statuary, such as the one on the neck of the Dying Gladiator, which is distinctly seen to be twisted spirally above the terminal bulbs.

Beads of glass amber, and jet are only sparingly found among remains on the Bronze Age. Dr Joass states that a blue glass bead, ornamented with three volutes in yellow, was found in a cist, with burnt bones and small pieces of bronze, in the parish of Eddertoun, Ross-shire. In a cist at



Fig. 132.—Gold armlet found on the Moor of Rannoch  $(\frac{2}{3})$ .

Moan, Harray, Orkney, eight amber and a large number of glass beads were associated with objects of the Iron Age.<sup>2</sup>

Glass beads are largely found on the Continent along with remains of the Early Iron Age, as, for example, the cemetery of Hallstatt. In the necropolis of Jezerine, in Bosnia, several hundreds of these beads—blue, yellow, white, and green in variously mixed patterns—have been recorded by the late Mr Radimsky.<sup>3</sup>

Perhaps the most characteristic ornaments of the Bronze

<sup>&</sup>lt;sup>1</sup> Proc. Soc. A. Scot., vol. v. p. 313.

<sup>2</sup> Ibid., vol. xxi. p. 345.

<sup>3</sup> Rambles and Studies in Bosnia, &c., p. 166.

Age are those beautiful necklaces made by stringing together a combination of beads and plates of jet, the latter being generally ornamented with geometrical patterns of dots and

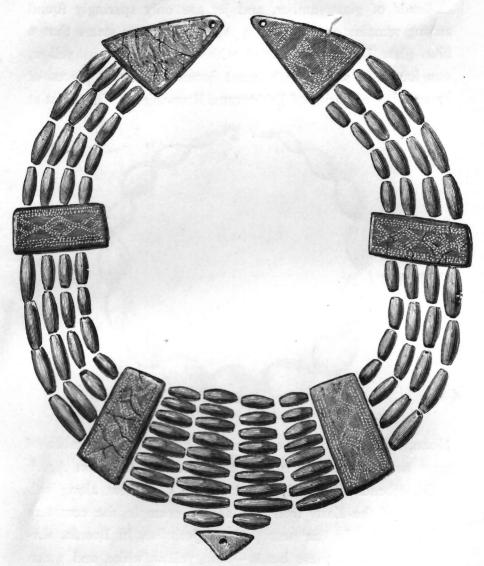


Fig. 133.—Necklace of jet beads and plates found in a cist at Mountstuart House, Bute.

lines. Several specimens of these handsome neck ornaments may be seen in the National Museum. The one here figured (fig. 133) was found at Mountstuart, Bute, in a cist of the

Bronze Age, which also contained a piece of bronze, an urn (fig. 134), and a trepanned skull (fig. 135). Other jet

necklaces have been discovered in the following localities in Scotland: Assynt, Ross-shire;1 Torrish, Sutherlandshire;<sup>2</sup> Balgay, near Dundee:3 Lunan Head, Forfar; 4 Balcalk, Tealing.5

Similar necklaces were also made of amber, as shown by the following discovery in Orkney. A diameter and about 11



large barrow, 30 feet in Fig. 134.—Urn from cist at Mountstuart, Bute  $(\frac{1}{4})$ .

or 12 feet in height, was opened in 1858 at Huntiscarth.

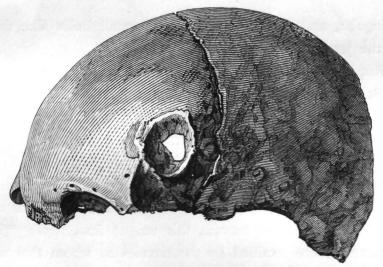


Fig. 135.—Trepanned skull from cist at Mountstuart, Bute  $(\frac{1}{2})$ .

Near the centre, and some 5 feet from the surface, a large

<sup>&</sup>lt;sup>1</sup> Proc. Soc. A. Scot., vol. iii. p. 47.

<sup>&</sup>lt;sup>2</sup> Ibid., vol. viii. p. 409.

