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NOTES ON A SET OF FIVE JET BUTTONS FOUND ON A HILL IN FORFARSHIRE. BY ROBERT MUNRO M.A., M.D., LL.D.

The following remarks on Buttons of the Prehistoric period, especially those made of jet, were suggested by the recent discovery of a set of five jet buttons, which came into my possession in the circumstances narrated in the subjoined extract from a letter addressed to me by a gentleman living near Edzell, and dated 9th April 1901.

"It has occurred to me that you would be interested to know of a find made in the parish of Lochlee in September last. A number of jet buttons similar to those described and illustrated in your work (*Prehistoric Scotland*), pp. 172 and 173, were found by a young man on a hill about two thousand feet high to the south of Lochlee. They were got by the side of a moss hummock. There are five of them; they were partly embedded in the moss and lying in a row about 4 inches apart from each other. The largest measures $2\frac{1}{4}$ inches in diameter, and the others $1\frac{1}{4}$, $1\frac{1}{8}$, $1\frac{1}{16}$ and 1 inch respectively. The largest one lay at the higher end of the row and the others in order of their size.

"I shall be glad if you will let me know if they are of any interest or value. The young man who found them would be pleased if he could get anything for them. He is a working man, but has been unemployed all winter."

Having secured the buttons, I wrote asking for more precise information about the locality where they were found, and received the following additional particulars: "They were got on a hill known as the Burnt Hill, which stands on the south of the loch of the same name as the parish, Lochlee. There was nothing in the spot to suggest that a grave had been made—no trace of human remains. The moss at the place is not of a kind suitable to cut for peat, and there is no appearance of any peat cutting having been made any place near by. I know the ground around thoroughly. I hope these few further particulars may be what you wish."

Notwithstanding the meagreness of these details, there are one or two points on which it is advisable to make a few observations. A mere glance at the formation of these buttons will show the experienced archæologist that they belong to a class of antiquities which has been found, on several occasions, within the British Isles, often associated with sepulchral remains of the Stone and Bronze Ages. The order in which they lay in the moss suggests that they were a set of buttons on a garment, which garment has disappeared by the ordinary process of decomposition; while the buttons, being of a less perishable substance, still remained in the relative position they occupied on the garment. It would be waste of time to enter on a lengthy discussion as to how this garment came to be deposited in such a lonely locality. A possible hypothesis is, that it originally contained the body of its owner, who died either from exposure or by the hand of an enemy, in the solitude of what, in those days, would have been a vast forest.

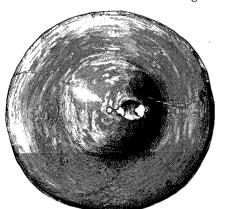
There is one point, however, which deserves to be noticed more particularly, viz., the position in which the buttons are said to have been found—"partly embedded" in the peat "by the side of a moss hummock." This, I presume, means that the margin of the hummock has been undergoing a process of disintegration which, in the course of time, actually laid bare the buttons. Now any one acquainted with the phenomena of Highland moors must have observed that, in some peaty localities, especially on the flanks of lofty hills, there is a natural process of decay going on concurrent with that of growth. One sees, here and there, isolated "hummocks" still covered with heather, but surrounded by bare patches, of greater or less extent, which are not only denuded of heather but of a large part of the moss itself, often exposing the roots and stems of prostrate trees which flourished on the underlying soil before the peat began to grow. These natural processes of growth and decay suggest a feasible explanation of how these buttons, with or without the body of their owner, might have been first buried in peat and subsequently uncovered, after lying concealed from human eyes for centuries. The total disappearance of the body and its clothing would VOL. XXXVI. 30

not be an anomalous result in the circumstances. Canon Greenwell has shown by his barrow researches that the total decomposition of a body, even when it was buried in a grave, was not an unusual occurrence, while in some instances the enamel of the teeth was the only evidence that there had been a human interment.

All the five buttons are circular in shape, or nearly so, and their upper surfaces are more or less rounded. Their diameters are correctly given in the above statement, viz., $2\frac{1}{4}$ inches for the largest, and from $1\frac{1}{4}$ to 1 inch for the other four; while the thickness of none of them amounts to half an inch. Hence they present a flat appearance, with a slightly elevated boss in the centre corresponding to the V-shaped passage underneath. They appear to have been subjected to a considerable amount of friction, due no doubt to long usage, as in three of them there is on the upper surface a small opening into the V-shaped cavity. That these openings were the result of wear and tear is clearly proved by the state of the aperture on the largest button (fig. 1), which shows an irregularly shaped orifice with a very thin edge all round. There is otherwise nothing remarkable about these buttons. They are all more or or less polished, and the under side of the largest one shows a fibrous texture, like that of lignite. The V-shaped passage, in all of them, is formed by a conical boring directed inwards and upwards from two opposite sides of the under surface till they meet in the centre.

