

# I.

## THE RELATIVE CHRONOLOGY OF SOME CINERARY URN TYPES OF GREAT BRITAIN AND IRELAND. BY THE HON. JOHN ABERCROMBY, F.S.A. Scot.

### ABBREVIATIONS.

- A. Evans* = *Cretan Pictographs*, by Dr Arthur J. Evans.  
*Anderson* = Dr Joseph Anderson, *Scotland in Pagan Times*,—Bronze and Stone Ages.  
*Ar.* = *Archæologia*.  
*Ar. C.* = *Archæologia Cambrensis*.  
*Ar. J.* = *Archæological Journal*.  
*A. W.* = *Ancient Wills*, vol i., by Sir Richard Hoare.  
*B. B.* = *British Barrows*, by Canon W. Greenwell.  
*Borlase* = W. C. Borlase, *Nenia Cornubia*.  
*Ceram.* = *Ceramic Art of Great Britain*, by L. Jewitt.  
*Devizes* = *Catalogue of the Stourhead Collection in the Devizes Museum*.  
*Evans* = Sir John Evans, *Ancient Bronze Implements of Great Britain*.  
*Hoernes* = M. Hoernes, *Urgeschichte d. Bildenden Kunst in Europa*.  
*J. A. I.* = *Journal of the Anthropological Institute*.  
*J. B. A. A.* = *Journ. of the British Archæological Association*.  
*J. R. H. A. A. I.* = *Journ. Royal Historical and Archæol. Ass. of Ireland*.  
*J. R. I. C.* = *Journal Royal Institute of Cornwall*.  
*J. R. S. A. I.* = *Journ. Royal Soc. of Antiquaries of Ireland*.  
*Matér.* = *Matériaux pour l'histoire de l'homme*.  
*Miles* = *The Deverel Barrow*, by W. A. Miles, 1826.  
*Montélius* = *La Civilisation primitive en Italie*, by O. Montélius.  
*Mort.* = J. R. Mortimer, *Forty years' Researches in Burial Mounds of East Yorkshire*.  
*Munro* = Dr R. Munro, *The Lake Dwellings of Europe*.  
*Murray* = *Excavations in Cyprus* (Brit. Mus. publication), by A. S. Murray.

- P. R.* = Lieut.-Gen. Pitt Rivers, *Excavations in Cranborne Chase*.  
*P. R. I. A.* = *Proceedings of the Royal Irish Academy*.  
*P. S. A. S.* = *Proceedings of the Society of Antiquaries of Scotland*.  
*Siret* = H. et L. Siret, *Les premiers ages du metal dans le S. E. de l'Espagne*.  
*Ten years* = *Ten Years' Diggings in the Counties of Derby, Stafford, and York*, by Thomas Bateman.  
*Thurnam* = *Archæologia*, vol. 49, pp. 285-552, by Dr J. Thurnam.  
*T. E. A. S.* = *Transactions of the Essex Archæol. Society*.  
*T. K. A. S.* = *Transactions of the Kilkenny Archæol. Society*.  
*U. J. A.* = *Ulster Journal of Archæology*.  
*Vestiges* = *Vestiges of the Antiquities of Derbyshire*, by Thomas Bateman.  
*Warne* = C. Warne, *The Celtic Tumuli of Dorset*.  
*Wills Ar.* = *Wills Archæol. and Nat. Hist. Magazine*.  
*Z. f. E.* = *Zeitschrift für Ethnologie*.

In a previous communication (*P. S. A. S.*, xxxviii. 323, etc.) I showed that the earliest Bronze Age Ceramic was represented by three types of the Beaker class. Omitting for the present the Food-vessels, I now pass on to the Cinerary class of Urns which fill up the later part of the Bronze Age. The types that will be discussed are—

- Type i. The Overhanging Rim type.
- Type ii. The Southern groups 1, 2, 3.
- Type iii. The Deverel-Rimbury groups 1, 2.
- Type iv. The Cordon type.
- Type v. The Encrusted type.

Although cremation was sometimes practised at the end of the Neolithic Age, and partially in the earlier part of the Bronze Age, when beakers and food-vessels were in use, this custom only became habitual at the later period we are about to describe. The focus of this new movement and the original centre of dispersion of Type i. must be looked for in the south, very possibly in the extreme south-west, of Britain. The oldest examples seem to be found in Cornwall, Dorset, and Wilts. In the two latter counties all gradations of form occur from the beginning to the end of the series, and two varieties of the type, when once developed here, retained their individuality to the last. It has several times been stated that there are no food-vessels in the south-west of England; and though this statement is not quite correct, they are

certainly rare. One reason for this circumstance may be, that cremation began earlier in the south-west and south of Britain than further north; in fact, if Mr W. Borlase is correct, no sepulchral pottery has been found in Cornwall except in connection with cremated interments. If the Cornish examples are really the oldest specimens we possess of Type i., then very likely we shall have to look to Armorica and the north of Gaul to find the prototype from which it is derived. To confirm this surmise, however, will require a special investigation.

That communication existed at a still earlier period between the south-west of Britain and Armorica is attested by a Wiltshire dagger with six rivets and a rudimentary tang (*Devizes*, fig. 155), which belongs to a type not uncommon in Brittany in the earlier half of the Bronze Age.

The diffusion of Type i. does not seem to have been the result of conquest, for although the type extends from the English Channel to the Moray Firth, it is only found at present in twenty-five out of the forty counties of England, in five out of the twelve counties of Wales, and in eighteen out of thirty-three counties in Scotland. This includes all the seaboard counties of England except Gloucestershire and several of the Scottish counties that touch the sea. Early examples are also found in the three north-east counties of Ireland. The maritime habits of the inhabitants of the south-west may have had something to do with this uneven distribution.

As cremation naturally led to the destruction of the skeleton and the skull, the methods of anthropology for determining the cephalic index of the people who now practised cremation are of no avail. But Canon Greenwell mentions an instance in which an urn of cinerary type lay beside the remains of a woman with a very brachycephalous head, *B.B.* 139,—a type which Dr T. Bryce has shown to be very characteristic of the Beaker period (*P.S.A.S.*, xxxix. 425, etc.). Quite recently a skeleton interment was discovered in a barrow near Marlborough in Wilts with a "grape" cup, and, at some distance off, an urn of Type i., like fig. 55 from Stonehenge. The skeleton was in a very bad condition, but it

appeared to Dr Beddoe, who examined the bones, that it had belonged to a mesocephalic woman, with a height of about 5 feet 4 inches.

In some respects the new era brought but little change with it. Cists still continued in use, though now they were made of smaller size and the site of the grave was still marked by a mound. In the chalk districts a hole was sunk into the chalk-rock, or subsoil in place of constructing a stone cist, exactly as in earlier times; the burnt bones were deposited in it and the mouth of the hole was sometimes stopped by a flat stone. More frequently, however, the central urn was deposited in a shallow hollow, from 6 to 18 inches deep, made in the ground, or merely laid on the natural surface and then covered over with a barrow. Although cremation only displaced inhumation by degrees, and never perhaps entirely superseded the latter rite, it very rarely happens that food-vessels and cinerary urns have occurred in the same barrow. Out of 297 barrows explored by Canon Greenwell, the primary interment in about ninety-seven instances was cremated. In twenty-two cases the interment was accompanied by an urn of Type i.; in fifteen cases by an urn of some other cinerary type; and only in six instances by a food-vessel. Only in nine cases did he find cinerary urns of any type in barrows in which the primary interment was a food-vessel. But cinerary urns of Type i. were sometimes used as food-vessels, *e.g.* figs. 3, 55, 56, 84, 88, found with skeleton interments and food-vessels in Derbyshire and Yorkshire have occasionally been remarked with cremated interments. These facts show that inhumation continued to be practised to a small extent throughout the whole existence of Type i. Fig. 22 is an instance of an urn found with a food-vessel apparently a late example of its type. The food-vessel had been deposited at the centre of the barrow with the skeleton of a young child, and at a little distance were disposed round it six cinerary urns, of which this one only could be preserved.

Although interments during the cremation period, in accordance with ancient custom, were usually covered by a mound or a cairn when the interment was primary, or deposited in one when the burial

was secondary, exceptions begin to appear. Interments of a single cremated body, or of three or four together, are sometimes found unmarked by a tumulus. The same thing happened also occasionally in the Beaker period, when a single burial has sometimes been found without any signs of a barrow to indicate its position. Before the end of the Cinerary Urn period small flat cemeteries, some even of considerable size, began to be formed. Small ones containing urns of Type i. have been noted at Lancaster Moor, Garlands, near Carlisle, and Cae Mickney in Anglesea; larger ones have been explored at Rimbury in Dorset; at Handley Hill, outside barrow 24, in Dorset, Ashford in Middlesex, and Stanlake in Oxfordshire. In these, however, the urns belong to other types than Type i. The Scottish cemeteries, all belonging to a later period, have been discussed by Dr J. Anderson in *P.S.A.S.*, xiii. 107, etc., and by Mr Beveridge in *op. cit.*, xx. 240, etc.

It would be a mistake to suppose that, because no bronze swords have been discovered in barrows or flat cemeteries, therefore all the barrows must be earlier than the time when bronze swords were employed. In the sequel it will appear abundantly clear that swords must have been known during the whole of the Cinerary Urn period. Why none was left with the dead, either in barrows or flat cemeteries, is a question which cannot be answered with certainty, and for the present we must rest satisfied with the fact. The find of a socketed celt, however, with a burnt interment in a barrow near Honiton in Devonshire, seems undoubtedly authentic (*Ar. J.*, xxix. 39-41).

Turning next to Types ii. and iii., we find that the area to which they belong is greatly restricted, as it does not reach north of the Thames basin, and some of the groups into which they are divided are limited to the south-western counties. One reason for this limitation is possibly to be found in the fact that these types belong to a period later than the beginning of Type i., and therefore there was less time for their diffusion.

Type ii. is composed of three groups, partly synchronous. Group 1 has a specially exotic appearance, and is mainly represented in Cornwall.

All the urns which it includes are characterised by loop-handles and great simplicity of profile, characteristics which it shares with Bronze Age urns from Armorica. The scheme of ornament in this group and the technique with which it is executed is quite similar to that of Type i., and this group certainly began earlier than the two others. Groups 2 and 3 are evidently contemporary and have several features in common. The possibility that some of these urns, especially fig. 111, are indirectly derived from a metallic prototype will not escape notice. A bronze situla from Hungary (*Hoernes Taf.* xiv. 2), another almost identical from Jutland, (*Z.f.E.*, xxxiii. 244), both of the Villanova period, and another from Rivoli (*Montelius*, pl. 24, fig. 10), also of the Early Iron Age, would serve as prototypes. The profiles, including the everted lip of these situlæ, are closely followed in fig. 111 of group 2, though the shoulder is lower and less pronounced. The seam where the two metal plates unite is reproduced, and the heads of the rivets that clinched them together are shown by two rows of small knobs, which otherwise are without meaning. The handles, though doubled in number, were not forgotten, but are now mere survivals without practical use. Both these groups are devoid of surface ornamentation. It is interesting to learn, in connection with group 3, that the people who fabricated urns of this type also constructed small earthworks of squarish outline. Yet it is not the form of these entrenchments, but the contents of the ditches that surrounded them, that will attract our special attention. These excavations were conducted by General Pitt Rivers with such minute and scientific precision that the record of them is invaluable, and affords, I believe, sufficient data for estimating how long the Bronze Age lasted in East Dorsetshire. The striking fact that emerges is, that in the silting of the ditches there is hardly an appreciable interval between the Bronze Age and the Roman period, the relics of the latter being superimposed upon those of the older period without any intervening layer containing late Celtic remains. How this difficult problem with which we are confronted is to be solved will be seen later on.

Type iii., or the Deverel-Rimbury type, is composed of two groups,

which, though very different in form, are partly contemporary. The double name is derived from the Deverel barrow, in which about thirty cremated interments were found on the floor of the barrow, and from the Rimbury flat cemetery, where about a hundred burials by cremation had taken place. Both places are situated in the south of Dorset, at no great distance apart. The fortunate circumstance that an urn of Type i., fig. 67, was found in the Deverel barrow, as well as the fragment of another, permits us to equate Type iii. with the later part of Type i. As Type ii. group 3 can also be equated with Type iii., we can at once form a general idea of the relative chronology of these three types.

To find Type iv., or the Cordon Type, we have to look to the more northern parts of Britain and to Wales. It is contemporary with the later part of Type i., and seems to be derived from it, but it lasted much longer. It is contemporary with Type iii. in the south, and partly with groups 2 and 3 of Type ii.

Type v., or the Encrusted type, is partly contemporary with Type iv. It is found in flat cemeteries in Scotland and Ireland, and an unusually fine specimen, showing late Celtic influence in its form, is known from Glamorganshire in South Wales. A specimen from Killucken, Tyrone, from its situla-like shape, is referred back by Dr Arthur Evans to Late Celtic ceramic forms, like those he discovered at Aylesford in Kent (*Ar.*, vol. 52, p. 356). The small "incense cup" that accompanied this urn has small triangular apertures in its sides, and is preserved in the Museum at Edinburgh in case E.D. 2. This late Celtic influence, which in the south of England only belongs to the first century B.C., could hardly have reached the north of Ireland before A.D. 1. There is a possibility, however, that this influence came direct from Gaul, in which case it may have arrived as early as in England, or a little earlier. At any rate this type of urn belongs to a very late period, quite on the confines of the Iron Age and the historical period.

The illustrations given in this paper by no means exhaust the number I might have given had space permitted. Within the limits of a paper

of reasonable dimensions it is impossible to show more than a selection. To do full justice to the urns would require at least three separate monographs. Partly, then, from reasons of space, and partly from other reasons, I have omitted the "incense cup" class, the one-cordon type, and a good many heterogeneous urns which are more than usually difficult to place.

#### TYPE I. OVERHANGING RIM TYPE.

Dr Thurnam, in his admirable paper on Sepulchral Pottery (*Ar.*, vol. 43, p. 345, etc.), defined several types of cinerary urns. He headed the list with the "overhanging rim" type, the second being the "moulded rim" type. I have taken the liberty of uniting these two types and treating them as one. I also include his second type of food-vessel, which has the same forms as my Type i., the only difference consisting in the smaller dimensions of the urns found with uncremated interments, which are not infrequently those of children. His typical example of his first type was my fig. 83 from Mepal Fen, Cambridge; another was fig. 52. As instances of the second type he adduced figs. 53, 54, 65. But when a considerable number of urns of my Type i. are arranged in order,—and it is only from considerations of space that I have not doubled the number of illustrations here given,—it becomes evident, I think, that both Thurnam's types have a common origin. In fact, his typical example of his first type is seen to be an urn in the last stage of the development of the series, which begins with his second type. It is true that my Type i. contains two varieties, which justify in a measure his two divisions, but the explanation of this will be given below.

The series begins with the urns that are structurally tripartite, consisting of three members—a rim, a neck, and a body. It terminates with urns which are bipartite, consisting only of two members—a rim and a body. If the Cornish examples are the oldest, the whole type, except in Cornwall, has shed the loop-handles with which it was provided.

The rim at first was narrow, and either inclined inwards or was



vertical. In process of the development the rim became broader or deeper. But not necessarily and not everywhere, for in the south-west the rim could remain narrow to the last, while it underwent changes in other directions, although in the same area it also became broader, as in other parts of the country. A good example of this fact can be observed by comparing figs. 62, 63, 64, all three nearly contemporary, and all from the same Dorsetshire barrow.

The second member or neck consisted at first of a well-marked cavetto moulding. Its tendency was to flatten and at the same time to become deeper or wider. In the later stages of the development the flattening became so complete that the neck entirely disappeared, and became part and parcel of the body.

The third member, the body, had the form of an inverted truncated cone, sometimes with slightly curved sides. The junction of the body and neck formed the shoulder, the diameter of which was as great or greater than that of the rim. The tendency of the shoulder angle, which at first was sharp and well defined, was to become rounder. Its diameter became less as its position lowered with the broadening or deepening of the neck, until ultimately these two members coalesced and the tripartite urn developed into a bimembral pot.

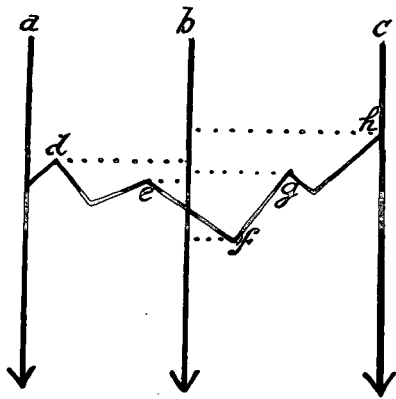
That the sequence runs in the direction I have given it, and not *vice versa*, is seen best by reference to Table of Grave-finds I. Here it will be observed that in the earlier part of the series objects of flint and bone predominate, while bronze blades are rare. In the later part of the sequence it is just the reverse,—bronze blades become more numerous, and beads of vitreous paste as well as amber beads begin to make their appearance.

When a series of urns taken from a large area like Great Britain is arranged in a single row, it is evident that any two urns with numbers separated by several units may be exactly contemporary. Allowance has to be made for local conservatism and for different rates of development, especially in remoter parts of the country. If the general current of development is represented by the three parallel lines *a, b, c*, then a

TABLE OF GRAVE-FINDS I.

No. of the Find.	Fig.	Place.	Flint Knife, Spear-head.	Flint Arrow, Barbed and Stemmed.	Stone Axe- Hammer.	Bone Pin or Needle.	Bone, worked.	Bone Tweezers.	Jet or Shale Beads.	Amber Beads and Disc.	Gold-plated Beads, Cores.	Gold Armlet.	Bronze Blades.	Bronze Awl.	Glass Beads.	Cylindric Bead.	Remarks.
1	2	Denzell, Cornwall, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Lost.
2	3	Porton, Wilts, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	7	Thorny Down, Dorset, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4	like 7	Mort. Bar. 56, Yorks, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	10	Bamborough, Northumber- land, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Finely chipped, 2½ ins. long.
6	13	Corby, Northampton, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3½ × 1½ and 3 rivets.
7	17	Gourlaw, Midlothian, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	22	Ford, Northumberland, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	like 22	Mort. Bar. 216, Yorks, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	27	Balidon Hill, Derby, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11	28	Monsal Dale, Derby, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12	38	Foulford, Banff, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13	like 40	Broughton, Lincoln, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15	40	Mort. Bar. 71, Yorks, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	41	B 24, Handley Hill, Dorset, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	51	B. 8, Winterbourn, Stoke, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18	like 52	Mort. Bar. 114, Yorks, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19	53	B. 5, Wilsford, Wilts, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20	54	B. 42, Winterbourn, Stoke, Wilts, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21	55	B. 156, Normanton, Wilts, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22	like 55	Sheffield, <i>Cat. Shef. Mus.</i> , p. 136, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23	55	Tomen y mur, Carnarvon, <i>Ar. J.</i> , xxiv, 16, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24	58	Moot Law, Derby, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25	59	Upton Golden Barrow, Wilts, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26	like 59	Mort. B. c. 89, Yorks, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
27	66	Bloxworth Down, Wilts, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28	like 66	Dorset, <i>Devizes</i> , p. iii, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
29	68	Hutton Buscel, Yorks, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
30	like 69	Lancaster Moor, } <i>J.B.A.A.</i> , } xxi, 157., . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
31	69	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
32	74	Gilchorn, Forfar, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
33	75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
34	75 bis	Ardœ, Aberdeen, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
35	78	Alloa, Clackmannan, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
36	85	Fylingdales, Yorks, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
37	..	Ringwold, Kent, . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

line cut across it to indicate a particular moment of time can never be straight; it must take the form of a curve such as that marked by the points *d, e, f, g, h*, each of which represents an urn. When these points are protracted on *b*, which represents the whole series of urns in a single row, it is evident that *f* and *h* are contemporary, though separated by several urns. If the intermediate urns *d, e, g* are lost, and *h, f* become consecutive numbers, the difference between them may be such as to make us hesitate to consider them precisely contemporary. Or it may



easily happen that urns not quite contemporary with them may intervene between *h* and *f*. Considerations such as these have to be kept in mind when examining the series of urns of Type i. here given.

As bibliographical references to the finds about which I know anything are given in the list of illustrations, it is unnecessary to recapitulate the discovery of each urn *seriatim*. Yet an exception must be made for some which present features of interest, and to show the methods of interment employed throughout the series. In the earlier part it will be observed that the urns belong to primary interments deposited in a mound at some depth below the natural level of the ground; towards the close, they belong on the whole to secondary interments placed at a considerable distance from the centre of the barrow, and quite near to its surface. Urn fig. 1 was found in a pit 2 feet east of a menhir, in the parish of Paul, Cornwall, though there may have been no connection between the pillar-stone and the interment. In fig. 2

it will be observed that the lower fragment has been reversed. Urn fig. 4 was deposited in a cylindrical hole 4 feet deep, and formed the central interment. Urn fig. 7, from the same neighbourhood, was found in a hole  $3\frac{1}{2}$  feet deep, as the central interment of a barrow surrounded by a ditch. Perhaps fig. 10, from Northumberland, does not belong to the type at all, as the scalloped edges are quite abnormal, and the same may be said of the surface ornament. Urn fig. 15, from Norfolk, was found at a depth of from 3-4 feet below the surface on the highest part of a knoll, and no mention is made of a tumulus. No. 17 was found under the remains of a ruined cairn, at a depth of 6 feet below the natural surface. Some feet from it and at a higher level was urn fig. 81.

Though there is no record attached to urn fig. 30, from Suffolk, judging from its diminutive size, it may have accompanied an uncremated burial. Urn fig. 35, from Yorkshire, was with a central interment at a depth of 2 feet from the surface of the barrow. Urn fig. 37, from near Swansea, was found in a hole covered with stone slabs, probably at the centre, below a large cairn, with a diameter of 90 feet and a height of 4 feet, though formerly higher. Urn fig. 41 was found outside barrow 24, Handley Hill, but not on the same side as the flat cemetery containing urns of Type ii. group 3. With the urn was a pair of bone tweezers. There is a legend attached to fig. 44 which was found in a cist at Inys Bronwen, on the banks of the Alaw in Anglesea. In one of the *mabinogion* occur the lines, "A square grave was made for Bronwen, the daughter of Llyr, on the banks of the Alaw, and there she was buried." So when this urn was discovered local antiquarians jumped to the conclusion that it must have belonged to Bronwen, daughter of Llyr Llediaith, who is said to have lived about A.D. 50. The urn was an intruder, for in the cist were discovered fragments of a beaker which had been broken by this secondary interment. There is an elaborate description of urn fig. 52 in *Thurnam*, p. 346, figs. 22, 25. Urn fig. 55 was found at Normanton, Wilts, in a shallow grave with a skeleton under a very large barrow, with a diameter of 102 feet and a height of 10 feet. With it was the "grape" cup, fig. 196, and some gold and amber ornaments. Urn fig. 56, from Dorset, was also found with a skeleton interment.

Urn fig. 58, from Derbyshire, was found in a barrow about 12 feet from the centre and very near the surface. Urn fig. 59, from the Golden barrow, Upton Lovel, was found inside a larger cinerary urn at the depth of 2 feet from the surface of the barrow, the dimensions of which are not stated. A number of gold ornaments were with it. The urns figs. 62-64 were found in the same barrow on the Ridgeway in Dorset. In the upper stratum, at no great distance from the surface, was found fig. 63; lower down, under a mass of flints, lay fig. 64. On approaching the centre of the barrow was another packing of flints, among which were fig. 62, and another of the same type as fig. 64, but with a better defined groove to form the neck. The height of the barrow was about 6 feet. Urn fig. 67, from the Deverel barrow, Dorset, has been mentioned above. It had not been deposited upright in a hole and covered over with a large stone like the urns of Type ii., but was placed inverted on the floor of the barrow and carefully surrounded by a quantity of flints. Urn fig. 72 was found  $12\frac{1}{2}$  ft. N.E. from the centre of the barrow about 1 foot 7 inches below the surface. There was no central interment. Urn fig. 75 bis, from

Ardoe, Aberdeenshire, might be placed perhaps a little higher in the series on account of its well-defined neck, but the diameter of the shoulder is less than that of the lower edge of the rim, and ornamentation traced with a fine point is more characteristic of Type iv. The small bronze bowl or cup fig. 200 may have been found with or near this urn, or another of the same type in the Museum marked E.A. 24. All that is certain is, that it was found in excavating sand from a knoll where three or four stone cists, one containing a fine beaker, and several cinerary urns standing loose in the sand, were brought to light. The area excavated seems to have been about 30 feet square.

