IV.

NOTES ON MEDIÆVAL "KITCHEN MIDDENS" RECENTLY DISCOVERED IN THE MONASTERY AND THE NUNNERY ON THE ISLAND OF IONA.

By JOHN ALEXANDER SMITH, M.D., V.P.S.A. Scot.

In the summer of 1875 I learned with pleasure that His Grace the Duke of Argyll had determined to preserve, as far as possible, from further dilapidation, the interesting groups of ecclesiastical ruins on the island of Iona, and that he had arranged with our Fellow and well-known architect, Mr Robert Anderson, to suggest and superintend the necessary repairs and restorations, so as to preserve the ruins from further and rapidly increasing decay. As part of this necessary work, it was determined to remove the accumulated earth forming the present surface of the ground, around the whole buildings, so as to get to the lower and original level of the soil, and thus to show, as completely as possible, the architectural details that might be still preserved underground; as the bases of the walls, and of the different door ways of the various buildings.

The class of minor antiquities styled "Kitchen Middens," had long interested me, and the bearing of their varied contents, on the question of the different kinds of food, and it might also be of the customs of the district, where these ancient refuse heaps are found.. There was also the difficult question of their greater or less antiquity; for it must not be forgotten that "Kitchen Middens" belong to every age, from ancient down to our own modern times. I had read accounts of

"Kitchen Middens," which were described as being of remote antiquity, as belonging, indeed, to the "Stone Age," whatever period of undefined time that may have been in reference to any particular people; or at least to the so-called "Neolithic period," or latter portion of it; the assumed Age, as it has been styled, of Polished Stone Weapons. It seems to me that it is scarcely worth while to attempt to found a definite portion of bygone time on the mere fact of a stone weapon being chipped or polished; as indeed the chipping of a stone must almost always have been simply the first stage in the manufacture even of a polished stone weapon. The mere finishing touches thus given to some special weapons is surely not sufficient to stamp them with the dignity of a new invention, or one by any means requiring the definition of a distinct period of advance, either of Art or of Time! We must also remember how much more easily flint (that valuable, though very local, material for stone weapons) is shaped by chipping than by rubbing or polishing; and surely not less, but equal at least, if not more talent, is shown in the manufacture of the finely chipped and unpolished flint weapon, than in almost any rubbed or polished stone weapon.

I was anxious, therefore, to examine in some degree the contents of an old "Kitchen Midden" belonging to a somewhat definite period or age, so as to be able to compare it with these archaic refuse heaps to which I have referred. To see in what respect they differed, or it may be, might agree. Accordingly, I requested Mr R. Anderson, if, in the course of the diggings and levellings of the ground round any of these old ruins in Iona, they came upon an abundance of animal remains, as shells and broken bones or other refuse, suggestive of an old kitchen midden, to be good enough to spare at least a part of it for a time, and I would gladly come and make an examination of its contents, as it was in the course of being removed.

In the month of July 1875, I learned from Mr Anderson that some heaps of this kind had been spared, and he would be glad if I would revisit the island towards the end of the month. Accordingly I left for Iona on the 23d July, and Mr Anderson joined me at Rothesay.

It happened that Mr and Mrs Maclean of Carsaig were on board the Iona steamer, and as Mr Anderson and I had both seen a recent account in the newspapers, and heard a good deal about the ancient crosses observed on the walls of the "Nun's Cave," near Carsaig, on the southern

shore of the island of Mull; we took advantage of their kind invitation to go ashore with them and visit the cave—pardon this short digression. The cave is situated at the bottom of a rugged bank or cliff on the sea-shore, has a rather wide mouth or entrance, the roof sloping downwards and backwards to its upper extremity, and displays various small crosses incised on its natural walls of rock. Some of these are formed simply of one short line, crossing near the upper part of another and longer line—the shaft of the cross. While others had a circle formed at the intersection of the arms, and another had a somewhat circular head, with the top and the transverse limbs of the cross projecting through it, four loops or openings being indicated at the intersection of the different parts, reminding one of the type of crosses still to be seen at Iona. These incised cross markings seemed to be of considerable age. There are also more modern markings of initials cut on the walls, and dates such as 1633, 1758, 1825, down to 1858; showing thus a somewhat lengthened array of visitors to the cave. It is now only tenanted by an abundance of rock pigeons, which take shelter in a large fissure running upwards in the sloping roof of the cave. A good building sandstone had from time to time been quarried among the rocks on the shore, at no great distance from the cave, some of which had been used for the recent repairs of Iona; and, indeed, it closely corresponded to some of the stones of the old masonry of the ecclesiastical buildings of Iona. This might help to account for at least some of the visitors.

