

III.

NOTICE OF THE DISCOVERY OF A CINERARY URN OF THE BRONZE AGE, AND OF WORKED FLINTS UNDERNEATH IT, AT DALARUAN; ALSO OF AN OLD FLINT WORKING-PLACE IN THE 30-FOOT RAISED BEACH AT MILLKNOWE, CAMPBELTOWN. BY ALEXANDER GRAY, CAMPBELTOWN.

The town of Campbeltown is situated on the curve at the head or western termination of Campbeltown Bay, and is built for the most part on deposits of sand, gravel, and shingle, or mixtures of all three, which form one continuous and gradually ascending plateau from the present sea-level up to the old 40-foot beach. Extensive excavations have been in continuous operation for a great many years at various places, chiefly on the 30-foot level, to obtain sand for building purposes. The most important of these sand-pits is still being worked along the west end of Glebe Street, and the ground on which the Good Templar hall and the Board school at Millknowe stand has in the past been worked over. Reports of the frequent finding of urns and other things in considerable numbers are still current in the district, but unfortunately none of the finds were preserved, or seen by any person competent to give a clear and reliable account of them. It was my good fortune some eight years ago to find the half of an urn of Bronze Age type

in the Glebe Street sand-pit. It had been split in two from top to bottom, probably from the blow of a pick, and the larger half, which fell to my lot, had been thrown out on the rubbish-heap of coarse gravel and other rejectamenta. It is of the ordinary straight thin-lipped form, with slightly bulging sides, curving in below, and flat-bottomed, very much like figure 91 given in Dr Anderson's *Scotland in Pagan Times, Bronze and Stone Ages*, page 77. The height is 7 inches, diameter of mouth $5\frac{1}{2}$ inches, bottom flat, $3\frac{1}{2}$ inches in diameter, thickness of side $\frac{1}{4}$ inch, bottom $\frac{3}{8}$ inch, made of fine clay, free from stones, and well burned outside, and of a reddish-brown colour; inside black, and apparently less burned. It was very clean inside, and what the contents were, if any, is of course unknown. After a careful search I failed to discover any other fragments belonging to this urn, which is now in the collection of the Kintyre Scientific Association. Since that time I have kept a sharp eye on the sand-pits of the neighbourhood, but, up to the time of the discovery of which I am now to give an account, have been entirely unsuccessful in the vicinity of the town, though not elsewhere.

In the beginning of the present year preparations for the erection of a block of workmen's houses were commenced at the north-west corner of the town known as Dalaruan. The site is on the 30-foot raised beach, and excavations were at once started behind the building and a few feet lower down to obtain sand, which was known to exist there. Nothing was found in the pit at first, although the working had been rather extensive. One day in the first week of March I had occasion to visit the place, when I found two of the workmen trying to lift a large flat slab of epidiorite, which lay immediately beneath the soil, and resting on the surface of the old beach. My expectations were raised to a high pitch, and I remained with the men till the stone was unearthed, and assisted to turn it over. Underneath the centre of the slab was a slight depression in the sandy gravel, filled with dark loamy earth, similar to the overlying soil, but no trace of anything else whatever. This was disappointing, but I warned the workmen that the spot was a most likely one for ancient burials, and described to them as well as I could what an urn or cist would be like, asking them at the

same time to be careful not to break in handling anything they might find, or if breakage unavoidably occurred, to gather up all fragments of the broken article and keep them. This they promised to do, and nothing further was reported until three days afterwards, when the proprietor of the ground, Matthew Colvill, Esq., Bellgrove, came to me and said that the men had found an old earthen crock in the sand-pit, but had broken it to pieces, several of which they were keeping for me. On arrival at the spot I found four fragments of what had been a very large urn, and about a dozen bits of calcined bones. The men told me they had been taking a narrow slice off the face of the cutting, screening the sand at the same time to separate it from the gravel, and that, at a point of the cutting which they had already passed, part of the black surface soil had fallen in, carrying with it the urn, which was full of broken bits of bone. The few fragments already mentioned they had laid aside for me, the remainder being thoughtlessly shovelled through the iron-barred sand-screen and mixed with the sand. One side of the cavity occupied by the urn was still left on the face of the cutting, which enabled me to ascertain the following particulars. From the shape of the cavity I inferred that the urn was sitting on its bottom, and not inverted, though on this point I could not speak with certainty; but several little bits of bone were firmly embedded in the black earth of both the bottom and top of the cavity, as if the urn had been too full. There was no covering-stone or inclosure of any kind, the urn being simply buried in the earth, in which it had left a rough mould of itself. It must have been entire until broken slightly by the fall, and afterwards deliberately smashed by one of the men, who dealt it a blow with the back of his shovel. The cavity had been sunk through the $2\frac{1}{2}$ feet of black loamy soil, and continued down into the bed of gravel and sand to a depth of 6 inches, where it stopped, the gravel below that having never been disturbed. I conclude from this that the surface was very much the same at the time of the burial as at present, there being only about 2 feet of covering above the lip of the urn, which was, I think, the least amount that the old cremationists could possibly have been satisfied with. I wish to direct special attention to this fact, as it has an important bearing on the inference to be drawn from it.

