NOTES ON SOME ARTICLES EXHIBITED TO THE MEETING, Viz.,—A BRONZE SPEAR-HEAD, A SMALL UNLOOPED SOCKETED CELT, A SWORD-SHAPED STONE FROM SHETLAND, AND A TRIPOD BRONZE POT. BY PROFESSOR DUNS, D.D., F.S.A. SCOT.

I. Bronze Spear-head.—The specimen now submitted to the Society was found in a tumulus at Craigton, near Kinross, in 1855, by the late Dr Annan, and forwarded by him to the New College in the following year. By mistake it was sent to the Library of the College instead of the Museum, and I was not aware of its presence till about a month ago. There are features connected with it which may interest the Society. The shape is exceedingly beautiful. Its whole length is 6½ inches. The blade is 2 inches long and ¾ of an inch wide at its broadest part. The space between the bottom of the blade and the head of the loops is an inch in length,—a greater width than usually occurs in Scottish specimens. There is no similar form in the Museum. What, however, has most interested me in this specimen is the rich chocolate-coloured patina which covers it. This is so smooth, thick, and equal, as to present all the appearance of an artificial mineral varnish, laid on to protect the weapon from oxidation. It is known Sir W. Wilde held that some of the early manufacturers of bronze weapons sometimes varnished them to protect them from rust. In a paper in the Society's Proceedings of February 12, 1872, Dr J. A. Smith, says of a tinned bronze celt, “The celt, we may assume, was in all probability tinned to protect it from the influence of the weather, and keep its surface clean and free from the oxidation of the metal.” If tin were used for this purpose, might not a mineral varnish have served the same end? But the occurrence of highly glazed green patina on bronze weapons
by natural oxidation is opposed to this supposition. Several specimens in the Museum well illustrate this. It is specially well marked on the beautiful knife-dagger from Dalineun, Lóchneil, Argyllshire, presented by Dr Angus Smith of Manchester, on which the patina closely resembles a rich artificial enamel, though there is no reason to doubt that it is simply the result of natural oxidation. In the spear-head now noticed the patina is rich brown, a colour which is comparatively rare. There are, however, two or three implements in the Museum which are coated with brown patina. The first of these is a piece of a bronze sword from Ballagan, Strathblane, Stirlingshire, which has a well-defined coating of green next the metal, and above this, thicker and more compact, another of brown. The brown patina lies even more thickly on the flat celt E. 21 from Wigtownshire, whose surface is somewhat deceptive. At first sight the ornamentation on the weapon appears to have been made after the patina was formed, but a closer inspection shows that the ornaments had been made in the metal and that the covering follows their forms. In the flanged celt from Blair-Drummond Moss, the brown patina lies in a well-marked layer between the wings. In E. 39, from Tarland, a similar coating occurs in the groove and over the stop-ridge of the weapon. As regards the specimen now before us it is impossible to say what this substance is, because, to get a ponderable quantity for chemical analysis would imply injury to what makes the weapon of most interest.

Sir W. Wilde, referring to Irish forms on which patina of this kind occurs, says, "Many specimens, especially of the socketed variety (of celts), are covered with a brown coating of considerable thickness, and so complete as to obscure all traces of the original surface of the bronze; this, upon analysis, is proved to be chiefly iron, and was probably deposited on the surface of the implement while lying for a length of years in peat, which is frequently much impregnated with ochre, or bog iron," (p. 394.) In a note, he adds, "No. 455, Tray Q., has four Irish letters rudely graven on one side, where it is thickly coated with brown iron inrastation, which can easily be cut with a knife, and as these letters must have been cut after the article had, by lying for ages in bog, acquired this deposit, it shows that they are of modern date compared with the age of the weapon. Professor Barker first informed me that this deposit was

1 Catalogue of Antiquities of the Royal Irish Academy.
iron. A similar celt, No. 665, in Rail-case K., covered with a like natural deposit, has been carefully analysed by M. Gages, and found to present the following composition:—Traces of organic matter, silica and alumina, hydrous oxide of iron, or brown iron ore, and oxide of copper." This is all that we can say at present in explanation of the brown patina. In all the specimens with which I am acquainted it covers a green layer, indicating that it was formed after the ordinary oxidation had begun.