<sup>&</sup>lt;sup>3</sup> Ibid., p. 412. <sup>4</sup> Ibid., vol. xii. p. 296. <sup>5</sup> Ibid., vol. xiv. p. 262.

flagstone was exposed, which, on being removed, disclosed a stone cist,  $2\frac{1}{2}$  feet long, formed in the usual way of stones set on edge. On each side of the cist there were two upright stones, the tops of which reached within 2 feet of the summit of the mound. Some fragments of bones, supposed by the farmer to have been burnt, were found in the cist, together with the following ornaments, which lay at one corner on a flat stone: four discs of thin gold, each 3 inches in diameter, pierced in the centre with a round hole, and ornamented with a series of concentric circles and bands of zigzag and oblique lines in repoussé; a collection of rudely formed beads of amber—circular,



Fig. 136.—One of two gold earrings found in a stone cist at Orton,

Morayshire (1/2).

triangular, and curved—pierced with small holes like those of the jet necklaces.<sup>1</sup>

But the most remarkable objects of antiquity ever known in Scotland are a pair of gold ornaments, supposed to be earrings (fig. 136), which were found in a stone cist on a gravelly hillock at Orton, near Fochabers. The cist was exposed in the course of making the railway between Elgin and Keith, in the year 1863, and the two ornaments lay one on either side of a "ridge of black dust," about a third from one end. Sir Noël Paton, who records this unique find, says: "The ornaments were retained by the navvies by whom they were discovered; but they ultimately came into possession of the daughters of the sub-contractor for that section of the line, by whom they were transferred to the hands of a jeweller

<sup>&</sup>lt;sup>1</sup> See coloured plate in the 'Proc. Soc. A. Scot.,' vol. iii. p. 183.

in Aberdeen, in exchange for certain *objets de luxe* of less obsolete fashion. From this person the one now before us was bought by Mr Walker, barely in time to save it from the melting-pot." <sup>1</sup>

That these ornaments were earrings there seems no reason to doubt, as similar objects in bronze have been found in the Yorkshire barrows along with female skeletons.<sup>2</sup>

No fibulæ constructed on the safety-pin principle have hitherto, to my knowledge, been discovered within the British Isles which can be dated earlier than the Late Celtic period. The simplest forms of this type <sup>3</sup> show clearly their evolutionary descent from the straight pin.

Canon Greenwell, whose experience in such matters is unrivalled, makes the following remarks on the subject of personal ornament as it affected the barrow folk: "Ornaments and objects of personal decoration are sometimes found associated with burials in the barrows. They are, however, much less frequently discovered than weapons and implements, and appear to be confined to those of women, at least in the barrows of the wolds. They accompany burials after cremation, as well as those by inhumation. When met with in association with a burnt body, in many cases they have not been burnt with it, but have been placed amongst the calcined bones, after they were collected from the funeral pile; and the same may be said of certain implements of flint. found three burnt bodies which had jet beads placed amongst the bones, and they showed by their perfect condition that they had never been subjected to the action of fire. give some idea of the rarity of ornaments when I state that out of the whole number of 379 burials, only ten possessed

<sup>&</sup>lt;sup>1</sup> Proc. Soc. A. Scot., vol. viii. p. 29.

<sup>&</sup>lt;sup>2</sup> British Barrows, fig. 47, p. 52.

<sup>&</sup>lt;sup>3</sup> See Lake-Dwellings of Europe, fig. 64, Nos. 22-25.

anything of the kind; and out of these, two, in barrows of Cowlam, belong to the Early Iron Age—a period later than that of the ordinary barrows, which are alone taken into consideration in these introductory remarks. The eight burials which had ornaments associated with them were as follows: One on Langton Wold, where a woman had been buried with a humble necklace consisting of a single jet bead, two shells, a piece of deer's tooth pierced, and the vertebræ of a fish, &c. One at Cowlam, where a woman was interred with two bronze earrings; and another on Goodmanham Wold, where what appear to have been two bronze earrings were found close to the head of a woman, one on each side of it. Two, each with a jet necklace, one being at Weaverthorpe, the other on Goodmanham Wold. One on Flixton Wold, where a young girl had four beads of bone, three of which were ornamented on each side; and a woman on Goodmanham Wold, with a pierced pig's-tooth. Besides these instances, there were found in a disturbed barrow at Helperthorpe two flat beads of jet, which had formed part of a necklace. They are ornamented with a pattern, consisting of minute punctured holes on the surface, and are similar to many which have been discovered in other parts of Britain, as in Wales, Derbyshire, Northumberland, and Scotland." 1

## 5. Art of the Bronze Age.

The elements of decoration used in the Bronze Age in Scotland, and indeed within the British Isles, so far as they have been disclosed on objects of metal, bone, jet, and pottery, consisted of a combination of incised or dotted lines arranged in herring-bone, chevron, saltire, cross, and other rectilinear patterns, so as to produce a variety of geo-

<sup>&</sup>lt;sup>1</sup> British Barrows, p. 51.