The missing parts of the urn and also the bones were now to be recovered if possible, and after obtaining permission from the contractor I began to turn over the sand which then covered the spot where the urn had fallen, and after three hours' work had reached the bottom, and recovered eight or nine fragments of the urn, besides a number of bones, and—what I had not expected to find—about a dozen small white chipped flints. These I naturally at first associated with the urn, as they occurred mixed up with the material from which the fragments were recovered, but I soon afterwards found them in the fine gritty shingle and sand which came from the bottom of the section, and thus having my suspicions aroused, I searched till I found several chips *in situ* in this seam. I now communicated these facts to the President, ex-Provost Greenlees, and several of my fellow-members of the Kintyre Scientific Association, and the following Saturday afternoon Mr M'Innes our secretary and myself organised a search-party and had the remainder of the sand-heap turned over, in the hopes of finding more of the urn, bones, and anything else that might turn up. We were only partly successful; for although we recovered a good many bits of the urn, they were all very small, and few of them fitted together, as the parts to which they belonged were hopelessly lost or destroyed. A sharp look-out was all the time kept for flints, which turned up in even greater abundance than we had expected; and I now find that we have totalled up 132 of all sorts, most of them being only chips, fractured pieces, and small cores from which chips and little flakes had been struck off. Two or three of them at least are rather neatly finished, and some of the chips look as if they had been burned. One large flake-like splinter of gray quartzite occurred. This was the only stone other than flint which seems to have been artificially broken, all the others being smoothly water-worn and in the condition of ordinary beach material.

The sand and gravel in the face of the cutting underneath where the urn was found is finely stratified, the lines of demarcation between the seams of coarser and finer material being distinct and sharply defined. The succession in descending order is, dark loamy soil $2\frac{1}{2}$ feet, sandy gravel with a few large rolled stones 2 feet, fine sand with occasional

small rolled stones 2 feet 2 inches, fine gritty shingle and sand 1 foot 2 inches ; total, 7 feet 10 inches. All the flints at first found *in situ* were obtained from this lower stratum, but I found several higher up since then, and have no doubt that they are distributed all over the deposit. As false bedding occurs in the section, the above succession will probably not be continuous for any great distance, except in the case of the surface soil, which is fairly uniform in thickness.

The point to which I now wish to direct attention is the relative position of the urn and the deep deposit of flint-bearing gravel underneath it. We have here an urn of the ordinary Bronze Age type, containing cremated human remains, placed in the earth without a cist, at a depth of between only two and three feet from the present surface. As already stated, this is about the least amount of covering which the old Bronze folks could have deemed sufficient for the protection of their frail urns and their contents. As the urn was not sunk more than one half of its depth into the beach gravel, it is pretty clear that there must have been, at the time of the burial, a considerable amount of soil on the surface, and consequently the raised beach had then ceased to exist as a mere beach only, but was a deep-soiled land-surface, in all likelihood raised to its present elevation, or near it. And here, straight down below this old prehistoric cemetery, embedded in the stratified sand and gravel, just as the sea had left it, are the broken nodules and chipped flakes which had been struck off them by the old flint-workers, lying in hundreds. There could hardly be a more striking example than this of the long interval of time that must have elapsed between the Stone Age, as here represented, and the period to which the urn belonged. The people who placed the urn there in the dim past were in all probability ignorant of the fact that down below, in the solid beach, which they found so hard to penetrate, and which perhaps existed as they then saw it from time immemorial, lay the rude chipped flakes and rejected weapons of their still more ancient predecessors, who lived there when the sea rolled up to or over the old beach which they now converted into a cemetery. That the sea washed over the old beach, at least during storms or exceptionally high tides, at the time when some of the flints were dropped there, is sufficiently evident from the fact