Looking at these interesting relics, merely from their structural peculiarities and the physical conditions under which they were discovered, the above remarks probably embody all that can be said about them. If, however, we wish to acquire more precise information as to their real archæological significance, we must institute a comparison between them and analogous remains found elsewhere. We must, indeed, trace the range, variation and distribution of the whole group, *i.e.*, all those previously recorded, by a careful comparison of the materials with which they were associated. To collect rare and novel antiquities, and pigeonhole them in a museum, is only the preliminary stage of the true function of the antiquary. He must occasionally stir up the dry bones, by

reminding his fellow-workers that Archælogy is a constructive science, and that its exponents should be qualified to depict bygone customs and antiquated phases of life from its fragmentary materials, with as much accuracy as the Palæontologist reconstructs the form of an extinct animal from a few fossil bones. Something of this kind, but in a very small way, is what I propose to do with regard to these jet buttons; and I am encouraged to do so from the fact that, notwithstanding the goodly number now collected throughout Western Europe, no comprehensive



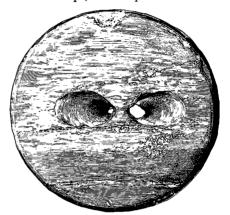


Fig. 1. The largest of the five Jet Buttons found on the Burnt Hill, Lochlee, Forfarshire. (Actual size.)

survey of them and their associated relics has yet been undertaken. The best and fullest notices of such buttons are by Sir John Evans (Ancient Stone Implements, etc., 2nd ed.), and by Dr Much (Die Kupferzeit in Europa, 2nd ed.). The first step towards accomplishment of this object is to tabulate the recorded discoveries of V-perforated buttons, of whatever material they may have been made, side by side with such of their associated relics as may have a chronological value.

SCOTLAND.

A conical jet button (fig. 2), 2 inches in diameter, now preserved in the National Museum, was found on Crawford Moor near Carstairs, Lanarkshire (Wilson's Prehistoric Annals, vol. i. p. 442, and Proc. S.A.S. ii. p. 307). Another (fig. 3), rectangular in shape, and having, on its upper surface, three incised lines running along its border, was found in a



Fig. 2. Jet Button found on Crawford Moor. $(\frac{1}{2})$

cist on Law Hill, near Dundee, and is now also in the National Museum. When it was first exhibited at a meeting of the Society (12th April 1880), Mr Sturrock stated that round buttons of a similar make had



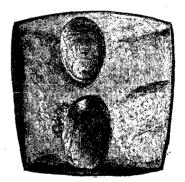


Fig. 3. Jet Button found in a cist on Law Hill near Dundee. (Actual size.)

been found on different occasions in cists in Forfarshire. This may refer to two buttons of jet from Letham, Forfarshire, now in the Museum. Of round specimens in the National Museum without a history, one comes from New Cumnock, Ayrshire; another from Mid Torrs, and two small ones (fig. 4) from Low Torrs, Wigtownshire.

Three round jet buttons (fig. 5), presenting prominent bosses on their upper surfaces, and measuring respectively $1\frac{3}{8}$, $1\frac{1}{16}$ and $\frac{3}{4}$ inch in



Fig. 4. Jet Button found at Low Torrs, Wigtownshire, (Actual size.)

diameter, were discovered in association with a large cinerary urn in the course of some earth digging at Keith Marischal, East Lothian (*Proc. S. A. Scot.*, xxxiii. p. 69).

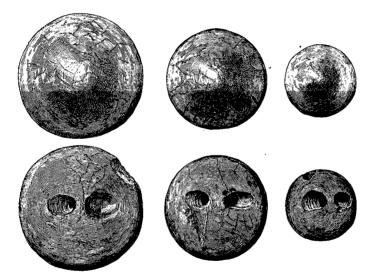


Fig. 5. Three Jet Buttons found with a Cinerary Urn at Keith Marischal, East Lothian. (Actual size.)

Six jet buttons, varying from $1\frac{3}{4}$ to $1\frac{1}{8}$ inch in diameter, formed part of a hoard of bronze objects discovered at Migdale, on the estate of Skibo, Sutherlandshire. The hoard seems to consist of the personal goods of

a wealthy individual. It is, therefore, of considerable archæological value, inasmuch as it proves contemporaneity of various articles here associated together, which are as follows:—2 flat celts, 4 pairs of bracelets (three being solid plain rings and one in the form of an ornamental band), a necklace of some 40 cylindrical beads, and a few pendant-like objects. (*Ibid.*, xxxv. p. 269).

These are all the references to the finding of buttons with V-shaped perforation in Scotland which have come under my notice, but no doubt, with greater diligence in research, the list could have been considerably enlarged. Though not included under the category of the buttons now under consideration, I may mention that Sir Daniel Wilson records a discovery of five buttons, or studs, of polished jet in a stone cist in the parish of Stevenston, Ayrshire. These are described as being "convex on the one side and concave on the other, with knobs left in the latter, seemingly for attaching them to the dress" (Loc. cit., i. p. 441).

ENGLAND.

Pursuing our investigations south of the Scottish border, I shall first notice a number of similar buttons discovered by Canon Greenwell, F.R.S., in the course of his barrow explorations, and described in his valuable work on that subject.

- (1) A barrow (xxvii. p. 174) in the parish of Granton contained a number of burials, both after inhumation and cremation, in one of which was found the body of a young man having, on the front of the upper part of the chest, a small jet button $\frac{3}{4}$ of an inch in diameter.
- (2) Another barrow (xxxix. p. 158), in the parish of Butterwick, had the primary interment in a grave sunk in the chalk beneath the natural level of the ground. The body, that of a young man, had in front of the chest six round buttons—five of jet and one of collic sandstone. The former are slightly conical on the upper surface, and vary in size from $1\frac{1}{8}$ to $1\frac{3}{4}$ inch in diameter. The stone specimen (Pl. No. 3) which is formed exactly like those of jet, is $1\frac{1}{2}$ inch in diameter, and shows four incised lines on its upper surface running from the apex towards the

circumference, in the form of an equal-sided cross, and a circle near the border of the under surface. In this grave were also found a flint knife, and the following objects of bronze, viz., a dagger, an axe, and a drill-awl.