metrical figures. Circles, spirals, and curved lines also occur, but they are generally confined to stone-work. No representation of an organic or inanimate object has been discovered in Scotland, so far as I know, which can be assigned to the Stone or Bronze Age. With regard to sepulchral pottery, it may be observed that in addition to incisions in the soft clay, impressions were very often made by stamps. From an inspection of the decorated urns, of which there is such a splendid collection in the National Museum in Edinburgh, it will be readily observed that various kinds of stamps had been used by the potters of the period, such as a piece of wood or bone notched into dots, small triangles, squares, &c., the teeth of a comb, twisted thongs in two or three plies, the finger-nail, &c. These different patterns were generally arranged in horizontal bands round the body of the vessel, especially on its upper and middle parts, in such a variety of ways that no two vessels have ever been found alike. A few socketed celts have been discovered,1 in different localities, which are decorated with concentric circles in relief, the incised pattern being in the mould; but otherwise, neither incised circles nor spirals are to be seen on the metal-work found either in England, Scotland, or Ireland-presenting in this respect a marked contrast to the bronze implements and weapons of the Scandinavian archæological area. A beautiful specimen of the socketed celt ornamented with concentric rings was found in a peat-moss on the farm of Knock and Maize, in the parish of Leswalt, Wigtownshire, and is now preserved in the cabinet of the Earl of Stair (fig. 86).

Of archaic sculpturing on stones and solid rock-surfaces in the form of cups, cup-and-rings, concentric circles, spirals, and irregular geometrical figures, there is no lack of examples in Scotland; but although much has been written on the

<sup>&</sup>lt;sup>1</sup> Evans's Bronze Implements, figs. 137, 140, 142, and 144.

subject, none of the theories advanced to explain their meaning has met with general acceptance. That they had a symbolic meaning in the religious conceptions of the people is evident from the frequency with which they are found on sepulchral monuments, but any interpretation hitherto advanced on the subject, beyond the general religious idea, seems to me to be pure conjecture. Readers interested in these mysterious memorials will find much solid matter in the writings of George Tate, Sir James Simpson, Charles Rau, and George Coffey, as well as in a number of articles in different publications, references to which will be found in one or other of those works.

On analysing the various decorative elements in these lapidary sculpturings they readily fall to be classified as follows: (1) Simple cups. (2) Cup-and-rings. (3) Cup-and-rings interrupted by gutter channels. (4) Concentric circles. (5) Semi-concentric circles. (6) Spirals. (7) Stars, wheels, and enclosed spaces. (8) Zigzag, wavy, or parallel lines.

I have represented on Plate IV. a few specimens of rock-sculpturing, as depicted on some of the prehistoric monuments of Western Europe, which may be compared with those figured in the text on this important subject. The first 10 figures are mere diagrammatic illustrations, after the classification of Sir James Simpson. Some explanatory notes on the other figures will be found in the list of illustrations.

Nearly all these elements in one or more combinations are to be found on sepulchral or memorial stones in Scotland. Cups vary greatly in size, from about one to several inches in diameter, and from half an inch to about one and a half inch

<sup>&</sup>lt;sup>1</sup> Sculptured Rocks of Northumberland, 1865.

<sup>&</sup>lt;sup>2</sup> Ancient Soulpturings of Cups and Concentric Rings, &c., 1868.

<sup>&</sup>lt;sup>3</sup> Contributions to N. American Ethnology, vol. v., 1881.

<sup>4</sup> Jour. R. Soc. Antiq. of Ireland, 1894-97.

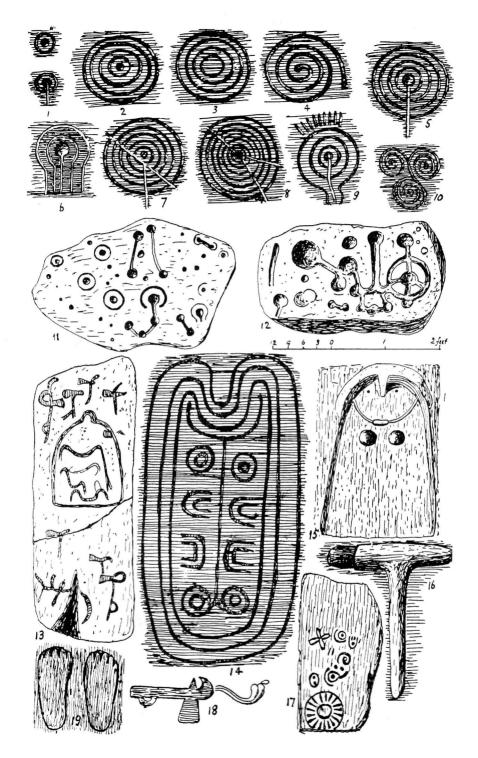


PLATE IV.—VARIOUS FORMS OF PREHISTORIC ROCK-SCULPTURINGS FOUND IN WESTERN EUROPE. (For details see List of Illustrations.)

