# A Burial Ground of the Middle Bronze Age at Girvan

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Following the discovery, in April 1961, of two Bronze Age cinerary urns on the Coalpots road site (Map reference NX 1907 9717) during the construction of house foundations there, planned excavations were carried out on the site in May, under the auspices of the Hunterian Museum of Glasgow University, in the hope of locating more urn burials. Although none was found there were traced close by the remains of several pits, most of which seemed unlikely ever to have contained urn burials but which may, nevertheless, have some association with the urned cremations. Two flint scrapers were found with the larger urn and an object of granite, of uncertain identity, was found in one of the pits. The urns have been restored by the technical staff of the Hunterian Museum where all the finds are now kept on permanent loan.

For bringing the original discovery to the attention of the University Museum I have to thank the alertness of Mr. John Buyers of the Department of Economic History at Glasgow University, and for permission to excavate on the site and for other assistance thanks are also due to the Town Council of Girvan, to the Town Clerk, Mr. John Cunningham, and to the Burgh Surveyor, Mr. James Greig. Messrs. George Wimpey & Co., Ltd., the Contractors, gave willing consent to the investigations and their agent on the site, Mr. Walker, did everything possible to assist us in spite of the inconvenience caused by our operations. I have also to thank Messrs. Wimpey for permission to reproduce their map of the site in Fig. 1. The actual excavation was carried out by the pupils of the High School, Girvan, with the permission of the rector, Mr. J. G. Cruikshank. They were organised by Mr. D. Conn who also supervised the excavation of the first urn found and gave further help in investigating the circumstances of the finding of the collared urn at Girvan about 1861. Mr. D. Wilson, until recently of the Ayrshire Constabulary, was also of great assistance on the excavations.

I am indebted to Dr. Archibald Young of the University's Department of Anatomy, for examining the cremated human remains from the urns, and also to Dr. Rowland Reed of the Department of Chemistry for undertaking the Mass Spectrometer

analysis described in Appendix 'D'. I am particularly grateful to Miss A. S. Robertson of the Hunterian Museum and to Dr. I. H. Longworth of the National Museum of Antiquities, Edinburgh, for reading the report and making numerous helpful criticisms and suggestions.

#### THE URN BURIALS

#### URN 1:

A large cinerary urn, decorated with two cordons and with impressed patterns made with a twisted cord (Fig. 3, Pl. 2), was revealed by a bulldozer on April 15th. It was excavated by Messrs. Conn and Wilson from whom the following information comes. "It was inverted in a pit in the ground and its base, which had been sheared off by the bulldozer, seems to have been about a foot below the modern surface. The urn-pit was dug into the light subsoil of sandy gravel and stones, and the stony layer on which the rim of the urn rested may have been laid deliberately. The fill of the pit was not noticeably darker than the surrounding soil. The burnt bones inside the urn were unmixed with earth or ash except for some which had entered when the base was broken." Among a mass of stones described as having come from the base of the pit I found a heat-crackled flint scraper which would seem to have come from the fill of the pit (Fig. 2, b1). Another similar scraper appeared among the bones when they were examined in the Museum and must therefore have been inside the urn (Fig. 2, b2).

## URN II:

On April 17th another, smaller, inverted urn was discovered about 6 feet west of the first by a workman digging a foundation trench; its base was broken by his pick (Fig. 4, Pl. 3). It was excavated under my direction. The urn was in a pit dug into the subsoil and its rim rested on a thick layer of small stones. The top of the urn was 9 ins. below the surface after bulldozing and had therefore been from 18 to 21 inches below the original ground surface (Pls. 5, 6). The fill of the burial pit contrasted with the light earth around it and consisted of darker earth mixed with flecks of charcoal and small fragments of burnt bone. The top of this dark fill was 5 ins. above the base of the urn and well below the modern ground surface (Fig. 2a). No artefacts were found with this burial and the burnt bones inside the urn were unmixed with ash or earth.