- (3) A barrow (lviii. p. 223) in the parish of Cowlam contained a body, having in front of the face a perforated axe-hammer of greenstone, two small flint scrapers, a flint flake, and three shapeless pieces of jet. The grave had been filled up with earth, which contained the bones of a disturbed body, a few potsherds, and a small conical button of jet, $\frac{1}{2}$ inch in diameter.
- (4) A barrow (lx. p. 227) in the parish of Thwing had a grave dug in its centre, 4 feet below the natural level of the ground; and about 3 feet from the bottom there was a body of uncertain sex which had upon the middle of the right arm a jet button (Pl. p. 486 No. 1), $1\frac{1}{2}$ inch in diameter, and a ring, 1 inch in diameter, both ornamented.
- (5) In a barrow (lxi. p. 229) in the parish of Rudstone a jet object, like the ordinary jet button but pierced differently, and a jet ring similarly ornamented to that above described, were found underneath the right tibia of a skeleton. Canon Greenwell remarks in a footnote that similar rings had been found elsewhere in various parts of England, and generally associated with one or more jet buttons.
- (6) Another barrow in the same parish (lxviii. p. 263) had in its centre a grave, 6 feet deep, which had been filled up with chalk. At the bottom of this grave lay the body of a man, and along with it the following grave-goods:—A long oval-shaped implement of mica-schist, supposed to be a whetstone; one of the ornamental jet rings with V-shaped perforations at the edge (Pl. No. 9); two jet buttons; a worked flint and a split nodule of pyrites ("flint and steel"), a bronze dagger $4\frac{7}{8}$ inches long, with two rivets for fixing it to a handle of ox-horn. Of the two buttons, one (Pl. No. 2) was highly ornamented, and measured $1\frac{3}{8}$ inch in diameter; the other was $1\frac{7}{8}$ inch in diameter.

Another grave in the same barrow, but not quite so deep as the former, contained, along with the body, two plain jet buttons $1\frac{3}{8}$ and $1\frac{1}{2}$

inch in diameter, and a second pair of the supposed "flint and steel," almost identical with that in the preceding grave.

A third grave, also in the same barrow, was $4\frac{1}{2}$ feet in depth, and contained, along with the body of a large and powerful man, a bronze knife which had been fixed to its horn handle by a single rivet, a perforated axe hammer of micaceous grit, an elongated flint tool, some shreds of pottery, two flint scrapers, and bones of sheep, ox, dog and pig.

- (7) In a large barrow (lxxi. p. 278), and at the bottom of a grave 4 feet deep, a small conical button of bone $\frac{1}{2}$ inch in diameter, and formed in a similar manner to the jet buttons, was found associated with a male body.
- (8) In a barrow at Hunmanby, Yorkshire, 20 small jet buttons of a conical shape, probably used as a necklace or for decorative purposes, were found along with a penannular ring of bronze (*Archæologia*, lii. p. 19).

The following discoveries of V-perforated buttons in various localities are gathered from other sources.

A tumulus at Tosson, near Rothbury, Northumberland, contained four stone cists, two of them being 4½ feet in length and the other two only 2 feet. Each of these cists contained a skeleton and an urn. Three buttons made of Cannelcoal, and of the usual form, were taken out of one of the larger cists; and a socketed iron spear-head, 6 inches long, out of the other. An implement made of deer horn and a small bronze buckle were also among the relics from the tumulus. Only one of the skeletons was preserved for examination, and the measurements of the skull show that it was of the Brachycephalic race (*Proc. Soc. Ant. Scot.*, vol. iv. p. 60).

In a cist at Winterbourn, Monkton, N. Wilts, there were found, along with a male skeleton, two large jet buttons, nearly 3 inches in diameter, as well as a small one of the same material; a highly ornamented jet ring, showing three V-shaped perforations at the edge; a flint flake; an ovoid implement of serpentine with flattened ends; and two drinking cups. (See Crania Britannica, vol. ii. Pl. 58, p. 2).

A jet button, $1\frac{3}{4}$ inch in diameter, is mentioned by Sir John Evans as being preserved in the British Museum, and having been found in a barrow on Lamborne Down, Berkshire. Its conical surface terminates in a rounded projection (*Ancient Stone Implements*, p. 408).

Two buttons of Kimmeridge shale from Net Low, Derbyshire, have similar projections, as well as a slightly raised bead round their edge. They were found, along with a bronze dagger, at the right side of an extended skeleton (*Vestiges of the Antiquities of Derbyshire*, p. 69).

A jet button, 13/4 inch in diameter, together with a piece of calcined flint, was found in a barrow near Castern, Derbyshire (*Ten Years' Diggings*, p. 152).

Several buttons of Kimmeridge coal were found in a barrow near Buxton (*Reliquary*, vol. viii. p. 86).

A small jet button, only $\frac{5}{8}$ inch in diameter, found in the Calais Wold barrow, and another, $1\frac{1}{8}$ inch in diameter, from Gospel Hillock, are figured in *Grave Mounds* (p. 126).

Mr Warne (Celtic Tumuli of Dorset, p. 16 and Pl. 3) describes and figures a jet button, and a ring (Pl. No. 17)—like those so frequently mentioned as being a concomitant of these buttons—from a tumulus at Woodyates, Dorset. They were found with a contracted skeleton, along with a bronze dagger "that had been gilt and protected by a wooden scabbard," a small bronze pin, and four perfect arrowheads of flint.

