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THE ORNAMENT OF THE BEAKER-CLASS OF POTTERY. By The Hon. JOHN ABERCROMBY, SECRETARY.

After studying the form of the beaker types and placing them in what seems to be their approximate chronological order (P.S.A.S., xxxviii. 323-410), it remains to examine the decoration applied to the surface. The style of ornament is strictly geometrical; the execution is often not very exact, and sometimes the design is rather suggested by a series of rapid scratches than actually delineated; occasionally, however, the lines are very firmly and carefully drawn. At so early a time as the period when beakers were in use, we are entitled to suppose that no profession or caste of potters existed, but that the vessels were manufactured as occasion required by the women of the family. For this is still the almost invariable practice of savage and barbarous peoples. As the pottery at this early date was very imperfectly baked in an open fire, the consumption of domestic vessels, due to breakage, must have been To maintain the supply of domestic pottery the constant manufacture of new pieces became a necessity, and in this way some of the women would gain considerable practice both in making and in decorating vessels. It was mentioned in the above paper that the form of the beaker was the result of tradition; and as each generation had inferior models to imitate, a disadvantage which increased progressively as time went on, the whole tendency of the form was from good to bad, and from bad to worse. It was not necessary, however, that degeneraation of form should be accompanied by an equal degeneration in the The women felt that in the matter of decoration ornamentation. they were less tied down. In this field their fancy and imagination were allowed freer play, and they were able to introduce patterns adapted from their other occupations, such as plaiting, weaving, and basket-work.

The actual elements which make up the decorative system of the beaker period are as simple as possible. They consist of short straight lines and combinations of lines, such as

Very rarely were employed curved lines)))) made with a pointed tool, or perhaps with a finger-nail. Such simple motives were seldom used alone; they were almost always combined to form either a border or a surface pattern, and each motive is usually separated from its neighbour by two or three lines. As originally and in all the earlier beakers, an ornamented band is isolated from the next by a plain band. I take the band as the unit, and in the illustrations given on the accompanying plates each figure shows the whole depth of the band when practicable.

The two main principles that guided and actuated the decorator were (1) variety and (2) contrast; the principle of symmetry, though it had a place in the mind of the operator, was less prominent. A few examples in which the simplest motives are used will illustrate this statement. If at starting the motive consisted of a double row of short horizontal dashes, it might be contrasted with a row of curved nail-marks, and this by a border of hanging triangles, horizontally shaded, as in No. 1 (a). In No. 2 (β) a lattice border is contrasted with several horizontal lines, and these with a border of "herring-bone." In No. 3 (γ) a border of vertical strokes is opposed by a lattice border, and the whole design is set off by a fringe of slanting lines above and In No. 4 a border of vertical lines serves as a foil to a lattice border, the verticals are repeated, and followed by a border of sloping lines. Here we notice that three-quarters of the design is symmetrically ordered, and in drawing the lowest border that the sentiment of variety has prevailed over that of symmetry. A similar remark applies to No. 5 (β). In Nos. 6 and 7 (γ) the same decorator, working on the same vessel, first contrasts a bar-chevron border with a "herring-bone"

motive, and then with a border of short verticals. Sometimes symmetry was combined with variety and contrast, as in No. 8 (γ), where a central border of short verticals is flanked by a plain bar-chevron border on each side, and the whole is included within an upper and lower fringe of zigzags. Other examples of the combination of the three principles are exhibited in Nos. 9, 10 $\dot{\gamma}$). In the last the same motive is repeated thrice, and the central one is very properly made larger than the flanking ones.

Decoration in Compartments.