## OTHER INDICATIONS OF BURIALS.

During the digging of the foundations other traces of cremated burials were revealed. The section of an old ditch filled with stones,

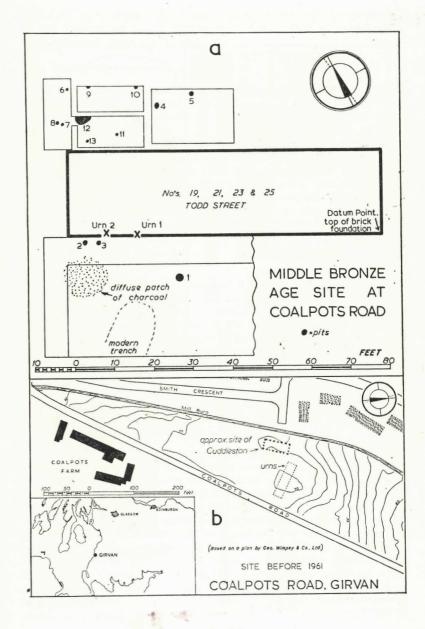


Fig. 1.

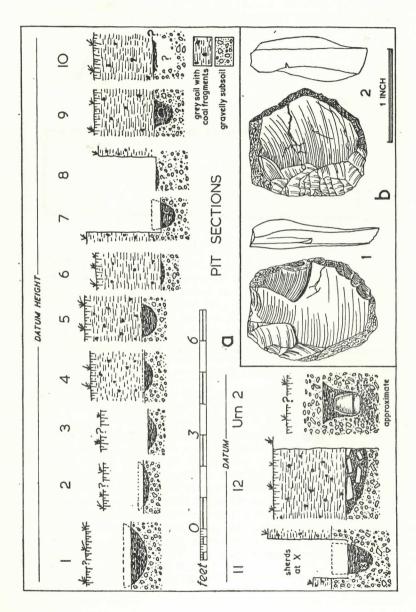


Fig. 2.

probably an ancient field drain, was apparent on the north side of the foundation trench rectangle and a scatter of burnt bones was collected from its vicinity.

#### THE THIRD URN EROM GIRVAN:

A large collared urn with impressed decoration made with a whipped cord was presented to the Hunterian Museum by William Anderson in 1861  $^1$  (Appendix A) (Fig. 6, Pl. 4). The original label, still in the urn, reads, "... found with a quantity of fragmentary human bones, in a field one half mile east of the town of Girvan". The site of the recent discoveries is also half a mile east of the town as it was in 1861 and, according to the records of the Bargany Estate, one Thomas Anderson was the tenant of Knowehead in 1861 (a tract of country labelled 'Knowehead' is shown about  $\frac{3}{4}$  mile north of the spot where the urns were discovered on a 19th century map preserved in the Bargany Estate office).

#### THE EXCAVATIONS

By May 20th, when the planned excavations began, the brick foundations whose trenches had revealed the urns had been completed and, in the process, a series of cross trenches had been dug inside the rectangular area of the building concerned without revealing any more urn burials. The search was therefore concentrated on patches of undisturbed ground on the north and south sides of the building. The summit of a gentle rise lay on the north side (Fig. 1, Pl. 1), the highest point on the whole site, and it was hoped at first that this might be the central area of a cemetery of urn burials clustered on a knoll. However, the sections cut showed that most of this raised area had accumulated after the formation of the prehistoric features investigated (Fig. 2).

