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# THE EXCAVATION OF TWO TUMULI AT FOURKNOCKS (SITES II AND III), CO. MEATH 

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Plates I-XXVI
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## General Summary

Site II During the Neolithic period Passage Grave builders constructed an ovoid tumulus that measured 28 m by 24 m and around 4 m in height. The tumulus, surrounded by a ditch, covered two separate monuments: a bellshaped cairn and a megalithic passage with a trench placed transversely to it. The passage and trench were used for human burial. During the Early Bronze Age the site had a secondary use; at that time burials, some of them in cists, were inserted into the tumulus.

On the south-western side of the site a hoard of Hiberno-Norse coins was discovered (see Appendix). In fairly modern times a lime-kiln was built into the edge of the mound on the northern side.

Site III This was a small tumulus about 13 m in diameter and 2 m in height, composed of layers of sod, clay and stones. It covered a central pit that contained some cremated human bone. High up in the mound a food vessel and an urn were found. The latter contained the cremated remains of a young child.

## Introduction

In the adjoining parts of east Meath and north Co. Dublin there is a group of tumuli, Neolithic or Early Bronze Age in date (Hartnett 1957, 262-69). Three tumuli of this group, which were situated at Fourknocks, were investigated during the years 1950-52 by Mr. P. J. Hartnett, then of the Irish Antiquities Division, National Museum of Ireland. The townland of Fourknocks ${ }^{1}$ is located in Co. Meath, near the east coast of Ireland, within 8 km (c. 5 miles) of the sea and over 30 km (c. 20 miles) north of Dublin City. It occupies the highest point of one of the many east-west saddle-backed ridges which are a feature of the local topography.

[^0]Site I at Fourknocks, a cruciform passage grave with secondary Early Bronze Age burials, was completely excavated in 1950. In the following year Mr. Hartnett commenced the investigation of a nearby tumulus (Site II). The investigations of Site II were completed in 1952 and also in that year Site III was excavated. A detailed report on Site I was published in the Proceedings of the Royal Irish Academy, Vol. 58 C (1957), 197-277. Ill-health and pressure of work prevented Mr. Hartnett from completing reports for publication on Site II and Site III. However, Mr. Hartnett compiled a card-index of the finds, and had illustrations prepared. The plans and sections were redrawn and the photographic negatives were indexed. I had worked with Mr. Hartnett on the excavations, and shortly before his death on 3rd October 1966 he handed on to me his notes, photographs, plans and sections of Site II and the report published below is based on this data. The report on Site III is based on notes and other information supplied by Mr. J. R. W. Goulden in February 1970, from a ground plan and sections (reproduced from a lantern slide in the National Museum), and from meagre notes in the National Museum. The reports are an attempt to put on record as full a factual account of the excavations as is now possible. But unfortunately they lack the authority and detail that they would have had if Mr. Hartnett had prepared them.

As with Site I the finds from Sites II and III are preserved in the National Museum of Ireland. ${ }^{2}$ The objects from Site II are numbered E18: 1-144; those from Site III E19: 1-11. In the text the finds from each site are described under their respective numbers and when illustrated the relevant registration number is given.

George Eogan.

## Site 11

Site II occurs about 100 m to the east of Site I. It was built on slightly higher ground, approximatety $510^{\prime}$ O.D. Before excavation the site appeared as a grass-covered mound around $25-30 \mathrm{~m}$ in diameter and 4 m in maximum height (Pl. V). On the north side there was a horseshoe-shaped depression and a modern bank fence ran along the north-eastern side near the base. Some attempts at illicit digging took place during the 1930's but the pits had consolidated and were not apparent before excavation.

As at Site I, a grid of 5 m squares was laid out so as to give main north-south and east-west sections through the mound. These met at right angles on the centre between squares C2, C3, D2, D3. The measurements of all finds are taken from the central peg (see Fig. 1). Squares to the left of a line between sqs. C1 and D1 and C5 and D5 are referred to as being on the west; those to the right of it being on the east. Similarly, squares above a transverse line between sqs. A2 and A3 and sqs. E2 and E3 are referred to as being on the north; those below it as being on the south. For instance, the co-ordinates for the central point in Sq. B2 are-Central Peg (C.P.) to the north (N) 2.5 m ; to West (W) 7.5 m .

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Fig. 1-Fourknocks II. Contour plan and index to squares.

Site II had two main periods of use: firstly, during the Neolithic when a tumulus which covered a number of structures-cairn, trench and megalithic passage-was constructed and secondly, during the Early Bronze Age when burials were inserted in the mound.


Fig. 2-Fourknocks II. The composite monument.

## I: Neolithic (Fig. 2)

The composite Neolithic monument is described under five sub-headings: the round cairn; the outer ditch; the megalithic passage; the transverse trench. The mound, which was delimited by the outer ditch, covered the round cairn, the megalithic passage and the transverse trench.

The Round Cairn (Figs. 2, 3 and 4a (W-E): Pls. II, IV, VI-IX). This bell-shaped cairn was built on the old ground surface. It averaged 8 m in diameter and reached its maximum height of 1 m in the centre. The cairn consisted of four main layers. The basal layer was of shingle-like material. Then there was a band of clay or soil, $5-10 \mathrm{~cm}$ thick, whose centre was covered by a dome-like layer of heavier stones. Down the side smaller stones occurred. The


Fig. 3-Fourknocks II. Sections across cairn.
cairn was surrounded by an unbroken ditch with a U-shaped cross-section. Between the inner lip of the ditch and the edge of the cairn there was a berm about 1 m in width. The ditch, 12 m in overall diameter, averaged about 1 m in width at the mouth and was 40 cm in average depth. The layer of earth already noted, on top of the layer of shingle, was material thrown up from the ditch and more of it was mixed through the layers of shingle-like material and stones. The fourth layer, a capping which covered the cairn, was also upcast from the ditch. In thickness, over the centre of the cairn the capping was only around 10 cm , but it increased in thickness towards the edges. Some of it had silted into the ditch. On excavation, the capping showed up as a loose layer of grey soil (see Fig. 3).

Underneath the cairn, but slightly off-centre, a shallow pit with inwardsloping sides had been dug. The pit was oval in shape at the mouth and measured
approximately 65 by 55 cm (N.W./S.E.). It was 25 cm in depth. The fill consisted of charcoal, through which a few scraps of cremated bone had been mixed. It was covered by thin flags. Along the edge, stone settings formed a rectangular outline (Pl. IX). A few fragments of unburnt bone (E18:137) and a flint chip (62) were found on the old ground level under the cairn. Between the pit and the edges of the cairn there were disordered stone settings. The stones forming these ranged in length from 12 cm to 40 cm and were placed on the old ground surface. All the settings were gapped (Pls. II (right), VII and VIII) and they tended to lie concentrically with the ditch. The outermost of the settings was in three parts, these occurred on the southern, western and northern sides. The segments consisted of nine, twelve and nineteen stones respectively. On the inside of the northern segment were three short settings placed concentrically to it. On the south side, inside the segment of the outer setting, there was a D - or horseshoe-shaped setting of sixteen stones, but at one point in it there was a gap. Inside this setting some stones were laid down in a haphazard fashion.

Outer Ditch (Figs. 2, 4, 6; Pls. I, IV, X).
At some time after the construction of the cairn, when its ditch had partly silted up, an outer ditch that enclosed an ovoid area $28 \mathrm{~m}(\mathrm{NE} / \mathrm{SW})$ by 24 m (NW/SE) was dug. This ditch was penannular, and averaged 1.25 m in maximum width and 1 m in depth. It tended to have a U-shaped cross-section with smooth sides and a wide rounded bottom. On the north-eastern and southern sides the ditch was cut into the rock. The upcast was thrown inwards, part of it (see Pl. IV) covering the round cairn and its partially silted-up ditch.

The ditch, filled up with stones and earth that had slipped down from the mound, was not visible before excavation. (Fig. 6; Pl. X).

## Megalithic Passage (Figs. 2, 4; Pls. III, XI, XII).

A gap, 3.75 m wide, in the outer ditch on the north-eastern side gave access to a roofed megalithic passage averaging 80 cm in height. This ran from north-east to south-west with the entrance on the north-eastern side. It was 4.30 m in length and from a width of slightly over 1 m at the entrance it narrowed to about 60 cm at the junction with the transverse trench. It was constructed from orthostats, seven on the south-eastern side, and six on the north-western side. With the possible exception of No. 11 all were set in sockets. Orthostat No. 1 was represented by a socket, but a stone lying transversely across the passage a short distance in from the entrance may be the displaced orthostat. Only the stump of No. 13 survived. The orthostats varied in shape and size: No. 12 was the largest, being 1.40 m in maximum height by 1 m in maximum width; No. 8 was only 40 cm in maximum width and 1 m in height. Three capstones survived in position, but the broken remains of a fourth-a blue flag-were found in the front part of the passage. The capstones in situ were of limestone, and covered only the inner part of the passage. The crevice between each capstone and the next was filled with small stones. The outer capstone was 1.60 m
across, the middle 1.28 m , and the inner 1 m across. From the elevation it would appear that the roof of the passage sloped downwards as it led in from the entrance. Small stones were inserted on top of Orthostats Nos. 5 and 10 to increase the height at the sides. Resting on these, below the capstone, there was a flag of banded shale. When found, this was broken in the centre. A narrow channel ran down the centre of the passage. For most of its length it was parallelsided and averaged 30 cm in width and 20 cm in depth but widened out at the entrance. The channel, which contained a loose fill of large stones, had a U-shaped cross-section. The large burial deposit described below (E18:133) lay in the inner part of this channel.

The outer part of the passage was completely filled with earth and the roofed portion was filled to within 20 cm (c. 8 in ) of the capstones. The fill of the passage was stratified but the exact nature of the stratification is not particulary clear. There certainly were two main layers. The lower half of the passage was filled with shingle-like material and earth, covered by a layer, about 30 cm thick, of loose silt. But the stratification may have been more complex with four layers represented. (i) A basal layer of stone mixed with earth. In the main, this filled the channel. (ii) On top of this there was earth, and over it (iii) another layer of stones and earth. (iv) Silt filled almost half of the upper part of the passage.

Burials had taken place within the passage but, as was the case with all the bones from Fourknocks II, they were very fragmented and incomplete and it was not possible for Professor Keenan to give detailed information regarding age, sex, etc. It appears that there were three separate burial deposits in the passage and what follows here is an attempt to reconstruct these from Mr. Hartnett's notes.

What seems to have been the largest of the three deposits lay over the floor of the central channel in the inner third of the passage (Layer (i); PI. XIII). Some stones that were found near the bottom of the orthostats might have been intended as some form of protection for the burial. This considerable deposit consisted of a mass of cremated human bone (E18:133) with the inhumed remains of children (E18:133a) scattered through it. The cremated bone represents the remains of at least four adults. The skeletal remains represent at least eight children, viz. a child aged about five years, a child at birth, two children in the first year and at least four infants.

A pin (antler or bone) and parts of at least two others were associated with the deposit (E18:104). The complete pin is 97 mm in length. It was scorched by fire and the stem has been broken at two points. The articular end of a sheep's metacarpel, which might be the head of this pin, also turned up (Fig. 5).

One of the pieces is the pointed end of a pin. This fragment is of round cross-section and it is 42 mm in length. Its blackened appearance shows that it was burnt in a fire (Fig. 5, bottom of left column). The third fragment is a piece of stem. It has an irregular cross-section (Fig. 5, top right on left column).

In the layer of shingle-like material (iii), above the deposit just described, a quantity of cremated bone was found. This consisted of the cremated skeletal
remains of an adult human, fragmented skeletal remains of at least two children (cremated?) and a small fragment of non-human bone (E18:134).

In the outer third of the passage, in the upper layer of silt (iv), further remains were found. These consisted of the cremated skeletal remains of an adult human, the cremated skeletal remains of a child and a premolar from an adult human (E18:135). In his notes Mr. Hartnett suggested that these bones might have slipped down "from above" but it is not clear from where they could have come.

Transverse Trench (Figs. 2, 4, 6 (bottom); Pls. XIV-XVI).
The megalithic passage ended at a trench which it joined at right angles around mid-point. The combined features thus produced a T-shaped plan. Approaching the trench, the floor of the passage dipped down, and for a distance of 40 cm in from the edge of the trench the boulder clay had been removed to reveal the surface of the rock. The trench was parallel-sided and the ends were slightly rounded. It was 10.60 m long, 1.60 m in average width and about 1 m in maximum depth. The upper $50-60 \mathrm{~cm}$ were dug through the boulder clay, but the basal portion had been cut through the rock. In the side of the trench, opposite the passage, and extending on to the south-east corner, the lip and sides were faced with large stones, some of which were set upright (Pl. XIV). The fill around them contained a large amount of charcoal which consisted of the woods of ash (fraxinus), hazel (corylus), oak (quercus) and willow/poplar (salix/populus). The bottom and sides of the trench showed very considerable evidence for intense heat, they were vivid red in colour and the burning extended inwards into the undisturbed subsoil for some distance. Four hollows or pits occurred in the base of the trench (Fig. 2). These were fairly evenly spaced. One was near the west end, another in the eastern corner, while between them were the remaining two, these were the largest of the four pits. For the purpose of subsequent reference they are being numbered from 1-4; the western pit is No. 1, the eastern No. 4. The bottom of the trench was covered with a homogeneous mass of charcoal, very wet and mushy, but containing a number of solid pieces 5 cm in length. Amongst these were represented the wood of ash (fraxinus), hazel (corylus), oak (quercus) and willow/poplar (salix/populus). In general, the charcoal layer was covered by a thin film of red burnt soil. Above this there was a fill of mixed soil with much scattered charcoal. This fill yielded a sherd of pottery (Fig. 9:93). The trench was buried beneath the mound. In the strata unbroken turve layers were clearly visible and over the trench these dipped in concentric bands (Fig. 6 (bottom)).

