

PLAN
OF
HOWMAE

After the excavations of 1889.

Scale of 20 Feet

Trace.
Sep. 1889.

Sea Wall.

I.

NOTES ON THE FURTHER EXCAVATIONS OF HOWMAE, 1889.
By JOHN TRAIL, F.S.A. SCOT. (PLATES XVI, XVII.)

The present paper is an account of further excavations at the mound of Howmae, North Ronaldsay, Orkney; and is in fact a continuation of that printed in Vol. XIX. of the Society's *Proceedings* for the year 1884-85.

On the 20th of May this year we commenced at the western doorway of chamber F., and proceeded to clear out chamber J. (see Pl. XVI.). The room is nearly square, being $12\frac{1}{2}$ feet north and south, by $10\frac{1}{2}$ feet east and west. At the south-west corner was a raised platform, about $5\frac{1}{2}$ feet long by nearly 5 feet wide; this was 1 foot higher than the floor-level of the remainder of the room, and was neatly paved with flag-stones all over, as also was the whole chamber. The eastern side of this platform was partly bounded by an upright stone about $4\frac{1}{2}$ feet high and projecting 2 feet from the south wall. The remainder was formed of building-stones laid flat. Stones laid on edge—their upper surfaces only an inch or two above ground-level—extended westwards into the room from the sides of the doorway in two parallel lines. The southern line stopped on meeting the platform just mentioned, while the northern extended inwards nearly 6 feet, and then turned at right angles and met the north wall of the chamber. In the oblong partition thus formed were found a stone set on end, 2 feet 4 inches high, and 4 feet wide, the top being 15 inches below the level of the top of the wall; and another, lying flat on the ground, in the position indicated on the plan by faint dotted lines. This latter stone, which appeared to have been dressed or chipped along all its edges, to make it fit accurately into some place, measured 4 feet 2 inches in length, 10 inches in width, and was $1\frac{1}{2}$ inch thick; a notch about 5 inches square had been cut out of one end. The average height of the walls in this room was $4\frac{1}{2}$ feet. The north wall, at the north-west corner, looked somewhat as if there had been an exit leading into the passage Q., which had been built up.

There were found in this room : 1. At ground-level in the north-east corner a block of freestone (No. 46 of list appended to this paper), with a cup-shaped hollow scooped out of the top or flattest side. Whether this is the commencement of a mortar, or intended for some other purpose, such as a socket for the heel of a door to swing in, it is difficult to say.

2. A round block of bone (No. 16), made of one of the tail vertebræ of a large whale, which has been roughly scooped out by cuts made at right angles to each other, leaving the impression of the axe or cutting implement used (possibly, I think, one of these stone flakes, of which we found a large number, and a selection from which I have placed on the table).

3. Fourteen hammer-stones (No. 39), showing, sometimes at one end and sometimes at both, undoubted signs of use.

4. A reddish piece of granitic stone (No. 45), about $3\frac{1}{2}$ inches long and about $2\frac{1}{4}$ inches thick, which appears to have been flattened on all four sides as if used for grinding or rubbing away some hard material.

5. Two lumps of pumice stone or vesicular lava (No. 49), showing marks of having been used, probably for grinding to a point some of the bone implements found.

There being no outlet from room J., we thought it better to pass on now and work eastwards from room G., where there appeared to be a corner. This resulted in the discovery of rooms H. and I. They are practically one room, as the partition shown on the plan has not been built into either of the side walls, and seems to be of more recent date, as the eastern half of it is founded upon rubbish.

The walls have apparently fallen in, and as it would have involved too much labour to clear out all the rubbish, the builders seem to have contented themselves with a smaller room, and to have shifted the end wall westwards, where it now appears as a partition. The western side of this cross wall has a curious appearance, being, from the floor upwards for $1\frac{1}{2}$ to 2 feet, faced with four large flat stones laid on edge, but above these the building is continued in the usual style.