Buttons similar to those now under consideration were occasionally made of amber, three specimens of which, each about an inch in diameter, were found in a stone cist in a barrow near Driffield, Yorkshire. They were associated with a contracted skeleton, a stone bracer, a bronze dagger, and a drinking cup (*Archæologia*, vol. xxxiv. p. 254).

In the Ashmolean Museum, Oxford, there are twenty-six small buttons of amber which were found in a barrow, seven miles from Sarum, associated with a small tanged bronze dagger, and an urn with two small perforated ears projecting from its widest part a little above its middle.

The following list of buttons is chiefly compiled from the Catalogue

of the Stourhead Collection in the Archæological and Natural History Museum at Devizes:—

- (1) Conical Boss of thin gold leaf (Pl. No. 4), which covered a core of lignite, perforated at the base for attachment to the dress. It is decorated with three groups of lines (three lines in each) running round the lower half of the cone with a zigzag linear ornament between the lowest two. The decorative lines are engraved on the core, and the gold has taken the impression from them. Height $1\frac{3}{8}$, diameter at base $1\frac{7}{8}$. Found at Upston, Gold Barrow, along with one thousand amber beads and a bronze pin. (Archwologia, xv. pl. vii.; A. W., 199, pl. x.)
- (2) Two conical Buttons of Ivory (?). Diameter $\frac{1}{2}$ inch, found with an interment of burnt bones along with a bronze awl and a notched band of tin in a barrow at Sutton Veney. (A. W., 103, pl. xii.)
- (3) Conical Boss or Button of Kimmeridge shale perforated at base. Diameter $\frac{5}{8}$ inch. Found with five rings of the same material, some beads of amber and glass, and a small bronze pin, at Winterbourne Stoke West Barrow 10. (A. W., 114, pl. xiii.)
- (4) No. 74 of the Catalogue indicates "a large flat conical button of jet, bored with converging holes on the flat side. Diameter 1\frac{3}{4} inch." No. 75 indicates a "Pulley Ring" of jet with two deep grooves on the edge and three communicating holes. Diameter outside 1\frac{7}{8}, inside \frac{3}{4} inch. The provenance of these two objects is unknown. The editor of the catalogue, in a footnote, makes the following remarks on them: "The use of these curious rings is unknown. They are found associated with the large flat conical buttons. Probably button and ring together formed some sort of clasp or fastening for the clothes. The Wilts Museum possesses five examples; four in the Stourhead Collection, and one presented by Mr Eyles, of Monkton. Another found by Mr Fenton on Mere Down is lost."
- (5) Convex Button of polished jet, bored with converging holes on the flat side. Diameter $\frac{3}{4}$ inch. Found with a skeleton in a grave near Durrington Walk, along with the following objects: A pulley ring of

1 A. W. means Hoare's Ancient Wilts.

Kimmeridge shale, $1\frac{1}{2}$ inch in diameter, with deep groove and four holes on the edge; a fine broad-bladed dagger of flint $(6\frac{1}{2}$ by $1\frac{3}{4})$. (A. W., 172, pl. xix.)

- (6) Thin leaf Gold Covering of a conical Boss of jet or lignite. The base is also covered with gold lapped over the edge. There are four bands of concentric lines (four lines in each band), with minute dots along them round the cone, and three rings of the same on the base. It has two converging holes in the base, and was no doubt worn as a personal ornament. Height $1\frac{1}{4}$, diameter of base $1\frac{5}{8}$ inch. Found in Normanton barrow 155. (A. W., 201, pl. xxv.)
- (7) Conical Button of jet, $\frac{1}{2}$ inch in height and $\frac{5}{8}$ inch in diameter, with converging holes under base. Found in barrow 26, Amesbury N. Station, along with burnt bones, two fusiform jet beads, and a number of small amber beads. (A. W., 159.)
- (8) Jet Button, diameter $1\frac{1}{2}$ inch; and a jet "Pulley" ring $1\frac{1}{2}$ inch in diameter, with one groove and two holes on the side and another hole partly bored. Found in Barrow 5, Winterbourne Stoke. (A. W., 118.)
- (9) A Kimmeridge shale Ring, with converging holes at the margin, found at Woodyates, seems to be that already described (p. 13) from Warne's *Celtic Tumuli of Dorset* as associated with a jet button. (A. W., 239, pl. xxxiv.)
- (10) Two round Disks of amber, flat on one side and convex on the other, with converging holes on the edge for suspension. Diameter $\frac{9}{16}$ inch. Lake Barrow 21. *Archæologia*, xliii. 502. (A. W., 213, pl. xxxi.)
- (11) Half a spherical amber Bead, split, and afterwards bored with converging holes to serve as a button. (Pl. No. 10) Woodyates, "Druid" Barrow. (A. W., 281.)
- (12) Two amber Buttons or Bosses, length 1 inch and $\frac{3}{4}$ inch, one hemispherical and the other semi-oval, found with four amber beads in Barrow 18, Winterbourne Stoke. (A. W., 123.)
 - (13) A round conical Button of jet, $\frac{7}{8}$ inch in diameter, and another

of shale, diameter $\frac{15}{16}$ inch, both with converging holes on the flat side. Locality unknown. No. 325 of Catalogue.

TRELAND.