that a few of them, after dressing, have been tossed about in the sea till *their sharp edges and angles had been worn quite smooth*. This has happened to a number of them, but the great majority of them are still as sharp-edged and angular as when first broken. The largest flint is only a little over 2 inches long, a few run about an inch and a half, but most are an inch and under. They are of white flint, with the exception of one or two brown ones, and a few of a peculiar mottled grey variety, which I have never before met with in Kintyre. Many of the cores and splinters have still part of the round outside attached, which shows them to be derived from nodules of small dimensions, but no unbroken nodule has yet been found in this section.

The urn, of which I sent a rough drawing to Dr Anderson, was pronounced by him to be of the ordinary Bronze Age type of large cremation urn, with almost straight sides, and without the thick overhanging lip. The segment of the circle given by the part of the lip which I have now pieced together shows the diameter of the mouth to have been twelve inches. From the lip to the bottom of the last fragment downwards is ten inches and three quarters, but still no indications of the bottom coming in. The ornamentation consists of a single punctured line immediately below and parallel with the lip, and a quarter of an inch further down is another similar punctured line, bounding the upper part of the *rude square inclosures, four inches long and two inches deep*, which run round the upper part of the urn, and are divided diagonally by a punctured line running from the upper left to the lower right hand corner, the lower half of the space thus marked off being filled in with four gradually shortening and similarly punctured lines, the upper half being perfectly plain. The upper half of the next square is treated in the same manner, the lower half being blank, and so on alternately. Half an inch below the punctured line inclosing the under side of the squares is another punctured line, and immediately underneath that a slightly raised, smooth band or belting half an inch broad. The three and a half inches of side below this is perfectly plain, and is succeeded by a second belting like the first. From that to the bottom of the last fragment is again plain, there being no further indication of any other form of ornamentation. The urn is made of a coarse paste, with little

bits of stones in it. The sides are of the uniform thickness of half an inch, well fired outside, and of a pale reddish-brown colour, the inside being apparently coated with some dull-black substance, and less burned. One fragment of the bottom $2\frac{1}{2}$ inches long and 2 inches broad, by $\frac{7}{8}$ of an inch in thickness, shows the bottom to have been flat, or even a little bulged in. What the exact depth of the urn may have been it is now impossible to determine; but as the distance from the lip to the first belting is $3\frac{1}{2}$ inches, from that to the second exactly the same, and from the second to the end of the last fragment the same again, we have some presumptive evidence of the uniformity of distance between the parts, and might expect the bottom to come in immediately. This probability is strengthened by the fact that the cavity in which the urn sat was not more than 12 inches deep when I first saw it.

The bones contained in the urn were all human, and had been calcined and broken into little fragments, the largest pieces not exceeding 3 inches in length, the majority being 2 inches and under, which made the task of identification one of no little difficulty. Dr Gibson, Kirklands, Campbeltown, to whom I submitted them, succeeded in determining the following parts:—Part of the left collar-bone, also fragment of the right, several fragments of vertebral ends of ribs, upper part of the left tibia, lower end of fibula, upper part of radius, part of the humerus, three carpal bones, distal joints of two of the toes, fragment of upper jaw, front of left lower jaw with teeth-sockets, part of sphenoid bone with optic foramina, fragment of petrous portion of base of skull, fragment of skull with foramina, fragment of temporal bone, also fragment of ditto with suture: all the bones were those of an adult. Nothing else was found in connection with the urn, which, through the kindness of the proprietor of the ground, has been placed in the local museum. I have been informed by Sir Arthur Mitchell, through His Grace the Duke of Argyll, and also by Dr Anderson, that where urns are found as this one was, simply buried in the ground, they generally occur in groups of several, so that when excavations are again resumed, as they soon will be, there is a strong probability that others may be found.¹

¹ Extensive excavations have since been made to obtain sand, but nothing else has been found. The sand-pit is now filled up.