As the Iona steamer was then only passing Carsaig on its way back from Iona, Mr Maclean, after our pleasant visit, drove us over by the shores of Loch Scridean to Bunessan, from whence we crossed the narrow channel or ferry which separates Iona from the island of Mull.

On reaching Iona, and visiting the ruins of the Nunnery and the Monastery, we found that great improvements had been made in clearing away the long accumulated earth from among them, and in carefully repairing and replacing partially broken stones, the result being to give quite a different appearance of strength and stability to the whole ancient ruins. The mound of earth at the monastery where the bones were found in the greatest abundance, and which had therefore been reserved for my examination, was situated along the northern side of the large building

believed to be the refectory, and between it and another building close by, which was supposed to have been the kitchen or one of the buildings connected therewith. On the other side, to the north of this supposed kitchen, was the low wall which now encloses the ruins; and beyond this again, the little stream running down to the sea, which passed the kiln and formerly turned the old mill of the monastery, situated above it to the west. Beyond the stream, the ground was, and had long been, under cultivation, and few undisturbed remains could be expected to be found there. The fact, however, of another old ruin still remaining a little beyond the stream to the north, and designated the "Bishop's House," made one rather anxious to have had some diggings made in that neighbourhood. (The relations of these different buildings of the monastery to the kitchen midden, which they quite enclose, are well seen in the careful ground-plan of the monastery now exhibited, for which I am indebted to Mr Robert Anderson, architect, F.S.A. Scot.)

The mass of earth that had been left, measured some 21 feet in length by 6 or 7 feet in breadth, and was 3 feet or more in height. It consisted of earth mixed with numerous shells and bones; the green turf having been previously removed. We commenced operations by taking a layer of 6 or 8 inches thick from the top of the heap, getting this carefully riddled, and its contents examined, and so the digging and examination went on gradually until the whole mass was removed.

Shell Fish.—The mound was made up, I have said, of a considerable proportion of earth mixed with peat ashes, and contained great quantities of sea-shells, of the common edible mollusks—Periwinkles or 'Wilks' (*Littorina littorea*) most abundant; then Limpets (*Patella vulgata*), which were also very numerous; large Whelks or Buckies (*Buccinum undatum*), and great quantities of Oyster shells (*Ostrea edulis*) of all sizes, some of these being very large and thick old shells. I also noticed a portion of a Clam shell (*Pecten*——), and part of the claw of a Common Crab (*Carcinas mœnas*).

Mammals.—The bones of various Animals were very abundant. Those of the Ox (*Bos taurus*) most numerous; generally all more or less split and broken into short lengths, even the solid rib bones being also broken in a similar manner, and the shafts of the large bones split. Many of the large joints at their extremities were also cloven through longitudinally into portions. Numerous broken portions of skulls and jaws with

teeth were noticed. Also many bones of young animals—the Calf; the terminal epiphyses of the long bones being generally separated from the shafts of the bones.

Bones of Sheep (*Ovis aries*), both old and young, were also abundant, with numerous jaws and teeth, the skull bones generally broken to pieces. Some of these bones were very slender, and indicated a kind of sheep closely allied to the small Shetland variety, some correspondingly small horn cores were also noticed.

There were also numerous bones of Pigs (*Sus scrofa*), of different sizes and ages, with portions of jaws and teeth; many of these bones, especially of the skulls and jaws, were much broken.

A few bones of the Horse (*Equus caballus*), and teeth also were noticed. Part of the top of a forked beam or antler of the Red Deer (*Cervus claphus*) was dug up close by, it appeared to have been shaped or cut for some purpose or other.

Several of the bones collected by me, about which I was a little doubtful, I forwarded to my friend Dr Albert Günther of the British Museum, our well-known zoological authority, and in addition to those I have described, he has noted remains of the Goat and Kid (*Capra hircus*), portions of the skull, with small horn-core and leg bones, and of the Fox (*Vulpes vulgaris*) a 5th molar tooth.

Several bones of Whales (*Cetacea*), were also observed, a portion of a rib of a whale, probably a Finner or Rorqual (*Balænoptera* ——). One portion of the bone of a whale was cut longitudinally, so as to form a somewhat thin or flat plate of bone. It measures about half an inch in thickness, $2\frac{1}{2}$ inches in breadth, and $8\frac{1}{2}$ inches in length. A broken lumbar vertebra of a smaller cetacean, probably a Dolphin, was also found.