Hitherto the scheme of ornament under consideration has been arranged in continuous horizontal lines running round the beaker. we have to notice another in which the scheme is discontinuous, in which the ornamental zone is divided laterally into compartments or panels, each differing from its neighbour. The contrast has now to be looked for in a lateral, not in a vertical, direction. In No. 11 (a) a partly shaded line-saltire is contrasted with a row of vertical lines, while below it is a chequer pattern, shaded in different ways, on each side of a blank square. In No. 12 (a) each plain bar-saltire is partly shaded, is flanked on each side by a vertically shaded bar, and is separated by a blank space from the saltires on each side of it. In No. 13 (a) each plain bar-saltire is shaded to enhance the effect, and surrounded by a frame of lattice border. A more elaborate scheme is found in No. 14 (a), where a plain bar-lozenge surface pattern on a shaded ground is opposed to a laterally placed, plain bar-chevron border on a shaded ground, and set vertically. These four examples belong to the first half of the beaker period, and to the southern part of Great The next two, Nos. 15, 16 (a), both from the same beaker, belong to the third quarter of the period, and come from Aberdeenshire. Here we are struck by an excessive fineness of line and minuteness of ornament, which is very characteristic of North Britain. In Nos. 17, 18 (γ) , both from the same Lanarkshire beaker, the principles of contrast, variety, and minute subdivision are carried to excess, and the

result is not very striking; the bolder examples, Nos. 19, 20 (β), from Stirling and Banffshire, are more effective.

Distribution of Decorative Motives.

The preceding paragraphs have dealt with the principles of design and ornamentation which hold good for all three types of beakers. Now we have to take into consideration *seriatim* the leading decorative motives, and observe their geographical distribution as well as the periods to which they belong.

Chequer motives in black and white, such as Nos. 21-24, belong to the earlier half of the beaker period, and are not found north of Yorkshire. But a chequer of spaces, shaded alternately with horizontal and vertical lines, like the lower part of No. 11, is found in Derbyshire (B. 11), Fife (B. 43), and Banff (B. 168a), and continued to the end of the period.

A stripy pattern, like No. 25, either as a surface pattern or combined with other motives, as in No. 26, belongs to the beginning of the period, and is confined to the south of England.

The bar-lozenge, either plain or shaded, and employed as a border or a surface pattern, appertains in type to the first half of the period, and does not occur north of Yorkshire. The shaded bar-lozenges, Nos. 27, 28, are from the same beaker, which was found with a fine flint dagger, and are therefore of a very early date. No. 30 is an example of the sketchy impressionist manner of dashing off a motive, similar to the above, and is somewhat later. The next example, No. 29, seems to find its place in the third quarter of the period, and belongs to type β . In the same beaker thus ornamented were found three remarkable objects in the form of solid chalk drums, covered with geometrical and circular motives, including representations of the human face, such as are found on the face-urns from the second city of Troy, on the walls of sepulchral caves, and on menhirs in France. They are partly figured by Canon Greenwell in Archæologia, lii., pls. 1, 2, and in the British Museum Guide to the Bronze Age, figs. 86, 87. The plain bar-lozenge

serving as a frame round a shaded line-lozenge, is a commoner expedient for producing a lozengy effect; for example, Nos. 14, 31-35. All these belong to the first half of the period and to the type a. A plain bar-lozenge enframing a plain line-lozenge only occurs once, No. 36, and belongs to the same time and type as the above.

The plain-line lozenge border, with the adjacent triangles shaded like Nos. 37, 38, is confined to the south-west of England, and belongs to the earlier period.

It is true that a shaded bar-lozenge effect is twice found in Scotland, Nos. 39, 41 (γ); and a plain line-lozenge, No. 40, occurs on the same beaker as No. 41. But in each case the lozenge is traversed by a horizontal line, or by a bar, showing that the result is obtained indirectly by an arrangement of opposed triangles. Both beakers belong to the last quarter of the period.

The plain bar-chevron surface pattern on a shaded ground, or a shaded bar-chevron on a plain ground, sometimes lends itself to a lozengy effect, as in Nos. 42, 43, 45, 46, but not necessarily Nos. 44, 47. In time this motive covers more than the first half of the beaker period, and ranges over the whole of England. All the examples belong to type a, except No. 45 from Forfar, which belongs to type β , and seems to be the latest of all.

The plain bar-chevron border on a plain or shaded ground, although it is so simple, is found chiefly north of the Humber, in types a, γ .

In time it seems to come down later than the above. Examples are seen in Nos. 6, 8, 14, 29 (upper part), 48-50, the latter being from Wilts.

The shaded bar-chevron, either as a border or a surface pattern, is very rare; a Suffolk example of the former is shown in No. 51, and of the latter in No. 73. But the effect of a shaded bar-chevron is equally well produced by three or more parallel line-chevrons. This is a very common form of it, especially in the North, in the later examples of type γ and once in β ,—e.g. Nos. 52-54. This motive does not occur south of the Humber.

Two parallel line- or bar-chevrons, spaced, with their opposite angles connected by lines, seems to be a special northern development, reaching from Staffordshire to Ross. Such are Nos. 55-58, 20. This motive begins in the second quarter, and continues till nearly the end of the beaker period. It is found in all three types.

The triangle border of small, hanging triangles, constructed either with lines or narrow bars and shaded, is common to all the types, and extends over the whole of Britain. Such are Nos. 1, 59-63. This motive is found throughout the whole beaker period, and was originally brought from the Continent. I assume it as self-evident that the shaded triangle is the one to which the decorator wished to draw attention, and that the plain triangles on each side constitute the ground which gave relief to the shaded triangle.

The elongated triangle border, bounded either by a line or a narrow bar, is common to all the types; such are Nos. 64-66. These three examples belong to the first half of the period; and it will be observed that the shading is made with straight lines, though it must be stated that similar shading survived into the later half of the period. But before the end of the earlier half the shading of triangles by crosshatching or by means of broken lines makes its first appearance in Staffordshire in No. 67, and is not found south of that county. The latter method receives a very special development north of the Tweed, — In the last example, which belongs to a very late e.g. Nos. 68-71. time, it will be noticed that the upper and lower row of triangles are united, so to speak, by two invisible triangles, for the shading of the flanking triangles of the upper row is the same as the central one of the lower row; and conversely. No. 72 is an example of a bartriangle surface pattern, in which the shading is effected by broken The cross-hatch is once employed in a bar-chevron border, No. 73, which is nearly contemporary with No. 72, and twice in a hexagon, Nos. 77, 80.

A double border of triangles, shaded, and separated by one or more horizontal bars. It has already been seen that the lozenge patterns

north of the Tweed differ from those in the south by being traversed by a horizontal line or by a bar. This special development, applied to a double border of triangles, begins in the second quarter of the period, and appears almost simultaneously in types α , β , in Nos. 67 (α), 74 (β), which are almost contemporary. Nos. 71, 75 are later than these, and No. 76, where the bar is multiplied by three, is again slightly later. This peculiarity occurs in all three types, and continues to the close of the period.

The hexagon, either as a border or a surface pattern, is presented in two ways: with the acute angles lying along (1) a vertical or (2) a horizontal line. This motive makes its appearance about the middle of the period in No. 77, and continues to the end, Nos. 77-81. No. 79 is taken from a beaker figured, not over well, in the Archæol. Journ., xiii. 86, and appears to belong, like most of the others, to sub-type a6. This motive is confined to England, and does not occur north of Yorkshire.

Fringes.

The fringe is a decorative encroachment on the plain band which borders the ornamented zone on each side, and is interesting from exhibiting a progressive development from simple to more complex forms. The fringe appears first at the end of the first quarter, in a very simple form, as an edging of very short, perpendicular strokes, No. 82, on B. 12, 40, etc.; or of a low line-chevron, No. 83, on B. 23, 143, 163, etc.; or of slanting strokes, No. 84, on B. 24, 36, 101, 167, etc. These simple fringes continue to the end of the period, are common to all the beaker types, but do not occur south of the counties of Derby and Stafford.

No. 85 is rather less simple in form, is common to types β , γ , and is not found south of the Humber. Examples are to be seen on No. 29 and B. 104, 121, etc.

No. 86 appears first in Northumberland at the beginning of the last half of the period, and is not found south of that county. It occurs in types β , γ , and is seen on B. 101, 118, 156, etc.

No. 87 begins rather later than No. 86, covers the same area, and also occurs in types β , γ . Examples are seen on B. 128, 135, 121, etc.