In Ireland eleven jet buttons are preserved in the Dublin Museum, but, unfortunately, with the exception of one "found in Lurgan bog, near Dromore, 1830," there is no record of the circumstances in which they were discovered. They are of different sizes and shapes—circular, oval, or square—as shown by the following details communicated to me by Mr G. Coffey, the obliging curator of the Museum. Five circular specimens from 1 inch to $1\frac{3}{8}$ inch in diameter. The upper surface in the case of four of these is rounded and lofty, but that of the fifth is Four oval specimens measure from 1 inch to 11 in length, by $\frac{11}{16}$ to $\frac{7}{8}$ inch in breadth. One takes the form of an irregular foursided pyramid, the length of the largest side at the base being $1\frac{1}{4}$ inch. The Lurgan specimen is nearly circular $(2\frac{1}{4} \text{ inches by } 2\frac{1}{16})$ and somewhat flattened near the circumference, but rises in the centre into a cone half an inch in height.

A star-shaped object (Pl. No. 18), about 2 inches in greatest diameter, and perforated on the under side like the jet buttons, is figured in Wilde's Catalogue, page 122. "It was found in the sepulchral caverns discovered during the excavations made some years ago at the tumulus of Dowth, on the left bank of the river Boyne, in the county of Meath."

A conical shaped button made of steatite (Pl. No. 19) is described and figured by Col. Wood-Martin (R. Hist. and Arch. Association of Ireland, vol. vii. p. 589) as having been found in a stone circle at Carrowmore, along with human bones.

A writer in the *Ulster Journal of Archeology* (vol. iv. p. 271) states that a dozen stone buttons were found on Ballyboley mountain, which appear from the following description to have been of the same type. "These buttons were largely convex on the under side; so much so as to allow a hole being drilled through, large enough to admit a cord or thong

by which they could be fastened." A more or less convexity on the perforated surface is not an uncommon feature of these buttons, as may be seen in an amber specimen from the Baltic (Pl. No. 11).

ON THE CONTINENT.

Outside the British Isles buttons with V-shaped perforation have been discovered in the south-west of Sweden, Jutland, Schleswig, Hanover, East Prussia, the Mondsee (Austria), Hungary, Polada (North Italy), France, and the Iberian peninsula. None of these, however, are made of jet, but of various local materials such as amber, stone, ivory, bone, and shell.

Mr Moutelius (Archiv. für Anth., xix. p. 12) has recorded the finding of four specimens made of amber in peat near Hogen, Bohuslän, from which he infers some early relationship between Britain and Sweden. Others of the same material were found in various localities as follows:— One at Amrum (Schleswig) from a skeleton-grave of the Bronze Age (Pl. No. 21): fourteen in the moor of Alterwalde, south of the mouth of the Elbe; several others in a moor at Gudendorf in Hanover. latter locality there appears to have been a factory for making amber objects, the remains of which were discovered on the surface of the sand beneath the peat. Among the artificial objects known to have been collected from the station were five specimens of the buttons, with V-shaped perforations, which were then preserved in the collection of Dr Reinecke in Schloss Ritzebüttel. They vary in size from 3 of an inch to 13 inch in diameter, and some of them show worked facets on the upper surface. For correct bibliographical references to where these, and a few others in the Cimbric peninsula, were found, see an article by Hr. Olshausen (Zeitschrift für Ethnologie, 1890, Verhand., p. 270 et seg.).

In 1882, Dr Richard Klebs published in the *Physikalisch-Okonomischen Gesellschaft zu Königsberg* an article on the ornamentation of amber in the Stone Age, and among the large number of objects figured and described there are eighty-two buttons formed precisely similar to.

our jet buttons (Knöpfe mit V-formiger Bohrung). The large majority of these were collected in the course of dredging for commercial amber, near a place called Schwarzort, on the Kurische Nehrung, the rest being among the antiquities preserved in the Museums of Königsberg. Of these eighty-two specimens, seventy are finished, the other twelve being in various stages of manufacture; sixty-three are circular, five boat-shaped, two square, and twelve oval; all are more or less rounded or conical on the upper surface, and flat, or sometimes convex, underneath. The smallest (Pl. No. 8) is only $\frac{5}{8}$ of an inch in diameter, while the largest (Pl. No. 6) measures 4 inches in length and 2 inches in breadth. Some of them show one or two abortive holes, in addition to the completed perforation, as if the operator's first efforts had miscarried. specimen has two perforations (Pl. No. 14), and another, of a rectangular shape, has a series of V-shaped perforations along the margin—thus reminding us of the ornamental jet rings of England. These perforations, as well as those in most of the ornaments of amber illustrated by Dr Klebs, are funnel-shaped, and appear to have been made by flint tools, a remark which, according to Dr Reinecke (loc. cit., p. 289), applies to the buttons from Gudendorf. Hence these amber buttons are regarded in both localities as products of the Stone Age.

I have not been able to trace many of the V-perforated buttons in France. One very small circular specimen, made of alabaster and figured in Musée Préhistorique (Pl. lxiv.), was found in a dolmen in the Ardèche. Hr. Olshausen (Zeit. für Ethnologie, 1890 Verhand., p. 289) mentions one of bone of the early Bronze Age from the cave of Bounias near Arles. Others of stone associated with copper beads, jet pendants, etc., are described by M. C. de Fonduce from the Grotte des Morts near Durfort (Gard) (Compte-Rendu de la Soc. scientifique et lit. de Alais, vol. i. p. 196).

Among lake-dwelling remains only in two instances have I observed V-perforated buttons, viz., at one of the stations in the Mondsee and at Polada in Italy, and in both places they were made of stone or marble (see *Lake-dwellings of Europe*, fig. 39, No. 13, and fig. 68, No. 32). From

the illustrations of the two figures it will be seen that they are both circular and rounded on their upper surface, and that the Austrian specimen is ornamented with a circle of dots running along the margin.