The trench yielded deposits of human remains which were found in or close to the pits already described. Pit No. 1 contained a small quantity of badly crushed cremated bone (E18:141) mingled with clay. It has not been possible to identify the remains except to say that they were probably human. With the bone were pieces of worked antler (Fig. 5: 102). These were in a very bad state of preservation and two pieces were exceedingly fragile. Two of the pieces could be joined but all may have been from a large pin (cf. Macalister, Armstrong and Praeger, PRIA. 29C (1912), 336, Pl. XXIV, 1, 3-from Cairn K, Carrowkeel).


In pit No. 2 and close to it (Sq. D1, 7.50m to N/3 to 4 m to E.) a large amount of cremated bones was found (139, see Pl. XVI). The bones have been identified as cremated skeletal remains of an adult human. With them was a badly charred piece of antler (?) worked, 6.00 cm in length and 2.7 cm by 1.8 cm across, and ending in a blunt point (Fig. 5: 103). There was much burnt soil and charcoal through the deposit. Underneath, but separated from it by a thin layer of burnt soil, was a large deposit of powdered charcoal. This rendered identification difficult but it appears that hazel wood (corylus) predominated, with slight evidence for the use of willow or poplar (salix-populus).

Opposite the junction with the passage to the west of pit No. 3 a large amount of cremated bone was found (E18:127), near the bottom of the rock floor of the trench. A considerable quantity of charcoal and hard baked clay mixed through the deposit suggested that the body had been burnt in situ. The remains have been identified as those of an adult human. Dr. P. O'Connor identified a charcoal sample as hazel (corylus).

Pit No. 4 also had a deposit of cremated bone, the skeletal remains of an adult human, mixed with charcoal and clay (E18:140). The charcoal consisted of the woods of ash (fraxinus), hazel (corylus) and willow or poplar (salix/ populus).

## Other primary burials

Parts of an uncremated human skull, in a decayed condition, were found in yellow soil in Sq. C3 (4 m. to S; 2m to W; Depth 60cm). Professor Keenan identified amongst the remains two fragments of mandible, 7 molars, 3 premolars, 1 canine and 4 unerupted teeth. There was no indication of the presence of a body. As there was no evidence in the overlying section for the presence of a pit it would then appear that the burial was made by the builders of the mound.

In Sq. C2 (3m to $\mathrm{N} ; 50 \mathrm{~cm}$ to W .) at a depth of 40 cm above old ground level in the sod mound under the central layer of cairn a few pieces of unburnt but very decayed bone were found. It has not been established if these bones are human. A flint scraper lay near them (No. 58, see page 56, and Fig. 8).

The Covering Mound (Figs. 4 (top), 6, 7; Pls. I, IV).
At some time after their construction, the round cairn and the megalithic structure were covered by a mound. This was delimited by the ditch already described (the "Outer ditch"). As previously mentioned, the first material laid down was upcast (boulder clay and rock chipping) from the ditch. The main basal layer, which consisted of redeposited sods rose to a height of 1.80 m Through this layer dark lines were clearly visible, showing that sods retaining a considerable amount of vegetation were used. Covering the central part of this layer, an area about 11 m in diameter, there was a layer of blue-coloured soil. This has a wavy surface, tending to give a stepped profile, and it projects upwards around the edge. This feature could be due to settling, but it is also possible that the upward-projecting edge and the "trench"-like feature on its inside may be deliberate so as to prevent outward slip of the edge of the stony layer above it.


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Fig. 6-Fourknocks II. Subsidiary sections at various points along the edge of the mound. For key to positions see Fig. 2.

In places the outer edge is folded back over the stony layer. This blue layer is covered with a layer of small stones and shingle-like material nearly 1 m in maximum thickness. On the centre of this small stone layer there is a layer of blue clay $7-4 \mathrm{~m}$ in diameter and up to 50 m thick. In turn, this is capped with a dome-like layer of fairly large stones which also extends outwards on to the lower layer of cairn.

The exposed surface of the outer part of the lower sod layer and its "dome" is covered by another thin layer of sods to bring the total height of the mound to 3.75 m . On the surface of the periphery of the mound there was a band of cairn material. This was similar to that found in the lower layer of cairn in the central complex. The band extended inwards from the ditch for an irregular distance of slightly over 4 m in maximum and 1.50 m in minimum width. Subsequently, part of this layer slipped outwards over the ditch and for a short distance beyond it. Amongst a scatter of stones in the fill of the ditch on the southern side of the tumulus, in Sq. C5 at a depth of 45 cm , there were a number of large pieces of quartz each weighing about 2 lb , and some rounded sea or river pebbles. According to Professor Seymour, the pebbles could have come from glacial drift.

## Finds from the Mound

The following find inventory describes those objects which were found in an undisturbed position and, therefore, can definitely be associated with the construction of the mound. A few objects which were found in a disturbed position are also included as their form suggests that they might originally have been used by the builders of the mound. These objects are Nos. 6, 7, 8, 13, 41 (stone), $9,10,11,40,43,46$ (flint), 65, 69, 70 and 96 (pottery).

Stone (Fig. 8).
Twelve stone objects, the present shape of which is due to the work of man, or which were used or could have been used by man, were recovered. No. 1 is a chert hammer stone, No. 4 (sandstone) and No. 6 (chert found in upcast from the kiln) are parts of stone axe-heads and it is also possible that No. 41, which was found in a disturbed area near the kiln, could be a chip detached from a chert axe-head. No. 13 is a narrow, steep-nosed chert scraper. Nos. 2 (sandstone) and 7 (sandstone shale) are whetstones, and No. 8 (chert) may also be part of a whetstone. Nos. 7 and 8 were found in disturbed material. No. 3 is a somewhat rounded quartz pebble. The object was found in a primary position, but despite this it is difficult to say if it corresponds to the round "balls or marbles" found in Fourknocks I (Hartnett 1957, 231, 235-6).

No. 5 is a stone marble. This was found in the upcast from the kiln and is probably modern. No. 27 is a chert blade that has working along one edge. There is also some working along one edge of No. 51, which is a piece of quartz.

1. A heart-shaped pebble of plano-convex cross-section. The plane surface is polished as from use as a smoothing or burnishing stone. The narrower end is


Fig. 7-Fourknocks II. Section across mound and lime-kiln.


Fig. 8-Fourknocks II. Finds of stone and flint from the mound.
pitted as from use as a hammer. Material, chert. Sq. C2. c.p. 8.00 m to West; 4.60 m to North. Depth 16 cm . On top of cairn layer.
2. Parallel-sided stone of flat oval section, with rounded thickened ends. Length 14.5 cm . Both faces show signs of use as a whetstone. Material, sandstone. In yellow clay. Sq. C4, 6 m to $\mathrm{S} ; 2 \mathrm{~m}$ to W . D. 2.20 m .
3. Remarkably smooth pebble $3.6 \times 3.4 \times 3.2 \mathrm{~cm}$. The surface is covered with dark spots (vegetable stains). Material, quartzite. On top of outer spread of cairn. Sq. D4. 7.60 m to $\mathrm{S} ; 3 \mathrm{~m}$ to E .
4. Fragment, greatest dimension 5.0 cm , from a polished stone axehead of oval cross-section. Material, sandstone. Sq. C3. 3.21 m to $\mathrm{S} ; 1.45 \mathrm{~m}$ to W. D. 40 cm .
5. Marble, likely modern. In disturbed material in Sq. D1, 6 m to $\mathrm{N} ; 1.40 \mathrm{~m}$ to E. D. 70 m .
6. The lower part of a polished stone axe-head which had sloping, perhaps facetted, sides expanding to a shallow curved, sharp cutting edge. Tiny pinlike holes due to weathering show along the edge bevels. Found among the upcast material from the kiln. Material, shale. Sq. D1. 6.10 m to $\mathrm{N} ; 3.70 \mathrm{~m}$ to E. (Fig. 8).
7. A square-sectioned tapering stone, one face of which shows definite signs of use as a whetstone. Length 12.5 cm , narrows from 5.5 to 3.5 cm . Found among upcast from kiln. Material, sandstone shale. Sq. C0. 14.40 m to $\mathrm{N} ; 1.55 \mathrm{~m}$ to W. D. 45 m .
8. A fine-grained reddish stone which might be part of a whetstone, or else the butt end of an axehead. It is of quadrangular cross-section and tapers to a blunt wedge at the butt where a slice of the stone has been taken off. Found in the upper part of the filling of surrounding ditch to mound in Sq. D0. Material, chert. (Fig. 8).
13. A steep-nosed scraper. Chert. From stones of cairn spread along edge at depth 50 cm in Sq D1. 7.20 m to N ; 2.10 m to E. (Fig. 8).
27. Triangular blade of chert with sloping striking platform and prominent percussion bulb. Delicate trimming along one edge. Sq. C3. 4.50 m to S .2 m to W. D. 26 cm in hard packed yellowish soil. (Fig. 8).
41. Thin slice of chert struck from a polished axehead. Greatest dimension 3.5 cm . From disturbed area near kiln, in Sq. C1. 7.2 m to $\mathrm{N} ; 3.80 \mathrm{~m}$ to W .
51. Wedge-shaped fragment of white quartz worked to a sharp bevelled edge. Sq. C 5.12 m to $\mathrm{S} ; 90 \mathrm{~cm}$ to W . In fill of enclosing ditch to mound.


Fig. 9-Fourknocks II. Finds of pottery from the mound. All are primary except No. 76. This is possibly part of a cinerary urn that accompanied a destroyed Secondary Burial, see p. 73.

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## Flint (Fig. 8)

Of the pieces of flint discovered forty (Nos. 14-19, 23-39, 42, 44-46, 48-57, 59-61) were found in undisturbed position in the body of the mound and three (Nos. 47, 58 and 62) were found on the old ground surface. Nos. 9 to 12,40 and 43 were discovered in disturbed material.

The raw flint used was seemingly derived from a beach or from glacial deposits. In fact, No. 33, which was probably a beach pebble due to its rolled surface, may have been intended for knapping and the pieces Nos. 10, 14, 30, $31,36,47$ and 59 could have been struck from a similar pebble. With the exception of No. 31, these last pieces together with Nos. 11, 12, 15, 18, 19, 25, $28,29,34,40,48,53,60$ and 62 are waste pieces, some being quite small chips, derived from flint working. With No. 15, however, it seems that it was intended to fashion it into a "thumb"-scraper. No. 52 is a flat, oval pebble with an exceedingly smooth surface. This object was found in primary position, but it is impossible to be certain if it had a use. Conceivably, it could have been used as a burnisher. No. 46 is a flake of greyish stone, probably fine-grained flint breccia.

Finished artefacts are rare, but amongst these are represented two wellknown types-"thumb"-scrapers and hollow-scrapers, types that are found on practically every Neolithic site in Ireland. There are three good examples of "thumb"-scrapers represented (Nos. 31, 42 and 54) but Nos. 39 and 50 can be considered as crude examples of the same type of artefact. No. 24 is a small "thumb"-scraper.

Hollow-scrapers. There are only two good examples, Nos. 58 and 61, and of these only No. 58 has survived in a complete form. Nos. 23, 49a and 57 have slightly hollow scraping edges and No. 32 has a double hollowed scraping edge. Nos. 26 and 38 could have been parts of a large leaf-shaped implement.