Room H. has a recess in the southern wall, about 7 feet long and 2 feet deep, and in the middle of this is a standing stone, $2\frac{1}{2}$ feet high and over 1 foot in width, set with its flat side parallel to the wall,

and about $1\frac{1}{2}$ foot out from the face of the wall. Between this stone and the wall was found a large freestone mortar.

There were two recesses or keeping-places in room H. That in the north wall was 4 feet 9 inches above ground-level, 1 foot 6 inches wide, 6 inches high, and 6 inches deep (or back into the wall); the one in the south wall was 3 feet 3 inches above ground-level, 2 feet 6 inches wide, 1 foot 10 inches high, and 1 foot 8 inches deep. In room I. there was one keeping-place in the north wall, 2 feet 9 inches above the ground, 1 foot 10 inches wide, 9 inches high and 9 inches deep. There were also two keeping-places just above the partition wall—one in the north wall, and one in the south—which furnish additional proof that the two rooms were originally one, as the partition wall, if built up to the full height of the side walls, would have hidden the keeping-places altogether.

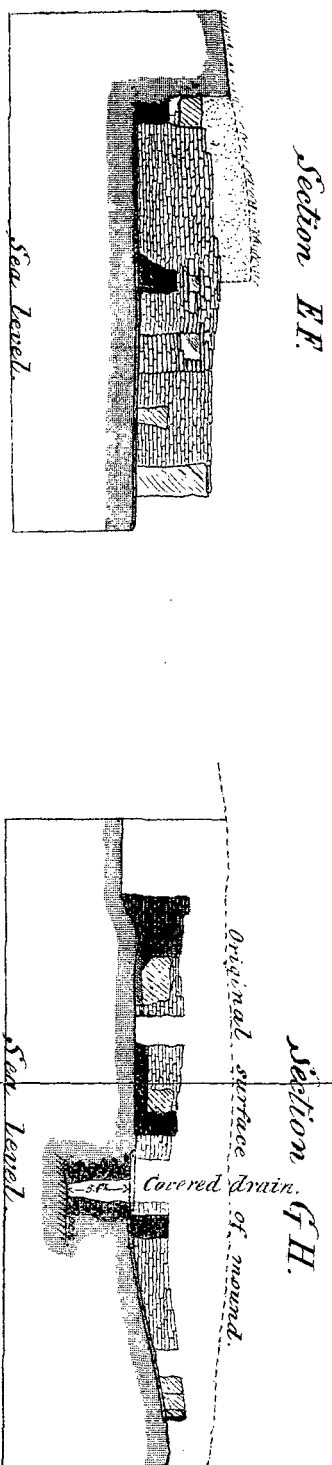
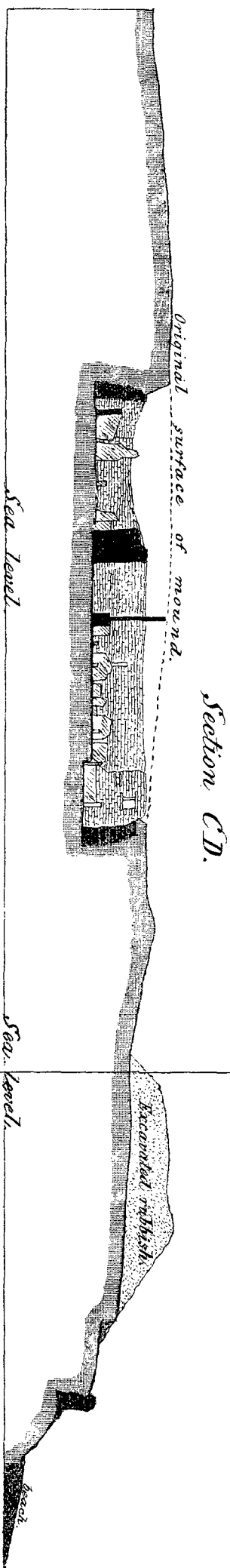
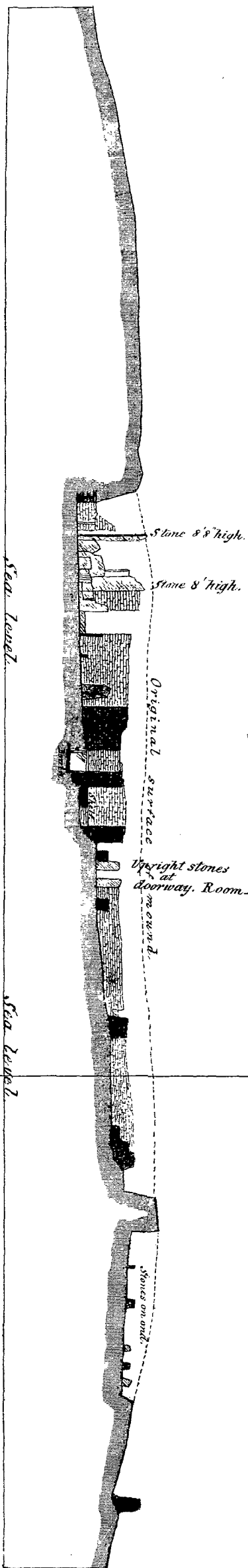
The northern wall of room I. at its eastern end is little more than 2 feet high, and at this height and set back from the face of the wall are five stones on edge, placed so as to form a line, not parallel to the face of the wall but somewhat inclined to it, so that the eastern end of the line is 2 feet 8 inches from the face of the wall, while the western end is barely 1 foot. The object of these stones is not apparent unless it were to keep the earth from falling into the room; but this would pre-suppose the fact that the building had been originally constructed somewhat below the ground-level. It is possible that this was the case, as the back of some of the outer walls subsequently examined looked as if they could hardly have stood without some sort of earth backing.