II. Small Unlooped Socketed Celt.—The specimen now on the table was found in Ireland in 1843. In that year, while the work of deepening the Shannon for the improvement of the navigation at Keelogue Ford was being carried on, the contractors dammed off a portion of the river, one hundred feet in width, and seven hundred feet in length. The loose material at the surface of the bed of the river consisted of gravel and sand two feet in thickness. At the bottom of this many stone implements were found, specimens of which are in the New College Museum. Bronze implements were also found, about a foot of silty matter intervening between them and the stone forms. Among the bronze weapons were four socketed celts, three of which are mentioned in the Catalogue of the Antiquities of the Irish Academy; the fourth I have the pleasure of showing to the Society. Sir W. Wilde says:—"The simplest form of socketed celt is perfectly plain and unornamented, without a loop, 2\(\frac{3}{4}\) inches long, 1\(\frac{3}{4}\) wide across the cutting edge, and \(\frac{3}{4}\) in the clear of the socket." This form is very rare. I am not aware of the occurrence of any other specimens than those now referred to.

III. Sword-shaped Stone from Shetland.—I regret that I can throw little light on this form. I found it two or three years ago in the New College Museum in a drawer of minerals, with which it has no connection. It is marked "Shetland." The specimen is very rare. It is formed of clay-slate, measures 9 inches in length by 1\(\frac{3}{4}\) inch in greatest
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breadth, and bears a close resemblance in shape to many of the agave-leaved bronze implements found in other localities. A similar specimen is figured as a rare form in the Irish Academy Catalogue, p. 34.

IV. Tripod Bronze Pot.—The cooking-vessel now exhibited was found at the same time and in the same place as the spear-head first noticed in this paper. It is not, however, to be inferred, that they are of the same age. The tripod is most likely of a comparatively recent date. It will be seen that the places for the handle—the "bow" or "clips"—consist of an angular loop, the under side of the upper limb of which is worn smooth by the action of the hook of the "clips." As there is no specimen in the Museum identical with this, I give its dimensions. At the widest part of the mouth the diameter is 7\(\frac{1}{2}\) inches; at the neck, it is 5\(\frac{1}{2}\) inches; the depth inside is 9\(\frac{1}{2}\) inches; at the widest part of the body the circumference is 30\(\frac{1}{2}\) inches; the feet are flat, 4\(\frac{1}{2}\) inches long, and about \(\frac{1}{2}\) inch thick. [The annexed figures show the ordinary form of the mediaeval bronze or brass pot and flagon.]
A ballot having been taken, M. Henri Du Cleuziou, Commissioner for Public Monuments, Paris, was elected a Corresponding Member.

The following Gentlemen were also elected Fellows of the Society, viz.:

G. C. Trotter Cranstoun of Dewar.
George Hay, Esq., A.R.S.A.
Charles Sidey, Esq., 21 Chester Street.
J. Woodburn, Esq., M.A., Drumgrange.
Donald Beith, Esq., W.S., Castle Street.

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

(I.) By the Rev. Archibald Prentice, Thurso.

Large Stone Implement of rudely chipped Sandstone, 20\(\frac{1}{2}\) inches in length, found in the parish of Walls, Shetland. It is of the type figured as Nos. 1, 2, and 3 of Plate VI. in the Proceedings, Vol. VIII., here reproduced. (See fig. 1 on opposite page, and also the papers by Dr Arthur Mitchell, Proceedings, Vol. VII. p. 118, and Vol. VIII. p. 64.)

Thirteen rudely chipped oblong Implements of Sandstone, of smaller size, varying from 10\(\frac{1}{2}\) to 7\(\frac{1}{2}\) inches in length. They are mostly of the type shown in fig. 2 on opposite page (see Proceedings, Vol. VII. p. 126).

Four handled or spud-shaped Implements, varying in size from 11 to 8\(\frac{1}{2}\) inches in length. They are of the type of which fig. 5 on Plate VI. of the Proceedings, Vol. VIII., and figs. 2, 3, and 4, p. 128 of the Proceedings, Vol. VII., are examples, though the present specimens are less shapely in form and rougher in finish than those represented in the figures which are here reproduced (see fig. 3 on p. 174) for the sake of comparison.

One Curved Implement (?) of rudely chipped Sandstone, 9 inches in length, from Burland, Walls.

Flattish water-worn Pebble of Steatitic Rock, 6\(\frac{1}{2}\) \(\times\) 3\(\frac{1}{4}\) inches, having a
hole bored through it about 2 inches from one end. The hole has been

pecked through, and is 1\(\frac{1}{2}\) inch wide at the one side of the stone, and
\(\frac{1}{4}\) inch at the other. It may have been a line or net sinker.