Urns fig. 76, 77 are from a small flat cemetery in Fife. Fig. 78 is also from a flat cemetery at Alloa, containing twenty-two urns, of which this is the only one preserved. In the cemetery there was one uncremated interment contained in a cist, on the top of which lay two massive gold armlets. Urn fig. 80, from near Carlisle, also formed part of a group of urns from a flat cemetery. Urn fig. 84, from Cambridge, was found near a skeleton. Urn fig. 85, from Yorkshire, was found 16½ feet from the centre of the barrow, only 8 inches below the surface. The last urn, fig. 88, from Berks, is only 3¼ inches in height, and lay beside a skeleton.

At the end of the *Table of Grave-finds* I. stands No. 37, the urns of which require special notice. Half way between Dover and Deal a tumulus at Ringwold, with a diameter of 65 feet and a height of 4½ feet, was explored. In the floor of the barrow four cylindrical holes were discovered, each containing an interment. Two of the urns are very late examples of Type i., the profile of the body forming a straight line from the base to the broad or deep overhanging rim, as in fig. 85. The larger of these two urns was about 16 inches high, and was distinguished from the other by four encrusted imitation handles of horseshoe form, placed immediately below the overhanging rim. It was accompanied by two small accessory urns. Among the ashes it contained were three ribbed beads and one small globular bead of light green vitreous paste. This find is interesting since it shows that barrows continued to be used quite at the end of the space of time covered by urns of Type i.

*Distribution of Type i.*—As regards the distribution of this type, it is found in twenty-five out of the forty counties of England. These include all the counties with a seaboard on the east, south, and west coasts, except Gloucester. The inland counties are Wilts, Berks, Oxon, Bucks, Beds, Northampton, Cambridge, Warwick, Stafford, and Derby. In Wales, urns of this type occur in Anglesea, Carnarvon, Denbigh, Radnor, and Glamorgan. In Scotland the type exists in all the counties on the east coast, from the Border to Elgin, except Berwick and Kincardine; on the west coast, from Wigton to Renfrew and southern Argyle, including the islands of Arran and Cumbrae. The inland counties are Lanark, Stirling, Clackmannan, Kinross, and Perth. In Ireland the type occurs in the three north-eastern counties of Antrim,

Down, and Tyrone. Yet too much stress must not be laid on this partial extension and diffusion of Type i., for Great Britain and Ireland, from an archaeological point of view, have been very imperfectly explored, and much may remain below ground for future archaeologists to investigate.

#### TYPE II. THE SOUTHERN GROUPS 1, 2, 3.

*Group 1.* The urns of this group, figs. 89-105, have a rather heterogeneous appearance, yet I have grouped them together for convenience, though uncertain whether they form a sequence. The urns of the group consist of two truncated cones united at their base, the lower one being the higher of the two. Their junction forms the shoulder, marked sometimes by a raised moulding or a shallow groove. There is often a slight moulding round the lip. The urn is provided with two or more large loop-handles or by knobs. The ornamentation is confined to the upper part of the urn.

Urn fig. 89 was found in a barrow seven miles from Sarum, under an archwork of flints, at a depth of  $1\frac{1}{2}$  feet from the top of the barrow. The central interment lay 4 feet below the natural surface, and with it was a beaker. Urn fig. 90, from Tregaseal, Cornwall, was found in a cist outside a stone chamber 11 feet long, 4 feet high and 4 wide, which had been covered by a cairn. The small cist was evidently subsequent to the construction of the long chamber. Another urn like this, from Nanstallon Down, Bodmin, also decorated by means of a three-cord plait, is figured in *J.R.I.C.*, x. 196 (1890). A similar urn from Harlyn Bay, Padstow, found with a fine bronze dagger, is described and figured in *J.R.I.C.*, x. 198, etc. Fragments of a fourth urn like the above, from Cheesewring, Cornwall, are preserved in the Athenæum at Plymouth. Urn fig. 91, from Lord's Down in Dorset, was found in a large tumulus 14 feet high. It lay at a lower level than fig. 107 of group 2, which had been deposited only 1 foot below the surface of the barrow. The central interment was 2 feet below the natural level, or 16 feet below the top of the barrow, and consisted of an uncremated body, with a beaker.

The fragment from Angrowse in Mullion, Cornwall, found with a bronze dagger, fig. 94, is ornamented with the three-cord plait like fig. 90, and probably had a body like fig. 93. An urn that may have resembled it, 16 inches in height, was found inside a larger urn apparently like fig. 90, which had a height of from 21-22 inches. They were found at Carn Leskys, St Just, Cornwall, and are figured on a very small scale in *J.R.I.C.*, No. xxi., pl. 2, figs. 3, 4. The urns figs. 98, 99, 100, from Pedngwinnion Point, Cornwall, were all found in the same cist. Figs. 101, 102 were found about 4 feet apart in removing a cairn at Trevelloe, in the parish of Paul, Cornwall. An urn like fig. 102, but without ears, from Lanrawen, Cornwall, is figured

in *Ceram.*, fig. 32; another, from Conquer Downs, in the same county, is preserved in the Museum at Penzance. Except for the ornament above the shoulder, figs. 104, 105 might be placed in Type iii. group 2.

*Group 2.* This group, figs. 106–112, is somewhat similar in structure to the earlier members of group 1, but the handles are replaced by encrusted imitations.

Urn fig. 107, from Lord's Down, as has already been mentioned, was found inverted a foot from the surface in the same barrow as fig. 91 of group 1, which lay at a rather lower level. The possibility that an urn like fig. 111 is indirectly descended from a metallic situla has already been mentioned. It is characteristic of this and the next group that, apart from the portions in relief, there is no impressed or incised ornament round the upper part of the urn.

*Group 3.* The urns of this group, figs. 113–122, are barrel-shaped, with a slightly moulded lip, and one or two raised mouldings or cordons at a short distance below it. In the most characteristic examples the mouldings are disposed vertically round the body of the urn. Since arranging the urns in the order here given, I have arrived at the conclusion that fig. 119, which has a great similarity of profile with figs. 111, 112 of group 2, should head group 3; that the bulging, barrel-like sides gradually flattened to forms like figs. 113, 120, 121, until a bucket-like profile like fig. 140 from the Deverel barrow was ultimately reached. Figs. 153, 158 might well be placed at the end of group 3, though I have included them in the Deverel-Rimbury type, to which they also seem to belong.

The urns figs. 114, 115, 118 were discovered in what may be regarded as a flat cemetery outside barrow 24, Handley Hill, Dorset. Here 52 interments were unearthed by General Pitt Rivers, and very amply described. Two specimens of this group from barrows on Launceston Heath, Dorset, are figured in *Warne*, pt. 2, p. 27, and another good example from Nether Swell, Gloucestershire, is in the British Museum. Urn fig. 119 was found at the bottom of the ditch at South Lodge Camp, Dorset, at a depth of 6 feet from the surface of the silting. Beneath the urn lay a bronze razor and a bronze awl or small chisel. At the bottom, inside the urn, is an 8-spoked wheel in relief; a cross in relief is also on the inside of the bottom of urn fig. 90. Although fig. 122 from Colchester shows no encrustation, I have fitted it into group 3, at any rate for the present.

*Distribution.*—The urns of group 1 are chiefly confined to Cornwall; three are from Dorset and one from South Wilts.

*Group 2*, though smaller than the last, has a wider extension. Figs. 109, 110 are from Balsham parish in Cambridgeshire—by mistake, the latter is described as coming from Bulford, in *Thurnam*, fig. 27—and fig. 108, from Bulford in Wilts, is now in the Museum at Salisbury. The other urns are from Dorset.

*Group 3*. Urns of this group occur in Gloucestershire, Dorset, South Wilts, and perhaps in Essex.

### TYPE III. THE DEVEREL AND RIMBURY TYPE.

The Deverel barrow, opened in 1825, is midway between Whitechurch and Milbourn St Andrews, Dorset, on the Great Western road. Its diameter was 54 feet and it had a height of 12 feet. On cutting a section from the south side to the centre a semicircle of large stones was discovered on the floor of the barrow, and under most of them was an urn with an interment. Altogether thirty burnt interments were disclosed, some of which were simply laid on the floor of the barrow and unprotected by any stone. Seventeen interments accompanied by urns were found in small pits cut into the chalk; four urns lay on the natural soil, enclosed in a rude kind of arch composed of flints, making twenty-one cremated burials in urns. All the urns except fig. 67 of Type i. were placed mouth upwards. This last was not deposited in a pit cut into the chalk, but was carefully surrounded by a quantity of flints and lay at one extremity of the semicircle. (*Miles*, pp. 16–26, pls. 1–6.) No relics are mentioned as having been found.

The Rimbury cemetery lies S.W. of Deverel, close to Chalbury in the parish of Sutton Poyntz, and not far to the north of Weymouth Bay. It was explored more than forty years ago by Mr Warne. Before he began operations between thirty and forty urns had been discovered while putting the ground under cultivation, and all but two were destroyed. On the first day of his excavations from thirty to thirty-five urns were brought to light, all filled with calcined bones and ashes. On the second day he found fifteen urns and a stone cist containing the skeleton of a young person. On the third day four more urns were discovered and



another stone cist. In numerous instances skeletons were found lying beneath the urns, most of which were placed mouth upwards. The depth at which they were found varied from 18 to 24 inches. No metal was found and only one flint arrow-head. Altogether nearly a hundred urns were exhumed, but only a very few were preserved. (*Warne*, pp. 60-63.)

*Group 1.* In this group (figs. 123-137) the body of the urn is more or less globular, with a short, rather wide neck. Above the greatest swell there are generally four small perforated bosses and a band of several horizontal incised lines or of shallow grooves.

The examples from the Deverel barrow are figs. 125-128. Urn fig. 132 was found in the flat cemetery outside barrow 24, Handley Hill, Dorset, in close proximity to figs. 114, 115, 118, which allows us to synchronise Type ii. group 3 with Type iii. group 1. Another urn of nearly the same form as fig. 132, but with incised lines instead of grooves round the neck, was found as a secondary interment in a small barrow at Dewlish, the primary interment being urn fig. 159 (*Ar. J.*, xxix. 286). The two urns figs. 133, 134 both come from the same barrow near Milton Abbas in Dorset. Urn fig. 136 is from Berks; and fig. 137, which differs from the Dorset examples, was found in a flat cemetery at Ashford in Middlesex. A specimen of this group is to be seen, I believe, in a cinerary urn from Durval, Sancred, Cornwall (*Borlase*, p. 141), which has sometimes been taken for a beaker. In form and ornament it much resembles an urn, now lost, from the Deverel barrow, but figured in *Miles*, pl. iii. 8.

*Group 2.* The urns of this group (figs. 139-160) have in general the form of a narrow bucket or of a cylinder, though sometimes the sides show a slightly curved profile. There is a raised moulding or a line of roughly made incisions or impressions at a certain distance below the lip. This may indicate that a shoulder has disappeared, for in some examples the walls recede inwards between the moulding and the lip.

The first four urns (figs. 139-142) are from the Deverel barrow, the next seven (figs. 143-149) from the Rimbury Cemetery; and to these may be added fig. 150 from Ridgeway Hill, Dorset, which is very like one figured by Warne from Rimbury, and is also ornamented in a similar manner with roughly undulating lines. Urn fig. 152 comes from barrow 1, Whitmore Common, near Guildford in Surrey. Urns of cylindrical form, of very coarse manufacture, with a neck that is sometimes splayed outwards and with a raised moulding (as in fig. 155) a little below the lip, or with small knobs round the circumference, have been found in considerable numbers in a flat

cemetery on Sunbury Common at Ashford in Middlesex. In every case cremation had taken place on the earth itself, in a hole dug down to the sandy gravel. In two instances the urns were placed in a curved line, as in the Deverel barrow; in all other cases the urns were in straight rows. There were four or five different kinds of urns made of two kinds of paste. A few calcined flints were found, but no implements, coins, or ornaments (*J.B.A.A.*, xxvii. 449-451). The globular urn fig. 137 is from the same Ashford cemetery.

*Distribution.*—The two groups of Type iii. belong both to the east and west of England, south of the Thames valley.

#### TYPE IV. THE CORDON OR HOOPED TYPE.

The general impression left by looking at urns of this type is that they are developments of Type i. In course of time the walls of the rim were often made thinner, and to give the appearance of an overhanging rim, the lower edge was pinched up into a sort of rudimentary moulding. By degrees this definitely assumed the form of a cordon or raised hoop at the base of the rim, and the shoulder angle was likewise replaced by another cordon. As time went on a third hoop was sometimes added. Hence these types are partly contemporary, and are sometimes found in the same cemetery in North Britain.

Urn fig. 161 was found near four other urns at Darley Dale, in the centre of Derbyshire. These are figured in *Ceram.*, figs. 8-10, 22. A finely ornamented example, in form much like fig. 164, but with a narrower base, was found at Colwinston in Glamorgan, and is figured in *Ar. C.*, 5 ser., v. 85. Nearly all the urns from the Law Park Cemetery, near St Andrews, belong to this type. It also occurred in the small cemetery at Sheriff Flats, Lanarkshire, and at Calais Muir in Fife. Fig. 162, from Whitby in Yorkshire, is an example of the intermediate forms between Type i. and Type iv. One or two other examples of Type iv. are also known from Yorkshire. In Penmaenmawr in Carnarvonshire an urn of this type was found with two urns of Type i. and two bronze pins (*Ar. C.*, 5 ser., viii. 33). Urns figs. 176-178 are from Ireland, another from a gravel-pit in County Antrim is figured (*U.J.A.*, v. 25 (1898)). Another, from the South Island of Aran is figured (*P.R.I.A.*, 2 ser., ii. 478, fig. 2).

There is every reason to believe that this type lasted to a very late period—to the very end of the Bronze Age.

In making a railway at Eddertoun in Ross-shire a tumulus was dug through. At the centre was a cist containing burnt bones, a fragment of bronze, and a bead of blue glass with three yellow spirals. In the

ditch surrounding the barrow was found a cinerary urn in pieces and fragments of oxidised bronze. The urn is described as having been plain, with two mouldings of slight relief which divided the height of the urn into about three equal parts. It had been about 16 inches high, 16 inches wide at the mouth, and 9 inches at the bottom (*P.S.A.S.*, v. 312).

The urn therefore belonged to the Cordon type iv., and would not be very different from fig. 170, which is 15 inches high, though it would be rather wider at the base. As this was a secondary interment, it could not be earlier than the central cist containing the glass bead. Beads of this type are certainly late.

In the Zürich Museum there are some from Giubasco, near Bellinzona, also ornamented with yellow spirals on a dark blue ground, which belong to the La Tène period. They are not uncommon in Scotland and Ireland. One was found in the crannog at Lagore in County Meath (*Munro*, fig. 105). Two dark blue beads with yellow spirals were presented to the Museum by Mr Young, together with a bronze spear-head and an iron axe, discovered during his excavations at Burghead, and at the same time he exhibited a Greek coin of Nero, also from Burghead. A large number of beads, some of this type, together with articles of bronze, all apparently of the Roman period, have been found near Donaghadee in County Down (*Ar. J.*, xiii. 407). A bead like the Eddertoun example cannot, I think, be dated in the far north earlier than first century B.C., and it is always possible that this particular specimen is still later, and belongs to the Iron Age in Scotland.

*Distribution.*—Type iv. is best represented in North Britain, and comes as far south as Derbyshire. But it also occurs in North and South Wales and in the north-eastern part of Ireland, reaching as far south as Wicklow.

#### TYPE V. THE ENCRUSTED TYPE.

This type, or rather class, figs. 179–193, is characterised not so much by its profile as by its encrusted decoration. This generally takes the

form of a chevron border, between the angles of which is placed a circular boss, either plain or decorated with incisions. In what, no doubt, are the earlier examples this decoration is confined to the neck; in other specimens from Wales and Ireland the whole surface of the urn is enveloped with encrusted designs.

So far as the scanty record of the finds permits us to form an opinion, the great majority of this class of ceramic have been discovered in flat graves with cremation at a small depth below the surface of the ground. Although the urns figs. 182, 184, from Uddingston in Lanark and Broomhedge on the borders of Antrim and Down, show no encrustation, I have introduced them here because they were found with figs. 181 and 183 respectively. As this type of urn with a hollow neck has in other instances been associated with encrusted urns having a similar profile, it is evident that they are contemporary, and that the encrustation is an adjunct which might be omitted. The urns figs. 183, 184, from Broomhedge, Co. Down, were unearthed from a field in which many urns have been discovered: on one occasion eleven were noticed in a straight line forty yards long. Urn fig. 187, from Glenballoch in Perthshire, has almost exactly the same profile and decoration as two urns, both fragmentary, from the Law Park Cemetery, near St Andrews. This is enough to show that Types iv. and v. are partly contemporary in North Britain. Urn fig. 189 is from Branthwaite in Cumberland, not far from the sea. A far simpler urn, much like fig. 179, but without the lower cordon, with a chevron in relief below the lip, from Ovington in Northumberland, is figured in *B.B.*, fig. 59. One of the finest specimens of this class, decorated below the lip with a chevron border, and below that with a lozenge border in relief, came from the Breselu Mountains in Pembrokeshire. In form it is something like fig. 182, but with a more prominent and well-rounded shoulder, showing Late Celtic influence (*Thurnam*, fig. 32).

Urn figs. 190-193 are from Ireland, from the counties of Wexford, Down, Tyrone, and Down. A broken urn, the upper part of which is ornamented with an encrusted chevron border and a boss at the centre

of each triangle, as in figs. 181, 185, 188 from Scotland, was found in a cist under a tumulus at Killicarney, Co. Cavan, with two flint implements, one being a small well-made saw (*J.R.H.A.A.I.*, 4 ser., v. 194-7). Another urn of the same form as fig. 184, but broader at the base, from the cemetery of Drumnakilly, Co. Tyrone, has a lattice border in relief round the body, the neck being plain. Several urns of the same form, but without encrustation, were found at the same place and time (*J.R.H.A.A.I.*, 4 ser., ii. 499-512). An urn from Carrowmore, near Sligo, is figured in *Thurnam*, fig. 31. The interesting specimen from Killucken, which brings us down so late in time, and forms part of this ceramic class, has already been mentioned.

*Distribution.*—This class of ceramic is found in various parts of Scotland, as far north as the county of Ross, in Northumberland, Cumberland, South Wales, the North and West of Ireland, and as far south as Wexford.

*The Ornamentation.*—It is not necessary to say much on this head, and the ornamentation of Types i., ii., group 1, and iv., can be taken together, as there is no essential difference between them. Compared with the Beaker class, the decoration of the cinerary urns is simpler, less elaborate, and presents fewer combinations, and is never arranged in alternately plain and decorated bands or zones. With one or two exceptions, the lower part of the urn is plain, and all ornamentation is confined to the rim and neck. The scheme of ornament is purely geometrical, and consists of simple combinations of straight lines, such as the line chevron turned in different directions, and bands of short vertical or oblique lines. The only exception to the use of the straight line is a line of small horseshoe impressions, made with a cord placed under the finger-nail, *e.g.* figs. 39, 52, 92. By far the commonest mode of decoration is to cover the surface with a pattern of line chevrons placed vertically, *e.g.* figs. 5, 16, 94, 97. The line-lozenge border, either shaded or plain, *e.g.* figs. 18, 26, 34, 164, and the line-lattice border, *e.g.* figs. 24, 69, 163, 171, are also common in Types i., iv. all over the country. The line-chevron border, with both sets of triangles shaded in

TABLE OF GRAVE-FINDS II.—Type ii.

Number.	Fig.	Place.	Prints Chipped.	Stone Whorl.	Stone Hammer.	Bronze Blade.	Bronze Tube.	Bronze Cylinder.	Bronze Awl.	Amber Beads.	Glass Beads.	Remarks.
GROUP 1.												
38 . . .	89	Sarum, Wilts, . . . . .	...	...	...	+	...	...	+	+	...	Fig. 198.
39 like	90	Harlyn Bay, Cornwall, . . . . .	...	+	...	+	...	...	+	...	...	4½ in. long, 2 rivets, duplex mid rib.
40 ,,	90	Carn Creis, Cornwall, <i>J.R.I.C.</i> , xxi. 205-8, . . . . .	...	...	...	...	...	...	...	...	+	Glass-porcelain ribbed beads.
41 . . .	94	Angrowse, Cornwall, . . . . .	...	...	...	+	...	...	...	...	...	
42 . . .	97	Tredinney, Cornwall, . . . . .	+	...	...	...	...	...	...	...	...	
GROUP 2.												
43 . . .	111	Roke Down, Dorset, . . . . .	...	...	...	...	...	+	...	...	...	Very small diameter.
44 . . .	112	Bere Regis Down, Dorset, . . . . .	...	...	...	...	...	+	...	...	...	" "
GROUP 3.												
45 . . .	119	South Lodge Camp, Dorset, . . . . .	...	...	...	+	...	...	+	...	...	Razor blade.
Type iv.												
46 like	161	Darley Dale, Derby, . . . . .	...	...	...	...	+	...	+	...	...	Small beads strung on the tube.
47 . . .	164	Tuack, Aberdeenshire, . . . . .	...	...	...	+	...	...	...	...	...	Mere fragment.
48 . . .	165	Shanwell, Kinross, . . . . .	...	...	...	+	...	...	...	...	...	3½ in. long. Ornamented.
49 . . .	168	Magdalen Bridge, Midlothian, . . . . .	...	...	...	+	...	...	...	...	...	Over 3 in. long. Ornamented.
50 . . .	169	Oban, Argyll, . . . . .	...	+	...	...	...	...	...	...	...	Perforated.
51 . . .	170	Cambus Barron, Stirling, . . . . .	...	+	...	...	...	...	...	...	...	" 4⅞ × 3 in.
52 . . .	173	Stobshiel, East Lothian, . . . . .	...	...	...	+	...	...	...	...	...	Fragment 1½ × 1 in. 2 rivets.
53 . . .	174	Pittodrie, Aberdeen, . . . . .	...	+	...	...	...	...	...	...	...	Core and 2 worked stones.
54 like	175	Mill of Marcus, Forfar, . . . . .	...	...	...	...	...	...	...	...	+	Small ribbed bead.

different directions, *e.g.* figs. 43, 60, 161, 174, as well as a chequer pattern, composed of groups of lines alternately vertical and horizontal, such as figs. 13, 33, occur more rarely.

Type ii. groups 2, 3. These groups are devoid of surface ornament, the decoration consisting of raised horizontal or vertical mouldings, along which lines of punch-marks or finger impressions are disposed.

Type iii. In group 1 preference is given to a band of parallel incised lines or shallow grooves disposed round the neck, such as figs. 123, 129, etc., or to an undulating border of parallel lines, figs. 150, 151,—a type of ornament peculiar to this group, and which occurs on some Late Celtic pottery in the Colchester Museum. Group 2 is quite plain.

Type v. The scheme of linear ornament is very restricted, and often careless in execution, the attention of the potter being chiefly turned to the bolder effect of the encrusted decoration. In several specimens the whole body of the urn is covered with haphazard incisions, hastily made, that hardly deserve the name of ornament.

#### *The Technique.*

The means by which the ornamentation was produced on the wet clay was *not* altogether different from that of more ancient times. It consisted in the use of (1) the cord, (2) the three-cord plait, (3) linear incisions made with a blunt or a sharp point, (4) punctures with a blunt instrument, (5) small round dots produced apparently by a wide-toothed comb, (6) punch-marks that might have been produced by a fine-tooth comb, (7) the finger-nail, (8) indentations made in various ways.

Of these, 2, 5, 6 were unknown in the Earlier Bronze Age, characterised by beakers; and the use of small rectangular punch-marks, such as might be made by a notched slip of wood, current in those days, had fallen into oblivion. The three-cord plait is an interesting novelty. It leaves marks which have been called "a victor's laurel pattern," and have been compared to ears of corn diverging from a stem. This is invisible when the pressure applied was not great or the clay rather hard, but when the clay was sufficiently moist the stem becomes

apparent. This new technique occurs both in England, especially in Cornwall, in Scotland and Ireland, *e.g.* figs. 15, 18, 24, 32, 70, 89, 90, 94. Fully a third of the urns of Type i. and half those of Type iv. present cord impressions. In fully a third of the urns of Type i. and in rather less proportion of Type iv. the ornament has been produced with a blunt or a sharp-pointed instrument, the former being usually preferred. The use of other methods in these two types is more or less exceptional. The three-cord plait is employed four or five times in Type i. and the finger-nail only once.

