. Embedded in the clay floor were no. 6 class B, nos. 1 and 7 class C, and no. 53 class L.

9. A roughly oblong layer of thin clay measuring about 18 ft. by 10 ft., with several iron-stones lying on it and patches of white sand here and there. There was evidence of at least three separate burnt layers on this floor, but it was not possible to keep the finds from them apart as they merged into one another. There was a large amount of early La Tène pottery from this site, also a few Roman pieces. The pottery from a burnt layer just to the north of the house was kept separate. It contained some of the good omphalos ware and types 1 and 7 class C. Fragments of a cupellation hearth also came from this site (see p. 72).

10. About a dozen stones laid together forming a rough wall without mortar. They may have been the remains of the foundation of a building.

11. Two clay layers about 4 ft. square, the top one 6 in. thick, the bottom 3 in. Some patches of sand and a piece of green vitreous slag and a few fragments of pottery were discovered.

12. Small hearth of clay and stones.

13. Small hearth of clay and stones.

14. Patch of burnt clay about 5 ft. 10 in. by 2 ft. 6 in. and 4 in. to 6 in. thick, containing a little charcoal and two or three fragments of pottery.

15. Much blackened earth, a few iron-stones lying about, a patch of burnt clay and stones measuring 3 ft. 9 in. by 2 ft. 6 in. with some pieces of daub and a mixed collection of pottery including fragments of amphorae and the small fragment of Bronze Age pottery (pl. XIV, no. 9).

16. An oblong patch of clay about 8 ft. by 3 ft. 10 in. On the north end was a semicircular wall 14 in. high of heavily burnt clay and stones, probably the back of a fireplace. Just beyond the north-east corner was a hollow circle of white clay 5 in. thick, 2 ft. 5 in. in diameter with a little burnt clay and stones in the centre (pl. VII, no. 1). A few pieces of Roman pottery were found on the clay floor.

17. Some very irregular patches of clay. Nothing of any interest was found with them.

18. This was a heavily occupied spot measuring about 40 ft. by 18 ft. There appear to have been at least two separate dwellings. The southern part has been called Site *a* and the northern Site *b*.

Site *a*. About 2 ft. down were a heavily burnt layer, a pile of iron-stones, a layer of sand and a patch of burnt clay round about which were the remains of a gravel layer. Several loom weights came from the burnt layer. Below this burnt layer was some pottery which consisted of pieces of late cordoned ware, fragments of types 1, 7, 8 class C, two or three fragments of classes E, F, G, one piece of graphite ware with cordons, and one or two later pieces.

Site *b*. At 2 ft. down was a patch of yellow sand. At 2 ft. 10 in. were the remains of a clay floor measuring 15 ft. by 6 ft., 1 ft. thick in the centre and 4 in. at the sides. The deposit below this contained a large amount of daub with the impression of wattle, and three loom weights. The pottery with this was kept separate and consisted of fragments of late cordoned ware, types 1, 7, 8 class C, 5 class E, one small piece of decorated Glastonbury (class D), and several fragments of amphorae. The top stuff on this site also contained daub, a large iron nail, a sandstone spindle-whorl, a Roman-period bronze spoon, and a mixed lot of pottery.

Mr. Lyell reports that the burnt wood submitted to him from this site was all oak.

19. A small group of late Roman pots was found here, class K 4, 7, 8, 13, and a large piece of Kimmeridge shale. A piece of good decorated Glastonbury pottery (class D) was found about 1 ft. 6 in. above these, thus showing the disturbed state of the site.

20. A burnt patch about 7 ft. in diameter. It contained the remains of a large pan or storage pot of badly baked clay with sides  $1\frac{1}{2}$  in. to 2 in. thick.

21. An irregular mass, probably representing a series of hearths or floors 2 ft. 2 in. thick and about 9 ft. by 10 ft. It was composed of a series of layers as follows, starting from the bottom on the natural soil :

|                        |       |                            |       |
|------------------------|-------|----------------------------|-------|
| Burnt matter . . . . . | 3 in. | Burnt matter . . . . .     | 2 in. |
| Gravel . . . . .       | 2 in. | Stones and earth . . . . . | 2 in. |
| Burnt matter . . . . . | 2 in. | Burnt matter . . . . .     | 1 in. |
| Sand . . . . .         | 2 in. | Sandstones . . . . .       | 2 in. |
| Burnt matter . . . . . | 4 in. | Burnt clay . . . . .       | 4 in. |
| Clay . . . . .         | 2 in. |                            |       |

Nothing was found here except a few fragments of pottery.

22. There were apparently several different dwellings at this

spot, and the whole area was a mass of burnt matter, fragments of pottery, and the remains of clay floors, &c.

At about 3 ft. down in the north part of the site was a layer of gravel about 8 in. to 12 in. thick, below which was black soil containing pottery. This included types B 5, 25, 26, C 1, 7, 8, E 1, 4. Below this again was another gravel layer with more mixed earth beneath, containing pottery of types B 4, 18, C 5, E 2, 3. These layers are called 22 B 1 and 22 B 2. Both layers contained fragments of daub and tall amphorae.

23. A clay floor 11 ft. 3 in. by 5 ft. 10 in., 8 in. thick in places and heavily burnt. Below the floor was mixed soil containing pottery of class C 7, a few pieces of the best cordoned ware, tall amphorae and a Kimmeridge shale bracelet.

About 20 in. above the west side of the floor there was a clay hearth 2 ft. 10 in. by 2 ft. 4 in. and 5 in. thick on a layer of stones about 2 ft. from the surface.

24. A burnt layer measuring about 4 ft. to 5 ft. in diameter containing the remains of a cupellation hearth (see p. 72), some iron rings and a mixed lot of pottery.

25. A long, heavily burnt clay floor measuring about 15 ft. by 2 ft. 8 in. to 3 ft. 10 in., 9 in. thick at the south end and 2 in. at the north. The pottery from this site was very mixed. A low-level group was kept separate. It contained a few fragments of best cordoned ware and types 1, 7, 8, class C, and 9 class L.

26. About 3 ft. 4 in. down there was a depression in the natural soil measuring about 9 ft. by 5 ft., probably the site of a hut circle. Very little pottery came from it worthy of note except D 2.

27. A ditch cut about 3 ft. into the natural soil, with a breadth at the top of about 4 ft., and, at 1 ft. 6 in. from the bottom, of 2 ft. 6 in. It contained a mixed lot of pre-Roman pottery and a brooch (pl. XXIX, no. 1) lying on a piece of pottery of type 4 class F.

28. A depression in the natural soil measuring about 7 ft. 6 in. in diameter and 1 ft. deep in the centre. It was probably a hut circle. Six inches from the bottom was a gravel layer 3 in. thick. The pottery below this gravel layer consisted of three or four small fragments of the best cordoned ware, fragments of types C 1 and 8, some pieces of tall amphorae, and the Glastonbury pot D 1.

29. A rubbish pit 9 ft. deep of Roman date containing nothing of interest. The few fragments of *terra sigillata* from it belonged to the second century A. D.

30. A large amount of pottery of class A was found here, also several good flint implements and a quantity of flakes, &c. (p. 11). Only two or three fragments of later pottery were met with. The

area where the pottery and flints occurred measured about 47 ft. by 20 ft. The mixed soil was about 2 ft. deep and very clean, with a few pieces of charcoal and burnt stones in it.

31. Nearly the whole of this area had been occupied at different periods from the earliest times to the fourth century A.D. British coins were found at intervals all over this part. They probably all came from Site 33, and had been distributed by the rabbits and the plough. On and near the natural soil, especially on the south-east side, were many fragments of pottery of class A as well as a number of worked flints, chips, cores, &c. (p. 11).

32. At 1 ft. 2 in. below the surface was a hearth or floor composed of burnt stones, pieces of querns and clay, 6 ft. 8 in. by 5 ft., and 6 in. to 8 in. thick. The gold Gaulish coin (pl. XXXII, no. 28) was found below this.

33. The remains of a dwelling or dwellings on this site were of a most fragmentary character (pl. VII, no. 2). There was an irregular patch of clay and gravel measuring about 12 ft. by 10 ft. and 4 in. to 6 in. thick, with some iron-stones lying about on it (fig. 17, no. I). Just to the south of these and about 10 in. higher was a layer of burnt clay and stones about 4 in. to 6 in. thick (fig. 17, no. II). At no. III (fig. 17) was a depression in the natural soil measuring about 10 ft. by 3 ft., and 10 in. to 12 in. deep. The soil was much blackened, and contained many small pieces of charcoal. Specimens of this were submitted to Mr. Lyell, who reports that it is hornbeam and oak, the former predominating. There were also many small lumps of clay in the soil, which may have come from a wattle and daub wall.

Coins were found lying on the surface and all through the soil in the area indicated by the dotted line in fig. 17. The greater part of them were found to the south of nos. I and II (fig. 17), but isolated examples were found scattered all over Site 31. The soil was riddled with rabbit burrows, and it was undoubtedly these animals that had caused the dispersion of the coins, a few having afterwards been carried farther afield by the plough. The coins had evidently been deposited in bundles, probably wrapped in basket-work, as a fibrous matter was found adhering to many of them. The largest collection, a mass of 734 coins lying on a stone with two stones on either side at K (fig. 17) on the natural subsoil, contained 607 of the Hengistbury cast type and 126 of the struck south-western type, and one small struck coin worn quite smooth. At C at a depth of 2 ft. was a cylindrical mass of 281 coins measuring 9 in. high and 2 in. in diameter at the widest part. This contained one small struck coin with a horse on the reverse (probably one of the Evans F types), two south-western type, and

278 of the Hengistbury cast type. Several other smaller lumps of coins were also found. In some cases these consisted of coins of similar types unmixed with other varieties. Such lumps consisted of specimens of the Hengistbury type, the south-western type, Roman denarii (generally in too decomposed a state to identify), or Roman bronze. Many of the coins were in pieces when found,

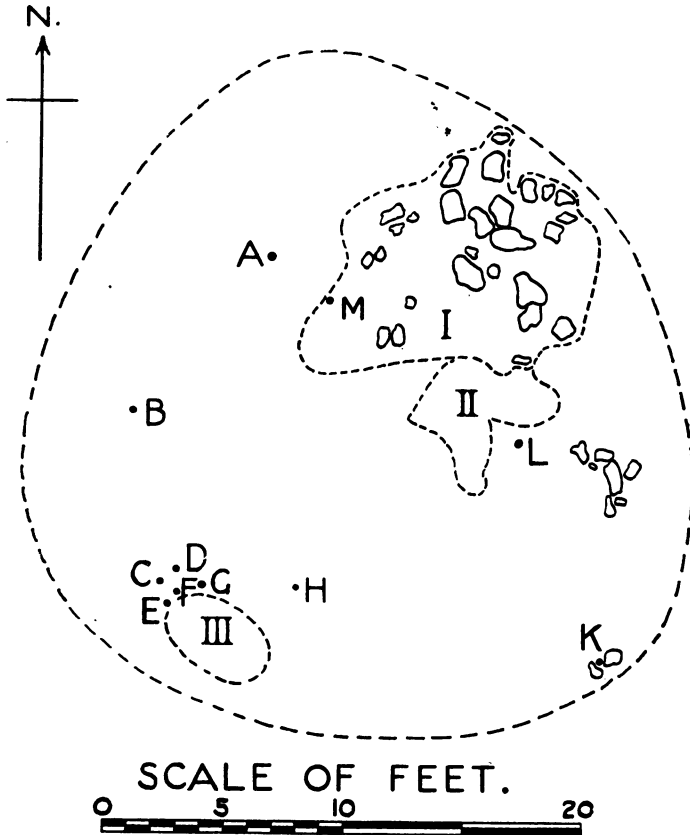


FIG. 17. Plan of Site 33.

and a large number were in too bad a condition to lift out of the soil; others fell to pieces after being taken out of the ground. As the coins were found they were sent to Mr. Hill at the British Museum, who examined over 3,000 of them. Of these over 100 were Roman, the earliest about 91 B.C. and the latest six coins of Antoninus Pius (138-61 A.D.). The rest were all British, consisting approximately of 1,300 of the cast Hengistbury type. There were many new varieties of this type in the Hengistbury collection.



The type is of exceptional interest, as it represents the very last stage of the gold stater of Philip II of Macedon, the head and chariot having become nothing but meaningless dots and lines. The last stages of this coin can be clearly seen on pl. XXXII. No. 1 still shows the horse and one of the wheels of the chariot, and on the obverse what is probably the remains of the wreath. On no. 2 the horse can just be seen, and also the remains of the wreath. In nos. 3 and 4 nothing is left of the horse but dumb-bell shaped objects, while the wreath can still be traced. Nos. 5-18 are of the Hengistbury cast type and clearly degraded copies of nos. 3 and 4.

Of the south-western struck type there were about 1,660. The remainder were various Gaulish, British, and Channel Island types with a few new varieties. A coin with E I S V on it was the only inscribed specimen.

The examples of the Hengistbury cast type were mostly in mint condition, and Prof. Gowland (p. 72) suggests that they were minted on the spot. It is interesting to find these debased Philip of Macedon coins in association with Roman coins of the middle of the second century A. D., as it shows that the Roman occupation of this island, which began 100 years before, had little affected the inhabitants of the Hengistbury district.

For a detailed description of the coins, see p. 65.

A number of other objects was also found on the site: for distribution see fig. 17. A gold bracelet and part of a gold torc (pl. IX) at E, some pieces of gold wire at M, the silvered linch-pin head (pl. XXX, no. 13), the socketed celt (pl. XXX, no. 12), and what appears to be the unfinished head of a similar example. Pottery of all types from class A to late Roman was also met with, as well as a few flint implements.

A large lump of metal was found at A, and much evidence of working in metal scattered about. See Prof. Gowland's report, page 72.

34. At about 1 ft. 2 in. from the surface was a gravel layer measuring about 15 ft. by 10 ft. A fair amount of late Roman pottery came from this site.

35. A roughly circular patch of gravel, about 20 ft. in diameter and 4 in. to 6 in. thick, with some iron-stones lying on it. A few British coins, probably from Site 33, a few Roman coins, and a fair amount of Roman-period pottery including *terra sigillata* and New Forest ware were found.

36. This was a heavily occupied area. There was a large number of iron-stones covering an area of 17 ft. by 10 ft. Under these was a layer of clean light yellow sand with nothing in it. It averaged 8 in. or 9 in. in thickness, but varied from 14 in.

to 2 in., and covered a space about 35 ft. by 12 ft. Under about the middle of this was a very irregular clay layer 21 ft. by 10 ft., 4 in. thick and burnt in places. Below this was mixed soil about 6 in. to 12 in. deep which contained some fragments of the best cordoned bowls and urns, several bases of class B 18, fragments of class C 1 and 8, one piece of class D, and a fragment of a high-shouldered bowl with graphite coating (class H), one of type L 3, several bowls of the debased cordon type, and fragments of tall amphorae. Probably all of it dated before 100 B.C. There were several burnt layers and layers of gravel, &c., in this area, and several groups of pottery were kept separate. However, upon examining these they were mostly found to be mixed. The finds near the surface principally belonged to the Roman period. The whole area measured about 120 ft. by 30 ft.

37. Burnt stones and clay 5 ft. by 3 ft.

38. A well or pit 4 ft. 6 in. to 5 ft. in diameter. It was excavated to a depth of 9 ft., but nothing was found in it, and upon the water level being reached the sides fell in and the excavation was abandoned.

39. A ditch, 29 ft. 6 in. long, cut into the natural soil to a depth of 1 ft. 6 in. and 5 ft. 6 in. across the top. The pottery from it mostly belonged to the period of class J.

40. A depression in the natural soil, about 9 ft. in diameter and 3 ft. deep in the centre; probably a hut circle. It contained burnt matter and a few pieces of pot.

41. A rather irregular gully cut in the natural soil, about 41 ft. long, 10 in. deep, and 2 ft. across. Nothing of interest was found in it.

42. A gully, about 40 ft. long, 10 in. deep, and 1 ft. 4 in. wide, cut in the natural soil and nearly straight sided. Nothing of interest was found in it.

43. A gully, about 84 ft. long, cut about 12 in. into the natural soil, measuring 16 in. across the top and nearly straight sided. A denarius of Vespasian was found in it.

44. A patch of dark earth measuring about 9 ft. in diameter. It may have been a hut circle, but was very irregular and disturbed by the rabbits. Much pottery came from it, but was of a very mixed character. Three pots were found together (L 25, 26, 27).

45. A layer of burnt clay measuring about 7 ft. 6 in. by 6 ft. 10 in.

46. A heavily occupied area, with much burnt matter, a layer of gravel and patches of clay at intervals. Under this layer of gravel and clay there was about 1 ft. to 3 ft. of mixed soil containing a large amount of pottery which probably covered a considerable

period. It consisted of fragments of types C 4, 5, 10, 11, 12; F 6, 8; G 2, 3, 4; L 3, several bead rim bowls of class J, and pieces of tall amphorae. With these were two iron brooches (pl. XXIX, nos. 2, 3). The fine cordoned bowl (B 1) was found in fragments on the natural subsoil. The pottery from the top soil was mostly Roman.

47. A mass of burnt clay and stones, 4 ft. 6 in. by 5 ft. and 1 ft. 6 in. thick. It contained fragments of Roman pottery.

48. A roughly semicircular ditch with hooked ends and a small 'island' near the centre. It varied from about 1 ft. 8 in. to 2 ft. 6 in. in depth and 8 ft. to 8 ft. 9 in. in width and had a flat bottom. Built on the side of it was the oven (Site 49; see plan and sections fig. 18 and pl. VIII). The pottery from the top soil over the ditch was practically all of the Roman period, much of it being third- and fourth-century. The pottery found in the filling of the ditch itself was of a very uniform character. It consisted of several fragments of red and black Belgic plates, part of a large flat plate, probably Arretine, some fragments of thin decorated ware as found at Mont Beuvray (pl. XIII, no. 8), many bead-rim bowls and other types of pottery illustrated under class J. Only a few fragments of earlier ware were found; these were much damaged and appeared to have been lying about on the site for some time before their deposit in the ditch.

49. An oval oven measuring 4 ft. 2 in. by 2 ft. 8 in. The walls were 3 in. to  $3\frac{1}{2}$  in. thick at the base and about  $2\frac{1}{2}$  in. at the greatest height standing, which was 10 in. The oven had been built up of clay strengthened with pieces of pottery, the whole having been burnt red by the heat. The upper part of the walls and the domed top had fallen into the interior and formed a mass of burnt clay and pottery (class I). The oven had been built on the side and partly on the filling of the ditch 48. Similar pottery was found in the walls of the oven and in the ditch, showing that the filling up of the latter and the construction of the oven must have been of about the same date. The remains of the oven may be seen opposite the surveying pole on pl. VIII, no. 2, and on pl. IX, no. 1.

50. A patch of blackened soil measuring about 9 ft. 6 in. by 11 ft. 6 in. At the north-west corner was a patch of clay measuring 1 ft. 8 in. in diameter, containing the remains of a large pan or storage pot through which holes had been made at intervals. At the south-west corner was a circular piece of burnt clay 1 ft. 8 in. in diameter, and on the east side was a layer of large iron-stones covering an area of 5 ft. 6 in. by 3 ft. 6 in. The pottery was of a mixed character, much of it being Roman.

- 51. Part of a small gully similar to Sites 41, 42, 43. It was not followed out. It contained pottery of types J 27, 28, and L 14.
- 52. The remains of a small hearth of burnt stones and clay.
- 53. Much blackened soil and a fair amount of pottery in a

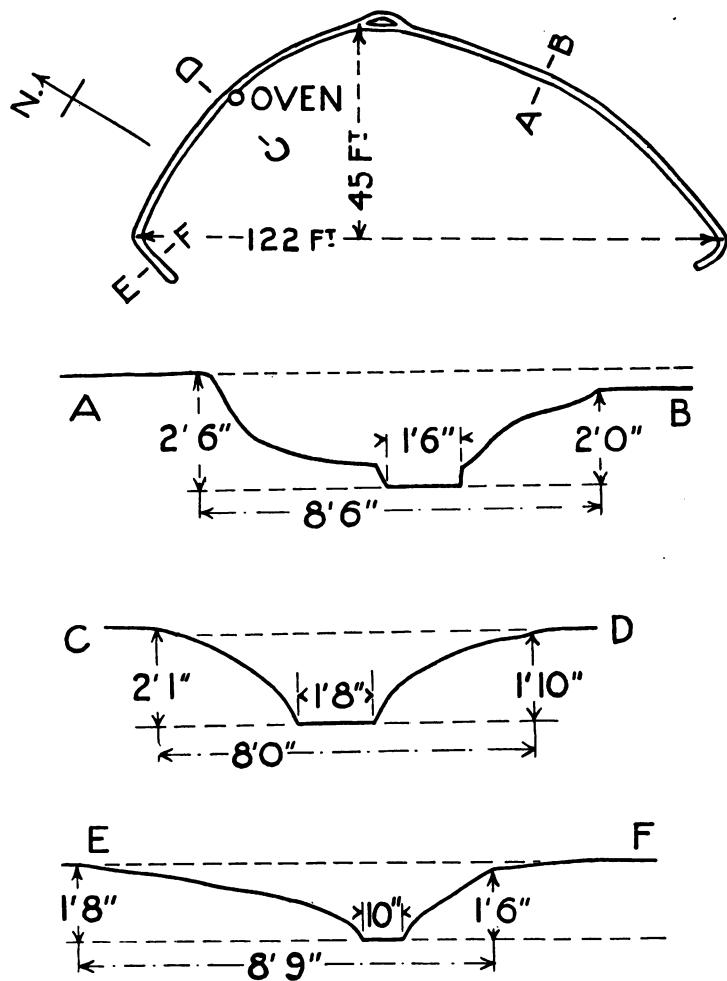


FIG. 18. Plan and sections of the ditch, Site 48.

depression in the natural soil, about 10 in. to 12 in. deep and 8 ft. to 9 ft. in diameter. It was probably a hut circle. Nothing of interest was found in it.

54. A pit sunk about 3 ft. in the natural soil, measuring about 3 ft. 6 in. across at the top. It contained a small lustrous black flint like a diminutive hand-axe, a thick white flake used as a side-

scraper, one end-scraper on a short blade, one thin splinter used as an end-scraper, a few large cores, one lump that may have been used as a hammer-stone, many flakes, &c., and raw material in the form of flaked pebbles. Apparently it was a workshop floor.

55. A very irregular clay layer, its greatest length measuring about 17 ft. and its breadth 15 ft. On the east side was a layer of gravel 20 ft. by 17 ft. Several blocks of Kimmeridge shale and circular pieces with holes in the centre (pl. XXXI, no. 9) were found here. A few pieces of pottery came from under the clay floor. They consisted of three small fragments of best cordoned ware, a few pieces of types C 1 and 7, one piece of type J 22, and another of E 8.

56. There had been several dwellings with clay floors on this site, but they were so mixed and broken up that it was impossible to take any definite measurements. In one place there were two distinct layers of clay. The top one was as much as 1 ft. thick in the centre and the lower one 4 in. to 5 in.; between them was about 10 in. of burnt matter which contained a few fragments of best cordoned ware, tall amphorae, and types L 8 and 9. Under the lower one was another burnt layer from 2 in. to 12 in. thick, in which was a small piece of graphite-coated ware of class H, and types B 9, 18, C 8. On the north-east side was a pile of iron-stones 20 ft. long, 4 ft. wide, and 2 ft. 6 in. high.

57. A clay floor measuring 10 ft. by 8 ft. There was nothing of interest found on this site.

58. A roughly circular layer of stones and clay about 7 ft. in diameter. On the south side was a fragment of the wattle and daub wall still in position. The remains of a brooch of the La Tène II period were found on this site and a fair amount of pottery, including B 21, 29, L 1, 11, 44, 55, 56.

## THE POTTERY.

### CLASS A.

#### PLATE XVI.

1. Hard grey clay with red surface burnished on outside and on the inside of lip, five girth grooves on shoulder. Site 33, on natural soil. (Pl. X, no. 9.)

2. Hard brown-grey clay with quartz particles, red to black surface, four girth grooves on shoulder. Site 30.

3. Hard grey clay, red burnished surface on outside, dark brown on inside, three girth grooves on shoulder. Site 30.

4. Hard dark brown to black clay, burnished on outside, pitted on inside, incised vertical grooves in pairs. Site 3.
5. Hard dark grey clay, dull red outside, black inside, pattern in incised lines on shoulder; lip missing. Site 30. (Pl. X, no. 8.)
6. Friable dark brown clay with burnished surface. Site 30.
7. Hard brittle reddish grey to brown clay, red surface burnished. Site 30.
8. Hard thin brown clay, red to black on outside, black to brown on inside. Trial trench, low level.
9. Hard sandy brown-red clay, upper part of outside burnished red, lower part black, inside buff. Site 31.
10. Very hard coarse dirty grey-black clay, outside glossy reddish grey. Finger-tip impressions on side and ribbed on top of rim. Site 44, low level. (Pl. X, no. 1.)
11. Hard coarse pitted dark grey clay. Finger-tip impressions under lip and on shoulder. Site 30. (Pl. X, no. 5.)
12. Hard dark grey clay. Incisions on lip, finger-tip ornament on shoulder. Site 30. (Pl. X, no. 4.)
13. Hard dark grey clay with grit in it, finger-tip impressions on shoulder. Site 30.
14. Hard dark brown to black clay, diameter of mouth about 5 in. Site 33.
15. Hollow base in brown to black hard gritty clay. Site 2.
16. Lug handle with two holes pierced vertically. Dark dirty grey clay containing grit, red to black burnished surface on outside, grey inside. Site 30.
17. Eyelet handle, reddish clay with black surface. Site 3.
18. Eyelet handle, dark grey clay with reddish brown surface. Site 3.

## PLATE X.

1. No. 10 class A.
2. Hard clay with white grit in it, grey inside, dark brown on surface, finger-tip depressions on shoulder. Site 30.
3. Hard grey clay with white grit in it, brown surface, deep incisions on rim and shoulder. Site 30.
4. No. 12 class A.
5. No. 11 class A.
6. Grey clay with reddish brown surface. Incisions on rim and shoulder. Site 30.
7. Sharp carinated shoulder with deep incisions. Grey clay with white grit. Site 30.
8. No. 5 class A.

9. No. 1 class A.  
 10. Hard dark grey with incised lines, similar type to no. 5 class A. Site 3.  
 11. Hard grey clay, dark red on outside, black inside, similar type to no. 5. Site 30.  
 12. Hard brown clay, black outside, brown inside, pattern in deeply incised lines. Site 3.  
 13. Grey gritty clay burnished black on outside, punctured pattern. Site 3.  
 14. Hard dark grey clay, black to brown on outside, incised lines, rim fragment. Site 30.  
 15. Hard dark grey clay, burnished on outside, incised lines and punctures. Site 3.  
 16. Hard light brown clay decorated with rows of finger-nail impressions. Site 3. A similar piece was found in the ditch of a barrow on Handley Down, Dorset (Pitt-Rivers, iv, pl. 294, fig. 3).

There was also part of the side and base of a pot of greyish brown clay with a horizontal row of finger impressions immediately above the base. Site 30.

A large amount of this ware was found on Sites 3 and 30 unmixed with other pottery. Fragments were also found on Sites 2 and 31 and scattered about the settlement, generally lying on the natural subsoil. It is undoubtedly earlier than any of the other pottery found. It is all hand made, and much of it is extremely rough and without character. Several examples are, however, for hand-made pottery, wonderfully well finished. Some of them have a bright red (probably ferruginous) coating, frequently burnished, while in some instances the surface is red in one part and black in another, and is slightly reminiscent of the pre-dynastic Egyptian black-topped pottery. Altogether a large amount of this pottery was found, but most of it in very small fragments; a few pieces showed patterns in incised lines and punctures. The carinated bowls (types 1-4, 6-7) appear to have had a small concave base or omphalos.

A similar group of pottery, also unmixed with later wares, has been discovered at All Cannings Cross Farm, Wiltshire, and recorded by Mrs. Cunnington.<sup>1</sup> There are a few larger and better-preserved pieces in this find, and some of them have the incised and punctured patterns filled in with a white colouring matter. Eyelet handles similar to nos. 17 and 18 were also found, as well as a pedestal base.

<sup>1</sup> *Wils. Arch. and Nat. Hist. Mag.*, xxxvii, 526.

Some pots with finger-tip impressions have been found at Cobham.<sup>1</sup> These were found apart from the early Roman examples. Mrs. Cunnington states that fragments of red-coated pottery have also been found at Oldbury Camp, at Cold Kitchen Hill, and in pits on Wilsford Down.<sup>2</sup>

In Salisbury museum are some similar fragments from Highfield, including pieces with the finger-tip impressions, incised or punctured patterns on black, black-brown and red-brown ware, one carinated and fluted piece similar to type 1, and a piece with an eyelet handle similar to the Hengistbury examples. Some fragments of pottery which also appear to belong to this class were found at Ellesborough.<sup>3</sup>

Parallels to every type in this series may be found in the cemeteries of the 1st Iron Age (Hallstatt period) in the south-west of France and the Pyrenees. The pots with finger impressions, the carinated bowls with grooves on the shoulder and concave base, the pedestal bases, the lug and eyelet handles, the incised and punctured patterns, the filling of the patterns with white colouring matter, and the burnished red coating are all represented.

