

IV.

NOTES ON SOME COLLECTIONS OF FLINT IMPLEMENTS FROM
BUCHAN, ABERDEENSHIRE. BY WILLIAM FERGUSON OF KIN-
MUNDY, Esq., F.S.A., F.L.S., F.G.S., F.R.S.E.

The first collection belongs to the Rev. James Peter, parish minister of Old Deer. An axe of yellow flint four inches in height, and rather thick in proportion, and a beautifully shaped celt of greenish blue flint, with a carefully ground cutting edge, are the chief specimens in this collection. The locality of both these is in the hill of Skelmuir.

The second collection contains seven specimens, and belongs to James Cooper, Esq., M.D., Old Deer. In it is a finely preserved stone ball, with six circular disks, rudely carved. The other chief specimens are—A small wedge-shaped cutter of a very close-grained light-coloured stone, highly polished, from Annochie, size $2\frac{1}{2}$ in. by $1\frac{1}{2}$ in.; a celt of clear yellow flint from Bogingarry, $4\frac{1}{2}$ in. by 2 in.; a lozenge-shaped lance-head of dark grey almost black flint, exquisitely chipped and pointed at both ends, from Annochie, 9 in. by $1\frac{3}{4}$ in.; a very fine arrow-head of *white opaque* flint

(chalcedony), one of the barbs has been broken off,—this was found at Cortiecrum,— $2\frac{3}{4}$ in. by $2\frac{1}{2}$ in.; fragment of a broken arrow-head of white semi-translucent flint; the edge is artificially serrated. This is probably one of the single-sided type of cutting instruments.

My own collection contains a number of stone axes, some of them rude and rough, others exquisitely shaped, sharpened, and polished. These have been picked up at various times in the neighbourhood of Kinmundy, parish of Old Deer, and in the neighbouring parish of Slains. One of the specimens is a flint hammer, 5 in. by $3\frac{1}{2}$ in. In girth lengthwise $13\frac{1}{2}$ inches and across $9\frac{1}{2}$ inches. The stone is in its natural state, but two pits are artificially hollowed out, on opposite sides, evidently for fastening it into a knobbed or split stick. So mounted in a strong flexible handle, it would be a formidable weapon. It was found at Kinmundy. Several round stones or balls, which may have been used in slings, or perhaps may be domestic articles used for pounding seeds or grain. There are a great variety of arrow-heads, some barbed, others heart-shaped, lance-shaped, shaped in endless variety of form, together with cores from which the implements have been chipped, and collections of the chippings. One of the larger specimens may be called a flint adze. It is formed of a thin piece of flint, curved in the flat side, with a very finely-ground cutting edge. Whorls are numerous; and beads of a kind of glass, with coloured bands, are occasionally met with.

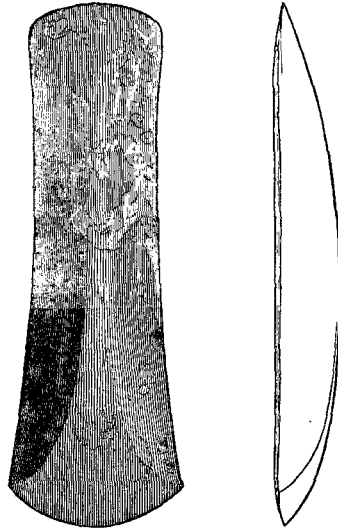
The gem of the whole collection is now the property of the Society, having been presented to it by Mr James Dalgarno, merchant, Slains, Cor. Mem. S.A. Scot. It is a celt, one of the most beautiful and peculiar I have ever seen, and I rather think unique. It differs from the ordinary type in being strongly ridged—that is, a transverse section shows a triangular shape. The material seems to be a kind of chalcedonic flint, almost passing into chalcedony. It is exquisitely formed and polished, with cutting edges at both ends. It is seven inches in length, and was found at Fernie Brae, Loch Lundie, in the parish of Slains, Aberdeenshire, Mr Dalgarno has furnished me with the following notes on this locality:—

“The Fernie Brae lies near the centre of the moss of Loch Lundie, from which one can see the whole of the boundaries of the parish of Slains.

“There is evidence that at one period it was surrounded by water, that the little island had been inhabited, and that the inhabitants traded with

their neighbours by means of canoes, one of which was found in a pretty good state of preservation, with broken oars, at a depth of several feet, by a party cutting peat in the moss.

“There is also evident proof that they were warriors and huntsmen, in the many weapons they have left behind them, in the shape of stone battle-axes and flint arrow-heads, found in the moss and vicinity.