In Type ii. group 1, from the South of England, the cord is nearly always employed. In three instances use is made of the three-cord plait, and on another urn the effect of such impressions is imitated with a pointed instrument (fig. 98). In the other two groups from the same quarter the use of the cord and the incised line does not occur. Impressions made with the finger or some such means is almost the sole technique.

In the two groups of Type iii. the cord is equally unknown. In group 1 all the linear ornament is produced by means of a blunt point, or with something that left wide, shallow grooves. In group 2 indentations or impressions are made with a blunt point, which can hardly be said to produce any ornamental effect.

In Type iv., besides the use of the cord and the point, there are two examples of the use of the comb, both from North Britain.

In Type v. the usual instrument employed was the fine point, but the cord, the three-cord plait, the comb, and the finger-nail would equally be called into requisition.

*The nature of the pottery.*—The material out of which the cinerary urns were formed was coarse clay mixed with minute pebbles or fragments of broken flint or quartz. General Pitt Rivers distinguished two qualities in Dorset, which he thus described:—

No. 1 quality.—Coarse, badly-baked, containing grains of quartz, flint, chalk, or shell; hand-made.

No. 2 quality.—Coarse, soft, smooth, without sand or large grains;



ill-baked and sometimes red on one side and black on the other; hand-made.

Examples of No. 1 quality are figs. 114, 115, 118, 119, 153; of No. 2 quality, figs. 4, 7, 41, 72, 132.

#### THE GRAVE-FINDS.

The tables of grave-finds show the objects found with individual urns. But as some of these are of small importance for determining the appropriate age of the urns, it is only necessary to touch upon a few of them.

##### *Bronze Blades.*

None of the bronze blades found with cinerary urns are of the broad, thin, flat type in use when beakers were in vogue. No. 1, found with urn fig. 2 at Denzell Downs, Cornwall, was immediately lost, but was described as a bronze knife, perhaps something like No. 41 from Angrowse in Cornwall, which is  $6\frac{3}{4}$  inches long, though it was longer when complete. The thin, tanged blade, No. 14, from Broughton, Lincolnshire, was originally about  $2\frac{1}{2}$  inches long, and, from its relative width of 1 inch, seems to belong rather to the razor types. No. 17, from Winterbourn Stoke, Wilts, is a small narrow dagger, thickened at the centre, which when complete would measure about 5 inches in length. It had three rivets and an oval pommel of bone, in form much like *Evans'* fig. 283, and unlike the pommels of the thin flat knife-daggers such as are seen in *Evans'* figs. 280, 287. The small tanged knife, No. 25, from Upton Gold barrow, Wilts, measures  $2\frac{5}{8} \times 1\frac{1}{4}$  inches, and, like No. 24 from Moot Low, Derbyshire, does not show the semi-lunar mark at the base of the blade, but merely a slightly concave line. The latter is  $3\frac{1}{2}$  inches long, with a single rivet. No. 28, from Woodyates, Dorset, is 5 inches long. It has a midrib, and is ornamented with four parallel lines and pounced dots. It has four rivets and, except for its smaller size, is much like one in *Evans'* fig. 302, from Winterbourn Stoke, Wilts, which was found with bone tweezers like those shown

in fig. 197. The small fluted razor, No. 38, from Sarum, Wilts, is the same as *Evans'* fig. 265, and the objects found with it are reproduced in fig. 198. The amber beads, though small, are perforated at the base with a V-shaped perforation. No. 39, from Harlyn Bay, Cornwall, is a dagger measuring  $4\frac{5}{8} \times 1\frac{5}{8}$  inches, with two rivets. It is a beautiful casting, and provided with a duplex midrib and very sharp bevelled edges. A dagger very much like this, also with a double midrib, from Camerton in Somerset, is figured in *Evans*, fig. 303. Dagger No. 41 with three rivets, from Angrowse, Cornwall, is shown with fig. 94. It has lost some 2 inches of its length, and now measures  $6\frac{3}{4}$  inches. The narrow blade has a midrib, and is ornamented with two or three lines parallel to the cutting edges. At the base of the blade is a small rudimentary tang, such as occurs not infrequently on daggers from Brittany.

At the bottom of the ditch of South Lodge Camp, already mentioned, lay the tanged razor blade, No. 45, immediately underneath urn, fig. 119. It measured  $2\frac{1}{4} \times 1\frac{1}{8}$  of an inch, and in future will be spoken as razor A. At  $3\frac{1}{2}$  feet from the bottom of the ditch, and only separated by one foot of silting from the stratum containing sherds of Romano-British pottery, lay razor B, a rather larger blade than the other, with a notch at the top, and an almond-shaped fluting on the surface of the blade on one side (*P. R.*, pl. 238, figs. 3, 4). General Pitt Rivers compared B with the razor from Heathery Burn Cave, and with those from Bowerhouses near Dunbar (*Evans*, figs. 270-273). To these may be added one from the Braes of Gicht, Aberdeenshire (*P.S.A.S.*, xxv. 137). Razors of this type belong to end of the Bronze Age, and are contemporary with socketed instruments such as spear-heads, celts, and knives. Razors of this type evidently continued in use for a very long time. One was found by Pitt Rivers in the Wor Ditch barrow, at a depth of one foot from the surface, in the midst of the Romano-British stratum, on the same level as the two coins of Constantine I. (A.D. 306-336).

The two ornamental blades, Nos. 48, 49, from Kinross and Midlothian, are illustrated in *Anderson*, figs. 33, 32. Another of the same type, but

fluted, from Balblair in Sutherland, is compared by Sir J. Evans, both as regards size and shape, with the tanged and fluted blade, fig. 199, from Taunton. It formed part of a hoard consisting of a dozen palstaves, a socketed celt and chisel, two sickles, a torque, etc.; but taking into consideration the finer work of Nos. 48, 49, their ornamentation and their remote geographical position, I believe they must be later than fig. 199.

The bronze cup, fig. 200, is now only a fragment, measuring 1 inch in height and  $2\frac{1}{2}$  inches in diameter. The record of its find in *P.S.A.S.*, ix. 269, is very imperfect, and it is not in the least certain that it was found with fig. 75 bis, or with another of the same type in the Edinburgh Museum. Mr Reginald Smith tells me the cup may be compared with two from the Stanwick hoard in the British Museum. They are practically a pair, but one is badly damaged and the other has a milled edge. It is 2 inches high, with a diameter at the mouth of  $3\frac{3}{4}$  inches, is very well made and of fairly stout metal. He believes these Stanwick bowls may be dated from 50 B.C. to 50 A.D., but that the Ardoe example, owing to its thinness, may be of the transition period from Bronze to Iron, or about the fourth century B.C. The Ardoe cup may also be compared with a bronze semi-globular bowl, 4 inches in diameter at the mouth,  $3\frac{3}{4}$  inches in depth, but of much thicker metal, from the Balmashanner hoard (*P.S.A.S.*, xxvi. p. 188).

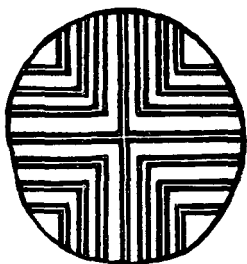
#### *Gold Ornaments.*

The finds connected with No. 21, from Normanton in Wilts, consisted of—(1) A gold bead, over half an inch long, formed by plating a double conical core of wood with two thin gold-leaf cones, meeting at the centre. (2) A rather smaller spherical gold bead, with a hole on one side, formed in the same way as the above. (3) A disc of amber, with holes of suspension. (4) "Grape" cup, fig. 196, with 162 small knobs arranged in six parallel rows.

Small cups from 4-5 inches high, in the Zürich Museum, much like a "grape" cup in form, but with very roughly-formed knobs, occur in

the Gaulish cemetery of Giubasco, Bellinzona, and belong to the La Tène period.

The chief objects found with interment No. 25 from Upton Golden barrow were—(1) A rectangular plaque of thin gold-leaf, measuring  $5\frac{3}{4}$  and  $2\frac{3}{4}$  inches, and engraved with a simple geometrical ornament. (2) A conical core of lignite, nearly  $1\frac{1}{2}$  inches high, plated with gold-leaf.



On the flat base is engraved a cruciform pattern, which is not without interest. (3) Thirteen drum-shaped beads of thin gold. (4) Two small round boxes of thin gold-leaf, with conical tops. (5) Upwards of a thousand small round amber beads. (6) A "grape" cup, like fig. 196. (7) The thin bronze knife mentioned above. All these objects were found with a secondary cremated

interment at a depth of 2 feet from the top of the barrow. The same cruciform pattern occurs on a lozenge-shaped plate of gold in the Dorchester Museum. It was found in a barrow near Martinstown with a much-damaged urn of Type i., a dagger with a midrib and three parallel lines, and an amber cup, apparently turned on the lathe. This design is well known in the Mediterranean area. It appears at a very early date in the Ægean, then in the terramare of Montale (*A. Evans*, figs. 54, 86, 87, 137), on fibulæ of the Early Iron Age in Italy, and on a hut-urn from Latium. Travelling westwards, it appears in the La Tène period on bronze boss-headed nails at Mount Beuvray (Nièvre), and in Bohemia.

The two massive gold armlets from Alloa, fig. 35, with slightly expanded ends, have a diameter of 3 inches. They can be relatively dated by other finds in Scotland. Two bronze armlets, from Auchtertyre, Morayshire, of the same size and type (*Anderson*, fig. 147), were found with two socketed spear-heads, a socketed celt, and portions of metal rings of soft solder composed of tin and lead.

A penannular armlet, with slightly expanded ends, from the Braes of

Gicht, in Aberdeenshire, was found with a bifid razor, of the same type as those from Dunbar (*Anderson*, fig. 21; *P.S.A.S.*, xxv. 137). Other armlets of the same type belong to the hoard from Balmashanner in Forfarshire. Among the objects found were eleven penannular rings of bronze, three circular rings of bronze, two broken rings, one of bronze, the other apparently of *iron*, a celt with oval socket, four penannular rings or beads of triangular section formed of six pieces soldered together, the bronze bowl mentioned above, and twenty-eight amber beads (*P.S.A.S.*, xxvi. 182-5). These remarkable rings or beads of triangular section connect this hoard with the rich Heathery Burn Cave find in Yorkshire (*Ar.*, vol. liv. p. 95, etc., fig. 2); with another from Gogar, Midlothian, found with a sword of early Hallstatt type (*Anderson*, p. 144), and with another from the West Highlands (*Anderson*, fig. 227).

The penannular bronze rings from the West Highlands are later than those from Balmashanner, and quite like one from County Clare (*P.R.I.A.*, xxvi., pl. xi., fig. 10), found with a socketed celt of exactly the same type as one from Ardoch camp.

Approximately in the same period as these rings or beads of triangular section may probably be placed the find, No. 46, from Darley Dale, Derbyshire. This find, figured in the *Reliquary*, iv. 203, consisted of a bronze tube, with a diameter slightly over  $\frac{1}{8}$  of an inch, on which some small white beads of unspecified material were strung. Jewett compared the bronze tube with a gold tube of slightly larger diameter, on which were attached hollow gold beads of approximately the same type as those from Scotland. This find was made at Beerhacket in Dorset, and is figured *Ar. J.*, vii. 65.

#### *Vitreous Beads and Glazed Pottery.*

Although only six finds of glass or vitreous paste beads are mentioned in this paper, that small number does not nearly exhaust the instances in which beads of this material are known to have been placed with cremated interments in Britain. In a paper on "The chronology of prehistoric glass beads and associated ceramic types in Britain" (*J.A.I.*, xxxv.

256-264), I have brought together twenty-eight instances in which glass, apparently older than the La Tène period, and generally in the form of ribbed beads, has been found with British interments. To these I now add a twenty-ninth. The gold cup from Rillaton, Cornwall, which has frequently been figured, was found in a cist with a bronze blade about 10 inches long, some pieces of ivory, and a few glass beads (*Ar. J.*, xxiv. 189-195).

With one exception—bead No. 32 from Forfarshire—all the beads of this period that have been preserved are the so-called “segmented” or “notched” or “ribbed” beads, made from a small tube of vitreous paste or porcelain of cobalt blue or light greenish colour, with a diameter of from  $\frac{1}{8}$ – $\frac{1}{4}$  of an inch, by grooving it all round at intervals of about  $\frac{1}{3}$  of an inch. The appearance resulting from this process is that of several small more or less globular beads, strung on a string from 1–2 inches long, fig. 197.

Greenish blue beads of this description were known in the south-east of Spain at a very early date, approximately placed about 2000 B.C. (*Siret*, p. 205). Ribbed blue and greenish beads much like those from Wilts, have been found at Tell el Amarna, their date being about 1400 B.C. Similar porcelain beads of dull white colour, of later date, are known from Enkomi in Cyprus (*Murray*, pl. ix. 305). Some of the ribbed porcelain beads of pale greenish or pale blue colour in the British Museum, found with mummies of the XXVI. Dynasty, c. 600 B.C., greatly resemble the beads from Wilts, and show the same irregularities in their construction.

It is unfortunate that the other glass or porcelain beads of more ordinary form which sometimes accompanied the ribbed beads have all been lost; for no doubt those that were not simply monochrome would have afforded means for settling the question whether they belonged to the Bronze Age or to the Hallstatt period on the Continent. Although I have searched for the ribbed type of bead in many museums on the Continent, I have not as yet succeeded in finding any of earlier date than the La Tène period. In Romano-British and post-Roman times, both in

Britain and abroad, the type is abundantly represented, though differences may often be observed. The earlier British beads of the Bronze Age are almost certainly of Mediterranean origin, and are due to importation, but under what circumstances they arrived is still a matter of conjecture.

*The Limits of the Bronze Age.*

The use of iron came in slowly,—earlier in places near the coast and later in the inland districts. The earliest specimens of iron were no doubt introduced through the medium of trade, and these could have no influence on native Bronze Age pottery or on sepulchral rites. The first appearance of iron in Britain is by no means coincident with the disappearance of the native ceramic. To cause changes in these departments needs personal contact of a far more intimate nature than that which takes place between a trader and his customers. When, therefore, we find a new kind of ceramic and a new rite of sepulture simultaneously introduced we may fairly assume an immigration, and not merely a new influence from without exerted upon the native inhabitants of the country.

There is evidence of two migrations into Britain, before the invasion of the Romans, by tribes who made use of iron. The earlier invaders practised inhumation, and the later cremation. The earlier invasion is evinced by three La Tène interments at Cowlam in the East Riding, with which were a fibula of La Tène i., glass beads, and a couple of bronze bracelets of the same period and pieces of hard-baked pottery.

Of a later date are the finds from a large number of barrows at Arras and from the so-called "Danes' Graves," all in the same part of the country. One of the Arras barrows contained the remains of a chariot, and this by no means the only one that has been found in Yorkshire graves. As chariots are not likely to have formed an article of commerce, we may suppose that the first came from the Continent with their owners. These new immigrants were very dolichocephalic, and therefore very different from the people of the Beaker period. It is not unlikely that they landed in the fine harbour formed by the Humber—the *Portus opportunus* of Ptolemy. Owing to the La Tène i. fibula, the

date of this first invasion is placed about 400 B.C., but that seems hardly to allow sufficient time for it to reach Britain; and as its bronze pin had been replaced by an iron one, it could not have been quite new when deposited in the grave. Dr A. Evans only places this first invasion of the Gauls about the middle of the third century B.C. (*Ar.*, vol. lii. p. 388), and so I split the difference and place it at  $\pm$  300 B.C.

The cremation cemetery of Aylesford in Kent belongs to a later time, which Dr A. Evans places about the middle of the first century B.C., and in a fine monograph on the subject he has clearly shown that the bronze objects and the ceramic belonged to a fresh body of invaders from Belgic Gaul (*op. cit.*, p. 117-388). Iron, no doubt, was known a good deal earlier in the south-east of Britain than the above date, but it has not been found in graves. Cæsar mentions that it was rare when he arrived in Britain, and there is no reason to doubt his statement.

On the south-west coast and not far inland is the lake-village of Glastonbury. As none of the fibulæ found there are early examples, and most belong to La Tène iii., its settlement can hardly be placed earlier, I imagine, than  $\pm$  250 B.C.

We have already seen that the result of the Pitt Rivers excavations brought out the fact that in East Dorset there was hardly an appreciable interval between the Bronze Age and the Romano-British strata. As space is limited; the data to be correlated must be stated as succinctly as possible. The ditches excavated that demand special attention are—(1) Angle Ditch, Handley Down; (2) Martin Down Camp; (3) Wor Barrow; (4) South Lodge Camp.

In *Angle Ditch* all the Romano-British pottery, a few fragments of Roman and a certain proportion of British pottery occurred at or above the depth of 1 to 2 feet. All below this level and quite up to it was British pottery, the depth of the ditch being  $6\frac{1}{2}$  feet. At the bottom lay a broken palstave of late form, which seemed to have been used for excavating the ditch. At the depth of 4 feet from the surface was half the blade of a bronze razor.

At *Martin Down Camp* all the Romano-British pottery lay at or above



the depth of  $1\frac{1}{2}$  feet in a layer 0·8 foot thick. All below was British pottery, but it only begins to appear about  $2\frac{1}{2}$  inches below the Romano-British stratum.

At *Wor Barrow* all the Roman and Romano-British pottery lay at or above the depth of  $1\frac{1}{2}$  feet, and not a single specimen lower. At the depth of 1 foot, on a level with two coins of Constantine I., lay the bronze razor mentioned above.

Although the ditch of *South Lodge Camp* is the most important, I take it last, as it requires some explanation. Practically, all the Romano-British pottery lay at or above the depth of 2 feet. In the next stratum, from 2 to 3 feet from the surface, were a very few pieces of Roman and Romano-British pottery, and on the 3-foot level lay a cream-coloured Roman *mortarium* and two pieces of New Forest ware. Also on the 3-foot level lay razor B and part of a bronze bracelet. In this layer between the 3-foot and the 2-foot level, as in all the ditches with one exception, the fragments of British pottery come right up to the Romano-British level, and there appears to be no interval between them. The exception is the ditch of *Martin Down Camp*, where there is a layer  $2\frac{1}{2}$  inches deep, containing no sherds, immediately below the Romano-British stratum. This might be taken to indicate that the camp was unvisited for a space of about fifty years. At the bottom of the ditch, at a depth of  $6\frac{1}{2}$  feet, lay the urn fig. 119, razor A, and a bronze awl. Were it not for evidence derived from the other ditches, we should have to place the Roman level at 3 feet instead of 2 feet from the surface. It is not so difficult to understand how the Roman pottery might have got buried a few inches in the ground, and so I assume that the Bronze Age level ceased at 2 feet from the surface.

This new ceramic, foreign to the Bronze Age, must have been dropt where it was found by the inhabitants of the three neighbouring Romano-British stations of Rotherly, Woodcuts, and Woodyates, all explored by General Pitt Rivers. Judging from a fibula of La Tène i., another of La Tène iii., and two British coins from Rotherly; from a few uninscribed British coins, a late Celtic vase, and coins of Caligula and Claudius I. from Woodcuts, it is possible that these villages were

founded in the first century A.D., or a little earlier. The Roman coins at Woodcuts reach down to Magnentius, 350-353; those from Woodyates to Honorius,—to the end, in fact, of the Roman occupation. Hence the length of time that these villages lasted may be roughly estimated at four hundred years. In the first three ditches the actual thickness of the Romano-British stratum is about  $9\frac{1}{2}$  inches, in the South Lodge Camp about 21 inches, showing that the latter place had been much longer frequented. If the duration is estimated at four hundred years and the depth of the deposit at 21 inches, the rate of accumulation is 1 inch every nineteen years. Hence the time required for the foot of silting to accumulate that separates razor B from the Romano-British stratum will be about two hundred and thirty years. Assuming that the three stations were founded  $\pm$  1. A.D., the date of razor B may be called  $\pm$  250 B.C. The lower  $3\frac{1}{2}$  feet of the ditch, owing to its narrowness, would fill at a much greater rate. The General found, in fact, that the re-excavated Wor ditch in four years filled up at the centre to the height of  $2\frac{1}{2}$  feet, so that to allow a hundred years for the silting up of the lower  $3\frac{1}{2}$  feet of the South Lodge Camp seems quite sufficient.

Urn fig. 119 of Type ii. group 3, and razor A which lay below it, may therefore be dated  $\pm$  350 B.C. Urns of this type, figs. 114, 115, 118, and one of Type iii. group 1, fig. 132, formed part of the flat cemetery outside barrow 24, Handley Hill, so that the cemetery and all or some of the globular urns from the Deverel barrow belonging to the same type and group as fig. 132 may be placed in the fourth century B.C. It has been mentioned that among the Deverel urns was fig. 67 and the fragment fig. 138 of Type i.; hence fig. 67, and many others in a similar stage of development, such as fig. 66 from Bloxworth Down, found with bone tweezers and porcelain beads, fig. 74, from Gilchorn, found with a glass bead, and fig. 78 from Alloa, found with a massive gold armlet, may also be assigned to the fourth century B.C. As the urns from Ringwold in Kent, p. 197, found with glass or porcelain beads evidently belong to the very end of type i., they may be approximately dated  $\pm$  300 B.C., and that may be taken as the general date for the disappear-

ance of this type, which began so much earlier than the others. In the south-west, the Bronze Age ceramic is apparently prolonged till the time of its extinction by rude urns of simple form, like those of Type iii. group 2, which are numerous in Dorset and Cornwall. In the north, in Wales and in Ireland, Bronze Age pottery was prolonged by urns of Types iv. and v., or by urns of the one-cordon type. This last type evidently came down very late in time. Among the cinerary urns in the recently discovered cemetery of Stevenston in Ayrshire was fig. 194, which is an example of the single-cordon type. One of the urns was accompanied by two ribbed vitreous paste beads of the same type as in fig. 197, and by a star-shaped bead of a type found singly in Scotland and Ireland, but not with datable objects. Beads of this sort are certainly late, hardly earlier than the first century B.C., and perhaps a good deal later. Yet this is not the latest known example of Bronze Age pottery.

The Roman occupation in south-west Britain seems to have been insufficient to eradicate the deep-seated conservatism of the natives of Cornwall, who apparently retained cremation and Bronze Age types of pottery well into the fourth century A.D. I refer to the well-known but much discredited find in the parish of Morvah by Mr W. Borlase, who found Roman coins in an urn of Bronze Age type, some fragments of which are shown in fig. 195. The urn containing the coins lay in a small stone cist covered by a flat stone 3 feet square; over this, the central and sole interment, was piled a cairn of stones about 8 feet high with a diameter of 29 feet. It is difficult to believe that such a mass of stones could have been removed merely to hide a few brass coins of small value. So I accept the alternative maintained by Mr Borlase, that the urn and the coins are contemporary. The urn had a diameter of 5 inches at the bottom and the walls expanded as they rose to a diameter of 9 inches. The height could not be determined. The encrusted horseshoe handle was probably repeated at intervals, and placed a little below the lip. Seen in profile, the walls incline inwards from the lower end of the encrustation. The ornament was produced with a cord, and the urn seems to belong to Type v. (*Borlase*, 248-252; *Ar. C.*, 3 ser., xxv. 33-36.)

## CONCLUSION.

One object of this paper is to present in broad outlines a connected view of the Ceramic of the later part of the Bronze Age. From the facts recounted, the following deductions may be drawn. About 800 or 900 B.C., according as we allow five or six centuries for the life of Type i., we find a type of cinerary urn, perhaps of foreign origin, appearing in the extreme south-west of Britain, and gradually spreading northwards and westwards to Scotland and Ireland. If the type first came to Britain from Gaul, we must suppose it was brought by new settlers who cremated their dead. But though they may have colonised the south-west and perhaps the whole south of Britain, there is no clear evidence to show that they conquered the whole of Britain. The diffusion of cremation and of Type i. over other parts of the country than the south may have taken place by peaceful penetration. After Type i. had passed through various stages of retrograde development, it finally died out about  $\pm 300$  B.C., a date which seems to synchronise with the first invasion of south-east Yorkshire by immigrants of the La Tène period.