Miscellaneous. Nos. $9,11,16,17,35,37,43,45,49,55$ (two flakes) and 56 are irregularly-shaped pieces that show evidence of a secondary working along some part of the edges. There is some trimming around the nose of No. 16. As a result that portion of the artefact resembles a thumb-shaped scraper.
9. Tip of a ridged blade with pressure flaking on edges along the dorsal surface. Grey/white patina. Surface find. Sq. D2. 1.20 m to $\mathrm{N} ; 50 \mathrm{~cm}$ to E. (Fig. 8).
10. A struck flake, 5.3 cm greatest dimension, with chalky white patina. Surface find. Sq. E 2.50 cm to $\mathrm{N} ; 8 \mathrm{~m}$ to E .
11. Thin flake with steep secondary trimming on its rounded edge. White/grey patina. Under top sod. Sq. C3. 2.60m to S; 3m to W. (Fig. 8).
12. Butt of ridged blade, with sloping striking platform and prominent bulb of percussion. Crude trimming on both sides. White/grey patina. Greatest dimension 2.5 cm . Find stratum not recorded. Sq. D3. 75 cm to $\mathrm{S} ; 2.90 \mathrm{~m}$ to E .
14. Struck flake from an oblong pebble, showing bulb of percussion. Chalky white patina all over. Portion of cortex showing at one end. From body of sod mound at a low level. Sq. D1. 7.30 m to $\mathrm{N} ; 3.00 \mathrm{~m}$ to E . D. 70 cm .
15. Struck flake intended to be trimmed as a round scraper. Ochreous staining on dorsal surface, greyish patina on flake surface. Greatest dimension 2.6 cm . From body of sod mound at a low level. Sq. D1. 7.10 m to $\mathrm{N} ; 3.00 \mathrm{~m}$ to E .
16. Parallel-sided struck flake, with sloping platform and prominent bulb of percussion. Delicate trimming along one edge is carried around the curved end. Creamy white patina. From body of sod mound at a low level. Sq. D1. 6.90 m to $\mathrm{N} ; 2.40 \mathrm{~m}$ to E . (Fig. 8).
17. Fragment ( 3 cm ) of a flake of triangular section with slightly serrated edge showing patch of heat glaze on edge. Honey-coloured flint. On top of sod material of mound. Sq. D3. 1.50 m to $\mathrm{S} ; 90 \mathrm{~cm}$ to E . D. 25 cm .
18. Struck flake, greatest dimension 3.0 cm , with sloping striking platform and prominent bulb of percussion. White porcellaneous patina which is broken along the edges by later trimming. In sod mound at a low level. Sq. D1. 8.50 m to $\mathrm{N} ; 2.90 \mathrm{~m}$ to E .
19. Fragment ( 2.7 cm greatest dimension) of translucent brown flint with longitudinal flake scars on dorsal surface. In sod mound at a low level. Sq. D1. 6.90 m to $\mathrm{N} ; 1.20 \mathrm{~m}$ to E .
23. Thin struck flake of pinkish-grey flint. Part of the edge has been worked as a hollow-scraper. Almost at right angles to the bulbar surface there is steep trimming. From upper level of sod mound. Sq. B5. 10.10 m to $\mathrm{S} ; 3.30 \mathrm{~m}$ to W. (Fig. 8).
24. Small end or keeled scraper with almost vertical flaking on the working edge, and a flat under surface. Colour is light brown with greyish flecks. Found in top of primary mound under humus. Sq. A3. 1.80 m to S ; (?) to W. D. 10 cm .
25. Struck flake of pinkish grey flint with narrow bulbar end and wide curved base. Probably struck from same core as No. 23, above. Greatest dimension 4.0 cm . Found on slope over black layer. Sq. D0. 10.90 m to $\mathrm{N} ; 3.45 \mathrm{~m}$ to E. D. c. 15 cm .
26. Triangular fragment with curved bevelled base, part of a larger leaf-shaped blade. There is secondary trimming on the curved edge and the dorsal surface has been subsequently polished. Cf. No. 38. Found over black layer as No. 25. Sq. D3 (?) to S; 4.10m to E. (Fig. 8).
28. Triangular flake with chalky white patina. Greatest dimension 2.6 cm . Sq. B4. 5.62 m to $\mathrm{S} ; 5.80 \mathrm{~cm}$ to $W$. D. 35 cm . In hard packed yellow soil.
29. Chip, 2.4 cm greatest dimension, from the trimmed surface of a larger flint. Sq. B4. 7.40 m to $\mathrm{S} ; 5.6 \mathrm{~m}$ to W. D. 32 cm .
30. Oval chip, greatest dimension 3.1 cm , struck from the outside of a pebble. Dark grey core with an uneven grey/white patina on the cortex surface. Sq. B3. 1.70 m to $\mathrm{S} ; 7.75 \mathrm{~m}$ to W . D. 35 cm at bottom of black peaty soil.
31. "Thumb"-scraper made from discoidal pebble. The original cortex remaining on the convex surface has an orange patina; the bulbar surface has a faint mottled-grey patina. Rather crudely trimmed on working edge. Sq. B3. 3.90 m to W. D. 15 cm . (Fig. 8).
32. A double hollow-scraper made on a thin flake of light grey flint. Sq. D3. 4.35 m to $\mathrm{S} ; 1.20 \mathrm{~m}$ to E. D. 40 cm . (Fig. 8).
33. An irregularly-shaped nodule of flint, greatest dimension 6.5 cm . A few signs of an original cortex appear, but mostly the nodule shows flaked surfaces which are now heavily patinated, porcellaneous white streaked with pale blue and orange. The flint is rolled like those found on Raised Beach sites in the north-east of Ireland. Sq. A2. 3.10 m to N ; (?) to W. D. 20 cm . on top of cairn stones.
34. Fragment, 2.1 cm long, of translucent flint showing traces of working. Sq. D3. 3.45 m to $\mathrm{S} ; 1.89 \mathrm{~m}$ to E . D. 65 cm .
35. Small flat fragment of grey flint with one edge steeply trimmed for use as a scraper. Sq. B2. 3.45 m to $\mathrm{N} ; 7.75 \mathrm{~m}$ to W. D. 50 cm . (Fig. 8).
36. A scale of flint split by heat from bulbar surface of a struck flake. Calcined and distorted from heat. Greatest dimension 3.0 cm . Sq. C3. 4.20 m to $\mathrm{S} ; 1.80 \mathrm{~cm}$ to W. D. 55 cm .
37. Ridged and pointed blade of translucent flint, with very fine pressure flaking on one side and near point on the other. The point itself is reduced by longitudinal flakes, but the extreme tip is missing. Sq. D4. 9.30 m to $\mathrm{S} ; 1.50 \mathrm{~m}$ to E. D. 10 cm . (Fig. 8).
38. Triangular fragment of grey flint with a bevelled, worked edge. The bevel is polished and the colour and general dimensions are like those in No. 26 (above) and it is probable that both are fragments from the same leaf-shaped object. Sq. D4. 6.50 m to $\mathrm{S} ; 3.20 \mathrm{~m}$ to E. D. 10 cm . (Fig. 8).
39. Heavy struck flake with ridged dorsal surface, and with scraper edges on three sides. Pressure flaking on both surfaces. The broad end is damaged by fire. White patina. Sq. C2. 2.40 m to $\mathrm{N} ; 4.60 \mathrm{~m}$ to W. D. 50 cm . (Fig. 8).
40. Fragment, 2.8 cm , of ridged blade, vitrified and pitted from fire. From disturbed area near kiln, Cl . $\mathrm{Sq} . \mathrm{C} 1.6 .20 \mathrm{~m}$ to $\mathrm{N} ; 4.85 \mathrm{~m}$ to W . D. 30 cm .
42. Leaf-shaped struck flake of translucent mottled grey flint. The bulbar or pointed end is reduced by flaking, while the rounded part has a ridged surface and a steeply trimmed scraper edge. The bulbar surface near the point is carefully trimmed on one side. Found in the upper filling of the surrounding ditch to the mound at the north, outside the entrance to the intrusive kiln. Sq. C0. 14.60 m to $\mathrm{N} ; 2.40 \mathrm{~m}$ to W . (Fig. 8).
43. Fragment, 3.5 cm , from bulbar end of a narrow-ridged blade with trimmed edges. White patina. Probably from yellow soil under sod and humus. Sq. B2. (Fig. 8).
44. Portion of an end-and-side scraper. Light grey flint with porcellaneous patina on outer surface under the cortex. The object has been in a fire, and there are ochreous streaks in the bulbar surface. On top of cairn slip in main trench at north. Sq. D 0.10 .70 m to $\mathrm{N} ; 2.65 \mathrm{~m}$ to E. D. 40 cm . In loose brown soil on top of stony fill.
45. Part of a struck flake of honey-coloured flint with prominent percussion bulb which shows a high-gloss glaze. The striking platform has been battered to give a scraper edge and there is also trace of secondary working on opposite edge. Sq. D3. c. 2.50 m . to $\mathrm{S} ; 2.50 \mathrm{~m}$ to E. D. 40 cm . In sod mound. (Fig. 8).
46. A flake of greenish stone that may be a fine-grained flint breccia. Sq. B1 at depth of 10 cm in upcast material over old surface of mound.
47. Half of pear-shaped pebble split longitudinally to give an outline reminiscent of "rostro-carinate" tools of lower and middle Palaeolithic. There are indications of secondary trimming at the "nose", but the flint has such a heavy all-over white patina and so rolled an appearance that one cannot be quite sure. Found on old ground surface outside the ditch enclosing the mound in Sq. C5.
48. Triangular fragment, 4.8 cm greatest dimension, of poor quality flint. Sq. D4. D. 60 cm .

49A. Struck flake of greyish flint with one edge dressed for use as a hollow scraper. With it was found a thin flake of honey-coloured flint (49B) with dressing on bulbar edge. Cf. 45 . Sq. D1. 7.00 m to $\mathrm{N} ; 3.10 \mathrm{~m}$ to E . D. 15 cm . (Fig. 8).
50. Lower part of a plano-convex blade struck from the surface of a large lump of flint. There are patches of white patina on convex surface but in the hollows this has been worn off and the brown core of the flint shows through. Sq. E2. 3.50 m to $\mathrm{N} ; 5.00 \mathrm{~m}$ to E. D. 1.10 m .
52. Flat, oval flint pebble with thick, glossy iron-stained patina, and remarkably smooth polished surface. Perhaps a burnisher. Sq. B4. At lower level in sod mound at edge of peripheral spread of cairn material.
53. Struck flake of translucent flint, thickness 1 to $2 \mathrm{~mm}, 2.3 \mathrm{~cm}$ greatest dimension, with remains of cortex on one edge. Sq. C3. On top of shingle spread out from centre of mound.
54. "Thumb"-scraper with reddish white patina. Sq. D1. 9.30 m to $\mathrm{N} ; 4.6 \mathrm{~m}$ to E. In sod mound under outer cairn spread over area of megalithic passage.
55. Ridged blade, 4.0 cm long and 1.8 cm wide, one end blackened from fire. The pinkish white patina has been interrupted by re-working along both edges. With it was found a thick triangular flake of translucent flint 3.4 cm long, with longitudinal flaking on the dorsal surface towards the point. Sq. E1. 5.50 m to $\mathrm{N} ; 6 \mathrm{~m}$ to E . D. 40 cm . At lower level in sod mound.
56. Thin flake of greyish flint with secondary working on edges and over part of dorsal surface. Sq. D3 almost at old ground level.
57. Similar to No. 56. A V-shaped notch with steep trimming as for hollowscraper. Sq. B2, approximately 20 cm above old ground level. (Fig. 8).
58. A trimmed hollow-scraper made on the end of a thin struck flake of honeycoloured flint. Sq. C2. 3 m to $\mathrm{N} ; 50 \mathrm{~cm}$ to W .40 cm above old ground level. (Fig. 8).
59. A wedge-shaped nodule of thickly patinated grey flint. Greatest dimension 5.4 cm . Found among packing stones on outer side of Orthostat (No. 8) of megalithic passage.
60. Struck fragment of honey-coloured flint with curved edge worked as a scraper. Greatest dimension $2.4 \mathrm{~cm} . \mathrm{Sq} . \mathrm{C} 2$ at a depth of 2.30 m below surface of mound.
61. Thin struck piece of honey-coloured flint (cf. No. 58, above) with cortex on the side edges. The bulbar end is battered and the opposite end has been worked as a hollow-scraper. Sq. C3. 1.90 m to S .2 .9 m to W .40 cm above old ground level. (Fig. 8).
62. Chip of greyish flint 2.7 mm long and of wedge-shaped cross-section. The cortex remains on broader edge. Found on old ground surface under the round cairn.

Pottery (Fig. 9)
In the make-up of the mound, from the top to the bottom, a number of sherds of pottery were found. The pottery was never associated with burials, so the sherds may be the remains of domestic vessels that were in use by the builders. These sherds have their best parallel in the Passage Grave ware (Piggott 1954, 202-4; Case 1961, 185-6). The ware is coarse and many of the sherds are over 20 mm thick-much thicker than the sherds of a similar family that were found, for instance, at Fourknocks I (Hartnett 1957, 228-9). But some of the sherds from Carrowkeel (in NMI) are of equal thickness.

The colour varies somewhat: in the overwhelming number of examples the outer surface is buff-coloured, but in No. 86, 88, 95 and 97 the colour is dark throughout. The texture also varies, but in most of the sherds the paste is gritty. The ware of Nos. $66,68,75,77,80,90$ and 91 is flaky and has a somewhat leathery feel. Sherds Nos. 86 and 93 tend to have a corky texture and the paste was tempered possibly with either grass or straw stems.

The outer surface and the rims (where they survive) of nearly all sherds are well ornamented. In addition, ornament occurs on the inner surface of Nos. 94 a and 94 b just underneath the lip. On Nos. $71,73,75,78,81$ to 85,88 to 90 , 92 to 95 and 97 the ornament consists of hollow lines formed by the stab-anddrag technique, or a modification of that method. Nos. 64 and 86 have plain grooves, but in addition there are also pits and scores in the surface of No. 86. In width the stab-and-drag impressions vary from around 14 mm in No. 94a to 3 mm in No. 94b. The ornament was usually in horizontal lines but some sherds, such as No. 88, have a combination of horizontal and oblique lines. In No. 78 the ornament was placed vertically.

In form, nearly all the rims have an outward bevel but some specimens, such as No. 83, have a rounded rim and in others (e.g. No. 92) the rim top is flat or almost so. In No. 93 the lip expansion is applied.