The principal cemeteries from which this pottery comes are those of Le Tarn, Avezac-Prat, Espiaup, Gavin, Ayer, Bordes-de-Rivière, and Saint-Foy.<sup>4</sup>

The Hengistbury group is unlike any of our known Bronze Age pottery, and is certainly earlier than the other pottery from the settlement, some of which belongs to the La Tène I period, 400-250 B.C. This only leaves the Hallstatt period in which to place it.

The only metal object found with this pottery at Hengistbury was the bronze head (pl. XXIX, no. 6) and even this could not with certainty be said to be of the same date. At All Cannings Cross Farm one or two pieces of iron were found.

It should be noted that on Sites 2, 3, 30, and 31, where the greater part of this pottery occurred, a large number of flints showing the work of man was met with.

<sup>1</sup> *Surrey Arch. Coll.*, xxi, p. 202, pl. I, figs. 2-5.

<sup>2</sup> *Wilts. Arch. and Nat. Hist. Mag.*, xxxvii, 536.

<sup>3</sup> *Records of Bucks.*, 1908, 349 and fig. 11.

<sup>4</sup> *Revue Arch.*, 4<sup>e</sup> sér., vol. xix, 1912, pp. 32-4, 41-3, 45, 50, 239, and plates M, P, Q, S.



CLASS B.

*Cordoned and Omphalos wares.*

PLATE XVII.

1. Cordoned vase with hollow base and omphalos. Thin dark brown-grey clay, with black coating (fig. 19). Site 46 on natural soil.
2. Upper part of cordoned vase of thin dark grey clay with fine black surface. Site 22.



FIG. 19. Type no. 1, Class B.  $\frac{1}{3}$ .

3. Large cordoned bowl with hollow base and omphalos. Fine thin light brown clay with darker brown polished surface. Probably black originally, and afterwards turned brown by fire. Site 1.
4. Part of rim and base of similar bowl to last, with fine black surface. Site 22, B 2.
5. Rim of similar bowl with burnished lines on body. Site 22, B 1.
6. Bowl with cordon on shoulder, hollow base and omphalos, embedded in the clay floor of Site 8 with no. C 7 and B 6 and L 53.
7. Bowl with hollow base and omphalos. Hard friable grey clay with reddish brown slip. Site 31.

8-14. Examples of hollow bases with the omphalos.

Nos. 8 to 10 appear to belong to bowls of type 3.

9 was found in Site 56 below second clay layer.

10 was found in Site 9 in the burnt layer north of the dwelling.

11 may belong to either types 1 or 3. It was found in Site 56.

12 and 13 belong to tall urns or vases found in the filling of ditch 48; they are much chipped and worn and were probably lying about the site for some time before being finally deposited in this ditch.

14 was found in trial trenching; it is coarse and badly finished and probably belongs to the last stage of the omphalos and hollow base type.

15. Pierced handle of cordoned vase, fine thin light brown clay, with brown to black surface. Trial trench.

16. Handle of cordoned vase, thin reddish brown clay with fine black surface on outside. Site 4.

#### PLATE XVIII.

17. Bowl with two cordons on shoulder and slightly incised burnished lines on body, thin brown clay with fine black surface on outside and on the inside of lip. Site 5.

18. Lower part of similar bowl to last with domed base, very good clay and workmanship with fine black polished surface. Site 56 below second clay layer.

19. Mouth of bowl with two cordons, good thin hard brownish clay with fine black polished surface. Similar to type 3. Trial trench.

20. Mouth of cordoned bowl with groove on inside of lip, hard sandy red-grey clay with glossy black surface. Trial trench.

21. Bowl with cordon on shoulder and groove on rim, hard grey sandy clay coated with pasty slip. Site 58.

22. Bowl with cordon on shoulder, coarse and thick, hard black to red clay, dirty drab to dark grey on outside. Site 9.

23. Upper part of urn with five cordons, hard dark grey clay with polished black surface. Site 9.

24. Upper part of cordoned urn, hard grey clay with light brown slip. Site 36.

25. Rim of cordoned urn, reddish grey clay, with good black polished surface. Site 36.

26. Upper part of cordoned urn, dark grey to red-brown earthy clay with fine black surface. Site 22, B 1.

27. Upper part of cordoned urn, reddish brown clay with black burnished surface on the outside. Site 9.

28. Bowl with a cordon on shoulder, hard grey crumbly clay with black and partly reburnt red polished surface. Site 41.

29. Bowl with cordon, soft red-brown sandy clay with light brown to red surface. Site 58.

30. Well-made base with two raised rings on under side, hard brown clay containing mica. Site 36.

31. High hollow base, good thin reddish brown clay, with fine black polished surface. Found in Site 48, but appears to be of the same technique as the best cordoned and omphalos ware.

32. High hollow base, gritty clay with brown to black surface. Trial trench.

The round hollow or depression generally known as the omphalos is a common feature in the base of bowls with or without foot rings or hollow bases in the Hallstatt period. The omphalos alone is also found earlier, as, for instance, in the Terramara period in Italy.<sup>1</sup> This feature also appears in the Hallstatt period in bronze bowls and buckets with a foot ring and hollow base. Examples have been found in Bavaria at Burgfeld near Ehingen and in Tannheim, Württemberg.<sup>2</sup> The omphalos and foot-ring with hollow base also occur on pottery in NE. Bavaria in the earliest La Tène period.<sup>3</sup>

Upon the introduction of the raised foot ring and hollow base the omphalos ceased to serve any useful purpose, and could not be considered ornamental as it was not visible in the interior of the bowl. That it did not last long is evident, as no later examples can be found. It seems certain that these Hallstatt and La Tène examples were either contemporary with or served as direct prototypes for those from Hengistbury, and that the date of manufacture cannot be very different, viz. La Tène I or about the 3rd or 4th century B.C.

At Glastonbury two or three examples of the omphalos and raised foot have been found, but they are all of a late and debased character; one of them is made of light porous clay with a soapy surface (page 38). The beginning of Glastonbury is placed at about 100 B.C. by the excavators.<sup>4</sup> There is nothing to indicate that the settlement existed after the beginning of our era, and the finding of brooches of La Tène II type points to an occupation at any rate in the second century B.C. The great number of finds and

<sup>1</sup> Peet, *The Stone and Bronze Age in Italy*, pl. IV, fig. 5.

<sup>2</sup> *Alter. uns. heid. Vorz.*, v, 325, no. 1021, fig. 1C, and 326, no. 1025, fig. 1E.

<sup>3</sup> *Ibid.*, v, 282 and 331, fig. 1C and E.

<sup>4</sup> *Glastonbury Lake Village*, i, 35.

the continual remaking of the hearths show that the occupation was anything but a short one.

At Wookey Hole, where the finds are very similar to those of Glastonbury, two of these bases have been found, one of them approaching the best from Hengistbury.<sup>1</sup> The rim fragments although good are, however, not of the first quality. All the examples were found in the lowest deposits, which Mr. Balch believes to go back as early as 200 B.C. In the top of the pre-Roman deposit, which is 4 ft. deep in places, was a coin of Marcia, 124-103 B.C. Unfortunately this coin is not of great value for dating, as these denarii lasted in circulation for a long time. No other record of these hollow bases with the omphalos occurring in this country can be found.

It appears then that the date of the earliest pottery from Glastonbury and Wookey Hole is about the end of the omphalos period—roughly about 200 to 150 B.C. If the best Hengistbury examples are placed in the third or fourth century B.C. this would give 100 to 150 years for the gradual degeneration and disappearance of the type. The occurrence of several examples of class C 1 and 8, which can also be dated with some certainty to the La Tène I period, in association with the hollow base and omphalos is also another argument for placing them in that period.

Type 18 with the domed or concave base also appears to belong to the same period. Other examples of the same description, but not of such fine workmanship, were also met with; they are probably rather later in date. It is impossible to say whether types 23-7 had hollow bases and the omphalos, but they are all of good workmanship. No. 24 was found in a deposit with fragments of other pots all belonging to the La Tène I period. Nos. 21, 22, 28,<sup>2</sup> all appear to be degenerate copies of no. 3. No. 21 was found with a brooch of La Tène II type and rather a mixed lot of pottery. No. 29 was found in the same deposit. No. 30 is a well-made base, but cannot be dated. No. 31 is finely finished and of the best quality, and might well belong to the omphalos period. Several bases of type no. 32 were found. They do not appear to belong to the early La Tène periods. Unfortunately it was not possible to reconstruct any bowl with one of these bases.

For the development of the cordoned vessels see Evans in *Archaeologia*, lii, 317.

<sup>1</sup> *Arch.*, lxiv, 340, fig. 1, nos. 2 and 7.

<sup>2</sup> A bowl of similar type was found in the British village on Woodcuts Common (Pitt-Rivers, i, pl. XXXII, fig. 4).

## CLASS C.

## PLATE XIX.

1. High-shouldered pot or beaker, soft soapy brown-grey clay polished on outside, four slightly incised lines on shoulder (fig. 20). Site 8 in the clay floor with C 7 and B 6 and L 53.

2. Similar bowl to the last, but without the incised lines on shoulder. Trial trench.

3. Bowl or beaker with high shoulder, similar clay to no. 1. Site 22.

4. High-shouldered pot or beaker with four slightly incised girth grooves. Soapy grey clay with quartz particles and pasty slip. Site 53.



FIG. 20. Type no. 1, class C.  $\frac{1}{3}$ .

5. High-shouldered beaker of hard friable sandy grey clay, pasty slip, pitted. Site 22, B 2.

6. Bowl with three slight girth grooves, soapy dirty grey clay. Trial trench.

7. Pot with curved side and four slight girth grooves, soapy brownish clay with polished surface. Site 8. See no. 1.

8. Straight-sided cup or beaker with slightly moulded

lip, hard light brown clay with darker smoothed surface mottled red to grey. Site 56 below second clay layer.

9. Similar to last but with plain lip, light brown clay, surface polished and mottled grey to black. Site 9.

10. Bowl with cordon above shoulder and three girth grooves on body, grey clay with polished soapy surface. Site 46, low level.

11. Upper part of cordoned urn with darker polished pasty slip on outside, the inside flaked. Site 46, low level.

12. Hollowbasewith omphalos, dark brownish earthy clay, pitted, polished soapy surface. Site 46, low level.

13. Similar base, fine soft brown clay, pitted, polished black surface. Trial trench.

The chief characteristic of this class is the soapy surface, which has generally been polished, and in some cases the vessels appear to have had a thin wash of fine pasty clay. The insides are often

rough and flaked, and the clay pitted with many small holes. Types 8 and 9 sometimes bear a crude incised pattern (pl. XIV, no. 10).

The high-shouldered and straight-sided examples are very common on this site. They occur time after time in connexion with the best cordon and omphalos wares of class B, but they also appear to last longer. Nos. 1 and 7 were embedded in the same clay floor as no. 6, class B. The prototype of no. 1 is undoubtedly the high-shouldered Hallstatt bronze bucket. The high-shouldered and straight-sided types are frequently found in grave groups in connexion with brooches of La Tène I type in the Canton de Fère-en-Tardenois.<sup>1</sup> There was a fair number of types 10 and 11, which are probably copies of the good cordoned wares class B 6 and 32-6. They are not as early as the best cordon and omphalos wares and probably belong to the second or early first century B.C. Nos. 12 and 13 appear to be copies of the hollow base with omphalos. A similar one was found at Glastonbury. They probably belong to about the second century B.C.

#### CLASS D.

#### PLATE XX.

1. Pot with incised scroll pattern with a hatched ground on shoulder. The whole pattern gives the appearance of a twisted band. The dominant lines of the scroll are deeply incised and end in large circular depressions. Below the neck a raised band of small crossed incisions between two girth-grooves. Good hard dark grey clay with a fine black polished surface. Site 28, low level.

2. Smaller bowl with a similar pattern to last but a plain ground. Below the neck a raised band of small incisions between two girth-grooves. Hard light grey to brown sandy clay, rough surface. Site 26.

3. Bowl with a band of incised chevrons on the shoulder. Hard earthy dark grey clay with brown-grey polished slip. Trial trench.

4. Bowl with incised pattern of overlapping semicircles with hatched filling. Below the neck a row of small point incisions between two double girth grooves. Hard grey clay containing white grit with a rough brown surface. Site 27.

5. Fragment of a bowl similar to last with a nondescript

<sup>1</sup> *Revue Arch.*, 1906, 344, 347, 348, 370; see also 1902, 200.

hatched pattern. Brown grey clay with white grit in it, brown to black polished slip. Site 40.

See also pl. XIV, nos. 7, 8.

Fragments of only about one dozen bowls of this type were met with and it is impossible to date any of them with certainty, but it should be noted that no. 1 occurred with some fragments of the best cordoned bowls, and Mr. Balch believes that the bowls with large depressions belong to the earliest period of Wookey Hole, roughly about 200 B.C. Two other fragments occurred in deposits that were probably not later than the second century B.C.

This type of pottery is very common at the Glastonbury lake village, Meare, and Wookey Hole; only two or three isolated fragments have been found elsewhere, and the date of the beginning and end of this pottery is uncertain. At Glastonbury, which appears to have begun at any rate as early as the La Tène II period, there is no evidence of the settlement having lasted into the Roman period, although the numerous examples of La Tène III brooches show that it flourished in the last century B.C. At Wookey Hole there was certainly an occupation in the Roman period, and Mr. Balch believes that there was no break between this period and the earlier pre-Roman one in which the pottery of this class occurred. He does not appear, however, to have found any Roman remains dating before the second century A.D., and it is difficult to believe that this finely decorated Late-Celtic pottery lasted until that date. Future finds will probably solve this question.

That this pottery is closely connected with some found in the Armorican peninsula is undoubted. M. Déchelette, writing on the subject,<sup>1</sup> states that the technique and shape are very similar, and that the Armorican examples are often decorated on the under side of the base, as are some from Glastonbury and Wookey Hole. He considers that the examples from Armorica are finer than the British, and that the latter are imperfect and degenerate imitations. He also believes that they are closely allied to the Gaulish painted vases and that their origin is the same. He places the Glastonbury examples in the last century B.C. and earlier than the Aylesford pottery. This can hardly be right, as it would not only give too short a period, but would make the earliest Glastonbury and Aylesford examples too late. One of the Armorican examples illustrated in his article<sup>2</sup> closely resembles the high-shouldered vases of the La Tène I period (class C, no. 1) and is probably of about the same date.

<sup>1</sup> *Revue Arch.*, 1901, p. 51.

<sup>2</sup> *Revue Arch.*, 1901, p. 52, fig. 2.

## CLASS E.

## PLATE XX.

1. High shouldered bowl of hard dark grey clay with light brown soapy slip. Two circular depressions at intervals with bands of small punctures between incised lines above and below (pl. XI, no. 1). Site 22, B 1. The lower part of this bowl has been suggested in dotted lines, but the sides may have been straight and the bowl higher, as class C 1.

2. Upper part of large pot with groups of three circular depressions at intervals between horizontal incised lines. Grey clay, brown soapy surface. Site 22, B 2.

3. Upper part of a pot with single depressions at intervals between two lines of small punctures, light grey clay with soapy surface. Site 22, B 2.

4. Upper part of a pot with groups of three depressions below a band of small punctures between two incised lines. Site 22, B 1.

5. Upper part of large pot with groups of two or three depressions at intervals, two girth-grooves on the shoulder and pattern in incised lines below. Grey clay, black to brown, smooth surface on outside, inside flaked (pl. XI, no. 3). Site 18, B 2.

6. Upper part of pot decorated with circular depressions and incised lines. Hard clay, black to brown, smooth surface (pl. XI, no. 6). Site 15.

7. Upper part of large pot decorated with groups of three depressions at intervals. Hard grey clay, brown surface. Trial trench.

8. Upper part of pot, 11½ in. diameter at mouth. Hard gritty dark brown clay, decorated with depressions and a wavy incised line. Site 55, below clay.

## PLATE XI.

1. See class E 1.

2. Similar shape to no. 1. Grey to brown clay, smooth soapy surface. Decorated with groups of two depressions at intervals, with a band of sharp incisions between incised lines above and an incised line below. Site 22, B 1.

3. See class E 5.

4. Fragment of pot decorated with groups of three circular depressions, brown-red clay, smooth surface on outside, flaked inside. Trial trench.



5. Fragment of pot with groups of three depressions between double girth-grooves, red-brown clay, smooth surface. Site 18, *a*.

6. See class E 6.

Nos. 1 to 4 probably are near, or belong to, the best cordoned and omphalos period, the others are uncertain.

This decoration of circular depressions is found in many different places and periods: for instance in Italy in the bronze age,<sup>1</sup> at Este, second period, 750–600 B.C.,<sup>2</sup> in Lorraine from a tumulus of the Hallstatt period,<sup>3</sup> from Göritz,<sup>4</sup> from Austria,<sup>5</sup> and in the Roman period at Zugmantel.<sup>6</sup> Very few examples have been noted in this country: at Wroxeter;<sup>7</sup> on a bowl with a bead-rim, from Woodcuts Common;<sup>8</sup> and at Cobham, Surrey.<sup>9</sup>

#### CLASS F.

#### PLATE XXI.

1. Fragment only. Light brownish clay, with a dark brown polished soapy surface, decorated with a fret pattern made with a wheel with three rows of square teeth. Site 9 (pl. XII, no. 3).

2. Upper part of pot, diameter of mouth, 6 in. (section E). Light brown clay, with black soapy wash on outside, inside flaked, decorated with a fret pattern made with a wheel with two rows of square teeth. Site 36. A similar piece from the same site has the pattern made with a wheel having three rows of teeth.

3. Upper part of pot with cordon below neck (section A). Grey clay, with a brown soapy polished slip. Decorated with a wave pattern in incised dots made with a wheel. Site 9 (pl. XII, no. 1).

4. Upper part of pot, with cordon below neck (section B). Grey clay, with a brown soapy surface on the outside, flaked inside. Decorated with a diamond-shaped pattern in rows of incised dots made with a wheel with one row of teeth. Site 36.

5. Upper part of a pot, diameter of mouth, 6 in. (section F).

<sup>1</sup> Montelius, *La Civilisation primitive en Italie*, pl. XLI, figs. 18, 20.

<sup>2</sup> *Ibid.*, pl. LIII, fig. 12.

<sup>3</sup> Déchelette, *Arch. celt. et protohist.*, ii, 812.

<sup>4</sup> *Zeit. für Ethnologie*, xxxv (1903), 184.

<sup>5</sup> Hoernes, *Urgeschichte der bildenden Kunst in Europa*, 577, pl. XXIV, fig. 3.

<sup>6</sup> *O. R. L.*, *Zugmantel*, 174, 175, fig. 39, pl. XIX, and *Alter. uns. heidn. Vorz.* v, ix, 152, 159.

<sup>7</sup> *Report*, 1913, fig. 8, 29.

<sup>8</sup> Pitt-Rivers, *Excavations*, &c., i, pl. XXXV, fig. 11.

<sup>9</sup> *Surrey Arch. Coll.*, xxii, 154, pl. III, fig. 27.

Light brown clay, with dark brown polished surface on outside, flaked inside. Decorated with a shield pattern composed of lines of incised dots, made with a wheel with one row of teeth, and surrounded by an incised line. Site 4.

6. Upper part of bowl, diameter of mouth,  $6\frac{1}{2}$  in. (section H). Brown-grey clay, with smooth surface on outside, flaked inside. Decorated with an incised pattern made with a wheel with one row of teeth. Site 46, low level (pl. XII, no. 2).

7. Upper part of bowl, diameter of mouth, 6 in. (section D). Grey-brown clay with soapy brown polished surface outside, flaked inside. Decorated with a geometrical pattern with double lines of square incisions made with a wheel with two rows of teeth. Site 18, *a*, below burnt layer.

8. Upper part of a pot, diameter of mouth,  $7\frac{1}{2}$  in. (section G). Light brown clay, with reddish brown to black surface, smooth on outside, flaked inside. Decorated in a pattern of lines made with a wheel with two rows of teeth. Site 46, low level.

9. Upper part of a pot, diameter of mouth, 7 in. (section C). Brown to grey clay, with a smooth reddish brown to black surface on outside, flaked inside. Decorated with a pattern in vertical and horizontal lines made with a wheel with three rows of teeth. An incised line on either side of the horizontal bands of incisions. Trial trench (pl. XII, no. 4).

Many fragments of this ware were found scattered about the site, but it is extremely difficult to fix their date with any accuracy. Although in one or two instances they occurred with fragments of the best cordoned and omphalos wares, they appear rather to belong to the second century and the early part of the last century B.C. A similar piece to no. 7 was found with the brooch (pl. XXIX, no. 1) lying against it. This brooch probably belongs to the period just mentioned. Nos. 6 and 8 were found in a deposit with iron brooches (pl. XXIX, nos. 2 and 3). This deposit also contained fragments of cordoned and omphalos wares with soapy surface (C 10, 11, 12), and probably belonged to the second and first centuries B.C. As far as can be ascertained similar pottery has not been found in this country before, and nothing quite like it can be found recorded on the continent. The prototypes of these patterns may undoubtedly be found in the Illyro-Italic districts south of the Alps. A good example may be seen in a pot decorated with the wave, fret, and chevron patterns in bronze studs from Este, third period, about 500 B.C.<sup>1</sup> Fret and other patterns made with a toothed wheel, the

<sup>1</sup> Montelius, *op. cit.*, pl. LVIII, fig. 7; see also pl. LII, figs. 12, 13, 15, pl. XCIII, figs. 1-3, 6.

lines of dots being frequently separated by continuous lines, occur in North Germany and Denmark during the early Empire.<sup>1</sup>

A few fragments of incised pottery, with patterns apparently made with a wheel with square-sectioned teeth, may be seen in the Mont-Beuvray album (J. C. Bulliot), pl. XXXVI.

## CLASS G.

## PLATE XXI.

1. Bowl with foot restored from fragments of others. Hard dark grey clay, with brown to black smoothed surface. Decorated with matt bands between two pairs of girth grooves, the bands divided at intervals with pairs of incised vertical lines. There was probably another similar band a little above the base. Site 46.

2. Upper part of a pot of similar technique, and with the same decoration. To judge by other fragments of this type found, the bands occurred at intervals down the side. Site 36 and Site 46, low level, twice.

3. Upper part of large open bowl of similar technique, and the same decoration as the previous examples. Site 18, *a*, and 46, low level.

4. Lower part of a bowl of similar technique and decoration. Site 46, low level, and another of the same type with a slightly concave base came from Site 18, *a*, below burnt layer. Both have burnished crosses on the underside of base.

No record of similar ware can be found in this country, or on the continent. It does not appear to belong to the best cordon and omphalos period, and seems to have disappeared before the beginning of the Roman occupation. Several examples were found in connexion with iron brooches of the La Tène III period (pl. XXIX, nos. 2 and 3), and others with pottery that might be slightly earlier. There is not enough evidence to date them closely, but they may be roughly placed in the second century and first half of the last century B.C.

## CLASS H.

## PLATE XXII.

All the vessels of this class were made of good hard clay with the outside coated with graphite or black lead. Fragments of between twenty and thirty vessels were met with. Nos. 1, 3, 4,

<sup>1</sup> *Zeit. für Eth.*, cxi (1908), 772; *Archiv für Anthropologie*, 1907, p. 165; *Mémoires de la Société des Antiquaires du Nord*, 1896-1901, p. 372.

5, 7 were all found in site 56, where the pottery was unfortunately very mixed and extended over all the periods. No. 2 was found in site 36, and no. 6 in site 36 below the clay. The last deposit was probably not later than the second century B.C.

Bowls with this graphite surface are not uncommon on pre-Roman sites on the continent, the technique occurring at Este in the third period, 600-400 B.C.,<sup>1</sup> in the Hallstatt period in South Baden, Lower Bavaria, and South Germany,<sup>2</sup> and in the La Tène III period from Bavaria in the Danube valley.<sup>3</sup>

## CLASS I.

## PLATE XXII.

The whole of this group was found in the clay sides of the oven (site 49); all have been burnt red or brown by the great heat. To judge by the pottery found in ditch 48, on the side of which this oven was built, the date of this pottery must be somewhere in the latter part of the last century B.C. Types 1, 2, 3 are very similar to types J, 1 and 2 found in the filling of the ditch. Nos. 4, 6, and 7 are not unlike vessels often found on Roman sites in this country. Nos. 8 and 9 are the mouths of large storage jars. Diameter of mouth of no. 8,  $6\frac{1}{2}$  in., of no. 9, 11 in.

## CLASS J.

## PLATE XXIII.

1. Small bowl with slight shoulder, fine reddish clay, black polished surface. Site 48.

2. Small bowl with slight shoulder, hard dark grey clay, fumed and polished surface. Site 48.

3. Small bowl with bead rim, fine grey clay with smooth surface. Site 46.

4. Bowl similar to last. Site 48.

5. Bowl or beaker, hard grey sandy clay, black polished surface above and below central band, which is left rough and scored with lines in groups of three, perforated base. Site 48.

6. Pot with bead-rim, hard friable brown-grey clay, with smooth darker surface. Site 48.

<sup>1</sup> Montelius, *op. cit.*, pl. LVIII, figs. 9, 11.

<sup>2</sup> *Alter. uns. heid. Vorz.*, vol. v, nos. 1001-8, 1010-11, 1013-15 and 1017, p 317.

<sup>3</sup> *Ibid.*, vol. v, pl. LI, no. 937.

7. Bowl with bead-rim, hard brownish grey clay, with smooth surface. Site 48.

8. Beaker. Hard friable earthy brown clay, with dark surface, polished above and below, lattice-work pattern of scored lines on a matt surface, 7 holes in base. Site 48.

9. Beaker, hard, brown-grey sandy clay with black polished surface. Site 48.

10. Beaker. Dirty grey clay, middle decorated with a pattern 3 in. deep of alternate scored crossed and vertical lines, polished surface above and below, three holes in base. Site 48.

11. Bowl with high shoulder, similar type to no. 1. Hard black-brown clay, black polished shoulder, and the side decorated with vertical burnished lines. Site 48.

12. Upper part of bowl. Hard dark sandy clay with dirty grey to black slip. Site 48.

13. Bowl. Hard friable dark grey clay with dirty drab to dark grey slip, groove below lip, and three holes in base. Site 48.

14. Cup with slightly curved side and well moulded foot ring. Hard fine light grey clay, smooth black to grey surface. Site 48.

15. Upper part of pot with a row of comb-point impressions below lip. Light grey sandy clay. Black to red surface. Site 48.

16. Upper part of cordoned vase, between the cordons on the shoulder roulette hatching. Fine hard light grey clay, coated with smooth red slip, matt surface. Site 48.

17. Upper part of bowl, form of base uncertain. Hard grey clay, with dark grey surface. Site 48.

18. Rim of pot. Hard friable grey clay, with a pasty slip, outside mottled red to grey, inside light brown. Diameter of mouth,  $6\frac{1}{4}$  in. Site 48.

19. Rim of large pot. Hard sandy grey clay, pasty light brown slip. Diameter of mouth,  $7\frac{3}{4}$  in. Site 48.

20. Pedestal base. Hard sandy grey clay, with pasty red slip. Site 48.

#### PLATE XXIV.

21. Large pot. Hard sandy grey clay. A lattice pattern of scored lines round body, black polished surface above and on the inside of lip, grey tooled surface below. Site 48.

22. Pot with countersunk eyelet handles. Hard sandy grey clay with a reddish to grey mottled surface. Site 48.

23. Upper part of flagon with one handle, hard thin cream to white pipe clay, smooth light buff surface. Site 48.

24. Neck of amphora-shaped vessel with two three-ribbed

pointed handles, hard friable sandy grey clay, black polished surface. Site 48.

25. Tall jar (scale of drawing  $\frac{1}{8}$  natural size). Hard brown grey sandy clay. Light brown slip. Site 48.

26. Mouth of large pot. Hard sandy grey clay with light red to grey mottled surface. Diameter of mouth,  $9\frac{3}{4}$  in. (section and decoration only shown in drawing), cordon below neck and a pattern in incised lines and punctures on shoulder. Site 48. See pl. XIV, nos. 1 and 4.

27. Pot with countersunk eyelet handles. Hard sandy grey clay mottled black and red surface. Site 51, with nos. 28 and L 14.

28. Beaker with slightly moulded lip, sandy grey clay, black outside and partly polished. Found with no. 27.

With the exception of nos. 3, 27, 28, this group was all found in the filling of ditch 48. In it were several fragments of black and red Belgic plates, and part of a large flat plate that may be Arretine. There was also a fragment (pl. XIII, no. 8) which is similar to ware found at Mont-Beuvray, a site destroyed in the decade before the beginning of our era. Similar types to those in this class have been found elsewhere in connexion with Arretine, Belgic, and Mont-Beuvray wares, and the whole group may be roughly dated from the middle of the last century B.C. to the second half of the first century A.D.