About the beginning of the fourth century B.C. or earlier several new types of cinerary urns, apparently of foreign origin, appear in the south-west of Britain, but never extended north of the Thames valley. These too may be attributed to a fresh influx of colonists from Gaul. Some of this pottery lasted to the end of the Bronze Age, and in out-of-the-way places even survived it.

The people who manufactured some of this ceramic also constructed quadrangular earthworks of squarish outline, using palstaves for excavating the ditches. One of these entrenchments, South Lodge Camp, was finished a very short time before urn fig. 119 was thrown into the ditch, a time which may be dated  $\pm 350$  B.C.

In the north, far removed from foreign invasion, the inhabitants were less affected by external influence. Consequently the new Type iv. and much of Type v. is merely a development or adaptation of ancient models. These two types, though they began earlier, are partly contem-

porary with the southern Types ii., iii., and all four help to prolong the Bronze Age ceramic, when Type i. had become extinguished, down to a very late date in the remoter parts of Britain. And this took place though the knowledge of iron had existed in the country since the fourth century B.C. or earlier. The introduction of iron into Britain and the disuse of the old native ceramic were by no means synchronous events.

## LIST OF ILLUSTRATIONS.

[The name of the Museum is the last word in italics.]

- Fig. 1. Tresvonnack, Cornwall.  $\frac{1}{2}$ . *Borlase*, pp. 104-5. *Penzance*.  
 ,, 2. Denzell, Cornwall.  $\frac{2}{3}$ . *Borlase*, p. 244. *Penzance*.  
 ,, 3. Porton, Wilts. 14 in. high. *Wilts Ar.*, xxxiii. 410-14. *Salisbury*.  
 ,, 4. Wyke Down, Dorset.  $11\frac{1}{2}$  in. high. *P. R.*, iv. p. 180. *Farnham*.  
 ,, 5. Suffolk.  $13\frac{1}{2}$  in. high. *Cambridge*.  
 ,, 6. Seven Barrows, Berks. *British Museum*.  
 ,, 7. Thorny Down, Dorset. 14 in. high. *P. R.*, iv. pp. 172, 180. *Farnham*.  
 ,, 8. Maze Court, Co. Down.  $14\frac{1}{4}$  in. high. *Dublin*.  
 ,, 9. Ballymichael, Arran. 12 in. high. *P.S.A.S.*, v. p. 185. *Edinburgh*.  
 ,, 10. Bamborough, Northumberland. 15 in. *B.B.*, pp. 415-16. *British Museum*.  
 ,, 11. Ballycastle, Co. Antrim. *Dublin*.  
 ,, 12. Tubberdony, Co. Antrim. 13 in. *Dublin*.  
 ,, 13. Corby, Northampton.  $10\frac{1}{4}$  in. *Northampton*.  
 ,, 14. Rothwell, Northampton.  $9\frac{1}{2}$  in. *Northampton*.  
 ,, 15. Colney, Norfolk.  $12\frac{1}{2}$  in. *Ar.*, xiv., pl. i. *Norwich*.  
 ,, 16. Rothwell, Northampton. 8 in. *Northampton*.  
 ,, 17. Gourlaw, Midlothian.  $14\frac{3}{8}$ . *P.S.A.S.*, xxxix. 411-18. *Edinburgh*.  
 ,, 18. Glarryford, Antrim. *Belfast*.  
 ,, 19. Pickering, Yorkshire.  $14\frac{1}{2}$  in. *Ten years*, pp. 210-11. *Sheffield*.  
 ,, 20. Pickering, Yorkshire.  $10\frac{3}{4}$  in. *Ten years*, pp. 216-17. *Sheffield*.  
 ,, 21. Juniper Green, Midlothian.  $14\frac{3}{8}$  in. *P.S.A.S.*, xxxiii. 357. *Edinburgh*.  
 ,, 22. Ford, Northumberland.  $10\frac{1}{4}$  in. *B.B.*, pp. 408-10. *British*.  
 ,, 23. County Down. 12 in. high. *British Museum*.  
 ,, 24. Stenton, E. Lothian.  $14\frac{1}{2}$  in. *P.S.A.S.*, xiv. 220. *Edinburgh*.  
 ,, 25. Inverkeithing, Fife.  $12\frac{1}{4}$  in. *Edinburgh*.  
 ,, 26. Aberdeenshire. *Edinburgh*.  
 ,, 27. Balidon Moor, Derby.  $11\frac{3}{4}$  in. *Ten years*, p. 60. *Sheffield*.  
 ,, 28. Mousal Dale, Derby. 12 in. *Ten years*, pp. 77-9. *Sheffield*.  
 ,, 29. Thorpe, Yorkshire.  $14\frac{1}{2}$  in. *York*.  
 ,, 30. Bawdsey, Suffolk.  $3\frac{1}{2}$  in. *British*.  
 ,, 31. Stanton Harcourt, Oxon.  $13\frac{3}{8}$  in. *Ashmolean*.  
 ,, 32. Water Newton, Northamptonshire. *British*.  
 ,, 33. Cransley, N. Hants.  $10\frac{1}{8}$  in. *British*.  
 ,, 34. Lake, Wilts.  $15\frac{1}{4}$  in. *British*.  
 ,, 35. Bishop Burton, Yorks. 19 in. *York*.  
 ,, 36. Lincoln. 8 in. *British*.

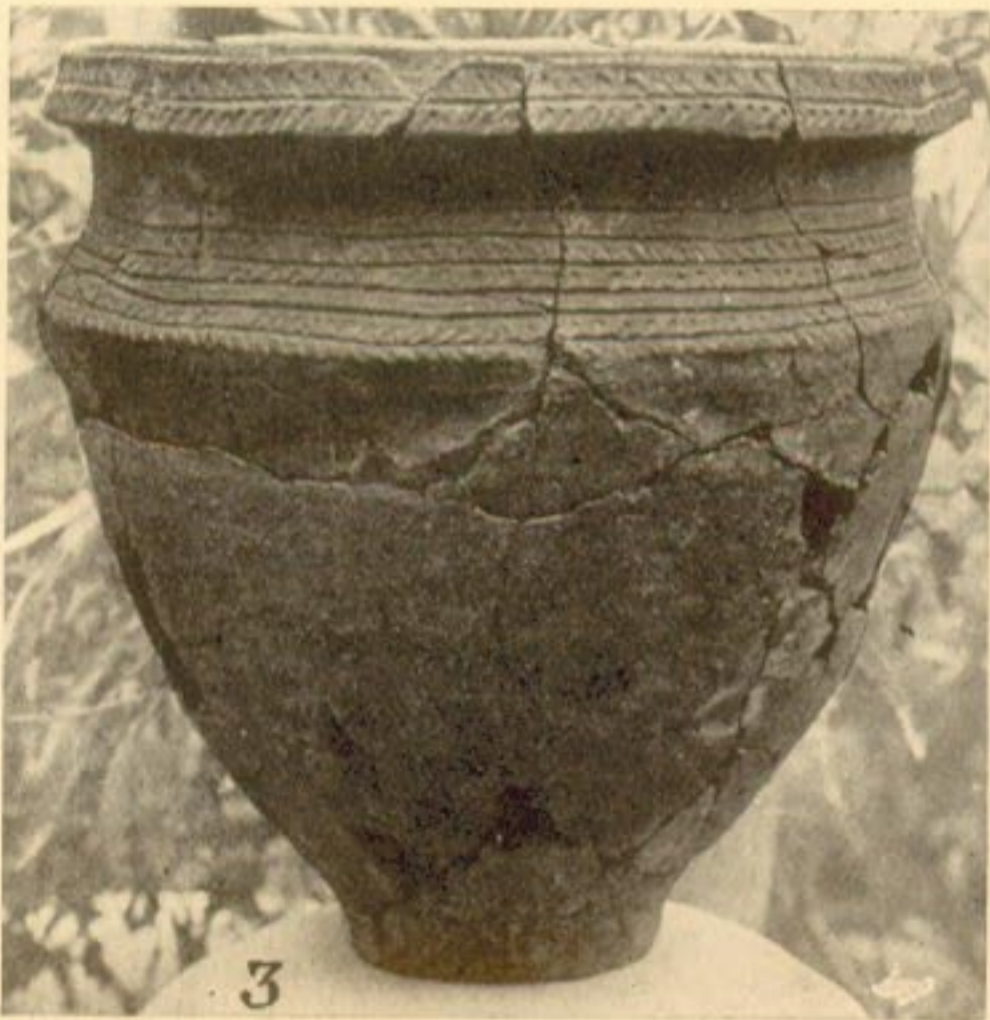
- Fig. 37. Mynydd Carn Goch, Glamorgan.  $5\frac{1}{4}$  in. *Ar.C.*, 3 ser., xiv. 252. *British*.  
 ,, 38. Foulford, Banff.  $5\frac{1}{4}$  in. *P.S.A.S.*, xxxi. 221. *Edinburgh*.  
 ,, 39. Girvan, Ayrshire. 20 in. *Hunterian*.  
 ,, 40. Dunning Parish, Perth. *Stirling*.  
 ,, 41. Handley Hill, Bar. 24. Dorset. *P.R.*, iv. p. 169. *Farnham*.  
 ,, 42. Kempston, Beds. 8 in. *British*.  
 ,, 43. Brixworth, Northampton.  $5\frac{1}{2}$  in. *Northampton*.  
 ,, 44. Inys Bronwyn, Anglesea. 12 in. *Ar.J.*, vi. 238. *British*.  
 ,, 45. Tapcastle, Cumberland.  $7\frac{7}{10}$  in. *British*.  
 ,, 46. Alfriston, Sussex.  $5\frac{1}{4}$  in. *British*.  
 ,, 47. St James Deeping, Co. Lincoln. 10 in. *British*.  
 ,, 48. Stacey.  $12\frac{3}{8}$  in. *Ashmolean*.  
 ,, 49. Egton Moor, Yorks.  $11\frac{3}{8}$  in. *York*.  
 ,, 50. Wareham, Dorset.  $16\frac{1}{2}$  in. *Warne*, pt. iii. pp. 28-29? *Dorchester*.  
 ,, 51. Winterbourn Stoke, Wilts.  $17\frac{3}{8}$  in. *A.W.*, 114. *Devizes*.  
 ,, 52. Woodyates, Dorset.  $18\frac{1}{2}$  in. *A.W.*, 241; *Ar.*, xliii. 346. *Devizes*.  
 ,, 53. Wilsford, Wilts.  $11\frac{7}{8}$  in. *A.W.*, 208. *Devizes*.  
 ,, 54. Winterbourn Stoke, Wilts.  $10\frac{1}{4}$  in. *A.W.*, 164. *Devizes*.  
 ,, 55. Normanton, Bar. 156, Wilts.  $8\frac{1}{2}$  in. *A.W.*, 202. *Devizes*.  
 ,, 56. Ridgeway, Dorset. 5 in. *Warne*, p. 33, note. *Dorchester*.  
 ,, 57. Corby, Northamptonshire. 11 in. *Northampton*.  
 ,, 58. Moot Low, Derby.  $15\frac{1}{4}$  in. *Vestiges*, p. 51. *Sheffield*.  
 ,, 59. Upton Gold Barrow, Wilts. 6 in. *A.W.*, 99. *Devizes*.  
 ,, 60. Pickering, Yorks. 9 in. *Ten years*, pp. 237-8. *Sheffield*.  
 ,, 61. Mid Torrs, Wigtown. 14 in. *P.S.A.S.*, xxi. 183. *Edinburgh*.  
 ,, 62. Bincombe Hewish, Dorset. 11 in. *Warne*, p. 52. *Dorchester*.  
 ,, 63. " "  $16\frac{1}{2}$  in. " "  
 ,, 64. " " " " " "  
 ,, 65. Sturminster Marshall, Dorset. " *Warne*, pl. vi. 2. *Dorchester*.  
 ,, 66. Bloxworth Down, Dorset. 19 in. *Warne*, pt. 2, p. 13. *British*.  
 ,, 67. Deverel Barrow, Dorset. 14 in. *Miles*, p. 26. *Bristol*.  
 ,, 68. Hutton Buscel, Yorks.  $7\frac{1}{4}$  in. *B.B.*, p. 368. *British*.  
 ,, 69. Flaxdale, Derby.  $13\frac{3}{4}$  in. *Vestiges*, p. 100. *Sheffield*.  
 ,, 70. Grindle Top, Pickering, Yorks.  $15\frac{1}{2}$  in. *Ten years*, p. 208. *Sheffield*.  
 ,, 71. Cambuslang, Lanarkshire. 10 in. *Kelvingrove*.  
 ,, 72. Handley Hill, Bar. 23, Dorset.  $6\frac{1}{10}$  in. *P.R.*, iv. p. 160. *Farnham*.  
 ,, 73. Ravenglass, Cumberland. *Carlisle*.  
 ,, 74, 75. Gilchorn, Forfar. 16 and 15 in. *P.S.A.S.*, xxv. 447-63. *Edinburgh*.  
 ,, 75A. Ardoe, Aberdeen. *P.S.A.S.*, ix. 269.  
 ,, 76, 77. Balbirnie, Fife. 6 and  $7\frac{1}{2}$  in. *P.S.A.S.*, xiii. 108. *Edinburgh*.  
 ,, 78. Alloa, Clackmannan.  $12\frac{1}{2}$  in. *Anderson*, p. 63. *Edinburgh*.  
 ,, 79. Ferry Fryston, West Riding.  $6\frac{1}{2}$  in. *B.B.*, p. 372. *British*.  
 ,, 80. Garlands, Cumberland.  $14\frac{1}{4}$  in. *Carlisle*.  
 ,, 81. Gourlaw, Midlothian.  $4\frac{3}{4}$  in. *P.S.A.S.*, xxxix. 417. *Edinburgh*.  
 ,, 82. Arniston, Midlothian. *P.S.A.S.*, iii. 462. *Edinburgh*.  
 ,, 83. Mepal Fen, Cambridgeshire.  $7\frac{2}{5}$  in. *Cambridge*.  
 ,, 84. Barnwell, Cambridge.  $7\frac{3}{10}$  in. *Cambridge*.  
 ,, 85. Fylingdales, Yorks. 10 in. *Ar.*, lii. 41-2. *British*.  
 ,, 86. Gerrick Moors, Yorks.  $4\frac{5}{8}$  in. *British*.  
 ,, 87. Keswick, Norfolk.  $2\frac{3}{4}$  in. *Norwich*.  
 ,, 88. Abingdon, Berks.  $3\frac{1}{4}$  in. *British*.  
 ,, 89. Sarum, Wilts. 18 in. *Ar.J.*, i. pp. 156-7. *Ashmolean*.  
 ,, 90. Tregaseal, Cornwall.  $20\frac{1}{2}$  in. *Ar.*, xlix. 194-5. *British*.

- Fig. 91. Lord's Down, Dorset. 17 in. *Warne*, pp. 46-9. *Dorchester*.  
 ,, 92. Cornwall. 15 in. *British*.  
 ,, 93. Sutton Down, Dorset. 14 in. *Warne*, pp. 28-30. *Dorchester*.  
 ,, 94. Angrowse, Cornwall. Scale  $\frac{1}{3}$ . *Borlase*, 234-6. *Truro*.  
 ,, 95. Glendorgal, Cornwall. Scale  $\frac{1}{3}$ . *Borlase*, 200. *Truro*.  
 ,, 96. Clahar Garden, Cornwall. 6 in. *Borlase*, 244-5. *British*.  
 ,, 97. Tredinney, Cornwall.  $12\frac{3}{10}$  in. *Borlase*, 231-4. *British*.  
 ,, 98, 99, 100. Pedngwinnion Point, Cornwall. Scale  $\frac{1}{3}$ . *J.R.I.C.*, xiii. 43E.  
*Truro*.  
 ,, 101. Trevello, Cornwall. 5 in. *Penzance*.  
 ,, 102. Trevello, Cornwall.  $12\frac{5}{8}$  in. *Penzance*.  
 ,, 103. Merroes, Cornwall. Scale  $\frac{1}{3}$ . *Truro*.  
 ,, 104. Bosvargus, St Just, Cornwall.  $4\frac{3}{8}$  in. *Cambridge*.  
 ,, 105. Milbourn St Andrews, Dorset. 11 in. *Dorchester*.  
 ,, 106. Dorset. 9 in. *Dorchester*.  
 ,, 107. Lord's Down, Dorset. 16 in. *Warne*, pp. 46-49. *Dorchester*.  
 ,, 108. Bulford, Wilts. *Salisbury*.  
 ,, 109. Balsham, Cambridge.  $12\frac{5}{8}$  in. *Ashmolean*.  
 ,, 110. Balsham, Cambridge.  $11\frac{1}{2}$  in. *Ashmolean*.  
 ,, 111. Roke Down, Dorset.  $22\frac{3}{4}$  in. *British*.  
 ,, 112. Bere Regis Down, Dorset.  $18\frac{3}{4}$  in. *British*.  
 ,, 113. Tarrant Monkton, Dorset. Scale  $\frac{1}{4}$ . *Farnham*.  
 ,, 114. Handley Hill, Bar. 24, Dorset.  $14\frac{1}{2}$  in. *P.R.*, iv. 167. *Farnham*.  
 ,, 115. Handley Hill, Bar. 24, Dorset.  $16\frac{1}{2}$  in. *P.R.*, iv. 170. *Farnham*.  
 ,, 116. Wardour Castle, Dorset. Scale  $\frac{1}{4}$ . *Farnham*.  
 ,, 117. Tarrant Monkton, Dorset. Scale  $\frac{1}{4}$ . *Farnham*.  
 ,, 118. Handley Hill, Bar. 24, Dorset. 18 in. *P.R.*, iv. 166-7. *Farnham*.  
 ,, 119. South Lodge Camp, Dorset. 22 in. *P.R.*, iv. 30-1. *Farnham*.  
 ,, 120. Stonehenge, Wilts.  $22\frac{3}{4}$  in. *A.W.*, 126, pl. xvi. *Devises*.  
 ,, 121. Tarrant Monkton, Dorset. Scale  $\frac{1}{4}$ . *Farnham*.  
 ,, 122. Colchester, Essex. 24 in. *J.E.A.S.*, iv. 18. *Colchester*.  
 ,, 123. Littleton Down, Dorset.  $11\frac{1}{4}$  in. *Warne*, pp. ii. p. 5. *British*.  
 ,, 124. Bere Regis Down, Dorset.  $9\frac{1}{4}$  in. *British*.  
 ,, 125, 126, 127, 128. Deverel Barrow, Dorset. Scale  $\frac{1}{3}$  and  $\frac{1}{4}$ . *Miles*, pp. 16-26.  
*Bristol*.  
 ,, 129. Whitechurch, South Farm, Dorset.  $8\frac{1}{2}$  in. *Dorchester*.  
 ,, 130. Milbourn St Andrews, Dorset. 5 in. *British*.  
 ,, 131. Keyneston, Dorset. 8 in. *British*.  
 ,, 132. Handley Hill, Bar. 24, Dorset. 10 in. *P.R.*, iv. 167. *Farnham*.  
 ,, 133. Bagber, Dorset. Scale  $\frac{1}{3}$ . *Dorchester*.  
 ,, 134. Bagber, Dorset. Scale  $\frac{1}{3}$ . *Dorchester*.  
 ,, 135. Chesilbourne, Dorset. Scale  $\frac{1}{3}$ . *Dorchester*.  
 ,, 136. Lambourn Down, Dorset.  $8\frac{1}{4}$  in. *British*.  
 ,, 137. Ashford, Middlesex. 8 in. *British*.  
 ,, 138, 139, 140. Deverel Bar., Dorset. Scale  $\frac{1}{3}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ . *Miles*, 16-26. *Bristol*.  
 ,, 141. Deverel Bar., Dorset.  $9\frac{1}{2}$  in. *Miles*, 16-26. *Devises*.  
 ,, 142. Deverel Bar., Dorset. Scale  $\frac{1}{3}$ . *Miles*, 16-26. *Dorchester*.  
 ,, 143, 144, 145. Rimbury, Dorset. Scale  $\frac{1}{3}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ . *Warne*, 60-63. *Dorchester*.  
 ,, 146, 147. Rimbury, Dorset. Scale  $\frac{1}{3}$ ,  $\frac{1}{4}$ . *Warne*, 60-63. *Dorchester*.  
 ,, 148. Rimbury, Dorset.  $5\frac{1}{4}$  in. *Warne*, 60-63. *British*.  
 ,, 149. Rimbury, Dorset. Scale  $\frac{1}{4}$ . *Warne*, 60-63. *Dorchester*.  
 ,, 150. Ridgeway, Dorset. 13 in. *Ar.*, xxx. 333. *Dorchester*.  
 ,, 151. Hellstone, Blackdown Hill, Dorset. Scale  $\frac{1}{3}$ . *Dorchester*.