Sherds Nos. 63, 64, 66, 68, 71-75, 77-89, 91, 94 and 97 were found in the make-up of the mound, and sherds Nos. 90 and 95 came from the old ground surface. All these sherds can, therefore, be considered primary and dating from the time of the mound's construction. Sherd No. 93, found in the upper fill of the transverse trench, is possibly also primary. Of the other sherds No. 96 was found in disturbed material in the kiln area, Nos. 65 and 69 were discovered in material disturbed by the construction of Cists 2 and 4 respectively, and No. 70 was found in the fill of a trench that was dug in modern times. Nos. 65 and 69 could be possible sherds of Passage Grave ware of gritty variety, while the fabric of Nos. 70 and 96 shows a resemblance to the Passage Grave ware of leathery texture.
63. Fragment, 2.0 cm greatest dimension and 0.9 cm in thickness, from body of a thin-walled vessel. The core shows a mixture of small grits, including
crushed quartz, and is black in colour. The inside surface is carbonised; the outer surface is buff-coloured and has round pits in it by way of decoration. Found in yellow soil, depth 50 cm in Sq. C2. 2 m to $\mathrm{N} ; 4.30 \mathrm{~m}$ to W .
64. Fragment of inturned rim (assembled from three smaller pieces) from a vessel of $c .18 \mathrm{~cm}$ mouth diameter. There are large and small angular grits of quartz distributed unevenly through the paste. The outer surface is buff-coloured and has a burnished appearance; the inner surface is carbonised and this extends over the top of the rim. The rim has been pinched in on the inside and smeared over to give a slight thickening on the outside edge. Decoration consists of shallow U-shaped grooves on the outer surface and impressed oblique lines on top of the rim. Found in yellow soil, depth 25 cm inside outer cairn ring in Sq. E2. 5 m to $\mathrm{N} ; 7.50 \mathrm{~m}$ to E. (Fig. 9).
65. Two featureless fragments, 2.1 cm greatest dimension, of coarse gritty ware with carbonised inner surface and traces of a buff outer surface which has scaled off. Found in Sq. D3 in a secondary positon in the fill of the pit of Burial 2.
66. Sherd of heavy black ware from wall of a cooking vessel. The black core is of "leathery" texture and contains large grits and reddish patches. The outer buff band is of finer paste and as seen in section is clearly an applied surface. Shallow "finger-tip" impressions are noticable on it. Sq. D3. 1.70 m to S; 4.75m to E. D. 18 cm . (Fig. 9).
68. Two sherds of pottery. In both cases the outer buff surface has scaled off leaving only the black inner core. Greatest dimensions 3.5 and 3.8 cm . Sq. C3. 2.25 m to $\mathrm{S} ; 1.85 \mathrm{~m}$ to E . D. 4.5 cm . In soft, light red soil above upper central cairn layer.
69. Fragment, 2.7 cm greatest dimension from inside of sherd. Found with cremated bone in disturbed area of Secondary Burial 4 in Sq. C3.
70. Rim of hard, black coarse ware and two smaller fragments. The rim piece is 3.7 cm long and the outer smooth surface has scaled off. It has an inward bevel. The fragments came from the loose fill of a narrow trial trench which there is reason to believe was dug around the top of the mound by a local antiquary, about 1932 . Sq. C3. 40 cm to $\mathrm{S} ; 3.60 \mathrm{~cm}$ to W. D. 55 cm .
71. Fragment, 3.5 cm greatest dimension and from 2.4 to 2.2 cm thick, from near base of a large cooking vessel (cf. No. 73). The inner surface is thickly carbonised. In the outer surface there are vertical lines of triangular "stab" impressions. Found in undisturbed soil, depth 50 cm , south-west of Secondary Burial I in Sq. D3. 3.20 m to $\mathrm{S} ; \mathbf{0 . 2 5 \mathrm { cm }}$ to E .
72. Fragment, greatest dimension 3.4 cm , from inside surface of a sherd. Sq. D3. 2.52 m to $\mathrm{S} ; 3.59 \mathrm{~m}$ to E . D. 32 cm . In hard yellow clay.
73. One large fragment and several smaller, scaled fragments from the wall of a vessel. The thickness varies between 2.2 and 2.4 cm , and the pieces may possibly belong to the same vessel as No. 71 above. Horizontal grooves, executed in "stab-and-drag" technique, encircle the vessel. These grooves were formed by jabbing with a round-headed implement into the plastic clay, withdrawing it in an upward dragging movement and jabbing it in again at regular intervals along a horizontal line. Sq. C3. 3.50 m to $\mathrm{S} ; 2.75 \mathrm{~m}$ to W. D. 50 cm (Fig. 9).
74. Fragment, 4.2 cm greatest dimension. The inner surface is heavily carbonised, the outer (buff) surface has partly scaled off. Sq. D3. 3 m to $\mathrm{S} ; 1.15 \mathrm{~m}$ to E . D. 70 cm .
75. Two fragments of well-fired ware with black laminated core and buff inner and outer surfaces, from body of a vessel. The thickness is uniform, 1.2 cm . There are large flattish grits in the core. The smaller fragment is ornamented with horizontal lines of "stab-and-drag" made by a sharply-pointed tapering tool plunged deeply into the outer surface and withdrawn outwards and downwards to produce a lentoid drag. In the larger fragment the technique is similar though the stabs are much shorter. Both were found together and probably belong to the same vessel. Sq. D3. 3.50 m to $\mathrm{S} ; 3.95 \mathrm{~m}$ to E. D. 35 cm . (Fig. 9).
77. Fragment, 4.3 cm greatest dimension and 1.0 cm thickness, exactly similar in texture and decoration to No. 75 above, and probably from the same vessel. Sq. A2. 60 cm to $\mathrm{N} ; 12 \mathrm{~m}$ to $W$. D. 70 cm .
78. Fragment from near rim or shoulder of a vessel, with vertical grooves formed by using a pointed implement to give a continuous "stab-and-drag" line. The paste is coarse. The outer, decorated surface is light buff. Sq. D0. 10.50 m to $\mathrm{N} ; 2 \mathrm{~m}$ to E. D. 1.50 m . Under outer spread of cairn. (Fig. 9).
79. Three fragments, greatest dimensions $5.1,2.2$. and 2.0 cm . The smallest piece is from the outer buff surface and has a deep, oval decorative pit in it; the others are from the inside surfaces of sherds. Sq. C1. D. 30 cm .
80. Triangular fragment, 6.1 cm greatest dimension, from inside surface of a sherd. Sq. D3. 2.35 m to $\mathrm{S} ; 2 \mathrm{~m}$ toE. D. 60 cm . In sod mound a short distance above the central cairn.
81. Fragment, 5.0 cm greatest dimension and 2.0 cm in thickness, with a horizontal groove interrupted by deep "stab" impressions (cf. No. 71 above). Sq. C4. 8 m to $\mathrm{S} ; 3.20 \mathrm{~m}$ to W . In sod mound.
82. Flake from outer decorated surface of a sherd with deep, pointed-oval impressions. Greatest dimension 2.5 cm (cf. Nos. 75 and 77 above). Sq. C1. D. 1 m .
83. Fragment, 3.2 cm greatest dimension and 1.0 cm thick, of plain rounded rim of small vessel. The pottery is dark in colour and the paste, containing uneven
grits, has a flaky texture. The outer bevel of the lip and the upper part of the rim have decoration of oblique "horse-shoe" stabs apparently made by impressing with the articular end of a bird (?) bone. Sq. B2. In base of sod mound a short distance above old ground level. (Fig. 9).
84. Decorated fragment, 3.2 cm greatest dimension, scaled off outer surface of a thick-walled vessel. The paste is coarse and contains many angular quartz grits and much powdered limestone but is well fired and extremely hard. It has a dark inner core and a thin outer slip of fine buff-coloured paste. (See No. 94, below, rim sherd of same vessel, for description of decoration). Sq. D2. D. 1.50 m in sod mound above shingle spread.
85. Fragment, 3.2 cm greatest dimension and 1.2 cm thick, from near rim or shoulder of a vessel. The outer buff surface has mostly scaled off so that the actual lip of the vessel cannot with certainty be defined. Probably the sherd is from a vessel of incurved rim with outward sloping bevel. The decoration consists of lines of triangular stabs made by a pointed instrument. Sq. D4, in sod mound. (Fig. 9).
86. Two large fragments (one a rim) and several smaller fragments or flakes of heavy black pottery from a vessel with inturned rim and an estimated mouth diameter of 28.0 cm . The pottery is poorly fired and contains angular grits of quartz up to 1.1 cm in size, mixed with powdered shell and vegetable material. In the inner carbonised surface there are the marks of burnt out stems of the grass or straw used to temper the paste, and these marks are seen also in section and in the scaled off fragments. There is a thin outer slip somewhat blackened on the rim and upper body sherds but becomes thicker and lighter in colour lower down.

The rim has a rounded outer bevel with deep V-scores running across to give a deckled edge. Encircling the upper part of the vessel are two, probably three, broad convex ridges separated by deeply cut V -grooves. The ridges have notches similar to those on the rim. Below the lower band begins a zone of uncertain depth filled with oblique oval pits or "finger-tip" impressions. Some of the smaller scaled fragments from near the base of the vessel show similar decorative pits. Sq. C1. 5.50 m to $\mathrm{N} ; 3.80 \mathrm{~m}$ to W . D. 1.60 m . In sod mound beneath shingle spread. (Fig. 9).
87. Two fragments, greatest dimensions 2.4 and 2.7 cm . Sq. D3. Under central peg at a depth of 2.80 cm .
88. Rim fragment of black pottery rather similar in texture to No. 84. The neck of this vessel is almost straight, with a steep outward rim-bevel. The estimated mouth diameter is $c .18 .0 \mathrm{~cm}$. Sloping lines of close-set "stabs" occur on the rim bevel and horizontal lines of deeper stabs encircle the neck. Sq. C2. 3.60m to N; 2.90 m to W. D. 2.50m. (Fig. 9).
89. Fragment from shoulder or rim of a vessel. A sharp groove made by stabbing and dragging a pointed instrument occurs on what remains of the outer buff surface where the sherd attains its maximum thickness of 1.4 cm . Greatest dimension 2.9 cm . Sq. D2, just to north-east of central peg at a depth of 2.70 m .
90. Sherd, 8.0 cm greatest dimension and 1.8 to 2.6 cm in thickness, from near base of a globular vessel. A few grits up to 1.0 cm occur, but mainly the paste contains crushed quartz and pieces of thin shale which give a laminated texture to the ware. The pottery is well fired and very hard. Except for a thin band of black in the core at the thicker or base portion of the sherd, the colour right through is brick red. Decoration consists of bold grooves of "stab-and-drag" made by a spatulate tool, and arranged in two zones, the upper of sloping lines, the lower of horizontal lines. Found in sod mound almost on old ground surface near inner lip of transverse trench. Sq. D1. 5.40 m to N; 80 cm to E. (Fig. 9).
91. Fragment, 4.4 cm greatest dimension and 2.0 cm thick. There is shallow 'fingertip" ornament on outer surface. Sq. D2. 40 cm below original surface of mound.
92. Rim piece from vessel with splayed mouth $c .20 \mathrm{~cm}$ diameter. The lip has an outward bevel and is pinched in on the inside edge. The paste contains small sharp quartz grits and minute flakes of mica. It is well fired, with black core and thin buff outer slip. Decoration occurs on the outer surface, on the rim bevel and on the inside immedately below the edge of the lip. The same tool was used in each case, a square-ended piece of wood or bone with its working edge notched or serrated. The striae show plainly in the "drags". Cf. No. 94A below. Sq. D2. 2.50 m below surface. (Fig. 9).
93. Fragment of T-rim from a vessel of dark pottery, c. 20.0 cm minimum mouth diameter, presumably of bowl-shape. It is an interesting piece because it shows clearly the method of applying the lip expansion. This was not pinched out; a finer paste was used and applied dovetail fashion on to an existing plain flat rim and fired in position. The dark core contains evenly distributed grits; the applied flat rim is of fine paste of light buff colour. There are traces of grass-tempering, especially on the outer surface, and the ware has a "corky" texture. On the flat of the rim there are two encircling grooves of close-set "stab-and-drag" with an odd deeper stab as if the potter pressed in a tool of half-round section deeper into the clay at intervals. A line of these pits encircles the outer edge of the rim. This fragment was found in the upper filling of the transverse trench in Sq. C4 at the old ground level. (Fig. 9).

94A. Rim fragment of vessel No. 84 (above). The rim is inturned, with a sloping outer bevel, and comes from a bowl of $c .20 .0 \mathrm{~cm}$ minimum mouth diameter. For description of pottery see No. 84 (above). The outer surface has at least three encircling lines of "stab-and-drag", this is repeated on the rim bevel, and there is one similar but deeper band immediately below the pinched-in rim on the inside.

The tool used was similar to, if not the same as that used to decorate No. 92 (above). Sq. D2. 4.60 m to $\mathrm{N} ; 4.30 \mathrm{~m}$ to E. D. 1.50 m , above shingle spread. (Fig. 9).

94B. With above were found several fragments of buff-coloured ware which were assembled to give an incurving rim of a bowl of $c .24 \mathrm{~cm}$ mouth diameter. The paste contains large grits, is less well fired, and flakes into wedge-shaped fragments. The estimated thickness of the upper walls of the pot is 1.5 cm . Decoration on the rim bevel consists of four, probably five, U-shaped grooves of "stab-anddrag" closely set, with intervening ridges. The outer surface of the vessel below the rim had scaled away, but there is reason to believe that the decoration extended to some depth here. Inside the rim are two shallow grooves executed in similar technique. No. 94 (A and B) found in D4 at 1.5 m , above shingle spread. (Fig. 9).
95. Five sherds, 2.0 to 3.8 cm greatest dimension, and 1.0 cm thickness from rim and body of a vessel. The decorative treatment of the rim is quite similar to that described for No. 94 above, and, except that the pottery is black right through, the sherds might have come from the same vessel. Sq. D3. in sod mound, 30 cm above old ground level.
96. Sherd, 3.8 cm greatest dimension and 1.2 cm thick, of hard, black coarse pottery with smooth outer and inner surface. There is mica in the paste. Compare the rim fragment No. 70 above. Found in the upcast material from the disturbed area of the kiln in Sq. D2. 4.60 m to $\mathrm{N} ; 1.30 \mathrm{~m}$ to E .
97. Rim sherd, assembled from two smaller fragments, of a bowl of 14.0 cm mouth diameter. The pottery is dark in colour and contains large grits (one is 1.5 cm in length) through the paste. In the rim bevel there are two narrow encircling grooves made by drawing a pointed tool "stab-and-drag" fashion. At the shoulder a zone of oblique lines begins and continues for an uncertain depth down the body. Sq. D2. 4.70 m to $\mathrm{S} ; 4.4 \mathrm{~m}$ to E. D. 60 m . (Fig. 9).

