## 8. SHORT CISTS IN THE PARISH OF INNERWICK, EAST LOTHIAN.

## (a) THURSTON MAINS.

Towards the end of December 1939 a short cist was discovered during ploughing in a field called Langly at Thurston Mains, near Innerwick. An intact urn was taken out, as well as a flint knife and a number of bones in good condition. Mr D. C. Gregor, the tenant, thereupon informed the Museum authorities.

The farm lies among the low rounded hills that skirt the Lammermuirs, and is separated by one ridge from the flatter belt of land along the coast. The site of the grave is on a crest at about 480 feet O.D., and 400 yards south-west of the farmhouse. There is a steep drop 15 yards away on the south to the

 $<sup>^{\</sup>rm 1}$  Catalogue of the Finger Rings in the British Museum, p. 53.

<sup>&</sup>lt;sup>2</sup> Proc. Soc. Ant. Scot., vol. xlviii. p. 144 (figs. 13, 14, No. 4).

Thurston Mains Burn, while over the ridge to the north-east there is a view to the sea.

The cover stone, only 1 foot below the surface, was an irregular yellow slab with an undulating, smoothly pitted surface on both sides. It just covered the cist, leaving, however, a small gap in the N.W. corner. In the S.W. corner there was a small slab thrust between it and the side stones. The sides were made of six smooth slabs of flaggy yellow sandstone,  $2-2\frac{1}{2}$  inches thick. At the east end the north side slab made practically a right angle with the end slab, but the angle formed by the south slab was only  $73^{\circ}$ . The direction of the south side was  $98^{\circ}$  E. magnetic. The long side slabs ended 6 inches short of the

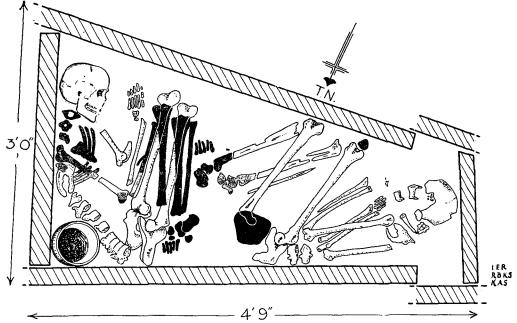


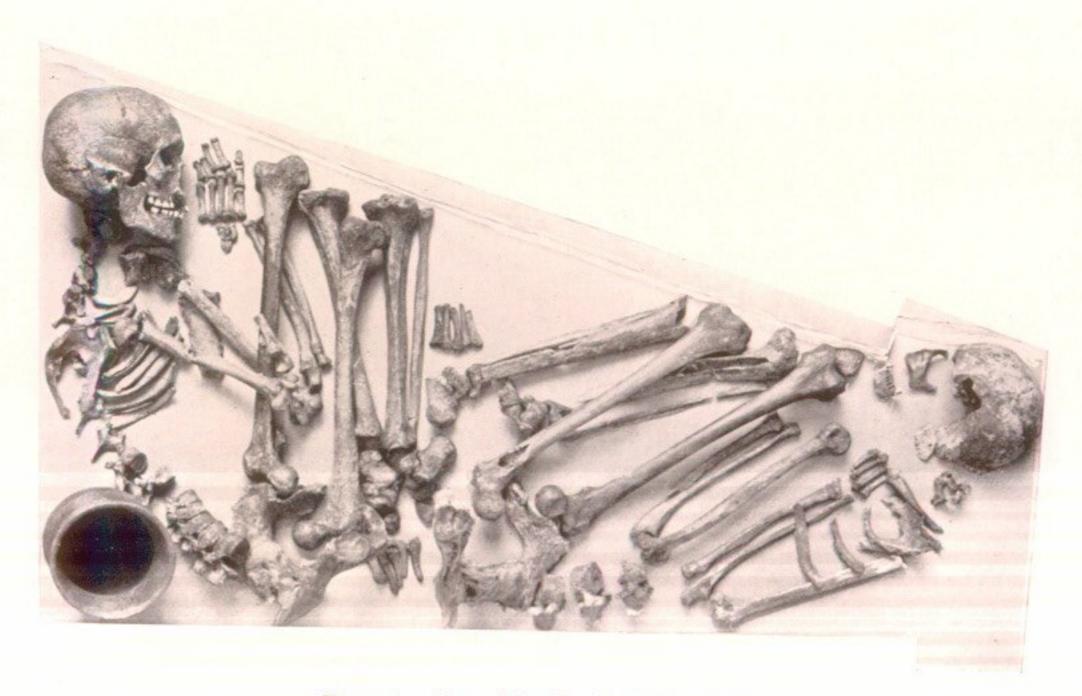
Fig. 1. Sketch plan of cist at Thurston Mains, showing the bones found in situ (black) and the conjectural position of the remainder.