Birds.—Numbers of bones of Birds of different sizes and species were turned up from time to time. Many of these were evidently bones of domestic poultry, the Common Fowl (*Gallus domesticus*); one portion of a broken furcula or breast bone seemed that of a Duck or perhaps a Goose. Unfortunately no skulls of birds were noticed. Professor Alfred Newton, Magdalene College, Cambridge, our first authority in all ornithological matters, looking over these bones, pointed out various bones of the Goose (*Anser*), probably wild (*A. ferus*), and two wing bones or *humeri* of the well known Red Grouse (*Lagopus Scoticus*), from the differ-

ence in size, probably male and female specimens. Dr Günther informs me one bone belongs to the Common Cormorant (*Phalacrocorax carbo*); which is abundant on these coasts.

Fishes.—There were also a good many bones of Fishes noticed, principally vertebræ, with a few broken bones of the skulls, and dentary bones of the jaws. These belonged principally to the Cod (*Gadus morrhua*) of large size. Some of the other bones of the skulls and unequally formed vertebræ belonged possibly to a large fish of the Family of the *Pleuronectidæ*, probably the Holibut (*Hippoglossus vulgaris*). Salmon are found in tolerable abundance in the neighbouring seas on the coast of Mull, but I did not notice any characteristic bones that belonged to this fish, probably they may not be very easily preserved, as only the firmer bones of rather large-sized fishes were noticed. Although fish of various kinds are, I believe, numerous in the seas around the island, of these a comparatively small number were noticed. This, however, I am not so much surprised at, as they would probably soon decay; and also as the custom of the people, at least in the farther north, was to keep the backbones of fish as "sweetmeats for the cows,"[1] as our learned Fellow, Captain Thomas, R.N., tells us in one of his valuable papers "On the Primitive Dwellings and Hypogea of the Outer Hebrides," entitled "A Notice of Beehive Houses in Uig, Lewis."

Besides these animal remains very few objects of interest were found.

Pottery.—Various portions of broken vessels of pottery, of different sizes, generally however, small, were noticed and collected. Some of these were covered with a brown glaze, one had a short loop or handle attached to it, other portions of larger vessels were covered with greenish glazes. Some of the latter being partially stamped in patterns.

Iron.—Several nails or scraps of iron, corroded and encrusted with clay, were also found in the heap.

At the NUNNERY, the other group of ancient ruins on the island, a smaller mound was also left for my examination, in a portion of the ground of the old cloisters, and here the contents of the "Kitchen Midden" were much the same as in that in the monastery. Abundance of Sea-Shells and broken bones were lying all around, that had apparently fallen from the earth already removed.

[1] Proc. Soc. Antiq. Scot. vol. iii. p. 137.

Shell Fish.—I found here also:—The Shells of edible mollusks in great abundance—Periwinkles, Limpets, Oysters, large Whelks or Buckies.

Bones of Mammals.—Bones of the Ox and Calf, Sheep and Lamb, and the Pig; Red Deer, a worked piece of a forked antler being found, which distinguished the species. The Horse. A portion of the lower jaw of a small-sized Dog (*Canis familiaris*) was picked up, and also a broken portion of the lower jaw of another smaller carnivorous animal—the Domestic Cat (*Felis catus domesticus*). A species of whale; a large vertebral plate or apophysis, and portions of large vertebræ were lying as if they had been dug out near by. Portions also of the ribs of a whale were noticed. It was probably a species of Rorqual or Finner whale *Balænoptera* ——), which not unfrequently occurs on our coasts.

I may mention that my friend Professor Turner examined the bones of the Cetacea found in these middens, and agrees with me in thinking the largest were probably those of the Rorqual (*Balænoptera ;*) the lumbar vertebra of a large Dolphin was probably that of the Pilot whale (*Globiceps melas*). Some other fragments of bones of cetacea, he considers were of uncertain species.

Numerous bones of the various animals noticed were turned up in the course of lowering the ground in different parts of the nunnery buildings, especially towards the western side of the cloister, and the ruined buildings of the nunnery to the south of it. For here the church is situated on the northern side of the cloister and other buildings of the nunnery. Whereas in the monastery this arrangement is exactly reversed, the church there, being situated on the southern side of the cloister and group of monastic buildings. The "kitchen middens" at the nunnery, however, had not the same enclosed, circumscribed, and old untouched-like character as the one at the monastery.

Pottery, &c.—I have mentioned that various portions of broken pottery of different kinds, some stamped in rude patterns like leaves, were found in these middens, and also in the course of the excavations. These, with all the other objects of any interest, were carefully reserved for His Grace the Duke of Argyle. A few small portions of greenish-coloured window glass were found, after my visit, in clearing out the sacristry on the north side of the choir of the church. Some of the pieces were beautifully irridescent on the surface, probably from age, and others had an opaque appearance on their outer surfaces as

if from the presence of painting or colouring matter, perhaps coated with coloured glass. Mr John Holland, the active and energetic inspector of the work, called my attention to the fact that the edges of this glass were carefully chipped, and not cut straight, as is now done.

