NOTES ON THE SHELL-MOUNDS, HUT-CIRCLES, AND KIST-VAENS OF SUTHERLAND. BY LAWSON TAIT, Esq., F.R.C.S., CORR. MEM. S.A. SCOT.

During a stay in Sutherland, in the spring of 1867, I availed myself of many opportunities to examine the archaic remains which abound in that county. My investigations were principally confined to the beautiful glen of Strathfleet and the shore between Golspie and Dornoch. Between those two villages extend the links common on the east coast of Scotland, and they give here undoubtable evidence, I think, of having undergone little or no elevation since the inhabitants of the country lived in a rude stone age. At intervals along the coast, but chiefly in the neighbourhood of the Little Ferry, I found many shell-mounds bearing the usual characteristics of those of Denmark in everything save their size. The shells were of the usual species, the Ostrea edulis, the Littorea littorina, the Mytilus edulis, and the Cardium edulis; also another kind of Littorina. They were nearly invariably adult shells. and in the instance of the oyster and cockle much larger than any shells of these kinds now found on the coast. In the case of the oyster, there are no beds of it known now at all on the east coast of Sutherland. Each mound was generally composed of one kind of shell only, always so in the case of the oyster; and it was very remarkable, even when the layer was but a few inches thick, how perfectly free its inner contents were from sand, utterly precluding the idea that the shells were deposited there by the sea. The mounds varied from 20 to 100 feet in diameter probably, but this measurement is only an approximation from the curve of sections exposed; and these deposits seldom appear to be over 30 inches thick; in many the thickness cannot have been above half so much. Among the shells I found occasionally pieces of bone, and very frequently worked flints and pieces of quartz. In one very small mound, close to Little Ferry, I found a beautiful unfinished spear head, every facet of which was covered with patina, and which must either have been lost or thrown away by its ancient manufacturer before it was finished, as it wants one more blow which would chip off the only remaining part of the original nodular surface to make a very handsome weapon. Rude chert-flakes were very commonly found among the shells.

Perfectly finished arrow heads have been frequently picked up on these links; but I was not fortunate enough to get one, although I found many fragments of what had been weapons.

I met with one large, half-worked flint nodule, which may have been used as a hammer; but in no instance did I meet with one which had not been fractured. A local geologist informed me that no flints are found on this coast. At the harbour of the Little Ferry many ships have deposited flint chips from their ballast, but these are easily distinguished from the specimens found in the shell-mounds; and, besides, they are not found distributed further than twenty feet from the shore. They have, instead of the patina, that peculiar morphic alteration of the silex which the action of salt water induces, and which is often carclessly set down as an incrustation of carbonate of lime. What it really is I do not know, but it does not in the least degree alter the form of the flint, as I have an arrow head where all that remains of the original flint is a speck in the very middle; all the rest is extremely brittle, and yet every facet is almost as sharp as the day it was chipped.

From the conditions in which I found some of the flints among the shells, I can have no doubt that they were associated at the period of

¹ These and the other specimens referred to are now in the Museum of the Society.

deposit. A black loam occupied the spaces between the shells, and this peculiar appearance frequently enabled me to recognise at some distance a section of a shell mound, exposed by the wear of a sand-bank. Over the shells there was always a layer of sand, varying from a few inches to nearly 3 feet, and above that the sand grass grew. In one mound, of small extent, and composed entirely of mussel shells similar to those of the present scalps close by, the shells were all broken at the thin round edge, in a manner that seems to me to indicate human contrivance similar to bone splitting. On the links near Dornoch and Embo, where the soil is much firmer than at other points, there are numerous hutcircles and small tumuli; and I think it not unlikely that these may be associated with the shells and rude flints. Close by one of these hutcircles, at some distance from the shore, I found a spear head of rude work. manship. These hut-circles are generally from twenty to thirty feet in diameter, nearly perfectly circular, do not have the interior either above or below the surrounding level, and have a lapse about twenty inches in the low circular wall indicating the position of the doorway. Throughout my examination of these interesting remains, I noticed invariably the condition found by Professor Phillips in similar structures on the top of Ingleborough in Yorkshire, that this doorway is always turned away from the point of the compass from which the most severe winds come at the present day. These hut-circles I found very close to high-water mark, showing that, since their occupancy, there has been little alteration of the relative sea-level. There is a peculiar kind of tumulus generally associated with them, which would seem to indicate that each family had its own little burying-ground close behind its dwellingplace. Wherever I found hut-circles I found from three to twelve or fifteen, sometimes more, however, little mounds behind each. The tumuli are generally from two to four feet high, and from four to seven in diameter. They consist of loose stones and soil, and, in those which I have examined myself, I have found nothing; but my friend, the Rev. Mr M'Donald of Rogart, has informed me that he has found indication of interment in some of them. They can have been constructed for no other conceivable purpose than that of interment, and this loose and