At the south-east corner of room I. a large stone on edge is also set in continuation of the southern wall. Its bottom is placed at a level 3 feet 3 inches above the ground, and the stone itself is 2 feet 4 inches high, and 2 feet 7 inches long. These two rooms, taken together, are about 28 feet in length, and 8 to 10 feet wide. The south wall averaged 6 feet in height, the north about 5 feet, and the eastern or end wall about $2\frac{1}{2}$ feet, the average depth of excavation being about 9 feet. I may mention here, incidentally, that we generally had to dig through from 2 to 3 feet of soil before coming upon the *tops* of the walls. The floor, which was roughly paved with flagstones, was about

6½ inches higher at the east end than at the west end of the double room. This is shown on section E. F., which will also give some idea of the appearance of the south wall of the double room, which is shown *in elevation* on the section.

The excavation of rooms H. and I. being completed, we thought it best to work round the back or west wall of room J. to see if there was any more building in that direction. This resulted in our opening out what I have designated room K. It is of a triangular shape, the southern wall being 20 feet long, and the northern 18 feet. What appears to have been the western wall is an isolated mass of masonry about 8 feet long and 3 feet thick; well built on both sides, but broken at the ends. It does not appear to have joined the southern wall, and the entrance may have been here. At the eastern apex of this room, in the northern wall, is a sort of shelf or recess 5 feet long and about 1½ foot wide. It is 8 inches above the floor-level, and is paved with three stone slabs. The whole room was likewise paved. There are four upright stones set in the ground in the positions marked on the plan, the largest being only 2 feet 7 inches high. The average depth for excavation for this room was about 6½ feet, while the walls varied from 3 to 4½ feet in height.

Thirty-three manufactured articles of bone were found in this room. One (No. 26) is a very highly polished shoulder-blade, apparently of a small ox. Its use is merely a matter of conjecture, but there is a point about it to which I would draw attention. The lower end, at the point of attachment to the leg-bone, has been sawn off, and, as this was evidently a matter of some trouble, there can be no doubt that, whatsoever the use may have been, this projecting end interfered with it. In another case one of these ends has been partly sawn and then broken off; and several less perfect examples of this implement (No. 19) also show a considerable amount of polish. Among the other articles found in this room two are, I think, worthy of special notice (see No. 34). They have been made apparently from the rib of some small animal, which has been cut transversely, so as to have tolerably straight pieces of 4 or 5 inches in length, and these have again been divided longitudinally, forming a species of bodkin; but in place of the usual eye are



SECTIONS of HOWMAE.