A leaden bulla, or seal, said to be of Pope Adrian IV. (?), who, by the way, was an Englishman,—Nicholas Breakspear,—and died in 1159; was also found in the course of the removing of the general surface, and different coins, not I believe, of any great age. Also a small bronze or probably brass key, a small spoon, &c.

I had hoped to have used these notes on the animal remains found, simply as an addendum to a comprehensive account of the whole ruins, with an exhibition of plans, and detailed drawings, showing what had been done and discovered in the course of the important clearings and repairs of these different ancient and interesting ruins. This I expected Mr Robert Anderson would probably have been able to bring before the notice of the Society. In that case, I should have applied to His Grace the Duke of Argyle, requesting him to have favoured the Society with an exhibition of the few specimens of pottery, and other relics now in his possession, which had been discovered in the course of these operations. As I found, however, that there was no apparent prospect of these details being laid before the Society, at least in the meantime, I have thought it best to bring these notes of mine under its notice, and exhibit the few illustrative specimens of shells and bones; which will give, at least, an idea of the character of the contents of these old kitchen middens.

It is evident that the midden at the monastery, lying as it did, apparently quite untouched, and shut up, as it were apart, in the ruins from all modern interference (being enclosed between the kitchen and the refectory), must have been, so to speak, the refuse heap collected during the last years of the occupation of the monastery. Its very position and increasing bulk would, of course, compel its predecessors to be removed from time to time; although how long these remains were generally allowed to accumulate, we cannot tell. Still, we may suppose this large one, from its peculiar position, already referred to, shut in among the ruins, with no possibility of more modern houses of any kind being built near it to add to its contents, must really have been the untouched

"kitchen midden" of the last occupation of the monastery at the Reformation; it therefore may be assumed to belong probably to about that date.

The accumulations at the nunnery may have been made about the same time; but, from their more open situation, they may have also been added to or covered by others of later date, at least in some of the places around these ruins; shown, it may be, by various less broken and more recent-looking bones of some of the larger animals, as the ox and the horse, which were noticed there. A very few specimens from these latter heaps were also brought by me for exhibition to the Society.

Here, then, in these old kitchen middens, as in many others that have been described probably of much older date,—for, of course, the supposed antiquity of each must be considered in relation to its special situation and contents,—we find the usual great abundance of the edible mollusks—the periwinkles, the limpets, the buckies or whelks, and the oysters, &c., and along with these, the split and broken bones of various animals; closely corresponding thus in character to the contents of kitchen middens, which, from some of these very circumstances, have been assumed to be of great antiquity. The bones were nearly all broken into short lengths, the shafts split—it may have been, as we are told, for the extraction of the marrow, which has been supposed to have been in special favour in ancient times. Many of the thicker extremities and joints of the bones, where, of course, there is no marrow, were, however, also split, and other bones of a more compact kind, as the ribs, which contain no marrow, were carefully broken across, like most of the others, into short pieces of some five or six inches in length.

The most simple explanation that occurs to me for all this careful breaking and splitting of the various bones, is just that it might fit them for being conveniently put into their pots or cooking vessels, to be boiled for the extraction of their fat and juices, so as to make soup or broth.

Mr George Stewart, now of Leith, author of the recently published "Shetland Fireside Tales, Edinburgh, 1877," himself a Shetlander, and a most careful and competent observer, and learned in all the old Shetland customs, informs me that it was an old and still is a common practice in Shetland to break up the lower jaw bones of a recently killed pig, for the purpose of extracting the fat and marrow, and preserving it as a favourite ointment or healing application to sore or chapped hands, &c.

He has also favoured me with the following interesting account of the recent use of the split and broken bones of animals in Shetland, which, it seems to me, affords a strong corroboration of my explanation of these broken and split bones being really the true one:—

"My friend Mr Goudie mentioned in a note which I received from him the other day, that you were desirous I should furnish you with some jottings of my experience regarding the practice in Shetland of breaking or splitting bones for culinary purposes, and I now gladly avail myself of the opportunity of doing so. This practice is still common in Shetland, and I have no doubt has been so for centuries back. The object being to extract the fat which the bones contain, and utilise it for making soup.

"Amongst the peasant class in Shetland, butcher's meat is used only during three or four months of the year, viz., from November till the end of January or February, because, owing to the scarcity of herbage, it is only during autumn that animals can be properly fed, and, therefore, only at Martinmas that they are in condition for being slaughtered, and this is not only a matter of necessity but a matter of sentiment; for, to the native mind, it is an act of cruelty to deprive any creature of life during that season of the year, when sunny fields and green grass give animal life its chief enjoyment, nor is it considered that the flesh of animals at such a time is at all a wholesome or proper kind of food.