Types 1, 2, 11, are very similar to nos. 1, 2, 3, class I. Nos. 3, 4, 6, 7 are typical examples of the bead rim bowl. These have been found at Oare, Wiltshire,<sup>1</sup> in connexion with Belgic, Arretine, and Mont-Beuvray wares and iron brooches of La Tène III type. Other examples may be seen in the Devizes Museum, from Casterley Camp, and Knap Hill Camp, Wiltshire, with the same type of brooch and Mont-Beuvray ware. An example was found at Puttenham, near Guildford, and was dated to the first half of the first century A.D.<sup>2</sup> Others were found at Woodcuts Common and Rotherley.<sup>3</sup>

No. 8 is very similar to a type that is often met with at a later date on Roman sites.<sup>4</sup> The Hengistbury example, several of which were met with, is probably the prototype of these later ones.

No. 13 is a common type at Jordan Hill near Weymouth, where Belgic ware has been found. Examples may be seen in the British Museum and in the Dorchester Museum.

A very similar cup to No. 14 was found at Haslemere with

<sup>1</sup> *Wilts. Arch. and Nat. Hist. Mag.*, xxxvi, 125, pl. IV A and C.

<sup>2</sup> *Surrey Arch. Coll.*, xxii, 200.

<sup>3</sup> Pitt-Rivers, *op. cit.*, vol. i, pl. XXXIII, 4, 5, ; vol. ii, CVII, 2.

<sup>4</sup> *Arch. Ael.*, vol. viii (3rd series), 176, and pl. XII, figs. 59-62.

other pottery that appears to belong to the early years of the Roman occupation.<sup>1</sup> Another example is in the British Museum from Jordan Hill.

No. 20 appears to be a base of similar type to some found at Aylesford.<sup>2</sup> Two fragments showing ribbing very similar to examples discovered in the last-mentioned site were also found in Site 48.<sup>3</sup>

Fragments of several pots of type 21 were met with on Site 48. A similar rim fragment was found at Oare.<sup>4</sup> It seems extremely likely that these are the prototypes of the common cooking pot of the Roman period.<sup>5</sup>

No. 22 is a very common type on the site; that it occurs in this period is certain, but pots with countersunk eyelet handles appear at many different dates. They have been found at Glastonbury, Corbridge, Wroxeter, and as late as the fourth century at Huntcliff.<sup>6</sup> Examples may be seen in the British Museum from Dorset, Wilts., Hampshire, and Kent.<sup>7</sup> The earlier examples are generally not countersunk (See class A, nos. 17, 18).

No. 23 does not appear to be similar to any of the ordinary Roman flagons or jugs, and it has not been possible to find a parallel to it.

No. 24 appears to be a copy in black ware of amphorae that were common in pre-Roman times and continued in use through the first century A.D., but does not seem to occur later.

No. 25 is an exceptionally tall pot; no other like it can be found recorded.

For no. 27 see remarks on no. 22.

#### CLASS K.

#### ROMAN PERIOD.

#### PLATE XXV.

I. Mouth and neck of flagon of hard creamy clay, a type belonging to the first century A.D. (*Newstead Report*, fig. 33, no. 6, and p. 261; *Haltern*, v, type 47). Site 25.

<sup>1</sup> *Proc. Soc. Ant.*, xxi, 221, fig. 4.      <sup>2</sup> *Arch.*, lii, pl. VIII, figs. 1 and 5.

<sup>3</sup> *Ibid.*, figs. 2 and 7 and fig. 5, pl. VII.

<sup>4</sup> *Wilts. Arch. and Nat. Hist. Mag.*, xxxvi, 125, pl. VII G.

<sup>5</sup> *Wroxeter Report*, 1913, figs. 19, 66, and *Arch. Ael.*, vol. viii (3rd series) 172, pl. XII, fig. 46.

<sup>6</sup> *Journal of Roman Studies*, ii, 228, fig. 40, 12.

<sup>7</sup> See also, Pitt-Rivers, *op. cit.*, vol. i, pl. XXXII, 8, 10, XXXIX, 1, 2; and vol. ii, CVII, 6, CXI, 1, 2.

2. Mouth and neck of flagon of hard light brownish clay. Trial trench.

3. Cooking pot, hard grey sandy clay with lattice-work pattern. Probably second or early third century A. D. (*Arch. Ael.*, vol. viii (3rd series), 172, pl. XII, fig. 46, and *Wroxeter*, 1913, figs. 19, 66.) Site 48.

4. Beaker, hard sandy grey clay, fumed black. Found in connexion with nos. 7, 8, and 13. Site 19.

5. Pot of hard sandy grey clay, fumed black. Probably not earlier than the latter part of the second century A. D. Trial trench.

6. Bowl of hard white clay. Fragments of several of these were found. They generally have painted patterns on the inside. Probably third or fourth century A. D.

7. Bottle of thin red clay with a pattern in dark paint and bands of roulette hatching. Probably from the New Forest potteries, and may be placed in the late third or fourth century A. D. Found with nos. 4, 8, and 13. Site 19.

8. Indented beaker or vase of light brown fine soft clay with darker slip. Probably from the New Forest potteries. Found with, and of the same date as, no. 7. Site 19.

9. Oval dish with handles. Red sandy clay with light brown surface. Site 48.

10. Dish of dirty grey sandy clay with dark grey to black surface. Trial trench (*Arch. Ael.*, vol. viii (3rd series), pl. XII, fig. 85).

11. Bowl with incised wavy pattern between two incised lines. Light soft red clay with pinkish slip. Site 9.

12. Small flanged bowl of light hard clay with red slip. Third or fourth century A. D. Trial trench.

13. Dish of reddish brown clay with darker slip. Found with nos. 4, 7, and 8 (*Arch. Ael.*, vol. viii (3rd series), pl. XII, no. 84).

14. Bowl, fine hard light grey clay with scored wavy pattern on the inside. Site 48.

15. Dish, sandy grey clay with lattice-work pattern on outside (*Arch. Ael.*, vol. viii (3rd series), pl. XII, no. 79). Trial trench.

16, 17, 18, 19. Bowls with flange near rim. Hard grey sandy clay. Some have lattice-work pattern on outside (*Arch. Ael.*, vol. viii (3rd series), pl. XII, nos. 71 and 72, and *Trans. Cumb. and West. Arch. Soc.*, xi (new series), pl. V, and p. 454, nos. 18-20).

20, 21. Rims of cooking pots. Hard sandy clay with dull grey to drab surface. Late third or fourth century A. D. See no. 3.

22. Cover of hard sandy dark brown clay, fumed black and smoothed. Site 43.



23. Bowl, rim missing. Yellowish clay with dull red slip. Stamped pattern and girth grooves, fourth century A. D. Site 36.

Many other pottery fragments of the Roman period were found, ranging from the first to fourth centuries A. D.

#### TERRA SIGILLATA, MORTARIA, AND AMPHORAE.

The following notes have been supplied by Mr. A. G. K. Hayter. As practically all this pottery was found in the top soil or in unstratified deposits, it has not been thought necessary to state the sites from which the different fragments have come.

#### TERRA SIGILLATA.

The Terra Sigillata, though small in amount, is represented by thirteen different shapes, viz. nine in Plain, four in Decorated ware. There are four potters' stamps, of which two are legible. The pottery itself covers a period extending from the last thirty years of the first century until the beginning of the third. Nearly all of it was found in a very friable condition, especially the Decorated fragments, which were consequently difficult to identify. The latter can be traced to at least three different sources—La Graufesenque, Lezoux, and East Gaul or the Rhine.

#### *Decorated Ware with Potters' stamps*

On Form Drag. 37. Small fragment with [AL]BVC1 stamped horizontally immediately below cord under festoon and tassel. The tassel is attached to right side of festoon. Lezoux, third period, about middle of second century. See *Wroxeter*, 1912, 48.

On Form Drag. 37. Five fragments of a small free style bowl by Paternus, stamped PATERNI horizontally backwards below festoon and tassel as in Déch. i, 189, fig. 121. Figures: Small stag bounding r., Déch. 860. Boar running l., Déch. 835. Dog running r., like but larger than Déch. 915. Fish l., and dog running l., neither in Déch. Lezoux, second half of second century. See *Wroxeter*, 1912, 45.

#### *Decorated Ware.*

#### PLATE XIII, nos. 1-5.

1. Form Drag. 29 (pl. XIII, no. 1). Upper band: scroll pattern, in which both upper and lower lobes contain a tendril ending in a heart-shaped leaf and a spiral with rosette terminal: cf. Knorr, *Das Südgallische Rotrweil*, ii, 4. Between upper and lower band, a

two-leaved wreath as in v, 20. Lower band : scroll with pairs of tendrils divergent, ending in same heart-shaped leaf and a small three-leaved ornament, as in viii, 3. See *Arch.*, lxiv, pl. XXIV, no. 40. La Graufesenque, Flavian period.

2. Form Drag. 29. Similar fragment (pl. XIII, no. 2). Upper band : wreath festoon (cf. Knorr, *Südg. Rottw.*, ix, 5, xii, 25-7, style of Germanus) and four-leaved tassel (*id.*, xx, 3), on angle, plain roll moulding between beaded lines. Lower band : corded uprights. Cf. *id.*, v, 10, and *Wroxeter*, 1913, pl. XIII, no. 5. Same provenance and date as no. 1.

3. Form Drag. 29. Seven fragments of one bowl (pl. XIII, no. 3). Upper band : horizontal wreath of bunches of three leaves between two beaded lines, eight-pointed stars at intervals. Lower band (not illustrated) : 'rib ornament' or elongated ovals. Cf. Déch. i, 97, fig. 65, and 110, fig. 70 (Mommo and Celadius), also Knorr, *Rottw.* i, 10 ; *Südg. Rottw.* v, 1, &c. Same provenance and date. Six other small fragments of form 29.

4. Transition Drag. 29/37 bowl (probably). Rim with no festoon and tassel. Below a beaded line, part of a medallion formed of two concentric circles, containing mask of Pan. Déch. 675 ; Lezoux, Lud. ii, M. 9, and *Wroxeter*, 1912, 39, fig. 13. Late first or early second century. See *Arch.*, lxiv, pl. XXIV, no. 37.

5. Form Drag. 30. Small fragment with festoon and tassel. Probably late first century.

6. Form Drag. 37. Fragment of foot with narrow band of S-shaped ornament. Last quarter of first century.

7. Form Drag. 37. Early scroll ornament from centre of bowl. Late first century or early second century.

8. Form Drag. 37 (pl. XIII, no. 4). Large scroll with sycamore leaf in upper and lower lobes. Déch. 1168. Style of Cinnamus. Mid-second century. See *Wroxeter*, 1912, 42.

9. Form Drag. 37. Style : metopes and subdivided metopes, divided by corded lines.

In metope : Venus nude, standing on mask r. holding peplum, l. raised as if to support mirror. Déch. 179 a.

In lower panel : two concentric circles with boss.

In medallion : four designs similar to last mentioned. Lezoux. Second century.

10. Form Drag. 37 (pl. XIII, no. 5). Fragment of large bowl with high rim. Style : metopes and subdivided metopes. In demi-medallion : quadruped running r., possibly a lioness, Déch. 789. In metope : head of standing nude figure, ? Déch. 327, 337 or 514,

all Lezoux. To his r., top of palm leaf, more pointed than Déch. 1175. Lezoux, Antonine period.

11. Form Drag. 37. In medallion : lower half of nude dancer to l. with hanging scarf. Same design as Déch. 372, but smaller. Seven-pointed star below raised foot. Below : beaded line ending in small beaded circles. Lezoux. Antonine.

12. Form Drag. 37. In metope : Hercules standing r. with club and bow. Déch. 443. Lezoux.

13. Form Drag. 37. Free style : Sol and biga l. Déch. 60 a. Lezoux.

14. Form Drag. 37. In a panel of a small bowl : Cupid dancing -r., Déch. 242. Lezoux. Probably second century.

15. Form Drag. 37. Metope decoration. In narrow metope with beaded lines : legs of a nude figure. In panel to l. : forefeet of running quadruped and annulet in bottom r. corner. Provenance doubtful. Probably second half of second century.

16. Form Drag. 37. R. side of demi-medallion of double lines, the outer one composed of beads.

17. Form Drag. 37. Portion of large thick bowl, showing three fleur-de-lis ornaments along lower edge of decoration (Fölzer 321). Also forefeet of one quadruped, and hind feet of another, both running l. German or East Gaulish. Late second century or early third. A few other small fragments of form 37.

Globular vase. Reddish clay with grey wash. Style : metope and medallion. Corded medallion showing two feet of a bird l. Below : zigzag line ending in seven-pointed star. Probably Lezoux.

*Plain Ware.*

Large flat plate. One bottom, early, possibly Arretine.

Form Drag. 15/83 (*Wroxeter, 1913, 43*). One fragment.

Form Drag. 18. Fragments of about seven.

Form Drag. 27. Fragments of about three.

Form Drag. 31. Fragments of about thirty, one with incomplete stamp INAA.

Form Drag. 33. Fragments of about ten, one with complete stamp, but illegible.

Form Drag. 79. Fragments of one rim.

Form Drag. 80. Fragments of one rim.

Form Lud. B c. Fragments of one rim.

## MORTARIA.

The six mortaria rims found at Hengistbury Head may be classified according to types given in *Wroxeter Report, 1912, 76*, as follows :

1. Between types 14 and 18, the flat flange and rim beading being on the same level. Probably dates from late in the first century A.D.
2. Type 14 and therefore of the same date.
3. Between types 26 and 54, both of which were dated at Wroxeter 80-120 A.D.
4. Between types 126 and 154.
5. Flange like type 162, but with only a beading for rim as in no. 126. Shallow bowl, black grit, wavy line scored on the horizontal surface of the flange.
6. Approaching type 162, but with a lower rim and two grooves on the flange-edge. Black grit, one side of lip roughly shaped as if with thumb.

## AMPHORAE STAMPS.



1



2



3

1. BA·V possibly, though the middle letter is doubtful. It is stamped horizontally, upside down on the rim. No parallel to this has been found.

2. CRISPIN, the two last letters being fragmentary. Stamped vertically downwards on handle. Occurs in North Italy (*C. I. L. Suppl. Ital. I, 1077, 51*). Compare CRISPĪ from Sainte-Colombe, now in Lyons Museum, and CRISP in Narbonne Museum (*C. I. L., xii, 5683, 146*).

3. Q SE RV BR, also stamped vertically downwards on handle. No doubt the same maker as the one of whom there are stamps in the Museums of Avallon, Solothurn, and Worms. See *C. I. L., xiii, 10002, 13*, where it is suggested that the letters stand for : Q SE( ) RV(FI ?) BROCC( ).

## CLASS L.

## MISCELLANEOUS.

## PLATE XXVI.

1. Large pot of dirty sandy grey clay, with reddish core and the remains of a pasty slip coating. Decorated with incised lines and punctures. Found in Site 58 in connexion with a brooch of La Tène II type.

2. Two-handled vase or beaker of thin soft light brown clay with dark slip on outside. Two girth grooves. Found in connexion with nos. 4, 7, 8, 13, Class K, but probably dates before the Roman occupation. A somewhat similar example was found in a cist grave in the Isle of Wight, and has been dated to the early Iron Age by Mr. Reginald Smith (*Proc. Soc. Ant.*, xxv, 189). There are also two rather shorter and not so well finished examples in the Devizes Museum from Westbury, Wilts., which were found with articles of the Roman period. The Hengistbury example is of finer form and technique than these, and is probably rather earlier.

3. Bowl with groove on top of rim. Soft earthy clay with grey pasty slip. A fair number of this type was found. It appears to belong to about the second century B. C.

4. Dish of light red porous clay with black core. Site 48. Pre-Roman.

5. Bowl of dark grey earthy clay, with light-brown to buff surface. Site 33. Similar bowls have been found at Cobham, Surrey (*Surrey Arch. Coll.*, xxi, 202, pl. I, figs. 6, 7).

6. Hand-made bowl of coarse earthy dark brown clay containing a few particles of white grit, darker smoothed surface. Similar type to last. Site 33.

7. Mouth of vessel with incurved rim. Hard light grey clay. Site 46.

8. Upper part of a pot with grooves on shoulder. Hard gritty clay with black wash. Site 56. Several of this type were met with; they appear to date before the La Tène III period.

9. Bowl of hard gritty clay containing mica, black to red surface with burnished neck and shoulder, body covered with faint horizontal groovings. Site 56. Several of these were found; they appear to date before the La Tène III period.

10. Upper part of pot with ribbed shoulder. Hard gritty clay with good black surface. Site 36. Before the La Tène III period.

11. Upper part of pot of hard light grey sandy clay with traces of a pasty slip on outside. The body is covered with a horizontal combing. Site 58, in connexion with a brooch of La Tène II type.

A similar combed pot has been found in Italy in the Ticino valley (British Museum, *Early Iron Age Guide*, 46, fig. 44, no. 5).

12, 13. Upper parts of bowls, of hard gritty clay with black wash. Several of this type were found. They cannot be dated accurately, but are certainly pre-Roman.

## PLATE XXVII.

14. Pot of soft earthy reddish grey clay, coated with light grey slip. Found near nos. 27, 28, Class J, and probably belongs to the same period.

15. Upper part of two-handled jar. Hard sandy clay with pasty grey slip on outside, rough inside. Uncertain date, but probably pre-Roman.

16. Upper part of beaker of hard black earthy clay with pasty blackish slip. Site 36. Pre-Roman.

17. Upper part of large bowl of dark brown friable clay with pasty brown to drab slip. Trial trench.

18. Upper part of vessel with carinated side of hard sandy light drab clay with drab slip tooled horizontally. Found in the filling of the ditch, Site 48, in connexion with pottery mostly belonging to Class J. The form is not unlike some of the Hallstatt examples (Hettner, *Führer durch Trier Mus.*, 120, no. 9; 128, nos. 4 and 6).

19. Bowl with grooves on and below the lip and two girth grooves on the side. Hard sandy grey clay with brown-grey surface. Trial trench, probably pre-Roman.

20. Bowl of hard dark grey clay with polished surface. Trial trench.

21. Bowl of dark brown to black clay, polished surface. Site 39. Probably belongs to the period of Class J.

22. Dish of friable sandy clay, with dark red pasty slip, base missing. Site 36.

23. Straight-sided dish of grey sandy clay. Site 46.

24. Bowl of hard grey clay with black coating and scored with lines in sets of four and five. Trial trench.

25. Bowl of dirty red-grey clay coated with pasty clay polished. Lattice pattern scored on outside. Base missing. Site 44. Found with 26 and 27.

26. Dish of dark grey sandy clay with polished surface. Lattice pattern scored on outside and a wavy line on under side of base. Found with 25 and 27. Site 44.

27. Small bowl of hard grey sandy clay pitted with holes. Lattice-work pattern scored on outside. Found with 25 and 26. Site 44.

28. Part of a plate of hard light brown-grey clay with dark grey polished surface. Belgic ware. Trial trench. Not later than first half of the first century (*Haltern*, v, type 73 *a* and *b*).

## PLATE XXVIII.

29. Pot of hard earthy grey clay with dark grey pasty slip polished. Site 56.

30. Bowl of hard friable dark grey clay with grey to black pasty slip polished. Site 46.

31. Small bowl of hard brown-grey clay with black polished surface. Site 55.

32. Upper part of pot of dirty grey clay with the outside coated with an iron wash; burnt black and red. Site 31. Class A?

33. Upper part of pot of hard grey sandy clay with polished pasty slip on outside, the inside rough. Site 36.

34. Large two-handled vessel of hard brown earthy clay with pasty slip. Trial trench. Pre-Roman.

35. Bowl of hard grey sandy clay with smoothed surface. Trial trench. Probably belongs to the period of Class J.

36. Upper part of pot of sandy black clay with dull brown-grey slip. Site 36. Pre-Roman.

37. Beaker of hard sandy light brown clay with pasty black slip. Site 36.

38. Bowl of dirty brown earthy clay containing white particles, polished pasty slip. Trial trench. Probably belongs to the period of Class J.

39. Dish of hard sandy light grey clay with darker polished surface. On the inside a band of panels filled alternately with scored lines and triangular punctures. Trial trench. Date uncertain. See pl. XIV, no. 11.

40. Cover of coarse hard brown-grey clay. Site 31.

41. Upper part of pot of hard earthy sandy clay smeared with light brown slip and polished. Curved incisions at intervals on the shoulder. Site 36. Pre-Roman. See pl. XV, no. 4.

42. Upper part of hand-made bowl of sandy grey clay with smooth pasty surface, reddish on inside surface of rim. Round the side a row of shallow depressions, one bossed in centre. Diameter of rim,  $6\frac{3}{4}$  in. Site 33.

43. Upper part of bowl of dark grey sandy clay decorated on shoulder with a pattern of straight and wavy scored lines. Trial trench. Probably belongs to the period of Class J.

44. Upper part of beaker of light brown sandy clay with a false eyelet handle. Site 58.

45. Upper part of large vessel of hard black to brown gritty clay with rough surface, diameter of mouth, 13 in. Decorated with curved incisions (pl. XV, no. 1). Site 56. A similar piece was found at Rushmore (Pitt-Rivers, *op. cit.*, i, pl. LXXII, nos. 12 and 4).

46. Upper part of pot of hard grey clay with burnished surface. Decorated on shoulder with a row of curved incisions (pl. XV, no. 3). Diameter of mouth,  $9\frac{1}{2}$  in. Site 36. A somewhat similar piece was found at Rushmore with a British coin of the south-western type, a coin of Claudius, and some bead-rim pottery (Pitt-Rivers, iv, 317, no. 8). Similar pieces have also been found at Woodcuts and Rotherley (Pitt-Rivers, *op. cit.*, i, pl. XXXVI, 11; ii, pl. CXIV, 9, 12).

47. Upper part of a pot of hard gritty brown clay with buff surface. Diameter of mouth,  $11\frac{1}{4}$  in. Decorated below the lip with vertical incised lines ending in a circular depression (pl. XIII, no. 6). Found in the same deposit as the last. A somewhat similar design is found on socketed celts (Brit. Mus., *Bronze Age Guide*, 72, fig. 51).

48. Upper part of a pot of hard grey clay with black surface. Site 36. This fragment has a pinched-up knob on the side (pl. XV, no. 2). A similar piece has been found at Glastonbury. The type also occurs at Woodcuts and Rotherley (Pitt-Rivers, *op. cit.*, i, pl. XXXIX, 3, pl. LIII, 7, and ii, pl. CXI, 3).

49. Bowl of hard roughish brown-black clay, with polished black surface. Diameter of rim,  $6\frac{1}{2}$  in. Site 33.

50. Bowl of hard dark brown clay, black surface. Diameter of rim,  $8\frac{1}{2}$  in. Trial trench.

51. Bowl of hard roughish brown-black clay with black polished surface. Diameter of rim, about 8 in. Site 31. Pre-Roman.

52. Bowl of pale brown powdery clay, outside dull grey polished, inside hand smoothed, round the outside sharply incised zigzag lines. Diameter of rim, about 7 in. Site 33 (pl. XIV, no. 5).

53. Bowl of coarse sandy clay decorated on outside with two deeply scored wavy lines (pl. XIV, no. 3). Diameter of rim, about 8 in. Found in the clay floor of Site 8 with nos. B 6 and C 1 and 7.

54. Upper part of bowl of hard grey clay, black to red, polished surface. Trial trench. Pre-Roman.

55. Upper part of bowl of dark grey sandy clay. Diameter of rim,  $6\frac{7}{8}$  in. Site 58. Pre-Roman.

56. Upper part of large vessel of soft earthy dark grey clay, pitted. Diameter of rim 18 in. Site 58. Pre-Roman.

57. Upper part of large vessel of hard sandy red-brown clay with smooth surface. Diameter of rim, about 9 in. Site 31.



## PLATE XIII, nos. 6-8.

6. See Class L, no. 47.

7. Fragment of the body of a pot of hard grey clay with a brownish grey surface, and decorated with a design of incised lines and punctures. Trial trench.

8. Fragment of the body of a pot of fine thin reddish buff clay, with a brown surface, the pattern made with a wheel with a single row of teeth.

Fragments of this ware were found on Sites 36 and 48. It has been found at Mont-Beuvray (Bulliot, *Fouilles du Mont-Beuvray*, pl. XXXVIII), at Oare, and Casterley Camp in connection with Belgic, Arretine and bead-rim pottery (*Wils. Arch. and Nat. Hist. Mag.*, xxxvi, 125, and pl. VII, fig. A, and xxxviii, 53, pl. V, nos. 1, 2), at Rotherley (Pitt-Rivers, *op. cit.*, ii, pl. CXIV, 6), and at Hofheim (Ritterling, *Hofheim*, 1912, p. 339, type 105, and p. 354; see also *Haltern*, v, p. 283).

## PLATE XIV.

1. Fragment of a pot of hard gritty clay, with brown surface decorated with rows of punctures between scored lines, and in the spaces between these scored spirals. Site 39. Probably belongs to Class J period (see J 26). Similar pottery has been found at Woodcuts and Rotherley (Pitt-Rivers, *op. cit.*, i, pl. XXXVI, 8; ii, CXIV, 8).

2. Upper part of hand-made straight-sided vessel of soft earthy brownish clay, drab polished surface, decorated with sharply incised semicircles. Diameter of rim, 7 in. Site 33.

3. See Class L 53.

4. Part of similar type of pot to no. 1.

5. See Class L 52.

6. Upper part of bowl of hard grey clay with polished black surface and decorated with a pattern in sharply incised lines. Site 22, below clay floor.

7. Small fragment of brown pottery, with an incised pattern of the Glastonbury type. Site 1. See Class D.

8. Small fragment of brown pottery, with incised pattern of the Glastonbury type. Site 9. See Class D.

9. Small fragment of pottery, with deeply cut pattern closely resembling chip carving (Site 15). This pottery has been found in several places on the continent. Déchelette gives examples

from Alsace, France, and Germany, and places them in Bronze Age II and III, especially III, date about 1900-1300 B.C. (*Arch. celt. et protohist.*, ii. 379, fig. 149, and 381, fig. 150, no. 2 containing lozenge-shaped incisions like the Hengistbury example. See also Hedinger, *Neukeltische Ausgrabungen auf der Schwäbischen Alp in 1900-1*).

10. Part of straight-side beaker, type C 8, with a narrow horizontal band of small curved incisions between two incised lines. Site 25, low level.

11. See Class L 39.

12 and 13. Pierced bases of vessels used as strainers. These are not uncommon on Romano-British sites, and have been found at Woodcuts, Rotherley, and Martin Down Camp (Pitt-Rivers, *op. cit.* i, pl. XLVII, 6 ; ii, pl. CXIII, 5 ; iv, pl. CCCXV, 9).

#### PLATE XV.

1. See Class L, 45.

2. See Class L, 48.

3. See Class L, 46.

4. See Class L, 41.

5. Fragment of a bowl,  $\frac{3}{4}$  in. thick, with oval depressions. Probably part of a base. Hard grey clay, with polished surface. Trial trench. Similar fragments were found in a pit outside the entrenchment on Handley Hill, and in the ditch of a barrow at the same place (Pitt-Rivers, *op. cit.*, iv, pl. CCXLVII, 4, and pl. CCXCVI, 1).

6. Part of the base of a vessel ornamented with long oval depressions. Reddish clay with dark grey core, and brown to grey surface. Trial trench. Pots with similar depressions may be seen in the Morel collection in the British Museum.

7. Base of a vessel covered with small circular punctures. Hard dark grey clay, with smooth black surface inside, and light brown outside. From ditch 48 in connexion with pottery of Class J.

8. Base of a vessel with irregular depressions at intervals. Hard grey clay with smooth surface. Site 36. A similar piece occurred at Rotherley (Pitt-Rivers, *op. cit.*, ii, pl. CXI, 11).

#### Fig. 21.

Two fragments of pots of hard brown clay, with a dark brown to grey pasty slip, polished on the outside, and flaked on the inside. Decorated with spirals or concentric circles, a narrow band composed of a row of small circular punctures between two incised lines

arranged in spirals or concentric circles. Site 36. Similar decoration may be seen on pottery from Butmir in Bosnia (*Neolithische Station von Butmir*, i, V, 1, 5, 7).