Drace.
 July 4, 1889.

two notches, one in each edge of the flattened implement and close to one end. The slight natural curve of the rib was probably purposely taken advantage of; our modern packing-needles have the same.

It will be seen by a reference to the plan that there is a passage, Q., between rooms K. and G. Before this was cleared out it appeared as if there were an unusually strong wall, 7 or 8 feet thick, dividing these rooms, and we therefore thought it advisable to see if it was solid throughout. We soon found that there were two perfectly distinct walls, and after coming down to the ground-level, and lifting a large slab at the east end of the passage, we found what appeared to be a drain, running underneath the western wall of room J. As we could not explore this without demolishing the wall, we let it alone. The west end of the drain, if such it was, was defined by a stone set on edge right across the passage; the depth was nearly 2 feet, width $2\frac{1}{2}$ feet; and it extended inwards as far as we could reach with a spade.

In this drain or cist (we could not determine which) we found a solid lump of whale's bone of a flattened cylindrical form, much polished on one side and broken off at the opposite, where a very irregular hole, 1 or $1\frac{1}{2}$ inch in diameter, had been bored through it. The lump was about 4 inches in diameter and about $2\frac{1}{2}$ inches thick. We also found alongside of this a well-worn pounder of white quartz or quartzite, and, while excavating the passage, four bone pins, Nos. 69 to 72. Two or three days were then spent in clearing out the northern side of the space O. along the backs of chambers F. and J. The whole area is paved, but there is a considerable slope (*vide* section G. H.) from south down to north; and I think this was probably merely a paved courtyard, not roofed over.

We also dug down alongside of the drain or covered passage described in the previous paper, and found the side walls backed with rubbish and ashes. Among the rubbish here we got one of the best-marked stone pounders.

We then returned to trace out the back of the detached wall at the west of chamber K., and cleared out the space marked N.; but although it was paved throughout no further walls were found at present. We however picked up a variety of bone implements. Among these was a

neatly worked article (No. 36), somewhat resembling a bone egg-spoon, with a hole bored through the handle, and a curious bone hook (No. 24), which seems to have been used as a clasp.

We were now rather at a loss where to turn to find more building, and thought it advisable to dig a trench eastwards from chamber F. in hopes of coming upon something new, but a 15-foot cut down to a depth of about 6 feet resulted in failure. There were no signs of building, very few stones or bones, and only two worked bones, one of which (No. 30) was most curiously formed. It is cut from a piece of whale's bone, is about 5 inches long and $2\frac{1}{2}$ wide, and has three notches on one side, the lower one being connected by a cut groove on the upper surface with what appears to have been a central hole.

We then began to trace round the backs of rooms F., E., and D., and I was enabled to enter upon the plan the thickness of these walls, which we had not previously ascertained. They were all undoubtedly outside walls, as could be seen by contrasting their rough unfinished appearance, with the neat and generally well-built interior faces. Though in some cases $2\frac{1}{2}$ feet thick, the stones were so loosely put together that I do not think the walls could have stood unless backed up with earth.

After tracing the outside of these walls for a distance of about 45 feet, we came upon a new wall nearly at right angles, and thus discovered chamber P. It is a curious little room, without door or entrance of any kind. It is 8 feet long by $4\frac{1}{2}$ feet wide, and was paved with flagstones. The doorway may have been in the centre of the north wall; a gap here has been partially built up, only 1 foot in height however, and a curved wall outside blocks it up altogether. The floor was 13.5 feet above sea-level, or much the same height as chambers A., B., and C., the others being from $9\frac{1}{2}$ to 10 feet only. The walls were only 2 feet high.