in depth. They occur sometimes singly, but generally in groups-often forming the only ornament on a stone-and occasionally in combination with some of the other forms Simple cups have a wide distribution in above defined. Western Europe, comprising Portugal, the British Isles, Denmark, Sweden, Germany, Austria, Switzerland, and France. On the same stone they may be seen in different sizes scattered irregularly over its surface, or in groups of threes and fours. Rings are not so deeply cut as cups, and they may be either complete circles or interrupted by grooves running from the centre cup to a distance beyond the outer circle. The radial grooves, or gutter-channels, are found occasionally to end in cups belonging to adjacent groups of cup-and-rings. noteworthy that the cup-and-ring with gutter-channels has not been found outside the British Isles. Both cup-and-rings and concentric circles have also a much more limited area of distribution than the simple cup, being, with one or two exceptions, limited to Sweden, Great Britain, and Ireland. The distribution of spirals, which is remarkable in many ways, has lately attracted much attention throughout Europe. The great development of this ornament in Mycenæ is now generally accepted by archæologists as the result of direct intercourse between Egypt and the shores and islands of the Ægean Sea, during the eighteenth dynasty (1580-1320 B.C.) From these regions there is reason to suppose that it spread into Europe by the Danube route. That this was the route by which the spiral ornament was introduced into Bavaria, North Germany, and Scandinavia, is proved by the fact that it is non-existent as an ornament on the bronze remains of North Italy, France, and Britain. Mr Coffey (loc. cit.) has recently advanced the theory that the spiral was copied in Ireland from bronze implements introduced into that country from Scandinavia, in consequence of commercial

intercourse between the two countries, and that Ireland was the centre from which this ornament spread into the adjacent coasts of England and Scotland. He also adopts the theory, advocated by Montelius and others, that concentric circles are



Fig. 137.—Stone with spirals at the entrance to the Great Cairn, New Grange, Ireland. (From a photograph by R. Welch.)

debased spirals, and that, consequently, in countries where both spirals and concentric circles exist together, the latter are chronologically later than the former.

At New Grange beautiful spirals are to be seen both out-

side, as on the stone immediately below the entrance passage to the chamber (fig. 137), and inside; but there are no concentric circles, or cups with spiral gutters. On the other hand, at Dowth and Loughcrew all these forms are common. From this, and other suggestive considerations, Mr Coffey thinks that the simple cup is the oldest symbol; next comes the spiral, which, by a process of degeneration, gives place to the concentric circles and cup-and-rings, with or without gutter-channels. But, however much of truth may be in these opinions, we have satisfactory evidence to show that the spiral

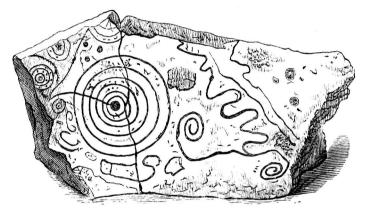


Fig. 138.—Cover-stone of a cist at Coilsfield, Ayrshire (about 5 feet in length).

was used in Scotland during the Bronze Age as an ornament on sepulchral slabs. It was found at Coilsfield, Ayrshire, on the cover-stone of a cist which contained portion of a cinerary urn <sup>1</sup> (fig. 138). Another cist with a cover, having its underside decorated in the same way as the one at Coilsfield, was exposed in the course of constructing a road which leads to Queensferry through the Craigiehall estate.<sup>2</sup> A slab from a cist in Carnban, near the Crinan Canal, though not a coverstone, had five concentric lozenge-shaped sculptures.<sup>3</sup> In 1871 a cist near the village of Carnwath, Lanarkshire, was

<sup>&</sup>lt;sup>1</sup> Wilson's Prehistoric Annals, vol. i. p. 480.

