PROCEEDINGS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

NINETY-THIRD SESSION, 1872-73.

ANNIVERSARY MEETING, 30*th November* 1872.

JOHN ALEXANDER SMITH, M.D., Vice-President, in the Chair.

The Office-bearers of the Society for the ensuing Session were elected as follows:—

Patron.

HER MAJESTY THE QUEEN.

President.

HIS GRACE THE DUKE OF BUCCLEUCH AND QUEENSBERRY, K.G.

Vice-Presidents.

JOHN ALEXANDER SMITH, M.D.
THOMAS B. JOHNSTON, Esq.
ARTHUR MITCHELL, M.D.

Councillors.

Right Hon. EARL of DALHOUSIE, K.T., &c. } *Representing the*
JAMES T. GIBSON-CRAIG, Esq. } *Board of Trustees.*
The LORD ROSEHILL.
Captain T. P. WHITE, R.E.
BARRON GRAHAM, Esq.

D. Milne Home, LL.D., &c.
Robert Hutchison, Esq.
Francis Abbott, Esq.
R. W. Cochrane Patrick, LL.B., &c.

Secretaries.

John Stuart, LL.D., General Register House.
Arthur Mitchell, M.D.
David Laing, Esq., LL.D., } *for Foreign Correspondence.*
William Forbes, Esq., }

Treasurer.

David Douglas, Esq., 88 Princes Street.

Curators of the Museum.

James Drummond, Esq., R.S.A.
Robert Carfrae, Esq.

Curator of Coins.

George Sim, Esq.

Librarian.

John Taylor Brown, Esq.

Auditors.

James D. Marwick, Esq.
Gilbert Goudie, Esq.

Publishers.

Messrs Edmonston and Douglas.

Joseph Anderson, *Keeper of the Museum.*
George Hastie, *Assistant.*

The Chairman intimated that the Society had lost by death thirteen of the Fellows and one of the Honorary Fellows during the past year, viz. :—

	Elected
JOHN ADAMSON, Esq., Newburgh, Fife,	1864
CHARLES W. BOASE, Esq.,	1871
Lieut.-Col. PETER BARCLAY, H.E.I.C.S., Coates Crescent,	1857
ROBERT COX, Esq., W.S., Rutland Street,	1850
GEORGE CORSANE CUNINGHAME, Esq., 55 Melville Street,	1865
Colonel JOSEPH DUNDAS, of Carron Hall, Falkirk,	1864
JOSEPH WALTER KING EYTON, Esq., London,	1841
ALEXANDER GOODSIR, Esq., formerly Manager of the Royal Bank, 18 Regent Terrace,	1846
JOHN MACMILLAN, A.M., Emeritus Master and Examiner of High School of Edinburgh,	1846
HENRY MEREWEATHER, Esq.,	1871
JAMES DYCE NICOL, Esq. of Ballogie, M.P., Aberdeenshire,	1857
HEW SCOTT, D.D., Minister of Anstruther-Wester, Fifeshire,	1864
WILLIAM E. HOPE-VERE of Craigie Hall, Esq.,	1860
Honorary.	
His Majesty the KING of SWEDEN and NORWAY,	1860

A Ballot having been taken, the following Gentlemen were admitted Fellows:—

WILLIAM BOYD, Esq., M.A., Solicitor, Peterhead.
JAMES GARDINER, Esq., S.S.C., 30 East Claremont Street.
JOHN HEUGH of Holmewood, Esq., Kent.
ALEXANDER LEITH of Freefield and Glenkindie, Esq., Aberdeenshire.
Rev. THOMAS M. LINDSAY, Professor of Divinity and Church History, Free Church College, Glasgow.
HUGH GORDON LUMSDEN of Auchindoir and Clova, Esq.
Lieut.-Col. HENRY WILLIAM LUMSDEN.
WILLIAM MARTIN, M.D., Haddington.
WILLIAM M'COMBIE of Easter Skene, Esq., Aberdeenshire.
E. WILLIAM ROBERTSON, Esq., Nether Seale Hall, Ashby-de-la-Zouch.
JOHN SMART, Esq., 8 Baxter's Place, Edinburgh.
JOHN SHIELDS, Esq., 11 Melville Street, Perth.

The Annual Report for the year ending 30th September 1872, submitted to the Lords of Her Majesty's Treasury through the Honourable the Board of Trustees for Manufactures for Scotland, was read by the Secretary as follows :—

"During the year the Museum has been open to the public as usual, and the following table shows the number of visitors for each month, distinguishing between day visitors and visitors on the Saturday evenings :—

1871-72.	Day Visitors.	Sat. Evenings.	Total.
October	4,585	705	5,290
November	shut.	...	...
December	6,863	1,261	8,124
January	17,917	576	18,493
February	3,659	904	4,563
March	4,120	1,007	5,127
April	3,772	555	4,327
May	7,111	571	7,682
June	9,995	630	10,625
July	17,615	1,014	18,629
August	23,498	1,523	25,021
September	10,866	933	11,799
Total	110,001	9,679	119,680
Previous Year . .	108,409	11,099	119,508
Increase	1,592	...	172
Decrease	...	1,420	...

"The donations during the year to the Museum and Library have been 184 articles of antiquity, and 55 books and pamphlets, exclusive of the extensive collections from the Broch of Burrian in Orkney, presented by Dr William Traill of Woodwick, and a collection from the Broch of Lingrow, also in Orkney, obtained for the Rhind Excavation Committee by Mr George Petrie, Kirkwall, which have also been added to the Museum since the date of the last Report.

(Signed) "JOHN STUART, *Secretary.*"

MONDAY, *9th December* 1872.

THOMAS B. JOHNSTON, Esq., Vice-President, in the Chair.

A ballot having been taken, JOHN R. FINDLAY, Esq., 8 Rutland Square, was admitted a Fellow of the Society.

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

(1.) By WILLIAM TRAILL, M.D., of Woodwick, Esq., Corr. Mem. S.A. Scot.

Collections from the Broch or Pictish Tower of Burrian, North Ronaldsay, Orkney, comprising—

Objects of Stone.