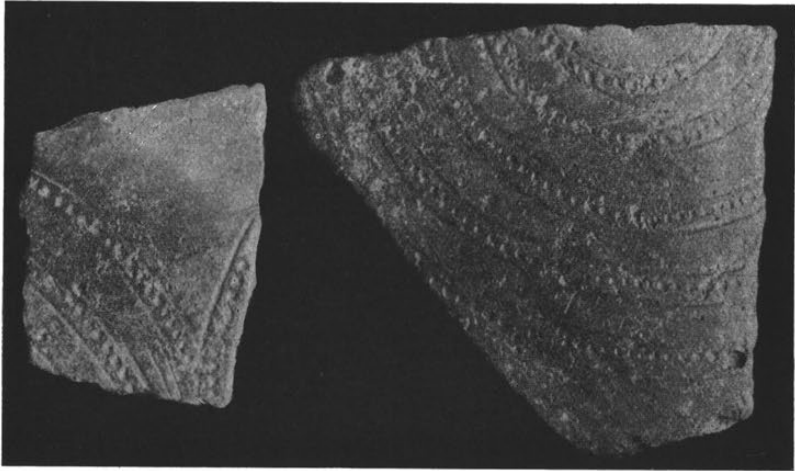


FIG. 21. 3.

### SMALL OBJECTS.

METAL, GLASS, ETC.

PLATE IX, nos. 2-5.

These gold objects were found on Site 33 in connexion with the coins. They were in a twisted mass (no. 3), the intention having probably been to melt them down. When this was untwisted it was found to consist of the end of a cable-pattern torc with terminal in the form of a cylindrical cap (no. 2). Each strand is of cable pattern, and the separate strand (no. 4) evidently belonged to the same torc.

No. 5 is a bracelet composed of two pairs of twisted strands, forming a loop at one side, and merging into a solid loop at the other.

Nothing exactly similar to this bracelet and torc appears to be recorded from the British Isles, and owing to the variety of objects from this site it is hazardous to suggest a date, but the torc is not of a form represented in the earlier stages of the La Tène period.<sup>1</sup> The weight of the bracelet is 547 grains (35·5 grammes).

<sup>1</sup> A torc fragment of three cabled strands is published from Clevedon, Somerset, associated with decorated buffer terminals in the Late-Celtic style. Brit. Mus. *Early Iron Age Guide*, 137, fig. 126.

## PLATE XXIX.

1. Bronze brooch with collar moulding on bow. Found on Site 27. As the catch is missing it is not easy to date it with accuracy, but it is probably about 100 B.C.

2 and 3. Iron brooches of La Tène III type with bilateral springs, and small openings in the foot. Found on Site 46, low level.

4. Bronze brooch with enamel bosses on the bow and foot. Red enamel inlay on head between two ribs that end in loops which represent the caught-up chord of earlier types. A similar feature may be seen on a brooch from Wroxeter (*Report 1912*, fig. 9, 3). The pin is hinged as in many examples of the early Empire. A brooch of somewhat similar type was found in a well at Ashill, Norfolk, in connexion with pottery some of which bears stamps of potters belonging to the late first and early second centuries (*Norfolk Arch.*, viii, 224).

5. Bronze stud divided into eight sections, four perfectly smooth, and four with an incised cross-hatched pattern intended to hold enamel. These form two crosses with a common centre. An exactly similar example has been found at Mont Beuvray, and is stated to belong to horse trappings. Others have been found on armour, and there is a helmet in the British Museum from the Thames on which the bosses still retain the enamel. (Bulliot, *Mont-Beuvray*, ii, pl. III, nos. 2, 28, and Déchelette, *id.* iii, 153). Many similar examples have been found on the continent, and are assigned to the La Tène III period.

6. Bronze object with small bronze rivet near one end. Probably meant to represent an animal's head with protruding eyes and a long snout. Found in connexion with pottery of Class A on Site 3. No similar object can be found recorded. It is slightly suggestive of the small animals and animals' heads found on early Italian bronzes.

7. Bronze loop with hook attached, probably part of a clasp. Found on Site 1.

8. Bronze loop with stud, probably for attaching to leather, and may have been used for the same purpose as no. 7. Site 33.

9. Bronze dumb-bell-shaped object, probably used as a button. Site 11. It has a hollow on the front side to take an enamel boss, and the back is pierced for attaching it with thread to cloth or leather. Somewhat similar objects have been found at Glastonbury (*Glastonbury Lake Village*, i, 220).

10, 11. Mirror handles of thin bronze of Celtic type. These handles appear to have been soldered on to the mirrors, and not

riveted or made in one piece with them as in the Roman and Greek examples. This type is of frequent occurrence in France and Switzerland, on sites of the La Tène III period, and has also been found at Windisch with Roman objects (Déchelette, *Mont-Beuvray*, iii, 173, pl. XXVI, 1, 2).

## PLATE XXX.

12. Bronze socketed celt, smaller and thinner than the average, with a square mouth of a type common towards the end of the Bronze Age. Site 33.

13. Bronze ring with silver coating still retaining its core, ornamented with rivet-head pattern on one face. Probably the head of a linch-pin. More complete specimens have been found in a chariot burial in Yorkshire, and many examples are extant (*Arch.*, lx, 279-90, fig. 40). Site 33.

14. Decorative bronze object, with stud for attaching to leather. Site 1. Probably pre-Roman, as nothing of Roman date was found on this site.

15. Bronze bracelet with pairs of transverse incised lines at intervals. Site 36. Somewhat similar bracelets are found in the Hallstatt period at Herrenziechen, and Lindelbach in Bavaria (*Alter. uns. heidn. Vorz.*, v, pls. XXVII, 477, LXIX, 1296 and 1300).

16. Clay sling-bolt. Site 33. These sling-bolts are often found on Celtic sites in this country, such as Glastonbury, Wookey Hole, Oare, Hod Hill, Cobham (*Wilt. Arch. and Nat. Hist. Mag.*, xxxvi, 136, and *Surrey Arch. Coll.*, xxi, 200).

17. See p. 64.

18. See p. 63.

19. Stopper of reddish brown clay, with a polished black surface. It has a hole through the upper part for the attachment of a cord. Trial trench. A plainer example has recently been added to the Leicester Museum.

20. Part of a large bead of brown glass, with bright yellow threads. Site 33. Similar examples have been found at Mont Beuvray, Stradonic, and other continental sites in large numbers, and may be placed in the La Tène III period (Déchelette, *Mont-Beuvray*, pl. XX, 23, and *Alter. uns. heidn. Vorz.*, v, pl. XIV, no. 247).

Part of a blue glass bracelet, with yellow threads of similar technique to the above, was found on Site 56.

21. Blue glass bead with white inlaid rings. Beads of this

description are common in the La Tène period on the continent (see examples from Worms in *Alter. uns. heidn. Vorz.*, v, pl. XIV, figs. 238, 239) and are frequently found on Early British sites.

Fragments of several dark blue bracelets and beads were also found, and fragments of two purple bracelets. Several lumps of this purple glass in the crude state were met with. A piece was submitted to Sir Arthur Church, who reports on it as follows :



FIG. 22.  $\frac{1}{2}$ .

‘The purple, or as I prefer to name it, the puce-coloured glass, undoubtedly owes its colour to manganese. The ores of this metal available for tingeing glass are by no means pure, hence the product is somewhat dull in hue, an effect increased by the original greenish colour, due to iron, in the ordinary glass to which the manganese has been added. The rough pieces of this purple glass shown to me appear to be the so-called “pot-metal”, from which, by re-fusion, &c., various objects may afterwards be fashioned.’

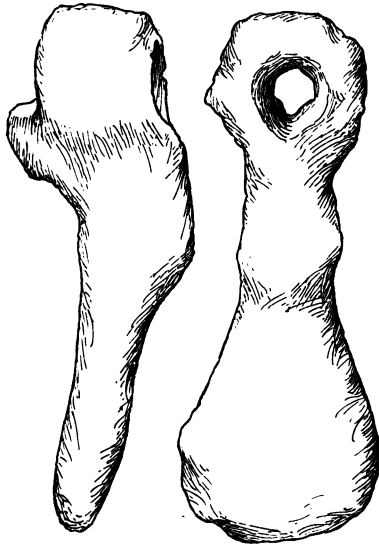


FIG. 23.  $\frac{1}{2}$ .

Bronze netting-needle (fig. 22). Found in trial trenching (see *Wroxeter Report, 1913*, pl. X, fig. 2). There is a similar example from London in the Pitt-Rivers Museum at Oxford.

Much corroded iron adze with circular socket for hafting (fig. 23). Trial trench. A somewhat similar example was found at Silchester (*Arch.*, liv, 148, fig. 14).

#### KIMMERIDGE SHALE.

PLATE XXXI, nos. 2-9.

Fragments of Kimmeridge shale objects were found in some quantities. That objects of this material were being worked on the site is evident, as many cores, such as pl. XXXI, nos. 2, 3, 8, and pl. XXX, no. 18, were met with. On Site 55 there were many small

blocks ; also roughly circular pieces with round holes in the centre (pl. XXXI, no. 9). Similar pieces to the last have been found at Glastonbury and other places in this country (*Glastonbury Lake Village*, i, 258, and fig. 53). Pl. XXXI, no. 4, was probably used as a bead.

Pl. XXXI, no. 5, shows the fragment of a cordoned vase. A fine specimen of one of these shale vases may be seen in the British Museum from Old Warden, Bedfordshire (*Arch.*, lii, 352). Figs. 5 and 6 show fragments of shale bracelets, of which many were found. These are common articles on Late Celtic and Roman sites in this country. Pl. XXX, no. 17, shows a well-made cover of this material decorated with a cordon.

#### LOOM WEIGHTS.

##### PLATE XXXI, NOS. 10-12.

The presence of a number of spindle whorls and loom weights indicates that weaving was carried on on the site. With the exception of one or two examples in stone, all the whorls were of pottery. The loom weights were of two descriptions, triangular with perforations across each of the corners (nos. 10 and 11), and a truncated pyramid with one perforation in the narrow end. Both types occur at Glastonbury. The triangular type has been found at Hunsbury, Cobham, &c., and in Belgium and Holland. The truncated pyramid type is the commoner both in this country and abroad (*Brit. Mus. Bronze Age Guide*, 139 ; *Surrey Arch. Coll.*, xxii, 143).

#### QUERNS.

##### PLATE XXXI, NO. 1.

Fragments of a fair number of querns were met with. They consisted of two types, the thin flat type common in the Roman period, and the other of more or less beehive form as found at Hunsbury (*Assoc. Arch. Soc. Rep.*, xviii, Northants, pl. VII, p. 61), but the Hengistbury examples are truncated. There was also one fragment of a saddle quern, which is generally regarded as an earlier form of the hand mill.

## APPENDIX I.

*Report on the Coins found during the Excavations at Hengistbury Head: By G. F. Hill, Esq., M.A., Keeper of the Department of Coins and Medals in the British Museum.*

It may be stated at the outset that any attempt to give an exact estimate of the number of coins found would be futile. Owing to the very bad preservation<sup>1</sup> of the great majority of the coins, a large number of them fell to pieces after being taken out of the ground, not merely in the course of cleaning, but, so to speak, 'of themselves'. Many also were found in fragments, or stuck together. Some of the latter have been left just as they were found; a number of others, obviously of well-known types, has been left uncleaned. Speaking with this reserve, I have examined over 3,000 coins. Of these over 100 were Roman, the denarii and the brass or bronze being almost equally divided in numbers. The rest were all British, with a small sprinkling of Gaulish.

The mass of the British coins was of the classes which one expected to find, viz. the common south-western struck class, and the peculiar cast class which first became known in connexion with the find published in the *Numismatic Chronicle* for 1911 (pp. 42 ff.); a class which I think we may now, for brevity's sake, call the Hengistbury class, without implying that they were actually made in that very spot.<sup>2</sup> The cast coins in circulation seem to have considerably outnumbered the struck.<sup>3</sup>

The struck coins of the south-western class call for no special remark; the proportion of specimens with any claim to be called silver was very small.

Typical pieces are illustrated on pl. XXXII, 3, 4, the former being of fairly good silver, the latter apparently of bronze.

Among the coins of the Hengistbury class the great majority belonged to the varieties already described, in connexion with the

<sup>1</sup> The bad preservation, it should be noted in passing, was due in the case of the cast coins rather to decay than to wear; it would appear that a very large proportion of these coins were in mint condition when buried.

<sup>2</sup> In addition to the find published in the *Numismatic Chronicle* a single specimen of the cast class is said to have been found at Badbury Rings; otherwise all known specimens came from Hengistbury or its immediate neighbourhood.

<sup>3</sup> Of those examined, approximately 1,660 were cast, 1,308 struck.



earlier find, in the *Numismatic Chronicle*, loc. cit., pp. 46-50, nos. 44-83. Some specimens are illustrated on pl. XXXII.

|       |                |                    |     |     |
|-------|----------------|--------------------|-----|-----|
| No. 5 | corresponds to | <i>Num. Chron.</i> | no. | 52. |
| ” 6   | ”              | ”                  | ”   | 53. |
| ” 7   | ”              | ”                  | ”   | 55. |
| ” 8   | ”              | ”                  | ”   | 64. |
| ” 9   | ”              | ”                  | ”   | 67. |
| ” 10  | ”              | ”                  | ”   | 81. |

In addition to these, however, I have noted certain new ‘varieties’. The largest proportion of these came from a find<sup>1</sup> (Site 33) which contained about 126 of the struck south-western class, 607 of the Hengistbury class, and one small struck coin, worn quite smooth. A number of such coins, some apparently containing a little silver, came from various parts of Site 33.

Of these new varieties—if such they can be called (for many of them of course are merely due to the failure in casting of one or more pellets)—a few are illustrated on pl. XXXII. Thus :

- (a) *Obv.* ‘Trident’ instead of ‘pitchfork’, flanked by a crescent and five pellets on each side. *Rev.* Circle of pellets enclosing a branch and five pellets. Pl. XXXII, 11.
- (b) *Obv.* Pitchfork flanked by straight row of three pellets on each side. *Rev.* Large crescent with two pellets above and four or three below. Pl. XXXII, 12, 13.
- (c) *Obv.* Pitchfork with one pellet on each side. *Rev.* Rosette of seven pellets. Pl. XXXII, 14.
- (d) *Obv.* as (b). *Rev.* as (c). Pl. XXXII, 15.
- (e) *Obv.* Pitchfork (curved prongs) with one pellet on each side. *Rev.* Blank. Pl. XXXII, 16.
- (f) *Obv.* Plain fork. *Rev.* Five pellets. Pl. XXXII, 17.
- (g) *Obv.* As *Num. Chron.* no. 50, but prongs straight. *Rev.* Four pellets (3 and 1). Pl. XXXII, 18.

Others, which are not illustrated here, may be described as follows :

- (h) *Obv.* As (b) above. *Rev.* Eight pellets (3, 3, and 2).
- (i) As *Num. Chron.* no. 47, with the half-moon omitted on obverse.

<sup>1</sup> Mr. Bushe-Fox gives the total number of this find as 734; adhering to many of the coins was a vegetable fibre, doubtless representing the wrapping.

- (j) *Obv.* Pitchfork with large prongs, between groups of three pellets, with one between the prongs. *Rev.* Six pellets arranged on lower half of the field. (Cp. *Num. Chron.* nos. 54, 55).
- (k) *Obv.* Pitchfork between two crescents. *Rev.* Single row of seven pellets. Represented by a single broken specimen.
- (l) As *Num. Chron.* no. 64, with the two inner pellets on each side of the fork omitted on obverse.
- (m) *Obv.* Fork with two pellets and a crescent on each side. *Rev.* Arrangement of ten pellets.
- (n) *Obv.* As *Num. Chron.* no. 59. *Rev.* Five pellets.
- (o) *Obv.* Five pellets and a crescent on each side of fork. *Rev.* Nine pellets.

We come now to the British and Gaulish coins of less usual types. With the exception of no. 28 all were found in Site 33.

α. A pale-gold stater of the south-western class, as Evans, B 5. Weight 92.3 grs. Pl. XXXII, 2.

β. Varieties of Evans E 9 or M 10-11 (the radiate object on the reverse is on the right instead of on the left, where it is distinguishable; but on some specimens the variations are greater). The metal varies from gold to what looks like fairly pure silver, much oxidized. The weight of the purest gold specimen is 22.3 grs. At least nine specimens, from various parts of the site.

Pl. XXXII, 19-22.

γ. A stater, as Evans, pl. C 9; weight 83.6 grs. From Site 33. Pl. XXXII, 1.

δ. A good gold coin, weight 22.9 grs.; the obverse is smooth; reverse shows scant remains of a type in fairly high relief, and has been stabbed twice with a chisel, making a cruciform mark, with an additional small cut slanting from one arm of the cross.

Pl. XXXII, 23.

Among the silver coins we may note the following:

ε. Two specimens of the coin with star of five curved rays, of which a specimen occurred in the original find (*Num. Chron.*, 1911, pl. V, 15). Pl. XXXII, 24.

ζ. Six specimens of a very thin coin, apparently unpublished. The elements of the obverse type are several parallel rows of pellets, annulets, and an object suggesting a fibula (like a Greek theta with a pellet in each half); on one specimen a branch appears among the rows of pellets. On the reverse is a horse to left, with

pellets and annulets in the field; on a specimen which has the branch on the obverse there is a radiate annulet above the horse. Weights, 6.4 grs., 3.9 grs., &c. Pl. XXXII, 25, 26.

η. A coin of EI SV, as Evans, pl. I, 9.

θ. About a dozen specimens of Evans M 13-14, in various stages of degradation, and for the most part worn very smooth. None of them would repay illustration.

ι. About nine specimens of Evans F 7-8.

κ. A small silver coin, probably British rather than Gaulish; on the obverse is a cruciform arrangement of egg-shaped members (enclosing pellets) round a central ring; on the reverse a headless boar to l., with a 'lyre' downwards below it, and annulets in the field. This might be a development from such a type as that of Verulamium, Evans, pl. VIII, 5. See pl. XXXII, 27.

λ. Of the well-known Armorican coins which English numismatists describe as being of the Channel Islands type, while the French more commonly attribute them to the Curiosolitae, there were eleven of the ordinary size, and one small one which was distinguished by a globule of fused metal adhering to the eye of the head on the obverse. Site 32, under hearth.

μ. A good specimen of the silver or very base gold coinage attributed to the Andecavi (H. de la Tour, *Atlas*, 6723; Blanchet, 301, fig. 190) weighing 103.7 grs., came from Site 32 (pl. XXXII, 28). Probably Gaulish also is (ν) a small piece of very base silver, if not bronze, with traces on the obverse of the snaky decoration characteristic of some Gaulish coins, such as those of the Osismii and some found in Jersey (H. de la Tour, pl. XXV, J 3), and a very weedy two-tailed horse r. on the reverse (pl. XXXII, 29).

We now come to the Roman coins, and the evidence which they afford as to the date of the various deposits and of the occupation of the site. Rather than weaken the evidence by uncertain details, I ignore all the coins of which the date cannot be approximately fixed; suffice it to say that none of these uncertain coins seems to contradict the evidence of the rest. Where only the Emperor's name is given, the coin is too badly preserved to allow of the identification of the reverse type. The references are to Grueber's *Catalogue of the Roman Republican Coins*, and Cohen's *Monnaies de l'Empire romain* (second edition).

EXCAVATIONS AT HENGISTBURY HEAD 69


DENARII (all, except nos. 9, 26 and 27, from Site 33).

|  | No. of<br>specimens. |
|--|----------------------|
| 1. <i>Probably</i> Ap. Claudius and T. Mallius, circ. 91 B.C.<br>(Grueber, i, 200, 1293) . . . . .             | 1                    |
| 2. C. Marius C.F. Capito, circ. 82 B.C. (Grueber, i, 353 ff.).   | 1                    |
| 3. Julius Caesar, 50-49 B.C. (Grueber, ii, 390, 27) . . . . .  | 1                    |
| 4. T. Carisius, circ. 45 B.C. (Grueber, i, 529, 4064). . . . .   | 1                    |
| 5. Augustus, rev. C. L. Caesares (Cohen, 43). . . . .  | 2                    |
| 6. Tiberius, rev. Pontif. Maxim. (Cohen, 16). . . . .  | 3                    |
| 7. Galba, rev. Virtus (Cohen, 340 ff.) . . . . .   | 1                    |
| 8. Vespasian, rev. Pon. Max. Tr. P. VI (Cohen 366) [found<br>with nos. 20 and 23] . . . . .                    | 1                    |
| 9. Vespasian, rev. Augur Tri. Pot. (Cohen 43) [site 43].   | 1                    |
| 10-13. Vespasian or Titus . . . . .  | 4                    |
| 14. Titus, rev. Tr. P. IX. Imp. XV. Cos. VIII. P. P.<br>(Cohen, 321, where the consulship is misprinted IIII). | 1                    |
| 15. Domitian, rev. Princeps Iuventutis (Cohen, 389). . . . .   | 1                    |
| 16. Domitian, rev. Imp. XXII. Cos. XVII. Cens. P. P. P.<br>(Cohen, 291). . . . .                               | 1                    |
| 17. Domitian, rev. Pallas fighting r. . . . .  | 2                    |
| 18. Rev. only, apparently of Nerva, Concordia Exercituum<br>(Cohen, 16 ff.) . . . . .                          | 1                    |
| 19. Trajan, rev. Pont. Max. Tr. Pot. Cos. II (Cohen, 301). . . . .   | 1                    |
| 20. Trajan, rev. P. M. Tr. P. Cos. IIII. P. P. (Cohen, 242).<br>Found with no. 8 . . . . .                     | 1                    |
| 21. Hadrian, rev. Pietas (Cohen, 1023 ff.). . . . .  | 1                    |
| 22. Hadrian, rev. Genius (Cohen, 1089 ?) . . . . .   | 1                    |
| 23. Hadrian, rev. P. M. Tr. P. Cos. III (Cohen, 1098).<br>Found with no. 8 . . . . .                           | 1                    |
| 24. Hadrian, rev. figure standing l. . . . .   | 1                    |
| 25. Antoninus Pius Cos. III, rev. Clementia Aug. (Cohen,<br>126) . . . . .                                     | 1                    |
| 26. Antoninus Pius, rev. Pax Tr. Pot. XIII Cos. IIII (Cohen,<br>582). From Site 35 . . . . .                   | 1                    |
| 27. Caracalla, rev. Pontif. Tr. P. VI Cos. (Cohen, 417). Site<br>35, on gravel layer . . . . .                 | 1                    |

## BRONZE, ETC.

No. of  
specimens

Down to Antoninus Pius all these coins appear to be 'second brass'; cf. the earlier find, *Num. Chron.*, loc. cit., 45, note 2. Nos. 28-41 from Site 33, the remainder from other sites.

|  |   |
|--|---|
| 28. Divus Augustus, rev. eagle (Cohen 247)   | 1 |
| 29. Claudius, rev. Pallas r. (Cohen 84)  | 1 |
| 30. Vespasian Cos. III, rev. Libertas Publica (Cohen, 253)   | 1 |
| 31. Domitian Cos. V (?), rev. Spes (Cohen, 453)  | 1 |
| 32. Domitian Cos. XII (?) rev. Fortunae Augusti (Cohen, 122)   | 1 |
| 33. Domitian Cos. XII (?), rev. Virtuti Augusti (Cohen, 647)   | 1 |
| 34. Domitian   | 1 |
| 35. Trajan   | 1 |
| 36. Hadrian, rev. Salus Augusti Cos. III (Cohen, 1357)   | 2 |
| 37. Hadrian, rev. Fort. Red. &c. (Cohen, 748 ?)  | 1 |
| 38-39. Hadrian   | 2 |
| 40. Antoninus Pius, rev. Britannia Cos. IIII (Cohen 117)   | 5 |
| 41. Antoninus Pius, rev. Libertas Cos. IIII (Cohen, 539)   | 1 |
| 42. Claudius Gothicus, rev. Iuno Regina (?) (Cohen, 134).<br>From Site 35, on gravel layer   | 1 |
| 43. Carus, rev. Consecratio; eagle; in exergue II (Cohen, 18). From Site 26, top soil  | 1 |
| 44. Carausius. Site 35   | 1 |
| 45. Allectus, rev. Pax Aug., S. P. in field, C (?) in exergue (Webb, no. 197). Top soil. Trial Trench  | 1 |
| 46. Constantine II, rev. Gloria Exercitus; two soldiers and a standard; in exergue  CONST (Arles). Site 35, on gravel layer | 1 |
| 47. Constans, rev. Fel. Temp. Reparatio, Phoenix on globe, mint-mark TRS. (Trèves). Period 334-350. Site 35, on gravel layer   | 1 |
| 48. Constans (?), rev. Victoriae DD. NN. Augg. Two Victories; branch between them. Mint-name illegible. Period 334-350. Site 35, on gravel layer   | 1 |
| 49. Romano-British, imitation of Tetricus. Trial Trench  | 1 |

There is no evidence for the occurrence of coins later than the Antonine period in connexion with the coins of the Hengistbury class. The excavations in this respect confirm the evidence of the previous find in this district. It is clear, however, that the site continued to be occupied down to the middle of the fourth century.

The inhabitants of Hengistbury seem to have been suspicious people, to judge by the treatment of their coins. A very large proportion of the coins which are of silver, good or base, and some which in their present condition could not pretend to any such quality, have been tested with a chisel-like instrument, which, being placed across the coin and struck, has caused the two halves to bend upwards, and sometimes to break apart. It is probable that most of the British coins, now appearing to be of bronze, which have been treated in this way, once bore a wash of silver; in their present condition they would hardly have seemed worth testing. Among the coins so treated are also some of the Roman 'middle brass'. Possibly these were bright at the time, and were thought to be of gold.

The majority of the Roman denarii have come down to us in a peculiar condition, which is best exemplified by the denarius of Julius Caesar. The metal is laminated throughout, the laminae showing plainly on the edge of the coin to the number of from eight to twelve. In other coins the disintegration has gone further and the coin has come to pieces. Thus of the denarius of Galba (no. 7) the outer laminae, showing the obverse and reverse types, have alone been preserved. In the coin of Domitian, no. 15, the whole of the outer surface of the obverse has come away, and the middle of the outer surface of the reverse is also lost; but the types can still be made out. Each lamina, in fact, retains the impression of the dies, though the more faintly the farther it is removed from the surface, like the leaves of a book which is stamped with a metal stamp (see p. 75).

The proportion of 'Britannia' coins is high, as in other finds (Croydon and Corstopitum). This, however, only shows that these Britannia coins were specially sent from Rome to the province, not that they were struck here.<sup>1</sup>

<sup>1</sup> See *Num. Chron.*, 1910, 413.

## APPENDIX II.

*Report on the Metals and Metallurgical Remains from the Excavations at Hengistbury Head: By Professor W. Gowland, A.R.S.M., F.R.S., F.S.A., Emeritus Professor of Metallurgy in the Royal School of Mines, London.*

The metals and metallurgical remains submitted to examination consisted of the following :—

## METAL OBJECTS.

- Copper.* A cake of the metal and many small fragments.  
*Copper-silver.* A large block of a copper-silver alloy and many small fragments.  
*Bronze.* Coins :  
 An 'ingate' of a casting and several pieces.  
*Silver.* Remains of coins.  
*Lead.* A small piece, also one of pewter. The above were found on Site 33.  
*Iron.* A small lump of white cast iron and much brown iron ore.

## METALLURGICAL REMAINS.

*Portions of the hearths of cupellation furnaces found on Sites 9, 23, 33.*  
*Part of a Touchstone found on Site 7.*

The most important of the above finds will now be described.

*Copper.* The largest lump found was an irregular-shaped rough cake of crude copper about 8 in. long and  $6\frac{1}{2}$  in. wide, weighing 5 lb. 10 oz., from Site 33.

On analysis it was found to have the following composition :

|         |   |   |   |                          |
|---------|---|---|---|--------------------------|
| Copper  | . | . | . | 98·50 per cent.          |
| Iron    | . | . | . | ·80 " "                  |
| Silver  | . | . | . | ·05 " "                  |
| Tin     | . | . | . | nil.                     |
| Sulphur | . | . | . | ·30 per cent.            |
| Lead    | . | . | . | little more than traces. |

It had been obtained by smelting copper ore in a rude furnace of the type in use in the Bronze Age and in Roman times, which consisted simply of a hemispherical hole in the ground.<sup>1</sup>

<sup>1</sup> 'Early Metallurgy of Copper, etc.', *Arch.*, lvi, 285 et seq.

*Copper-silver alloy from Site 33.* A large block of this alloy is the most interesting of the finds of metal in the excavations.

It is a somewhat elliptical mass of metal weighing 19 lb. 8 oz., and of the following dimensions :

Length,  $8\frac{1}{2}$  in. Breadth,  $6\frac{1}{4}$  in. Thickness,  $2\frac{1}{2}$  in.

It had been allowed to solidify in the furnace or hearth in which it had been made, portions of which were adhering to it.

A drilling was made through the middle of the block and the drillings were analysed, with the following results :

|        |   |   |   |                          |
|--------|---|---|---|--------------------------|
| Copper | . | . | . | 50.45 per cent.          |
| Silver | . | . | . | 46.43 " "                |
| Gold   | . | . | . | 1.20 " "                 |
| Lead   | . | . | . | trace.                   |
| Tin    | . | . | . | nil.                     |
| Iron   | . | . | . | little more than traces. |

The block, therefore, contains a large proportion of the precious metals, amounting to about 9.2 lb. of silver and nearly  $3\frac{1}{2}$  oz. troy of gold.