west end slab, and on either side a slab had been placed in a line with and outside of the long slab, to extend the length of the cist. The interior dimensions of the cist were thus: east end 2 feet 6 inches, north side 4 feet 4 inches, south side 4 feet 5 inches, west end 1 foot 6 inches (breadth at 9 inches from the end 1 foot 3 inches). The height of the west slab was 1 foot 10 inches and of the main slab on the north side 2 feet 1 inch; but, as several lime-encrusted stones showed, the depth of the cist had only been about 1 foot 6 inches; apparently after the sides were erected some of the red excavated gravel had been replaced to provide a floor to the cist.

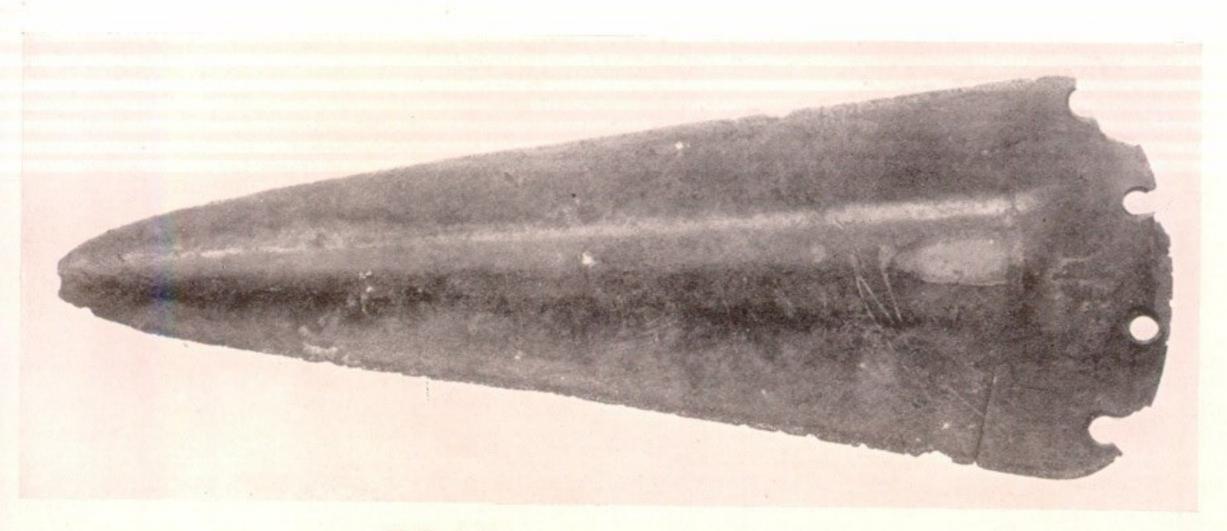
A large number of the bones (fig. 1) belonging to two individuals had been disturbed previous to examination, in particular a skull lying in the south-east corner facing roughly west (or more probably really south-west), and another, much more fragmentary, facing east, in the middle of the west end. There were, however, found to be still *in situ* a number of vertebræ, both tibiæ, and a



Sepulchral Vessels from Skateraw and Thurston Mains.