On the conclusion of the search in the sand-pit already described, our party dispersed, each going his own way. Mr Watson, one of the party, on his way home picked up from the shingly gravel on one of the lanes of the burgh several flint chips, which he took to me that night. They were of the same white flint as those found in the sand-pit at Dalaruan, but the gravel in which they occurred I knew to be taken from another part of the same beach at Millknowe, and three or four hundred yards south-west of Dalaruan. I lost no time in visiting this place, where I found the flints in great abundance in the beach shingle, which was being cleared away to make room for a new bonded warehouse at Albyn Distillery. I collected flints there from every part of the section, from the lower part of the deep black soil downwards to a depth of four feet into the shingle, and about seven from the land-surface. The section, as exposed at present, consists of about three feet of rich black loam; beach shingle, with a very little sand, two feet; a thin dark-coloured band which extends along the face of the section for about seven yards, and is from three to six inches thick, thinning out and disappearing on both sides. Below this is about two feet of shingle similar to that above. The dark seam is not a former land-surface, as might at first be supposed, but the site of the old flint-working encampment. It is in reality a dirt-band, composed of litter and refuse of all sorts, such as bits of charred sticks, burnt bones, and innumerable chips and splinters of flint, the latter all quite sharp and unworn. In some spots the dirt has actually a greyish, pepper-and-salt appearance, from the great number of minute bone fragments which exist in it, in the last stages of decay. To separate them from the other material is generally quite impossible, as they are mostly so small and so far gone that a good lens is necessary to convince one that they really are bone. From this dirt-band I took the full of a large zinc bucket, not selected, but filled with the shovel, and carefully washed it out. I found that at least 80 per cent. of the total bulk was made up of the ordinary shingle, and from the remainder I picked out 498 pieces of flint, mostly very small chips and scales, such as fly off during the process of breaking. A few were between 1 and 2 inches long, and seemed to be broken or spoiled arrow-points, knives, or flakes which had been rejected. Besides the flints, I succeeded in finding

about eighty fragments of bones, in a sufficiently sound condition to stand washing, among them being two of what I take to be the vertebræ of a small fish. The others seemed to be the bones of larger animals, but are, I am afraid, too small for recognition. The better-preserved fragments look as if they had been burned; the mouldering bits which fall away on being touched have no such appearance. Of small bits of burnt sticks I picked out 104, but a great deal of this material went to mud in the washing, so that the quantity found bears an insignificant proportion to the total amount which must have been present. A number of those picked out seem to be parts of very small twigs or branches. The evidence here adduced, together with the fact that the dirt-band is not continuous,—as it would be if it were a former land-surface,—but a mere isolated, though large patch, in the midst of the ancient beach, proves beyond a doubt that this is the spot on which the palæolithic men camped for a time, and dressed the flints, the refuse of which still remains mixed up with the general camp *débris* to attest their presence there. The flint-bearing gravel above the dirt-band shows that the site was probably that of a summer encampment, over which the storms of winter had washed the layer of flint-strewn gravel, and thus preserved to us the old camp-floor, which might otherwise have been entirely obliterated. All through the beach which has been cleared away, and at frequent intervals, the workmen found little nests of a similar black material, generally with a few larger stones lying in and around them. A good many of these stones were angular lumps of the ordinary vein quartz from the schist of the neighbourhood, which have lost their natural glassy semi-transparency, and taken on that opaque dull-white appearance, with all their natural seams opened up, and of that peculiar rusty-red colour, which indicates severe burning. It is quite evident that they had been built up to form the backs and sides to the old camp fires, of which the black sooty material in which they now lie is the only remains. The total absence of even the smallest bit of pottery is very remarkable, and still more remarkable is the absence of shells, of which not a fragment has yet turned up, and no recognised article of human manufacture except the flints has yet been found. In the material which had been carted from this place to level up the public

park I found a single large tooth of an animal, which I forwarded to Dr Anderson, and which he identified as a tooth of the grey seal (*Hali-chærus gryphus*), which is also found in similar refuse-heaps of other localities, but whether this one came from the dirt-band or not I cannot say, as I did not find it *in situ*, but only in the material after removal. The grey seal is now extinct in this locality, but still exists in the wilder parts of the North of Scotland and the west coast of Ireland. Mr Ritchie, the tenant of the little island of Sanda, which lies off the south end of the peninsula of Kintyre, informs me that, when he took possession forty years ago, a single pair of the grey seal lived on a dangerous reef of rocks in the Sound of Sanda, known as Paterson's rocks. They were also known to the former tenant of the island for many years; and seldom left the rocks which they had chosen for their home, unless for the purpose of obtaining food in the surrounding waters. They remained at this place summer and winter, and were as much a recognised part of the landscape as the rocks themselves, from which they disappeared thirty-five years ago. This is, as far as I know, the last instance of the grey seal being resident in Kintyre.