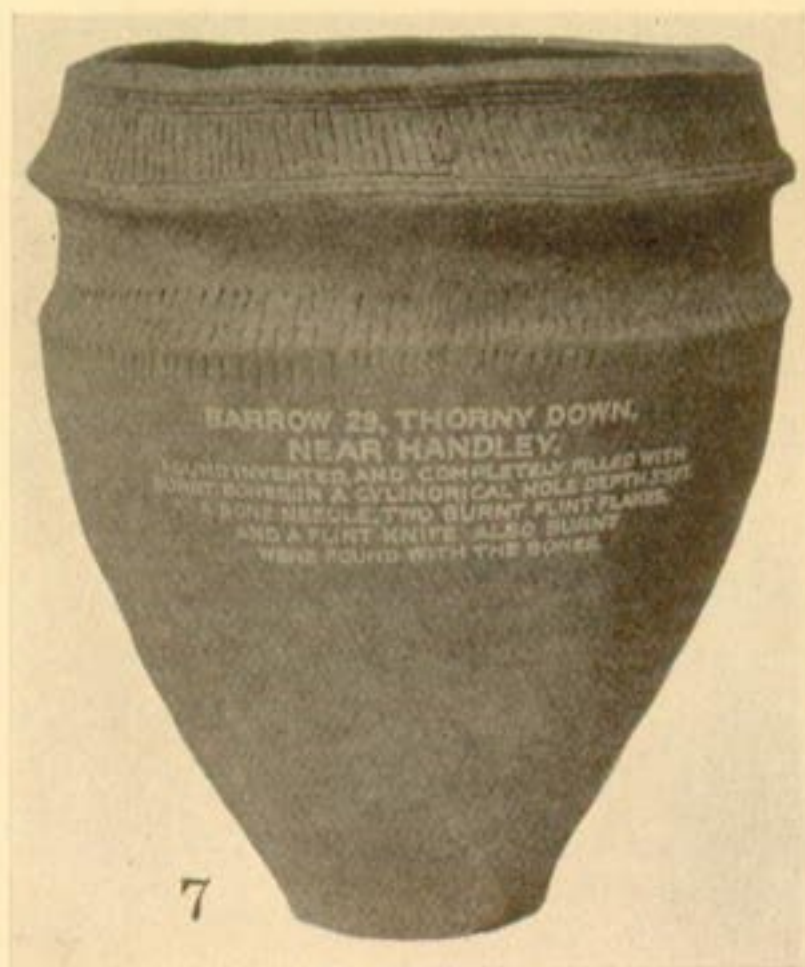
- Fig. 152. Whitmore Common, Surrey. 8 in. *Oxford*.  
 ,, 153. Dorset. Scale  $\frac{1}{4}$ . *P.R.*, iv. 180. *Farnham*.  
 ,, 154. Welcome Horsey, Dorset. Scale  $\frac{1}{4}$ . *Dorchester*.  
 ,, 155. Milbourn St Andrews, Dorset. *British*.  
 ,, 156. Dorset. Scale  $\frac{1}{4}$ . *Dorchester*.  
 ,, 157. Duddle Dairy House, Dorset. 11 in. *Dorchester*.  
 ,, 158. Roke Down, Dorset.  $14\frac{3}{4}$  in. *British*.  
 ,, 159. Dewlish, Dorset, 11 in. *Ar.J.*, xxix. 286. *Salisbury*.  
 ,, 160. C. Mayo's Farm, Little Piddle, Dorset.  $10\frac{3}{4}$  in. *Dorchester*.  
 ,, 161. Darley Dale, Derby.  $9\frac{1}{4}$  in. *Antiquary*, iv. 201-6. *York*.  
 ,, 162. Whitby, Yorks. 13 in. *Sheffield*.  
 ,, 163. Edinburgh. 12 in. *Edinburgh*.  
 ,, 164. Tuack, Kintore, Aberdeen. 12 in. *P.S.A.S.*, ii. 305. *Edinburgh*.  
 ,, 165. Shanwell House, Kinross. 14 in. *P.S.A.S.*, xix., 114. *Edinburgh*.  
 ,, 166, 167, 168. Magdalen Bridge, Midlothian. 16,  $13\frac{3}{4}$ , 12 in. *P.S.A.S.*,  
 xvi. 419. *Edinburgh*.  
 ,, 169. Oban, Argyll.  $20\frac{1}{2}$  in. *P.S.A.S.*, xxxii. 58. *Edinburgh*.  
 ,, 170. Cambusbarron, Stirling. 15 in. *P.S.A.S.*, v. 213. *Edinburgh*.  
 ,, 171. Bankfield, Glenluce, Wigton.  $10\frac{1}{4}$  in. *P.S.A.S.*, xxi. 186. *Edinburgh*.  
 ,, 172. Kirkpark, Musselburgh, Midlothian. *P.S.A.S.*, xxviii. 67, etc.  
*Edinburgh*.  
 ,, 173. Stobshiel, East Lothian.  $14\frac{1}{2}$  in. *P.S.A.S.*, xvi. 473. *Edinburgh*.  
 ,, 174. Pittodrie, Aberdeen. 16 in. *P.S.A.S.*, vi. 276. *Edinburgh*.  
 ,, 175. Seamill, Ayrshire.  $11\frac{1}{2}$  in. *P.S.A.S.*, xvii. 72. *Edinburgh*.  
 ,, 176. Ballon Hill, Wicklow.  $15\frac{1}{2}$  in. *T.K.A.S.*, ii. 298.  
 ,, 177. Glarryford, Antrim. 15 in. *J.R.S.A.I.*, 4 ser., ix. p. 102. *Belfast*.  
 ,, 178. Probably North of Ireland. 17 in. *Edinburgh*.  
 ,, 179. Udney, Aberdeen. 16 in. *Edinburgh*.  
 ,, 180. Cairn Curr, Alford, Aberdeen. *Edinburgh*.  
 ,, 181, 182. Uddingston, Lanarkshire.  $13\frac{3}{4}$  and  $12\frac{1}{2}$  in. *P.S.A.S.*, xix. 337.  
*Edinburgh*.  
 ,, 183, 184. Broomhedge, Co. Down. 11 in. and 11 in. *J.R.S.A.I.*, xxxvi.  
 (58th year) pp. 42-46. *Dublin*.  
 ,, 185. Torhouskie, Wigton. *Edinburgh*.  
 ,, 186. Dalmore, Ainess, Ross. 14 in. *P.S.A.S.*, xiii. 256. *Edinburgh*.  
 ,, 187. Glenballoch, Perthshire.  $15\frac{1}{2}$  in. *P.S.A.S.*, xv. 89. *Edinburgh*.  
 ,, 188. Mid-Torrs, Glenluce, Wigton.  $12\frac{1}{2}$  in. *P.S.A.S.*, xxi. 184. *Edinburgh*.  
 ,, 189. Branthwaite, Cumberland.  $14\frac{1}{2}$  in. *Cambridge*.  
 ,, 190. Ramsford Park, Wexford.  $14\frac{1}{2}$  in. *Edinburgh*.  
 ,, 191. Glanville, Newry, Co. Down.  $18\frac{3}{4}$  in. *Belfast*.  
 ,, 192. Tullyweggan, Co. Tyrone. *Dublin*.  
 ,, 193. Drumgooland, Co. Down. 15 in. *Private possession*  
 ,, 194. Stevenston, Ayrshire. *Edinburgh*.  
 ,, 195. Morvah Hill, Cornwall. Scale  $\frac{3}{8}$ . *Borlase*, 248-252; *Ar.C.*, 3 ser., xxv.  
 33-6. *Truro*.  
 ,, 196. Normanton, Bar. 156, Wilts—found with fig. 55. *Devizes*.  
 ,, 197. Bloxworth Down, Dorset—found with fig. 66. *British*.  
 ,, 198. Sarum, Wilts. Found with fig. 89. The razor blade is figured in  
*Evans*, fig. 265.  
 ,, 199. Razor blade from Taunton, referred to in *Evans*, p. 218. Scale about  $3\frac{3}{8}$ .  
*Taunton*.  
 ,, 200. Half of small bronze bowl 1 inch high. Found near fig. 75 bis.

[These illustrations have been contributed by the Hon. John Abercromby.]





Figs. 1-4. Type i.



Figs. 5-8. Type i.



Figs. 9-12. Type i.



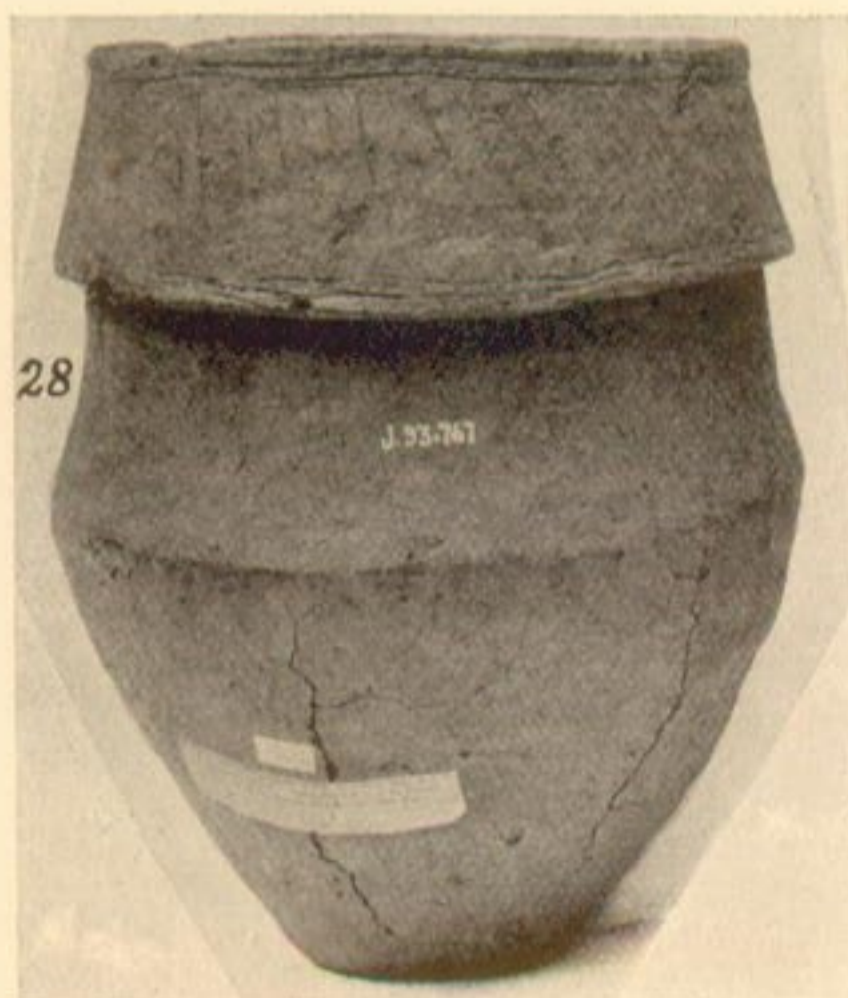
Figs. 13-16. Type i.



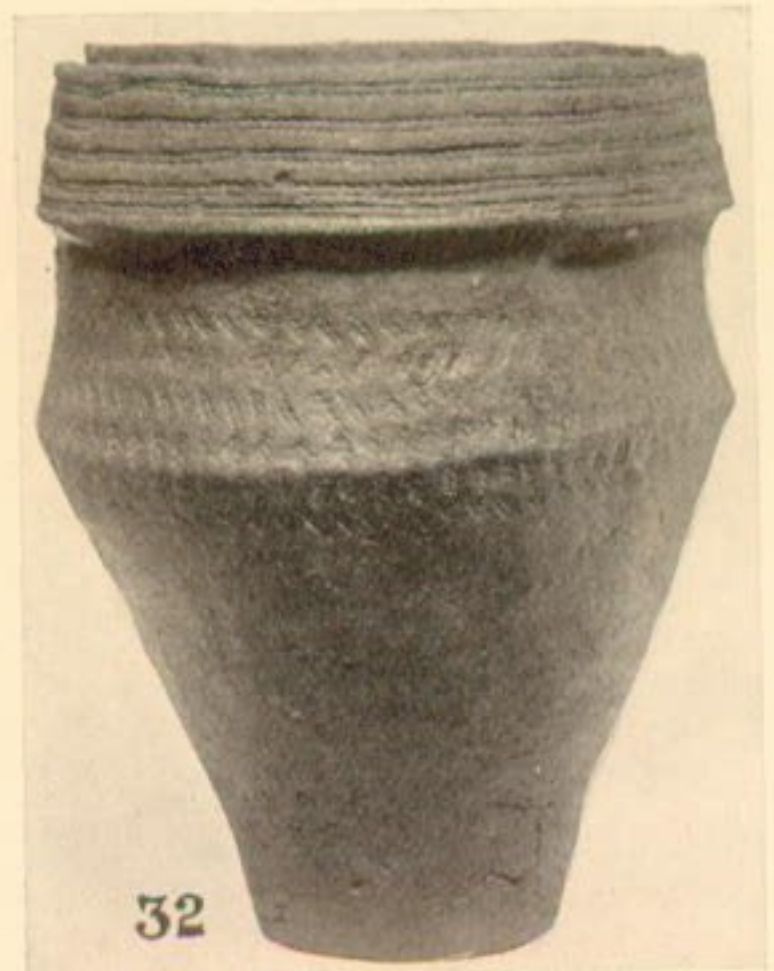
Figs. 17-20. Type i.



Figs. 21-24. Type i.

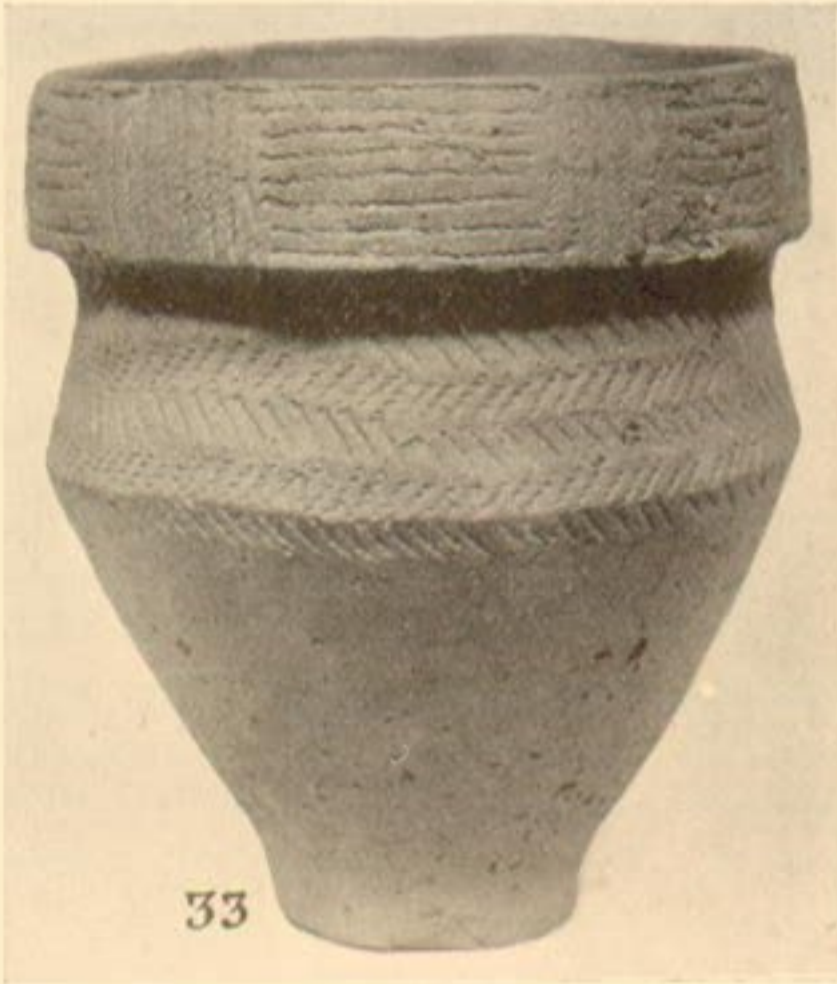


Figs. 25-28. Type i.



Figs. 29-32. Type i.

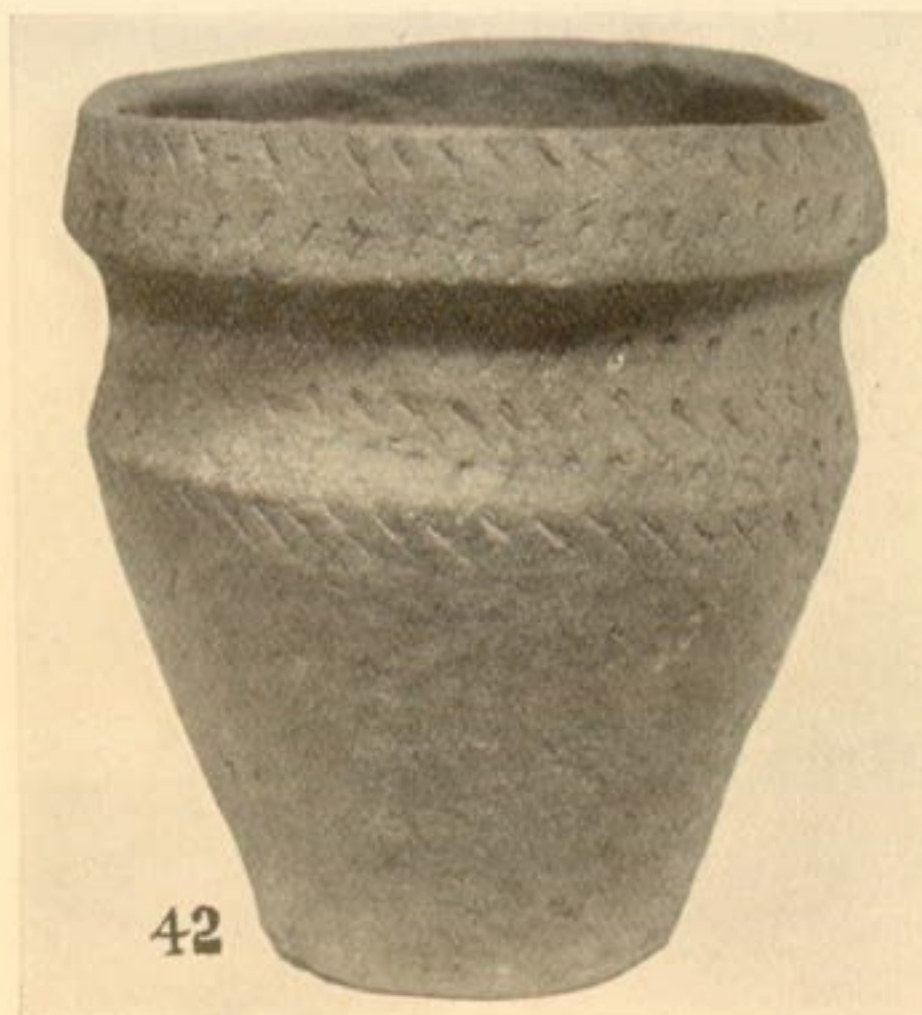




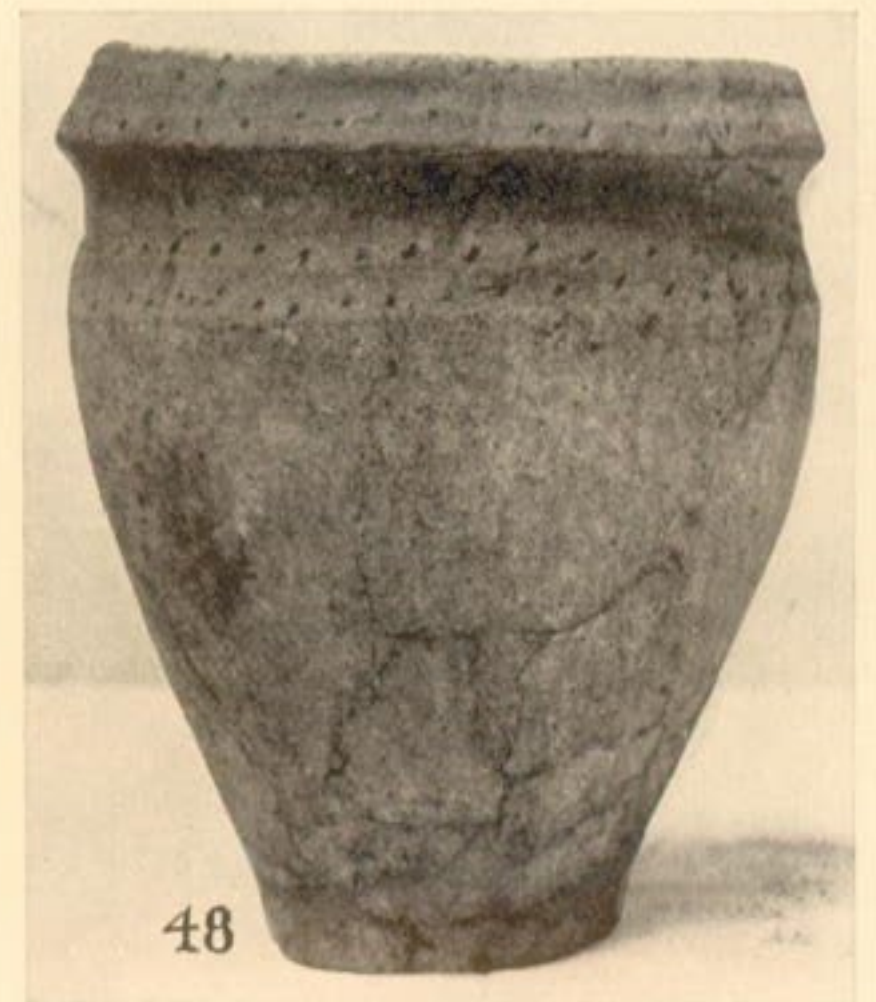
Figs. 33-36. Type i.



Figs. 37-40. Type i.



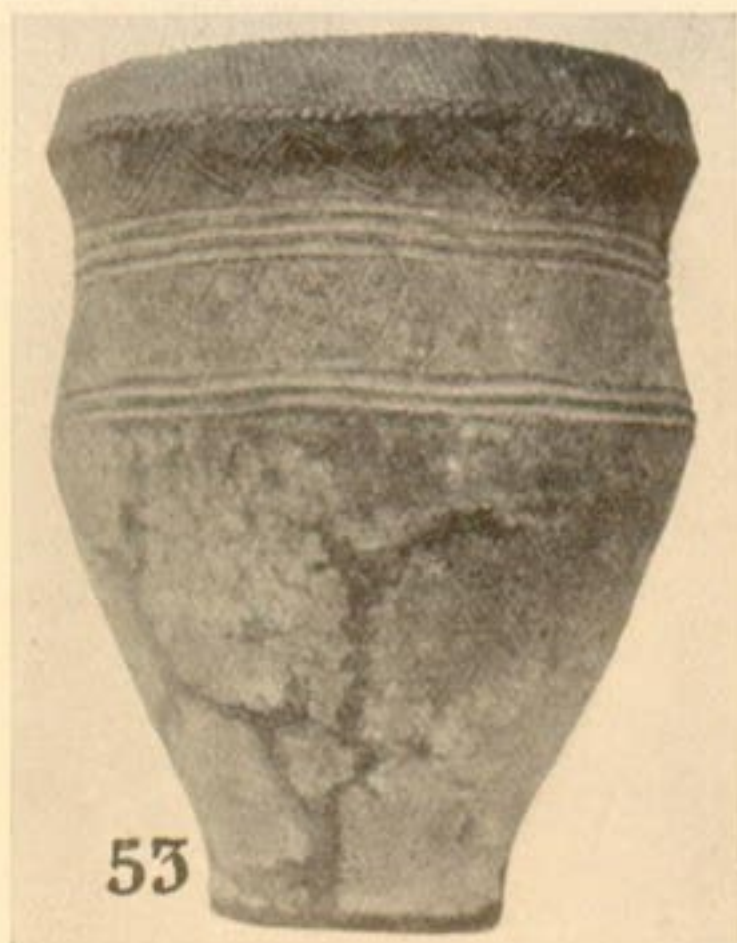
Figs. 41-44. Type i.



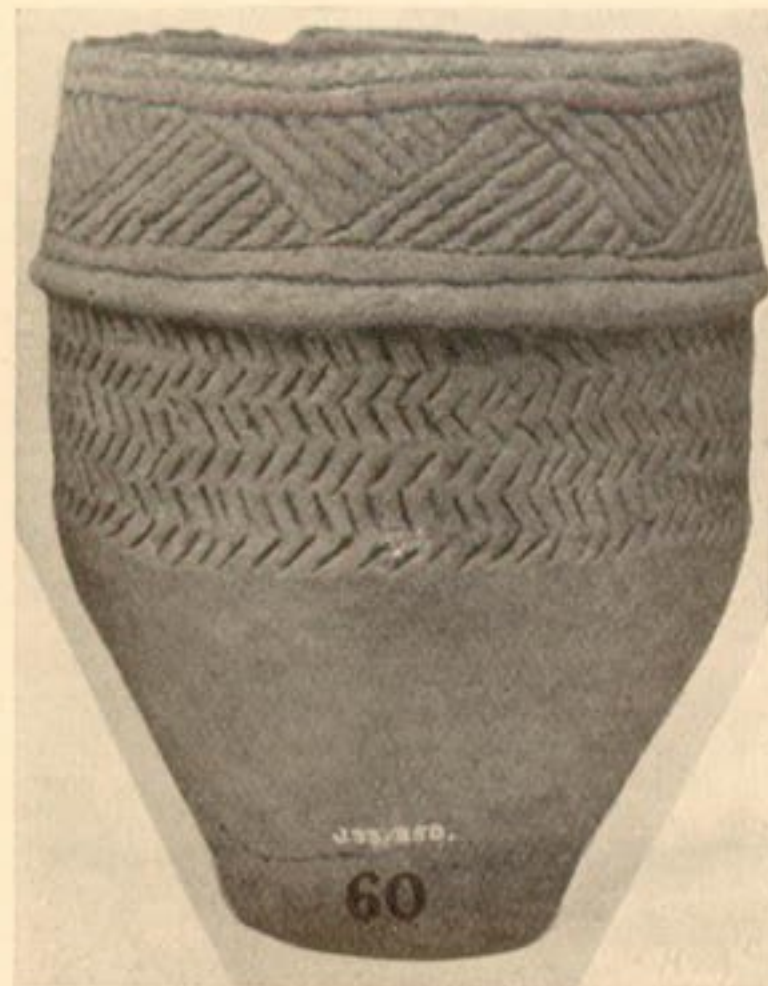
Figs. 45-48. Type i.



Figs. 49-52. Type i.



Figs. 53-56. Type i.