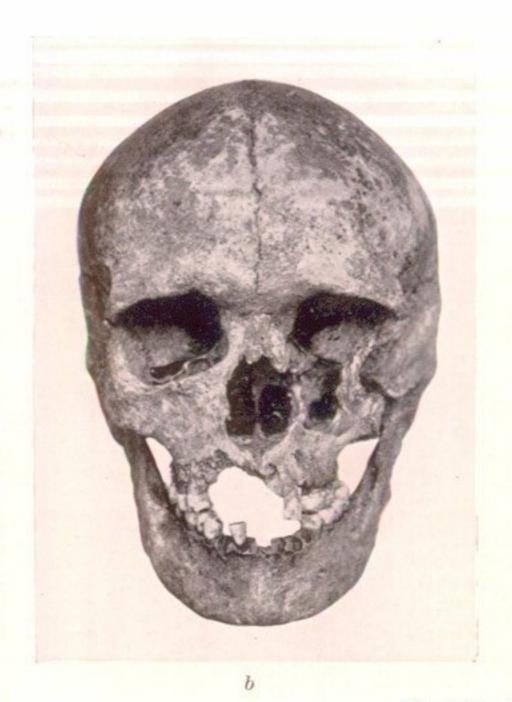


Reconstruction of the Burial at Innerwick.



Halberd from Asslich, Inverness-shire. (1.)







Skull No. 1 from Innerwick.

fibula, calcaneus, right humerus, right ulna, sternum, and ribs of Skeleton I. The left clavicle lay under the right ulna. These were sufficient to show that it had been laid tightly contracted with the shoulders against the east end slab and the pelvis probably against the north side slab, in a rather twisted position on its left side with the chest half-turned upwards. The Beaker had been placed behind the small of the back in the north-east corner. Of Skeleton II there remained in situ only the left innominate bone, calcaneus and other bones of both feet, bits of tibiæ, right patella, and a couple of hand bones. These seem to show that the body had been laid on the right side, and rather less tightly contracted than the other—probably owing to the lack of lateral space due to the narrowing of the cist towards the west. The feet were practically touching the shin of Skeleton I, the knees pretty close to the south side slab, and the back roughly parallel with the north side slab.

Professor Alex. Low has most kindly contributed a full report, with photographs, of the skeletal material, which is the remains of two young women, both

under thirty-five years of age.

The relative positions of these two skeletons strongly suggest simultaneous burial; for neither encroaches on the other, and Skeleton I is tightly contracted and huddled close to the end as if to avoid Skeleton II. The lengthening of the west end is not evidence to the contrary, but is rather due to the inadequate size of the end slab. It is interesting to contrast the successive double burial, also with a Beaker, described in *Proceedings*, lxxiii. pp. 232 f.

The flint knife was found "about the middle of the cist." It is a flint flake  $2\frac{\pi}{16}$  inches long with a maximum breadth of  $\frac{\pi}{16}$  inch. The surface exhibits a mottled white and blue patina, except at the tip, where a considerable amount of cortex remains. The striking platform at the bulbar end had been carefully trimmed. There is secondary working along the whole of the upper side of one

edge.

The Beaker (Pl. LV) is intact, except for a few cracks in the lower portion which suggest the proximity of structural joins. It has a typical smooth surface and reddish-brown colour, although the shade varies in patches from red to grey. The inside is a creamy-buff colour, and rather rough. The form places the vessel in the  $C_A$  group, with short neck. The inside of the lip is a rounded bevel. The dimensions are: height  $7\frac{3}{4}$  inches, rim diameter  $5\frac{3}{8}$  inches, diameter at constriction  $4\frac{1}{2}$  inches, at bulge  $5\frac{1}{4}$  inches, base diameter 3 inches. The decoration has been executed in the notched technique. On the neck are four zones of decoration, each outlined with single horizontal lines above and below, viz. (from top to bottom) criss-cross, vertical zigzag with lengthened central stroke, vertical lines with chevron above and below, oblique dashes. The group terminates with a single line "feathered" along its lower side. On the bulge a zigzag, as above, is outlined above and below with three horizontal lines and a feathered edging. Above the base is a large three-, in places only two-, lined chevron, surmounted by three horizontal lines and a feathered edging.