<sup>&</sup>lt;sup>2</sup> Ibid., p. 482. <sup>3</sup> Simpson, loc. cit., p. 29, Pl. xiii.

discovered, which contained an ornamental urn of the drinking-cup type, and which had the underside of its covering

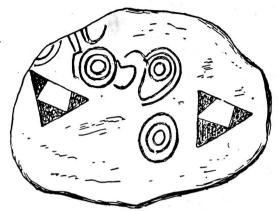


Fig. 139.—Cover of stone of cist at Carnwath (4 feet 3 inches long).

stone decorated with three groups of concentric circles and two triangular markings 1 (fig. 139). Finally, in 1894, near

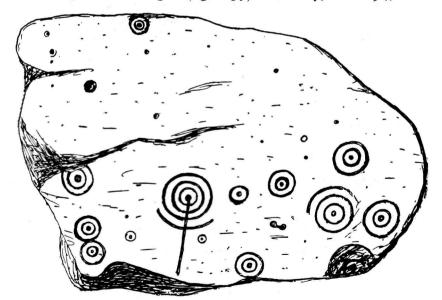


Fig. 140.—Sculptured stone at Monzie Castle, Perthshire (6 feet 8 inches long).

or on the site of a stone circle in the vicinity of Tillicoultry—the stones having been removed for draining purposes some forty years previously—a cist covered with a large stone

<sup>&</sup>lt;sup>1</sup> Proc. Soc. A. Scot., vol. x. p. 62.

was discovered which contained an urn of the food-vessel type with pierced ears. The sides and surface of this cover-



Fig. 141.—Stone in Knockmany Cairn, Co. Tyrone, Ireland (4½ feet above ground). (From a photograph by R. Welch.)

stone were observed to have been sculptured with a series of concentric circles, spirals, and lines.<sup>1</sup>

A stone close to a small stone circle within the grounds of

<sup>&</sup>lt;sup>1</sup> Proc. Soc. A. Scot., vol. xxix. p. 193.

Monzie Castle, Perthshire, shows a number of circles and cups. It is a whinstone boulder presenting a tolerably smooth surface sloping a little to one side. It measures 6 feet 8 inches in length and 5 feet in breadth; and the largest group measures 12 inches across, while its central cup is 3 inches in diameter. The following sketch (fig. 140),

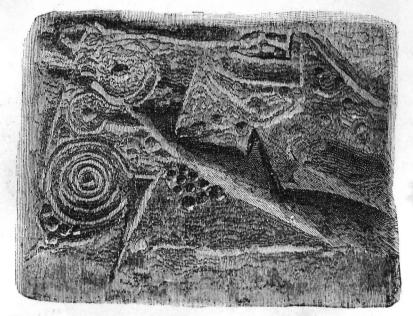


Fig. 142.—Cup-marked rock surface at High Banks, Kirkcudbrightshire.

taken on September 23, 1891, gives a general idea of the size and arrangements of the other markings.<sup>1</sup>

Fig. 141 represents a photographic view of cup-and-rings, &c., on one of the stones of the ruined chamber in the demolished cairn of Knockmany, Co. Tyrone, recently described by Mr George Coffey.<sup>2</sup>

Cup-and-ring markings are often observed on exposed rock-

<sup>&</sup>lt;sup>1</sup> For a list of the cup-marked stones of Scotland see the appendix to a paper by Mr Romilly Allen on "Some undescribed Stones with Cupmarkings in Scotland" in 'Proc. of the Society of Antiquaries of Scotland,' February 13, 1882.

<sup>&</sup>lt;sup>2</sup> Journ. R. Soc. Antiq. of Ireland, 1898, p. 93.

surfaces, such as those at Carnban, Auchenbreach, &c., in the valley of the Crinan Canal, illustrated by Sir James Simpson (*loc. cit.*, plates xxi., xxii., and xxiii.) Since the publication of this author's well-known monograph on the subject some curious examples have been described by Mr George Hamilton.<sup>1</sup>

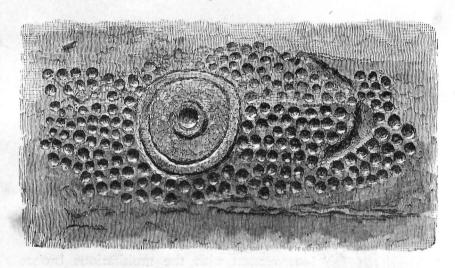


Fig. 143.—Cup-marked rock surface at High Banks, Kirkcudbrightshire.

They were discovered on the top of a glaciated knoll at High Banks, Kirkcudbrightshire, and having been for a long time protected by a natural covering of turf, they are unusually well preserved. Two of these groups are shown on figures 142 and 143.

<sup>&</sup>lt;sup>1</sup> Proc. Soc. A. Scot., vol. xxiii. p. 125.