## Remarks

Site II was a composite site but the precise function of the round cairn and the transverse trench especially has not been determined. In his notes Mr. Hartnett wrote that the "elaborate bell-cairn with its trench and stone arcs was certainly of a ritual nature, for the few tiny pieces of cremation found in the charcoal pit cannot represent more than, at most, a token burial."

The finding of the remains of about seventeen individuals (including those in the loose upper fill) shows that the megalithic passage was used for communal burial. Furthermore, the stratification shows that successive burials took place. All the adults but only three of the children had been cremated. In the stratigraphically earlier deposit (E18: 133 and 133a) the remains of children predominated, about eight children to at least four adults. In that deposit the children's remains were unburnt. The two other deposits were small; the remains
of children were present but in these instances apparently cremated. The utilisation of the passage for burials can be paralleled in Site 1 (Hartnett 1957, 270) and these two sites have further features in common. At Site II the burials of children were confined to the passage; at Site I the majority of children were buried in the passage. At both sites the predominant burial rite for children was inhumation and all were under the age of five years. The reason for using the passage for burials is not clear. Perhaps it was intended to utilise the trench also, but this could have been impractical after the construction of the mound.

The discovery in the transverse trench of seemingly four separate deposits of bone, representing the remains of at least three adults, suggests that it, too, might have been used for burial purposes, the rite being cremation. Mr. Hartnett considered that the deposit in Pit I was a formal burial, but the true purpose of the trench is not known. Neither has it been established if the trench and megalithic passage were constructed at the same time or whether the trench was earlier. However, the evidence for intense heat, which shows that prolonged burning took place, plus the fact that some of the deposits of human bone were scattered and mixed through the earth and charcoal filling suggested to Mr. Hartnett that the bones were cremated in situ. If, even in its initial period of use, the trench served as a crematorium there is no evidence for a flue, unless that the channel down the centre of the megalithic passage is the remains of one or that the passage was initially a flue. But as the bottom of the channel and passage is at the level of the lip of the trench they could hardly have been effective as a flue. If one accepts the crematorium theory, then some of the cremated bone in the trench would have to be considered as bone that was not removed for deposition in a passage grave, such as Site I. The megalithic passage might then be looked on as a structure built for burial purposes after the suggested crematorium had gone out of use or had been rendered obsolete due to the construction of the mound. If the transverse trench at Fourknocks II was used as a crematorium, parallels for it are not forthcoming in this country or in Great Britain. However, despite the fact that they differ in structure and are unrelated culturally, the long and round Neolithic barrows of Yorkshire may be mentioned (cf. Manby 1963, esp. pp. 192-97 and references to other publications therein). But in Yorkshire the cremation took place on the old ground surface. The cremation stack was piled up between two banks and all were covered within a mound. In this connection it may also be remarked that a crematorium occurs on the edge of Tumulus de la Hoguette, a tumulus that contained a number of passage graves at Fontenay, Normandy (M. J. Dastugue, Gallia Préhistórie XII (1969) esp. pp. 419-20).

There is evidence for a sequence in construction at Site II. It is clear that both the round cairn and the transverse trench (unless it had a wooden roof, and no evidence for this came to light) could no longer have a use after the construction of the mound. According to Mr. Hartnett's notes, some of the clay capping of the round cairn had silted into the surrounding ditch before the mound was thrown up. This evidence indicates that the cairn was free-standing initially, but this may not have been for a long time--at least there is no record for the formation over it of a natural sod layer.

The transverse trench was also in use before the mound was erected, otherwise fires could not have been lit in it. However, at Willerby Wold in Yorkshire the crematorium was fired after the erection of the mound and at Crosby Garrett in Westmorland vents extended from the crematorium to the surface of the mound. These must also have been intended to facilitate firing after the construction of the mound (Manby 1963, 187). As pointed out above, the crematorium at these sites differed from the possible one at Fourknocks. Theoretically it is possible that the initial work on the construction of the cairn could have been going on at the same time as the trench was being dug. If, on the other hand, the trench and megalithic passage formed a single monument from the start, then their construction should be contemporary with the digging of the outer penannular ditch, as the gap in the ditch is clearly intentional-to provide a causewayed entrance to the passage. As has already been pointed out, it is possible to show that some of the parts of Site II are earlier than others. Mr. Hartnett realised this, yet he wrote in his notes that the "symmetrical layout of cairn, trench (i.e., the ditch surrounding the cairn), passage and transverse 'charcoal' trench in relation to the enclosing oval trench and sod mound points to a single period construction".

Although possessing many unusual features it can, nevertheless, be shown that Fourknocks II was constructed by Passage Grave builders. This is clearly demonstrated by the "Carrowkeel" ware found in the mound, and also by the presence of bone or antler pins with the burials. The prominence of hazel (corylus) among the charcoal samples should indicate that there was considerable scrub in the area at the time that Site II was in use. It may also be noted that hazel was the predominant wood found at Site I (Hartnett 1957, 271-2). ${ }^{3}$

## II: Secondary

(a) Early Bronze Age Burials

Evidence for the use of the site during the earlier part of the Bronze Age was provided by the occurrence of a number of burials, possibly as many as eight. Four of these (Nos. 1-4) were in cists, another was in a rock-cut pit on the periphery of the mound (6) area while another (7) might have been deposited in a bag in a pit dug into the mound. The material listed under No. 8 represents one or more Bronze Age burials, which were disturbed when the lime-kiln was being constructed. No. 5 is considered as being the remains of a burial that was disturbed when the cist of Burial 4 was constructed.

From the associated grave goods Burials 2, 4 and 6 can be assigned to the earlier part of the Bronze Age, and a similar date may be given to what is here termed Burial 8. To the Early Bronze Age also probably belong Burials 1 and 3 since they were in cists, and Burial 5 since it was disturbed by the construction of Burial 4. It is not possible to assign Burial 7, another secondary, to a precise period, but in view of the overwhelming evidence for an earlier Bronze Age date for the other secondary burials perhaps Burial 7 also belongs to that period.

Cremation was the predominant burial rite. The only definite evidence for inhumation comes from Burials 2 and 4. Each cist contained the crouched remains

[^2]of an adult, but in both instances cremated human bones were found under, through and on top of the skeleton.

The secondary use of Passage Graves during the Early Bronze Age for singlegrave burials is well known, as instanced at Fourknocks I (Hartnett 1957, 253 ff .).

Burial 1 (E. 18:128, Pls. I, XVII, XVIII, XIX)
This consisted of a rectangular-shaped cist, measuring 70 cm by 50 cm externally, formed by four stones, one at each side (limestone shale) and one at each end (sandstone grit). It had an approximate north-east/south-west alignment. The top of the capstone was just underneath the humus. The cist was inserted into a pit about 1.40 m by 1.20 m that had been dug into the upper part of the mound. After construction the area of the pit outside the cist was filled in with small stones and some earth.

The cist contained a few bone fragments that have been identified by Professor Keenan as the remains of an adult. They consisted of "nine fragments of vault of adult human skull (cremated?) and two unidentifiable fragments".

A few pieces of charcoal (128a) were found in the filling of the cist. These have been identified by Dr. O'Connor as alder (alnus) 2; hazel (corylus) 2; oak (quercus) 3; willow or poplar (salix-populus) 2.

Burial 2 (E.18: 142, 105, 126, 20, 21, 22; Pls. I, XX, XXI)
This cist was about 1 m to the north-east of Burial 1. Rectangular in shape, it measured $90 \times 60 \mathrm{~cm}$, and was constructed from two side stones and two end stones. It was aligned almost north-south. On the west side, some large stones made up the height of this side to correspond with the east side. It was roofed with a capstone, $90 \times 70 \mathrm{~cm}$ which was weathered and irregular. A space behind the capstone on the eastern side was packed with daub. All these stones were limestone. The cist was inserted into a pit that measured $1.60 \mathrm{~m}(\mathrm{E} / \mathrm{W})$ by $1 \mathrm{~m}(\mathrm{~N} / \mathrm{S})$. It was dug into the top layer of the mound. The top of the capstone was 15 cm below the surface. The space between the edge and the structural stones of the pit was filled with some largish stones and dark red soil. Some scraps of cremated bone lay on top of the packing stones.

When the capstone was removed it was found that the cist was filled with earth. The upper fill, $c .10 \mathrm{~cm}$ deep, consisted of damp, dark, loose soil containing very little charcoal but some sizeable fragments of burnt bone.

A crouched burial (142), the almost complete skeletal remains of an adult, lay at the bottom of the cist. Professor Keenan identified them as those of "a female age 25 years (plus) and $5^{\prime} 4^{\prime \prime}$ in stature. Cephalic index 76.8 (Mesaticephalic)". The body was placed on the right side with the head at the southern end of the cist. The head was upright and faced north. The upper part of the left arm was stretched down along the side, but the lower part was bent across the chest. The upper part of the right arm was also stretched down along the side, but the forearm was turned inwards and upwards so that the right hand rested against the left cheek. The pelvis was pressed against the north-west side of the cist. The
knees were pressed against the top of the east side stone at the north-east corner. The lower parts of the legs were flexed back and pressed against and under the pelvis. Outside the north-west corner of the cist a toe bone was found.

There was a lot of burnt bone and some charcoal under the skeleton. There were also a few fragments of cremated bone in the filling of the pit, as well as fragments of what looked like pottery.


Fig. 10-Fourknocks II. Top: Finds from Secondary Burial 2 (bronze awl, and flint scraper and chips). Bottom: Three objects from hoard of Hiberno-Norse coins. Upper-Hiberno/ Danish. Lower-Anglo/Saxon. Right-silver ingot. Bottom right: Glass bead found in Sq. B2, see p. 75.

Amongst the cremated bones were identified four fragments of a human skull, 3 fragments of condyle of a long bone, 1 fragment of head and neck of a human radius, 8 fragments of phalangs of human hand, 5 or 6 teeth.

The following grave goods were found in the cist.
Bronze awl (E18:105, Fig. 10). In good condition and patinated an olive green all over. At the middle it is 1.55 mm thick. From this it tapers regularly to a very sharp point at either end and this tapering is smoothed and polished. L .4 .1 cm .

Struck fint flake. (E18:20, Fig. 10). Triangular in shape. The striking platform and percussion bulb are at the apex of the triangle and the base shows a hinge fracture. Very delicate pressure flaking on the bulbar surface along one edge, and an all-over pinkish-white patina. Unlike 21, below, it shows no traces of having been in contact with fire.

E18:21 (Fig. 10). Half of an oval or leaf-shaped plano-convex fint blade. The original convex surface was chipped but is now damaged by fire. The flake surface is quite regular. The flint is calcined and chalky white in colour. It appears to have been part of a "slug" knife of the type normally found with food-vessel burials.

E18:22 (Fig. 10). Waste chip of translucent flint with traces of cortex on one edge.
A hazel-nut shell (Corylus) was also found.
In Sq. D2 ( $0.50 \mathrm{~m} \mathrm{~N} ; 1.4 \mathrm{~m}$ E. D. 54 cm ) a small quantity of cremated human bone was found in packed yellow clay and large stones (126). This may be from Burial 2.
(N.B. Nothing in notes to indicate if successive burial took place in cist. It may be noted that cremated bone occurred under and amongst the bones of a crouched skeleton in a cist, most likely a secondary burial, in a passage grave at Treanmacmurtagh, Co. Sligo. E. Rynne, J.R.S.A.I. 99 (1969), 148. (G.E.).

Burial 3 (E18:130)
This cist burial occurred at a depth of about 48 cm below the surface. It was inserted in a pit. The cist had suffered very considerable damage and only one stone remained definitely in situ. It may have been aligned slightly to the south, and north of a west-east line, and the structural stone in situ would then be the western end-stone. A stone, not in its original position to the east of it might have served as the southern side-stone. Stones to the west were also probably part of the cist; one could possibly be the remains of a capstone.

At the floor level, in fairly packed soil, two small fragments of unburnt bones were found.

## Burial 4 (E18:99; Pls. I, XXII, XXIII)

This stoutly constructed cist was aligned north-west/south-east. The cist was inserted into a pit the base of which penetrated the top stony layer of the mound. The top of the capstone was 0.55 cm below the surface of the mound. In shape the cist was rectangular and measured 1.50 m by 1.20 m . Basically it was constructed from two end- and two side-stones but on the north-eastern side at the southeastern end there were two smaller stones at the level of the floor of the cist. On the outside the pit was filled in with a packing of small stones. The cist was roofed by a single capstone (blue limestone) much pitted and with crevices through it. It had "rotted" considerably and was inclined to disintegrate. The capstone was plastered over the top with daub, and along the southern edge the junction between cap and side-stones was firmly sealed by a very hard-packed mixture of stones
bedded in grey and yellow clay. As a result, there was very little infiltration of silt into the cist.

The cist contained a poorly preserved inhumed burial of an adult (99a). It would seem that the burial was originally placed in a crouched position but the bones were disturbed either at burial or subsequently, possibly by (?) rodents. Scattered fragments of a broken skull and teeth were in the north-west end. There was also a skull fragment and more teeth in the corner. These may have been detached from the skull in the north-west end but as this has not been established the possibility remains that the fragment in the south-east corner comes from a different skull.

Cremated bone, also the remains of an adult human skeleton, was found scattered among and below the inhumation. Some of the pieces were up to 10 cm in length. A few unburnt teeth and portion of an (?) upper jaw were associated with the cremations.