The zigzag and feathered edging are motifs dealt with in Miss Mitchell's discussion of East Lothian Beakers, while the oblique dashes occur on a Beaker

from Thornton, Innerwick.<sup>2</sup>

Mrs Mitchell Innes and Mr James Hunter of Thurston House generously presented the cist and its contents to the National Collection, and the possibility of reconstructing it in the Museum as a permanent exhibit is under consideration. Unfortunately the severe frost disintegrated the slabs, before the reconstruction

<sup>1</sup> Proc. Soc. Ant. Scot., vol. lxviii, p. 139.

<sup>&</sup>lt;sup>2</sup> Ibid., vol. lxxiii. p. 319,

was projected. Thanks are also due to Mr Gregor for assistance in excavating the cist, as well as reporting its discovery.

## (b) SKATERAW.

At the end of February 1939 a cist and urn were found on the farm of Skateraw, Innerwick, and reported in the *Berwickshire News* of 28th February. Inquiries were made as a result of this report, which was kindly sent to me by Mr P. Kennedy, F.S.A.Scot. Unfortunately the cist had been filled in by the

time the site was visited in September.

The cist was situated on the crest of a low natural ridge, and there was no sign of a tumulus. It was beside the now uninhabited manse of Innerwick North (formerly U.F.) Church, about 5 yards on the east side of the hedge, immediately in front of the windows. To quote from the Berwickshire News: "The grave, which was less than 1 foot below the surface, was formed of four flagstones, and measured 4 feet long by  $2\frac{1}{2}$  wide and about 2 feet in depth. They were beautifully fitted together and still true to the perpendicular." The report adds that some small limpet shells were adhering to the stones—the sea is about a mile away—and that the bones had mouldered into dust.

The urn (Pl. LV, 1) was later kindly sent for inspection to the Museum by Mr D. L. Bowe of Skateraw. It may be described as a late Beaker-Food Vessel hybrid. Its general form, but more particularly its rim, shows strong Food Vessel influence. For its bold, simple decoration we may, however, compare the undoubted Beakers from Aberdeenshire illustrated in Abercromby's Bronze Age Pottery (230, 231, cf. 262 from Angus), and the more doubtful vessels from Wiltshire (ibid., Beakers, 33) and from Stonehaven (Proceedings, vol. lxx. pp. 357-8). The raised moulding around the outside of the rim may also represent

a Beaker strain.

The vessel is rather roughly finished, and varies from light red to black in colour. The dimensions are: height  $4\frac{7}{8}$  inches, rim diameter  $4\frac{5}{8}$  inches, diameter at bulge  $5\frac{1}{2}$  inches, at base  $3\frac{1}{8}$  inches. The base splays out, and is very thick. There is hardly any neck above the constriction. The rim has a broad hollow bevel on the inside, with the lip obliquely nicked. Immediately below the lip, on the outside, is a raised rounded fillet, also obliquely nicked. The main decoration is roughly scored, and consists of large diamonds formed of bundles of four parallel oblique lines running across the whole of the body, starting from the raised fillet, to just above the basal cavetto.

R. B. K. STEVENSON.

## REPORT ON THE SKELETAL REMAINS FROM THE CIST AT THURSTON MAINS, INNERWICK.

Skeleton I (Pl. LVI).—This skeleton lay on its left side in a very contracted position with the skull at the south-east corner of the cist and the vertebral column bent forward. The lower extremities were much flexed, so that the knee joints approached the skull and the leg bones bent back to lie almost parallel with the thigh bones, the bones of the feet lying near the right hip bone. The position of the bones of the upper extremities shows that the right forearm was flexed.

The bones indicate a female of about thirty years of age and 5 feet 3 inches in height.

The skull (Pl. LVII) is relatively well preserved except for part of the left

face which has been in contact with the floor of the cist. The skull is light, thin walled, and small in size—cubic capacity 1430 c.c. of mustard seed. The muscular markings are feebly developed, the glabella and superciliary ridges slight, orbital margins fine, and mastoid processes small; evidently that of a female, and, further, the pelvic and other bones show female characteristics. Except for closure of the lower ends of the coronal sutures, all the sutures are open, including the metopic suture, and it can be inferred that the individual was about thirty years of age.

The skull, viewed from above (Pl. LVII, c), is broadly ovoid, and is brachycephalic with a length-breadth index of 81.5. The maximum breadth is at the level of the parietal eminences, which are well marked and high up. The view from behind shows a distinct sagittal elevation, and below the parietal eminences the sides of the cranium are flattened, giving an "ill-filled" appearance.