On the south side the topsoil was scraped off by a bulldozer and three circular dark marks were revealed in the subsoil (Fig. 1). They appeared to be the remains of pits (nos. 1, 2 and 3 on the plan). Of Pits 2 and 3 there remained little more than a stain on the gravelly subsoil but Pit 1, 22 ins. in diameter and 6 ins. deep, contained black earth and numerous small fragments of calcined bones, and contrasted very markedly with the surrounding soil (Pl. 7). The trenches cut on the north side of the building revealed more of these circular dark marks in the subsoil, at a considerable depth and underlying a substantial layer of grey, more sticky soil which contained many fragments of coal, occasional struck flakes of white flint, two sherds of a green-glazed mediaeval vessel and many pieces of 19th century blue-patterned white

<sup>1</sup> Abercromby 1912, vol. 2, Fig. 197.

china (Fig. 5). The trench sections showed that the marks were probably the bases of pits cut into the subsoil, the tops of which had been sheared off by the activity represented by the stratum of grey soil with coal fragments. Pits 9 and 10 showed this very clearly (Fig. 2). Some of the circular marks were little more than staining of the compact subsoil but most contained a quantity of black earth with fragments of charcoal; in addition Pit 11 had one fragment of burnt bone and a few potsherds, indistinguishable from the fabric of the cinerary urns found, and Pit 9 contained a granite object of uncertain identity, possibly a quern rubber. (Pl. 9). Pit 12 was of a different class altogether, being larger, non-circular and with many large stones mixed in its dark earth and charcoal fragments (Pl. 8). All were clearly stratified below the layer of grey soil.

Other features noted were a diffuse spread of charcoal fragments on the top of the subsoil and a trench full of grey earth, both on the south side of the building. The latter feature yeilded a sherd of modern black-glazed pottery.

#### THE NATURE OF THE SITE

The most plausible explanation of the circular patches of dark earth found near the urns is that most of them are the bases of pits which have been destroyed by an activity during the last few centuries which has churned up the top foot or two of the soil (Fig. 2). Two different explanations may be put forward for them. The first is that they are all the remains of pits which once contained urn burials but which have been destroyed or robbed in modern times and which represent quite an extensive Bronze Age urnfield. Alternatively, they might be simple pits dug for another purpose, perhaps for cremation burials without an urn, or even as domestic rubbish pits. The latter possibility would of course have profound implications for the nature of the whole site.

Features which might be thought to point to an interpretation of the pits as urn burials are the absence from them of waste flakes of flint and other discarded habitation refuse (sherds occurred only in Pit 11), the proximity of the two certain urn burials, the occurrence of burnt bones in Pit 1 and in scattered deposits nearby and, finally, the sherds in Pit 11 which might be remains of a destroyed urn. On this interpretation the charcoal fragments could all be remains of funeral pyres. On the other hand many of the pits do not look as if they have ever contained urns. If a large number of urns had been present at one time and had been discovered and either removed or destroyed in modern times it seems likely that many fragments would have been encountered

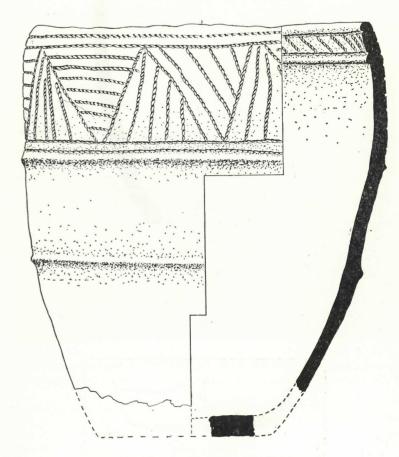


Fig. 3: Urn [.

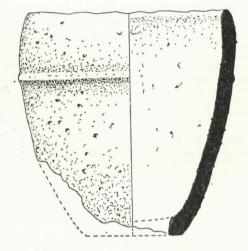


Fig. 4: Urn II.

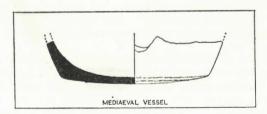


Fig. 5.



Plate 1: General View of the Excavations.



Plate 2: Urn I as excavated.



Plate 3: Urn II as excavated.



Plate 4: The 1861 Collared Urn from Girvan.



Plate 5: The base of Urn II showing at the beginning of its excavation.

The circular burial pit is clearly visible around it.