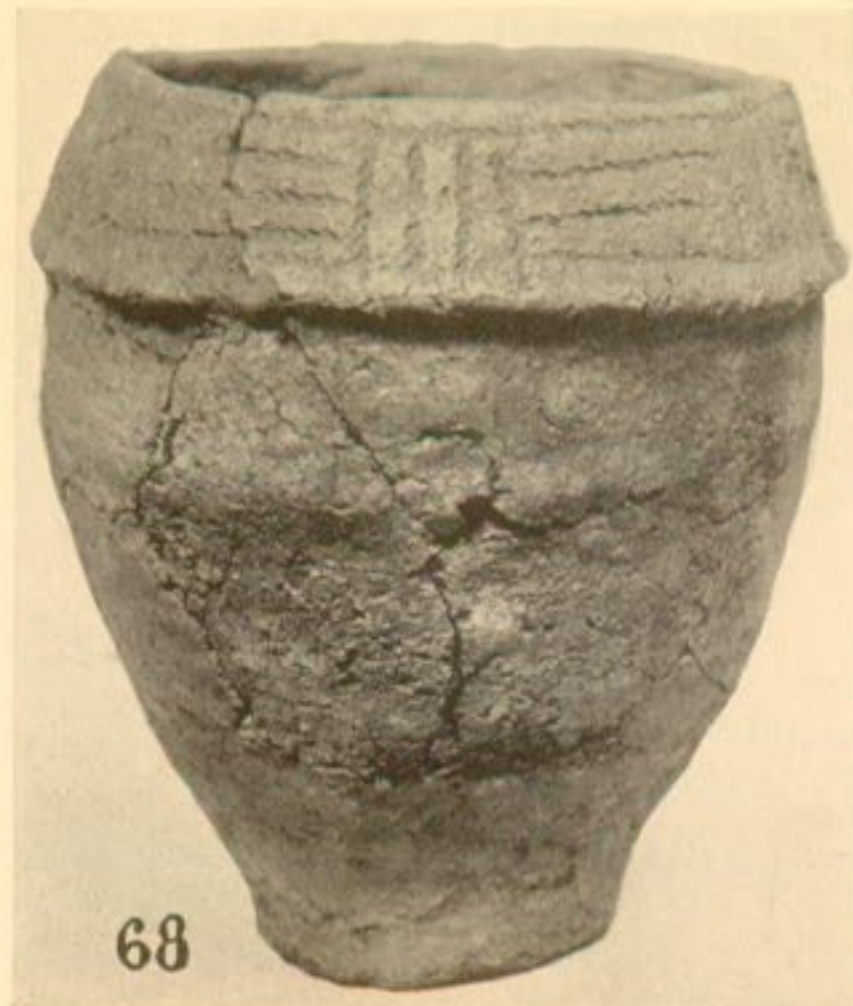


Figs. 57-60. Type i.

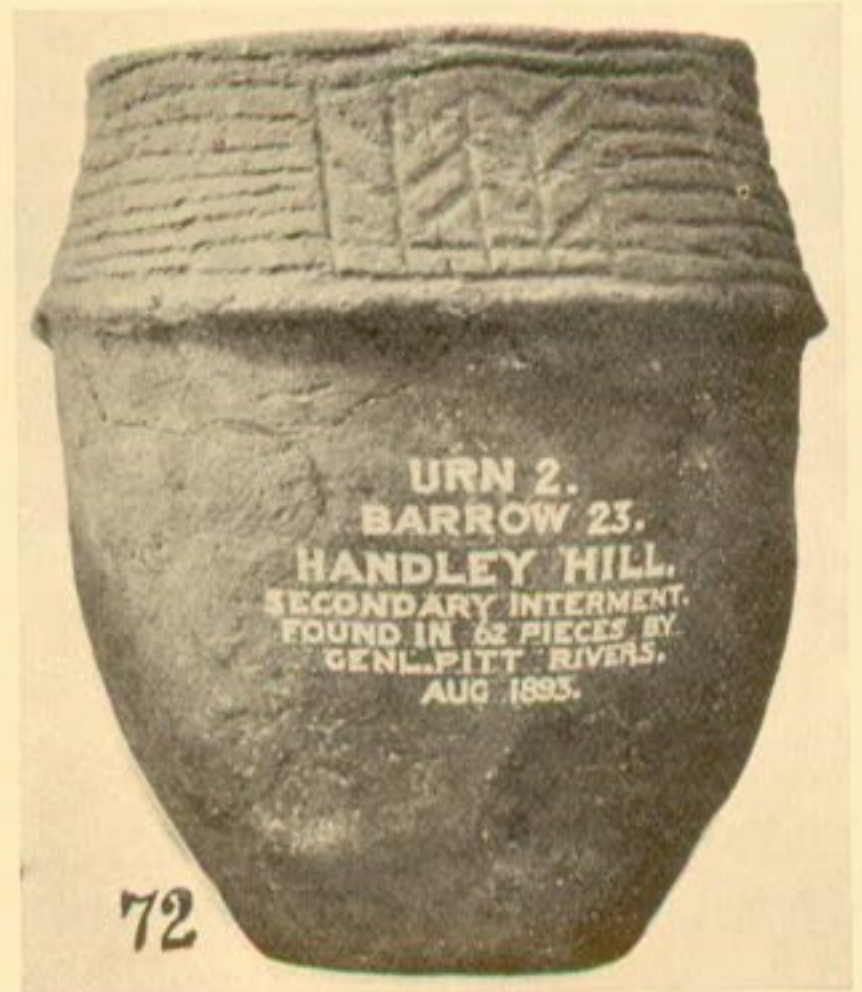


Figs. 61-64. Type i.

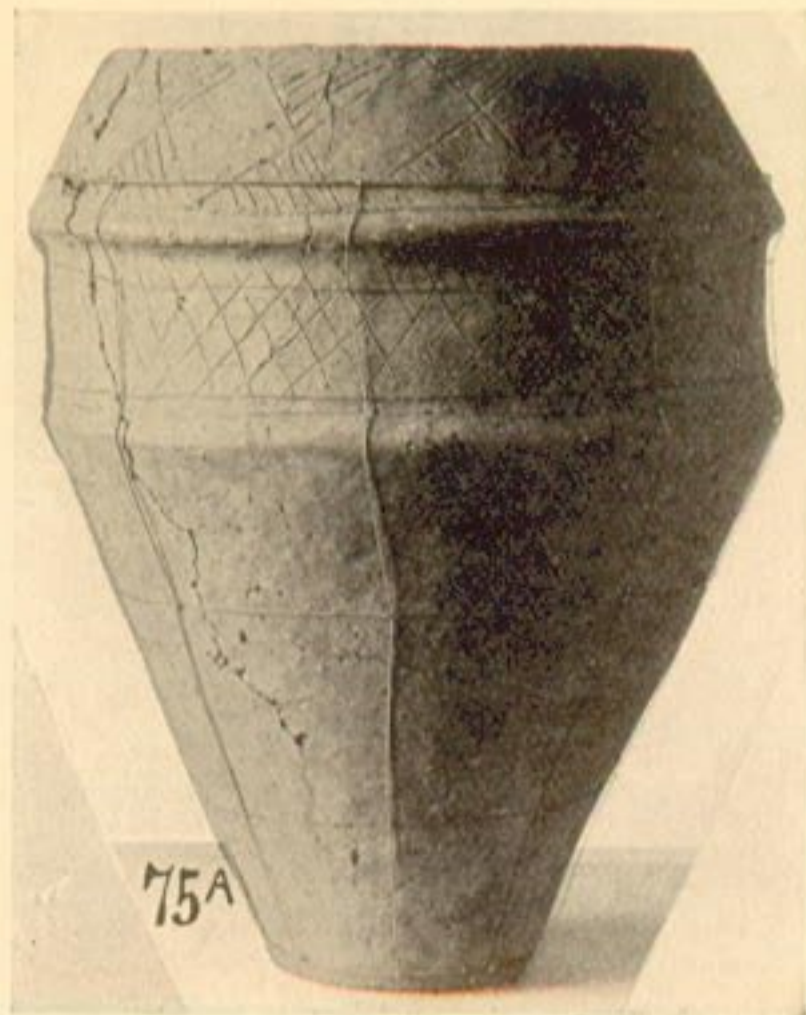




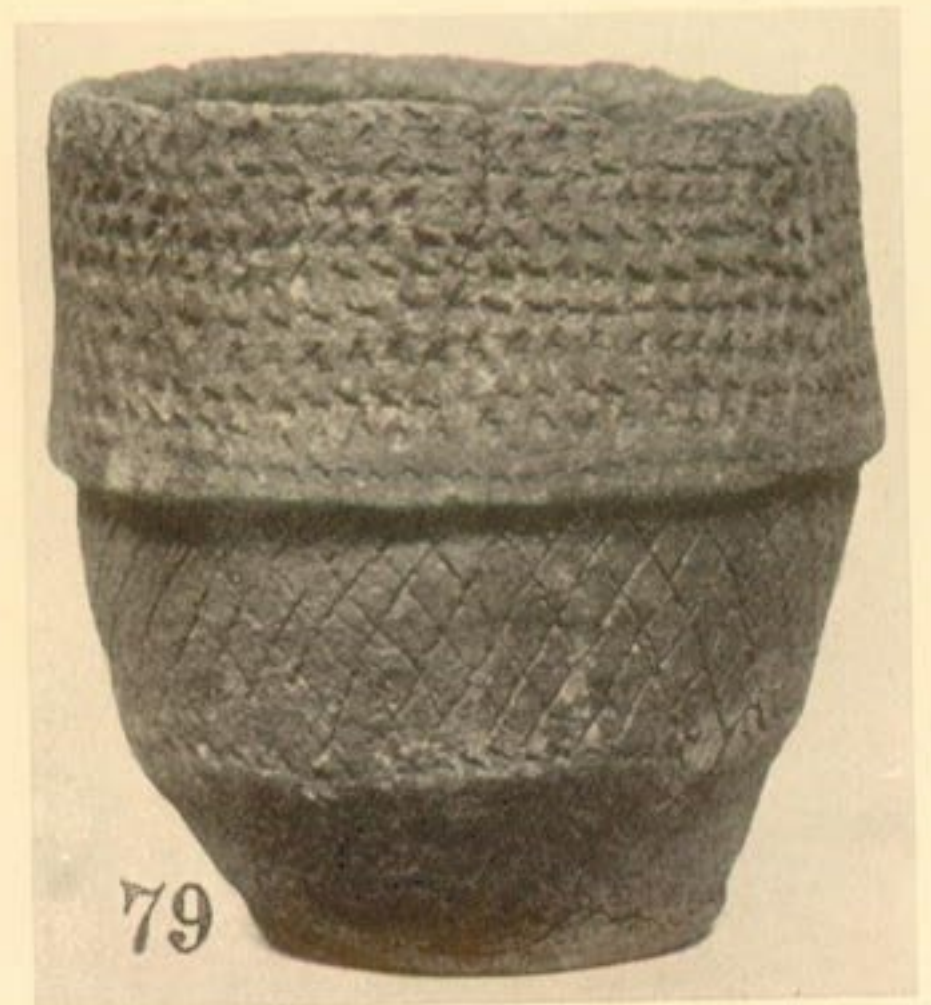
Figs. 65-68. Type i.



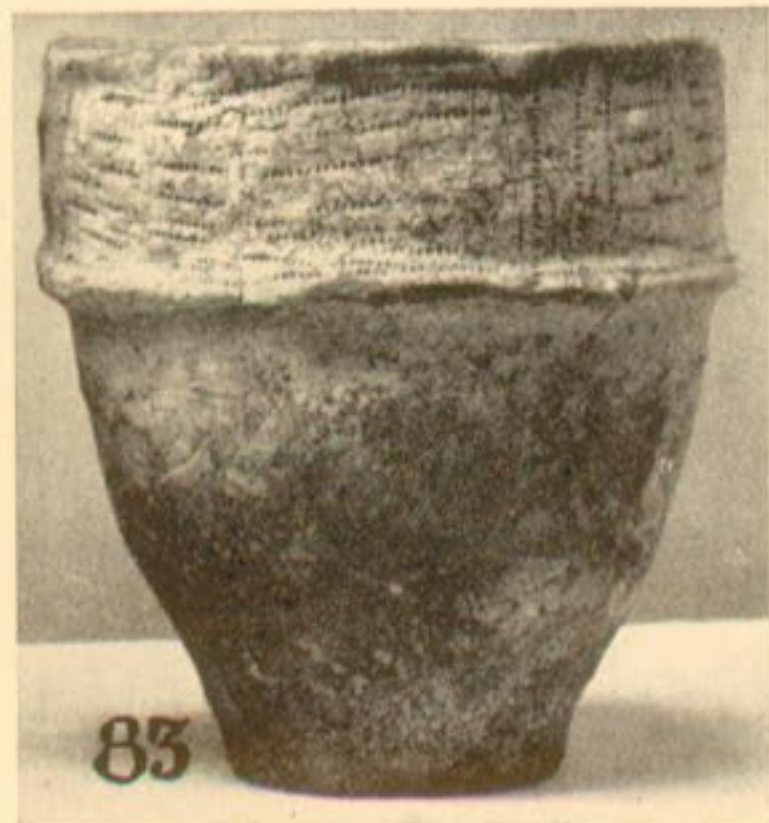
Figs. 69-72. Type i.



Figs. 73-75A (bis). Type i.



Figs. 76-79. Type i.



Figs. 80-83. Type i.



Figs. 84-87. Type i.

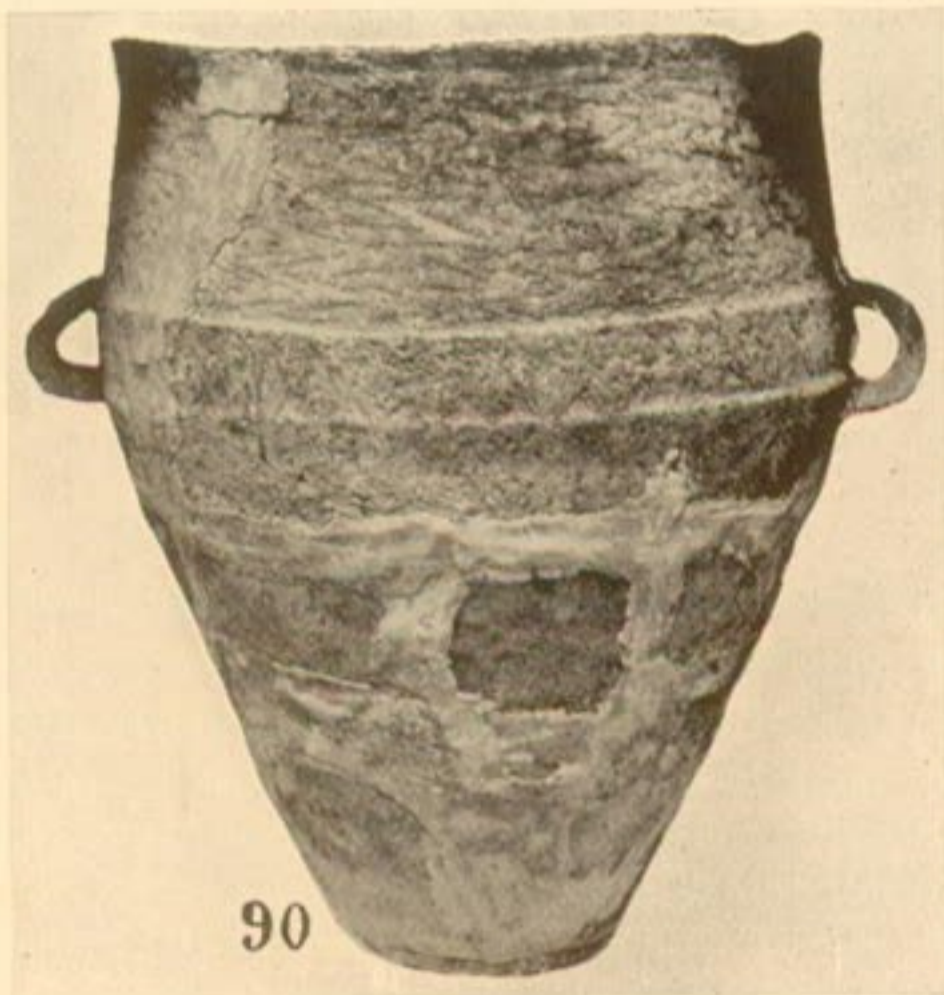
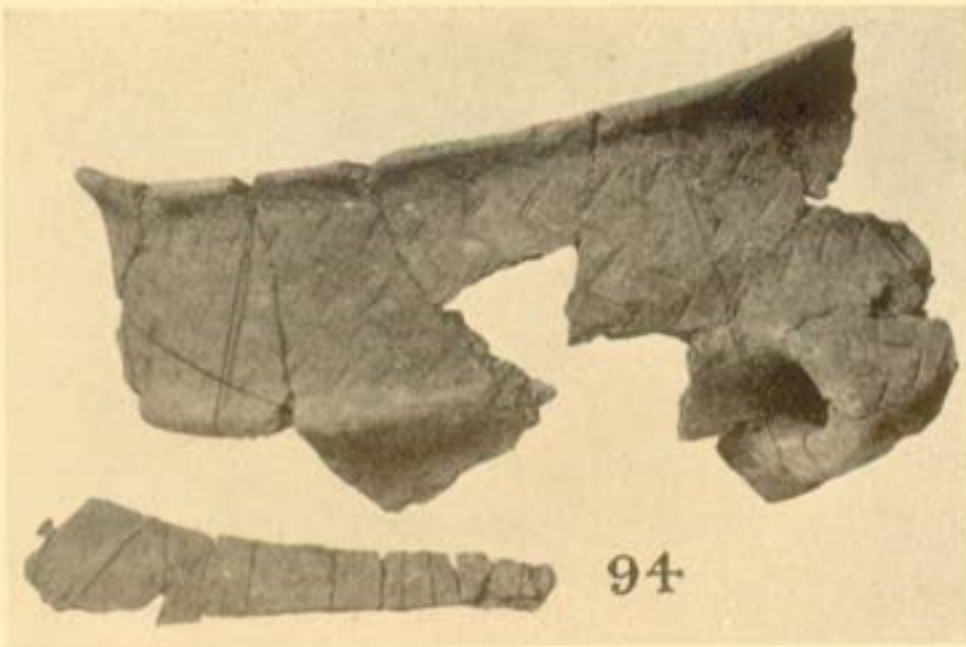


Fig. 88. Type i.

Figs. 89-91. Type ii., group 1.

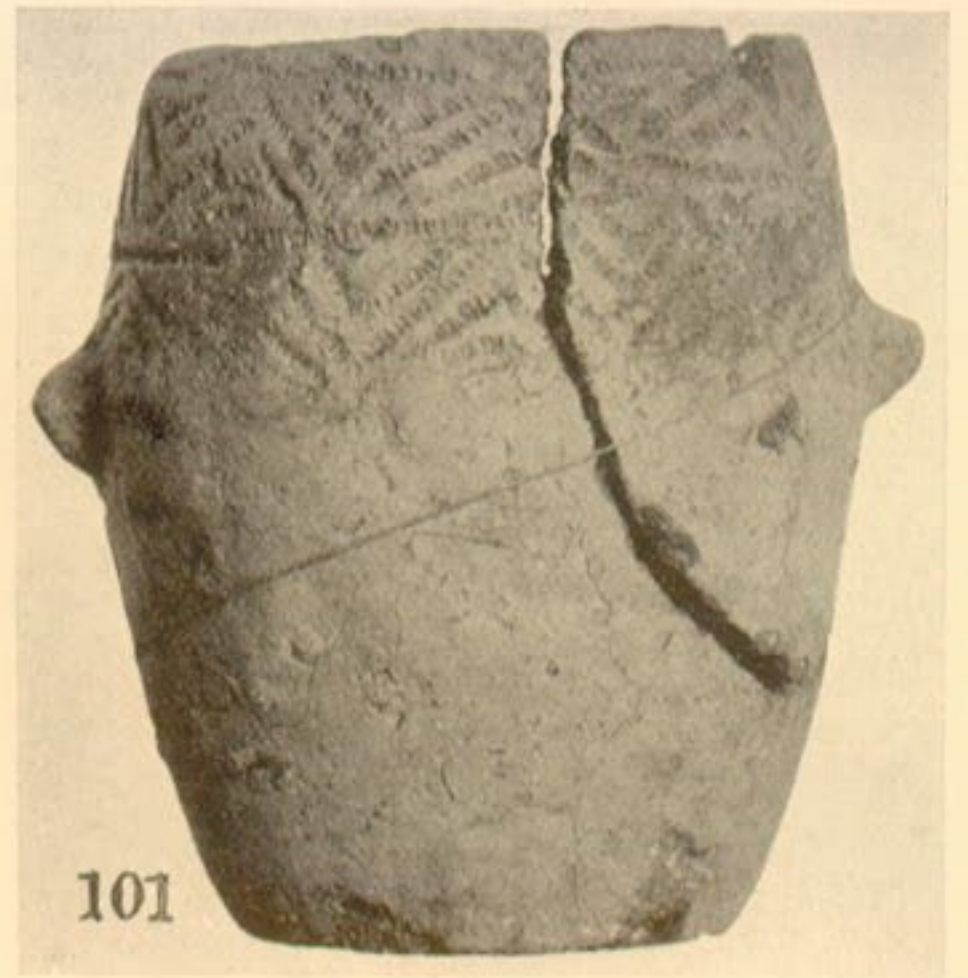


Figs. 92-95. Type ii., group 1.





Figs. 96-99. Type ii., group 1.

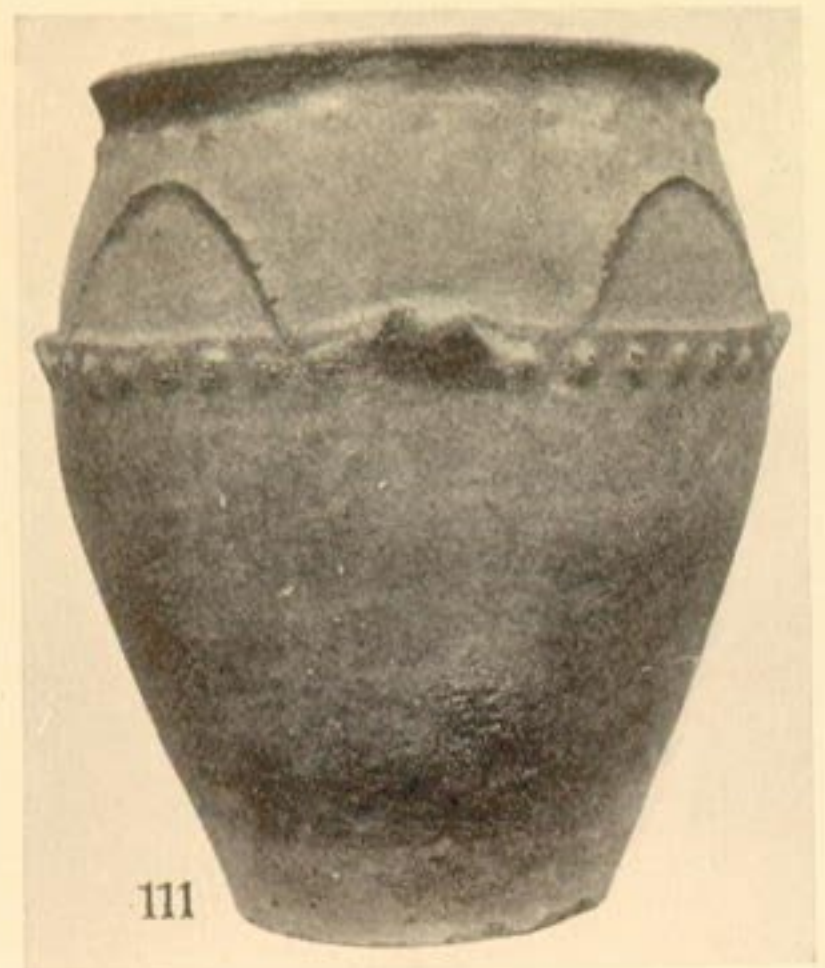
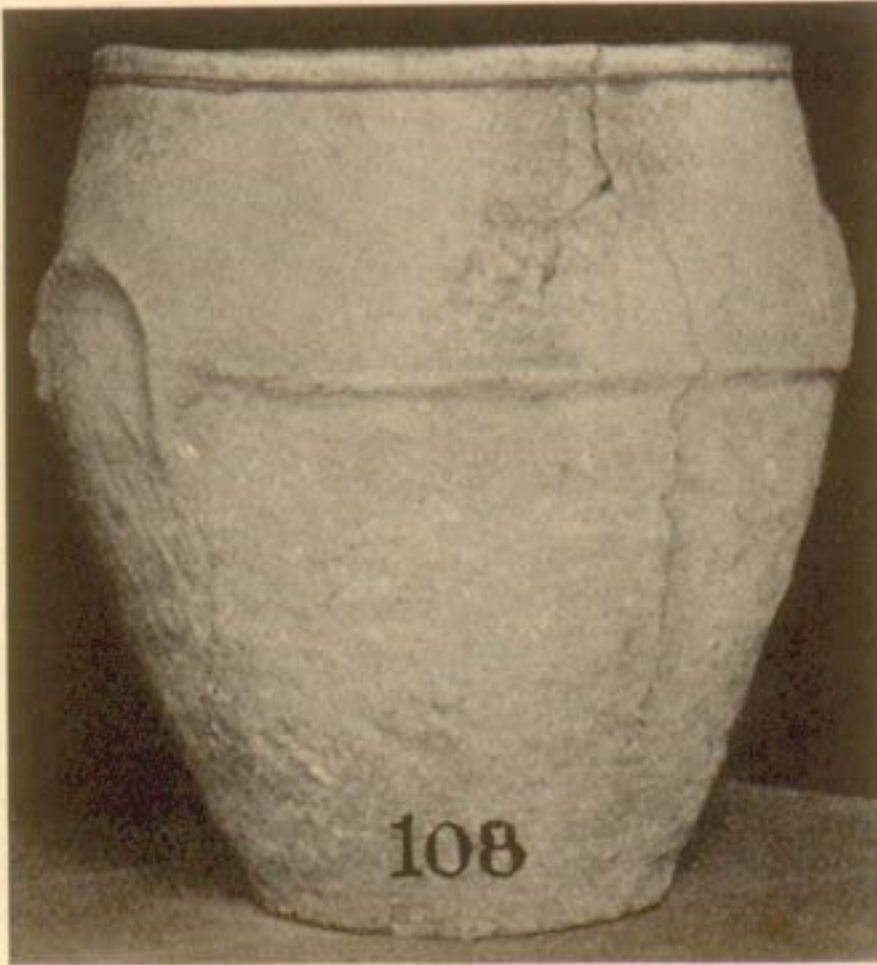


Figs. 100-103. Type ii., group 1.