A quantity of brown material mixed with small pieces of metal and slag was also found on Site 33. The pieces of metal consisted of argentiferous copper. They were melted, cast into an ingot, and the ingot on analysis was found to have the following composition :

|        |   |   |   |                 |
|--------|---|---|---|-----------------|
| Copper | . | . | . | 67.70 per cent. |
| Silver | . | . | . | 30.04 " "       |
| Gold   | . | . | . | .03 " "         |

It is difficult to determine the exact source of this copper-silver alloy. The nearest mineral deposits in which silver ores proper have been found are in Devon, near Callington, about nine and a half miles from Tavistock. From very early times Devon and also Cornwall have been producers of silver, the metal for the most part having been obtained from argentiferous galena. In 1293 William de Wymundham accounted at the Treasury for 270 lb. of silver raised in Devon. In 1784 and 1785 the silver produced in the Beer Alston lodes amounted to 6,500 oz., while from a mine near Tavistock in the early part of last century 4,000 to 5,000 oz. of silver were obtained annually.

But independently of the silver contained in argentiferous galena, silver ores proper, including native silver, also occur, and at a mine, Wheal Brothers, Callington, about 1812, silver to the value of £3,000 was produced from these ores.<sup>1</sup> And, as will be shown later from the evidence derived from the remains of the

<sup>1</sup> *Trans. Geol. Soc. of Cornwall*, i, 122.



furnace, the silver at Hengistbury was obtained either from argentiferous copper or from argentiferous cupriferous lead, and not from lead usually produced by smelting argentiferous galena.

It is hence extremely probable that the source of the copper-silver block was the mineral district of Callington, where native silver and other silver ores proper are associated with copper ores, and that the alloy is the result of the cupellation of argentiferous copper or argentiferous cupriferous lead obtained from that district. It was in my opinion intended to be treated further by cupellation for the extraction of the silver. On the other hand, it may perhaps have been intended for the manufacture of silver coins to which a fictitious appearance of pure silver would be given by boiling with various salts. Curiously, the alloy approximates in composition to the coins of Septimius Severus (Cu. 50.65, Arg. 47.42) and other Roman coins of the first half of the third century which were treated in this manner. It is, however, very doubtful whether the metal was intended for this use, as none of the coins is of that composition.

*Bronze.* An 'ingate', i. e. a piece of metal which had filled the upper part of the inlet of a mould.

On analysis it was found to have the following composition :

|        |   |   |   |      |
|--------|---|---|---|------|
| Copper | . | . | . | 88.1 |
| Tin    | . | . | . | 10.8 |
| Lead   | . | . | . | .4   |
|        |   |   |   | 99.3 |

No moulds were found, but from its composition it is extremely probable that the mould of which it was the 'ingate' had been used for casting coins. Another piece of metal of irregular shape consisted of :

|        |   |   |   |       |
|--------|---|---|---|-------|
| Copper | . | . | . | 85.38 |
| Tin    | . | . | . | 9.80  |
| Silver | . | . | . | .04   |
| Lead   | . | . | . | trace |
|        |   |   |   | 95.22 |

Both these were found on the site of the supposed Mint, Site 33, and doubtless represent metal intended for the manufacture of coins.

*Bronze coins of the Hengistbury cast type.* Several of these coins were analysed, with the results given in the Table :

EXCAVATIONS AT HENGISTBURY HEAD 75

|  | <i>a.</i> | <i>b.</i> | <i>c.</i> | <i>d.</i> |
|--|-----------|-----------|-----------|-----------|
| Copper . . . . .                                 | 73.06     | 71.66     | 85.00     | 76.0      |
| Tin . . . . .                                    | 11.02     | 17.41     | 2.26      | 11.7      |
| Lead . . . . .                                   | 7.78      | 0.37      |           | 9.6       |
| Oxygen and adherent<br>earthy matter } . . . . . | 8.14      | 10.56     | 11.43     | 2.7       |
| Silver . . . . .                                 |           |           | 1.31      |           |
|  | 100.00    | 100.00    | 100.00    | 100.0     |

From these analyses it will be seen that the coins, with the exception of *a* and *d*, are extremely variable in the proportions of copper, tin, and lead they contain. A coin of Augustus and Agrippa, *circa* 30 B.C., has the following composition :

|                  |       |
|------------------|-------|
| Copper . . . . . | 78.45 |
| Tin . . . . .    | 12.96 |
| Lead . . . . .   | 8.62  |

It hence resembles *a* and *d*, but I do not think they have been obtained by melting these Roman coins.

All other Roman coins later than the Republic, except an issue of Claudius Gothicus, 268 to 270 A.D., are richer in copper than any of those found, and they contain zinc.

*Silver Coins from Site 33.* The silver coins found were nearly all completely converted into silver chloride, a change resulting from the action of sodium chloride (common salt) in the ground in which they were embedded. As is well known, silver objects which have been buried for a long period of time are almost always more or less converted into silver chloride, but usually there is a core of unaltered metal. In the case of these coins no metal remained. At Hengistbury Head, owing to its close proximity to the sea, the site where the coins were found, having the sea on two sides, was liable from time to time to contain much salt from spray being blown over it during storms. It was to this excess of salt that the complete conversion of the silver coins into chloride was due.

The coins which I have examined were either in the form of more or less agglomerated small masses of white or pinkish powder, some of which bore traces of a device, or in the form of powder only.<sup>1</sup> Two examples were analysed, with the following results :

<sup>1</sup> All of these coins that Mr. Hill was able to identify were first or early second century denarii.

|                | <i>e.</i> | <i>f.</i>       |
|----------------|-----------|-----------------|
| Silver . . .   | 73·66     | 72·70 per cent. |
| Chlorine . . . | 24·20     | 23·90 „ „       |
| Gold . . .     | ·44       | ·40 „ „         |
| Copper . . .   | trace     | trace           |
| Lead . . .     | „         | „               |
| Iron . . .     | „         | „               |

From these analyses it is clearly apparent that the coins were made of silver of high purity, and from the small amounts of copper and lead present that it had been obtained by cupellation.

It may be interesting here to compare their composition with that of other Roman silver coins that have been analysed.

According to Mommsen, the silver of the Roman pieces of the Republic is generally fairly pure, and the variations are due to chance rather than to intention. The purity of the metal remains almost without change until about the middle of the reign of Nero, that is to say, the pieces contained 99 or 98 per cent. of silver.

From that time onwards, with the exception of the coins of Constantinus Magnus (311–37 A.D.), Valentinianus (364–7 A.D.), Honorius (395–423 A.D.), and a few other emperors, the percentage of silver rarely reached 90, and was generally very much lower. Under Septimius Severus the percentage sank as low as 43·1. It can then be concluded that the coins analysed were Roman denarii dating before the latter part of the second century.

In addition to the bronze and silver coins there were others of the Hengistbury cast type which were probably intended as counterfeits. Three were examined and found to consist of pewter, an alloy of lead and tin, and contained only traces of silver with very small proportions of copper.

*Lead.* A small piece was found which was poor in silver, containing only 1 oz. 13 dwt. per ton.

*White Cast Iron.* This was in the form of an irregular-shaped mass, weighing about two pounds, encrusted with slag.

Iron of this kind might be occasionally produced in the small primitive furnaces of the period when the temperature became higher than that required for the production of malleable iron owing to a temporary accidental increase of the blast. It is a hard, brittle metal and could not then be applied to any useful purpose. A much higher temperature is required for the production of grey

iron suitable for castings, and this could not be attained in the low furnaces used for making malleable iron, so that no cast-iron objects of the Roman period, or even later, until medieval times, have yet been found.

An analysis by my friend Mr. F. A. Harbord gave the following results :

|                   |       |                |
|-------------------|-------|----------------|
| Carbon, graphitic | . . . | 0·16 per cent. |
| „ combined        | . . . | 3·33 „ „       |
| Silicon           | . . . | 0·38 „ „       |
| Sulphur           | . . . | 0·035 „ „      |
| Phosphorus        | . . . | 0·180 „ „      |
| Manganese         | . . . | traces         |

*Metallurgical Remains found in Sites 9, 23, 33.* The most important of these are portions of cupellation hearths or furnaces, which were used for the extraction of silver from argentiferous copper or argentiferous cupriferous lead.

The débris are of a very fragmentary nature, and, although the complete remains of none of the furnaces are represented, yet the fragments are sufficiently characteristic and definite in form to permit a reconstruction of the chief parts of two of the hearths.

The remains consist of rough pieces of refractory material which formed the outer parts of the hearths, and a few representing other portions.

They are saturated with oxides of copper and lead which have been absorbed during the operation of cupellation, and contain small globules of metal disseminated through their mass.

Both the hearths are the circular working bottoms of small furnaces which had been used in the extraction of silver from argentiferous copper or argentiferous cupriferous lead by the process of cupellation with lead, the oxides of lead and copper with which they are saturated having been absorbed during the oxidation of these metals. The refractory material of which they chiefly consist is bone-ash, i. e. calcined bones, which has the special property of resisting the corrosive action of molten lead and copper oxides and of absorbing them as readily as blotting paper absorbs water, at the same time being impervious to silver, copper, and lead. These properties were discovered by the Romans, who, as far as my investigations have gone, were the first to make use of bone ash in the construction of cupellation hearths ; and its application to that purpose has survived to the present day, although cheaper substitutes are now displacing it.

The largest of the two hearths, fig. 24, was about 11 in. in diameter. A fragment was analysed and its composition was found to be as follows :

|  |                  |
|--|------------------|
| Cuprous oxide . . . . .                  | 33·80 per cent.  |
| Lead oxide . . . . .                     | 19·94 „ „        |
| Calcium phosphate (Bone-ash) . . . . .   | 30·81 „ „        |
| Silver . . . . .                         | 3·15 „ „         |
| Gold . . . . .                           | ·12 „ „          |
| Earthy matter, carbon dioxide, and water | <u>12·18</u> „ „ |
|  | 100·00           |

The globules of metal disseminated in the hearth contained : silver 15·9 per cent. and gold 0·07 per cent., the remainder being copper. The smaller hearth, fig. 25, was about 9 inches in diameter and consisted also chiefly of bone-ash impregnated with oxides of copper and lead, oxide of copper being present in a larger amount than in the previous hearth, probably because this hearth had been used in a later stage of the process. It consisted of :

|  |                 |
|--|-----------------|
| Cuprous oxide . . . . .                  | 40·50 per cent. |
| Lead oxide . . . . .                     | 13·57 „ „       |
| Calcium phosphate (Bone-ash) . . . . .   | 27·62 „ „       |
| Silver . . . . .                         | 7·86 „ „        |
| Gold . . . . .                           | ·52 „ „         |
| Earthy matter, carbon dioxide, and water | <u>9·93</u> „ „ |
|  | 100·00          |

The globules of metal disseminated in the hearth consisted of copper with 56·8 per cent. of silver. The hearths closely resemble, in fact are almost identical with, the simple hearths which have survived in Japan from very early times and were in universal use in that country in 1872 when I first arrived there ; except that wood-ash was used in their construction and not bone-ash. In a previous communication to the Society of Antiquaries (*Archaeologia*, lvi. 267) I have pointed out that the operations in the metallurgy of argentiferous lead which I had many opportunities of observing and studying in Japan were practically the same as those practised in Europe during the period of Roman supremacy. The furnace was merely a hole in the ground, partly filled with earth or dry clay, the upper part, which formed the working hearth, consisting of wood-ash which had previously been washed with water to remove the soluble alkaline matter. The Romans substituted bone-ash for the wood-ash, otherwise the hearths of their furnaces were the same as those of the



Fig. 24. Remains of cupellation hearth.

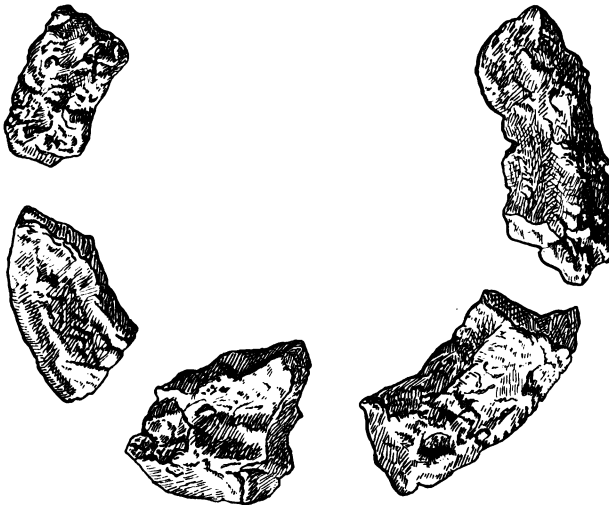


Fig. 25. Remains of cupellation hearth.

Japanese. As the reconstruction of the Roman furnace (fig. 26), which I was able to make from the remains found at Silchester, will be more intelligible if we first consider the structure of a Japanese furnace, I will briefly describe a typical one which I had frequent opportunities of studying.

The furnace was of the simplest construction, merely a hole in the ground lined with wood or sometimes with rough stones, and partly filled with earth or dry clay, the upper part or working hearth being of wood-ash as stated above.

A shallow dish-like cavity about 12 in. to 14 in. in diameter was scraped out near the middle of the layer of wood-ash to receive the charge of metal to be treated.

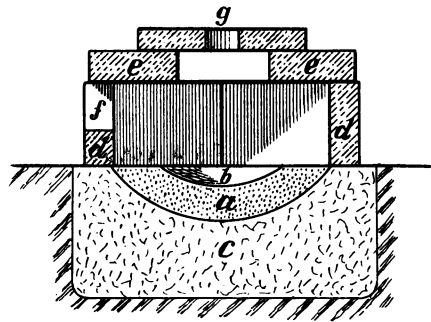
A row of clay slabs, or a clay wall as shown in fig. 27, was built around the cavity about 6 inches from its periphery, an opening being left in front for the manipulation of the charge. The top was closed by one or more clay slabs. A chamber was thus formed in which a very high temperature could be maintained. A blast of air from a bellows was admitted to the chamber through an aperture in the side or in the covering slab.

In fig. 26<sup>1</sup> is given a diagrammatic representation of a Roman furnace as reconstructed from the remains found at Silchester, where similar operations to those at Hengistbury Head were carried on. In the illustrations (*a*) is the working hearth of bone-ash, resting on a stratum of dry clay or earth (*c*), the whole filling a hole excavated in the ground of the furnace room. That the lower portion of the hearth was made of the latter materials is, I think, almost certain, as otherwise some bone-ash unsaturated with oxides would have been found. There is, however, a stronger reason for this view, i. e. that bone-ash was not necessary in that part, and, as it doubtless cost more than clay or marl, its use would be confined to the construction of the uppermost stratum, where alone it was essential. The upper layers of (*a*), or as much as was saturated with oxides, were removed and renewed after each refining operation.

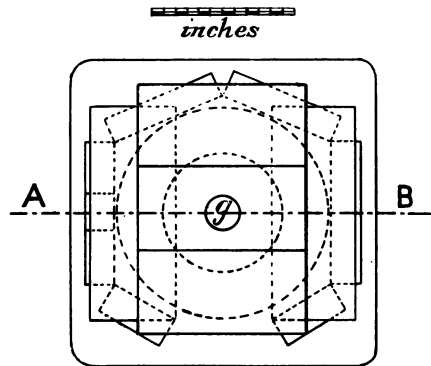
The cavity (*b*) in which the metal was cupelled was almost completely encircled by bricks or slabs of clay (*d, d*). Upon these the covering slabs (*e, e*), also of clay, were laid. A blast of air was admitted through one of the apertures shown. No remains of the enclosing walls were found at Hengistbury Head, although there must have been such an enclosure, or the temperature necessary for the working of the hearth could not have been obtained.

<sup>1</sup> Gowland, "Remains of Silver Refinery, Silchester," *Arch.*, lvii, 118.

In fig. 27<sup>1</sup> is illustrated the operation of cupellation in progress, as conducted in Japan. The clay slabs surrounding the hearth are shown here slightly incurved, and the top of the furnace is closed by a single slab, but an arrangement of slabs similar to that depicted in fig. 26, representing the Roman furnace, is not uncommon. The process of extracting silver from silver-copper



Section on the line AB



Plan

FIG. 26. Roman cupellation furnace.

alloys or argentiferous lead was conducted as follows: The shallow cavity in the hearth was filled with charcoal, and when this had become sufficiently ignited, the argentiferous copper to be treated was placed upon it, together with a certain amount of lead. More charcoal was then piled up over the metals, and the bellows were started. As soon as the metals had melted and the

<sup>1</sup> *Op. cit.*, p. 120.



furnace had attained the requisite temperature, the fire was pushed away and piled around the edge of the metallic bath which now filled the cavity in the hearth. By the combined action of the heat, and of the air from the bellows, the lead was gradually oxi-



FIG. 27. The cupellation of argentiferous lead in Japan.

dized, forming litharge, the copper and other impurities being also converted into oxides at the same time. These oxides dissolved in the melted litharge and were absorbed with it by the hearth, or were raked off as scoriae from time to time.

When the operation was continued sufficiently long and the

requisite amount of lead was used, the copper and impurities were all removed and a cake of silver remained on the hearth. When, however, the metal treated was chiefly copper, or very impure silver, then pure silver could only be obtained by using a very large amount of lead or by repeating the process. The operations at Hengistbury Head were mainly of the latter character.

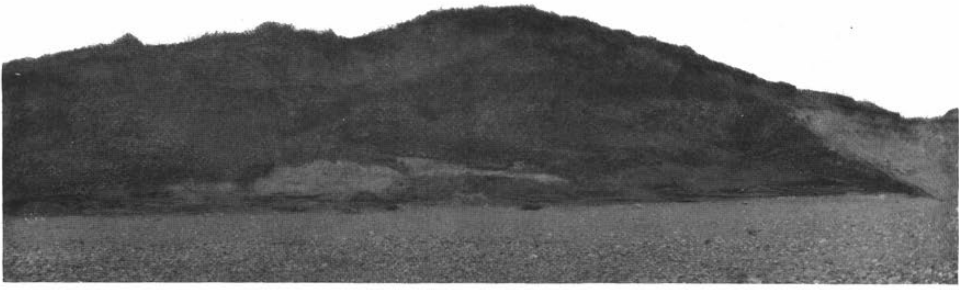
The evidence afforded by the fragments of furnaces and the metallic remains described above shows undoubtedly :

- a. That on or near the spot where they were found was the site of a small metallurgical works in which silver was extracted from copper by the process of cupellation.
- b. That the furnaces and operations were identical with those of the Romans as shown by the remains found at Silchester and Wroxeter. It is just possible that the work at Hengistbury Head may have been earlier than that at either Silchester or Wroxeter, and as the excavations have yielded no definite evidence of the occupation of the site by the Romans, it is by no means improbable that the operations were conducted by the Britons themselves either before or during the Roman occupation. If so, the Britons must have learnt the process from the Romans in Gaul or Spain, where it was carried on on an extensive scale ; in fact, it is not impossible that Britons may have worked in the *argentariae* in one or other of these countries.

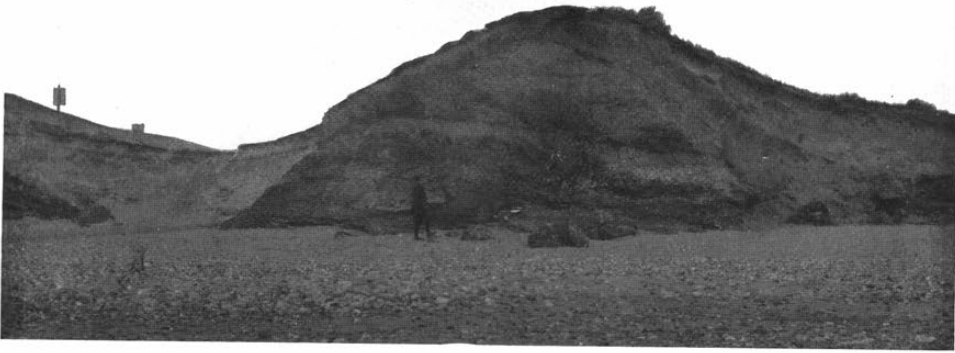
*Touchstone from Site 7.* One of the most interesting finds in the excavations is a small piece of siliceous shale which had been used as a touchstone for determining the purity of metals, a method of testing or assaying gold and silver which dates from a remote antiquity. It was certainly practised by the Greeks as early as 500 B. C., although the earliest written account of the method and the kind of stone employed is that given by Theophrastus in the third century B. C. The streaks that appear on the stone indicate that it had been used for testing gold.

The metallurgical remains unearthed in the excavations are the most important that have yet been found in England for the light they throw on the operations of metallurgy in our country in early times.

PLATE I



South end of outer rampart and filled-in ditch



South end of main rampart and ditch, from south



Ditch and main rampart looking south

THE EARTHWORKS. (p. 10)

*Published by the Society of Antiquaries of London, 1915*

PLATE II



1. Cinerary urn from Barrow I.  $\frac{1}{3}$ . (p. 14)

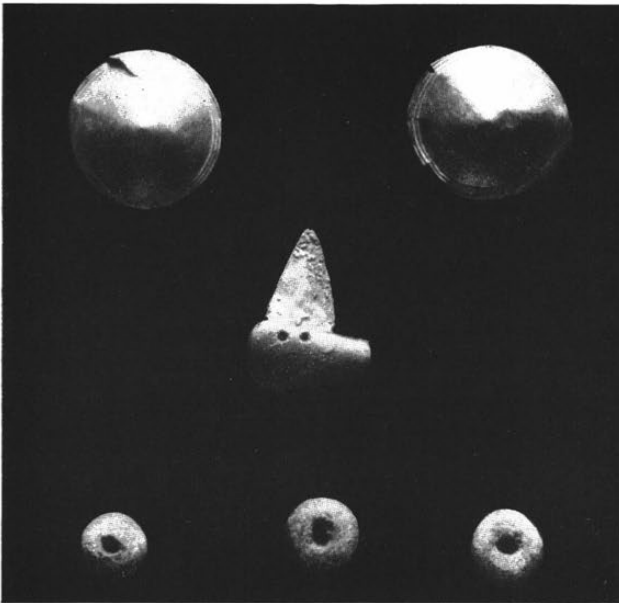


2. Barrow I looking east. (p. 14)

PLATE III



1. Incense cup from cinerary urn, Barrow I.  $\frac{3}{8}$ . (p. 16)



2. Gold studs, amber and bronze amulet, and amber beads from cinerary urn, Barrow I.  $\frac{1}{1}$ . (p. 16)



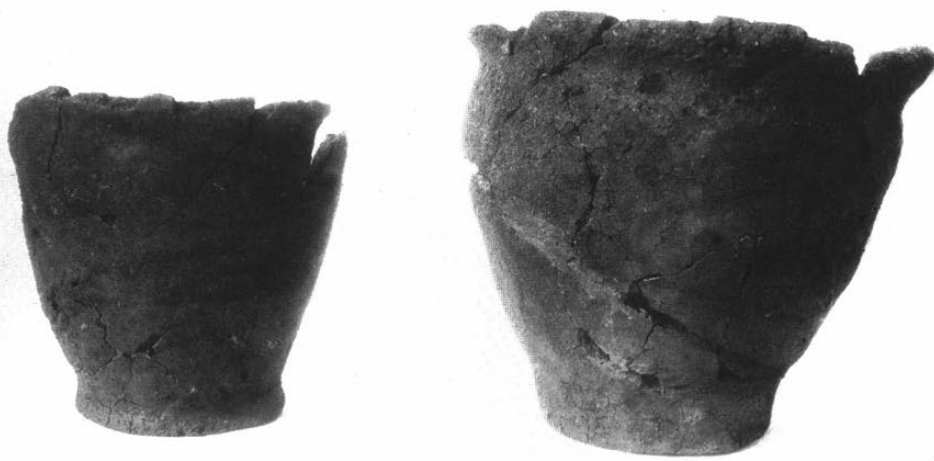
1. Cinerary urn (B) from Barrow II.  $\frac{1}{4}$ . (p. 18)



2. Barrow II looking north. (p. 17)



1. Fragment of cinerary urn (E) from Barrow II.  $\frac{1}{3}$ . (p. 18)



2 3  
2, 3. Urns (C and D) from Barrow II. About  $\frac{1}{3}$ . (p. 18)

PLATE VI



1. Urn (A) from Barrow III. About  $\frac{1}{2}$ . (p. 19)



2. Barrow III, looking north. (p. 19)



PLATE VII



1. Site 16. (p. 21)



2. Site 33. (p. 24)



1. Hooked end of ditch, Site 48. (p. 28)



2. Ditch, Site 48, showing remains of oven opposite surveying pole. (p. 28)

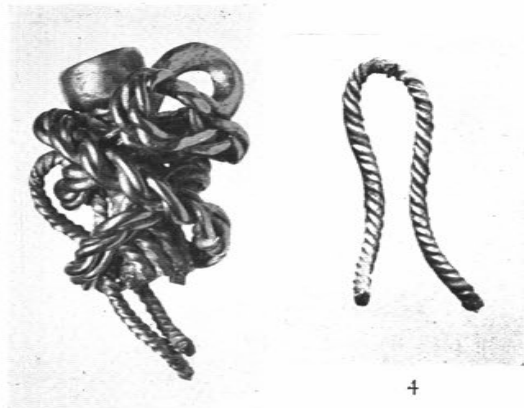
*Published by the Society of Antiquaries of London, 1915*



1. Remains of oven, Site 49. (p. 28)



2



3

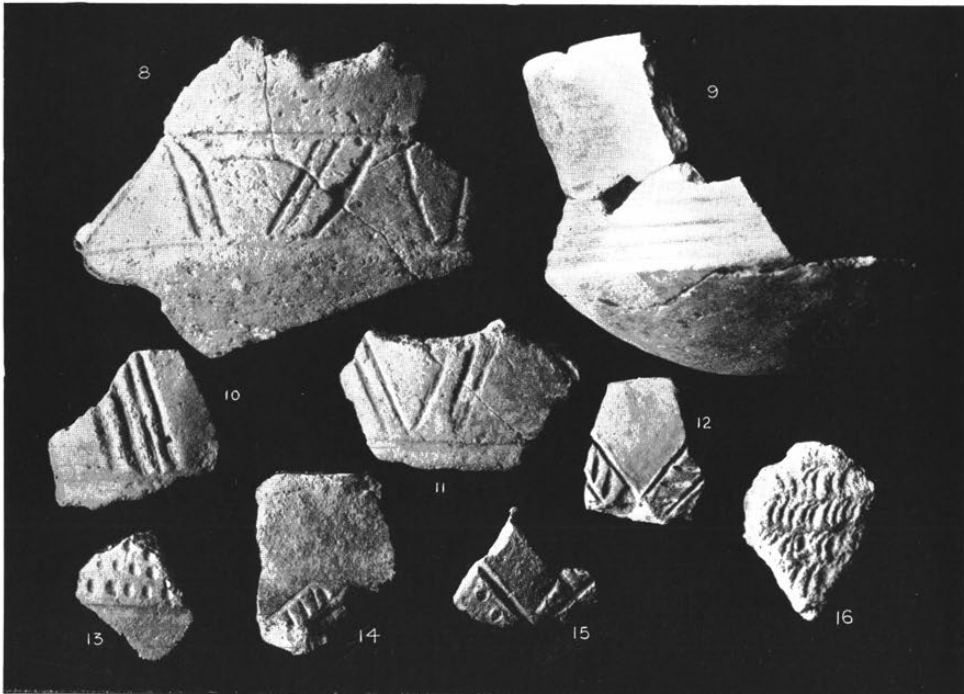
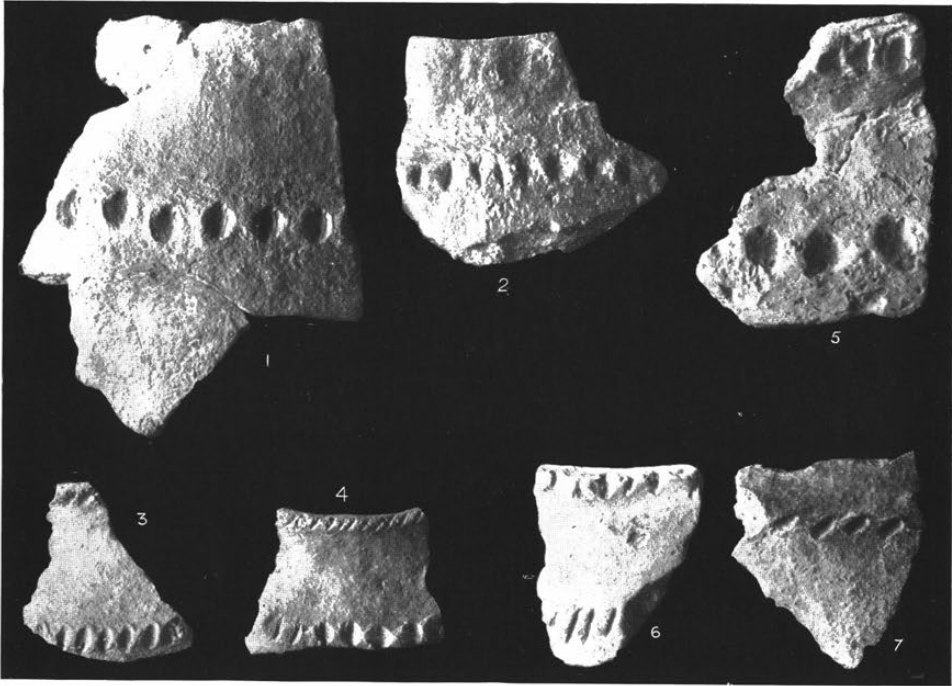
4