The profile view (Pl. LVII, a) shows a short, relatively high skull with slight superciliary ridges, and the frontal ascending with a uniform high curve. The vertex is flattened, and the posterior curve passes sharply down, so that there is

practically no projection of the occipital pole—planoccipital.

The face (Pl. LVII, b) is of medium height, relatively broad and orthognathous with a certain degree of subnasal prognathism—gnathic index 95.8. The orbits are narrow, and the nasal aperture rather broad. The jaws are well developed, with wide palate and dental arches, the angles of the lower jaw are prominent and the chin rounded. There has been a complete set of permanent teeth, though some have dropped out after death. The teeth present are well developed, and, while the molars show some attrition, there is no trace of caries or evidence of infective processes.

Bones of the Trunk and Limbs.—The vertebral column is represented by the atlas and four fairly complete cervical vertebræ, four fragmentary upper thoracic and six lower thoracic, a first lumbar and fragmentary fifth lumbar vertebræ.

Part of the first piece and most of the body of the sternum is preserved, as also twelve very imperfect ribs; the two scapulæ and left clavicle are fragmentary. The humeri are incomplete: of the right there are three pieces, including the lower articular surface; and of the left, the lower three-fourths of shaft with its articular surface. Of the forearm bones the right radius and ulna are complete and the upper fourth of the left ulna. Of the right hand there are three carpals, all five metacarpals, and six phalanges.

The sacrum and innominate bones, while fragmentary, show certain features of interest; the auricular surfaces are short and broad, the pre-auricular sulcus is well marked and the sciatic notch is broad and shallow—characteristics of a

female pelvis.

The femora are fairly complete except for some erosion; they show a high grade of platymeria—flattening of the upper third of the shaft; the angle of torsion is greater than the average angle in modern bones. The tibiæ are in a fair state of preservation, both bones show platyenemia and torsion of the shafts. The right fibula is almost complete; of the right foot there remains the talus, calcaneum, cuboid, navicular, medial cuneiform, and five metatarsals somewhat fragmentary; of the left, talus and calcaneum.

Skeleton II (Pl. LVI).—This skeleton had lain in a contracted position on its right side with thighs flexed and knees bent, so that the feet were in apposition

with the feet of Skeleton No. 1.

This is the skeleton of a female thirty to thirty-five years of age and 5 feet 2 inches in height.

The skull is very fragmentary and is represented by a fairly complete frontal bone articulating with a left parietal, part of occipital bone, left orbital margin, upper left alveolar process and symphysis of lower jaw. The sutures of vault are open except for the lower inch of coronal suture. Muscular markings poorly developed and left orbital margins fine, and this along with the characteristics of the pelvic bones indicate that the sex is female.

Bones of the Trunk and Limbs.—A well-developed axis, three lumbar vertebre, and an imperfect sacrum are all that remain of the vertebral column; there are three fragmentary ribs, a fragment of left scapula, and the sternal half of a

right clavicle.

While the left humerus is intact, the head of the right has been broken off. Of the forearm bones the lower half of right radius is intact, the left radius and the right and left ulnæ are complete, and there are four imperfect metacarpals of the left hand.

Pelvis is imperfect and is represented by the upper half of the sacrum and two fragmentary innominate bones showing preauricular sulci and wide and shallow sciatic notches, characteristics which suggest a female pelvis.

Table I.

Measurements in mm. of Skull from Beaker Interment at Thurston Mains, Innerwick.