Polished Celt or Axe-head found at Fernie Brae, Slains, Aberdeenshire.
(7 inches in length.)

“There is abundant proof that they had hunted the deer and wild ox, as many skeletons or separate bones of these animals have been found from time to time, embedded to the depth of 10 feet in black moss. One can easily imagine the skin-clad savage huntsman giving chase to the stag, drawing his bow, and with well-aimed shaft striking his victim, which wounded rushes madly and wildly into the loch, where, after struggling for a time, it becomes exhausted and sinks to the bottom.

"Near to a skeleton of this kind was found a very large well-formed arrow-head by John Kennedy, brother of Philip Kennedy, who was killed by the exciseman in a smuggling raid.

"From time immemorial the Fernie Brae was known only as a covert for foxes, badgers, and birds of prey. Some of the older parishioners to this day assert that it was haunted by goblins and spectres, as they say, disturbed by the eerie cries of the foxes, and the screech of the horned owl. An old man now verging on 90 says, that when a young lad of about 18 he and his master's daughter, a little girl, went bird-nesting there one summer Sabbath morning, and when just in the act of lifting a prize of moorfowl's eggs, they heard an angry growl, which made the blue 'heathen' stones ring. The little girl was alarmed, clung to him for protection, and directed his attention to what she thought was a calf. On looking round, he saw a large grisly monster finding his way into an opening below a large stone. The eggs were left untouched, and both went home at a much quicker pace than they left it. The story is now seventy-two years old, and many during that period, including the writer, have got the advice never to go bird-nesting upon the Sabbath-day.

"In the spring of the year 1830, one William Wildgoose became tenant of the Fernie Brae. He removed the large heathen stones and cairns for building purposes, thus making way for its being trenched and cultivated. It was then that the ferns, foxgloves, and bluebells, that had grown undisturbed for hundreds of years, were uprooted, and the discovery made that the little island had been an ancient burial-ground.

"This was brought to light by removing three moss-clad grey stone cairns, which probably commemorated three chieftain warriors; if one can judge from the war implements in the shape of stone-celts of the finest formation and polish (of which the specimen figured is probably one), and arrow-heads found in rudely-fashioned stone cists. In two of these cists were clay urns containing burnt ashes. There were also human bones much decayed. Unfortunately, the urns were wholly destroyed by the farmer's implements.

"It was reported at the time that Willie had qualms of conscience about disturbing the repose of the long dead, but became reconciled to himself on reflecting that he would not only preserve all the weapons and stones, but dedicate the ground to their memory as a compensation, which

he did as far as was possible by building his house on the site, and forming a large kail-yard, the walls of which are still entire.

"William kept the choicest of the weapons under lock and key, and it was only a privileged few who even got a sight of them. He used some of the flint arrow-heads and perforated flints as charms against witchcraft, by placing them over the doors of his dwelling-house and cow-byres.

"At his death the whole was left as a legacy to his spouse, and it was with much reluctance that she disposed of two of the finest finished stone celts to Lieutenant Paterson, R.N.

"In the spring of 1872 the present tenant trenched some new ground for potatoes at the foot of the brae, and turned up a number of flint flakes, many of which have been preserved. They are very much like those found near the mouth of the river Ythan, and Andrew Jervise, Esq., Cor. Mem. S.A. Scot., is of opinion that they are specimens of the first stage of manufacture.

"Some are of opinion, right or wrong, that there is an unexplored chamber near the dwelling-house, basing such belief on the *difference of sound* in the tread on part of the causeway approaching the door. The tenant may be induced to make an excavation some day, and so settle this question, and perhaps bring to light fresh discoveries."

I hoped to have included in this exhibition a flint-spear or knife, a scraper and two arrow-heads found in June last on the Fernie Brae; but Rev. Mr Morrison of Urquhart, to whom Mr Dalgarno had lent them, sent them to Mr Evans, in whose possession they now are. I wish we could have seen them here, for Mr Dalgarno wrote me that he is convinced that the beautiful chalcedonic celt now on the table, and the *spear-head* $4\frac{1}{2}$ inches long, are of the same material, and they were also found in the same locality, and the material is of a character which I have not met with before.

Within the last few days Mr Dalgarno has obtained a barbed arrow of "white-pebble," I presume somewhat like the broken one in Dr Cooper's collection already described, which is the only one of that kind of material that I have seen, namely, an opaque white or cream-coloured flint.

The spear-head or scraper mentioned above was found, along with two arrow-heads and the horn of a buffalo or wild ox, embedded to the depth of $5\frac{1}{2}$ feet in black moss.