¹ Close to the tumulus with the cup-marked lid which I formerly described to the Society.

entirely superficial structure explains the general absence now of indication of human remains. They probably were the graves of the common people, placed near the dwellings to deter the attacks of wild beasts, just as immense slabs were placed over the bodies of the chiefs from the same pious motive.

Strath-Fleet, to which Sir Robert Gordon gives the name Strath. Eleit, or Glen of the Roe, runs from Lairg to the Little Ferry, or Ulnes of the same author, probably a Scandinavian name, as it would in the days of the Norsk invaders afford, as at present, a convenient harbour. This beautiful valley—a perfect gem of highland scenery—is peculiarly rich in archaic remains. The formation is principally granite. The archaic remains in this valley, as indeed they do throughout Sutherland, indicate either that the stone age has come down to very modern times in this district, or that the general opinion that the whole coast of Scotland is gradually being elevated, does not apply to the east coast of Sutherland. Near the spot where I found the skull, already described to the Society, there is a broch and some of the small aggregated tumuli, within a very short distance indeed of high-water mark; and at the mouth of Strathfleet there stood, about thirty-five years ago, a very fine specimen of a broch, known as Thor's Tower, standing on the farm of Torboll or Thor's Field or Farm, and which must have been within a few inches of the tide, when, before the great undertaking of the Mound, it extended eight miles up the glen, as far as Pittentrail, the Sea-weed Hollow. At Pittentrail, on a commanding hillock, stand the remains of a large chambered cairn, with its entrance turned to the There are no hut-circles or tumuli on the land, where the sea would have come but for the mound, while they exist in numbers just at its margin. Immediately to one side of Rovie House, on the top of a bank which looks very much like an old sea-beach, some cists were found a few years ago, containing skeletons and some shale beads. At the foot of Dalmore rock, and certainly not more than ten feet above the old sea-level, I examined two kist-vaens. The first was situated in a very large tumulus, mostly artificial, and had its lid partly exposed. The tumulus had been much diminished in recent times for the purpose of using its stones for building, as they were of considerable size; but my informant, a venerable Celtic shoemaker, told me that when they

came to the coffin lid they would take no more, as it was unlucky, they held, to meddle with a Fingalian's grave. As the word Fingalian is used in that district indiscriminately to mean an ancient hero, and as the brochs are said by the people to be the work of the Fingalians, it seems to me probable that these remains may be attributed to the same race which now inhabit the country. The lid of the kist-vaen in question was of enormous size, by far the largest I have ever seen; and had I not obtained the assistance of a dozen stout navvies, furnished with crowbars, the Fingalian would have remained undisturbed. The cist lay due east and west, measured 3 feet 4 inches by 2 feet 2 inches. and 2 feet 4 inches deep, and was constructed of four regular slabs of granite. We first came on some gravel amongst which were some fragments of bones of a bird, but in such a friable state that it was impossible to determine their species, together with the hoof bone of a horse. Under these there lay a thickness of nearly ten inches of sand, in which were the remains of a skeleton. The only parts in a condition to examine were the vertex of the skull, a fragment of the pelvis, and the head and trochanter of the right femur. The deceased had been an adult male, I should say not much above thirty years old, and had been interred in the usual bent position, laid on the right side, with his head to the east. There was no trace of an urn, and no weapon of any kind. About fifty yards to the south of this tumulus I found the remains of another cist quite similar in construction, size, and direction. One side had been recently removed in making the foundation for a proposed house, and an intelligent workman, who had been engaged in the demolition, told me that he had noticed that the remains of the skull lay at the end of the cist nearer to the river (the east), and that the body seemed to have been bent with its knees up to the chin. No flints or other weapons were observed.