Sinker for a small line formerly used by the fishermen of Shetland. It
is an oblong pebble of sandstone, having a groove cut round it near one end, and a small shallow circular cavity hollowed out in the middle of one of the faces of the stone adjoining the groove. The end of the stone has another groove cut in it, which, if continued, would cross the first at right angles. The stone is 6 inches in length, and about 2½ inches in breadth and thickness.

Two Hammer-Stones or Pestles, being natural pebbles, about 5 inches in length, abraded at the ends by use.

![Fig. 3. Handled Stone Implements found in Shetland (see p. 172).](image)

Large and roughly-shaped Vessel of Steatite, measuring 12 inches long by 9 inches wide, and 6 inches high. The cavity, which is irregularly rectangular, is very roughly hollowed out.

All found in the district of Walls, Shetland.

(2.) By William John Ledingham, Esq., Slap, near Turriff.

Urn of "Drinking-Cup" form, 6 inches high and 5½ inches diameter at the mouth, unornamented, found in a short cist with a skeleton on the farm of Slap, near Turriff, Aberdeenshire. (See the paper by Mr Ledingham, in the previous volume of the Proceedings.)

Skull and Bones found with the Urn previously described.
DONATIONS TO THE MUSEUM.

Fragments of a Cinerary Urn with Burnt Bones, found in a cist at Ferneystripe, near Slap, Turriff.

(3.) By A. SHOLTO DOUGLAS, Esq.

A Craggan, or Hand-made clay Jar, from the island of Lewis, 9 inches high, 8 inches diameter, and 3½ inches across the mouth. These jars are still made by the people of Harris for ordinary domestic purposes. (See the figures of three varieties of them in the Proceedings, vol. ix. p. 205.)

(4.) By D. LYELL HAY, Esq.

An egg-shaped Pebble of dark Quartzite, 2½ inches in length, dug up on the farm of Dubford, Old Machar, Aberdeenshire. It is supposed from its fine shape that it may have been used as a charm-stone.

(5.) By the Right Hon. WILLIAM LORD HERRIES, through WILLIAM FRASER, Esq., F.S.A. Scot., the Author.

The Book of Caerlaverock; Memoirs of the Maxwells, Earls of Nithsdale, Lords Maxwell and Herries. By William Fraser. 2 vols. 4to. 1873.

(6.) By REV. CHARLES RODGERS, LL.D., F.S.A. Scot., the Editor.

Scot's Staggering State of Scottish Statesmen. 8vo. 1872.

Estimate of the Scottish Nobility during the Minority of James the Sixth. Grampian Club. 8vo. 1873.

Three Scottish Reformers—Alexander Cunningham, Henry Balnaves, and John Davidson, with their Poetical Remains, &c. Printed for the English Reprint Society. 8vo. 1874.

The Poetical Remains of William Glen. 12mo. 1874.

(7.) By PATRICK DUDGEON, Esq., F.S.A. Scot., the Author.

Historical Notes on the occurrence of Gold in the South of Scotland. Privately Printed. 4to. 1875.

(8.) By HYDE CLARKE, Esq., the Author.

Researches in Pre-Historic and Proto-Historic Comparative Philology, Mythology, and Archaeology, in connection with the origin of culture in America and the Acadd or Sumerian Families. 8vo. 1875.
There were also exhibited:—

(1.) By Mr George Mackenzie, Corn Exchange.

A Collection of Stone Implements from West Burrafirth, Shetland, consisting of:—

Five Grain-Rubbers or Mealing Stones of Red Quartzy Sandstone, varying from 7 to 11 inches in length, worn to a flattened surface on the under side by use. The grain was rubbed down by the friction of a stone of this kind, pushed backwards and forwards on a larger flat stone; and by long use the under stone became hollowed in the centre, while the upper one assumed a corresponding curvature of the under surface, and was rounded off abruptly at the ends. This method of rubbing down the grain is still common in Central Africa. Grain-rubbers of large size, with upper and lower stones complete, are in the Museum, from Caithness, and from a cave at Cullen, as well as several of the under stones from the Hebrides and elsewhere.

Seven Fragments of the sides of Pots or vessels of Steatite, of various sizes, and the bottom of a Steatite Pot, 7 inches in diameter. It is probable that pots, ladles, and other household utensils of steatite were frequently used in Shetland, from the time of the Norse occupation down to a comparatively recent date. Stone cooking-pots are mentioned in the Sagas, used for such purposes as making broth. (See Proceedings, Vol. X. p. 548, "Remains of the Viking Period in Scotland." ) A set of cooking-pots of steatite, such as are still made and used in remote districts in Sweden for boiling milk, &c., were exhibited in the Swedish Court of the Great Exhibition at London in 1851. Such cooking-pots, with iron bow-handles riveted through the sides, are frequently dug up in the Viking grave-mounds of Norway, having been used as cinerary urns, and filled with the burnt bones of their former owners.