Similar buttons made of bone and shell were found among the debris of the prehistoric fort of Lengyel in Hungary, and are described in a monograph by M. Wosinsky (see Much, *Die Kupferzeit in Europa*, 2nd ed., p. 97).

In Spain V-perforated buttons (Pl. Nos. 15, 16, and 20) made of ivory have been discovered and figured by the MM. Siret (Les premières Âges du métal dans le Sud-est de l'Espagne, Pl. xvi. figs. 24, 25; xli. figs. 202, 203; xlviii. fig. 407), both in graves and on dwelling sites of the early Bronze Age. They vary greatly in size and shape, some being round and others of different forms, as shown in the illustrations (Pl. Nos. 15, 16, and 20). M. Cartailhac (Les Ages préhistoriques de l'Espagne et du Portugal, p. 102) has also noted V-perforated buttons made of bone among the ornaments collected in the celebrated sepulchral cave known as Casa da Moura, situated on the right bank of the Tagus, at the foot of the Sierra Monte-Qunto, and about six kilometers from the sea. He figures one specimen, $1\frac{3}{8}$ inch in length and $\frac{5}{8}$ inch in breadth, showing an irregular outline (Pl. No. 7), not symmetrical at both ends, like expanded wings. Among other objects found in this cave were jet beads of various forms; pendants of jet, greenstone and teeth; bone pins of various shapes; plaques of slate ornamented with linear patterns; flint implements, polished stone celts and chisels, etc. The same author (ibid., p. 178) figures a circular button (Pl. No. 8) with a conical upper surface, $\frac{7}{8}$ inch in diameter, made of bone, which, along with other specimens of the same kind, had been found in the allee couverte of Anta du Monte Abraho in the vicinity of Lisbon. Associated with these buttons were the following objects characteristic of the Stone Age: knives, scrapers, lance- and arrow-heads of flint; stone axes of diorite, etc.; pointed implements of bone; beads, pendants, plaques, etc.; and human bones representing not less than twenty-four individuals.

GENERAL REMARKS.

This concludes my notes on the number, peculiarities, and distribution of V-perforated buttons, large and small, hitherto recorded, so far as I know, in Western Europe. On summarising the result I find that 22 have been found in Scotland, at least 12 in Ireland, and 96 in England. All the Scottish, 11 Irish, and 57 English examples, including the two bosses covered with gold, were made of jet, lignite or shale; and of the rest, 34 were of amber, 3 of stone, and 3 of bone or ivory. Of the 88 jet specimens, 61 are an inch or more in diameter, and 27 less than an inch, being generally about half an inch in diameter. As no less than 20 of these smaller ones were found in one grave they may be regarded as part of a necklace. Of the 34 amber specimens, only eight can be regarded as buttons; the rest, being small and found in one grave associated with a tanged bronze dagger and an urn of late type, may also, like the small jet specimens above mentioned, be regarded as a necklace, and of later date than the majority of objects with V-shaped perforations hitherto found.

Of the Continental buttons, all recorded from Baltic regions, amounting to upwards of 100, were made of amber; the few from the Mondsee, Polada, and two localities in France, were of white stone; and those found in Spain and Portugal, and in a grotto in the south of France, were made of ivory or bone. So far these facts merely prove (1) that the art of manufacturing buttons of this peculiar type was widely known among the prehistoric peoples inhabiting the western parts of Europe, and (2) that the material used was the most suitable procurable within certain geographical areas accessible to the makers. Thus, jet was the chief substance used in the British Isles; amber, in the regions bordering on the Baltic and North Sea; and stone, bone, ivory, etc., in regions where the former substances were not readily to be had.

From an examination of the circumstances in which the jet buttons of the British Isles were found, the following inferences may be formulated with some degree of confidence:—(1) They are proved to have been

in actual use in Scotland during the early Bronze Age. The East Lothian examples cannot with certainty be assigned to the same period, because the cinerary urn with which they were associated has not been conclusively proved to be of the Bronze Age. As to the isolated or surface finds, no chronological inference can be drawn from them; but there is nothing in the circumstances connected with the discovery of any of the Scottish specimens which militates against the hypothesis that they were all made during the early Bronze Age. (2) Of the English examples, most of which were associated with a male skeleton, except in one or two cases in which the sex could not be determined, no less than 41 (excluding the 26 small amber specimens in the Ashmolean Museum) were accompanied by one or more objects characteristic of the early Bronze Age; while, on the other hand, none of the relics associated with the remaining 29 are inconsistent with the hypothesis that they also belonged to the same period. No fact has been more clearly demonstrated by Canon Greenwell's careful researches among the Yorkshire barrows than that flint knives, scrapers, arrow-heads, and perforated stone axes were contemporary with the dagger-knife, flat celt, and drill-awl, with one or other of which the above-mentioned 41 It cannot, therefore, be maintained that buttons were associated. graves which yielded jet or amber buttons, but only stone and flint objects, are to be assigned to an earlier period than those exhibiting in every respect the same structural characteristics and the same class of relics, on the mere fact, or rather coincidence, that the latter contained a dagger, or a flat celt, or an awl of bronze. From this overlap of relics, generally regarded as characteristic of the Stone Age, with those of the early Bronze Age, it may be fairly surmised that the transition stage was of long duration. It follows, therefore, that while the minimum logical inference to be derived from the statistics of English jet or amber buttons is, that they were largely in use in the early Bronze Age for fastening men's garments, there is strong primâ facie reason for assigning them all to that period. (3) For chronological purposes all the Irish specimens, except the one from the Carrowmore stone circle. VOL. XXXVI. 31

must be laid aside, though, from their similarity in form, size, and technique to those of Great Britain, we cannot be far wrong in classifying them chronologically along with the latter. (4) The finely ornamented jet rings (Pl. Nos. 9 and 17) which, in England, were so invariably associated with the jet buttons, are supposed to have had something to do with the manner of fastening the dress, the precise modus operandi of which is, however, not clearly understood.