Oblong water-worn Pebble of Claystone, 6½ by 2½ inches, abraded at both ends by use as a pounder.

Oblong smoothed and water-worn Pebble of hard Claystone, 6 by 1½ inches, greatly abraded at both ends by similar use.

Oblong smoothed and water-worn Pebble of indurated Claystone, 7 by 2 inches, abraded and broken at both ends by similar use.

Oblong smoothed and water-worn Pebble of Grey Sandstone, 6½ by 2 inches, similarly worn at both ends.

Whetstone, being a rounded oblong Pebble of fine-grained reddish Sandstone, 6 by 1¼ inches.

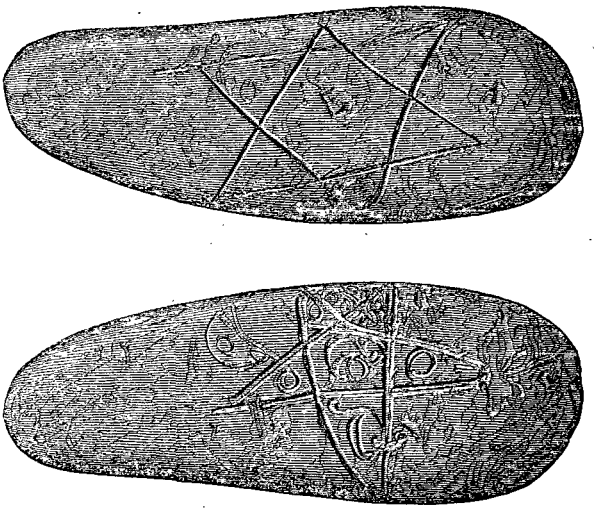
Flattish boat-shaped piece of Steatite, 5 inches in length, 1½ inch across the middle, and 1 inch thick, tapering to both ends, and having a small hole partly drilled through one end. One of its flat sides is marked transversely, as if by cuts of a sharp instrument.

Flattish circular Pebble of Quartz, 3 inches diameter and 1 inch thick, marked on the surface with streaks as of rusty iron.

Oblong Pebble of brownish Sandstone, having incised on both sides figures of crossed triangles, as represented in the annexed wood-cut. A

somewhat similar figure, formed of intersecting triangles, occurs, with the comb and shears, on a stone at St Andrews, Fifeshire.—*Sculptured Stones of Scotland*, vol. ii. plate ix.

Five pieces of black vesicular Lava, irregularly conical in shape, having small holes pierced through the narrow ends. They vary in size from 3 inches in length, by about 2 in breadth and thickness at the bottom, to not more than $1\frac{1}{2}$ inch in length, by less than 1 inch square at the bottom.



Stone with incised figures of crossed triangles, 6 inches in length.

Twenty-two Whorls or Discs of Stone, perforated in the centre. The smallest is $\frac{3}{4}$ inch diameter and $\frac{1}{4}$ inch thick, with a perforation $\frac{1}{4}$ inch in diameter. The largest is 2 inches diameter, and nearly $\frac{1}{2}$ inch thick, the perforation in the centre being $\frac{3}{8}$ inch in diameter. A number of these seem to have been whorls for the spindle. Some of the smaller ones may have been meant for table-men. One is ornamented

with radiating lines, and has a channelled edge. Another has been used for some purpose by which the sides of the hole have been worn by the friction of a thread or fine cord passing through it.

Ball of Sandstone, 2¼ inches diameter, having a socket-hole ½ inch wide, tapering to ¼ inch at the bottom, and about ½ inch deep.

Twelve Pieces of Fractured Flints, none of which show any traces of artificial working.

Seventeen Pebbles of various sizes, very smooth, round, and highly polished.

Objects of Bone.

Sixteen Whorls of Bone, mostly made of the head of a femur of an animal, pierced with a hole in the centre, and about ¼ inch in diameter. A few of the smaller ones may have been table-men.

Awl or Borer, made of the leg-bone of an animal, 4½ inches in length.

Awl or Borer, made of the leg-bone of an animal, 7 inches in length.

Awl or Borer, made of a splinter of bone, 3½ inches in length.

Implement of Bone, 5 inches in length, made by cutting the leg-bone of a sheep obliquely across, so as to produce a long, thin segment. It has been broken at the point.

Implement, 5½ inches in length, made from the radius or wing-bone of a bird by cutting the bone obliquely across near one end, and grinding

Bone Implement, 5½ inches in length.

the section smooth. It is not clear to what useful purpose this curious implement may have been applied, but it is found, on trial, that it can be used as a pen for writing with.

Eight Pins made of bone, varying in length from 4½ inches to 2½ inches, with flat heads, made from the natural articulating ends.

Three similar Pins, broken.

Seven Pins of bone, varying in length from 5 to 3½ inches, with flat triangular heads fully ½ an inch wide, and perforated. The head of one, which is here figured, is ornamented with a number of small holes.

Bone Pin, 4¾ inches long.

Two Pins, 4½ and 3½ inches in length, with crutch-like heads.

Crutch-headed Bone Pin, 4½ inches long.

Two Pins (broken), one with the head ornamented with a cluster of small holes.

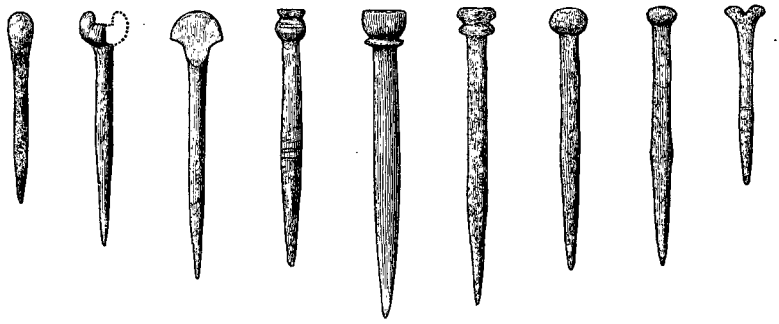
Pin, 2½ inches in length, ornamented on one side with incised markings, some of which resemble runes.

Bone Pin, ornamented with rune-like marks.