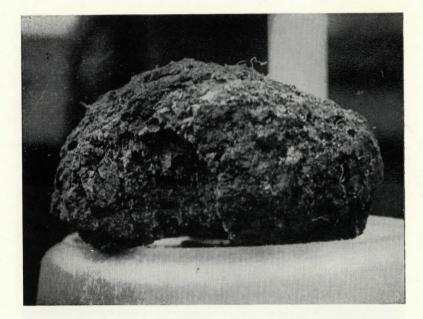
Plate 6: Urn II excavated.

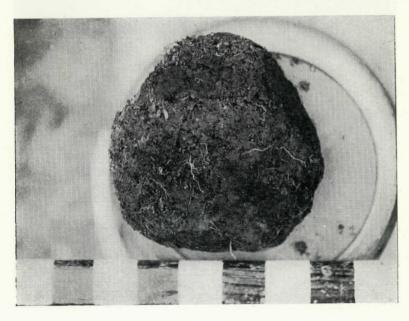


Plate 7: Pit I sectioned.



Plate 8: The stone-filled Pit 12 exposed below the layer of grey soil.





Plates 9a, 9b: The granite object from Pit 9.

both in the remains of the pits themselves and in the soil above; in fact none was found except the few in Pit 11. The extreme darkness of the earth in most of the pits also contrasts with the much lighter soil in the two pits containing urns. Moreover at least one of the urn pits (that containing Urn 2) had a flat base, in contrast to the rounded profiles of Pits 1-12. (Fig. 2, Pl. 5). It also seems improbable that the cause of the recent soil disturbance could have operated with enough selectiveness to destroy any urns which may have been in Pits 1, 2 and 3 while leaving intact the two urns found close by. For these reasons it appears most likely that the pits never contained urn burials but were dug for some other purpose.

This purpose may have been connected either with the funerary rituals practised on the site or with domestic habitation. Features which might suggest the presence of debris from domestic occupation and, hence, favour the interpretation of the pits as rubbish pits or post-holes (or both) are—(a) the blackness of the earth in most of them, a feature often associated with decomposed organic refuse: (b) the presence in the soil above of struck flakes of white flint, similar to the two scrapers found with the large urn, and a core of light brown flint (Appendix 'C'): (c) the occurrence in Pit 9 of a granite implement which might be a quern rubber (Pl. 9): and (d) the possibility that the large urn served some other purpose before its use as a burial urn (next section and Appendix 'D'). The numerous fragments of charcoal could be derived as plausibly from domestic fires as from funeral pyres.

On the other hand, Dr. I. H. Longworth has drawn my attention to the frequent occurrence, among groups of Bronze Age cinerary urns containing 'clean' cremations, of other pits filled with burnt material, and to the possibility that these latter pits may be receptacles for the remainder of the debris from the funeral pyres. This may have been buried separately after the majority of the cremated bones had been separated out and placed in an urn. In support of this interpretation of 'accessory pits' he has cited the example of the cremation cemetery which was found inside a ring cairn at Todmorden, Yorkshire, where a similar phenomenon was noted. 2 In this burial ground, in which, since it was enclosed by the cairn, there was little likelihood of domestic habitation, there were found both urn burials, which were noted to have large quantities of cremated bones unmixed with charcoal, and pits which either contained no urn at all or a few sherds only. The latter were observed to have very few bone fragments in them but large quantities of charcoal. These two contrasting types of pits are almost exactly analogous to those discovered in the Girvan cemetery.

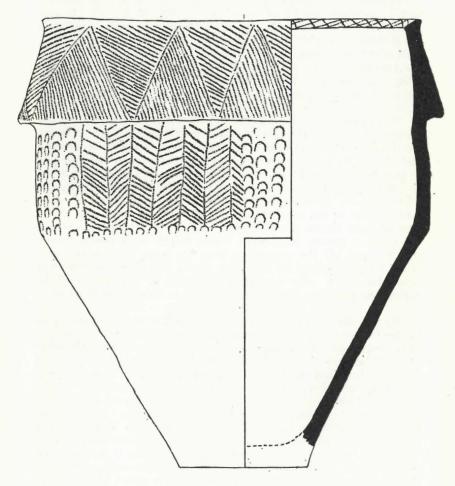


Fig. 6: 1861 Urn.

