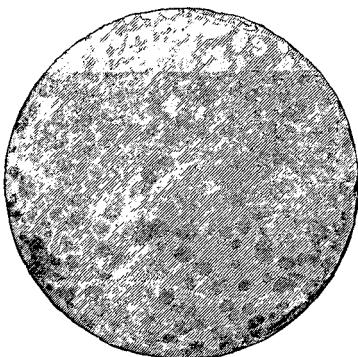
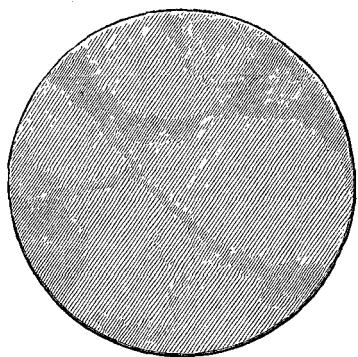


## V.

## NOTES ON SOME POLISHED STONE DISCS OF UNKNOWN USE, IN THE MUSEUM. BY JOSEPH ANDERSON, KEEPER OF THE MUSEUM.

The presentation of a number of small Japanese mirrors of bronze in the form of simple discs of metal polished and silvered on one side (see donation list of the present meeting), has induced me to revive an old conjecture of mine regarding the probable use of certain discs of polished stone, of which we have several examples in the Museum. They are usually about  $2\frac{3}{4}$  inches diameter, neatly finished round the edges, and highly polished on both the flat surfaces, as shown in the accompanying woodcuts.



Polished Disc of Marble from a brooch  
in Orkney,  $2\frac{1}{2}$  inches diameter.

Polished Disc of Mica Schist from  
Urquhart, Elginshire,  $2\frac{3}{4}$  inches diameter.

Besides the two here figured, we have a third in the Museum from the Broch of Burray, Orkney, presented by Mr Farrer. Mr George Petrie, Corr. Mem. S.A. Scot., has two in his collection at Kirkwall. I found

one in the Broch of Old Stirkoke in Caithness.<sup>1</sup> I have not noticed any specimens in the collections of Scandinavia or England. There was one of granite found in the Kirkhead Cave at Ulverston,<sup>2</sup> with Romano-British relics, and two, also of granite, have been found in Irish crannogs.<sup>3</sup> It is clear, therefore, that they belong to the Age of Iron, and not to the Age of Stone, but so far as I am aware, no suggestion as to their probable use has ever been hazarded.

It is more with the view of drawing attention to these peculiar "implements" of stone (if such they may be termed) than of establishing a hypothesis which in the meantime lacks evidence to support it, that I venture to suggest the possibility of their having been mirrors of stone.

In starting this hypothesis I do not overlook the fact that these objects are of the Iron Age. Had they been of the Stone Age I should not have hazarded the conjecture. The smallness of their size, their simple disc form, and the dulness of the polished surfaces, may be urged as objections against the possibility of their use as mirrors. But, on the other hand, it may be taken for granted that alongside of these Japanese mirrors the small size and the simple disc-form are in themselves no sufficient objection. The dulness of the surface is due to their long contact with the soil, and its lustre may be restored so as to enable one to see his reflected image by simply dipping the disc in water. And I exhibit several specimens of polished stone (for which I am indebted to Professor Duns) to show by ocular proof that a high polish does bring up a good reflecting surface even on the darkest stone.

But apart from probabilities, it is the fact that stone mirrors were made and used by the ancients. Both Pliny and Theophrastus mention mirrors made of calcareous spar or selenite, of green vitrified lava, and of the black marble of Chios. "The first glass mirrors, indeed," says Beckmann, "appear to have been made in imitation of the obsidian stone." In fact, the first mirrors made of glass were failures on this account, being so much surpassed by those of metal that they never came into general use, and it was only after the process of silvering the back of the glass came into use in the 13th century that the modern form of the mirror

<sup>1</sup> *Archæologia Scotica*, vol. v. p. 143.

<sup>2</sup> *Mem. Soc. Anthropol. Lond.* vol. ii. p. 360.

<sup>3</sup> *Kilkenny Arch. Journal*, iii. 88 and iv. 36.

was generally adopted. John Peckham, an English Franciscan monk, who wrote a treatise on optics in A.D. 1297, speaks of mirrors made of glass and also of iron, steel, and polished marble, and states that in certain stones of weak colour the reflected image is better seen than even in glass. When the Spaniards went first to Peru they found mirrors of stone in use among the Peruvians. These are described as being made of a kind of obsidian, and also of marcasite, and the size of these Peruvian stone mirrors removes the objection of the smallness of the Scottish specimens, as they are described as being no more than three inches diameter.