The following grave goods were found in the cist.

Food-vessel (99, Fig. 11). This vessel was complete and it was in the northeast corner of the cist. The mouth was upwards, but the vessel was tilted at an angle of $45^{\circ}$. When found, the vessel was nearly fully buried in washed-in soil and the part of the rim that was exposed and some of the inner surface of the opposite side were covered with a slight accretion caused by water dripping from the capstone.

The food vessel is of bowl form with tripartite profile as No. 98 (see p. 73 below). The maximum height is 12.0 cm . The bowl is slightly asymmetrical and the diameters are 14.0 cm (mouth), 15.4 cm (upper ridge), 14.0 cm (lower ridge) and 6.5 cm (base)-all outside measurements. The thickness of the wall is 0.9 cm . The ware is buff-coloured on both its inner and outer surfaces and the vessel is in perfect condition.

The inward bevel of the rim has an encircling line of crescentic marks made by a spatulate tool impressed deeply at the centre point. The body is profusely decorated, the main motif being horizontal panels of "comb" or "cogwheel" lines, the panels being separated by X-like false-relief patterns. There are three such zones: that on the neck of the vessel has seven panels, that on the waist has seven, and that in the lowermost has six. As is usual, the panels are staggered. The bowl has a pronounced upper ridge filled with vertical "comb" stamps, and a plain narrow lower ridge. This combination of broad and narrow body ridges on the same bowl is unusual.

## Burial 5 (E18:118, 124)

In Sq. C3 two scatters of cremated bone, possibly human, were found. One scatter (E18:118) was at a depth of about 30 cm . (C.P. to $\mathrm{S} .25 \mathrm{~cm} ; 3.80 \mathrm{~m}$ to W.). The other scatter (E18:124) was at a depth of 35 cm (C.P. to $\mathrm{S} .85 \mathrm{~cm} ; 20 \mathrm{~cm}$ to W.). None of the cremated fragments are recognisable as being human, but nevertheless the supposition is that they are disturbed bones from a burial (? Secondary) that was scattered by the builders of the cist of Burial 4.


Fig. 11--Fourknocks II. Two food vessels. Top: Restored food vessel. These sherds probably belong to a vessel that accompanied a destroyed Secondary Burial, see p. 73. Bottom: Food vessel from Secondary Burial 4 (99).

Burial 6 (E18:100, 101; Pls. I, III)
This burial was in a pit centred on a point north-east of orthostat 1 of megalithic passage. The pit was dug through the subsoil to a depth of 40 cm and below this it penetrated the underlying rock to a depth of 45 cm . At the point where it reached the rock the pit narrowed. As a result a ledge was formed. This ledge acted as a rest for a boulder-shaped capstone, measuring 70 cm by 40 cm , and 30 cm thick. Above this the fill of the pit consisted of stones and clay. At the level of the top of the subsoil the pit is about 80 cm in diameter; at the bottom it measures $30 \mathrm{~cm}(\mathrm{~N} / \mathrm{S})$ by $60 \mathrm{~cm}(\mathrm{E} / \mathrm{W})$. At the base of the pit two pottery vessels were found, both inverted over cremated bone. One was an encrusted urn (E18: 100), the other an enlarged vase-type food vessel (E18:101). Around them were clay and rock chippings. Both vessels were badly crushed and telescoped, and very fragile on account of the wet state of the pit. The weight of soil and stones which had slipped throuh the inadequately-covered mouth of the pit also contributed to their poor state of preservation. The urn was at the west side of the pit, its base had been pushed down towards the rim. At the east end the food vessel was found, very badly damaged; but all fragments were recovered. The encrusted urn enclosed a large quantity of cremated bone-the remains of an adult human (100 a); the food vessel enclosed a smaller quantity of cremated adult bones (101b).

## Encrusted Urn (100, Fig. 12)

The relief "rosettes" in this vessel were not applied as in the case of true encrusted vessels, but were made by pinching out the plastic clay before firing.

The entire rim and lower half of the body survived, and a complete profile based on them is given: a vessel of graceful outline, 34.5 cm in height and 35.0 cm in mouth diameter. The base is flat and measures 9.5 cm in diameter. The walls average 1.2 cm in thickness, the base 2.2 cm .

The paste is reddish brown in colour, except for a thin smear of black on the inner surface. It is badly fired, perhaps because of the large percentage of limestone grit in its composition, and it has a loose, "crumby" texture.

The rim bevel and upper half of the body are profusely decorated. Two rows of rounded pits, 0.8 cm in diameter, (made by impressing a hollow bone or stick which, on being pulled out, left a central projection) encircle the edges of the inner bevel, the low central ridge between them being filled with short vertical scores. The upper half of the body has four zones of ornament separated by narrow ridges as follows:

1. (Top) Spaced, pinched-out "rosettes" or rings, 2.5 cm diameter, linked by a horizontal "lattice" framing of scored lines.
2. Incised chevrons, points to the left.
3. Ditto, points to the right.
4. Ditto, as No. 2.

The upper three ridges carry oblique scores; the lower ridge, and the lower part of the vessel are undecorated. There are short oblique scores on the outside of the rounded lip.


Fig. 12-Fourknocks II. Encrusted urn from Burial 6 (100).

Enlarged Food Vessel (101, Fig. 13). This was completely shattered, and incomplete, but enough large pieces of rim, shoulder and body survive to enable a reasonably accurate reconstruction to be made. Less than half of the base remained, so that the estimated diameter may be a few centimetres out either way. The pottery contains an undue amount of sand in the paste but, except for some disintegrated limestone, very few grits. The firing is poor and consequently the sherds tend to crumble to powder on handling. In particular, the outer surface is pitted where sand or limestone grits, or perhaps organic matter in the paste, have fallen out.

The reconstruction gives a squat vessel of vase type with a short neck springing from a wide, rounded shoulder. The plain rim has a slight inward bevel. The base is somewhat concave, though to what extent this is due to bad potting cannot be decided. The principal measurements are-mouth 14.0 cm ;


Fig. 13-Fourknocks II. Food vessel from Burial 6 (101).
shoulder (maximum) 19.0 cm ; base $c .10 .0 \mathrm{~cm}$; height uncertain but not less than 18.0 cm . "Decoration" consists of crude criss-cross scorings all over the body. On the outside of the rim the scores are vertical, while on the inner bevel they are oblique. The shoulder is encircled by three, roughly parallel, horizontal scored lines.

## Burial 7 (E18:138)

This consisted of cremated bone spread out over an area of $60 \mathrm{~cm}(\mathrm{~W} / \mathrm{E})$ and $50 \mathrm{~cm}(\mathrm{~N} / \mathrm{S})$ centred on Sq. D2 3.50 m to $\mathrm{N} ; 1.90 \mathrm{~m}$ to E ; and at a depth of 12 cm . The deposit consisted of a large quantity of bones, some not well burnt and including some recognisable fragments. From the teeth, the remains appear to be those of a young person.

The deposit was found in a pocket of loose dark-brown soil dug into greyish hard-packed soil. The soil under, around and on top of it indicated decayed vegetable matter (? bag).

In the south-west edge of Sq. D2 a small pocket of fairly large cremated bones was found at a depth of 70 cm .

## Burial 8

In the area disturbed by the digging of the lime-kiln (see p. 74) sherds of Bronze Age Pottery and small quantities of cremated bone, the identifiable fragments of which were shown to be human, were found at various points. It would appear that the digging of the kiln disturbed at least one, possibly two secondary burials.

## Miscellaneous sherds of pottery

E18:76 (Fig. 9). Pottery sherds, possibly from a cinerary urn. With them, and probably associated, were some fragments of cremated bone. $\mathrm{Sq} . \mathrm{Cl} 6.30 \mathrm{~m} \mathrm{~N}$. of C.P. and 0.95 cm to W. D. 12 cm . Found in the upper collapse which filled the kiln.

The pottery consisted of part of a rim and numerous smaller fragments of coarse, gritty pottery. The core is black, the outer and inner surfaces are light brown, fairly smooth. The rim has a definite inward bevel and comes from a vessel of, at least, 26.0 cm mouth diameter. The "flat" of the rim shows a central depression made by finger-tip pressure. There are oblique narrow scorings across the rim and an irregular lattice pattern on the outside just below it. The finer patterned surface tends to flake away.

The two following sherds of pottery also came from the area disturbed by the digging of the lime-kiln.

E18:67. A body sherd of a large vessel, possibly a cinerary urn, was also found in $\mathrm{Sq} . \mathrm{Cl}(9.20 \mathrm{~m}$ to $\mathrm{N} ; 10 \mathrm{~cm}$ to W$)$ at a depth of 10 cm below the surface in upcast from the kiln. The sherd appears to have come from a wellfired vessel. The outer surface is buff coloured, it is smooth and has random "finger nail" marks; the inside surface is black and carbonised. The sherd measures 3.1 cm by 2.3 cm and it is 1.1 cm thick.

E18:98 (Fig. 11). Food vessel fragments consisting of part of the base rim and shoulder. Found in Sq. C2, 3.70 m to $\mathrm{N} ; 1.45 \mathrm{~m}$ to W in fill of kiln and had apparently slipped down from mound. Within a radius of 1 metre, at the level of the sherds, there were some fragments of cremated bone.

The complete profile from rim to base is available and the reconstruction (Fig. 11) is based on them. It gives a bowl-type vessel of tripartite form, 9.7 cm in height, with mouth and base diameters 14.0 cm and 6.0 cm , respectively. The thickness of the ware averages 0.8 cm and the base is flat.

The pottery is of good quality, with dark, hard core and outer and inner buff covering. The outer buff surface is burnished.

On the inward bevel of the rim there is a continuous zig-zag incised line. This motif also occurs on the two body ridges. For the remainder of the body the ornament consists of horizontal lines of "comb" or "cogwheel" impressions. Between the lower ridge and the base, the "comb" lines appear to be quartered by lines of V -scores radiating from the base.

The following bone fragments were found in the area disturbed by the digging of the lime-kiln:

E18:119. Fragment 4 cm in greatest dimension of well-burnt, thin-walled skull (Sq. C1, in light mixed brown clay soil. 5.5 m to N. of C.P.; 1.9 m to .W).

E18:120. A few fragments of cremated human bone (Sq. C1 5.80 m to N . of C.P.; 1.7 m to W. D. 70 cm . Found in sticky soil on top of black burnt layer.)

E18.121. Two fragments, 3 and 1.5 cm in greatest dimension, of cremated human skull (between squares C1 and D1, 7 m to N. at depth of 50 cm in hard packed clay at centre of lime-kiln).

E18:122. Seven fragments, largest 2.8 cm of cremated human bone. (Sq. Cl and D1 on top of collapsed stones at south side of centre of kiln).

E19:123. Three fragments, well burnt, the largest 3.20 m (Sq. C 1 in upcast from digging of kiln. 1.50 m to N . of C.P.; 3.10 m to W. D. 55 cm ).

E18:125. Five fragments of cremated human bone found in upcast soil that was thrown up on surface of mound when kiln was being constructed. (Sq. D1).

## (b) Modern

Lime-kiln (Fig. 7; Pls. I, XXIV). On excavation it was established that underneath the horseshoe-shaped scoop on the north side of the mound there was a lime-kiln. This consisted of a stone-walled circular pit, 4 m in diameter with walls standing to a maximum height of 2.50 m but originally somewhat higher. It had a funnel-shaped entrance leading in from the north. The floor and wall faces were vivid red in colour and gave evidence of intensive and prolonged burning, the wall stones being calcinated to a depth of 3 cm , the heat even penetrated in beyond the walls and blackened the face of the mound.

The kiln was constructed in a pit dug into the side of the mound and upcast from this pit was thrown up on to the adjoining parts of the mound. The walls, which averaged 30 cm in height, were constructed of regular blocks of limestone. Behind them the mound was cleanly cut with a slight batter which caused it to narrow from the top to the bottom and small stones packed the spaces at the back of the walls.

The floor of the kiln was at rock level, in some cases 40 cm below the old ground surface. In the bottom there was a deposit of lime and on top of this some collapsed wall stones. Mixed with this was charcoal, carbonised furze and twigs, and burnt grass and straw. Above that there was a fill of material that appeared similar to that occurring in the mound.

## Isolated finds

## E18:109

A. Button base; brass or bronze stamped inscription, partially decipherable. "Jones" "Cork". Loop broken.
B. Flint fragment, translucent fawn colour. Unworked. In upcast in disturbed area near kiln.
Both were found in Sq. C1. $6.60 \mathrm{~m} \mathrm{~N}, 3.20 \mathrm{~m}$ to W , depth $c .15 \mathrm{~cm}$. In light red powdery soil under sod.

E18:107. Bronze Button. Possibly silvered? Letters I L? on back. Sq. D1: 7.30 m to $\mathrm{N} ; 0.80 \mathrm{~cm}$ to E . In disturbed area over kiln.

E18:110. Fragment of thin, cast bronze tube, 1.7 cm estimated diameter, containing the remains of a rivet-hole ( 2.5 mm in diameter) which was punched from inside the concave face. Metal in good preservation, but very brittle.

E18:108. Metal object. Circular metal object, possibly bronze but covered on one side by decayed plaster-like material. It is possibly a button mount or a stud. A slight ridge across the concave side may be remains of stem. Sq. B4. 6.80 m to $\mathrm{S} ; 5.30 \mathrm{~m}$ to W . In same layer but further down the slope than the coins.

E18:112 Glass bead (Fig. 10). Sq. B2. 6.5 m to $\mathrm{W}, 4.35 \mathrm{~m}$ to N. D. 23 m . Found in hard yellowish soil.