Figs. 104, 105. Type ii., group 1.

Figs. 106, 107. Type ii., group 2.



Figs. 108-111. Type ii., group 2.

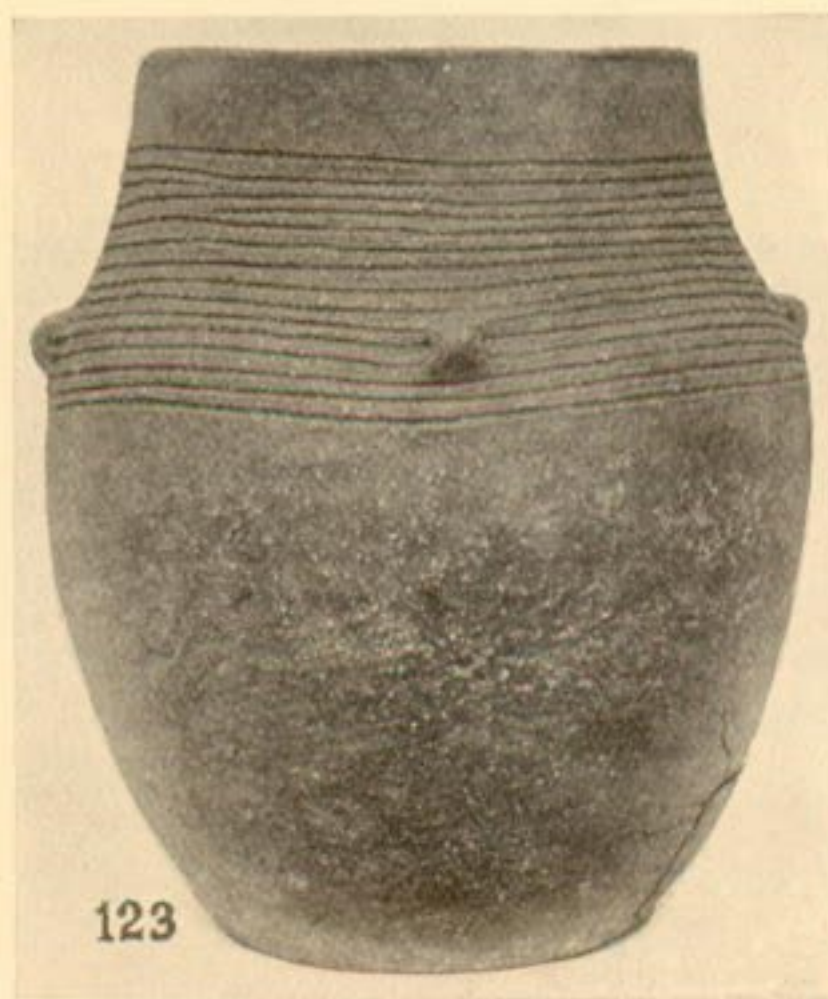


Fig. 112. Type ii., group 2.

Figs. 113-115. Type ii., group 3.



Figs. 116-119. Type ii., group 3.



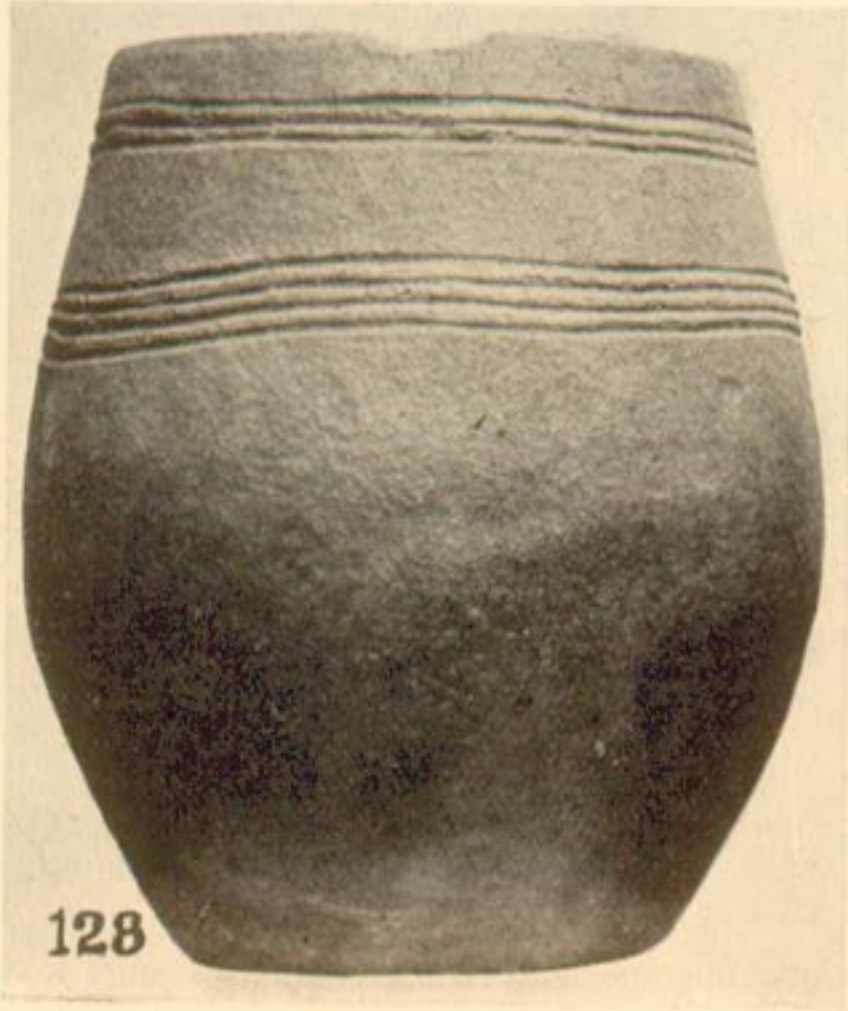
Figs. 120-122. Type ii., group 3.

Fig. 123. Type iii., group 1.

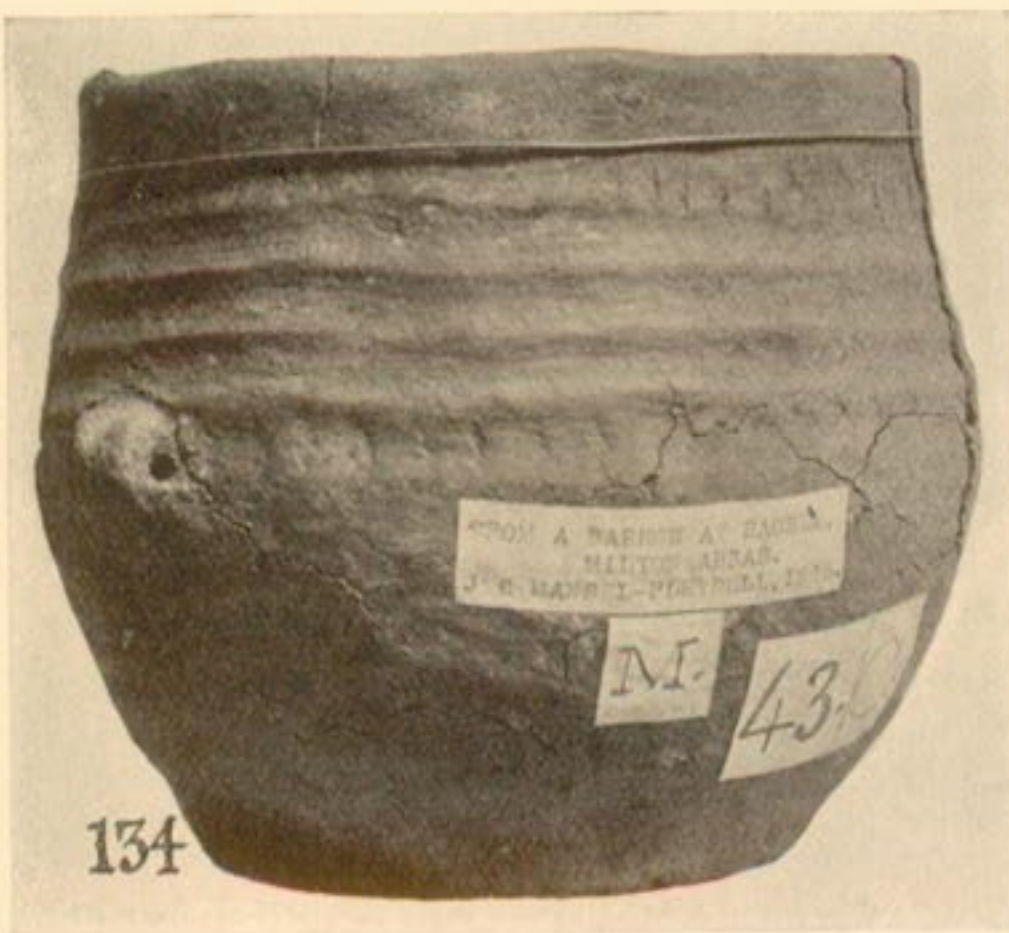


Figs. 124-127. Type iii., group 1.

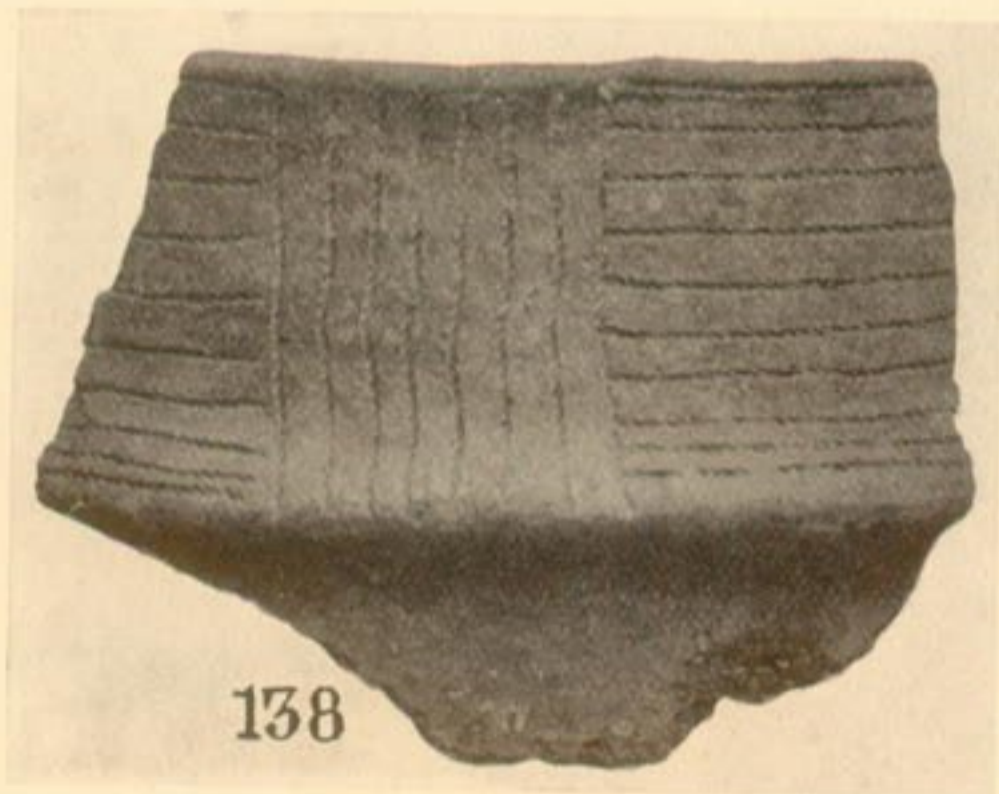
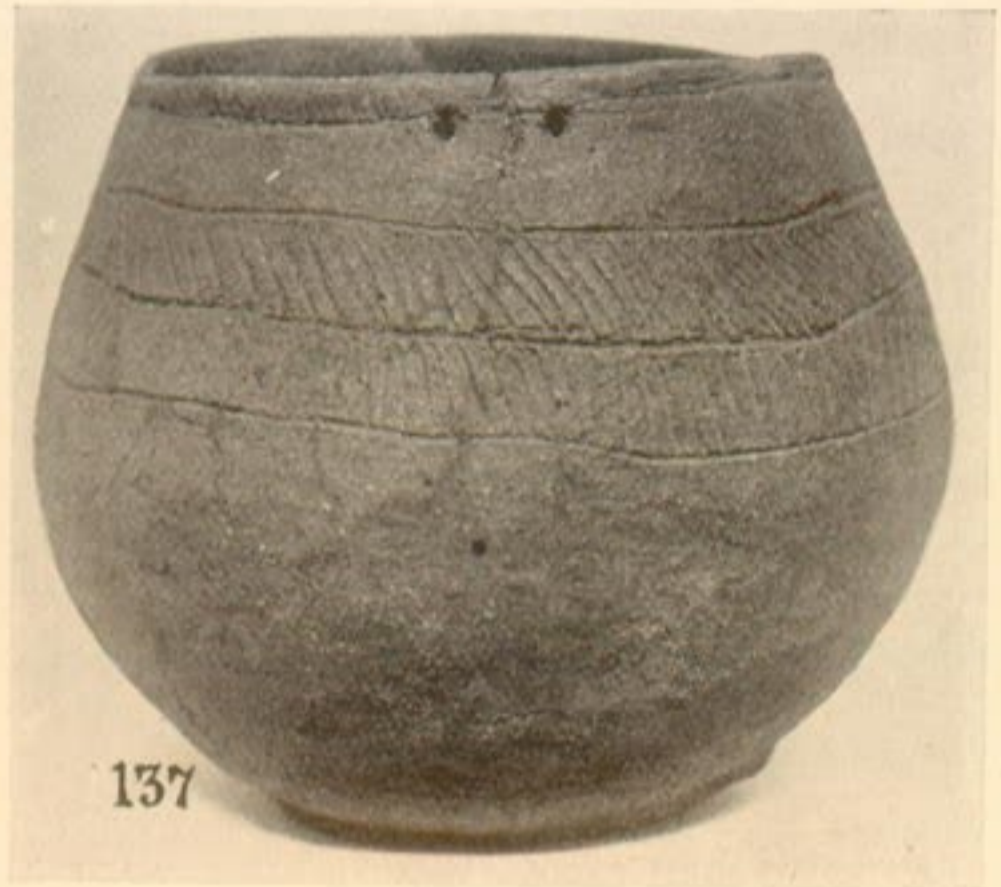




Figs. 128-131. Type iii., group 1.



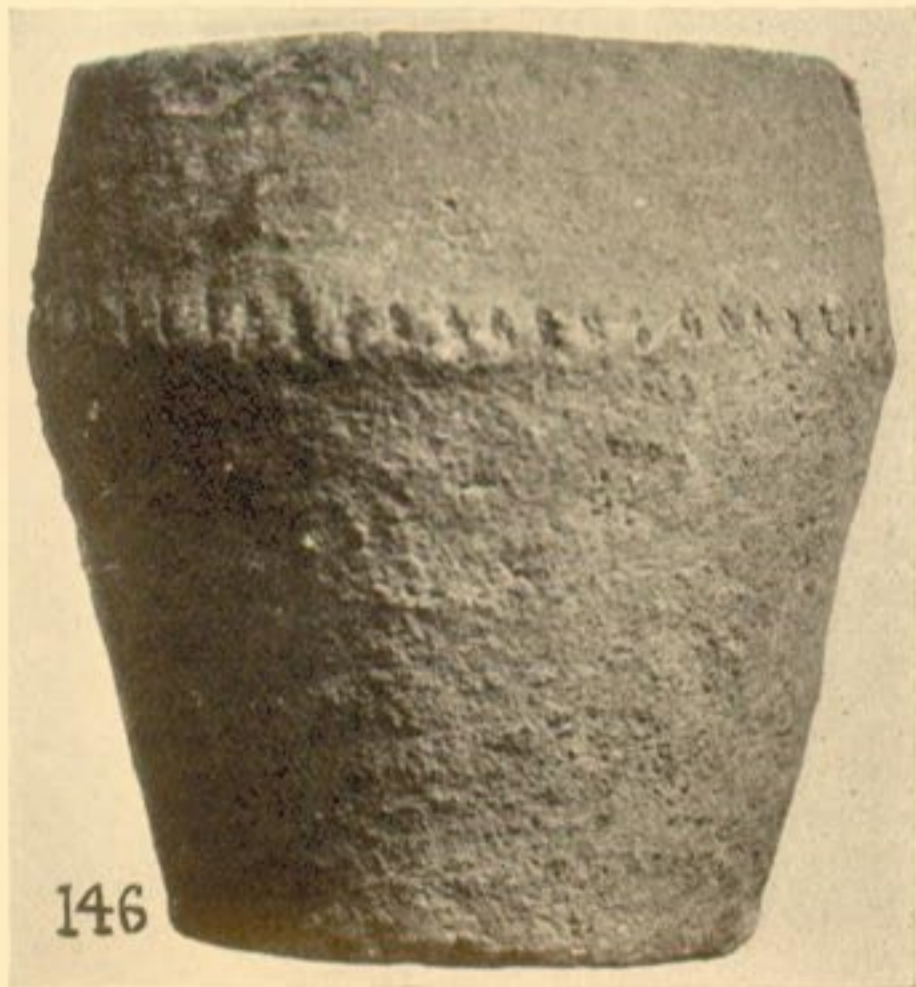
Figs. 132-135. Type iii., group 1.



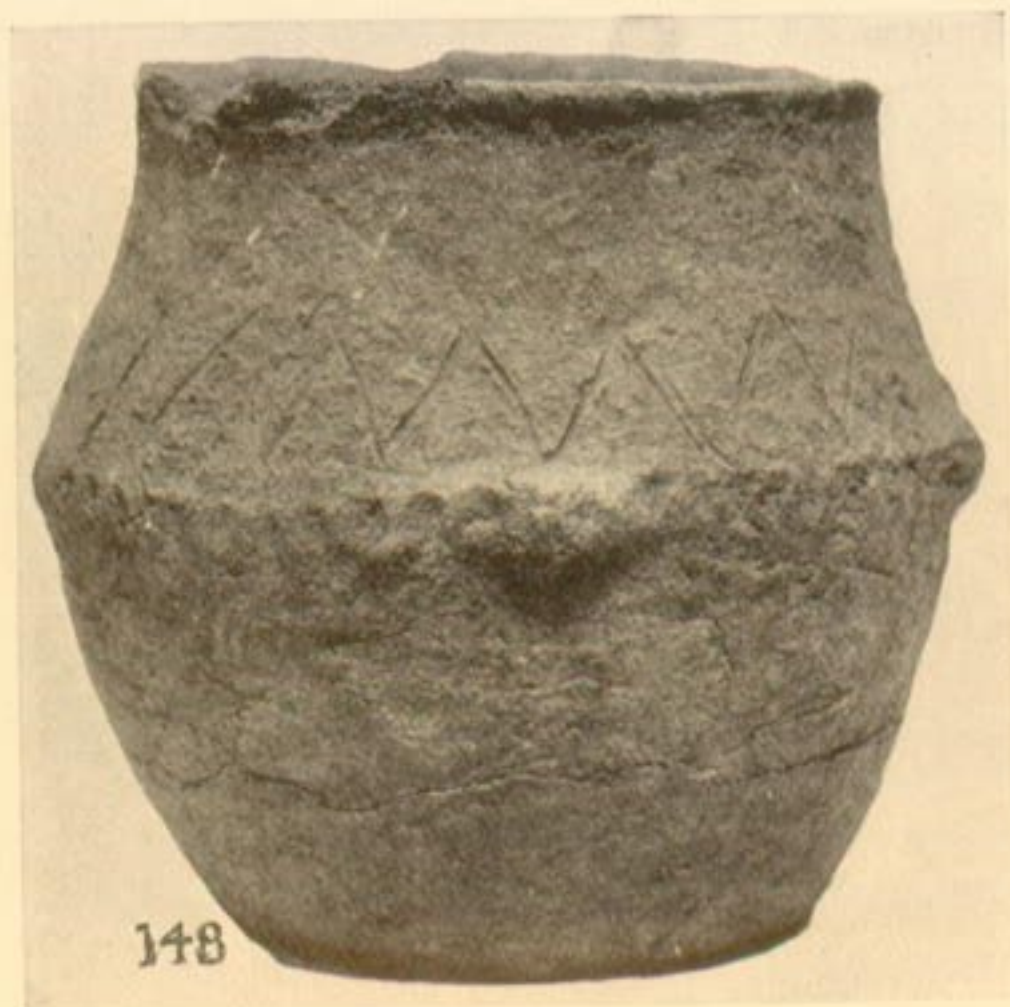
Figs. 136-137. Type iii., group 1. Fig. 138. Type i.  
Fig. 139. Type iii., group 2.



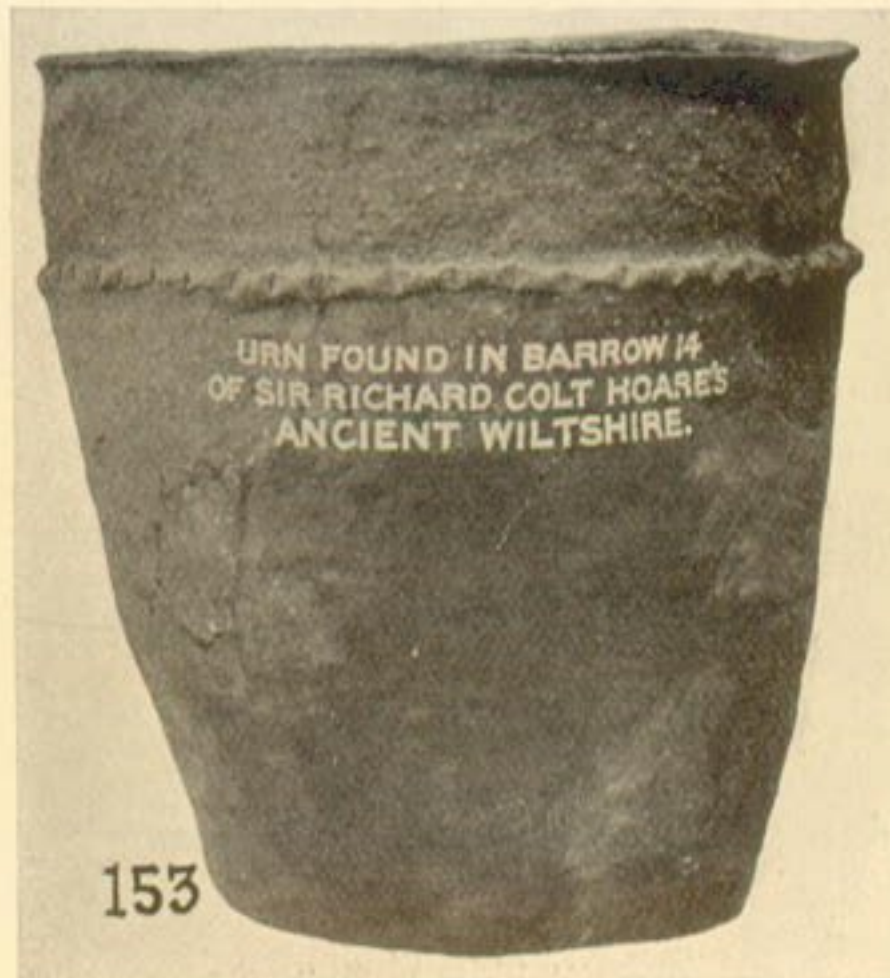
Figs. 140-143. Type iii., group 2.