The celt now figured (p. 509) had been found long ago, and carefully

hidden away by the finder. It was rediscovered in November last, wrapped in flannel as black as the sooty rafters, and secreted right above the door of the dwelling-house at Fernie Brae. Rumour says there is another. It will be well watched for, and secured if possible. The likelihood is that this one and the one supposed still to be unrecovered were part of Willie Wildgoose's "find," which he so carefully and superstitiously hid.

The Blackhill flint flakes are found in hundreds. The ground, though levelled now, had at an earlier period been a dry knoll, and the plough, on taking a deeper furrow than usual, brought them to the surface. They were confined to an area of about fifteen or twenty yards in circumference. This would indicate that here, too, there probably was an early settlement of those who made or used these implements. The character of the *locale*, a dry knoll in the middle of an extensive wettish tract, would naturally lead to the choice of a site so suitable. I abridge the following notes from a paper of Dr Longmuir's, published in the "Aberdeen Free Press:"—

"The flakes (*Scottice*, *skelbs*) of flint are evidently of the same kind with the yellow or ochreous flint nodules that are so abundant on the hill of Arnage, at Moreseat, and on the Blackhill near Boddom (I may add also on the hill of Kinmundy, especially on the farms of Blackhill and Bogengarry). The largest of these flints are only two inches in length, the average of the larger specimens being an inch and a half, while the smaller are barely half an inch. In the many visits made to the districts indicated, Dr L. states that he never met with such splinters where the water-worn boulders of flint abound; and thus these chips may be held as conclusively proving that the 'dry knoll' had been the site of a manufactory of arrow-heads, ignorantly called *elf shot* or *elf bolts* by the successors of these manufacturers, who were apparently ignorant of the process of manufacturing them, and made no other practical use of them than to strike a light on a 'fleurish' to kindle their pipes. A practice, which is perhaps not yet obsolete in some districts, and which shows the blindness of superstition, is, that while the manufactured flint is regarded as the *work of the elves*, it is believed that these very elves are repelled and their evil counteracted by the raw material in the form of a naturally perforated flint when suspended in a bed! We have been reminded of this

fret by observing that in two of the specimens now under observation the manufacturer had dexterously chipped a flake off a perforated core, so that the parts on each side of the hole would form the barbs of his arrow-head. One of the specimens is a head almost finished, and many of the others have been brought into a rude triangular form, evidently presenting the rudimentary shape of the head, which might have been done by the apprentices, and then, on the principle of the division of labour, handed on to the more skilful workmen. One is clearly of that form which has always appeared to me (Dr L.) to be the *chef-d'œuvre* of the flinter's art, namely, that in which there springs a projection from between the barbs, in order to be the more securely fastened to the end of the arrow; for in some of those arrow-heads I (Dr L.) have from Ireland there is a depression instead of a projection, and others in our own country are lozenge-shaped, the lower part, however, being more prolonged than the upper. Several of these specimens are prismatical, and two have clearly the appearance of having been broken across, when they were so far on their way to become knives or lancets, some beautiful specimens of which have been got in our fields. The most elaborate in workmanship and beautiful in form that I have seen among our Aberdeenshire flint implements was exactly of the form of the Roman *gladius*, although much smaller in size, thus perhaps suggesting that when implements began to be made in bronze, they were moulded after the shape of the flint tools that they were destined to supersede.

“It may be both interesting and instructive to mention, that when Zipporah is said to have taken a ‘sharp stone’ and circumcised her son therewith, we are to understand a *flint knife* such as is found in different parts of Europe and Asia, and of which specimens may be seen in collections of Egyptian antiquities. It may likewise be added, that in the Greek translation of the Old Testament it is stated, as part of the 30th verse of the last chapter of the Book of Joshua, that they placed in the grave along with him the stone knives with which he had circumcised the sons of Israel at Gilgal. According to the same custom, considerable numbers of arrow-heads have been found in cists in our own country, together with a number of flakes of flint, of which the warrior might make more should the supply of manufactured heads fail him; from which one might draw the inference that well-finished arrow-heads were of some value at the time they were used either in war or in the chase.”

I may mention as a curious circumstance, that so far as a tolerably careful examination shows, no flint nodules are found at or near the spot where the flakes are found so abundantly, nor in those districts where the nodules abound in thousands and millions have I ever met with the flakes. The material used at the manufactories must have been conveyed considerable distances. It would appear that the settlement near the mouth of the Ythan had been of considerable size, for my brother, who visited the spot, told me that the flakes were in such quantity as would have made cartloads. There too, as well as at Blackhills, they are heaped together within a limited area.