"The end of February, when the scanty supply of salted or smoke-dried meat is nearly exhausted, is just the time when it is most required, for then the people begin to farm their crofts, and then cold weather and very heavy work make animal food especially desirable; but the larder is now empty, and there only remain the bones which had been carefully collected during the winter. These bones are taken in portions as required, laid on a wooden block, and with a sharp axe split longitudinally; the fragments are then washed in warm water, and boiled in a soup composed of oatmeal and shreds of potatoes, which soup is very nutritious, and well-flavoured by the fat extracted from the bones.

"Sometimes the bones are split a second time into still smaller fragments, and boiled many times, until every trace of fat is extracted, when they are consigned to the croft midden, and ultimately get mixed with the soil, or lie scattered over its surface.

"A primitive people are faithful conservators of the past, and their

manners and customs are therefore deeply interesting to those earnest in the work of antiquarian research. To this Shetland is no exception, and I have no doubt that farther and more careful study in this field would give very important results."

Before the introduction of turnip culture, and the use of artificial feeding for sheep and cattle, the same practice of killing cattle—preparing the Mart, as it was called—at the end of autumn, Martinmas, or beginning of winter when they were fat or in good condition—and using the cattle then killed for food, salting them also for winter use, and converting at the same time portions of them into hams, was common all over Scotland, and was, probably, accompanied by a similar use of the bones in making the broth or kail; so universal an article of food throughout Scotland in former days, and even, under perhaps more fortunate circumstances in our own day.

I will not assume, as has been sometimes done in the accounts of "kitchen middens," that all the remains found in them were necessarily those of animals that had been used for man's food. Indeed, at the present day, remains of various kinds, &c., are added to our refuse heaps that never would be brought to our tables as food, and the same thing would doubtless happen in days long gone by. I am not therefore prepared to aver that the monks or nuns of Iona in the days of old, beyond all doubt, ate the fox, the dog, or the cat, or even the horse, remains of all of which have been found in these midden heaps. There may be less doubt about the smaller cetacea, which, it is not impossible, as a species, of course, of supposed fish, might find their way to the table as a not unacceptable dish, at least during Lent. M. Martin, *Gent.*, in his "Description of the Western Islands of Scotland," London, 1703, tells us that many whales of different sizes occur in the Hebrides, and that they are eaten by the "common people, who by experience find them to be very nourishing Food." "They call it *Sea Pork*, for so it signifies in their Language. The bigger Whales are more purgative than these lesser ones, but the latter are better for Nourishment."

I may allude to the fact of human bones, which I examined, being also turned up close to some of these animal remains, they having been laid down apparently not far from the old cemetery of the nunnery; but certainly I should not consider this as suggestive of anything else

than an accidental mixing together of the two, due to the close proximity of one of these kitchen middens to the graveyard.

No remains of any of the cereals, or grains of any kind, were noticed in these refuse heaps. It would, I think, however, be equally dangerous to argue from any such negative evidence or want of evidence, which has, if I am not mistaken, been also sometimes done; that the use of the cereals, oats or barley or wheat, was not then known, and that they were not used or cultivated by the old inhabitants of the monastery. The fact being recorded, that the principal food of the monks and nuns in the old times consisted of these very cereals, and the existence of the remains of the neighbouring kiln and mill, to which I have already alluded, surely is by no means bad evidence on the matter. The place where the little stream which runs past the monastery enters the sea, is still designated the *Port a Mhuilinn*—the port of the mill. Besides these cereals, however, these later remains show that the monks and nuns had a good and a varied diet of animal food and their accompanying broths—beef and veal, mutton and lamb, goat and kid, abundance of pork, it may be an occasional fat buck, and various species of birds, poultry, fat geese, and red grouse, from their own or neighbouring muirlands and hills; not to speak of the whale and of the cormorant, which could scarcely, one would think, be eaten as a dainty, but might possibly be taken as a "digestive," on the supposition, perhaps, that the flesh of such a voracious bird might stimulate the sluggish stomach of a dyspeptic monk. Martin, in his book already referred to, tells us that it (the *Sea Cormorant*) was eaten, and apparently was believed to have some medicinal qualities. He says—"The Natives observe that if perfectly Black it makes no good broth, nor is its Flesh worth eating; but that a *Cormorant* which has any white Feathers or Down makes good Broth, and the Flesh of it is good Food, and the Broth is usually drunk by Nurses to encrease their Milk." They had fish also of different kinds, and an abundant supply of good fresh shell-fish, including the much-prized oyster, of all sizes, and in great plenty.