The enigmatic pits at the Ayrshire site are therefore most probably explicable as a part of the funeral ritual of the social group involved

However, there still remains a possibility that a site of domestic occupation was located not far from the burial ground although the evidence appears now to be slender and circumstantial. The flakes of flint, the granite artefact in Pit 9 and the carbonaceous deposit on Urn I may all be indications of a settlement site nearby. On the other hand flint flaking may presumably be done anywhere and the granite object, even if it is a quern rubber, could have been brought to the site from a distance as could the urns themselves. The nature of the carbonaceous deposit on the exterior surface of Urn I (Appendix 'A') failed to provide any information relevant to this problem (Appendix 'D').

## BURIAL RITUAL

The condition of the two Girvan urns found in 1961 suggests that the funeral ritual performed at their interment included the following acts. The body was laid under 3 a funeral pyre and burnt, together with any artefacts which were to be buried with it (the thin spread of charcoal fragments found on the south side of the excavations may have some connection with this stage). Most of the burnt bones were then collected from the ashes and placed in the urn with, in one case, two flint scrapers; some care was taken to avoid including earth and ashes with the bones. A cover of some sort must have been tied over the mouth of the urn which was then placed inverted into a pit which had been dug for it and covered up. (No trace of any surface marker was found but the ground had of course been disturbed later). Possibly some of the remaining debris of the funeral pyre, mainly ashes and charcoal, was then buried in a pit nearby.

#### THE URNS AND THEIR ORIGINS

In view of the marked differences in form, decoration and texture between the 1861 collared urn from Girvan and the two cordoned urns found there one hundred years later it is of interest to enquire whether all three could have come from the same burial ground. Current opinion agrees that the collared urns were derived from the ceramic traditions of the Late Neolithic Peterborough culture 4 and that the cordoned urns, far from being late degenerate derivatives of the collared type as was once thought, were also derived from Late Neolithic cultures but in a different area 5. Thus, even if

Piggott 1962, p. 96.

For a discussion of the techniques of cremation see C. Wells 1960. Smith & Butler 1956: Livens 1958: Longworth 1961.

the three Girvan urns could be shown to have come from the same burial ground, there are now no grounds for assuming a sequential typological relationship between them.

Regarding their possible juxtaposition it has already been noted that the collared urn was presented to the Hunterian Museum in 1861 by William Anderson after it had been found half a mile east of the town and that one Thomas Anderson was tenant of Knowehead at that time. Thus it seems possible that the collared urn could have been found on the Coalpots Road site. However, Coalpots Farm is closer than Knowehead to the position of the 1961 urns and a building called Cuddiston once stood even nearer (Fig. 1). It seems most probable that the coal and china refuse in the topsoil came from one of these last two buildings and that therefore their inhabitants would have been most likely to have discovered any other urn burials near to the two found recently. In spite of this and the discrepancy between the Andersons' forenames 6, the description of its find spot does suggest that the 1861 urn came from the Coalpots Road site or from another one close by. Thus this burial ground may demonstrate a mixture of two distinct cinerary urn traditions. The complete lack of any associated finds giving clues to the relative ages of the three urns, and the lack of positive proof that they all came from the same site. render highly speculative any observations on their cultural and chronological relationships and on their date, however approximate.