The superstitious veneration with which these implements of wrought stone were regarded is by no means extinct yet. This makes it difficult sometimes to obtain possession of them, even when we know of their existence. It is considered unlucky to part with them. The two polished greenstone celts in my collection were obtained for me with great difficulty. They had been handed down (at least one of them) from father to son for nearly a hundred years, and were carefully preserved as charms. The small very dark red arrow-head was in like manner parted with by the old woman who had it with extreme reluctance. It was the first treasure of the kind I got, and was the nucleus of my collection. I have had it for nearly forty years, though all the others are comparatively recent acquisitions.

I heard of an instance of this superstitious feeling so recently as 1872. A man lost his cow, and concluded that it had been shot by a fairy. To make sure, he had the animal opened; and though he could not find the actual bolt, he declared he saw distinctly the hole it made in penetrating the heart of the defunct beast.

The idea they seem to have, and which makes them reluctant to part with the elf-bolts is, that so long as they keep possession of them, they are harmless, as the elves or fairies cannot make use of them; but if the finder permits them to pass out of his own safe keeping, the original owner can resume power over them against him and his live stock.

NOTE ON THE OCCURRENCE OF NATIVE FLINTS IN ABERDEENSHIRE.

The general features of the district are those usually exhibited when the primary or crystalline rocks predominate as the foundation rock.

These are covered with a thick coating of gravels and clays. At one point a patch of greensand, with its characteristic fossils, has been discovered, and over a considerable part of the districts there is an enormous accumulation of water-worn chalk-flints. Running slightly to south of west, there is a ridge of high ground, taking its rise nearly at Buchanness and stretching across the country continuously for eight to ten miles; at its eastern extremity it branches. One of the forks terminates south of Buchanness in the mass of granite called Stirling hill. The other runs north of Buchanness, and may be said to terminate in the granitic escarpment of the Black hills. All along the shore, wherever between these points the rocks admit of a beach, quantities of water-worn flints are found mingled with the other pebbles evidently washed up by the waves. They are also found, although sparingly, on the southern ridge, or Stirling hill. But on the Black hill, and neighbouring hill of Invernettie, the surface is almost covered with them. This ridge, at the distance of about seven and a half miles from the sea at Salthouse-head, attains an inland distance of about five miles from the coast opposite Slains. The flints are met with on the surface at various points along that line. The ridge is bare and moorish, but covered with peat and heather, and this prevents the flints from being accurately traced. At this point, however, seven and a half miles along the ridge, and five miles from the sea, they have been laid bare.

They occur at the extreme verge of the parish of Old Deer, and are principally seen at the farm of Bogingarry, on the lands of Kimmundy. The ridge of hill here trends to the north, coming round again towards the west, so as to expose to the south a deep bay, with a considerable slope to the south. The hill is covered with moss and heather, and is partly planted. The south face of the hill has been under cultivation for the last fifty years. The flints are seen on the surface, commencing pretty far up on the east side of the hollow, and following at the same height the crescent form of the bay, disappear among the heather, which has not yet been removed, on the extreme west. They are in great abundance, covering a space of from twelve to twenty yards in breadth.

About 1830, in cutting a ditch to carry off the surface water from the garden of the farmhouse of Bogingarry, the bed of flints was come upon, and found to be of considerable thickness. The ditch ran from south-

west to north-east, traversing the flint-bed, and a short cross ditch lay in the line of the bed.

When I saw the ditch first it had been open a good many years, and had become partly filled up. It had, however, a singular appearance. It was crossed by the road to the house, and the water-run of the bridge was choked with rounded flints of all sizes. Above the bridge the bottom of the ditch was covered with rounded flints, brought down by torrents. The layer of soil was extremely thin, and below it the ditch was cut through a stiff yellow clay, scarcely a pure clay, more like a yellow clayey gravel, and so hard as to be pierced with difficulty. Except in the bed itself, very few flints are to be seen amongst the clay. The top end of the ditch and the cross one are in the bed. The flints lie closely packed together, embedded in the already mentioned clayey matrix.

Many of them weather when exposed to the air, becoming white, and in some cases they shiver into flakes. When newly taken out of the bed they usually break with a clear fracture, but soon they become hard and lose their facile cleavage. Every one contains some trace of organic remains. I have examined a great many, and rarely missed seeing some indication of organisms; although it is rare to find the fossils sufficiently perfect to make them worth preserving.