We now returned to the space N., and working south from it came upon a detached mass of masonry which was built upon the pavement. Lifting a large slab, we found underneath a cist about 7 feet long, $2\frac{1}{2}$ feet wide, and 1 foot deep. The sides were composed of stones on edge, and there were also three upright stones for supporting the covering slabs. One portion of it was covered by no fewer than four layers of pavement. I have marked the position on the plan in red ink.

We found several bone articles amongst the rubbish removed from N., of which one (No. 25) is specially interesting. It is undoubtedly a "swivel," such as is used at the present day in Orkney and elsewhere for tethering sheep. The rope is cut into two, and each piece is passed through one of the holes and knotted, thus preventing the twisting of the tether. A modern Orcadian "swivel" of wood is placed on the table for comparison.

Tracing along the back of the south wall of chamber K., we came upon another detached wall, faced with stones on edge; and further on, to the east of it, came upon room L. This is only $6\frac{1}{2}$ feet long and about 5 feet wide, but has a most elaborate entrance on the east side composed of two stones, each $2\frac{1}{2}$ feet high, set on end, one on each side of the doorway, and outside this is a sort of porch, composed of other stones on end. This room was not paved.

The floor-level was intermediate between rooms K. and B., being 11.5 feet above the sea, and the walls were only about $1\frac{1}{2}$ foot high on an average. The space M. to the west of it was neatly paved. Opening out the wall which connects rooms L. and B. finished the excavations.

I have made no mention of the pottery found in this excavation, as it was unusually scarce. But a small quantity is exhibited, which I brought to show of what a rude character it is. The rubbing-stone or "Saddle quern" is of a type not unfrequently met with in "Brochs," but I have not hitherto come across any in our North Ronaldsay excavations.

LIST OF BONE AND STONE IMPLEMENTS FOUND IN HOWMAE,
NOW IN THE MUSEUM.

Bone Implements.

1. Long-handled Comb, $5\frac{1}{2}$ inches in length, wedge-shaped, with ten teeth, two of which are imperfect; the extremity of the handle ornamented with a chevron pattern (fig. 1).
2. Long-handled Comb, $6\frac{1}{2}$ inches in length, wedged-shaped, with nine teeth, one of which is imperfect (fig. 2).
3. Long-handled Comb, $4\frac{3}{4}$ inches in length, wedged-shaped, with thick butt, and six teeth set widely apart (fig. 3).
4. Long-handled Comb, $5\frac{1}{4}$ inches in length, with fourteen teeth, two of

which are imperfect, the ends of the teeth forming an outline of convex form ; the handle expanding at the butt and ornamented with lines arranged in the form of a triangle and a semicircle (fig. 4).

5. Portion of a Cup made from a tail vertebra of a whale.

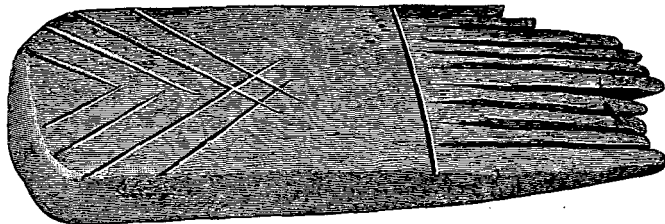


Fig. 1.

6. Two sides of a large Cup made from a tail vertebra of a whale.

7. Epiphysis of a cetacean, $14\frac{1}{2}$ inches in length by $11\frac{1}{2}$ inches in breadth, pierced with four square holes as if for legs for a stool.

8. Two epiphyses of a cetacean, one $10\frac{1}{4} \times 9\frac{1}{4}$ inches, and the second smaller and imperfect ; both imperforate.