On 20th March I opened a large tumulus at Tordarroch (the *Knoll of Oaks*), about half a mile above Pittentrail. It was about 25 feet in diameter and 5 feet high. It stood in a cultivated field, and its edges

¹ The shoemaker told me that he remembered that many years ago there existed a circle of small standing stones, perhaps a dozen in number, close to this spot, but he could not point out the precise position.

had been squared by the plough; it was composed principally of riverrolled stones of various kinds and sizes, and was extremely difficult to work. About $2\frac{1}{2}$ feet from the surface we came to a large irregular slab, 5 feet long and 3 feet 2 inches wide, and so built in at the edges with large stones that it was with very great difficulty we got it removed. Under it we came to a very rudely formed cist, 24 inches long, 14 inches wide, and 13 inches deep, in which were a few small stones, and at the bottom about three inches of a black greasy-feeling loam. It seemed to me to be a burial by cremation.

At Muie, about four miles further up the Strath, I opened another kist-vaen, which was covered by an irregular granite slab, about 31 feet long and 3 feet wide. After removing about fourteen inches of undisturbed loam, I came upon a bent skeleton, with the head and knees lying towards the north-west, the cist being in a direction north-west to south-east. The skeleton was very entire, except the skull and pelvis, and was lying on its right side. I send the lower jaw, which for better preservation I have saturated with amber varnish. The femur measured 18 inches from the condyle to the tip of the trochanter major, and the angle of the neck with the shaft showed that the remains were those of a male tolerably advanced in years. A fragment of the calvarium showed the sutures to be quite obliterated, and I think the condition of the jaw indicates an age about sixty. The tartar was quite undisturbed on some of the teeth when first exposed, and the first lower molar of the left side would indicate that the Fingalian had suffered from toothache. In none of the bones were there any athritic deposits. Under this skeleton, and apparently in quite a different matrix, were the pieces of a broken urn with the usual herring-bone ornamentation, and among the fragments some black greasy charred matter, which seemed to me to contain fragments of bone. There was one well-finished flint head, which seemed to have formed a part of the contents of the urn. In this case there seemed to me to have been two different burials in the same cist; the first, a cremated urn burial, succeeded by a bent interment. I cannot, however, positively assert that this has been the case.

Near where this cist was found there is a curious ring-like elevation in the middle of the Strath, where several cists have been opened during the formation of drains, and which is known as "Rha-Marow," or circle

of the dead. Near it was found a curiously shaped piece of granite evidently worked, and very like a spade.¹

The hut-circles and their accompanying tumuli are very numerous in Strathfleet. They occur chiefly in little townships, and sometimes in most unlikely places. There is one spot, some 300 or 400 feet above the river, behind a knoll known as Knoc-ri-Shashanch, where there is a collection of about sixty hut-circles, and, I should say, several hundreds of the little tumuli. Again, behind Craymore, and also at a very high level, there is situated a considerable number of the circles and tumuli. The usual structure of the circles consists merely in two concentric rings of large stones, separated by a space of six or eight inches, which is filled with smaller stones and soil; the whole forming a wall seldom more than eighteen inches high. There are some, however, which seem to be the sites of what have been more pretentious dwellings, the diameter of which is almost invariably thirty-eight feet. The floor is generally raised a few inches above the surrounding soil; and the wall, as shown in a section of one made by my friend, Mr Houston of Kintradwell, seems to have been much thicker and more skilfully built. Both kinds of hut foundations I found in great numbers, indicating either, in every glen in Sutherland which I visited, a much more dense population than the county now sustains, or the habitation of such dwellings during a long period. I met with them far up Strath Brora, in the wild deer forest of Ben Armine; and there, as elsewhere in their neighbourhood, flint-flakes and weapons are found. I picked up an arrow head on a bleak moor twenty miles from the coast.

As to the age of these remains, it is as yet, I think, almost vain to speculate; but they are, in my mind, intimately associated with that stage of the development of the native Celtic population we know as the stone age. The use of stone implements in Sutherland seems to me to have come down to a very late time, as there is only one instance known to me of a bronze implement having been found, and that occurred only a few weeks ago, and at the southern border of the county.\(^1\) Indeed, we may barely consider the stone age as quite extinct there yet, for \(^1\)

¹ A drawing of this was made by Dr A. Kertchell, and is in the possession of the Society.

² Another is described and figured at p. 475.

have seen a quern of very rude construction at work within two miles of the county town. A bronze age seems barely to have had an existence at all there, the stone having apparently merged into the iron. Only one solitary gold ornament is known to have been found in the county, and that is a ring now worn by the Duke, and probably dating only a few centuries back.