5

2-5. Gold objects.  $\frac{1}{4}$ . (pp. 26, 60)

PLATE X



Pottery: Class A.  $\frac{1}{2}$ . (p. 31)



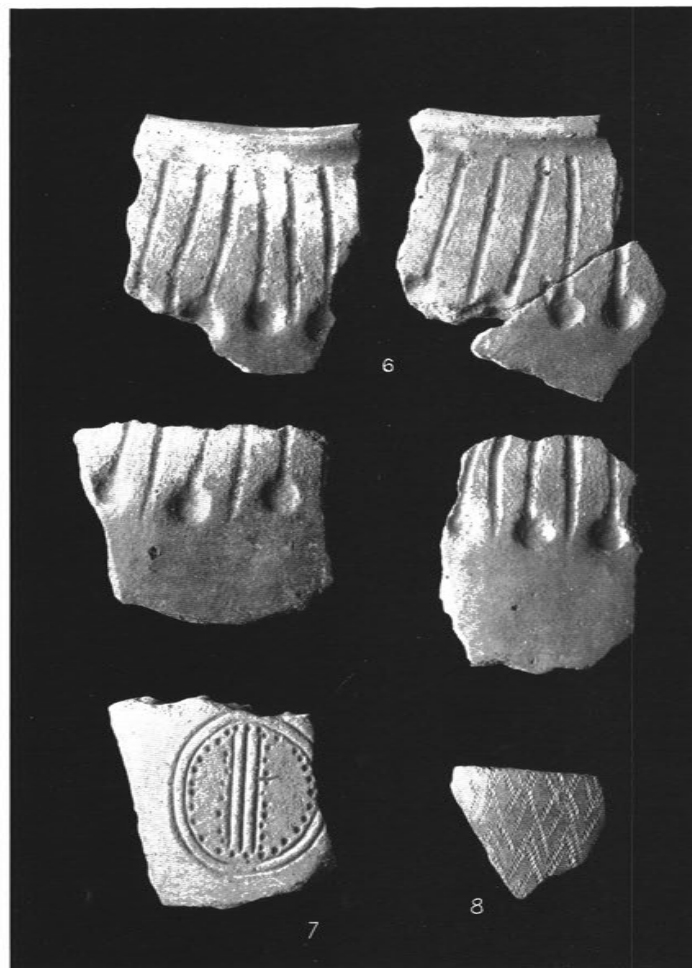
Pottery: Class E.  $\frac{1}{2}$ . (p. 41)



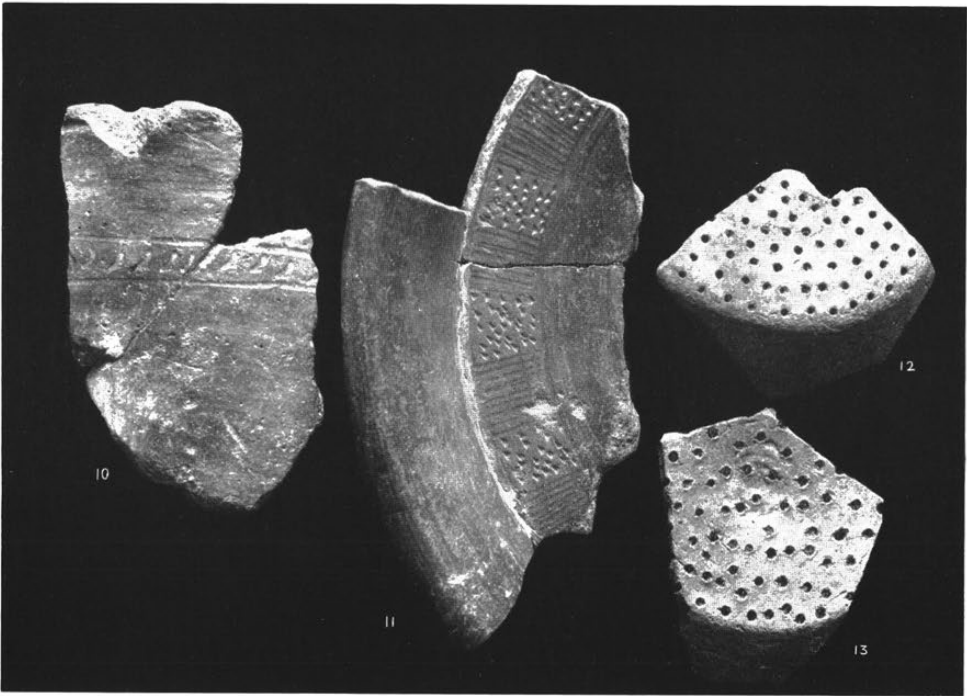
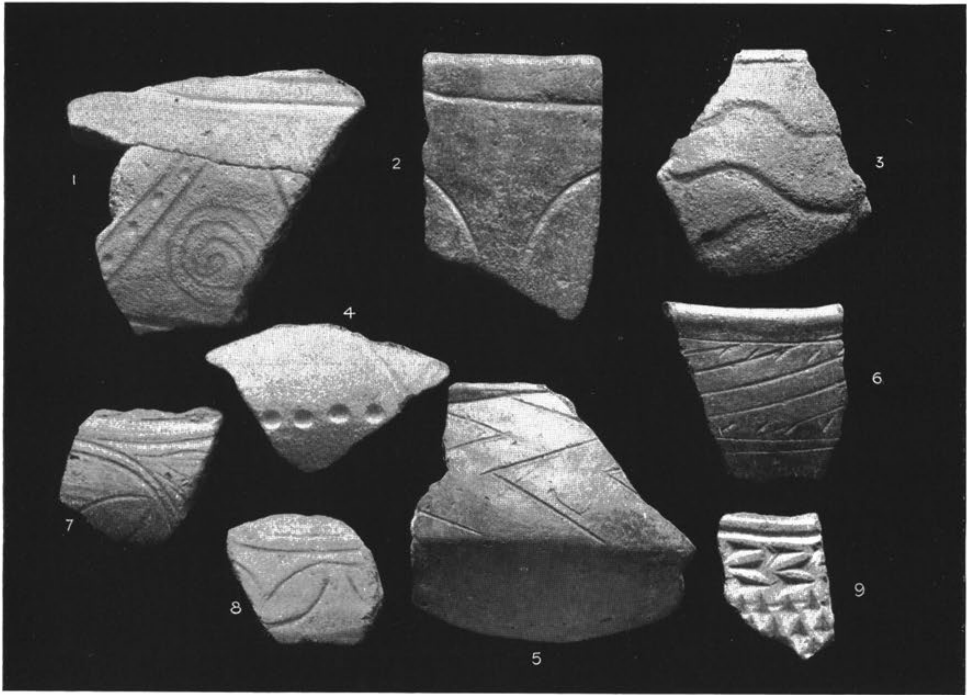
Pottery : Class F.  $\frac{2}{3}$ . (p. 42)  
*Published by the Society of Antiquaries of London, 1915*



Decorated Samian.  $\frac{1}{2}$ . (p. 50)

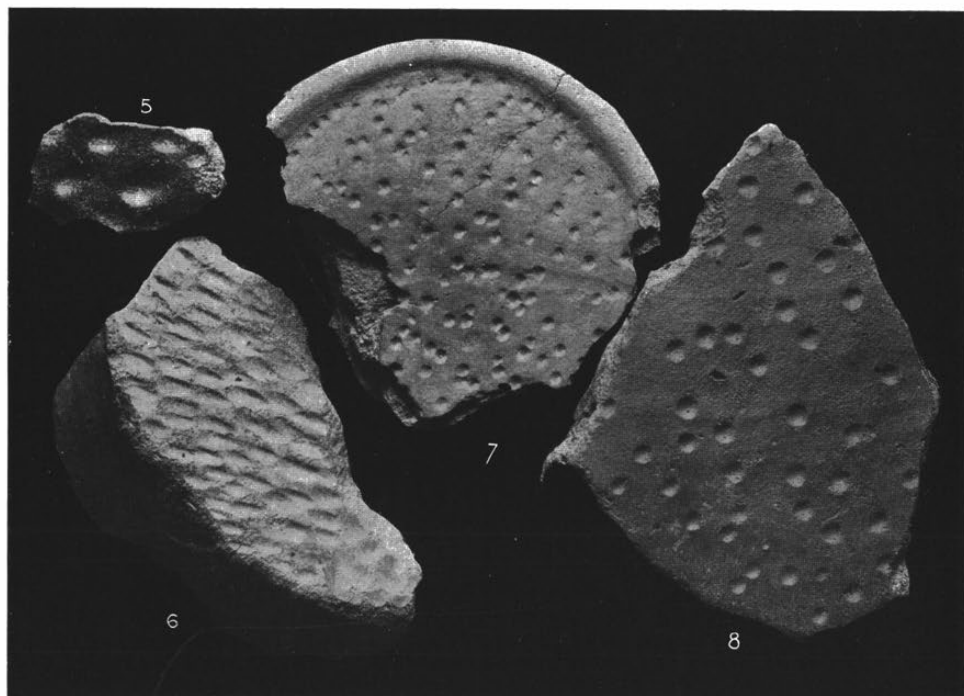


Miscellaneous fragments.  $\frac{1}{2}$ . (p. 58)



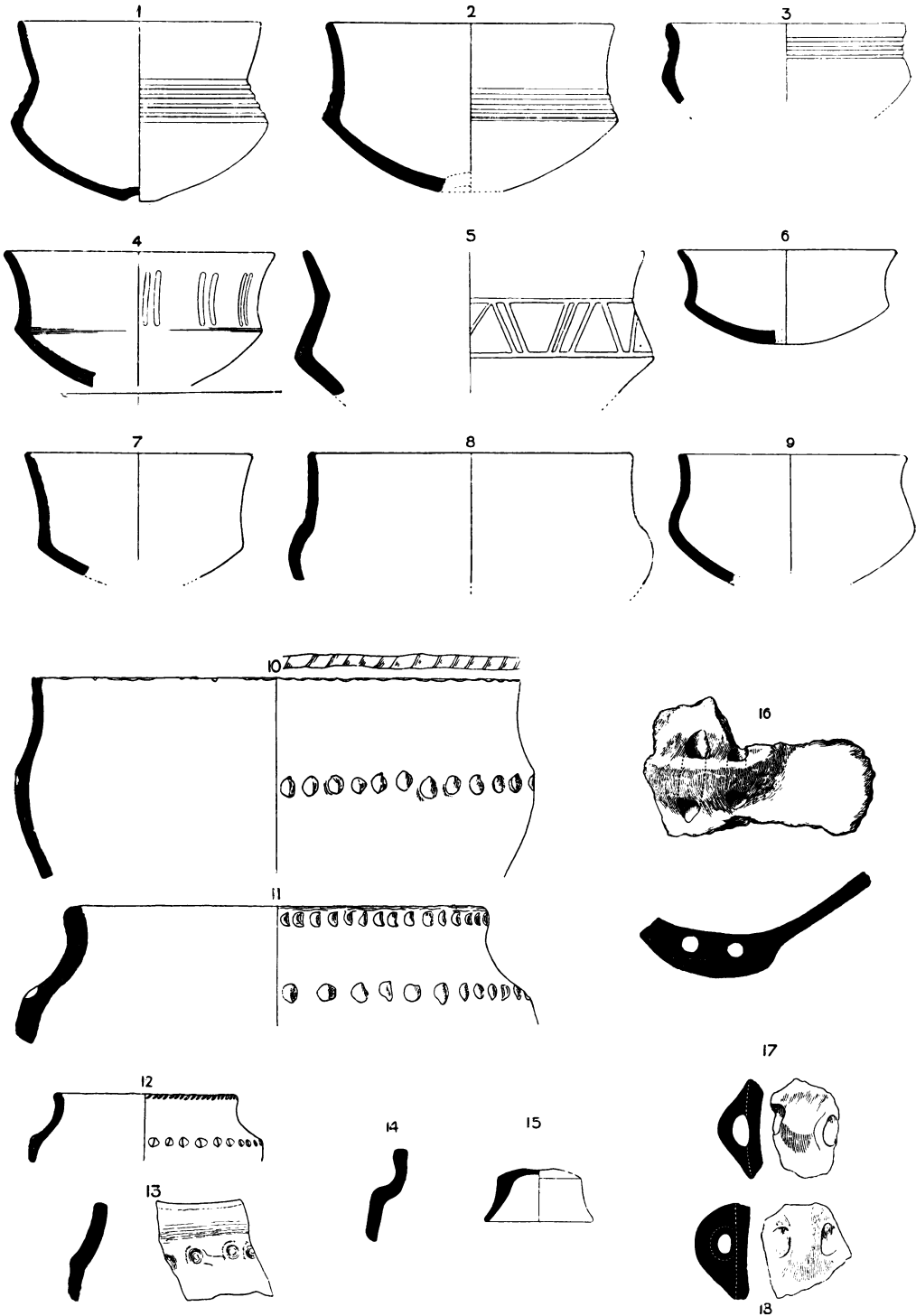
Miscellaneous fragments.  $\frac{1}{2}$ . (p. 58)





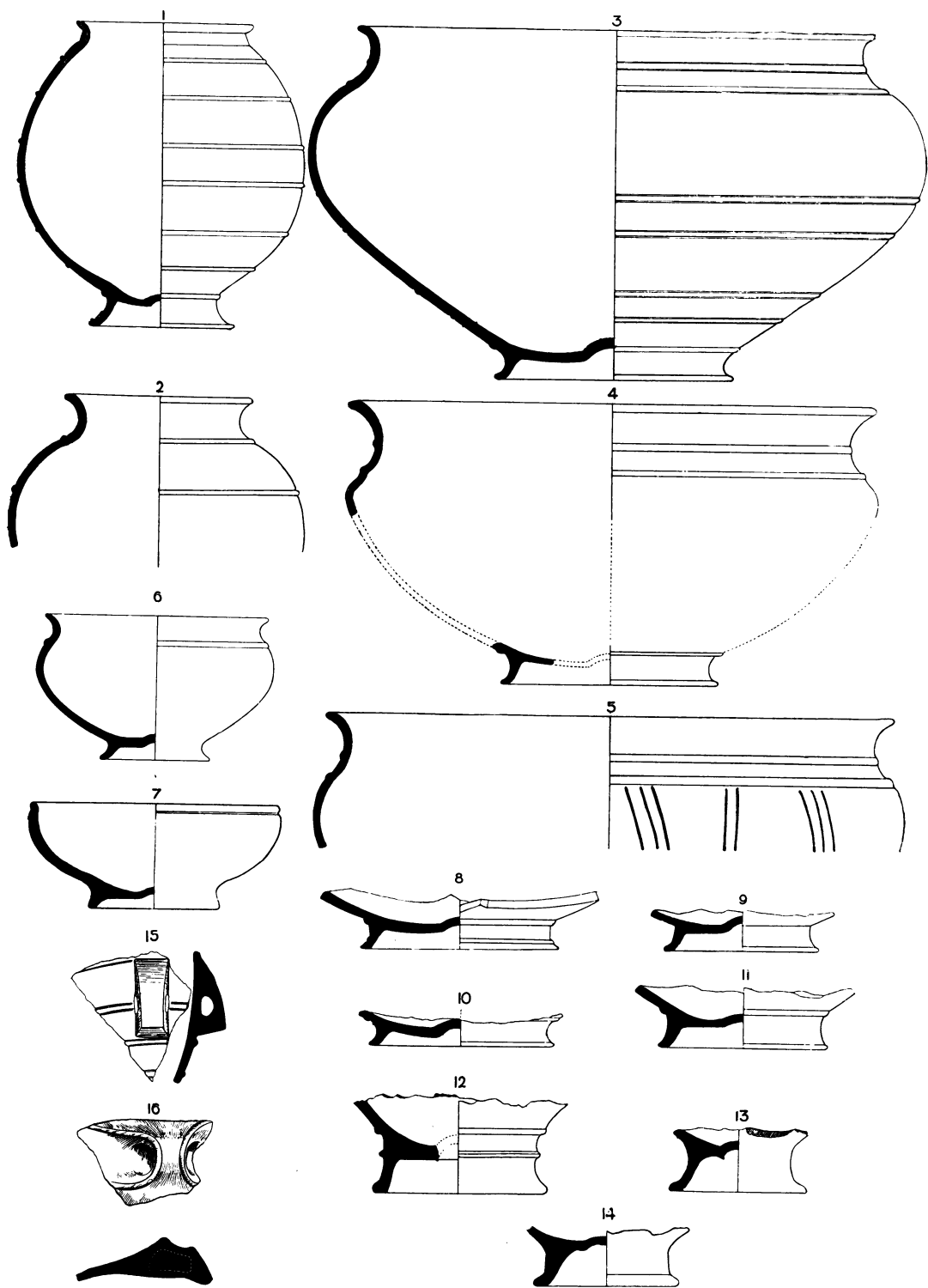
Miscellaneous fragments.  $\frac{1}{2}$ . (p. 59)

PLATE XVI



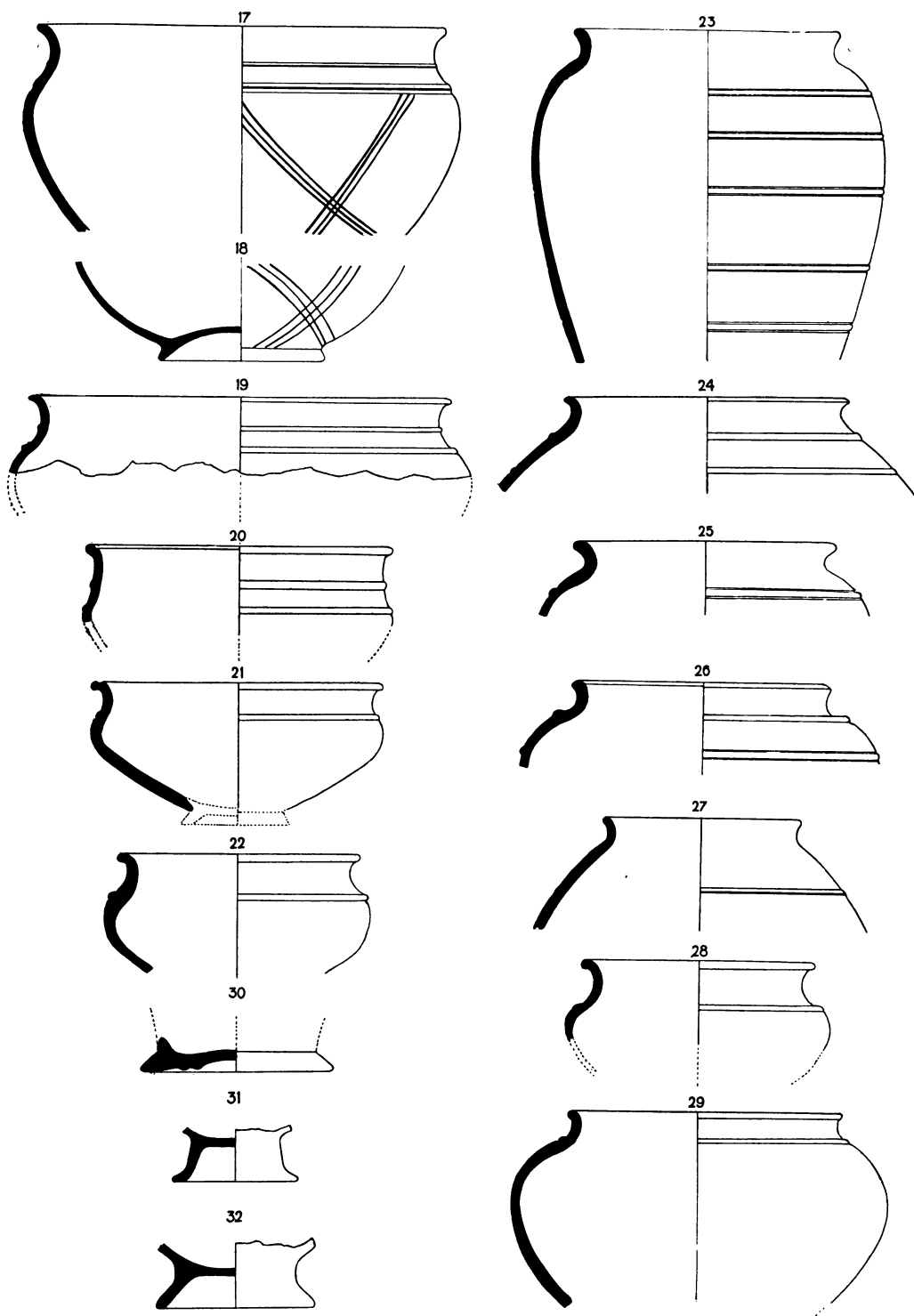
Pottery : Class A.  $\frac{1}{4}$ . (p. 30)

PLATE XVII



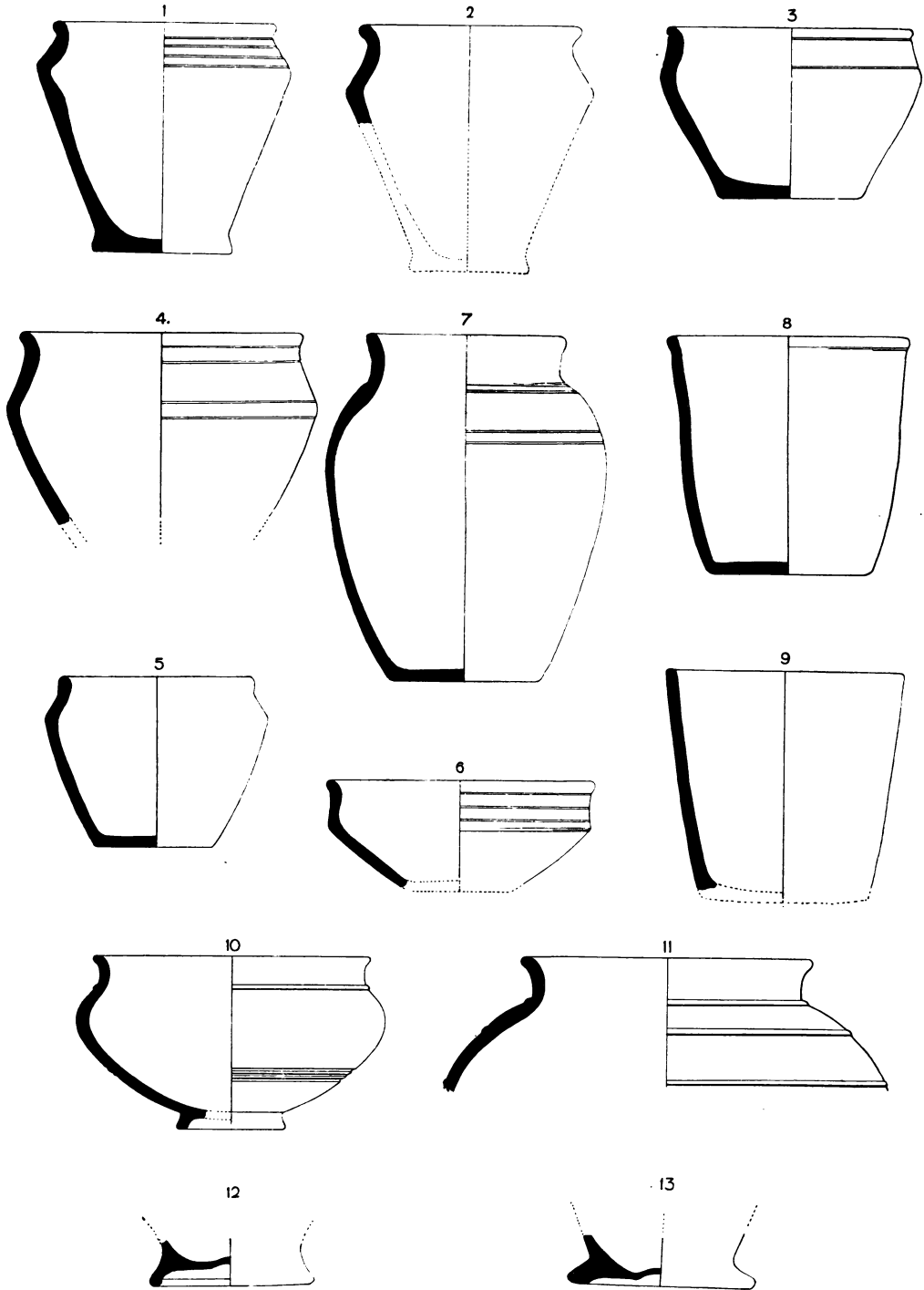
Pottery : Class B.  $\frac{1}{4}$ . (p. 34)

PLATE XVIII



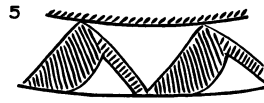
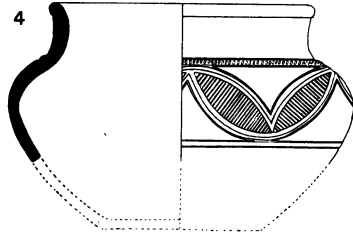
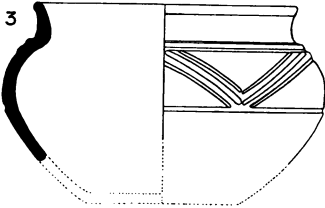
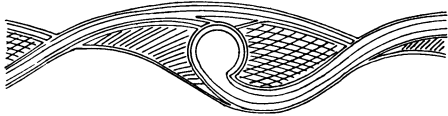
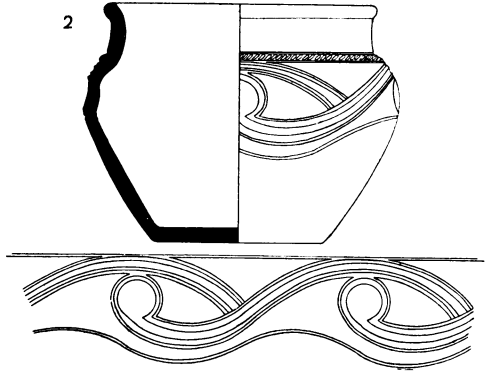
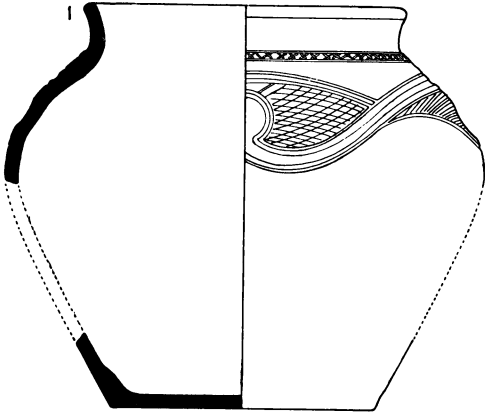
Pottery: Class B.  $\frac{1}{4}$ . (p. 35)

PLATE XIX

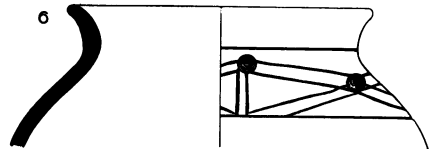
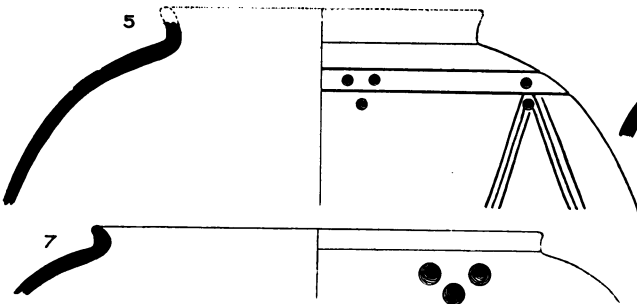
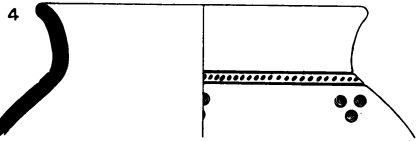
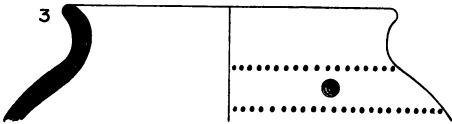
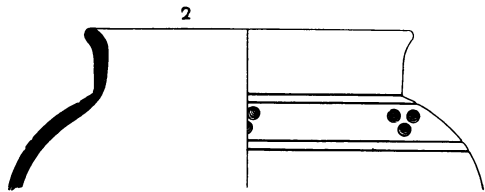
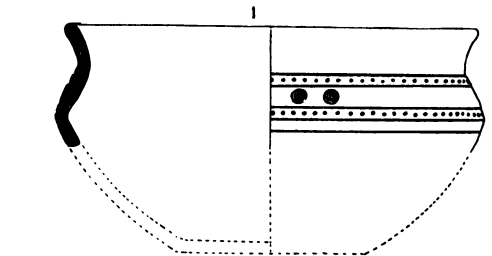