Pin, 2½ inches in length, with flat head, and swelling in the middle.

Twenty-five Pins, varying from 2½ inches to 1 inch in length, finely

made, with ornamental heads, one or two with a band above or below the head.



Bone Pins, with ornamental heads. (Actual size.)

Eight Pins, varying from 2½ inches to 1 inch in length, with flat, circular, or spade-like heads.

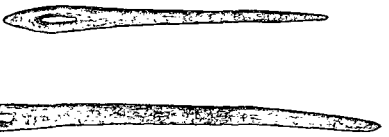
Two Small Pins, 1 inch and 1¼ inch in length, with bifurcated heads.

Pin, 2 inches in length, the head being neatly carved into two horses' heads, looking opposite ways.

Bone Pin, with carved head. (Actual size.)

Thirty Pins, broken or without heads, from 4 inches in length.

Three Needles, with elongated eyes. One is broken, the other two are 1¾ inch and 2¼ inches long respectively.



Bone Needles. (Actual size).

Small Pin, 1 inch in length, with perforated head.

Five Pegs of hard, solid bone, from 3 to 1½ inches in length, and from ¼ inch to ⅛ inch diameter.

Portions of two Slips of Bone, flat on the one side and convex on the other, one having three pegs driven through it in holes at equal distances from each other, and the other two one peg only.

Slip of Bone, 3½ inches in length, about ⅛ inch in thickness, sawn flat on one side, the other slightly convex, and having two holes ¼ inch in diameter, neatly bored, about ½ inch from either end.

Two thin Slips of Bone, 3¼ inches and 2 inches in length, by about ½ inch in breadth, pared smooth on both sides.

Handle of Deer's Horn, being part of a tine, 2½ inches long and ½ inch in diameter, having in each end a tapering, square-shaped hole, as if for the insertion of a tang of a metal implement.

Handle of Deer's Horn, 4¼ inches in length and ¾ inch in diameter, having similar holes at each end, and one end split by use.

Handle of Deer's Horn, apparently of a knife, 2¾ inches in length, and ½ inch in diameter, with the tang of an iron implement remaining in the socket.

Handle-like Implement of Deer's Horn, 2½ inches in length, having an oblong cavity in one end, which is discoloured by oxide of iron. A small hole is pierced transversely through the implement, as if for suspension.

Handle-like Implement of Deer Horn (?), being the end of a tine, 4½ inches long, with a round hole, ⅜ inch in diameter, pierced transversely at about ½ inch from the wide end.

Two Knobs of Bone, 1 inch in diameter, one having the remains of an iron tang in it.

Pin, made of Bone, 2¾ inches in length, having a squarish head, with rounded top, about 1 inch by ¾ inch, projecting from one side of the pin only, the shape of which is flat, and about ½ inch wide by ¼ inch thick. A hole about ¼ inch in diameter pierces the head of the pin perpendicularly in the centre, coming out alongside of the shaft.

Three pieces of Bone, two being portions of the shank-bones of a sheep, and one a piece of hard bone, pared to a cylindrical form, and worn smooth at one end by the friction of a thread or cord passing round them.

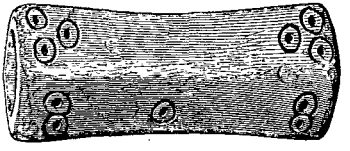
Half of a square-shaped Stud or Button of Ivory, with a small hole for the shank, discoloured by oxide of iron.

Two Studs or Buttons of Bone, made from short sections of the leg-bone of a sheep. One has the iron shank still in the hole, and has been pierced with another hole in the side.

Two Broken Buttons, similar to the former.

One piece of a Shank-Bone, cut off to be made into such a button.

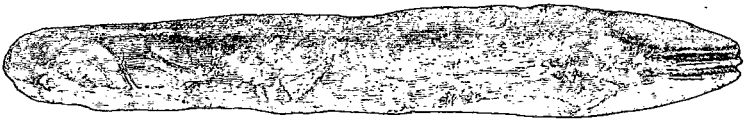
Three Oblong Dice, each made of a piece of sheep shank bone, $1\frac{5}{8}$ inch in length. The one here figured is ground flat on one side, on which there are six points; on the convexity of the bone there are five points; on the flatter part of the bone (which is broken), there are



Die made of the leg bone of a sheep. (Actual size.)

no markings to be seen, but a portion of one near the centre shows there was at least one number on that side; on the remaining side the number seemed to have been four. In the second die the surface is so much gone that the numbers cannot be distinguished. Of the third die there is only one side remaining, on which there are four points. Dice of this form are also found in graves of the Viking period in Norway.

Tool of Bone, 4 inches in length, having a rounded point, with two grooves cut in it, leaving prominent parallel ridges about $\frac{1}{8}$ inch apart.



Tool of Bone. (Actual size.)

Thin Disc of Bone, $1\frac{1}{2}$ inch in diameter, with two small holes through the centre.

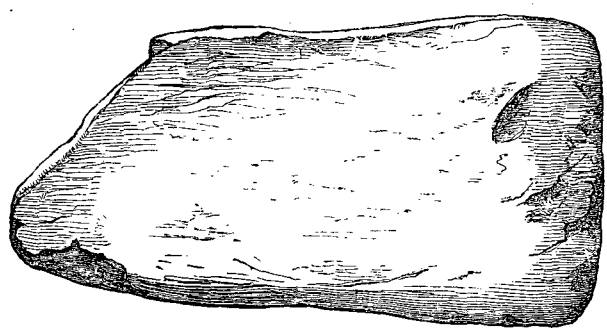
Thin Disc of Bone, $1\frac{3}{8}$ inch in diameter, with a dot and circle in the centre, and two small holes midway between the centre and circumference.

Broken portion of an oval-shaped piece of Bone, polished, and having two holes drilled in it.

Oval Object of Bone, probably of whale, 3 inches long by 2 inches wide, and 1 inch thick, having a square hole through the centre, as if for the tang of some iron implement.

A similarly shaped Object of Bone, $2\frac{1}{4}$ inches in length, $1\frac{1}{4}$ inch in breadth, and $\frac{3}{4}$ inch thick, with a square hole through the centre.