Something may be said however about the relationships of the individual urns. Dr. Longworth has drawn my attention to a small urn from north-west England which closely resembles the collared example from Girvan. It comes from Lancaster Moor, near Lancaster, and, besides having a very similar form of collar and neck to the Girvan vessel, is decorated in a like fashion with filled triangles on the collar, lozenges on the rim bevel and vertical panels on the neck which alternate between herringbone and lattice pattern (instead of the Girvan horseshoes) 7. The main differences lie in the size, the Lancaster vessel being only 8 ins. high (though this may not be important as it was an accessory vessel) and in the decorative technique, the Lancaster urn being decorated with incised lines instead of whipped cord impressions as at Girvan. The similarities seem to outweigh the differences and may indicate maritime cultural connections between north-west England and south-west Scotland during this phase of the Bronze Age. Thus Girvan does seem to be a site of mixed traditions similar to the

cremation cemeteries at Kirkpark<sup>8</sup> and Magdalen Bridge<sup>9</sup>, Midlothian.

As regards the origins and context of the two cordoned Girvan urns, it has already been pointed out in the pages of this journal that this class of cinerary urns is probably descended from the funerary and ceramic traditions of certain Late Neolithic cultures 10 rather than from the south English collared urns as Abercromby seems to have thought 11. Secondary Neolithic cremation cemeteries have now been identified at many sites in England and Scotland 12 and indeed cremation was practised by the primary Neolithic chambered tomb builders of South west Scotland 13. Piggott has recently stated 14, "the Cordoned Urns, believed by Abercromby to be the degenerate end-products of the devolution of the Overhanging Rim type in regions north and west of its area of origin, are, however, susceptible of another and surely more convincing explanation. The strong resemblance, amounting in some cases to identity, between the Class II ware in the Lough Gur (Ireland) Neolithic series, and the main types of Cordoned Urn, is too striking to be accidental, and the coarse undecorated flat-based vessels from Rinyo (Orkney) tell the same tale. There seems to be no valid reason for not regarding the Cordoned Urns as again derivative from Secondary Neolithic wares and perhaps of Irish origin, and the features they sometimes share in common with certain Overhanging Rim (collared) urns as the result of these vessels also deriving from Secondary Neolithic pottery styles in regions farther south."

Urn I from Girvan emphasises the connections with Ireland mentioned above. For example its internal decoration (Fig. 3), impressed with a twisted cord and consisting of two horizontal parallel lines connected by many parallel diagonal lines, is almost identical to that on the outside of a rim sherd from an urn-shaped Class II vessel from Lough Gur 15. This has a cordon a short way below the rim and, between it and the rim, a pattern of impressed lines made with a twisted cord and consisting of one horizontal line close under the rim and several parallel diagonal lines joining this to the cordon 16.

<sup>6</sup> Anderson is apparently not a common name in this part of Ayrshire; during the period 1840 to 1880 only three could be traced in the parish records, the other two being an innkeeper and a flaxworker. This information comes from Mr. D. Conn. 7 J. Harker 1877 (illustration); W. J. Varley 1938, p. 170, no. 10.

Lowe and Anderson 1894.

Lowson 1882. I am indebted to Dr. Longworth for drawing my attention to these two

sites.

1 Livens 1958, p. 230.

11 Abercromby 1912.

12 Piggott 1954, p. 276 ff.

13 Piggott 1954, p. 165 ff.

14 Piggott 1962 p. 96.

15 O'Riordain 1954, p. 377 & Pl. XXXV no. 1.

16 However H. Case has recently questioned O'Riordain's dating of the Class II ware from Lough Gur (Case 1961, p. 196 ff.).

It has thus become clear that "the cremation cemeteries of the Scottish Bronze Age, whether isolated, grouped in cemeteries, within a ritual enclosure, or under a cairn, represent the re-emergence of a group of Secondary Neolithic ceremonial traditions after the initial impact of the single-grave inhumation rite, introduced from over the North Sea, had waned."<sup>17</sup>. The cordoned urns from Girvan therefore probably date from some time between the Late Neolithic period, in the first half of the second millennium B.C., and the arrival of new, presumably Celtic, peoples at approximately the middle of the first millennium B.C. There are no more accurate indications of their age.