In the localities near Peterhead there have been found "considerable variety of the *Echini* family, occasionally entire, but more frequently only small portions of the impressions of these shells are found. Single spines frequently occur, and are distinctly marked. The *Inoceramus*, *Pecten*, and *Terebratula* are very abundant."

Flints are also found on the surface of the hill of Skelmuir, adjoining Bogingarry. This hill is separated from the hill of Kinmundy by a valley and a deep morass, called the Bog of Ardallie. South-westward they are found in great abundance on the hill of Dudwick, in the parish of Ellon. This seems to be their southmost limit. I learn from a paper by Mr Christie of Banff, published in the "Edinburgh Philosophical Magazine" for 1831, that they occur at Boyndie Bay, in that shire, and also in a mass of diluvium covering the high grounds between Turriff and Delgaty Castle. The flints at Boyndie Bay are found strewed along the shore, and contain traces of zoophytic organic remains. Those at Delgaty are likewise characterised by the remains of sponges, &c. The station at the

latter place is ten miles from the sea, and is the highest ground in the neighbourhood. The flints are found, as already mentioned, in a mass of clay cresting the hills. None are found in the hollows, except when washed down by streams.

I am indebted to Mr Salter for a list of upwards of twenty species, which he named from the specimens I have collected at various times. The best specimens are deposited in the Jermyn Street Museum. He has described and figured three as new species.

The other rocks in the immediate neighbourhood of the Bogingarry flints are granite, trap, and limestone. We have northward, white granite at Smallburn; and red at Newton and Greenmyre. The rising ground on which the house of Kimmundy stands is a greenstone trap. Nothing but this was met with in digging the foundations of the house. It was also met with, along with a loose gravel below it, in sinking a well close by to the depth of 46 feet. On further deepening the well, 30 feet of solid rock were gone through. It comes to the surface in the wood behind the house, and is quarried for dykes and drains. In the hollow behind, again at Cassieford, we have a deep deposit of peat. On the south side of the hill at Millhill, granite and gravel; on the north, granite quarried for building purposes. Below Barnyards there is an escarpment of what seems to be mica slate. West from that, all over the hills of Coynach and Knock, there are immense boulders of clinkstone—heathens; as they are called there. These are water-worn and striated; some of them are many tons in weight. Four miles further, at Hythie, limestone resting on granite. North-westward, at Annochie, we have limestone quarried for burning. It is much cut up by veins, dykes, and blocks of gneiss, from which we may gather that it rests upon gneiss. It is impure, containing a good deal of magnesia. Beautiful specimens of calcareous spar are met with now and then in drusy cavities in the rock.

The country presents numerous simple minerals. Many varieties of quartz, such as milk, rose, violet, ferruginous, spongiform, &c., and sometimes very large specimens of rock crystal, are picked up in the fields. Jaspers are common. Veins of antimony are found in the granite, and several varieties of the ores of iron. Manganese in the dendritic form is seen sometimes in the limestone. Crystals of schorl, sometimes of large size, I have often procured from huge fragments of white quartz. In one

spot there is a quarry of these quartz blocks, some of them of great size. They are not water-worn. I once picked up a piece of granite with numerous small crystals of beryl.

In the peat are found trunks of trees, principally oak, and large quantities of branches of birch and hazel, with nuts of the latter. Not a hazel bush has been seen in the district for upwards of a hundred years; yet in some places, by simply turning over the turf, hundreds and thousands of hazel nuts may be laid bare. The antlers of stags have also been dug up in the district, but not recently.

Standing on the ridge of the hill of Kimmundy, and looking towards the south and east, there is spread out before the eye a wide expanse. Slightly to the north of eastward the ridge is continuous to the sea at Buchanness. Westward it undulates, receding northwards, and again stretching out a promontory to the south. Beyond this there is a gorge narrow and deep, and again the hill rises, stretching away westward and northward, and running out in a series of high grounds by Dudwick towards Turriff and Delgaty, and so onwards to the sea at Boyndie. Between this ridge and the sea, on the east and south-east, there stretches out, from the sort of bay described, a breadth of 5 or 6 miles of level country, presenting inequalities of surface and some rising grounds, but in the main level till it reaches the sea, with a coast line elevated 180 to 200 feet above the sea level. It is over this valley that the calcareous sands (crag) occur. It is near its centre that the greensand lies; and standing, as I have said, on the hill ridge, and marking, as one cannot fail to mark, the band of flint boulders that lines the various bays and promontories near their highest and at an equal elevation, it requires no great stretch of imagination to conceive of the waves of the German Ocean as having once rolled even hither, bearing with them, and depositing on their innermost bounds, the rounded flints that mark their ancient shore.