I have already mentioned that the amber buttons found on the Continent were regarded by local archæologists as products of the Stone Age, chiefly on the ground that they appeared to have been manufactured by means of flint implements. But this is not sufficient evidence for such a deduction, as there is no reason why these buttons should not have been made by implements so efficient as sharp flint borers, so long as they continued to be in demand, notwithstanding that bronze had already come into partial use in the locality. Among these amber buttons only one was actually proved to be of the Bronze Age, viz., that Those from the Mondsee, from a skeleton-grave at Amrum in Schleswig. Lengyel, Polada, France, and the Iberian peninsula, were actually associated with one or more objects of bronze or copper, except those from the dolmen in France and the Allée Couverte in Portugal. Thus all the datable specimens hitherto known in Europe, after excluding about half the Scottish, all the Irish, and the dredged specimens from Schwarzort, as well as those found in peat, are proved to belong to the latest Stone or early Bronze period—an overlap which Continental writers regard as the Transition Period. It would therefore appear that the button with a V-shaped perforation, which, essentially, is an invention of the Stone Age, became more fashionable as an article of utility or ornament during the early Bronze Age—a period which, however, it did not survive. In no instance—and this is a remarkable fact—has a button of this type been found with objects characteristic of the late Bronze Age, or with any objects of more recent date. This sudden disappearance of the button with the V-shaped passage from European civilisation was caused, no doubt, by the appearance on the commercial field

of a rival in the shape of the bronze button with the ordinary raised loop, which, owing to its superior qualities and the facility with which it could be procured, quickly superseded the former as an article of commerce. Thus, with the casting of a bronze button the trade of the jet or amber button-maker on the old-fashioned principle came to an end. But the same fate did not, by any means, overtake some of the other ornaments made of the same materials which were contemporary with the doomed buttons, such as beads, pendants, bracelets, etc., as we find them in great demand in the early Iron Age, especially those made of amber—a demand which, to a certain extent, may be said to have continued down to the present day.

All the Scottish and Irish buttons are devoid of ornament, except the rectangular one from Law Hill, Dundee, which shows three marginal lines. Among the English specimens, three are ornamented. One, the only example made of stone found in Britain, is from a barrow at Butterwick, Yorkshire. It shows, on its upper surface, four incised lines running from the apex to the circumference, and, on its under surface, an incised circle near the margin (Plate No. 3). A second button (Plate No. 1), from a barrow at Thwing, is of jet, and has, on its upper surface, a remarkable ornament in the form of four greatly elongated isosceles triangles filled in with cross lines, and having their bases resting equidistantly on a marginal circular pattern, also filled in with incised lines, with a zigzag running ornament on its inner side. The third ornamental button (Plate No. 2) comes from a barrow in the parish of Rudstone, and is beautifully engraved with a pattern of four triangles like an inscribed cross, closely corresponding with that just described.

Four of the amber buttons illustrated by Dr Klebs are ornamented on their upper surfaces—one by a series of slight hacks round the margin; two by a circle of punctured dots round the margin, enclosing an equal sided cross formed by two bands of triple lines of punctures intersecting each other in the centre of the button (Plate No. 12); and the fourth (Plate 13) has two concentric circles of similar dots running round the margin.

It is interesting to note that the inscribed cross, the only pattern on the English jet buttons, is also the chief ornament on the amber buttons of the East Baltic, the principal difference between them being, that the one is composed of small cross lines and the other of punctured dots.

A specimen made of stone, from a lake dwelling in the Mondsee, was ornamented with a circle of punctured dots which appear to have been originally filled in with some resinous composition—in which respect it agrees with the Baltic ornamental buttons which, according to the late Dr Tischler, had also their punctures filled in with a brown composition (*Die Kupferzeit in Europa*, 2nd ed., p. 98).