Implement made from a flat piece of the bone of a whale (?), $6\frac{1}{2}$ inches long, $3\frac{1}{4}$ inches broad, and $\frac{1}{2}$ inch thick, rubbed smooth at both ends, and along the sides, probably a "weavers' rubbing-bone," for smoothing the web after it was woven.



Rubbing bone made of the bone of a whale, $6\frac{1}{2}$ by $3\frac{1}{4}$ inches.

Similar Implement of Bone, 8 inches by $4\frac{1}{2}$, and about $\frac{1}{2}$ inch thick, broken on the edges.

Similar Implement of Bone, $4\frac{1}{2}$ inches by $3\frac{1}{4}$, and about $\frac{1}{4}$ inch thick, rounded at the corners, and having the ends and edges rubbed smooth and polished by use. In shape it is somewhat curved, as if made of the hard outer layer of a large jaw or rib-bone, probably of a whale.

Similar Implement, 5 inches by 4, and about ¼ inch thick, with rounded edge, worn and polished by use.

Similar Implement, being an oval disc, 3¼ inches across its greatest diameter, and less than ¼ inch thick, with part of its edges smoothed and polished by use.

Similar Implement, 7½ inches long, 3½ inches broad, and about ¼ inch thick, having one of its ends rubbed smooth and polished by use.

Similar Implement, 6 inches long, and 3½ broad, fully ½ inch thick, roughly made, and bearing no marks of smoothing on its edges by use.

Large Implement, made of the bone of a whale, shaped somewhat like the blade of a spade, 10 inches in length by 6½ inches in breadth, and nearly ½ inch in thickness. Notches, 2 inches long by ¾ inch, are cut into its upper part on either side.

Implement, made of the bone of a whale, 10 inches long, 6 inches broad, and nearly 1 inch in thickness, having two holes, one round, and 2 inches in diameter, the other oval, and 2 inches by 1¼, cut above each other, the lower hole being near the centre, of the length of the implement.

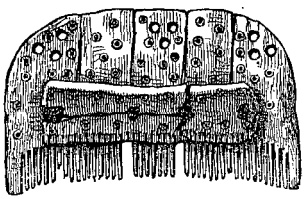
Triangular-shaped piece of spongy bone, 8 inches long, and 5 inches broad at the wide end, having two holes, one 2 inches wide, narrowing to 1 inch, and the other 1 inch wide, narrowing to ¾ inch, pierced through the bone near the broad end.

Piece of Bone, 7 inches long by 2 inches wide, and 1½ inch thick, with a groove ¼ inch wide, and triangular in section, cut round its length.

Piece of Bone, 4½ inches long by 1½ inch broad, and 1 inch in thickness, roughly shaped to a rectangular form, sawn across at the one end, and hacked at the other.

Piece of Bone, 8 inches long, 5 inches broad, and 1½ inch thick, formed of a portion of the circular articulating surface of a vertebra of a whale, having an oblong hole, 3 inches by 1¼ inch, cut obliquely through it in the centre, and a smaller round hole about ½ inch in diameter above it. The sides of the implement (if it be so) have been cut away with a saw. The lower part is broken.

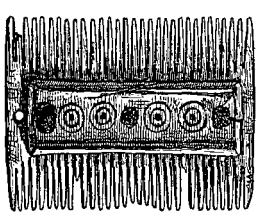
Comb of Bone, with rounded back, ornamented with a profusion of small "cup and circle" markings. The comb is formed of fine thin slips of bone about 2 inches in length and $\frac{1}{2}$ inch in width, laid together lengthwise, and held in their places by two slips laid transversely across them, fastened together by four iron rivets. The entire comb measures 3 inches by 2 inches, and besides the ornamentation of the cup and circle markings, the two end slips and the centre slip are ornamented on the upper part by three small holes arranged triangularly. The teeth of the comb have been very regularly cut with a fine saw, and the saw-marks are distinctly seen on the slips forming the outer frame, which holds the comb together, showing that it was constructed before the teeth were cut. (See woodcut.)



Comb of Bone. (Half actual size.)

Similar Comb with round back, wanting most of the teeth. It is fastened with three iron rivets, and has a small hole in the centre of the back, as if for suspension.

Double-edged Comb of bone, $2\frac{3}{4}$ inches by 2 inches, formed of four slips of bone inserted between two transverse slips, held together by three iron rivets. The transverse slips are ornamented by a single line incised along each border, and four sets of two concentric circles, with central dots, ranged at equal distances along the middle of the slips. The teeth are widely but regularly cut, narrowing towards the points, and those towards either end of the comb shorter than those in the middle. In cutting the teeth the saw has only touched the binding transverse slips in one or two places. A hole for suspension is pierced in the middle of one end of the comb. (See woodcut.)



Comb of Bone. (Half actual size.)

Double-edged Comb of bone (broken), $5\frac{1}{2}$ inches in length by 2 inches in breadth. The six slips of bones of which it was composed remain attached to the transverse slips which are fastened by five iron rivets,

placed at equal distances. On the upper and lower side of each of the rivets is an ornamental dot and circle marking about $\frac{1}{10}$ inch in diameter, and a similar marking in the centre of each of the broad terminal teeth at either end of the comb. The transverse slips are regularly marked on both sides by the saw. The teeth are well cut, and regular in length and thickness. They show very strongly the marks of wear, chiefly towards the bases of the teeth, as minute transverse lines are worn deeply into the corners of the teeth, sometimes completely encircling them. These marks are different from those on the long-handled combs, which are chiefly towards the apices of the teeth, indicating a different method of use.

Portion of a double-edged Comb of bone, being one of the endslips, $\frac{3}{4}$ inch wide, ornamented by four very deep and regularly cut sets of two concentric circles, with central dot, and having the remains of an iron rivet.

Similar portion of a double-edged Comb of bone, $1\frac{1}{4}$ inch wide, similarly ornamented, and pierced with a hole for suspension.

Similar portion of a double-edged Comb of bone, 1 inch in width, unornamented, and pierced with a hole for suspension.