As flint is not native to Kintyre, to the question of how these nodules found their way there, no satisfactory answer has yet been given. The seaweed-carrying theory is, I am afraid, quite inadequate for the transportation of nodules in such abundance as the amount of *débris* in this old manufactory indicates. The only point in favour of the theory is the limited carrying capacity of seaweed, and the uniformly small size of the nodules found in this and other flint workshops in the West of Scotland. In the Antrim beaches the proportion of limestone pebbles to those of flint is at least fifty to one, perhaps much more; and the limestones would be just as likely to grow seaweeds to float and transport them as the flints, and if so we ought to find some of them in our raised beaches. It is quite true that the limestone pebbles would decay in a comparatively short time, but then we have bits of our local limestones in those same raised beaches, and they are probably not more durable than Antrim ones. Floating ice would have carried indiscriminately flints and other stones of all sizes, large and small alike, and this we find has not been the case. Besides, as has often

before been pointed out, there is no clear evidence of the existence of ice around our coasts during the period of the raised beaches. The theory that the flint-bearing limestone in the North of Ireland once extended to the West of Scotland, and that the flint nodules now found there are the only existing remains of it, is open to the same objection, as in either case we ought to find large nodules as well as small ones. That the nodules used here were intentionally selected is sufficiently obvious from the uniformly small size of the chips, and that they have been carefully carried to the manufacturing site is also obvious from the fact that the chips are found there in abundance, and are not abundant elsewhere in the neighbourhood. That the nodules were collected all over the peninsula and carried to this one spot is possible, but from the number here occurring I think it very improbable that Kintyre could ever have yielded them in sufficient quantities. Within the last two months I have collected from this one place over three thousand flints, ranging from half an inch to three inches in length (only two of the number being unbroken nodules, and small), which is certainly ten times the quantity that I have hitherto seen during a twenty years' close and extensive observation in Kintyre. Besides, thousands of flints have undoubtedly been carted away with the removed material and buried up out of sight, and thousands more certainly yet remain in the beach, but one gets tired of lifting them, and disappointed at not finding more good ones, the good ones being apparently too precious to be left behind, and too carefully guarded to be often lost. When one considers the quantity of flint nodules which this *débris* originally represented, it becomes very difficult to believe that they were not conveyed to this particular place by the canoe-load. That the flints found in the beach at Dalaruan below the urn were drifted from this old workshop I have not the slightest doubt, as it would be a centre of dispersal all round the shores of the loch.

Flint nodules do exist at other places in the old beaches, and also in the soil, but are by no means common, and our existing beaches have them, together with pebbles of the Antrim limestone, by the score; but then we have occasional shipwrecks, which accounts in some measure for their occurrence in certain places. One spot on the west coast of

Kintyre is known to me where a large barque ballasted with Antrim limestone was wrecked over thirty years ago, and the shore here is still strewn with limestone and flint pebbles, and the same thing has doubtless been of frequent occurrence in the past on other parts of the coast. But shipwrecks will not account for the presence of flint nodules on our shores in Palæolithic times; and unless we admit that they were imported by Palæolithic Man, who selected those of a size best suited to his requirements, and of which requirements we at present probably know very little, we shall be forced to leave the question unanswered.

Note.—Since the above paper was written, a discovery has been made which considerably modifies what has therein been said in regard to the uniformly small size of the flint nodules. The dirt-band in the beach at Milknowe has been entirely removed in the process of excavation, and three large nodules of flint have been found about 5 feet down in the gravel, lying on the same level, and not far apart. They weigh respectively 5 lbs., $7\frac{1}{4}$ lbs., and 10 lbs. 1 oz. Large slices have been broken off each of them, so that their original weight must have been considerably greater. They are irregularly round nodules, with knobbed projections, and are apparently identical with the flints of the opposite coast of Antrim. Embedded in the chalky surface of one nodule is a very complete specimen of a small bivalve, probably a *Plagiostoma*, and another shows a complete section of an *Echinus*. Those nodules are, so far as I am aware, the largest that have yet been found in any of the old flint workshops or raised beaches of the West of Scotland, and their occurrence here goes a long way towards the disposal of the seaweed-carrying theory, as no amount of *Fucus* which could find root-hold on a 10 lb. nodule could ever possibly float it up.