Several references to the food used in the early days of the monastery of Iona occur scattered incidentally through Adamnan's "Life of St Columba." The Rev. Dr Reeves has gathered these together in his valuable Notes to his important edition of the Life. I may quote Dr Reeves' remarks on this subject, as they are given in p. cxvii. of the

introduction to the new edition, published as vol. vi. of the recently printed series of "The Historians of Scotland, Edinburgh, 1874":—"The ordinary refection was very simple, consisting of bread, sometimes made of barley; milk, fish, eggs, and probably seal's flesh. On Sundays and festivals, and on the arrival of guests, there was an improvement of diet, '*consolatio cibi;*' '*refectionis indulgentia;*' which consisted in an addition to the principal meal, '*prandioli adjectio,*' on which occasions it is probable that flesh-meat was served up, as mutton, or even beef. The number of meals in the day, and their hours, can only be conjectured."

The Rev. Dr Reeves, in giving these details of their diet, suggests here that "probably seal's flesh" was with them a common article of food.

Martin, in his "Description" already quoted, states that "the *Seal*, though esteemed fit only for the Vulgar, is also eaten by Persons of Distinction, though under a different Name—to wit, *Hamm;* this I have been assur'd of, by good hands, and thus we see that the generality of Men are as much led by fancy as judgment in their Palates as well as in other things." "The Popish Vulgar" "eat these *Seals* in Lent instead of Fish." He tells us also that "The Natives Salt the Seals with the ashes of burnt Sea-ware, and say they are good Food; the vulgar eat them commonly in the Spring-time with a long-pointed Stick instead of a Fork, to prevent the strong smell which their hands would otherwise have for several Hours after. The Flesh and Broth of fresh Young *Seals* is by experience known to be Pectoral. The Meat is Astringent, and used as an effectual remedy against the *Diarrhœa* and *Dystenteriz.* The Liver of a *Seal*, being dry'd and pulveris'd, and afterwards a little of it drunk with Milk, *Aquavitæ*, or Red Wine, is also good against *Fluxes.*" With so much said by M. Martin as to their use in the Western Islands for food and medicine, at least by the common people, it is not altogether improbable they may have been occasionally used by the monks of Iona.

The only reference, however, to seals (in the "Life of St Columba") appears to be in Book I. chap. xxxiii., where Saint Columba sends from Iona two of the brethren to the Island of Mull to catch a robber from Colonsay, who came over in his boat at night to a small island where the young seals, their property, were brought forth and reared. Having killed many of them, the greedy robber fills his boat and returns to his hiding

place—"Ut noctu ad parvam transnaviget insulam ubi marini nostri juris vituli generantur et generant; ut de illis furenter occisis edax valde furax suam replens naviculam, ad suum repedet habitaculum." The robber is forthwith captured and brought before St Columba, who asks him why he transgresses the commandment of God by stealing other people's property, and tells him if he is in want, to come to them and they will supply his need. He accordingly orders some wethers to be killed and given to the miserable thief instead of the seals, that he might not return home empty-handed—"Qui viso Sanctus ad eum dicit, Quare tu res alienas, divinum transgressus mandatum, sæpe furaris? Quando necesse habueris, ad nos veniens necessaria accipies postulata. Et hæc dicens præcipit verveces occidi, et pro phocis dari misero furaci, ne vacuo ad sua remearet." Sometime afterwards, the saint knowing in his spirit that the robber was near his death, ordered a fat sheep and six bushels of corn to be sent to him as his last present. The present, however, came too late, and was used instead at his burial.

From this narrative, we may, it seems to me, come to the conclusion that the seals bred on Iona, or its small adjoining islands, were then considered the property of the monastery, and were carefully preserved; and that this robber, as he is therefore called, who came and killed and carried them off, might possibly in his straits use them as food. We find, accordingly, that St Columba blames him for the theft, but commiserates his poverty, and gives him some of their sheep instead, as something much better. The inference I would therefore be inclined to draw from the whole story being, that the seals were well cared for, not necessarily for their value as an article of food, as Dr Reeves suggests; but it may be for their skins, and most of all for the supply of oil they would so readily furnish for the various lights and lamps of the monastic buildings, the supply and preservation of which would always be of the very greatest importance in these old times of little commercial intercourse and comparative isolation from their neighbours. The chance stock of oil, got by the accidental capture of a stray cetacean of any kind, would, of course, be a happy occurrence, by no means to be taken into account, or depended upon for anything like a regular keeping up of their much-needed supply of oil.