Five Knives of a slaty Claystone, varying from 6½ to 3½ inches in length. One is brought to a rectangular shape, and the cutting edge formed by grinding, and then notching it so as to give it a fine toothed edge, not unlike that of a toothed reaping-hook. The others are of a different form, having a thin broad blade, convex in outline along the cutting edge, and sometimes roughly notched. The most complete one has a tang or handle extending backwards and upwards, so that the
STONE IMPLEMENTS EXHIBITED.

outline of the back from the point of the implement to the end of the handle is slightly concave. Knives of slate exactly similar in form to these are found in Norway. (See "Urda," vol. i. plate xiv., and the Foren. til Norske Fortidsmind. Bev. for 1867, plate i.)

Five broken fragments of similar Knives.
One Whetstone of Sandstone, 5½ inches in length, well used.
One plummet-like implement of Steatite, 5 inches long, with a hole bored through it near one end.
One Disc of Sandstone, 3 inches diameter, with a hole through the centre.
One Spindle-whorl of Steatite, an inch in diameter.
One Slickstone or Smoothing-stone of Hornblende Schist, about 2½ inches square, polished on the edges by use.
Two fragments of Celts of Porphyritic Stone, consisting of 1½ inch and 2 inches of the cutting ends of the celts respectively.
Two flat square-shaped Stones (both broken), with oblong holes pierced through them.
One of the rude handled Implements, of the type figured on page 174 of the preceding Donation List, 10 inches in length, and smoothed towards the pointed extremity.
Six Beads of Glass of different colours.
Two small Beads of Steatite, and a flat piece of thick Green Glass.
Two small fragments of Sheet Bronze or Copper.
One small portion of Iron.
Some fragments of hand-made Pottery and burnt Bones of Animals.
One Stone Button, being a thin disc of clay-slate, 1½ inch diameter, pierced with four holes like the modern flat bone button.
These were all got in excavating at West Burrafirth.

Mr Mackenzie has given the following notice of the circumstances in which these articles were found:—

"Edinburgh, April 12th 1875.

"West Burrafirth is situated on the north-west coast of the parish of Aithsting, and is a most interesting field for the archaeologist. The spot where these articles were found is within 200 yards of the beach and exactly opposite a small island, on which stands an old Pictish
tower in very fair condition, where no search (I believe) has been made. There was nothing to indicate that either a broch or mound of stone had been on the spot. It was simply a rising piece of ground in a low sheltered locality, which had been cultivated for centuries. While clearing out a few big stones, the occupier found one or two of the articles now exhibited, and, being an enthusiast, he resolved to search for more, thinking himself rewarded if for a day's hard work he succeeded in obtaining a bead or stone knife. Thus he went on until he discovered what seemed a stone cist, in which were several of the knives, and the rubbing stones, which were laid carefully up the sides of it on end. The cist is in size, as near as I can remember, 3 feet in length, 20 inches wide, and 2\(\frac{1}{2}\) feet deep, formed of smooth but undressed flags, apparently brought from a distance, as none of the same kind of stone is found in that locality. The flags are closely put together, and quite straight and square. No traces of fire, he told me, were visible on the stones. The whole of these implements, he says, were found in or around the cist.”

Mr Mackenzie also exhibited—

Three Polished Celts of Porphyritic Stone, one 9 inches long, with the upper half left rough, as if for a grip; the other two 7 and 5\(\frac{1}{2}\) inches long respectively, the larger being completely, and the smaller only partially polished. These were not found with the objects previously described, but had been found casually at different times and places in the district.

A Nugget of Native Gold, from the recent gold workings in Strathdonan, Sutherlandshire. This nugget is the largest ever found in the north of Scotland except one, which is in the possession of the Duke of Sutherland. It measures \(\frac{3}{4} \times \frac{3}{8} \times \frac{1}{4}\) inches and weighs nearly an ounce.

With it was also exhibited, about an ounce weight of small Pellets of Gold, illustrative of the form in which it occurs in the auriferous drifts of Sutherlandshire. These specimens of native gold are interesting, in connection with the Scottish gold ornaments of prehistoric times, as exhibiting the form in which the early races acquired the metal, and indicating the local sources from which they might have obtained their supplies of native gold.

The following Communications were read: