

PART I.

VARIETIES IN THE SCULPTURINGS.

The cup and ring-cuttings, which constitute the special subject of the present essay, vary much in configuration, size, relations, form, &c. We know, however, that they are all allied to each other, and have a common origin, and probably a common import, from the fact that, though not unfrequently seen separate, we often also find them more or less grouped and co-existing together in different combinations upon the same, or upon adjoining stones and rocks. Amidst the numerous varieties of them which have already been discovered, six or seven general types can be easily traced; and the enumeration of these types in the first instance will simplify the study of the whole subject.

CHAPTER I.—PRINCIPAL FORMS OR GENERIC TYPES OF THE CUP AND RING CUTTINGS.

FIRST TYPE.—Single Cups. (See Plate I. Type 1.)

The simplest type of these ancient stone and rock cuttings consists of incised hollowed-out depressions or cups, varying in diameter from an inch to three inches and more in diameter. For the most part these cup-cuttings are shallow. Consequently their depth is usually far less than their diameter; it is often not more than half an inch, and rarely exceeds an inch or an inch and a half. On the same stone or rock surface they are commonly carved out of many different sizes. These cup-excavations are on the whole usually more smooth and polished over their cut surfaces than the ring-cuttings are. Sometimes they form the only sculpturings on the stone or rock, as on many Scottish monoliths; but more frequently they are found mixed up and intermingled with ring-cuttings. Among the sculptured rock surfaces, for instance, in Argyleshire, there are in one group at Auchnabreach thirty-nine or forty cup-cuttings, and the same number of ring-cuttings; and at Carnan there are twenty-nine figures,—namely, nine single cups, seven cups surrounded by single rings, and thirteen cups encircled by a series of concentric rings. (See Plate XXII.)

Hitherto archæologists have had their attention chiefly or solely taken up with the concentric circles or ring-cuttings, to the comparative or entire exclusion of the cup excavations. In some model specimens, for example, of the so-called "Concentric Ring-Cuttings," from Chatton-law in Northumberland, published in the *Illustrated News* last year (March 19, 1863), and copied into Plate XXIV., there are more cups than rings. On several others of the sculptured Northumberland stones the cups considerably exceed the groups of rings in number.

The simple cup-cuttings are generally scattered singly, and apparently quite irregularly, over the surface of the stone; but occasionally they seem placed in groups of four, six, or more,—almost in a methodic and constellation-like arrangement. Usually the edge of the cup is smooth and regular in its circumference; but occasionally it is depressed or guttered at one point, or on one side. (See Plate II. fig. 1.)

Before proceeding further, let me here remark that all the cup-like excavations which we meet with on megalithic circles, monoliths, &c. &c., are not by any means the work of man. Many of them are, on the contrary, the work of nature; or, in other words, the results of the weathering and disintegration of the stone from long exposure. Among the endless vagaries of shape and form effected on rocks by weathering, cup-like excavations occur frequently on the surfaces of sandstone and other softer rocks, like those of the Lundie Stones in Fife and the Duddo Circle in Northumberland; and I have found them also on the surfaces of far denser stones.¹ Occasionally they are the result of the mineralogical constitution of the rock, as of softer portions weathering out, or of the enucleation of fossilized organic remains, or of imbedded stone-nodules. Thus the surface of the Carline Stone, near Dunmore House, presents a series of smooth, cup-like excavations; but they are all the result of

¹ The very hard "Sarsen" stones or sandstone grits of Abury and Stonehenge show in many parts weathered irregular cavities and excavations; some of them large and deep. Speaking of the Abury stone, Dr Stukely long ago observed, "In some places I thrust my cane, a yard long, up to the handle, in holes and cavities worked through by age, which (he argues) must needs bespeak some thousands of years continuance" (see his "Abury," pp. 17 and 39). The massive rusty conglomerate blocks forming the circles at Stanton Drew are still more remarkably drilled with crystalline cavities, and the corrosions of time.

round included masses having been weathered out of the amygdaloid rock of which the stone is composed. Nor are all cup-like excavations, which are not the effect of weathering, the result of human agency. On visiting the so-called cromlech or chambered tumulus on the Orme's Head above Llandudno, I found various excavations on its stones, and specially on the interior of the covering stone; but a little examination of their smooth surfaces and expanding interiors showed that the excavations had been the work of the Pholas, when these stones formed part of the sea-beach.

In many cases it is difficult, and indeed impossible, to determine conclusively whether cup-excavations, when found alone, are the product of human art or the product of nature. But various collateral circumstances often tend to evince their artificial origin, such as—1. The limited size, regular rounded forms, smooth surfaces, and shallow depths of the excavations; 2. Their existence upon the surfaces of rocks too hard to be readily weathered; 3. Their arrangements in rows or in other artificial positions and groupings not referrible to any mineralogical peculiarities in the stone; and, 4, and specially, their co-existence with other cups surrounded by single or multiple rings, such as we have now to describe as additional types of these ancient lapidary carvings.

SECOND TYPE.—Cups surrounded with a Single Ring or Circle.

(See Plate I. Type 2, three figures.)

In this second type each round excavation or cup-cutting is surrounded by an incised ring-cutting. The ring is usually considerably shallower than the cup, and forms, as it were, a border or setting to it. It is more frequently placed around large than small cups. Sometimes the ring is complete and unbroken; but often also it is traversed at one part by a radial groove or gutter, which occasionally runs directly from the central cup outwards through, and even beyond the ring. More rarely the groove appears in the edge of the cup, and not in the corresponding part of the ring. Sometimes the ring, as it meets the straight radial groove, flexes and bends downwards with it; and more rarely it terminates in new cups. (See Plate XIV. figs. 3 and 4.)

THIRD TYPE.—Cups surrounded with a series of Concentric Complete Rings. (See Plate I. Type 3.)

In this type of these lapidary sculpturings, the central cup is surrounded by two or more concentric rings. Each ring is, as we proceed from within outwards, larger and more expanded than that which it encloses, and every ring in this type is in itself a perfect circle. The series of concentric rings varies in number, from two up to six, seven, or even more. In this complete annular form the central cup is generally more deeply cut than the surrounding rings,—but not always.

FOURTH TYPE.—Cups surrounded with a series of Concentric but Incomplete Rings, and having a straight Radial Groove. (See Plate XXV. Type 4.)

This type constitutes perhaps the most common form of the circular lapidary carvings.

It consists, like the last annular type, of a series of expanding rings cut around a common cup centre. But in this fourth type the circles of which these incised ring lines consist are not complete; and this *incompleteness* in the circles constitutes, along with the direct radial line, channel, or duct which produces the incompleteness, the double characteristic of the fourth type of these lapidary carvings.

The incompleteness is produced by an incised straight, radial line, channel, or groove, running from the centre of each circle to its circumference. The circles generally, at either extremity, touch this radial line; but sometimes they terminate on each side of it without touching it. This incised radial groove occasionally extends considerably beyond the outermost circle; and generally, but not always, it tends in a direction more or less downwards along the stone or rock. Sometimes it runs on and unites into a common line with other ducts or grooves coming from other circles, till thus several series of concentric rings are conjoined into a larger or smaller cluster, united together by the extension of their radial branch-like grooves. More rarely it runs into, and ends upon, the circumference of another circle, or even traverses part of it.

In this fourth type the average number of concentric rings is from

three to six, and the average diameter of the outermost ring-cutting from ten to sixteen inches. But occasionally the diameter is much larger, and the number of rings greater. I measured one specimen at Auchnabreach, in Argyleshire, three feet in diameter, and consisting of eight concentric rings. (See Plate XXI.) One of this size, and consisting of seven concentric rings, existed sometime ago on Chatton-law, as I am informed by that excellent archæologist, Mr Tate of Alnwick, but has latterly been much destroyed. He has measured another in Northumberland still larger,—viz., three feet three inches in diameter, and consisting of eight circles and a portion of a ninth.

FIFTH TYPE.—Cups surrounded by Concentric Rings and Flexed Lines.

(See Plate I. Type 5.)

In a fifth type of the ring-cuttings, the series of circular lines, instead of abruptly ending when they approach the straight or radial groove, turn downwards at that point at nearly a right angle, and run parallel for a greater or less distance along each side of the groove line. In this class the groove line itself is sometimes double. The number of inclosing or concentric rings is generally fewer in this type than in the two last preceding types, and seldom exceeds two or three in number.

SIXTH TYPE.—Concentric Rings without a Central Cup.

(See Plate I. Type 6.)

Occasionally, but with comparative rarity, the concentric rings are formed of the various types described, but without any central cup or depression. This absence of an excavated centre has been most frequently remarked along with the complete annular type of the concentric rings which I have already spoken of in the third type. For example, on a slab-stone about twenty inches in length and in breadth, found at Great Hucklow, in the Peak of Derbyshire, and a cast of which has been kindly sent me by my friend Dr Aveling of Sheffield,¹ there are seven concentric rings cut around a common centre; but the centre shows no cup or depression, and has a convex rather than a concave form. (See Plate XVI. fig. 2.) The diameter of the outermost ring is about twenty-two

inches.¹ Sometimes concentric circles, both with and without central cups, are found cut upon the same stone. Thus on the interior of the cover of a kist-vaen at Craigie Hill, there are carved nine groups of concentric circles. Of this number two show central cups or depressions; one is doubtful; and in the centres of the remaining six series of circles there are no cup-markings. (See Plate XV.)

SEVENTH TYPE.—Concentric Circular Lines of the Form of a Spiral or Volute. (See Plate XXV. Type 7.)

A seventh type of these lapidary markings is characterised by their cut line or lines running out from the centre in the form of a continuous spiral or volute, like a watch spring.

The carving consists of one line continued spirally outwards, with its circle expanding at each turn; instead of consisting, as the last three or four preceding types do, of a concentric and enlarging series of separate concentric lines. The spiral line usually, but not always, begins at its central extremity in a cup-like excavation.

The volute or spiral is perhaps the rarest of the forms of circular ring-cuttings in Great Britain; but this type seems common on the incised stones of Ireland and Brittany.

Co-existence of different Types.

That all these various types of cup-cuttings and ring-cuttings are intimately allied to each other, belong to the same archaic school of art, and have a community of character and origin, is proved, as already hinted, by the fact of two, three, or more of them being occasionally found carved together upon the same stones or rocks. For if, in some instances we have the sculpturing entirely of one single type or character, we have, in other instances, all, or nearly all, the types appearing in one position. Thus, on the rocks at Auchnabreacb, near the Crinan Canal, there are cups both single and ringed, with all kinds of concentric circles and volutes. On the megalithic circle of stones, termed the Calder Stones, standing within a few miles of Liverpool, I lately traced

¹ The original stone is in the Museum of the Literary and Philosophical Society of Sheffield.

PLATE I.

COMMON TYPES OF CUP AND RING CUTTINGS.

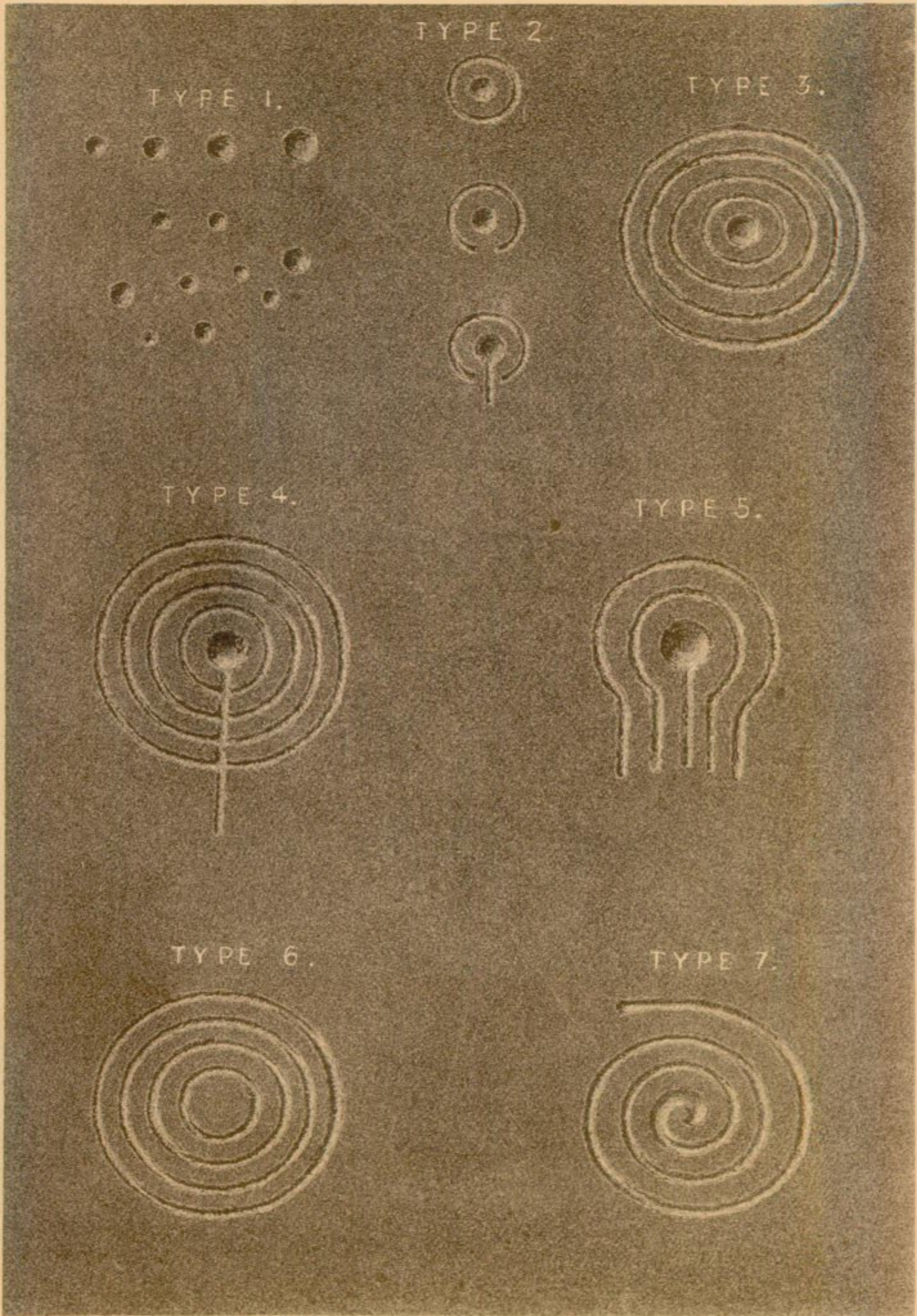
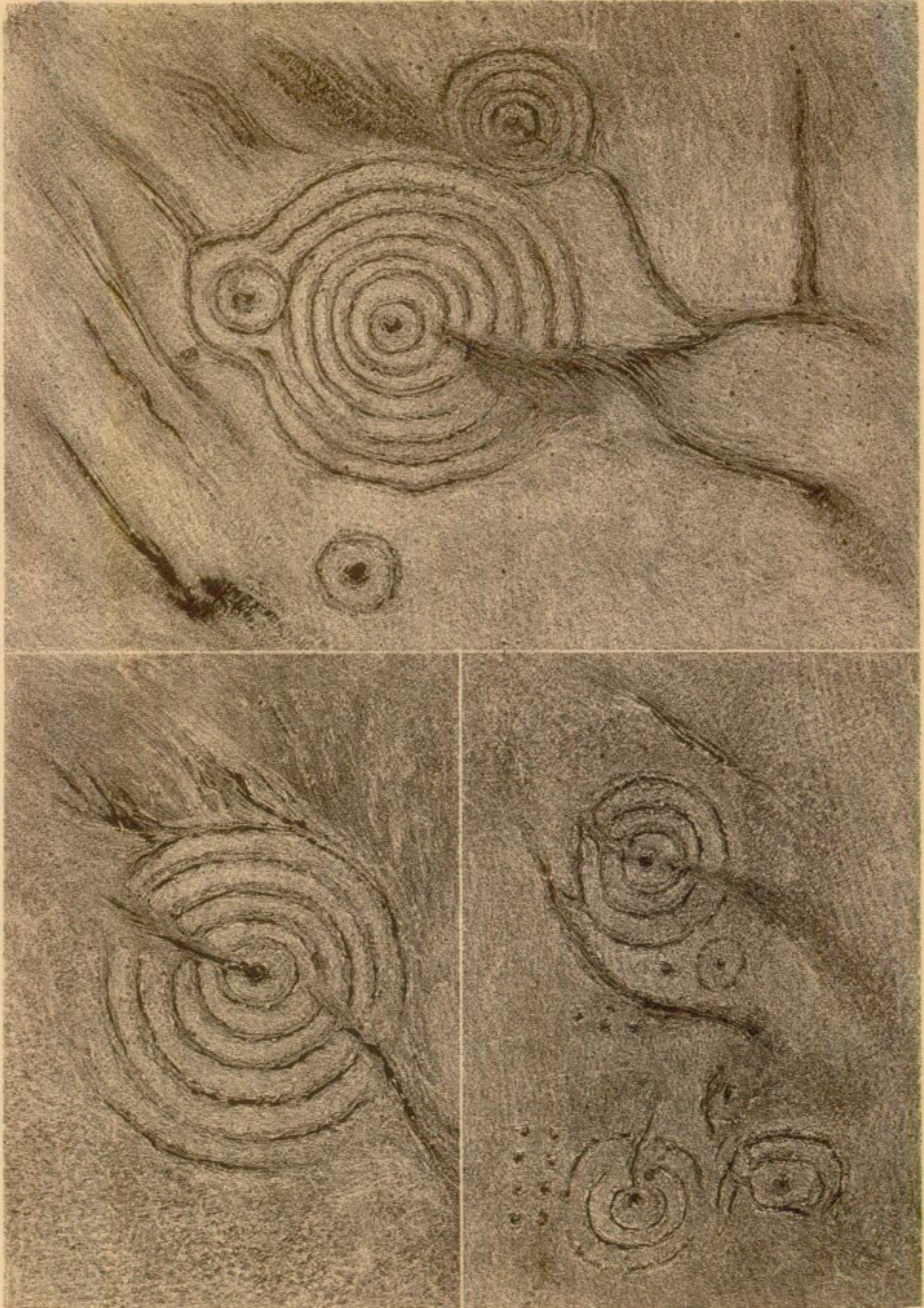


PLATE XXIV.

ROCKS AT CHATTON LAW, NORTHUMBERLAND.



out all the different types,—as single and ringed cups, concentric circles of various forms, and volutes,—as shown on the sketches of them in Plate VI.

CHAPTER II.—SOME OF THE CHIEF DEVIATIONS FROM THE
GENERIC TYPES.

Each of the generic types of cup and ring cuttings which I have attempted to describe is liable to present many diversities and differences of form. A brief glance at some of the principal deviations of form presented by them may enable us to take a more comprehensive view of these lapidary sculpturings.

The cup-cuttings, such as constitute our first type, rarely deviate much from the usual round form. But various occasional combinations and arrangements of them are worthy of remark. Thus two or more of them are sometimes conjoined by a straight incised line or groove. Occasionally the uniting groove is perpendicular, uniting two placed above each other, either of the same or of different sizes (Plate II. fig. 1). In other instances it is lateral (Plate II. fig. 3). I have seen an instance at Ballymenach, in Argyleshire, of a lateral or transverse groove uniting a line of five or six cups. (Plate XVII. fig. 4.) Occasionally the conjoining gutter is of an irregular branched form, connecting two or more cups (see Plate II. fig. 4 and Plate XIV. fig. 4); and more rarely two connecting grooves cross each other in a crucial form.

The uniting channel is sometimes, partly perhaps from weathering and disintegration, as deep as the cups which it unites.

In a few rare cases, two or more cups are placed in the centre of a ring-cutting, as seen in the Northumberland examples sketched in Plate II. figs. 5 and 6. More rarely, a series of small cups or stars forms a kind of beaded arrangement around the circles, as in the Jedburgh stone (Plate XVI. fig. 1). In the Pitscorthie and Letham stones, instead of an incised ring, six or seven cups at one part form a circle around a central cup (see Plate XX. fig. 1).

In specimens of the common interrupted concentric rings of the fourth type, the radial groove, instead of being single, is sometimes

double or even treble, as in a Northumberland specimen represented in Plate II. fig. 7).

A straight bisecting line, in addition to the radial groove, traverses in a few rare instances the whole ring-cutting, as seen in a specimen at Auchnabreach, figured in Plate II. fig. 8.

The radial groove is occasionally more or less zig-zagged, instead of straight, as it traverses the various concentric rings of its circle. In the fourth type everything is, in a few instances, apparently complete, and the space for an incised radial line or groove left, but it remains, as it were, uncut (Plate II. fig. 13).

Two or more of the series of concentric circles or their grooves occasionally touch and amalgamate, as in Plates XV. and XXII.; and smaller circles are seen sometimes included within the area of larger circles, as in Plate XXIV. Occasionally the fifth type assumes a kind of horse-shoe pattern, as in Plate II. fig. 9. There is an example of this kind on a rock at Calton More, in Argyleshire.

At Auchnabreach, in the same county, there are specimens of two and three volutes conjoined together. (See Plate II. fig. 10 and Plate XXII.)

In one specimen of the ring-cutting at Rowton Lynn, in Northumberland, the circumference of the outer circle has nine straight lines, diverging at nearly right angles from its circumference. (See Plate II. fig. 11.) At Auchnabreach there is another specimen of three still longer straight lines, radiating off from the outer rim of the circle. (See Plate II. fig. 12.)

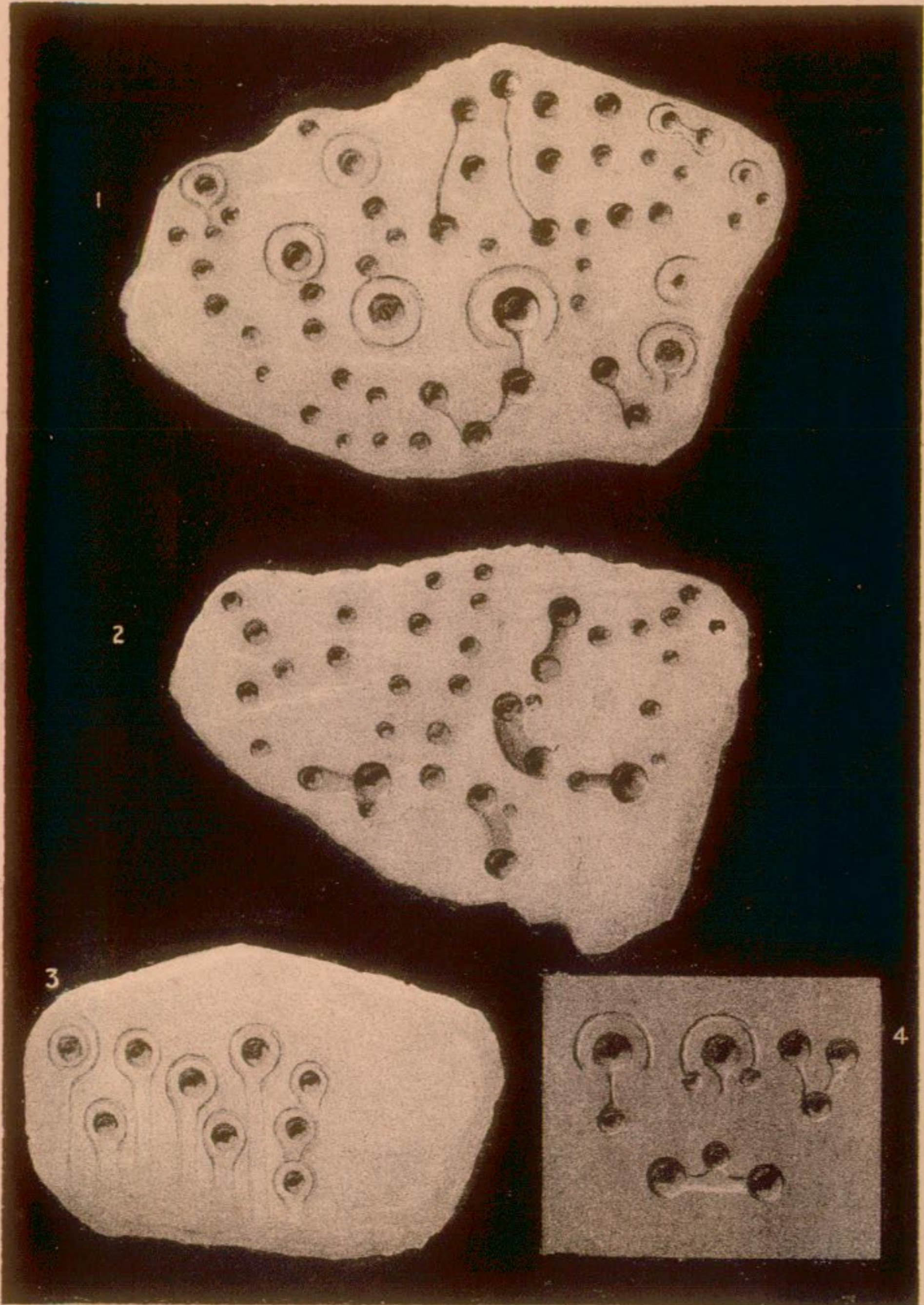
In a few instances the congeries of concentric rings forms an oval, a reniform, or a pyriform, instead of a round figure. (See Plates XXI. and XXIII., &c.)

There, occur also, in some localities, along with the circular type of concentric rings, angulated and irregularly straight lines; or even lozenge-shaped concentric forms, as in Plate II. figs. 14 and 15, and Plate XIII. fig. 4, which perhaps ought to have been considered as an eighth type of these markings; and still more rarely straight and angled conjoined lines of a broken gridiron pattern appear. In some rare examples, as in castings and drawings kindly sent me by Miss Dickson from Doddington, there are angled inclosures cut around a series of circular markings

PLATE II.

CHIEF DEVIATIONS FROM THE GENERAL TYPES.





and cups (see Plate II. fig. 15). In a few instances, also, an irregular circular enclosure, in the same way, comprehends a series of cuttings; or, projecting from the circumference of a ring, it includes a number of cups and depressions, and other minor forms.

Usually the circular lines of a concentric ring are cut with great regularity, and almost mathematical precision. But not unfrequently they display no very marked accuracy of form, and unite very irregularly. In the sketch, for example, of a specimen from Auchnabreach (see Plate II. fig. 8), it will be observed that the two outer rings do not meet at corresponding points as they approach the radial grooves; and there are two or three specimens in the same locality where the series of concentric circles are so very clumsily drawn as to seem deeply indented and crushed in at one side.

CHAPTER III.—MODES OF PRODUCTION OF THE SCULPTURES; CARVED STONE SURFACES NOT PREVIOUSLY PREPARED.

Generally the sculptured lines and cup-depressions are rounded and smooth on their surfaces, as if, after their original cutting, they had been ground and polished either by art, or by time and the effects of the elements. And probably one mode of their artificial production consisted chiefly or entirely of a kind of scraped work, or of abrasion or grinding.

But a second and more constant method of sculpturing these cups and rings no doubt consisted of the use of a chisel and mallet. Evident proofs of this are seen in those specimens of the sculptures that are found inside of graves, where they have been deposited shortly after the carvings were executed, and were thus preserved in their original state from the effects of weathering and disintegration. Similar evidence of their original mode of execution can sometimes be obtained on examining the sculptures cut upon open rock surfaces, when they have happened to be long buried over with earth and soil, as in a specimen which I uncovered at Auchnabreach of a deep layer of earth or turf, which had probably overlaid for long ages the sculptures cut on the solid schist rock. The concentric rings in this instance were three in number, with a central cup and long radial groove, which extended a foot or more beyond the outer circle. The outermost ring admitted the tip of the

finger, which seemed a good measure of its width and depth. Another part of its circles, and the long groove, allowed two fingers to be placed within it; but everywhere the edges felt almost as sharp as a recently-broken piece of the same schist rock; and the rugged surfaces of the grooves and lines showed distinctly that the circles had been chisselled or chipped out.

I have not seen on our Scottish stones any decisive specimen of these sculptures that gave the idea of their occasional execution by that process of picking or punching that has long been used in some forms of stone carving and lettering. The only exception, if it be an exception, is on a stone doubtfully belonging to this class at Jedburgh, where a circle of pits or stars exist, probably produced in this way. (See Plate XVI. fig. 1.) In some Irish sculptured stones the circles are cut out in the form of dots or by punched work; and are not continuous lines.

The ancient sculptures which we are describing are all cut upon the natural and uneven surfaces of the stones or rocks on which they are found. No artificial levelling and hewing of these surfaces has been made before or at the time the figures were carved upon them. Very generally rock surfaces that are naturally and comparatively smooth have been selected for these sculptures. But often also they are cut upon undulating and broken faces of stone; and in this last case the lines of the sculpture follow continuously, without stop or interruption, over all the irregularities of the stone-surface, dipping into its sinuosities and mounting over its elevations, quite irrespectively of its heights, hollows, and other inequalities.

Frequently by exposure, and the disintegration of the rock, the cup and ring cuttings have become much faded and obliterated; and no doubt in numerous instances they have been utterly destroyed by the surface of the stones weathering and splitting off. Many old basaltic monoliths, for example, have all their surfaces so disintegrated and scaled off, that any sculpturings which perchance existed on them must have been long since erased and gnawed off by the tooth of time.