Pottery : Class C.  $\frac{1}{4}$ . (p. 38)

PLATE XX

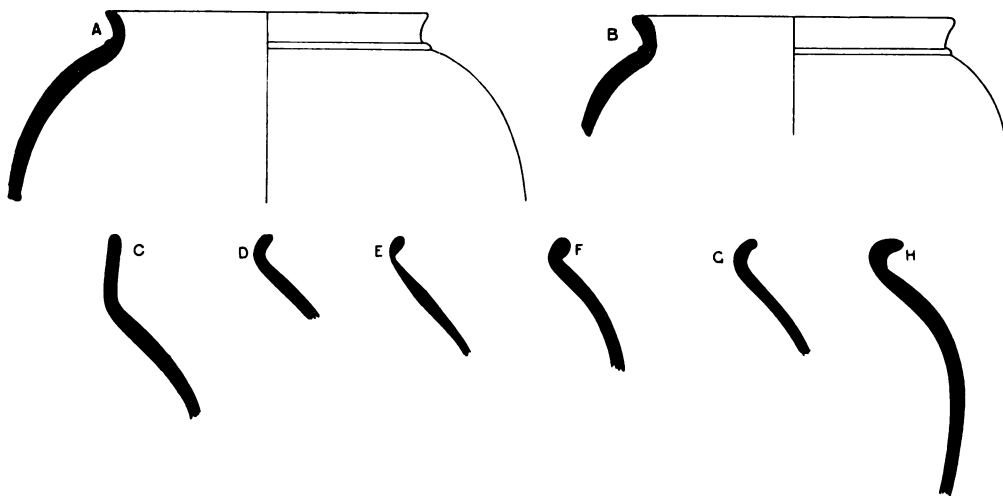
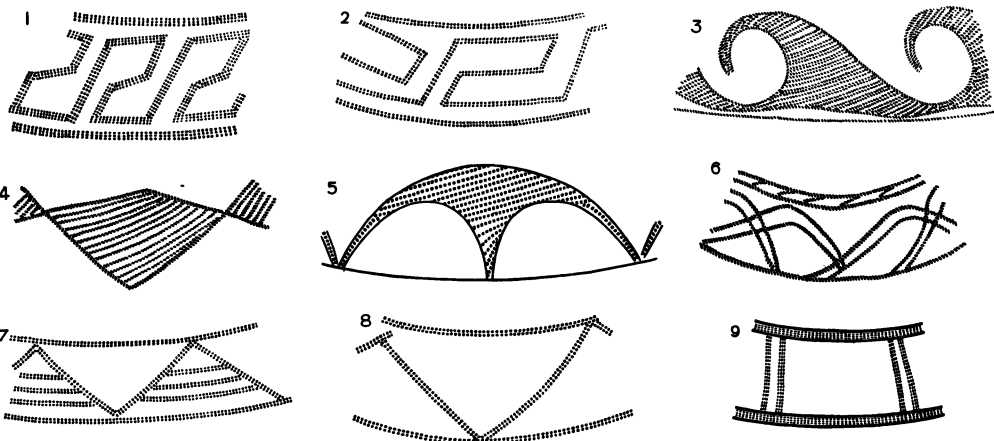


Pottery: Class D.  $\frac{1}{4}$ . (p. 39)

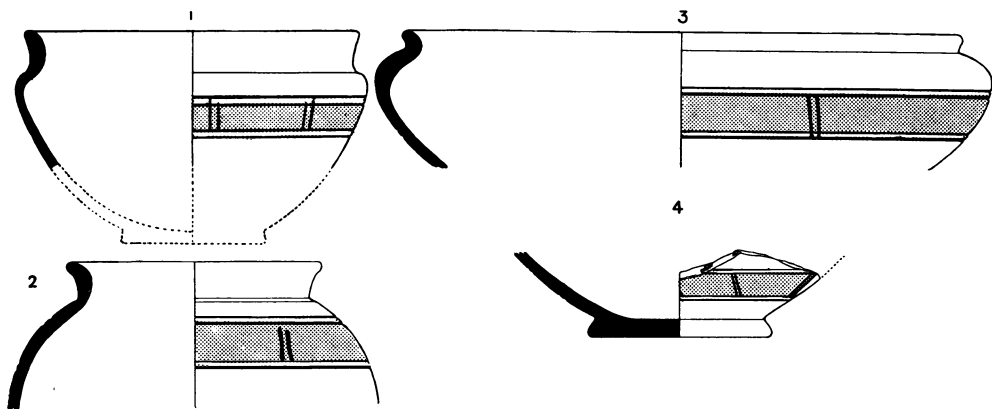


Pottery: Class E.  $\frac{1}{4}$ . (p. 41)

PLATE XXI

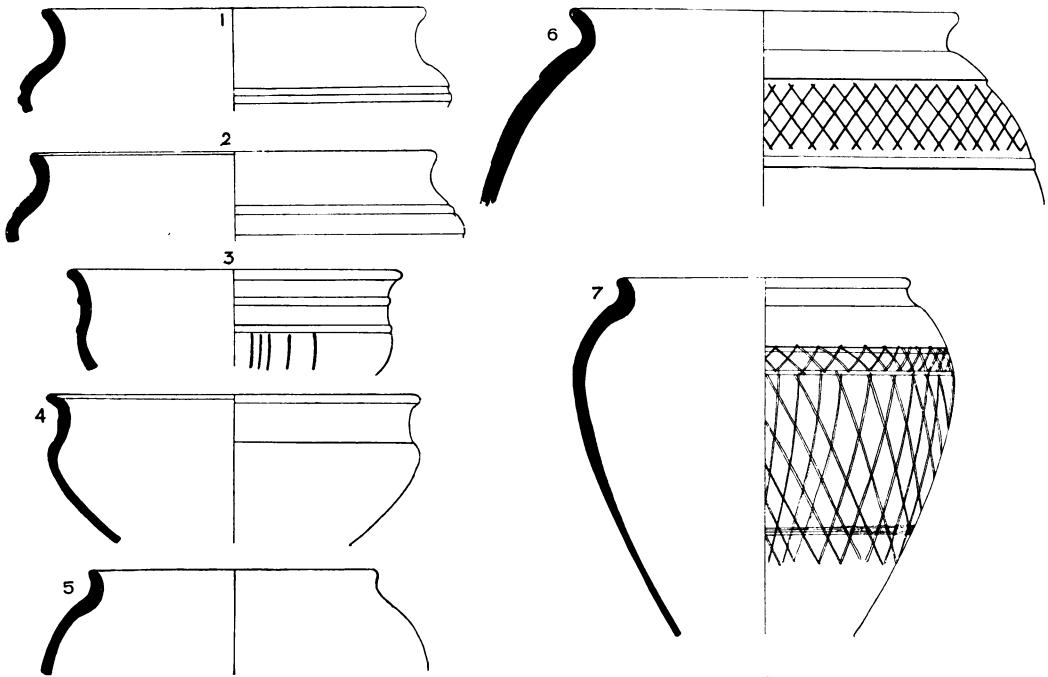


Pottery: Class F.  $\frac{1}{4}$ . (p. 42)

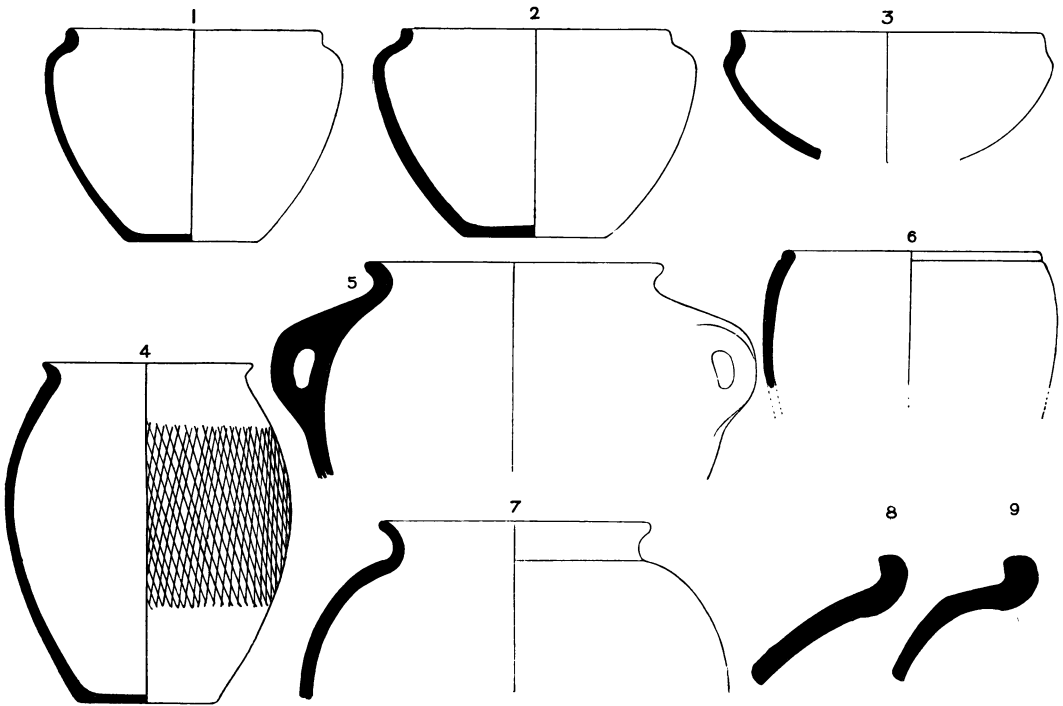


Pottery: Class G.  $\frac{1}{4}$ . (p. 44)

PLATE XXII



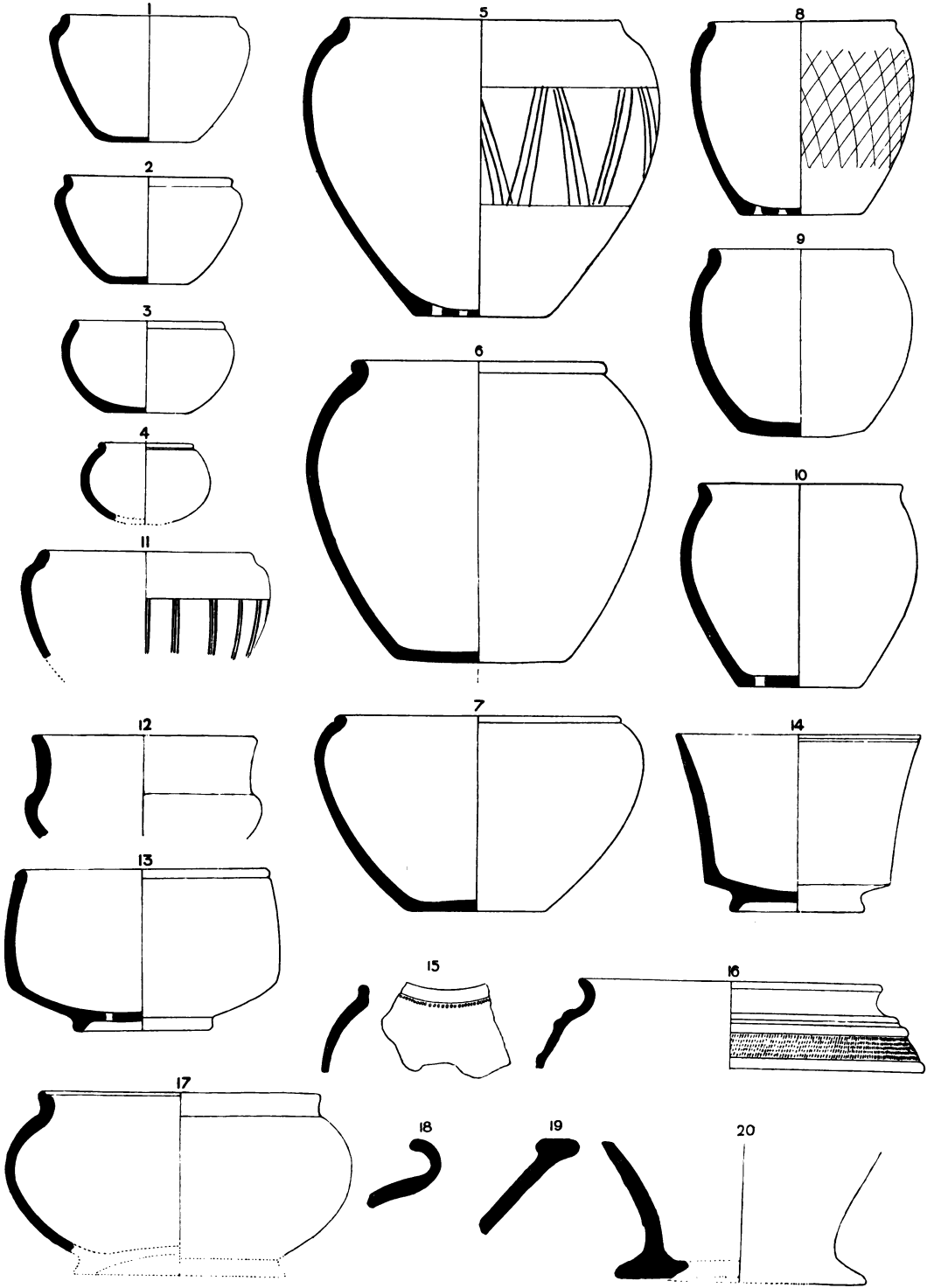
Pottery: Class H.  $\frac{1}{4}$ . (p. 44)



Pottery: Class I.  $\frac{1}{4}$ . (p. 45)

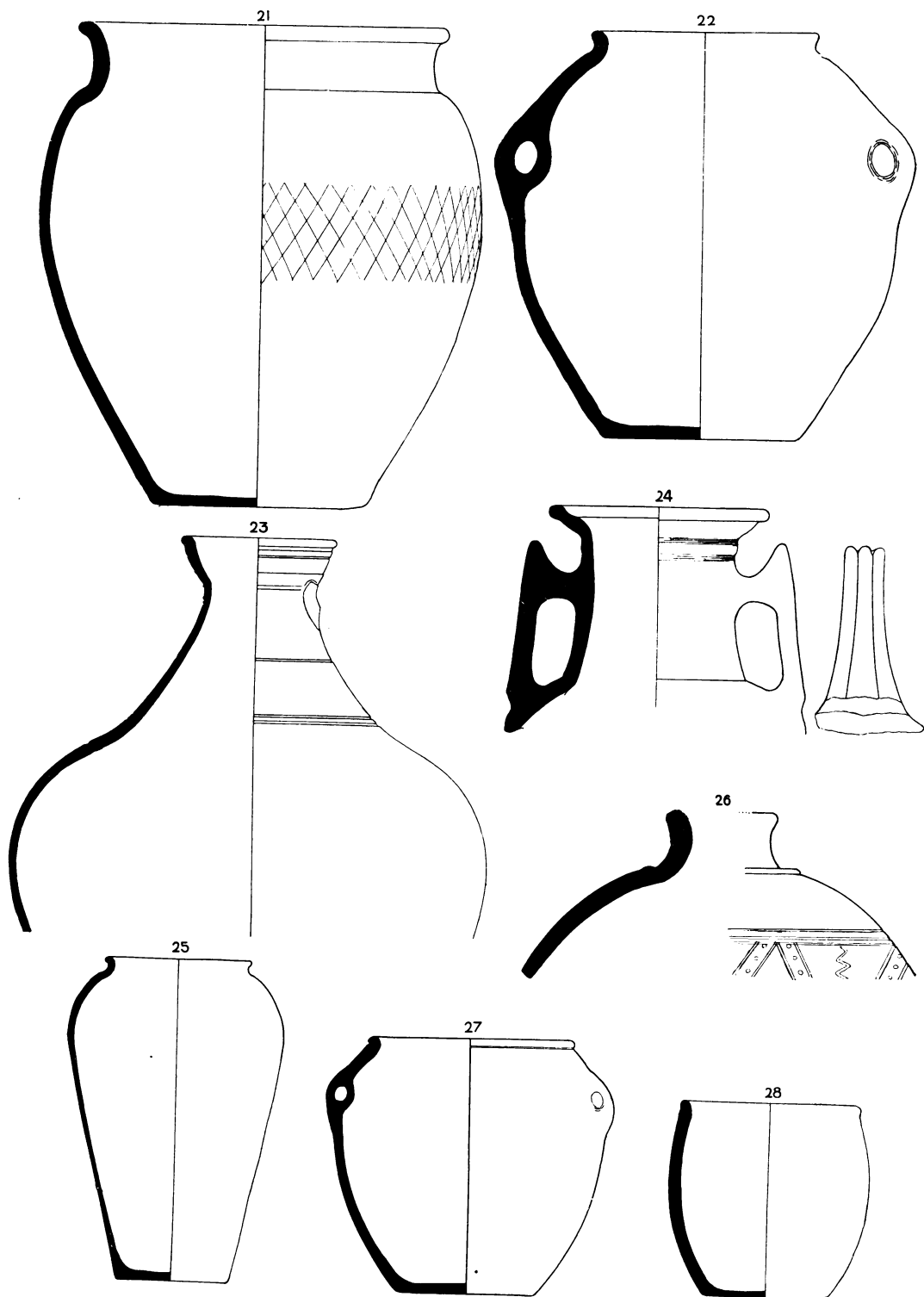


PLATE XXIII



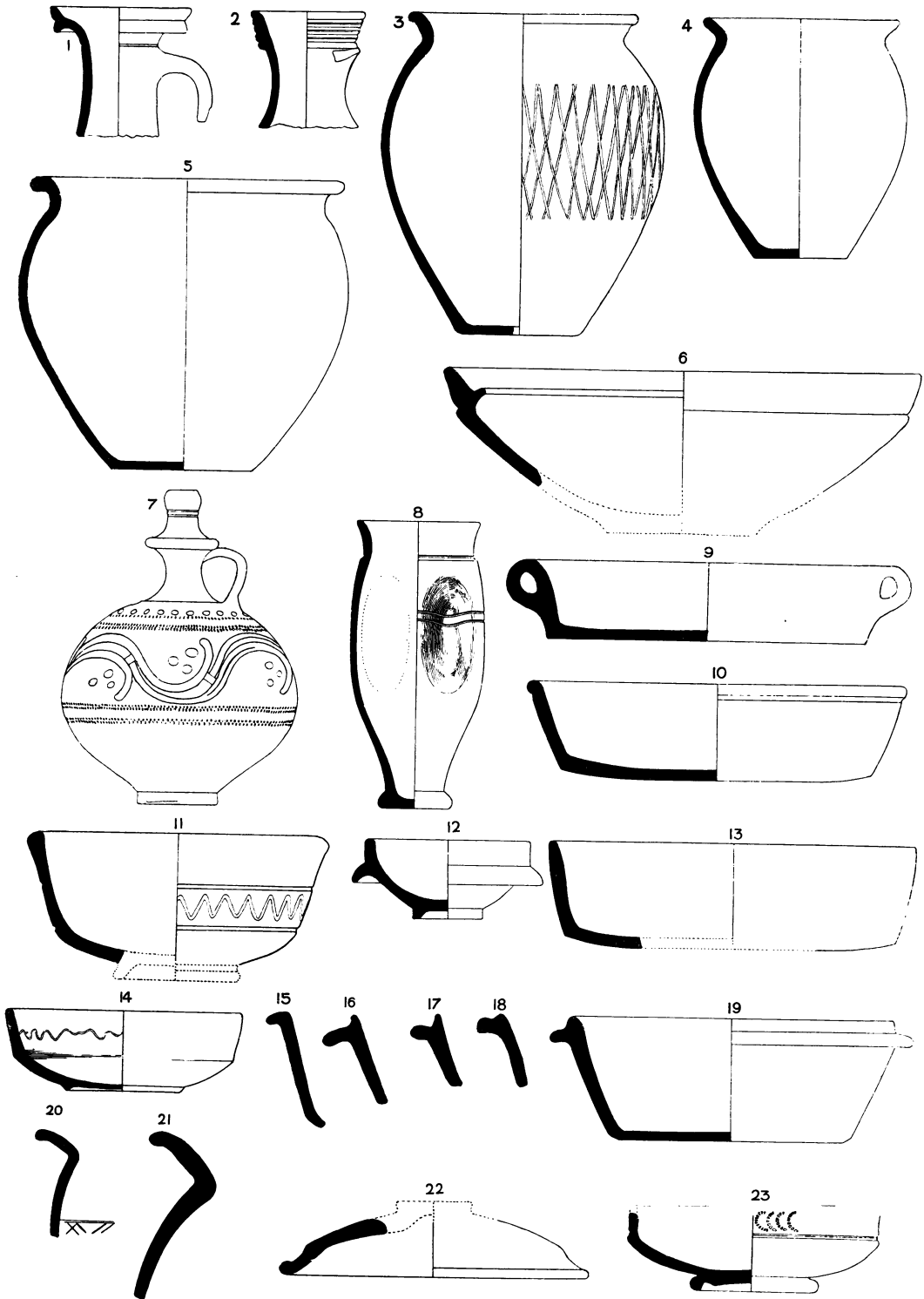
Pottery: Class J.  $\frac{1}{4}$ . (p. 45)

PLATE XXIV



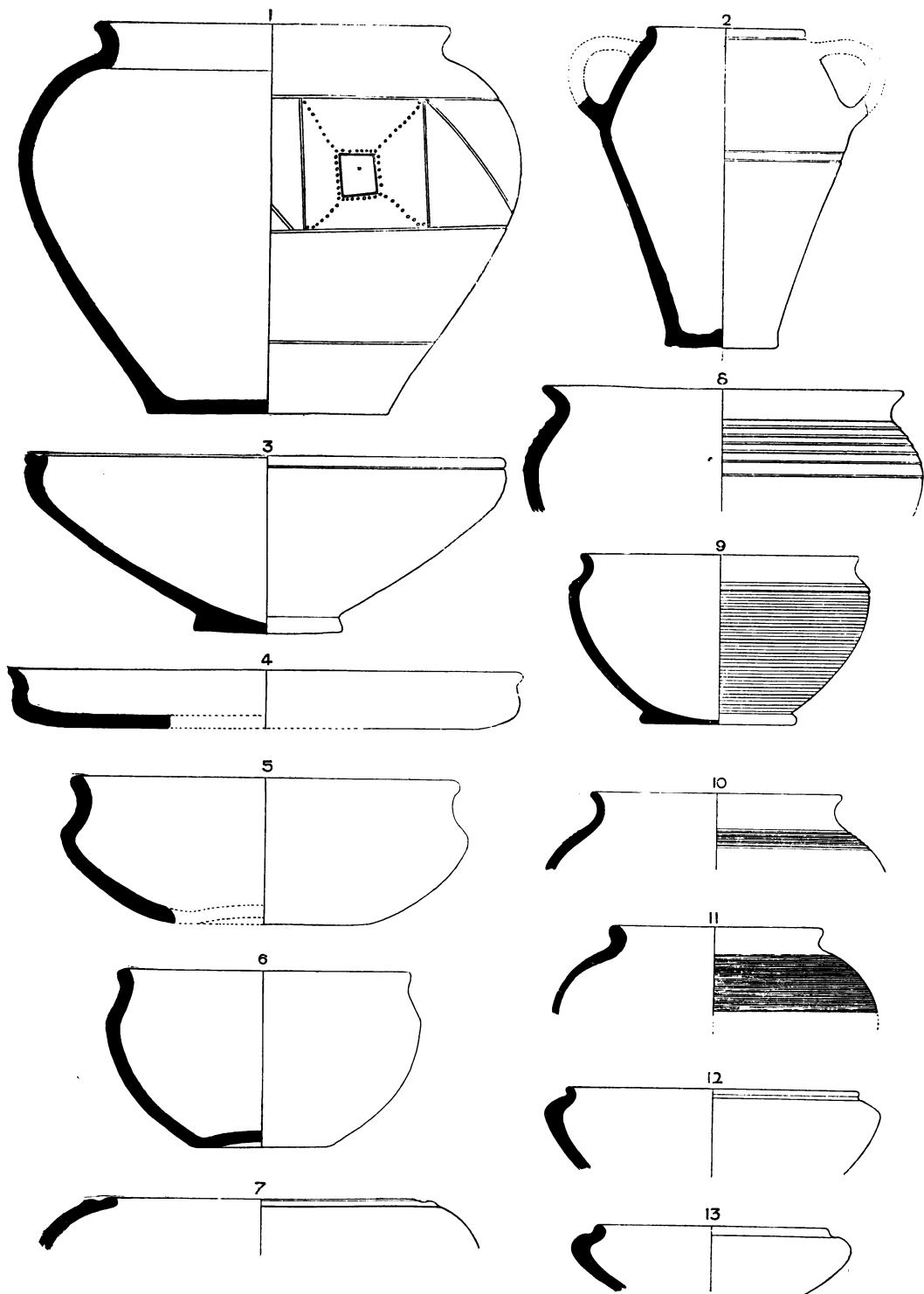
Pottery: Class J.  $\frac{1}{4}$ . No. 25  $\frac{1}{8}$ . (p. 46)

PLATE XXV



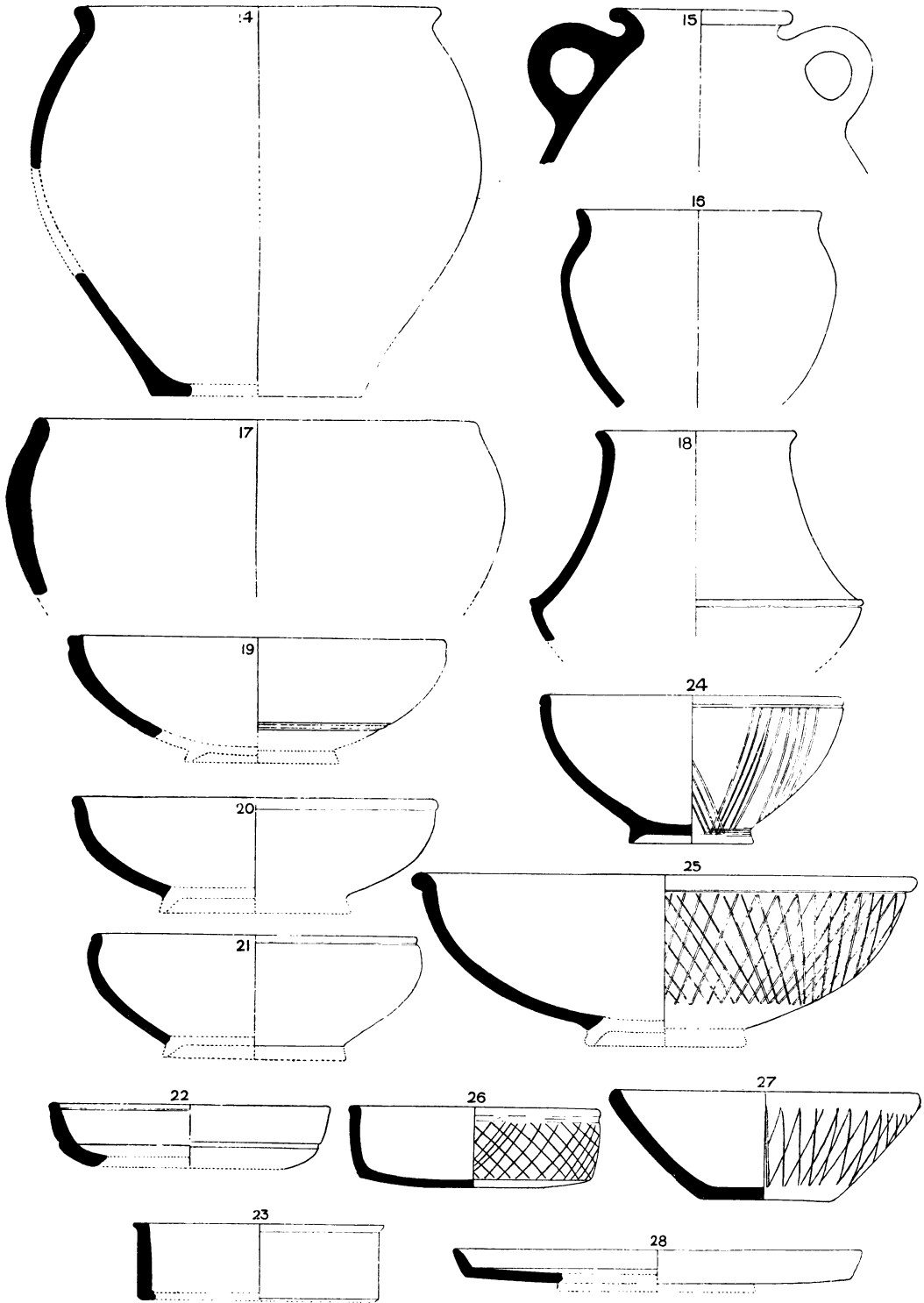
Pottery : Class K.  $\frac{1}{4}$ . (p. 48)