E18:113 Wooden (?) bead. Reddish brown, polished, perforated. Sq. D2. 3m to $\mathrm{N} ; 0.50 \mathrm{~cm}$ to E under sod.

E18:6 Cream-coloured "marble" of baked or glazed clay, with uneven surface as if hand made. Diameter 2.2 cm . Probably modern. In upcast from kiln. Sq. D1. 6.20 m to $\mathrm{N} ; 1.40 \mathrm{~m}$ to E. D. 0.70 m .

E18:129 Piece of Bone (unburnt). Animal? One edge sharply cut: the other rather rounded. $\mathrm{Cl}: 7 \mathrm{~m}$ to N 1.50 m to E . D. $c .12 \mathrm{~cm}$. In mixed loose red soil and smallish stones on top of collapse.

## Site III

This site lay on the same ridge as Sites I and II at a distance of around 460 m (500 yards) to the east of Site II. It was excavated in July 1952 under the immediate supervision of Mr. J. R. W. Goulden. (Fig. 14).

Before excavation the site appeared as a mound that rose to a height of a little less than $2 \mathrm{~m}(c .6 \mathrm{ft})$ above the level of the surrounding field (Pl. XXV). It was covered with furze and whitethorn except on the south and east where a large
$\qquad$
FOURKNOCKS III

area had been defaced. Nearly a third of the mound had been removed for field dressing on the south-west side, and further destruction had been done by children playing and digging into the soil thus exposed. Roots of bushes growing on the highest part of the mound had penetrated down through the various layers into the undisturbed subsoil beneath. When the bushes were removed it became apparent that the edges of the mound were ill-defined and although, in general, the plan was round, about 13 m (nearly 43 ft ) in diameter, there were projections at the ends of a roughly east-west axis. On excavation it was established that these projections were heaps of earth and stones that were deposited subsequent to the final construction of the mound, possibly in modern times. In the 1930's treasure-seekers dug a pit into the centre of the mound. This tended to be oval in shape, it was $3 \mathrm{~m}(c .10 \mathrm{ft})$ in length and $1.70 \mathrm{~m}(c .5 \mathrm{ft} 6 \mathrm{in})$ in maximum width. It was $1.60 \mathrm{~m}(c .5 \mathrm{ft} 4 \mathrm{in})$ in depth. The lower part of the fill consisted of loose earth and decayed sods. The upper part of the fill was hard packed stones containing a mixture of charcoal. A couple of featureless sherds of pottery were picked up in the disturbed area, but it has not been possible to say if this disturbance destroyed any features such as burials.

For the purpose of excavation the site was divided into four quadrants along the north-south and east-west lines.

In a typescript note in the files of the National Museum Mr. Hartnett wrote that "the mound was composed of alternate layers of earth and cairn stones". An examination of the cross-sections confirms this and shows that the materials were laid down in four main layers. (Fig. 14). The base layer turned to a blue colour on exposure and it may have been composed of turves. Through the middle of this there was a "dark sod line with charcoal flecks". The material above this line was described on the section as "bleached upper blue clay". On top of this "bleached upper blue clay" there was a layer of hard, yellowbrown clay, most likely boulder clay; but on the western side in particular, there was a thin band of small stones lying on the top of the "bleached upper blue clay". In turn, this layer of boulder clay was covered by a layer of stones. The layer of stones was thickest on the eastern side; on the western side, in particular, it thinned out and on that edge it coalesced with the layer of small stones that overlay the "bleached upper blue clay". The top layer may again have been boulder clay. The mound was not surrounded by a ditch. On the northern side, on the old ground level, at a point $4.30 \mathrm{~m}(c .14 \mathrm{ft})$ to the north of central peg and 80 cm (almost 3 ft ) to east of centre, a charcoal spread 3.4 cm in depth was found (marked No. 7 on ground plan). A small quantity of cremated bone was mixed through it, and nearby a fragment of plain pottery of the same type as that of the food vessel (No. 1) was found.

Another, and larger, charcoal spread lay to the east of the mound.
The mound covered a central deposit in a pit which tended to be aligned north-south (Pl. XXVI (compare Pl. IX)). This pit was dug into the subsoil to a depth of about $35 \mathrm{~cm}(c .14 \mathrm{in})$. At the mouth it was approximately square in plan, and it measured about $70 \mathrm{~cm}(c .2 \mathrm{ft} 6 \mathrm{in})$ by about 50 cm . Around the edge there was a setting of small stones, each about the size of a brick. A deposit consisting of a mixture of earth, charcoal, and cremated bone filled the pit (E.19:3). Some


Fig. 15-Fourknocks III. Finds from the central pit.
of the bone was in a very pasty state. The bones have been identified by Professor Keenan as "fragments of cremated adult human bones, there were no skull bones present but several fragments of teeth survived". Three fragments of flint were associated with the deposit (Find No. 3) ${ }^{4}$. Two of these were made from honeycoloured flint and they retained a portion of white cortex. Both showed traces of having been burnt. One was a fragment from a struck flake, but it is otherwise featureless. The third, a light-coloured flint with porcellaneous patina, was highly calcined. There were a few pieces of quartzite lying on top of the deposit.

Just outside the south-east corner of the pit a "thumb scraper" was found (Fig. 16: 4). Three steep flakes had been removed to create an edge, subsequently the edge had been carefully trimmed by pressure. On the back portion the smooth cortex survived.

The Early Bronze Age pottery vessels were found in the layer of largish stones. Neither was in a cist. No evidence for a pit was detected in either case, so it would appear that both were inserted when that layer was being deposited. This certainly seems to be the case with vessel No. 2 because in its immediate neighbourhood the cairn layer was thickened up so as to give it protection.

Food Vessel (E19:1; Fig. 16). Found on the west side of the mound 1.80 cm (nearly 6 ft ) to the west of the centre peg and $70 \mathrm{~cm}(c .2 \mathrm{ft} 5 \mathrm{in})$ to the south of the main W/E line (see position " 1 " on ground plan). The vessel lay in an inverted position $60 \mathrm{~cm}(c .2 \mathrm{ft})$ below the surface, and was tightly packed in cairn material. Nothing was found within it or underneath it. Part of the base and an adjoining portion of wall were damaged when found.

The food vessel is of squat vase form with convex walls and externally hollow base. It has incurved neck above a well defined pinched out cordon. The lip has an inward bevel. The pottery is of brown colour, darker on the inside surface, and burnished on the outside. There are angular grits in the paste which is well-fired and hard.

The neck of the vessel, above the cordon, is ornamented by an arrangement of sloping lines of imitation cord, sometimes parallel, sometimes crossing each

[^3]
other to form link lozenges. Above and below this frieze are double parallel lines of cord ornament.

The main measurements are: diameter at mouth 12.5 cm , ( 5 in ); at cordon $13.8 \mathrm{~cm},\left(c .5 \frac{1}{2} \mathrm{in}\right)$; at base 7.9 cm (3in). The height is 11.3 cm ( $4 \frac{1}{2} \mathrm{in}$ ). Thickness, fairly consistent, is 0.9 cm . (This vessel has been compared by Mr. Etienne Rynne J.R.S.A.I., 100 (1970), 182) to a small urn from Killeenagh-mountain, Co. Waterford).
Urn (E.19:2; Fig. 16). Found on the southern side of the mound $2.80 \mathrm{~m}(c .9 \mathrm{ft})$ to the east of the centre peg and $25 \mathrm{~cm}(c .10 \mathrm{in})$ to the south of the main westeast line (see Fig. 14). It was found at a depth of 80 cm (c. 2 ft 9 in ) standing upright with stones well-packed around it. A stone slab 26 cm (c. 11 in ) by 17 cm (c. 7 in ) and 3 cm in thickness was serving as a lid. The impression of the rim was clearly marked on the under side of the stone. The urn contained the cremated remains of a young child. (Identification by Professor Keenan).

The urn is of double cordoned class with decoration confined to the neck above the upper cordon. The decoration consists of a band, 4.0 cm wide, with a zig-zag line of cord bordered above, and below by a double (sometimes treble) line of similar ornament. A median line divides the alternating triangles so found, and the pointed position of each triangle has an irregular decoration of horizontal cord. In addition, there is a finger nail ornament along the borders and scattered here and there at random.

The urn is complete and in good preservation except for some dry cracks on the rim. The paste is dark and gritty. The inner and outer surfaces are smoothly finished off. It has a ring base, slightly hollow.

Measurements: height 20.0 cm ( 8 in ); mouth 17.0 cm (c. 17 in ); wall, upper part 1.0 cm , between cordons 1.1 cm , below cordon 1.3 cm and maximum at centre of base 1.4 cm . Top of rim flat. Inward bevel.

## Other finds

The find positions of these are marked on the plan (Fig. 14), but, except for Nos. 6, 7, 9 and 11, the find strata have not been recorded.
5. Struck chip 3.0 cm long, from the outer surface of a pebble of greyish flint.
6. Fragment, 2.0 cm greatest dimension, of shell possibly whelk, found on old ground surface.
7. Fragment 3.5 cm long of cremated human bone and a stick of charcoal, 2.6 cm long.
8. Two irregular fragments of honey-coloured flint, 2.4 cm and 3.0 cm greatest dimension, unworked.
9. The excavators considered the three fragments indexed under No. 9 as being metal, but they seem to be pieces of quartzite or granite. Found in the cairn layer.
10. Sherd of pottery, greatest dimension $3.0 \mathrm{~cm} ; 0.6 \mathrm{~cm}$ thickness Light buff on outer surface which is smooth and with black core. The core has small sharp, white grits, and is well fired and hard. In texture, and feel, it is exactly like the ware of the food vessel (No. 1).
11. Fragment 2.7 cm long and 1.5 cm wide from a blade of triangular crosssection. The flint has a smooth pinkish-white patina on the cleavage surface, and on one side of the ridge at back. The other side retains the original cortex with no sign of working. Found 1 m to west of central peg at a depth of 2 m . (Fig. 16:11).

## Remarks

In a typescript note in the file of the National Museum, Mr. Hartnett considered Site III as a Bronze Age monument and that it had "no connection with the primary use of Mounds I and II". On the other hand, Mr. Goulden is of the belief that Site III was a two period structure. He would interpret the"bleached upper blue clay" and the material beneath it as a basal layer most likely made from redeposited sods and forming, with the pit deposit, a primary monument. He believes that it was only at a time after the mound had settled, and became covered with vegetation, that the layers of boulder clay and stones were thrown up on top of it to accommodate the food vessel and the urn burial. He is doubtful about the position of the "dark sod line with charcoal flecks" as is shown in the elevation (Fig. 14). He thinks that this line represents the vegetation and humus that had formed on top of what he considers to be the primary mound, and that, therefore, it should be shown in the illustration of the cross-section on top of the "bleached upper blue clay" and not underneath it.

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#### Abstract

Appendix Report by Dr. William O'Sullivan, National Museum, Dublin, on a hoard of Hiberno-Norse Coins from Site II. ${ }^{5}$


This hoard was discovered during the 1951 season just under the sod in the north-east corner of Sq. B4 (central peg to South 5.35 m , to West 5.30 mm , Depth 19 cm ). Under around and over them were found traces of decayed organic material, possibly leather (purse?) which retained the impression of one of the coins. There were traces of burning. Coins on top were burnt; those at the bottom were in good condition.

In all, twenty-nine coins were contained in the hoard. Twenty-seven are Hiberno-Norse pennies and two are Anglo-Saxon pennies. The HibernoNorse coins are all of the same type i.e., group 3 of the series (radiate hair bust -long cross voided) and belong to the early period, about 1000 to 1020 A.D. With one exception (No. 14) the obverses show recognisable renderings of the name and the title of Sihtric III, Norse King of Dublin. The one exception bears the title AENRED. The moneyers names appearing on the reverses are Faeremin, Ndremin, Steng and Sicare. It is possible that NDREMIN is a blundered rendering of Faeremin and that Sicare is another rendering of Stircar, the latter form appearing on coins in the collections of the National Museum of Ireland.

The two Anglo-Saxon coins, Nos. 29 and 30, are silver pennies of $A t h e l r e d$ II (978-1013 and 1014-16) and both are prototypes from which HibernoNorse coins were copied. No. 29 by the moneyer Edsige, Rochester (type 4a of Æthelred II, B. M. Catalogue of English Coins in the British Museum, Anglo Saxon Series) struck about 990 A.D. is a prototype from which most of the known Hiberno-Norse coins were copied. These are type 3, as stated, and all the Hiberno-Norse coins of this hoard belong to that group. The other Anglo-Saxon-penny (No. 30) by a Lincoln moneyer whose name is missing owing to

[^4]chipping is also of Æthelred II (type 1, B. M. Catalogue of English Coins in the British Museum, Anglo Saxon Series). It is also a prototype from which Hiberno-Norse coins were copied i.e., Group 4 (diademed bust-small cross pattee) and was struck at intervals during his reign but there are no HibernoNorse copies of this coin in the Fourknocks hoard. Ten of the Hiberno-Norse coins are complete. The others are chipped or in fragments. The silver ingot weighs 3 dwt .3 gr . and has no marks.