Since these notes were read to the meeting of the Society, I have been favoured by Dr John Alexander Smith with a transcript of the passage from Peckham's work, which he kindly obtained for me from the British Museum, and also with a note of a specimen in the Museum of Economic Geology in Jermyn Street, labelled as follows :—

" Polished Marcasite or white Iron Pyrites, probably used as a mirror. Found in 1866 embedded in peat on the site of ancient pile dwellings at London Wall, associated with Roman pottery and coins ; iron and bronze implements ; leather soles of shoes or sandals ; kitchen-middens, or heaps of refuse shells ; bones of the red-deer, wild boar, wild goat, *Bos longifrons*, &c. Presented by Colonel Lane Fox, 1866."

The conclusion to which I come in view of all these facts, is not that these discs of polished stone which I have exhibited were made to be used as mirrors, but that the hypothesis that such discs of stone may have been mirrors, similar to those used by the Peruvians, and noticed as having been used in Europe, both by classical authors and writers of the Middle Ages, is not altogether an improbable one.

MONDAY, 8th June 1874.

ARTHUR MITCHELL, Esq., M.D., Vice-President, in the Chair.

A ballot having been taken, M. EDOUARD MACNAB of Faix, near Vierzan (Cher), France, was elected a Corresponding Member of the Society.

The following gentlemen were also elected Fellows, viz.:—

HENRY W. HOPE of Luffness, Esq.

FREDERICK JOHN HORNIMAN, Esq., Surrey House, Forest Hill,  
London.

ROBERT LOVE of Lochwinnoch, Esq.

Rev. JAMES PETER, M.A., Manse of Old Deer.

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

(1.) By DAVID LAING, Esq., For. Sec. S.A. Scot.

Two old paintings, viz., Portrait of King Charles the First; and Portrait of King Charles the Second.

(2.) By Mr JAMES BAYNE, Hanover Street, through Mr SANDERSON,  
Jeweller, &c., 92 Princes Street.

Punch for making Tokens, and Token of the Edinburgh Berean Church,  
dated 1795.

(3.) By Rev. WILLIAM GORDON, Abernethy.

Two Roman Lamps of Terra Cotta, from Italy; American Flint Arrow-head; Confederate States 20-dollar Note; and a United States Note for 10 Cents.

(4.) By Mr KUNO MAYER, 1 Darnaway Street.

Three Assignats of the French Republic, 1790.

(5.) By Mr ROBERT DOUGLAS, 4 Arthur Street.

Roman Denarius (illegible) found in an old building in the Grassmarket.

(6.) By JAMES T. IRVINE, Esq., F.S.A. Scot.

Memoirs of a Short Tour through part of the Netherlands in 1733.  
MS. 12mo.

(7.) By the POWYS LAND CLUB.

Collections, Historical and Archaeological, relating to Montgomeryshire.  
8vo, 1874.

(8.) By REV. BEAVER H. BLACKER, the Author.

Brief Sketches of the Parishes of Booterstown and Donnybrook in the  
County of Dublin. In four parts, 12mo, 1874.

(9.) By the MANX SOCIETY.

The Manx Miscellanies. Vol. I., 8vo, 1874.

(10.) By MR JAMES GOURLAY, through REV. MR BEVERIDGE, Minister  
of Inveresk.

A Nuremberg Token found on the Glebe Lands of Inveresk.

There were also Exhibited:—

(1.) By REV. JAMES MACFARLANE, Ruthwell, through GEORGE SETON,  
Esq., F.S.A. Scot.

A portion of the Shaft of a Sculptured Cross, with interlacing patterns,  
recently dug up at Ruthwell, Dumfriesshire.

(2.) By The Right Hon. Lord RUTHVEN.

A Sculptured Stone, in the form of an arch, measuring 8 feet across the  
bottom of the arch from outside to outside, 3 feet 6 inches in height, and  
12 inches thick, sculptured with three human figures, and a cross standing  
on a pedestal, with an animal beside it, in the centre. This stone, which  
was described by Mr W. F. Skene in a paper read to the Society on 23d  
January 1832, is figured in the "Archæologia Scotica," vol. iv. p. 271,  
where an abstract of Mr Skene's paper is given. It is also figured in Dr  
John Stuart's "Sculptured Stones of Scotland," vol. ii. plate ciii.

The stone has since been deposited in the Museum by Lord Ruthven.

The following Communications were read:—