No doubt when the monks, towards Martinmas, killed their cattle

then in good condition, after the summer's grazing, and salted them for their winter's supply, an old custom to which I have already referred; they would then set apart so much of the coarser tallow for candlemaking, which was at one time a common household practice on these occasions, at least in old rural Scotland. Still, the fact of their having a "preserve" of seals, undoubtedly shows where they could very easily get a good supply of excellent oil; but it is rather curious that no reference whatever, or even incidental notice, in Adamnan's "Life of St Columba," that I have been able to find, gives us any account, or even hint, of how the important matter of lighting these various ecclesiastical buildings was managed in the long winter nights.

These early references to food in Adamnan's "Life of Columba," tell us of the use of the cereals, as barley, oats, &c., for bread; of milk, and the necessary presence of cattle to supply it; of fish, and of eggs, the latter suggestive of course of fowls or poultry; also of something more substantial, as both mutton and beef. While the examination of these comparatively modern "kitchen middens" gives us proofs of the remains of the food used, it may be, by at least the later occupants of these monastic buildings, and shows, as I have already described, an abundant and varied supply of good and nourishing food.

Looking, then, at the various remains preserved in these old kitchen middens, the abundant shell-fish, the numerous bones, and the way these are split and broken before being thrown aside, I feel considerably puzzled how to distinguish in these respects, between this "mediæval kitchen midden" and the closely resembling contents of other ancient "kitchen middens," which some antiquaries have been inclined to believe —sometimes I fear, on rather slender evidence—to belong to very remote antiquity; indeed to be, some of them, among the very earliest remains of man in the countries where they are found.

It seems to me the correspondence between the contents of this mediæval kitchen midden and some of those remains ascribed to very ancient times, should at least teach a lesson of caution to antiquaries, before attempting to decide the question as to the greater or less antiquity of any remains of this class, either in our own country of Scotland, or indeed anywhere else, as these refuse heaps are found, spread wide as the human race itself, over the whole world.

MONDAY, *12th March* 1877.

THE MOST HON. THE MARQUESS OF LOTHIAN, President, in the Chair.

On the recommendation of the Council, the following Gentlemen were balloted for, and elected HONORARY MEMBERS of the Society, viz. :—

Rev. H. O. COXE, Bodleian Library, Oxford.
Rev. JAMES RAINE, M.A., Hon. Canon of York
The Very Rev. A. P. STANLEY, Dean of Westminster.

A ballot having been taken, the following were elected Fellows, viz. :—

ROBERT COX, Esq., Gorgie.
RALPH DUNDAS, Esq., Clerk to the Signet.
WILLIAM JOLLY, Esq., H.M. Inspector of Schools, Inverness.
WILLIAM MACDONALD, M.A., Classical Master, High School of Edinburgh.
Capt. COLIN MACKENZIE, late 78th Highlanders.
JOHN BATTY TUKE, M.D.
Rev. WALTER WOOD, Elie.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

(1.) By R. W. COCHRAN PATRICK, Esq., F.S.A. Scot.

Small Collection of worked Flints, Bones, and Shells, from the Cave at Mentone, consisting of :—

Four well-formed Scrapers of Flint, 1 inch to $1\frac{1}{4}$ inches in length, three of them worn at the edge by use.

One Flake-Knife, trimmed along the cutting edge, $1\frac{3}{4}$ inches in length.

Fourteen small irregular Flakes or Splinters of Flint.

One nucleus or Core of Flint from which flakes have been struck off.

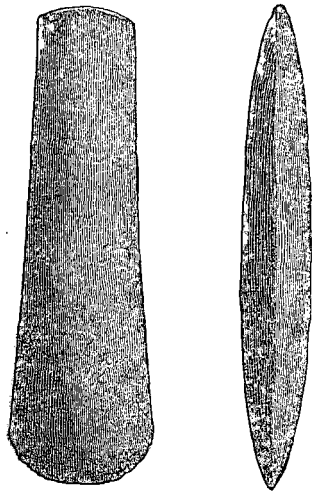
About thirty Teeth of Animals, Ox, &c., the Jaw of a small Rodent, and two marine Shells (*Dentalium tarentinum*), and (*Scalaria communis.*)

(2.) By JAMES DRUMMOND, Esq., R.S.A. F.S.A. Scot.

Scottish Ale-Cap of Hooped Staves, $4\frac{1}{2}$ inches high, and with handles at each side.

(3.) By Right Hon. the EARL OF STAIR, F.S.A. Scot.