9. Needle, $1\frac{7}{8}$ inch in length, imperfect at the point.

10. Forty-nine Pins and Bodkins, from $\frac{1}{8}$ inch to $5\frac{5}{8}$ inches in length ; mostly polished by use.

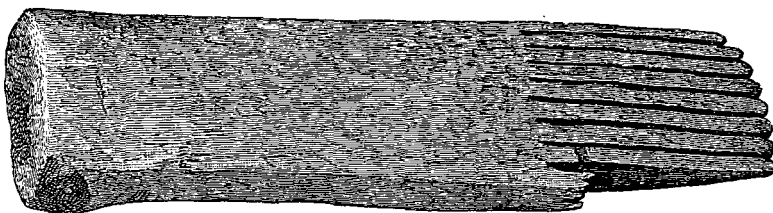


Fig. 2.

11. Twenty sharp-pointed Bodkins, made from the leg-bones of animals, from 3 inches to $6\frac{3}{8}$ inches in length ; a few imperfect at the points.

12. Metatarsal bone of a sheep, showing marks of cutting.

13. Seven metatarsal bones of sheep, found lying side by side as if they had been tied in a bundle.

14. Whorl made from a circular piece of cetacean bone, partially perforated from one side.

15. Portion of the leg-bone of an animal, $2\frac{3}{8}$ inches in length, perforated longitudinally.

15. Curved bone, $6\frac{3}{4}$ inches in length, perforated at one end; and the leg-bone of an animal, bent longitudinally, with a roughly made perforation at one end.

16. Two tail vertebræ of a whale, one roughly hollowed on one side by deep

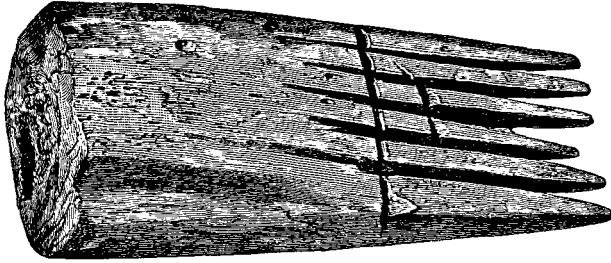


Fig. 3.

incisions crossing each other at right angles; the other with irregular cuts and markings on one side.

17. Thirteen implements formed from half-lengths of large leg-bones of various animals, the cut ends of which are blunted and polished by use in some, while others are imperfect and show marks of cutting.

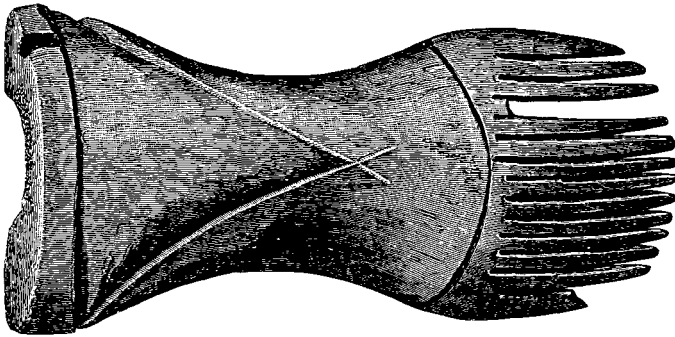


Fig. 4.

18. Twenty-nine implements and portions of implements of cetacean bone, mostly of flattish oblong form, several pierced with an oval hole in the centre; the greater number imperfect.

19. Five implements of cetacean bone, showing traces of having been used for rubbing soft materials.

20. Horn core of a sheep, showing marks of cutting, and the lower portion of another, with a transverse perforation $\frac{1}{2}$ inch in diameter through each side.

21. Two small pieces of cetacean bone which have been cut with a saw ; and three animal bones which have been similarly cut.

22. Eight portions of implements of cetacean bone, several of which show marks of having been cut with knives.

23. Square piece of cetacean bone, $4\frac{3}{4} \times 4\frac{1}{4}$ inches, roughly shaped and showing marks of cutting.

24. Bone hook, $1\frac{7}{8}$ inch in length, with a perforation near the extremity of the straight end.

25. Swivel of cetacean bone, imperfect at one end ; similar to those of wood used in Orkney at the present day for tethering sheep, to prevent the rope twisting.