No. 88 is found on a single example, B. 136, from Aberdeenshire, and belongs to the beginning of the last quarter of the period.

Nos. 89, 90, found on the same beaker, B. 170, are from the county of Nairn, and belong to the close of the period.

Conclusion.

I have not drawn attention hitherto specially to the ornamentation of type β , but a glance at the illustrations B. 58–110 will show better than words the simplicity that characterises this type when compared with what is found on type a. Arguing on simply à priori grounds, we should be tempted to place type β earlier than type a, but reasons of an archæological nature stand in the way. It is clear the traditions of the two types were different from the beginning, both as regards form and ornament. The comparative complexity and richness of the decoration in type a need not cause astonishment, for even in the pure Neolithic Age of Denmark we find chequer patterns like No. 23; double triangle borders like No. 71, but shaded with dots; line-chevron borders like Nos. 53, 54 (Sophus Müller, Vor Oldtid, pp. 142–3).

The result of our analysis has been to show that some types of ornament are confined to certain large areas and to particular periods.

The plain line-lozenge border on a shaded ground and a stripy pattern made with small circular impressions are confined to the south of England.

Chequer motives: the line-lattice surface pattern, like No. 91; the true bar-lozenge in any form; the shaded bar-chevron border and motives composed of hexagons, are not found north of Yorkshire.

A special arrangement of two parallel lines or bar-chevrons, with their opposite angles united by lines; so simple a combination as a trilinear

herring-bone motive, like the upper part of No. 52; shading by means of cross-hatching or broken lines, are motives that do not occur south of Staffordshire.

A border of three or more parallel line-chevrons belongs to Britain north of the Humber.

As it has a bearing on the ethos and character of the people in Britain during the beaker period, it is not without interest to examine whether the beakers laid beside the bodies of women and children were inferior to those given to men. The evidence that bears upon this question is not very ample, but there are about thirty instances in which the age and sex of the individual is recorded, or may be inferred with more or less probability.

The following beakers were found with the remains of male adults: the numbers refer to the beakers figured in last year's paper.

B. 5, 30, 36 (?), 58, 60, 67, 123, 124, 125, 129, 144 (?), 165. Of these, B. 5, 58, 60, 67, 123-5 are very good, the ornament is often rich and is always well executed; B. 36, 144 are less richly decorated, and B. 30, 129, 165 are decidedly inferior.

With women, though in three instances the sex is not quite certain, were found B. 19b, 32, 56 (?), 92, 93 (?), 98, 99, 103, 130 (?), 139. The execution of 99, 103, 139 is excellent, and these beakers are quite on a par with the best of those found with males. B. 32, 56, 92, 98 are somewhat inferior, while 19b, 93, and 130 are poor specimens and the execution is negligent.

With children were found B. 12, 22, 27, 48, 49, 91, 115, 116, 117. Of these, B. 12, 22, 27, 115, 116 are of superior fabric, as good as any found with adult men or women. But B. 49, 117 are much inferior, and B. 48, 91 are of the poorest execution.

From the above we may conclude that both in form and ornament the beakers deposited with the mortal remains of women and children were, when at their best, as good as any laid beside the bodies of men. But the former at their worst were inferior to any that were deposited with adult males.

The Technique.

The instruments that seem to have been used to effect the ornamentation were—a notched tool, a blunt-edged tool, a pointed tool, a tube-like tool, a twisted cord, and the finger-nail.

- T. 1. Impressions were stamped with a narrow, square-sided slip of bone or wood with small notches at intervals. This produced a line of small rectangular depressions, separated by a very thin wall or septum, —e.g. B. 7, 20.
- T. 2. Deepish and broader lines, horizontal or vertical, were effected by a blunt tool, such as a slip of wood or bone, e.g. B. 9, 10, 93.
- T. 3. Thin lines were incised with a sharp-pointed instrument,—e.g. B. 63.
- T. 4. Prick-marks, short dashes, and indentations were made with a more or less pointed tool or a sharp edge,—e.g. B. 54, 61 (2nd band), 71, 80.
- T. 5. Small circular impressions were produced with a tube-like instrument, such as a reed or hollow stalk,—e.g. B. 1, 3.
 - T. 6. Impressions were made with a twisted cord,—e.g. B. 65, 72.
- T. 7. Semicircular impressions were made, perhaps, with the fingernail, though sometimes with the point,—e.g. B. 2.