#### POSSIBLE PRE-FUNERARY USE OF THE URNS.

As described in Appendix 'A', Urn I had a thin coating of a hard carbonaceous substance adhering to the exterior surface below the rim. This, since it covered the impressed decoration in several places, must have accumulated after the vessel was shaped and decorated. It must have become attached after the vessel was fired because it covered clay of the normal light brown colour as well as the band of blackened clay under the rim which presumably resulted from the firing of the vessel in an inverted position. It seemed possible that this coating was evidence of the vessel having been used for some other purpose before it became a burial urn and so a sample of the deposit was submitted to Dr. R. I. Reed of the Department of Chemistry for analysis in the Mass Spectrometer. As described in Appendix 'C' the analysis showed that the substance is unlikely to be of human or organic origin and its nature remains obscure.

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#### APPENDIX A: THE THREE URNS

URN I: (Fig. 3; Pl. 2: Museum no. L. 1961.1)

A hand-made, barrel-shaped non-symmetrical vessel with a narrow, presumably flat base, standing 15 ins. in height (before restoration; its original height was probably 17 or 18 ins), and with a diameter across the mouth of nearly 14 ins. The clay is light brown in colour inside and outside but blackened in an irregular band on the exterior surface to about 3 to 4 ins. below the rim; the clay is relatively well-fired and non-gritty but the interior of the vessel does not appear to have been smoothed. The vessel is decorated with three cordons, apparently pinched-up, two on the exterior with another inside about 11 ins. below the rim. A band of impressed decoration, made with a twisted string applied to the wet clay, occupies the space between the rim and the upper cordon. It consists of a zig-zag line forming twenty triangles, alternately upright and inverted, between two pairs of horizontal lines. Each triangle is filled in with hatching of parallel lines, the inverted ones being hatched horizontally, the others more or less vertically.

A coating of a hard, black, carbonaceous substance covered the top part of the band of impressed decoration and occurred in thinner patches on the interior of the vessel. The coating had filled in the impressed lines in places and covered both the blackened layer of clay and part of the light brown area.

This urn contained a cremated human burial (Appendix B, URN II: (Fig. 4; Pl. 3: Museum no. L. 1931.2)

A small, barrel-shaped, hand-made vessel of coarse clay with large grits projecting from its surface. The outer surface is reddish and the interior black with the black area extending over the rim on to the outer surface for a distance of about  $\frac{1}{2}$  in. below the rim. The decoration of this vessel consists of a single cordon, apparently pinched-up.

The urn contained a human cremated burial without grave goods. (Appendix B, p. 25).

The 1861 collared urn: (Fig. 6; Pl. 4: Museum No. A. 138)

A large, hand made urn with a rim bevelled slightly inwards, wide collar, vertical straight neck and a body tapering sharply

to a very narrow base (the terms for the various parts of the vessel are those recommended by Longworth (1961, p. 263). It stands, after restoration of the base, 19 ins. high with a diameter across the mouth of 16 ins. The clay is light brown in colour on the exterior, hard fired and with a darker interior and rim bevel. The interior has been carefully smoothed, in contrast to Urns I and II.

The decoration, which occurs on the rim bevel, collar and neck, is formed by the impressions of a thin whipped cord so tightly bound that the segments, as well as being sharply defined, are almost at right angles to the line of the string. The rim bevel has a simple criss-cross pattern. The collar has a zig-zag band forming 30 triangles which are all filled with hatching of parallel lines. On the neck are zones of vertical rows of small horseshoes alternating with panels of vertical lines containing diagonal hatching in a herringbone pattern.

#### APPENDIX B: THE HUMAN REMAINS

The observations in this Appendix are those of Dr. Archibald Young of the Department of Anatomy.