Similar portion of a double-edged Comb of bone, $\frac{3}{4}$ inch in width, ornamented with two cup-shaped hollows on either side, and pierced with a hole for suspension.

Similar portion of a double-edged Comb of bone, $1\frac{1}{4}$ inch in width, having part of both the transverse slips attached, in which there are the remains of three rivets of copper or a coppery-like bronze. This comb has been pierced with two holes for suspension, both of which are much worn on the side from which the comb has hung.

Slip of Bone, $\frac{3}{4}$ inch wide, being part of the toothed portion of a double-edged comb, having a rivet-hole pierced through one side.

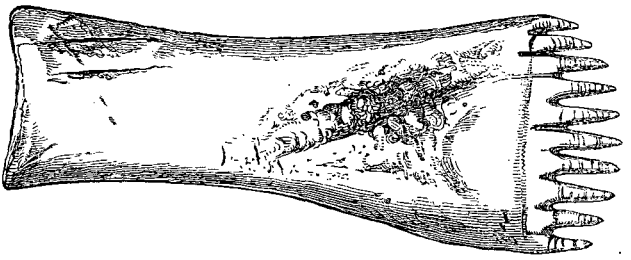
Slip of Bone, $\frac{3}{4}$ inch wide, being part of the toothed portion of a double-edged Comb, having remains of an iron rivet in one side.

Portion of a double-edged Comb, being part of one of the transverse slips, with two iron rivets, and a portion of the toothed part of the comb still adherent. The transverse slip is ornamented by cup and circle markings arranged in pairs.

Portion of a double-edged Comb of bone, being part of one of the trans-

verse slips, with one iron rivet and the mark of another, and part of the toothed portion of the comb adherent. The transverse slip is ornamented by saw-cuts along the edges, and groups of three at equal distances passing obliquely across the middle of the slip.

Long-handled Comb of deer's horn (see the accompanying woodcut), 5 inches in length, 2 inches wide at the base of the teeth. The teeth, which are ten in number, are $\frac{1}{2}$ inch long, $\frac{1}{8}$ inch apart, and strongly marked towards the apices by use, probably as a weaving implement. (See paper by Mr Anderson, in the Proceedings, vol. ix. p. 548.)



Long-handled Comb of deer's horn, $4\frac{3}{4}$ inches long.

Long-handled Comb of bone, 5 inches in length, $1\frac{1}{2}$ inch wide at the base of the teeth. The teeth, which are ten in number, are scarcely $\frac{1}{4}$ inch in length, and so strongly marked by use that some of them are almost cut through.

Long-handled Comb of bone, $4\frac{1}{2}$ inches in length and $1\frac{1}{2}$ inch wide at the base of the teeth. The teeth, which are eight in number, are $\frac{1}{2}$ inch in length, bearing no marks of use beyond a slight polish.

Long-handled Comb of bone, 4 inches in length and $1\frac{1}{4}$ inch wide at the base of the teeth. The teeth, which are eight in number, are $\frac{3}{8}$ inch in length, and bear no marks of use beyond a slight polish.

Long-handled Comb of bone, $4\frac{1}{2}$ inches long, $1\frac{1}{2}$ inch wide at the base of the teeth. The teeth have been ten in number, but only the stumps remain.

Long-handled Comb of bone, $4\frac{1}{2}$ inches long, $1\frac{3}{4}$ inch wide at the base of the teeth. The teeth have been thirteen in number, but are quite broken away.

Long-handled Comb of bone, $5\frac{1}{2}$ inches long, 2 inches wide at the base of the teeth. The comb is imperfect at the lower end, so that the number of teeth cannot now be ascertained.

Portion of handle of long-handled Comb, $2\frac{1}{2}$ inches in length.

Piece of Bone, $4\frac{1}{2}$ inches in length, $1\frac{1}{2}$ inch wide at each end, 1 inch wide in the middle, and $\frac{1}{4}$ inch thick, probably a long-handled comb in process of manufacture previous to the teeth being cut.

Long-handled Comb of bone, $4\frac{1}{4}$ inches in length, $2\frac{1}{4}$ inches wide at the base of the teeth. This variety of comb differs from those previously described, in being shorter and thicker, and having longer and stronger teeth set wider apart. This specimen has nine teeth $1\frac{1}{4}$ inch in length, some of them being as much as $\frac{1}{4}$ inch thick at the base, where the bone is hollowed out to a gouge-like form. It is ornamented by two deep saw-cuts drawn diagonally across the back in the form of a St Andrew's cross. The butt-end of the comb is much polished by the friction of some soft substance.

Long-handled Comb, made from the lower part of a shed antler of red deer, 4 inches in length, $2\frac{1}{4}$ inches wide at the base of the teeth, which are twelve in number, and fully 1 inch in length. The butt end of the comb is formed of the burr of the antler, and, as in the previous comb, the horn is hollowed out into a somewhat gouge-shaped form at the base of the teeth. A hole nearly $\frac{1}{4}$ inch in diameter has been made at one corner of the comb for suspension.

Long-handled Comb of deer's horn, $4\frac{1}{2}$ inches in length, $2\frac{1}{4}$ inches wide at the base of the teeth, which are eight in number, somewhat rounded and sharp-pointed, and fully an inch in length. Like the previous two, this comb is gouge-shaped, the softer interior of the horn being removed, in this case perhaps by decay.

Long-handled Comb of deer's horn, almost precisely similar in form to the last, $4\frac{1}{2}$ inches in length, $2\frac{1}{2}$ inches in width at the base of the teeth, which seem to have been twelve in number. Only two now remain entire, and they are $\frac{3}{4}$ inch in length.

Long-handled Comb, 4 inches in length, $2\frac{1}{4}$ inches across the base of

the teeth, which are twelve in number, and have been fully an inch in length. The upper part of the handle of this comb is rudely ornamented with a line cut across it parallel to the line of implantation of the teeth, and between this line and the butt end of the comb two lines cross each other diagonally like a St Andrew's cross. Below the crossed lines two other lines run diagonally across the teeth.