Polished Celt of Felstone, found at Kirklauchline, Wigtownshire. It measures 13 inches in length, $3\frac{3}{4}$ inches wide at one end and $2\frac{3}{4}$ inches at the other, is oval in the cross section, and 2 inches in thickness about the middle of its length. It is flattened towards both ends, and expands slightly from the centre to the wider end. The broad end is



Celt found at Kirklauchline, Wigtownshire.

sharpened, the butt end rounded off to a thickness of about a quarter of an inch. This type is rare in Scotland. No other specimen exactly similar in form to this one occurs in the Museum, either among the Scottish or Irish specimens. The nearest approach to it is the beautifully polished celt of yellow flint found at Gilmerton, and presented to the Museum in 1782 by Francis Kinloch, Esq., of Gilmerton. It is much smaller, however, being only $9\frac{1}{4}$ inches in length, and $2\frac{5}{8}$ inches wide at the cutting end. It differs from the Kirklauchline specimen also in having both ends sharp.

Small Quadrangular Whetstone or Burnisher, found on Knockneen, Wigtonshire. It is of reddish quartz, $2\frac{1}{2}$ inches long, and $\frac{5}{8}$th inch across each of its sides in the centre. This also is a rare form of stone implement, there being only one specimen of similar form in the Museum.

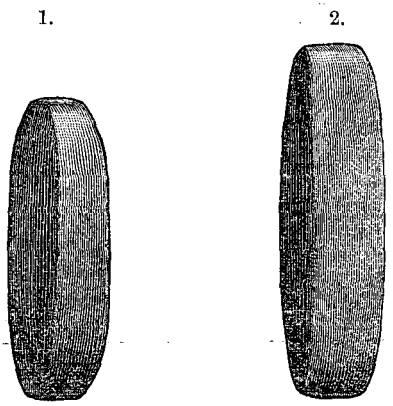


Fig. 1. Whetstone found in Ayrshire ($2\frac{1}{8}$ inches long).
Fig. 2. Whetstone found on Knockneen, Wigtownshire ($2\frac{1}{2}$ inches long).

It is also of reddish quartz, and somewhat smaller than the Wigtonshire specimen, being $2\frac{1}{8}$ inches in length and $\frac{3}{8}$ inch of a side. It was found in a moss in Ayrshire, and presented to the Museum in 1856 by J. C. Roger, Esq., F.S.A. Scot. They are both figured here for the sake of comparison.

(4.) By Collingwood Wood, Esq., Freeland House.

Jar of Brown Glazed Earthenware, broken, 6 inches high, found full of Coins of Edward III. and James II. at Freeland, near Forgandenny, Perthshire.

(5.) By Captain F. W. L. Thomas, R.N., F.S.A. Scot.

Pair of Sandals, from Central Africa.

Ortellii Synonymia Geographica. Antverpiae, 1578, 4to.

La Geografia, di Claudio Tolomeo Alessandrino, novamente tradotta di Greco in Italiano da Girolamo Ruscelli. Venetiis, 1561, 4to.

Geographia Cl. Ptolemaei Alexandrini collata et redacta a Josepho Moletio. Venetiis, 1562, 8vo.

(6.) By JOHN SHEDDEN DOBIE, Esq., F.S.A. Scot.

Cunninghame, Topographised by TIMOTHY PONT, A.M., 1604–1608. With Continuations and Illustrative Notices by the late James Dobie of Crummock, F.S.A. Scot. Edited by his son, John Shedden Dobie. Glasgow, 1876, 4to.

(7.) By Rev. Dr CHARLES ROGERS, F.S.A. Scot., the Author.

Memorials of the Earl of Stirling, and of the House of Alexander, &c. Edinburgh, 1877. 2 vols. 8vo.

(8.) By the Right Hon. the LORD CLERK REGISTER.

General Index to the Acts of the Parliaments of Scotland. Folio, 1875.

(9.) By ALEX. WALKER, Esq., Dean of Guild of Aberdeen, F.S.A. Scot., the Author.

Ye Paroch Kirk of Sanct Nicolas of Aberdene, 1060–1876. With illustrations. Printed for private circulation. Aberdeen, 1876, 4to.

Robert Gordon (1665–1731) and his Hospital (1750–1876). Printed for private circulation. Aberdeen, 1876, 8vo.

(10.) By FRANCIS ABBOTT, Esq., F.S.A. Scot.

The Scarlet Gown; or the History of all the present Cardinals of Rome, &c. Written originally in Italian, and translated by H. C. Gent. London, 1688, 12mo.

(11.) By GEORGE STEWART, Esq., Leith, the Author.

Shetland Fireside Tales; or, the Hermit of Trosswickness. By G. S. L. Edinburgh, 1876, 12mo.

There was exhibited:—

The Quigrich or Crozier of St Fillan, and the following Communications regarding its history and its acquisition by the Society for the National Museum of Antiquities were read:—