PLATE XXVI



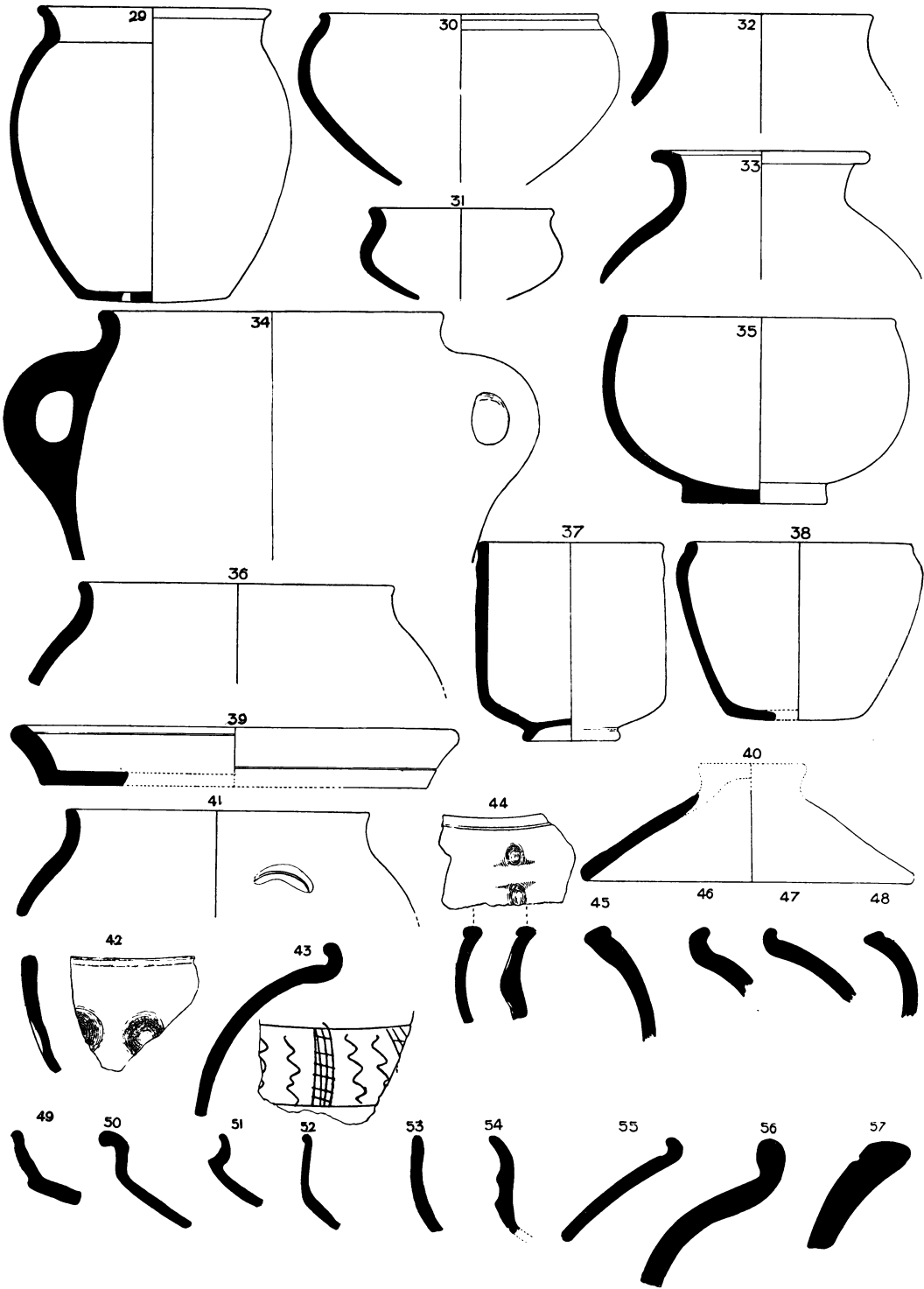
Pottery: Class L.  $\frac{1}{4}$ . (p. 54)

PLATE XXVII

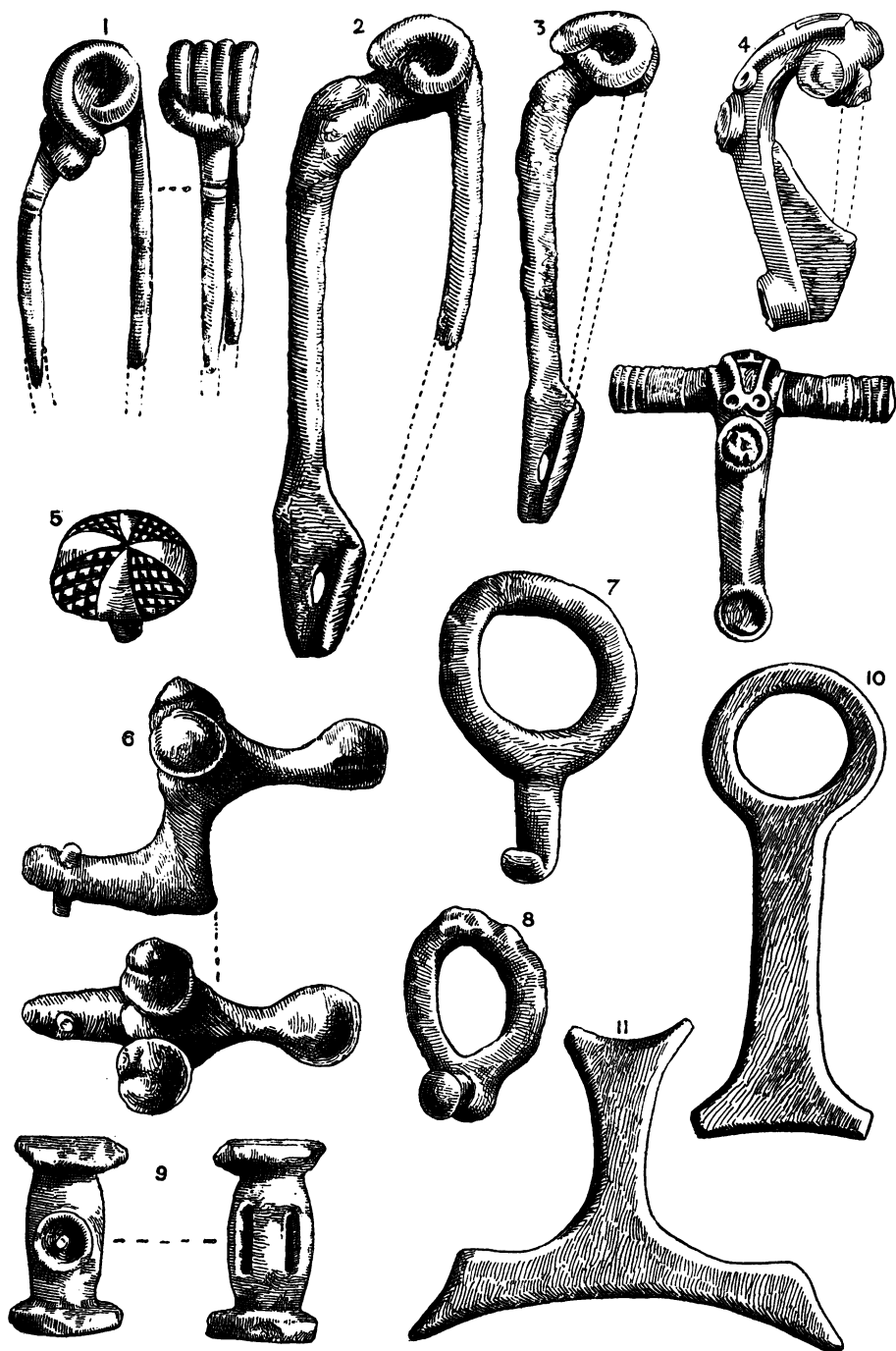


Pottery: Class L.  $\frac{1}{4}$ . (p. 55)

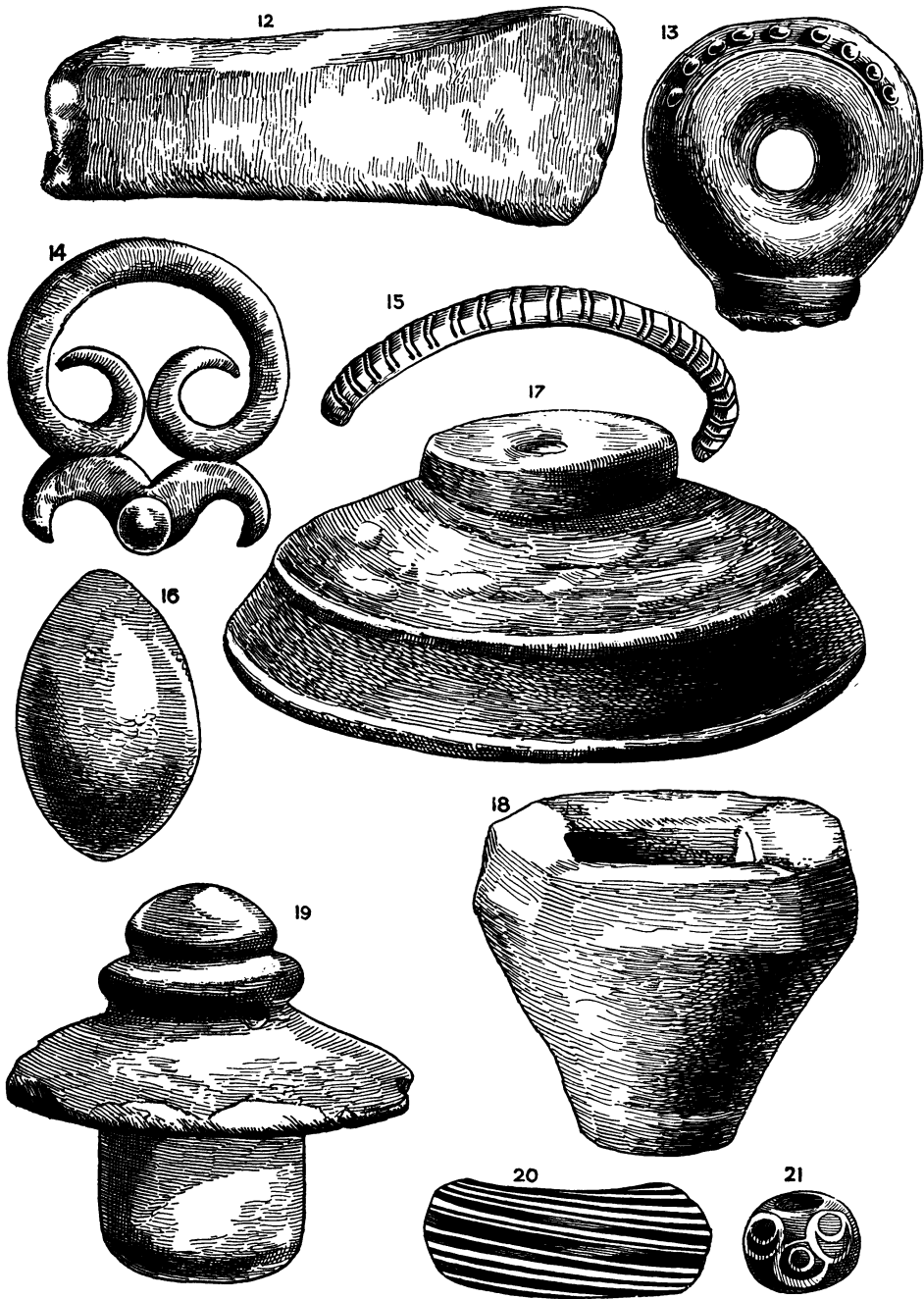
PLATE XXVIII



Pottery: Class L.  $\frac{1}{4}$ . (p. 56)

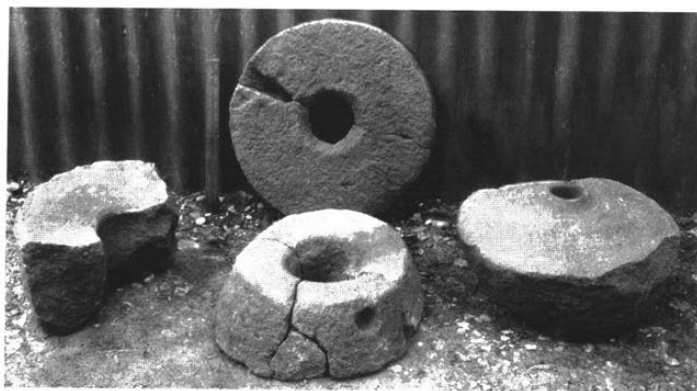


Small metal objects.  $\frac{1}{2}$ . (p. 61)



Various small objects.  $\frac{1}{4}$ . (p. 62)





1

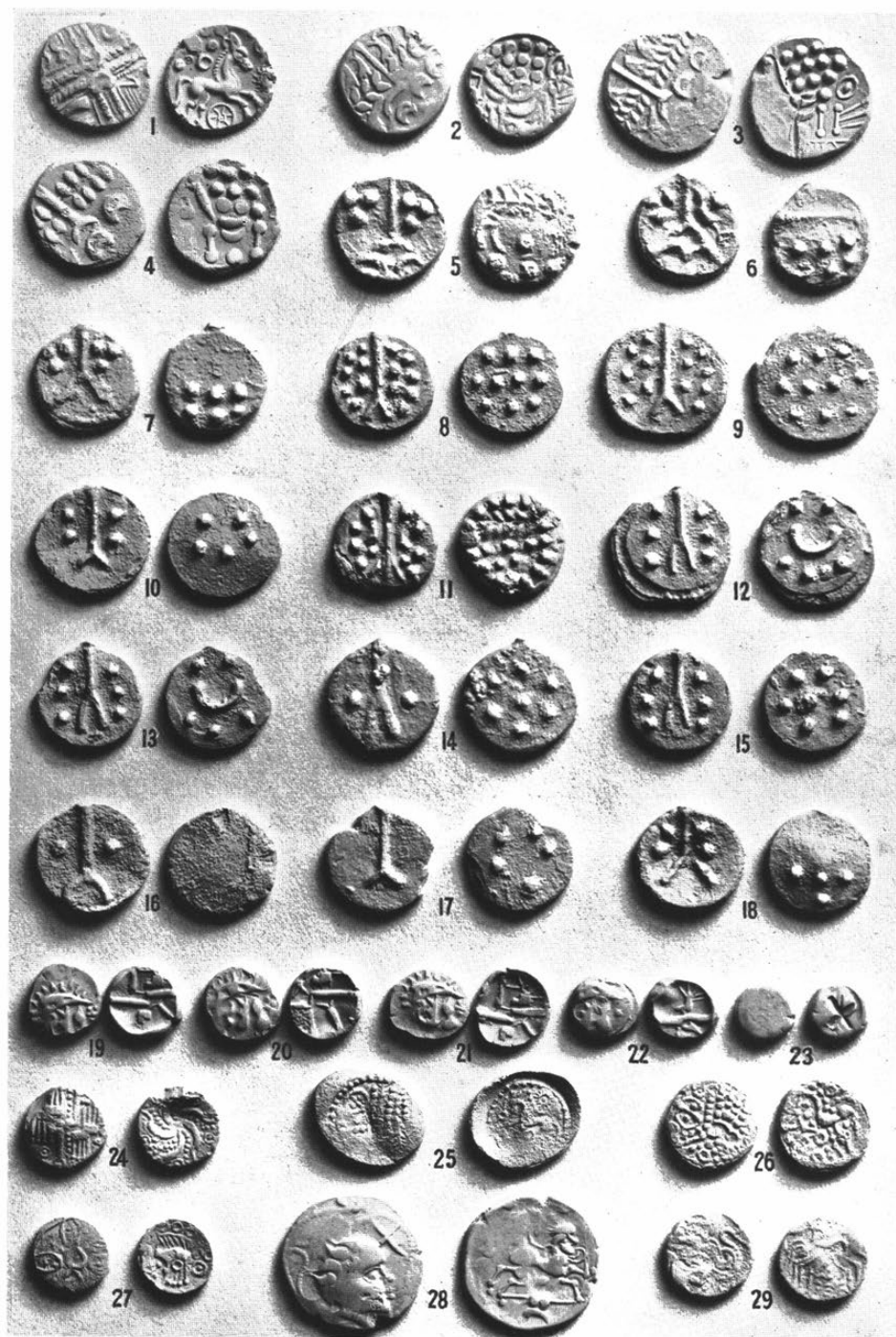


10

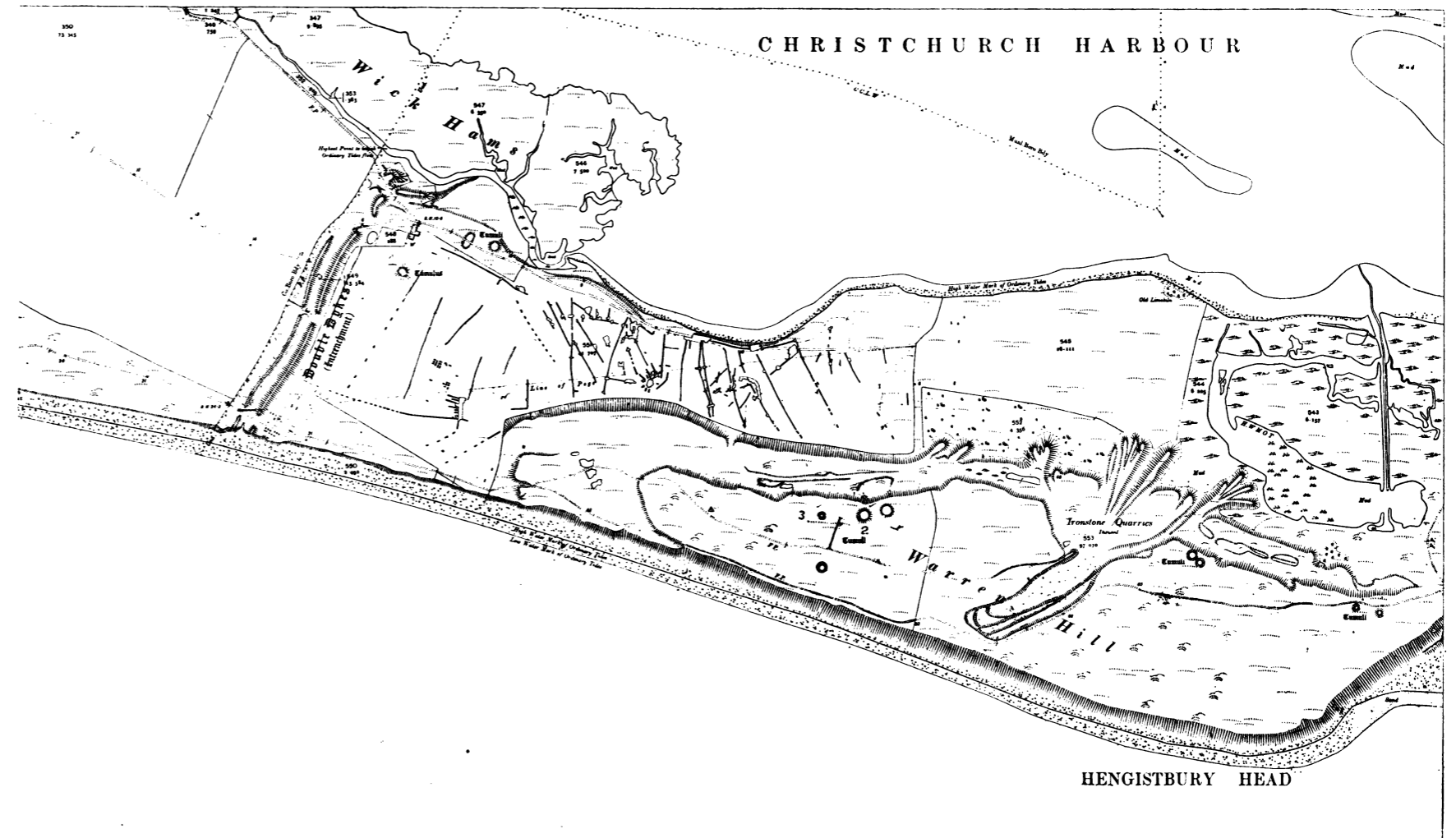
11

12

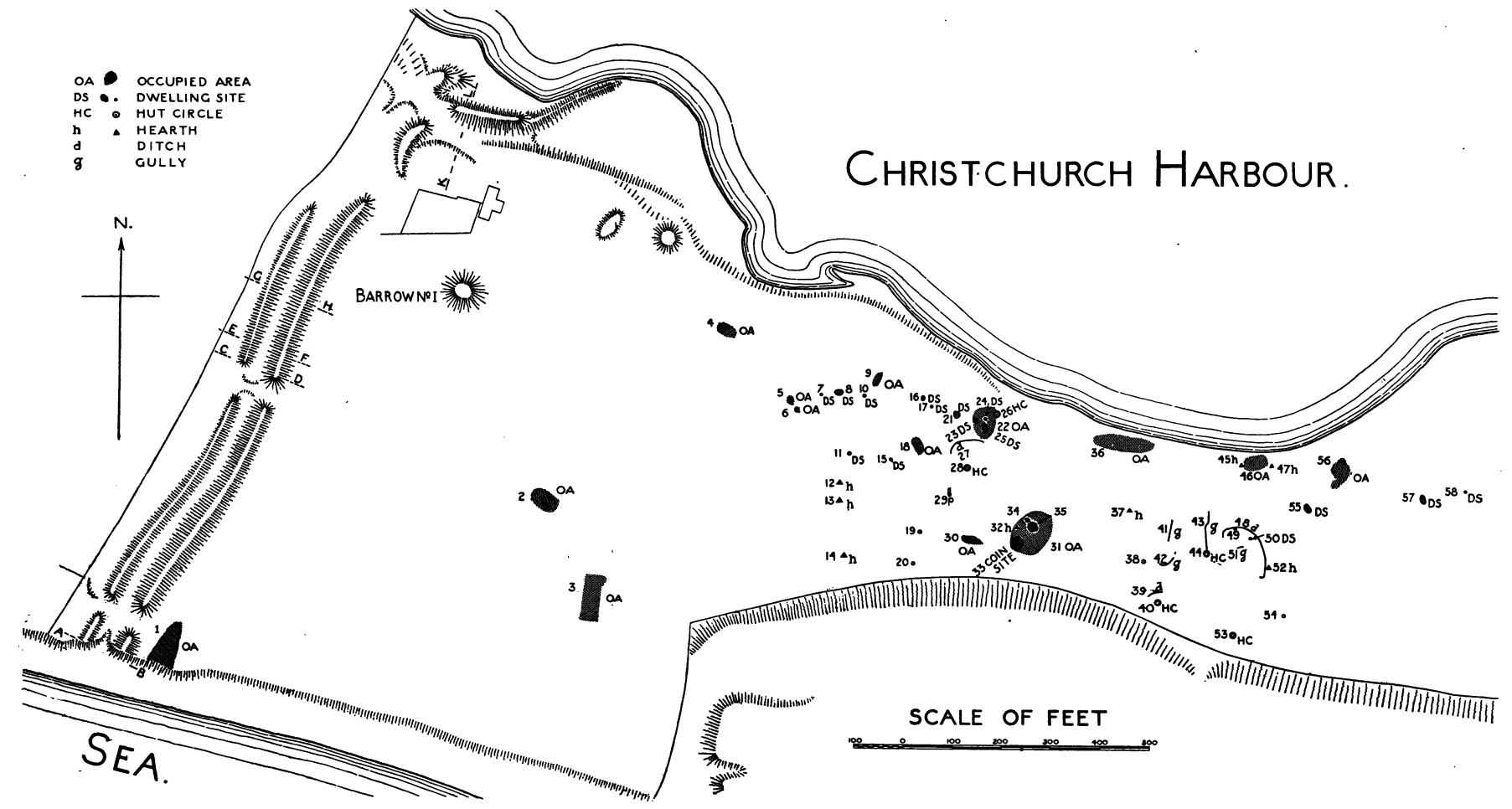
1. Querns. 2-9. Objects in Kimmeridge shale.  $\frac{1}{2}$ . 10-12. Loom weights.  $\frac{1}{3}$ . (pp. 63, 64)



British and Gaulish coins.  $\frac{1}{4}$ . (p. 65)

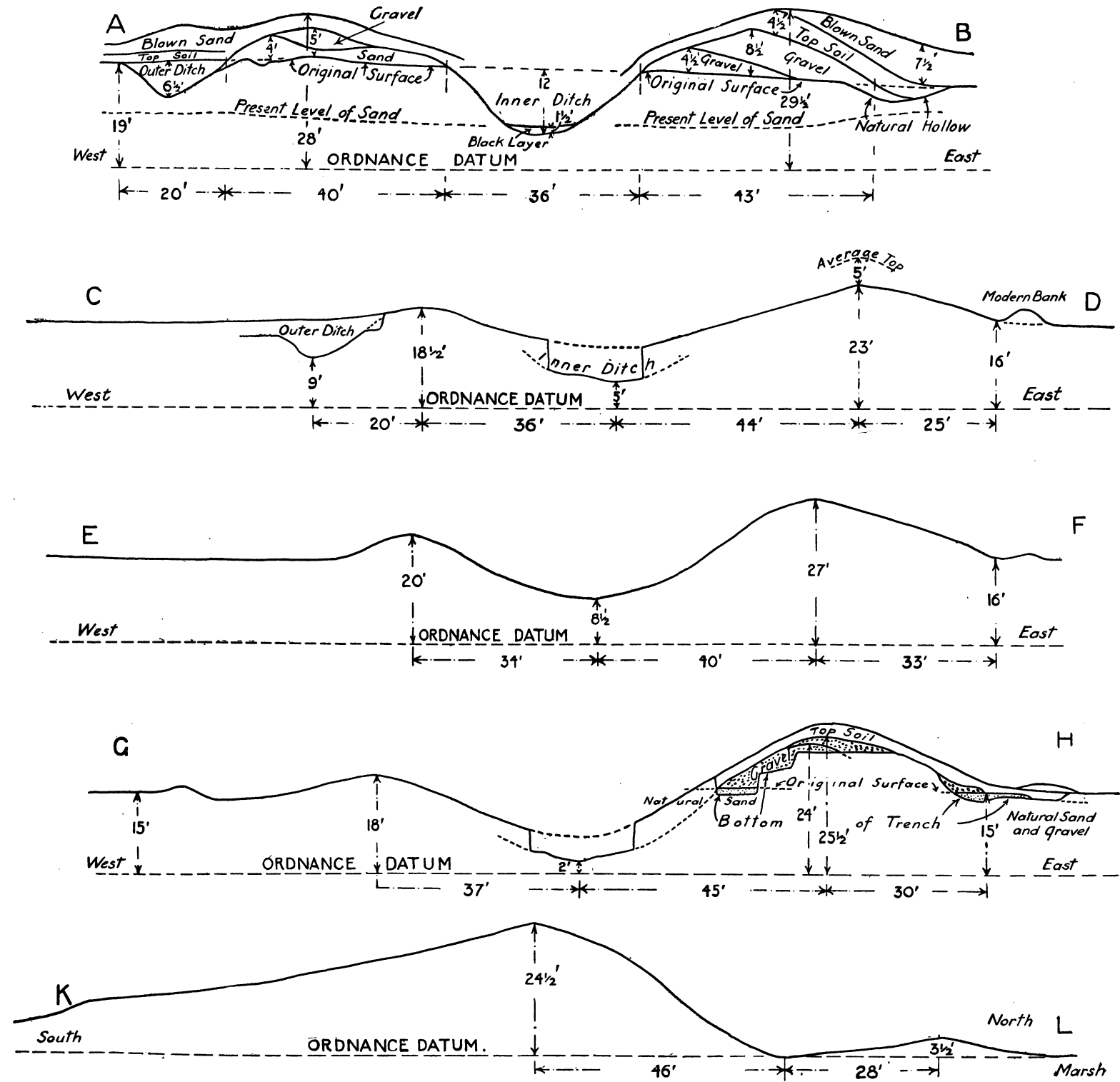


Map of Hengistbury Head, showing the position of the trenches made in the course of the excavations  
(Reproduced from the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office)



Plan, showing Earthworks and Settlement

PLATE XXXV



Sections and Contours of the Earthworks