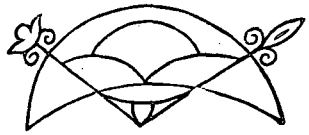


Fig. 1. Symbol or Ornament on Sculptured Stones.

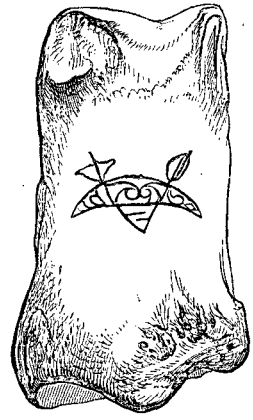


Fig. 2. Bone with Incised Ornament similar to that of the Sculptured Stones. (Natural Size.)

Part of the handle of a long-handled Comb of deer's horn, 2 inches in length.

Long-handled Comb of bone (perhaps imperfect), 3 inches in length, $1\frac{1}{4}$ inch across the base of the teeth, which are fully an inch in length, and $\frac{1}{8}$ inch apart.

Portion of the toothed end of a long-handled Comb of bone, 2 inches across the base of the teeth, which are sixteen in number, $1\frac{1}{2}$ inch in length, and cut with a very fine saw.

Piece of the Bone of a Whale, $10\frac{1}{2}$ inches long, and $3\frac{1}{2}$ inches wide, nearly $\frac{1}{2}$ inch thick, convex and smooth on one side, concave and

roughly dressed on the other, having the one end sawn off square, and the other brought to a blunt rounded edge.

Piece of the Bone of a Whale, 15 inches in length, nearly $1\frac{1}{2}$ inch in breadth, tapering to a point, and triangular in section, the back being rounded, and fully $\frac{3}{4}$ inch thick.

Piece of the Bone of a Whale, 13 inches in length, and about $1\frac{1}{2}$ inch square, roughly cut to shape with a sharp implement.

Phalangial Bone of a small Ox, having incised on the centre of the convex surface the "crescent-shaped ornament," traversed by the "double sceptre" (see fig. 2, on opposite page), similar to that which is of such

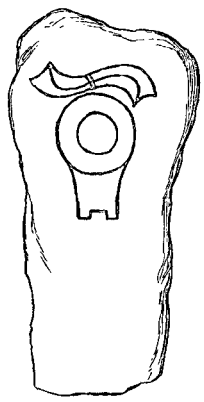


Fig. 3. Sculptured Stone, Kintradwell, Sutherlandshire (45 inches long).

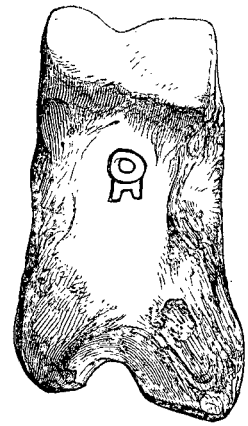


Fig. 4. Bone with Incised Figures. Reverse Side. (Natural Size.)

common occurrence on the "Sculptured Stones of Scotland" (see fig. 1). The symbol or ornament represented in fig. 1 is copied from the standing stone at Crichie, Kintore, and is the commonest and most widely distributed of all the symbols of the Sculptured Stones. It occurs with a great variety of detail, but the general form is much the same, and the figure given above has an almost exact resemblance, with the exception of one or two additional flourishes, to that on the stone from Firth,

Orkney, now in the Museum. On the opposite side of the bone to that represented in fig. 2 there is incised another figure or symbol (see fig. 4), which is also characteristic of the ornamentation or symbolism of the Sculptured Stones. This peculiarly shaped symbol is sculptured on the stone at Kintradwell, in Sutherlandshire (see fig. 3). Other symbols of the Sculptured Stones have been observed on the terminal rings of a silver chain found in Dumfriesshire, and of a silver chain found in Aberdeenshire, and on a silver ornament found in the tumulus of Norrie's Law, Fifeshire. (See a notice of these silver chains in the present volume of the Proceedings, by Dr John Alexander Smith.)

Phalangial Bone of an Ox, having on one side incised marks showing no distinct form.

Phalangial Bone of an Ox, one of the articular ends of which is hollowed as if to receive the tang of some metal implement.

Articles of Bronze.

Bronze Pin, $2\frac{1}{4}$ inches in length, with globular head, unornamented.

Bronze Pin, 2 inches in length, with round head, flattened on the top, and having a flat band on the side, which is ornamented with cross-hatched lines. Half-way along the length of the pin are two bands of ornamentation in parallel lines.

Broken portion of a Bronze Pin, $3\frac{1}{2}$ inches in length.

A number of minute Fragments of Bronze, probably of a small Fibula.

Articles of Iron.

Small square-sided Bell of Iron, which bears indications of having been "brazed" or coated with bronze. It measures $2\frac{1}{4}$ inches in height, 2 inches in breadth, and 1 inch in width, and has had a small looped handle on the top. It is made in the usual way in which these small early square bells have been made, of a piece of thin sheet iron bent into the required shape, and clamped together.

Lozenge-shaped Piece of Iron, with tang, the lozenge-shaped part being $2\frac{3}{4}$ inches long by $1\frac{1}{4}$ inch wide in the middle, and the tang 2 inches in length. It is probably a spear or dart head, but it is so thickly encrusted with oxidation, that it is impossible to tell whether the edges have been sharp or not.

Leaf-shaped Arrow-head of Iron, with remains of tang for insertion in the shaft. It measures 2 inches in length by ½inch in greatest breadth.

Knife-blade of Iron, with thick rounded back, and tang for insertion in the handle. It measures 4 inches in length by ¼ inch in greatest breadth of blade, the point being long, and tapering gradually from the middle of the rounded back.

Knife-blade of Iron, with thick back, 2½ inches long, with tang for insertion in the haft, 1 inch in length.

Portions of two other Knife-blades or Spear-heads of Iron, 2¼ inches in length, encrusted with remains of vegetable fibre.

Portions of Knife-blade of Iron, with tang 1½ inch in length.

Hollow tapering Object of Iron, 3¼ inches in length, ¾ inch in diameter, probably the ferule of a spear-shaft.

Iron Ferule, apparently of a Spear-shaft, 3 inches long, and ¾ inch in diameter.