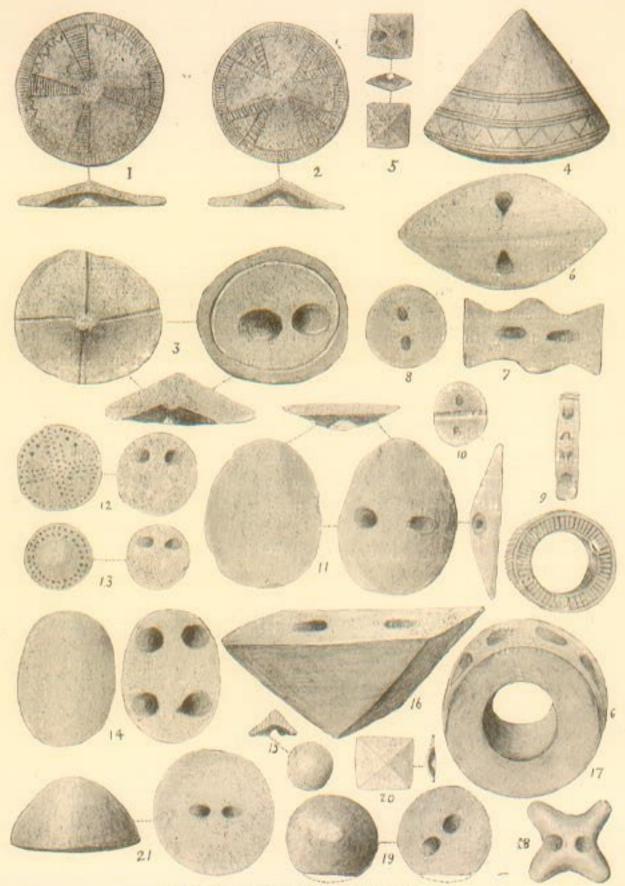
During my lake-dwelling researches throughout Europe, I have seen several objects which are regarded as buttons, though of a different make from those above described. Among the relics found at Vinelz, on the Lake of Bienne—the most typical station of the Transition Period in Europe—were some large discs of deer-horn, somewhat round on one surface, and having on the other a projecting central portion perforated horizontally, which strongly suggests the loop of an ordinary metal button of the present day (Lake Dwellings of Europe, fig. 7, Nos. 20 and 21). They are precisely similar in make to the old home-made bone button of Orkney, as described and figured by Sir Arthur Mitchell (Past in the Present, p. 99). Among the industrial remains found on some of the other stations were some flat portions of stone or bone, of a circular, oval, or elongated shape, and perforated in the middle by one or more holes, which are catalogued in museums under the name button.

But perhaps the earliest of all methods of fastening the dress was the simple bone pin. Then came an elongated piece of wood, bone, or horn, with a groove cut round its middle for retaining the string which fastened it to the cloth or skin garment. Bronze buttons, though not numerous among the antiquarian collections of Europe, are widely met with in the form of a circular disc, or elongated plate, with a raised loop on one side. (See Lake Dwellings of Europe, fig. 3, No. 20; fig. 12, No. 9; and fig. 14, No. 7.) Buttons, which may be regarded as survivals of the above-mentioned types, have been in use in some out-

of-the-way districts of Scotland up to recent times (Past in the Present, p. 98).

In conclusion, after applying the knowledge gathered from this wide excursus into the domain of comparative archæology to the five jet buttons now before us, all that I am able to say, with some archæological certainty, can be compressed into the following short statement, viz.: They were used to fasten, in front, the outer garment of a man in affluent circumstances, who lived in the early Bronze Age. The facts on which these inferences are founded may be thus recapitulated: Jet, owing to its capability for taking on a fine polish, was chiefly utilized as ornamental objects; it was an expensive commodity, and, therefore, used only by the better classes of the community; jet buttons, when found associated with sepulchral human remains, lay almost invariably in front of the body, and in every instance in which the sex was determined, the body was that of a male person; and, lastly, the above set of buttons afford clear evidence of having been worn so as to be visible as ornaments. How they came to be deposited in peat, on a wild moor in the Caledonian forest, in the peculiar manner in which they were found, there is no direct evidence to show; but it is not improbable that they were carried by their owner on his person to that lonely place, and that he died there from exposure, or the hand of an enemy—the buttons alone now remaining to tell the tale.

I have great pleasure in acknowledging my obligations to the Hon. John Abercromby for giving me references to a number of the above recorded buttons.



Figs. 1-21. Various forms of Jet Buttons, etc.

ILLUSTRATIONS ON PLATE EXPLAINED.

- 1. Ornamented jet Button from a Barrow in the Parish of Thwing. Greenwell, British Barrows, fig. 3.
- 2 and 9. Ornamented jet Button and Ring from a Barrow at Rudstone. Evans, Ancient Stone Implements, etc., figs. 371-2.
 - 3. Ornamented stone Button from a Barrow at Butterwick. Ibid., fig. 369.
- 4. Cone of thin gold, the covering of conical Boss or Button of lignite. Archeologia, vol. xv., pl. vii.
- 5 and 6. Square and boat-shaped Buttons of amber from Schwarzort (Baltic). Klebs, Der Bernsteinschmuck der Steinzeit. Taf. ii. 20; Taf. iii. 5.
- 7 and 8. Bone Buttons from Portugal. Cartailhac, Les Âges Préhistoriques de l'Espagne, etc., pp. 102, 178.
 - 10. Half of an amber Bead converted into a Button. Stourhead Catalogue.
- 11. Amber Button showing straight perforation on a ridge-like surface. Schwarzort. Klebs. Taf. ii. 8.
 - 12 and 13. Ornamented amber Beads. Ibid., Taf. ii. 22, 23.
 - 14. Amber Bead with two V-shaped perforations. Ibid., 14.
- 15, 16, and 20. Ivory Buttons from Spain. MM. Siret. Les Premières Âges du Metal, etc., pl. xvi. 24, xli. 202, and xlviii. 407.
- 17. Jet "Pulley Ring," Woodyates Tumulus. Warne, Celtic Tumuli of Dorset, p. 16, pl. iii.
 - 18. Star-shaped object from Dowth Cairn. Wilde's Cat., p. 122.
- 19. Button of steatite from Carrowmore Stone Circle. R. Hist. Arch. Assoc. of Ireland, vol. vii. p. 589.
- 21. Amber Button from Bronze Age grave at Amrum, Schleswig, Zeitschrift für Ethnologie Verhand., 1890, p. 289.