Note: The group references are those in "The Earliest Irish Coinage" by the writer in J.R.S.A.I., Vol. 79 (1949).

|  |  | Obverse | Reverse |
| :---: | :---: | :---: | :---: |
| 1. | Hiberno-Norse Group 3 | + HITRC RI + <br> DIYII <br> (Sihtric) <br> Cross pattee behind neck. | + IFNRIIFIN <br> YO DHII <br> (Faeremin?) <br> Pellet in each angle. 18 gr . |
| 2. | " | $\begin{gathered} + \text { IHTRC RE }+ \\ \text { IFIH } \\ \text { (Sihtric) } \end{gathered}$ <br> Cross pommee behind neck. Pellets behind head. Three pellets on neck. | + ZICARE IDIFELM (Sicare) <br> Pellet in centre and in each angle. $12 \frac{1}{2} \mathrm{gr}$. |
| 3. | " | + ZIHTRC RE + DIFL (Sihtric) Cross pattee behind neck. | + STENG MO DYFLINR (Steng) <br> Pellet in centre and in each angle. $17 \frac{1}{2} \mathrm{gr}$. |
| 4. | " | $\begin{gathered} + \text { HITRC RE }+ \\ \text { IIEN } \\ \text { (Sihtric) } \\ \text { Cross pommee } \\ \text { behind neck. } \\ \text { Pellets behind } \\ \text { head. } \end{gathered}$ | +FNREIM HHO LIEII (Faeremin?) Pellet in centre and in each angle. 18 gr . |
| 5. | " | $\begin{gathered} + \text { HNTRC RE }+ \\ \text { NFIDI } \\ \text { (Sihtric) } \\ \text { Cross pommee } \\ \text { behind neck. } \\ \text { Pellets behind } \\ \text { head. } \end{gathered}$ | +NDREMIN HO DYFM (Ndremin or Faeremin) Pellet in centre and in each angle. $15 \frac{1}{2} \mathrm{gr}$. |

Obverse Reverse Remarks

| 6. | " | + ZHITRC RE + DYFLZ (Sihtric) Cross pommee behind neck. Pellets behind head. | +NDREMIN HO DYFM (Ndremin or Faeremin) Pellet in centre and in each angle. $20 \frac{1}{2} \mathrm{gr}$. | same reverse die as No. 5, two fragments. |
| :---: | :---: | :---: | :---: | :---: |
| 7. | " | + HITRC RE + ICIHI (Sihtric) Cross pomme behind neck. Pellets behind head. | + FHERIMEIE <br> MO MEIH <br> (Faeremin?) <br> Pellet in centre and in each angle. 14 gr . |  |
| 8. | " | + HITRC RE + HEIN (Sihtric) <br> Cross pattee on neck. <br> Cross pommee behind neck. Pellets behind head. | + NDREMIN <br> MO DYFLI <br> (Ndremin or Faeremin) Pellet in centre and in each angle. 18 gr . |  |
| 9. | " | + INTRC RE + NFDN (Sihtric) <br> Three pellets on neck. <br> Cross pommee behind neck. Three pellets behind head. | + FIERIH NIO NEI (Faeremin?) Pellet in centre and in each angle. $15 \frac{1}{2} \mathrm{gr}$. |  |
| 10. | " | + INTRC RE + NFDN (Sihtric) <br> Three pellets on neck. <br> Cross pommee behind neck. Three pellets behind head. | + IFIEREMH FIO IIELI (Faeremin) Pellet in centre and in each angle $13 \frac{1}{2} \mathrm{gr}$. | same obverse die as No. 9 |


|  |  | Obverse | Reverse | Remarks |
| :---: | :---: | :---: | :---: | :---: |
| 11. | Hiberno-Norse Group 3 | + HITRC RE + <br> IDHI <br> (Sihtric) <br> Five pellets behind neck. | + IFLRIH HHIO RML (Unintelligible) Pellet in centre and in each angle. 15 gr . | two fragments |
| 12. | " | + INTRC RE + INFIDIL (Sihtric) <br> Pellet on neck. Cross pommee behind neck. | + NEREN MDNE INIO (Faeremin?) Pellet in centre and in each angle. 12 gr . | three fragments |
| 13. | " | $\begin{gathered} \text { +ZINTRC RE }+ \\ \text { TNI } \\ \text { (Sihtric) } \\ \text { Cross pattee } \\ \text { behind neck. } \end{gathered}$ | +FIERIN NIO DIN (Faeremin) Pellet in centre and in each angle. 16 gr . | four fragments |
| 14. | " |  | +FAEREMN MO DYFL (Faeremin) Pellet in each angle. 14 gr . | four fragments |
| 15. | " | + SIHTRC RE + DIFLI (Sihtric) <br> Three pellets on neck. <br> Cross pattee behind neck. | + STENG MO <br> DYFLINR (Steng) <br> Pellet in centre and in each angle. 16 gr | four fragments |
| 16. | " | + HITRC RE + . . . IN (Sihtric) Cross pattee on neck. <br> Cross pommee behind neck. Pellets behind head. | . . DREMIN IO DIFL. <br> (Ndremin or Faeremin) Pellet in centre and in each angle. 12 gr . | same obverse die as No. 8, chipped |


|  |  | Obverse | Reverse | Remarks |
| :---: | :---: | :---: | :---: | :---: |
| 17. | " | + INTRC RE + DFII (Sihtric) Cross pommee behind neck. | +HDRI... IINO RIF (Ndremin or Faeremin) Pellet in centre and in each angle. 12 gr . | three fragments |
| 18. | " | $\begin{gathered} + \text { SIHTRIC RE }+ \\ \text { DI ... } \\ \text { (Sihtric) } \\ \text { Cross pattee } \\ \text { behind neck. } \end{gathered}$ | + FAEREMIN MO DYFLI (Faeremin) Pellet in each angle. 12 gr. | three fragments |
| 19. | " | ... HNTRC RE + HI (Sihtric) Pellets behind head. | + NDRE... YF <br> (Ndremin or Faeremin) Pellet in each angle. 9 gr. | fragment |
| 20. | " | $\begin{gathered} +\ldots \text { NTII. . . }+ \\ \text { NDIFL } \\ \text { (Sihtric) } \\ \text { Cross pommee } \\ \text { behind neck. } \\ \text { Pellets behind } \\ \text { head. } \end{gathered}$ | IF . . . EM IF YO LEIY (Unintelligible) Pellets in centre and in each angle. 12 gr . | two fragments, portions missing. |
| 21. | " | $+ \text { HIT } \ldots+\text { IIEII }$ <br> (Sihtric) <br> Cross pomee behind neck. Pellets behind head. | +FNRE . . LIEII <br> (Faeremin?) Pellets in centre and in each angle. 10 gr . | three fragments, portions missing. |
| 22. | " | $\begin{gathered} + \text { INTRC RH }+ \\ \text { YF ... } \\ \text { (Sihtric) } \\ \text { Cross pommee } \\ \text { behind neck. } \\ \text { Pellets behind } \\ \text { head. } \end{gathered}$ | +FIE . . . NIO <br> NEFI <br> (Faeremin) Pellet in centre and in each angle. 10 gr . | three fragments, portions missing. |


|  |  | Obverse | Reverse | Remarks |
| :---: | :---: | :---: | :---: | :---: |
| 23. | Hiberno-Norse Group 3 | ```+INTR . . . E+ . NR ... (Sihtric) Cross pommee behind neck. Three pellets on neck. Pellets behind head.``` | ...IERHNI... NEI <br> (Unintelligible) <br> Pellet in centre and in each angle. 10 gr . | four fragments, portions missing. |
| 24. | " | $+\mathrm{H} \ldots \text { EII }$ <br> (Sihtric) <br> Cross pommee behind neck. | + IFLRHF . . (Unintelligible) Pellet in each angle. $7 \frac{1}{2} \mathrm{gr}$. | two fragments, portions missing. |
| 25. | " | $+\mathrm{H} \ldots \mathrm{DI}$ <br> Cross pattee (?) behind neck. | . . . ENIN HO <br> (Faeremin) Pellet in each angle. 6 gr . | two fragments, portions missing. |
| 26. | " | No legend visible. Cross pommee behind neck. | . . . INHC <br> Pellet in the angle. 2 gr . | fragment |
| 27. | " | + H | $+ \text { FE . . }$ <br> (Faeremin) Pellet in the angle. 2 gr . | fragment |
| 28. | " | Silver ingot <br> .95 in. long, weighing 3 dwt. 3 gr. |  |  |
| 29. | Anglo Saxon <br> Aethelred 978-1013 and 1014 to 1016 A.D. | +AEDELRED REX ANGLOX <br> (Aethelred) Pellet behind neck. | +EDSIGE MOO ROFEC <br> (Edsig, Rochester) Pellet in centre. 23 gr . | Aethelred II, Type 4a, <br> B.M. Catalogue Anglo Saxon Coins, 5 fragments. |


| Obverse | Reverse | Remarks |
| :---: | :---: | :---: |
| + EDELR ... | + I . . INCOLN | Aethelred II |
| (Aethelred) | (Lincoln) | type 1, |
|  | Small cross | B.M. Catalogue, |
|  | pattee in centre. | Anglo Saxon |
| $7 \frac{1}{2}$ gr. | Coins, |  |
|  |  | fragment. |



Fourknocks II. Tumulus from south before excavation commenced.

PROG. R.I.A., VOL. 7 I , SECT. C
Plate VI


Fourknocks II. Cairn from south before excavation. Note in background sod mound underneath layer of shingle.


Fourknocks II. Cairn looking west. Southern half excavated to old ground level, northern half unexcavated.

PROC. R.I.A., VOL. $7 \mathrm{I}, \mathrm{SECT}, \mathrm{C}$
Pi.ate Vili


Fourknocks II. Stone settings underneath cairn.


Fourknocks II. Stone setting around edge of pit underneath cairn.

PROC. R.I.A., VOL. 7 I, SECT. C


Fourknocks II. Section through outer ditch of tumulus on southern side (Square A2, Section VI).


Fourknocks II. Megalithic passage looking inwards. Note lintel in position.
PROC. R.I.A., VOL. 7 I, SECT. C
Plate XII


Fourknocks II. Megalithic passage looking out from south side of transverse trench. Note curved bottom and capstone in position.


Fourknocks II. Face of filling in inner third of megalithic passage. Note curved bottom (i.e. channel) and burial deposit (E18:133).

PROC. R.I.A., VOL. 7I, SECT. C
Plate XIV


Fourknocks II. View of transverse trench from the east. Note facing of stones on left side and inner end of megalithic passage to right of the figure.


Fourknocks II. View of transverse trench from the west.
PROC. R.I.A., VOL. 7 I, SECT. C


Fourknocks II. Transverse trench with spread of bones and charcoal at pit 2 (Sq. D1).


Fourknocks II. Secondary Burial 1. Capstone as found. The scale ruler in the background is over Burial 2.

PROC. R.I.A., VOL. 7I, SEGT. G
Plate XVIII


Fourknocks II. Secondary Burial 1. Capstone removed showing stone packing along the edge and earth fill of cist.


Fourknocks II. Burial 1. Cist after emptying. Note packing outside side slabs.

PROC. R.I.A., VOL. $7 \mathrm{I}, \mathrm{SECT}$.
Plate XX


Fourknocks II. Burial 2. Capstone removed. Knee joint shows through soil filling at right hand side.


Fourknocks II. Burial 2. Skeleton from north. The white spots are cremated bone. The "foodvessel'"shaped object (above knees in photo, bottom left) is a flat stone.
proc. R.I.A., VOL. 7 I, SEGT. c
Plate XXII


Fourknocks II. Burial 4 from north-west. Capstone of cist removed. Food vessel and scattered human remains are visible.


Fourknocks II. Burial 4. View from north-west of cist showing layer of heavy cairn in foreground and to right of ranging rod outline of pit dug into the mound to accommodate the cist. PROC. R.I.A., VOL. 7 I , SECT. G

Plate XXIV


Fourknocks II. Lime-kiln after excavation and removal of facing stones. Looking inwards.


Fourknocks III. Mound from south before commencement of excavation.
PROC. R.I.A., VOL. 7 I, SECT. C
Plate XXVI


Fourknocks III. Central "pit", view from south-east. Note setting of stones along edge.




Fourknocks II. Plan of cairn (IIa) at the old surface. I excavation.

t the old surface. Left, before excavation; right, after excavation.


Plate III





Fourknocks II. Ground plan and sections of $n$

an and sections of megalithic passage.

PROC. R.I.A., VOL. $7 \mathrm{I}, \mathrm{SEGT}$. G

N

III



PROC. R.I.A., VOL. 7I, SEGT. C

N

III



datum
$c_{p}$


Fourknocks II. Main N.S. and W.E. sections through mound.




Fourknocks II. Main N.S. and W.E. sections through mound.



[^0]:    ${ }^{1}$ Fourknocks townland in the Parish of Stamullen, Barony of Upper Duleek, Co. Meath. The co-ordinates on O.S. 6 inch Sheet No. 33, Co. Meath, are 12.0 cm from east and 25.0 cm from south margins.

[^1]:    ${ }^{2}$ For facilities to examine the finds I wish to thank Dr. J. Raftery, Keeper of Irish Antiquities. (G. Eogan).

[^2]:    ${ }^{3}$ A C14 determination of $1,520 \pm 140$ B.C. for charcoal from Site II has been published (W. A. Watts, Antiquity 39 (1960), 115).

[^3]:    ${ }^{4}$ The locations of all the finds are indicated on the ground plan (Fig. 14).

[^4]:    ${ }^{5}$ This report was prepared by Dr. O'Sullivan in 1951. Since then, published accounts of the hoard have appeared, see R. H. M. Dolley and J. Ingold in R.H.M. Dolley (ed.) Anglo-Saxon Coins (Studies presented to F. M. Stenton), London 1961, 250-255, Pl. XVI, and R.H.M. Dolley, Syllogue of Coins of the British Isles: The Hiberno-Norse Coins in the British Museum (British Museum, 1966), 63-64.