Iron Ferule, apparently of a Spear-shaft, broken on one side, and showing remains of the wooden shaft, with a rivet passing across it.

Four Broken Rivets of Iron, three with square heads and one round.

Two Broken Rings of Iron, an inch in diameter.

Five Pieces of Iron Implements of indeterminate character.

Portion of the point end of an Iron Tang, 1¼ inch in length, with the wood adherent in which it has been imbedded. As it has been driven in parallel to the grain of the wood, it might probably be the tang of a knife-blade or spear-head, with remains of the shaft in which it was inserted.

Pottery.

Portion of the side of a large Vessel of reddish Clay, hand-made, but smoothed inside with a tool, the marks of which are still perceptible. The vessel has had a slightly everted lip, and has been slightly bulged towards the middle of its height. The clay is well burned, and free from grit.

Portion of the same vessel, showing part of the lip.

Part of the bottom and sides of a globular flat-bottomed Vessel of reddish Clay, well smoothed on both the inside and outside surfaces, but imperfectly fired. The flat bottom is 4½ inches diameter, and in

form and texture the vessel has resembled the modern Lewis "Craggans," though somewhat better made.

Two portions of the sides of the same, or a similar vessel.

Portion of a flat-bottomed Vessel of reddish Clay, with straight sides, the interior retaining marks of smoothing by a tool.

Portion of a flat-bottomed cup-like Vessel of brownish sandy Clay, thick, and imperfectly fired. The bottom seems to have been about $2\frac{1}{2}$ inches in diameter.

Small portion of the bottom and side of a coarsely-made Vessel of reddish Clay, thick and gritty, and imperfectly fired.

Portion of the side of a bowl-shaped Vessel of reddish sandy Clay, with part of a neatly-moulded lip.

Portion of the side of a straight-sided Vessel of reddish Clay, with slightly bevelled lip, clean on the inside, much blackened and encrusted on the outside.

Portion of a straight-sided Vessel of brownish Clay, fine in texture, and very thin, being only about $\frac{1}{8}$ inch thick, with straight edge. It is greatly blackened and encrusted on both sides.

Portion of a large Vessel of Red Clay, smoothed by hand on both sides, and having an everted lip.

Portion of the bottom of a cup-shaped Vessel of reddish Clay. The bottom of this vessel seems to have had a diameter of about 2 inches. The clay is fine in texture, and perfectly free from grit. The vessel appears to have been made very thin, and whether from an accidental circumstance, or in order to stiffen the soft clay and enable it to sustain its own weight, it has been mixed with grass. The sole fragment of this vessel which has been preserved has split in consequence of this admixture, and the ribbed impressions of the leaflets of the grass are preserved in the clay like the prints of fossil leaves.

Twelve fragments of hand-made Pottery, varying from about $\frac{1}{8}$ inch to fully $\frac{1}{2}$ inch in thickness.

Four fragments of a Vessel of reddish Clay, showing a slightly everted lip, with an ornamental border of short oblique indentations.

Fragment of a Vessel of greyish Clay having an everted lip, and underneath it an ornamental border of oblong projecting knobs, and remains of an incised chevron pattern underneath.

Animal Remains.

These consist of the bones of the horse, the ox, the sheep, deer, dog, birds, and fishes, &c., and are described in detail in Dr Traill's paper in the "Archæologia Scotica," vol. v., now in course of publication.

2. By His Grace the DUKE of SUTHERLAND, K.G., &c., F.S.A. Scot.

Plate of Bronze-like metal, $11\frac{1}{4}$ by $7\frac{1}{2}$ inches, and about $\frac{3}{16}$ of an inch in thickness, being one of two similar plates found in the Broch or Pictish Tower of Carn Liath, in Dunrobin Park, Sutherlandshire. It is covered on both sides with hammer marks, and may be the form in which the metal was imported. Crucibles for melting metals were found in the Pictish Tower of Cinn Trolla, about four miles distant; and the inference is, that it was imported and manufactured into ornaments, implements, &c., by the natives. This metallic plate is figured in connection with Rev. J. M. Joass's paper "On the Brochs of Sutherlandshire," Plate XVI. "Archæologia Scotica," vol. v.

[As it was considered desirable that the composition of the metal of this curious plate should be accurately ascertained, it was submitted to Dr Stevenson Macadam, who has communicated the results of his analysis in the following note to Dr John Alexander Smith :—

"ANALYTICAL LABORATORY,
"ROYAL COLLEGE OF SURGEONS, 31*st December* 1873.

"MY DEAR SIR,—I have carefully analysed the plate of malleable metal, and find the composition to be as follows :—

Copper,	82·25
Zinc,	15·84
Tin,	1·46
Lead,	0·21
Loss,	0·24
	100·00

"It is therefore more *brass* than *bronze*, though the proportion of zinc in modern brass is much higher, being about one-third the weight of the metal."

"'The first account of the alloy of copper and zinc transmitted to the present times was written by Aristotle. He states that the people

who inhabited a country adjoining the Euxine Sea prepared their copper of a beautiful white colour by mixing it and cementing it with an earth found there, and not with tin, as was seemingly the custom. Strabo also alludes to the preparation of an alloy of copper and zinc by the Phrygians, from the calcination of certain earths found in the neighbourhood of Andêra; and other authors, in the time of Augustus, speak distinctly of cadmia and its property of converting copper into *aurichalcum*, under which title the zinc alloy was subsequently known. Several writers of the Christian era who have referred to this compound are not more explicit than their predecessors; still, it is evident from various recent analyses of old alloys, that zinc was contained in many of those prepared about the commencement of the present era.'—*Muspratt's Chemistry*, vol. i. p. 535."]

(3.) By James T. Gibson-Craig, Esq., F.S.A. Scot.

Double Whistling-jug, with round ornamental head, resembling that of the Puma, dug up in a burying-place of the Incas near Truxillo in Peru, in 1841, 7 inches in height.

Perfume Vessel on stand, $7\frac{1}{4}$ inches high, also dug up in the same burying-place near Truxillo.

Hank of Thread, from the same tombs.