# In Urn I: (Museum no. A. 1961, 16)

The bones seems to be those of a female, probably between 20 and 22 years old, accompanied by those of an infant which died in about its 7th month of intra-uterine life. These deductions are based on the following observations:—

1) Adult bones: the epiphyses between the head of the femur and the shaft were completely fused as also were those between the head of the humerus and the shaft; the discs of the vertebrae were thicker than those of Burial II (see below) and the upper and lower surfaces were complete and fused (this fusing apparently occurs before the age of 20-22).

2) Infant bones: very small examples of the following bones were tentatively identified: part of the atlas (with some degree of confidence), part of the sacrum, part of the temporal bone of the skull (very tentative), part of a humerus and part of a tibia (the last two also very tentative).

# In Urn II: (Museum no. A. 1961.17)

The bones in this urn seemed to be those of an adolescent, probably between 14 and 16 years old. This deduction is based on the following observations:—

1) There was no fusion visible on the following epiphysial surfaces: the pelvis, the proximal and distal ends of the tibia, the proximal end of the femur, the proximal end of the humerus and the distal end of the radius.

2) The epiphysial surfaces of the bones mentioned above were ridged and pitted in the way characteristic of non-fused bones.

3) The discs of the vertebrae were thin, indicating that they were not fully developed and had cartilage between them.

4) The bones gave the general impression of being lightly built and probably female.

#### APPENDIX C : OTHER FINDS

# (1) Flint scraper: (Fig. 2, b1: Museum no. A.1961.10) 18

Made from a struck flake of white flint from a prepared core and showing striking platform, bulb of percussion and, on the other side, a negative bulb of percussion. Secondary working forms the scraping edge and the flint is severely crackled by heat. Context: Urn burial I; found among the stones collected from the base of the urn-pit and therfeore probably thrown into the pit after the urn was inserted.

# (2) Flint scraper: (Fig. 2, b2: Museum no. A.1961.14)

Made from a flake of white flint struck from a prepared core and exhibiting striking platform, positive and negative bulbs of percussion, secondary working round the edge and severe heat crackling. *Context*: among bones inside Urn I.

# (3) Granite object: quern rubber? (Pl. 9; Museum no. A.1961.15)

The flat under surface and rounded upper surface suggest that this object might be a quern rubber. Much of the granite crumbled off before the object arrived at the Museum so its original appearance is only ascertainable from the two photographs. Context: in the black earth of Pit 9 and therefore presumably of the Middle Bronze Age.

# (4) Two sherds of a Mediaeval dish: (Fig. 5; Museum no. C.1961.40)

Made of hard-fired, wheel-turned grey clay with traces of a green glaze on the light brown outer surface. Context: found at

a depth of 1.2 feet in the stratum of grey soil containing coal fragments.

## (5) Coins:

Two coins were picked up by bystanders near the site of the two urns and presumably came from the topsoil. They were identified by Miss Anne Robertson, Curator of the Hunter Coin Cabinet, and Dr. John Walker, Keeper of Coins in the British Museum, as (a) a farthing of uncertain date, Victorian or earlier, and (b) a coin from an Indian native state, possibly Satara, dating from the 18th century.

## (6) Flints: (Museum no. A.1961.60)

Several flints were found during the excavations in the grey topsoil and by bystanders on other parts of the building site. They include, in the former category, four struck flakes of white flint, and a fragment, possibly of a core of light brown flint, and in the latter, a fine core of light brown flint.

## APPENDIX D: THE MASS SPECTROMETER ANALYSIS.

Dr. Rowland Reed, of the Department of Chemistry, and Mr. Hill, one of his students, submitted a sample of the encrustation on Urn I to an analysis in the Mass Spectrometer. Both were of the opinion that there was no organic substance in the sample which was involatile and lacked any form of detritus. A second analysis seemed to confirm this; the investigators could find no trace of substances, such as phosphorus, which are usually found in material of organic origin.

<sup>18</sup> In the drawing of the two flint scrapers in Fig. 2 the areas shaded with dots indicate surfaces fractured by heat and not, as is the more usual convention, unworked areas of the outer surface or cortex of the flint.