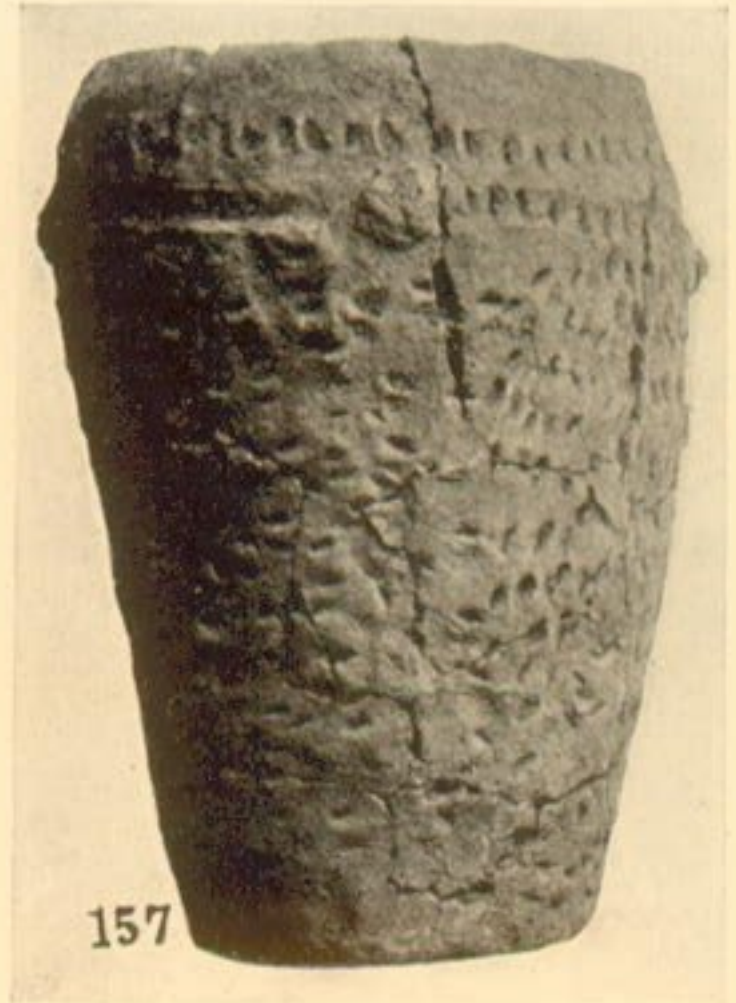
Figs. 144-147. Type iii., group 2.



Figs. 148-151. Type iii., group 2.



Figs. 152-155. Type iii., group 2.



Figs. 156-159. Type iii., group 2.





Fig. 160. Type iii., group 2.

Figs. 161-163. Type iv.



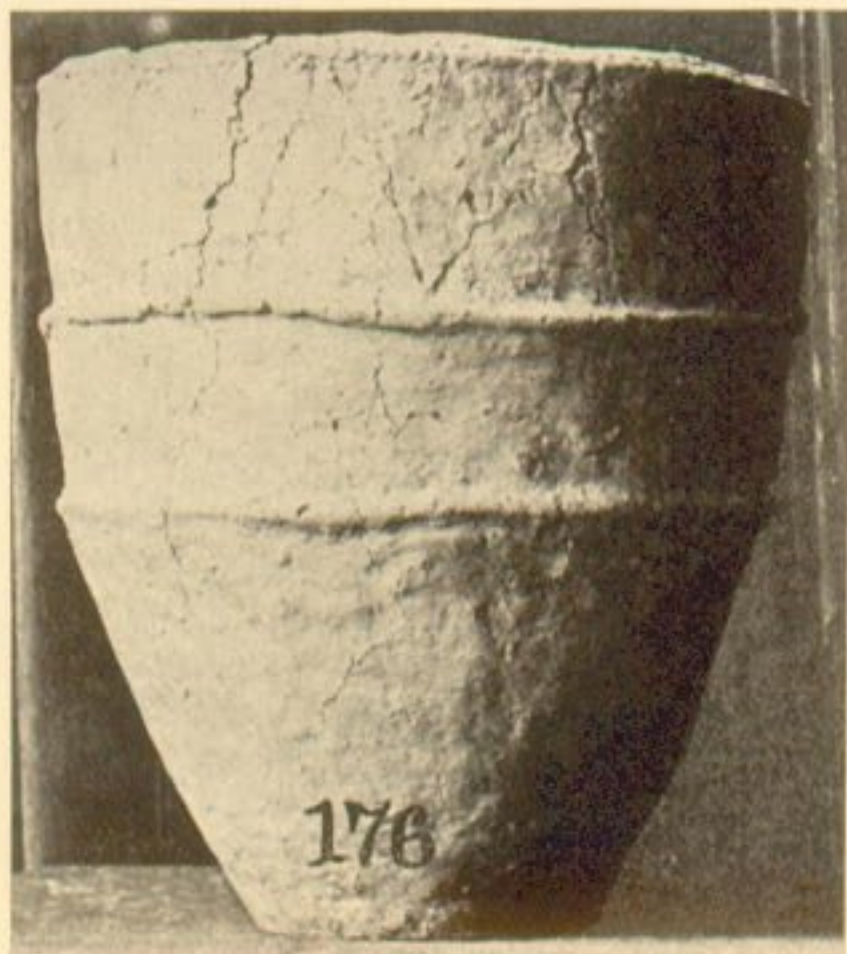
Figs. 164-167. Type iv.



Figs. 168-171. Type iv.



Figs. 172-175. Type iv.



Figs. 176-178. Type iv.

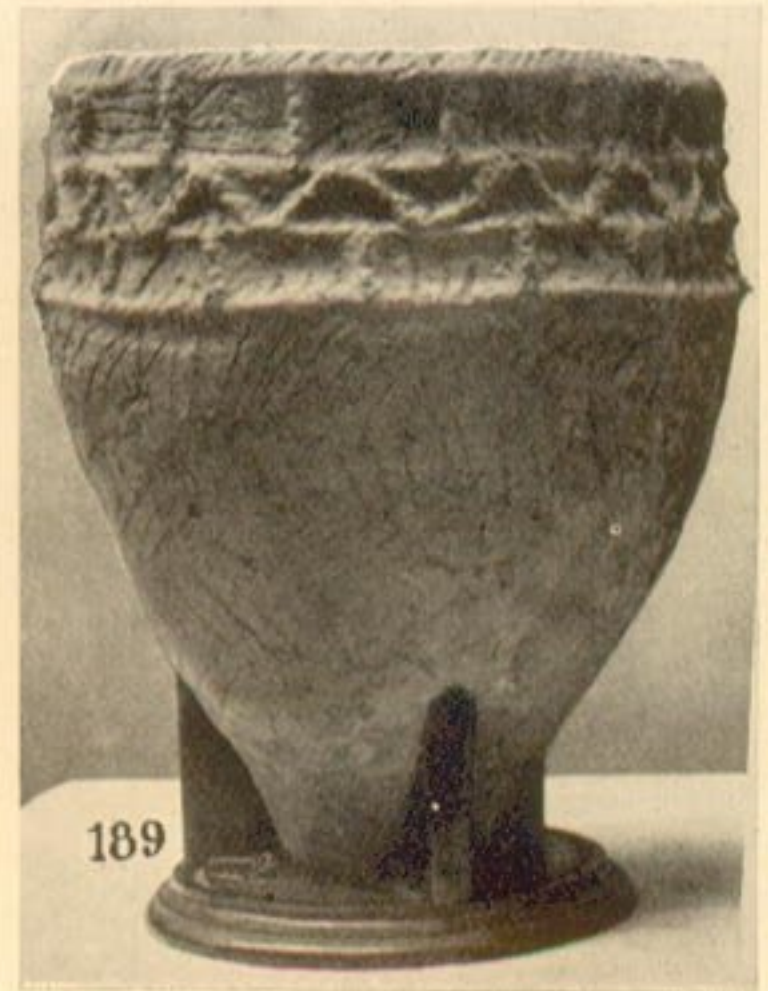
Fig. 179. Type v.



Figs. 180-183. Type v.

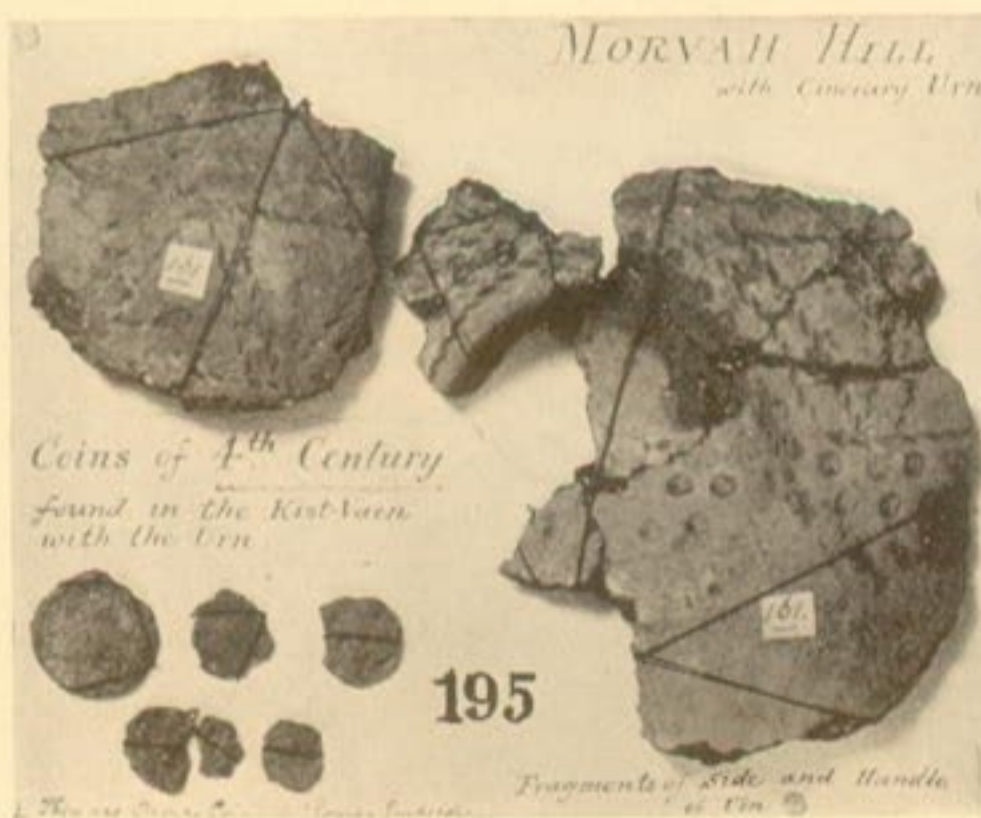
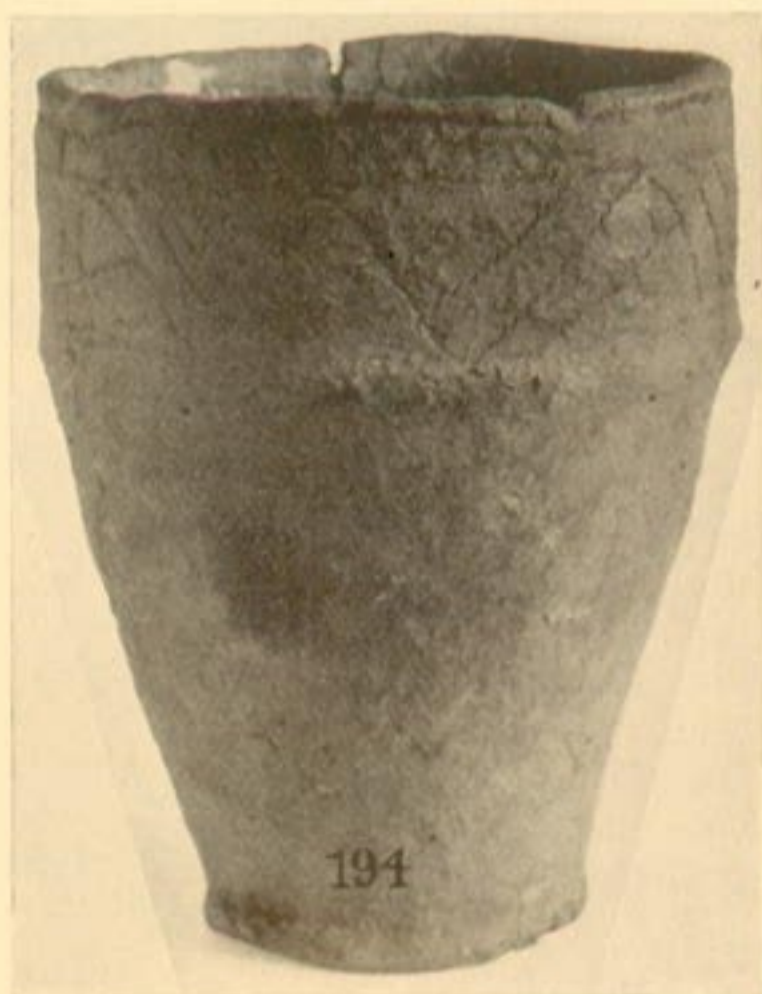
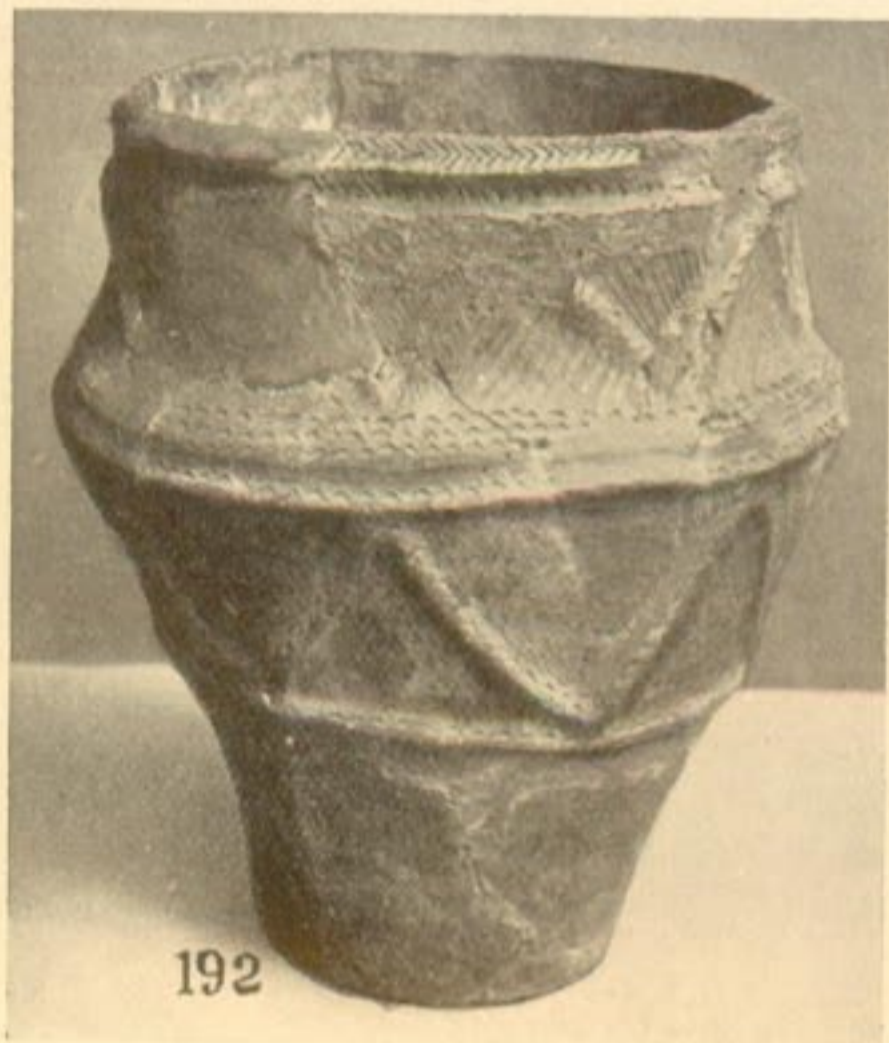


Figs. 184-187. Type v.



Figs. 188-191. Type v.





Figs. 192, 193. Type v.  
VOL. XLI.

Fig. 194, p. 219.

Fig. 195, p. 219.  
18

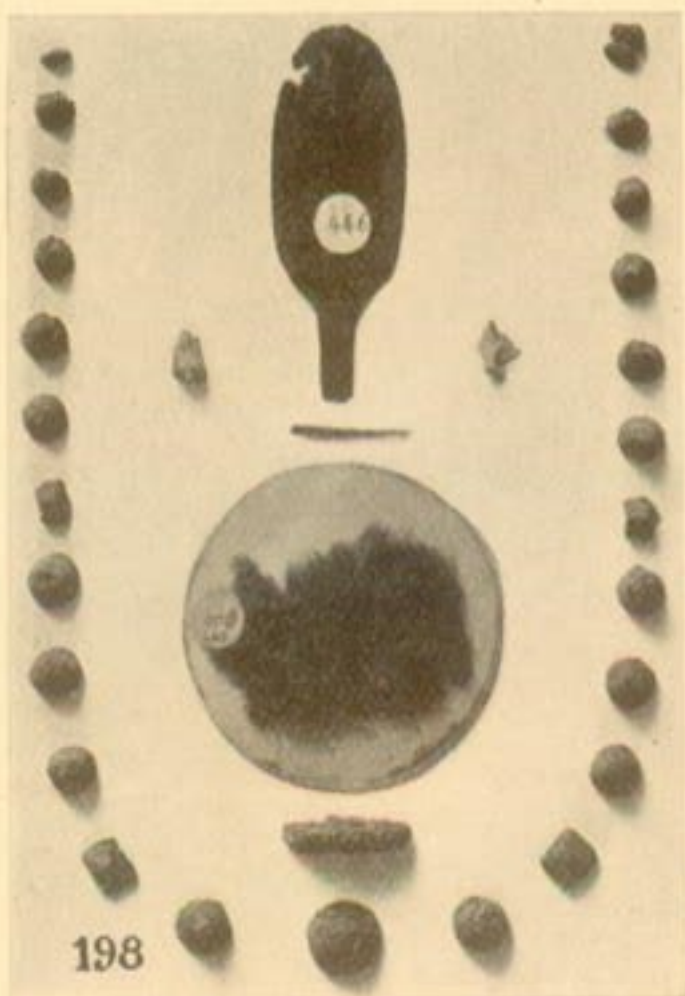
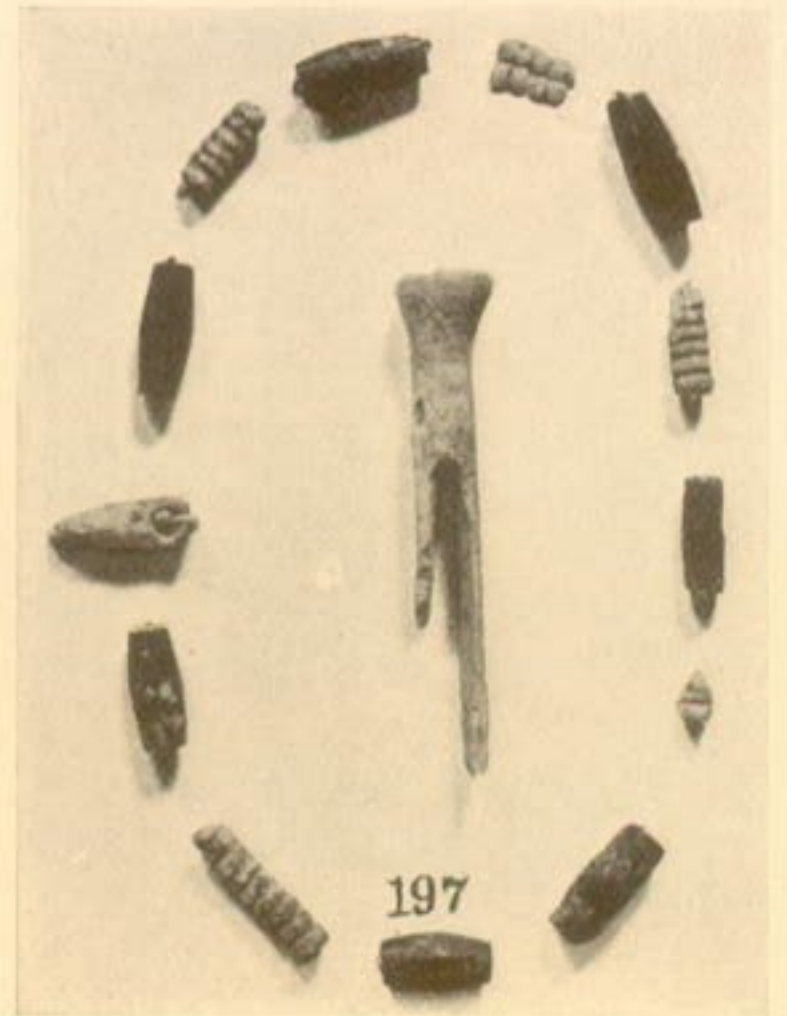
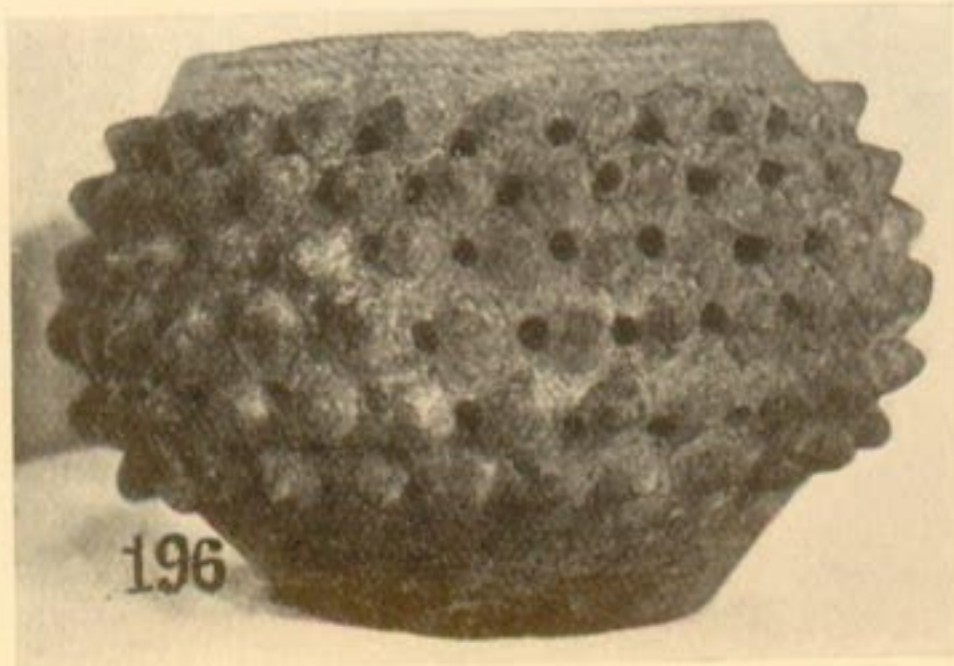


Fig. 196 found with fig. 55.

Fig. 197 found with fig. 66.

Fig. 198 found with fig. 89.

Fig. 199 from Taunton, p. 211.

Fig. 200 found with or near fig. 75 (bis).