Double Whistling-jug, 5 inches in height, with bird's head, and ornamented with scroll pattern and the Greek fret, found in a burying-place of the Incas near Cuzco, the ancient capital of Peru.

These articles were purchased by Mr Gibson from Mr James M'Kean, seal-engraver. The two former were sent home from Peru by Mr M'Kean's brother in 1841, and the third was brought home by him on his return from Peru in 1852. It was long an heirloom in the family of Nunez, and was said to have been preserved by successive generations of that family for upwards of two hundred years. It was finally bequeathed by the last representative of the family to the mother of the manager of their estates, from whom it was obtained by Mr M'Kean.

(4.) By Charles Wyville Thomson, LL.D., Regius Professor of Natural History in the University of Edinburgh.

Polished Celt of grey Flint from Denmark, $11\frac{3}{4}$ inches long, 3 inches wide, and $1\frac{1}{2}$ inch thick.

Polished Celt of grey Flint, with roughly-dressed edges, from Denmark, $6\frac{1}{2}$ inches in length, 2 inches in greatest width, and 1 inch in thickness.

Perforated Hammer of Greenstone, $5\frac{1}{2}$ inches long, $2\frac{3}{4}$ inches wide, and $2\frac{1}{2}$ inches thick, concave on the sides, and convex on the broader faces, each of which is ornamented in the middle with a conical knob or boss. In its general outline it resembles the hammer figured on Plate XXII. vol. ix.

Crescent-shaped Scraper of dark grey Flint from Denmark, $4\frac{3}{4}$ inches in length, and $1\frac{3}{4}$ inch in greatest width.

Spear-head of Chert (North American), $4\frac{1}{2}$ inches in length, and $1\frac{1}{2}$ inch in greatest width at the base, with a tang of about $\frac{3}{4}$ inch in length for attachment to the shaft. It is carefully worked on both sides to a sharp and somewhat serrated edge. The point is slightly broken.

Seven Arrow-heads with barbs and stem, the largest $2\frac{3}{4}$ inches in length, the smallest 1 inch in length.

Two Arrow-heads of black Flint, with tang, rudely finished, $1\frac{1}{4}$ and $1\frac{1}{2}$ inch in length respectively.

One lop-sided Arrow-head, $2\frac{3}{4}$ inches in length.

Four leaf-shaped Arrow-heads, from $2\frac{1}{2}$ to $1\frac{1}{2}$ inches in length.

Five Arrow-heads, hollowed at the base for insertion of the shaft, 2 inches to $1\frac{1}{4}$ inch in length.

Sixteen Flakes, more or less worked to shape, chiefly in a leaf-shaped form.

One hollow Scraper, being a circular disc of flint, $1\frac{5}{8}$ inch diameter, with a concave hollow 1 inch across, worked in one side. This class of implement is not common, but specimens occur occasionally in England and Ireland. They were probably used for scraping the shafts of arrows, spears, and other circular objects of wood or bone.

Sixteen small Flakes of Obsidian.

Celt of Greenstone, partially polished, $2\frac{3}{4}$ inches in length, and $1\frac{1}{4}$ inch wide at the cutting end.

(5.) By Mr Hugh Campbell, Timekeeper, Edinburgh Tramway Company.

Clay Urn of the "drinking-cup" form, 8 inches high, found in a cist with flint implements near the King's Well, Fallaws, Monikie, Forfarshire, in January 1869. An account of the discovery of this cist and urn is

given by Andrew Jervise, Esq., Corr. Mem. S.A. Scot., in the Proceedings, vol. viii. p. 166. The cist, which was of rude red sandstone flags, measured 3 feet 4 inches by 2 feet 3 inches, and 18 inches in depth. It contained a skeleton entire, which lay from east to west. At the feet of the skeleton stood the urn which is now presented to the Museum, and in the bottom of the cist were five worked flints. One remarkable feature of this cist was that in the bottom lay a slab of red sandstone, 2 feet 3 inches long and 1 foot 8 inches broad, "which," says Mr Jervise, "was scooped out in the middle, in the same manner as the stones which are often found in and near Picts' Houses, and which are supposed to have been used for grinding barley." This stone is now also in the Museum, having been presented by the Earl of Dalhousie, F.S.A. Scot., through James Neish, Esq. of the Laws, a Fellow of the Society.

(6.) By Mr JOHN CAIRNS, 6 Caledonian Place.

Martyre de la Royne d'Ecosse, Dovariere de France, Contenant le vray discours des traisons à elle faictes à la suscitation Elisabet Angloise, &c. A Edimbourg, Chez Iean Nafeild. 8vo. 1587.

(7.) By THOMAS B. JOHNSTON, Esq., V.-P. S.A. Scot., one of the Authors.

The Historical Geography of the Clans of Scotland. 4to. 1872.

(8.) By the Right Hon. the MASTER of the ROLLS.

Registrum Abbatiæ Johannis Whethamstede. 8vo. 1872.
Memoriale Fratris Walteri de Coventria. Vol. I. 8vo. 1872.
Matthew Paris. Chronica Majora. Vol. I. 8vo. 1872.
Official Correspondence of Thomas Bekynton, Secretary to King Henry VI., and Bishop of Bath and Wells. 2 Vols. 8vo. 1872.

(9.) By ALEX. JOHNSTON WARDEN, F.S.A. Scot., the Author.

The Burgh Laws of Dundee, &c. 8vo. 1872.

(10.) By R. W. COCHRANE PATRICK, Esq., LL.B., F.S.A. Scot., the Author.

Notes on the Annals of the Scottish Coinage. Nos. 1 and 2.

There were also exhibited:—

(1.) By ANDREW HEITON, Esq., F.S.A. Scot., Darnick Tower, Perth.

Two Silver Penannular Brooches, said to have been found in Perthshire.

The first of these brooches, in style and beauty of workmanship, strongly resembles the larger of the two brooches figured and described in the Proceedings, vol. viii. Plate XVI. p. 306. The second, which differs considerably in style, is also remarkable for its beauty and fine preservation. Detailed descriptions of these interesting brooches are unnecessary in the meantime, as they would be unintelligible without figures.

The following Communications were read :—