Skeleton I

Skeleton I.									
Sex	. ]	Female	Indices.						
Cubic capacity (in e.e.).		1430							
Glabello-occipital length		178	Cranial $81.5$						
Maximum breadth .		145	Length-height $75.3$						
Maximum frontal breadth		132	Breadth-height $92.4$						
Minimum frontal breadth		101	Gnathic $95.8$						
Biauricular breadth .		125	Upper facial $52.0$						
Basi-bregmatic height .		$\overline{134}$	Total facial 88.8						
Auricular height		$\overline{105}$	Nasal						
Basi-nasal length .		95	Orbital, R						
Basi-alveolar length .		91 ap.	Maxillo-alveolar 120.0						
Nasi-alveolar height .		65 ap.	•						
Nasi-mental height .		111							
External frontal breadth		108	Mandible.						
Bizygomatic breadth .		125 ap.	Condylo-symph. length. 91						
Nasal height									
Nasal breadth		~ .	Height at symphysis 31						
Orbital height, R		30	Height at second molar 30						
Orbital breadth, R		39	Height: coronoid 58						
Maxillo-alveolar length.		50 ap.	Height: condyle						
Maxillo-alveolar breadth		60	Bicondylar breadth						
	137		Bigonial breadth 94 ap	•					
,, ,, parietal .	137		Minimum breadth, ramus . 30						
", ", occipital .	$\overline{112}$								
,, ,, <u>-</u>		386							
Length foramen magnum		33	Indices.						
Transverse arc		313	Breadth						
Horizontal circumference		520	Mandibular						

TABLE II. Measurements in mm. of Bones of Extremities from Beaker Interment at Thurston Mains, Innerwick.

•	at T	hurston Mair	$ns, \ Innerwick.$	•	
		Skelet	on I.	Skeleton II.	
		R.	L.	R.	L.
Humerus:					
Maximum length .					316
Radius		218			239
Ulna		248		265	265
Femur:	•				
Maximum length .		448	450	436	434 ap.
Oblique length .		442	440	427	426 ap.
Upper third of shaft	•				
Ant. post. diam		<b>22</b> .	24	25	
Trans. diam.	•	33	34	32	
Platymeric index .	•	66.7	70.6	$78 \cdot 1$	
Middle of shaft:	•	00.		, , _	• •
Ant. post. diam.		25	26	26	26
Trans. diam.	,	$\frac{25}{25}$	25	$\overline{23}$	23
Pilasteric index	•	100.0	104.0	$1\overline{13}.0$	113.0
Angle of neck .	•	103°	105°	105°	
Angle of torsion .	•		45°	28°	
Tibia:	•	• •			• •
Maximum length .		337	335 ap.		
Ant. post. diam.	•	33	34		
Trans. diam.	•	$\overset{\circ}{23}$	$oldsymbol{24}$		
Platycnemic index .	•	$\overline{69} \cdot 7$	$\frac{70.6}{70.6}$		
Angle of torsion .	·	$27^{\circ}$	29°		
Fibula	•	333 ap.			
Talus:		000 ap.		• •	
Length		50	50	49 ap.	
Breadth		37	38	37	
Calcaneum:			00		
Length		74	. 74	73	
Breadth		$3\overline{7}$	38	37	
271,0000111	•	٠,			
		T 7.			
W.		Indic	ces.		
•		Skelet	on I.	Skeleton II.	
		R.	L.	$\mathbf{R}_{ullet}$	L.
Radio-humeral					$75 \cdot 6$
Humero-femoral .					$72 \cdot 8$
Tibio-femoral		$\bf 75 \cdot 2$	74.4		
Stature as calculated	$\mathbf{from}$		· - <del>-</del>		
long bones		5  feet  3	inches	5 feet 2 inches	
3			١ .	1	

The femora are fairly complete and show platymeria and torsion; there is also a right patella; both tibiæ are very fragmentary; the right fibula is fragmentary, while the left is broken at its lower fifth. There are the talus and calcaneum of the right foot, and of the left foot imperfect talus and calcaneum,

cuboid, navicular, medial cuneiform, and five fragmentary metatarsals.

The bones of the lower limbs of these skeletons display certain features in which they differ from modern bones. In the femur the angle of torsion is large, and associated with this there is bowing of the shaft and flattening below the trochanters—platymeria. In the tibia the angle of torsion is also well marked, the shaft flattened from side to side—platycnemia, and there is a "squatting" facet on the anterior border of the lower articular surface. In the talus the axis of the neck forms a distinct angle with the sagittal plane, associated with inversion of the head. These various characteristics give us a clue to the manner of life our ancestors led—the bones have been moulded in response to vigorous, agile, open-air life.

ALEX. Low.