26. Nineteen fragments of shoulder-blades and other bones, showing traces of use by polishing, &c., and a large shoulder-blade, finely polished by use and rounded at the angles.

27. Implement formed from a large flat rib, $7\frac{5}{8}$ inches in length, resembling a modern paper-cutter ; the blade $4\frac{1}{4}$ inches long and the breadth $3\frac{3}{8}$ inches in length.

28. Large vertebra of an animal and two bones, all of which show deep marks of cutting by knives.

29. Small portion of a circular disc of cetacean bone, with a small perforation near the margin ; and an irregularly shaped piece of similar bone, showing marks of cutting.

30. Irregularly shaped piece of cetacean bone, $5\frac{1}{8} \times 2\frac{5}{8}$ inches, with three deep notches on one side, the lower one connected by a groove cut on the upper face with what has been an oval centre hole.

31. Handle of an implement, probably a knife, formed from a large animal rib, the lower part of the blade at the junction with the handle ornamented with four depressions arranged in the form of a square.

32. Portion of cetacean bone, with a perforation $\frac{1}{4}$ inch in diameter, filled with the broken portion of a rivet or peg of bone ; and a portion of a split leg-bone polished at the broken end.

33. Three small narrow slips of bone, each $\frac{3}{16}$ inch wide, and ornamented on one face with a line of zig-zags.

34. Two curved slips of bone, each $4\frac{3}{4}$ inches long by $\frac{3}{17}$ inch in width, and with a small notch on each side at one end.

35. Slip similar to number 34, $5\frac{3}{8}$ inches in length, unnotched, and three portions of three other slips.

36. Implement, $3\frac{1}{2}$ inches in length, resembling a flattened egg-spoon ; highly polished.

37. Implement of bone, $3\frac{3}{8}$ inches long, in the form of an isosceles triangle, $2\frac{1}{8}$

inches long, terminating at the base in a handle $1\frac{1}{4}$ inch in length, which is pierced with a small hole at the end.

38. Portion of rounded cut bone, $2\frac{1}{2}$ inches long by $\frac{1}{2}$ inch diameter; and a fragment of a cut bone.

Stone Implements.

39. Sixteen hammer-stones, mostly of compact sandstone, &c., abraded at one or both ends by use.

40. Flattish water-worn pebble of reddish sandstone, $6 \times 5\frac{1}{2}$ inches, with a perforation through the centre of the flat face, one inch in diameter, and having the edges abraded by use.

41. Flattish pebble of white sandstone, $6\frac{1}{2} \times 5\frac{3}{4}$ inches, with a perforation one inch in diameter through the centre.

42. Disc of slate stone, $6\frac{3}{4}$ inches in diameter.

43. Implement of slate stone, $7\frac{1}{2} \times 3\frac{3}{4}$ inches, showing traces of use and working round the edges.

44. Flattish implement of sandstone, $8\frac{1}{2} \times 4\frac{1}{2}$ inches, abraded at each end and constricted on each side at the middle.

45. Oblong piece of granite stone, $3 \times 2\frac{1}{4}$ inches, roughly smoothed on each face as if by use.

46. Portion of a large block of sandstone, with a roughly picked hollow on one side, $2\frac{1}{4}$ inches in greatest width and half an inch in depth.

47. Irregularly oval-shaped block of sandstone $15\frac{3}{4}$ inches in length, with an oval-shaped depression on one side, 9 inches in length by $6\frac{1}{2}$ inches wide and $1\frac{3}{4}$ inch in depth.

48. Saddle Quern of sandstone, 14×9 inches, with a roughly picked hollow $3\frac{1}{4} \times 3$ inches and $\frac{5}{8}$ inch in depth on the under side.

49. Seven pieces of pumice stone, showing traces of use in smoothing and sharpening various pointed implements of bone.

Pottery.

Several fragments of rims and sides of vessels of coarse reddish ware.