In type a almost exclusive use is made of T. 1. Out of a total number of 57 beakers figured in my last paper, it is the sole technique employed in 36 instances; on 14 other beakers it is combined with another technique, so that altogether it occurs on 50 out of 57 beakers. It is found in all the sub-types, but occurs only twice in α 4, 6, respectively.

Other techniques used alone are, T. 3 on B. 56; T. 4 on B. 51, 53, 54, all of α 6.

The combinations are as follows:-

- T. 1, 5 on B. 1, 3.
- T. 1, 3 on B. 4, 17, 22, 25, 30, all of a 1, 2.

T. 1, 4 on B. 9, 10, 16; 18, 19; 40; 55, of a 1, 2, 4, 6.

T. 3, 4 on B. 12, 13, 26.

In type β , T. 1 is less usual. It occurs alone on 18 beakers out of 53, or on one-third of the whole type; in combination with other techniques it is found 7 times, or on 25 beakers out of 53. In subtype β 3 it does not occur alone, and only once in combination.

The use of the twisted cord alone is found 9 times, and 3 times in combination. It occurs alone in β 1, 2, 3, and once in β 4 in combination.

- T. 6 on B. 65, 70, 72, 73 (?); 79, 81-3; 92, of β 1, 2, 3.
- T. 3 on B. 63, 66, 75; 91; 104, 105, 107, 110, of β 1, 3, 4.
- T. 4 on B. 68, 71; 88, 89, 90, of \(\beta \) 1, 3.
- T. 2 on B. 93 of \$\beta\$ 3.
- T. 1, 2 on B. 103. T. 1, 3, 4 on B. 61. T. 1, 3 on B. 87; 100.
- T. 1, 4 on B. 80; 99, 101 of β . 2, 4.
- T. 3, 6 on B. 102. T. 4, 6 on B. 76; 86 of β 1, 2.
- T. 3, 4 on B. 106.

In type γ , T. 1 used exclusively occurs on 21 beakers out of 62, almost exactly the same proportion as in β ; but in combination it is also used 21 times, or on 42 beakers out of 62. It belongs to all the sub-types.

T. 3 alone, which is only once used in type α and 8 times in β , occurs 17 times in type γ ; in combination it is found on 10 other beakers, or on 27 out of 62, compared with 6 examples out of 57 in type α , and 13 out of 53 in type β .

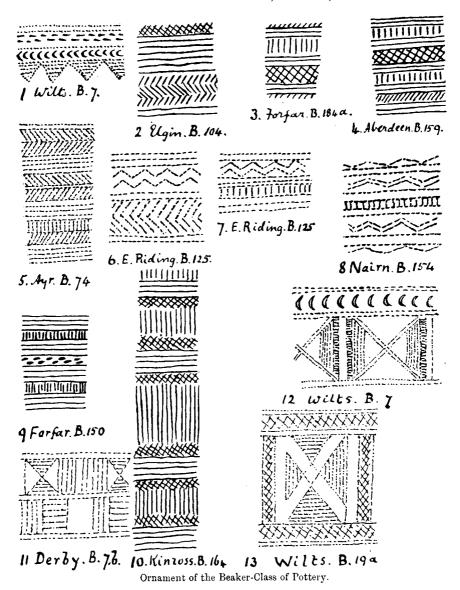
The combinations are: T. 1, 2 on B. 112. T. 1, 4 on B. 111, 120, 122; 130; 150, 156, 158; 168, of γ 1, 2, 4, 5. T. 1, 6 on B. 114. T. 2, 4 on B. 117. T. 3, 4 on B. 143. T. 1, 2, 4 on B. 118, 140.

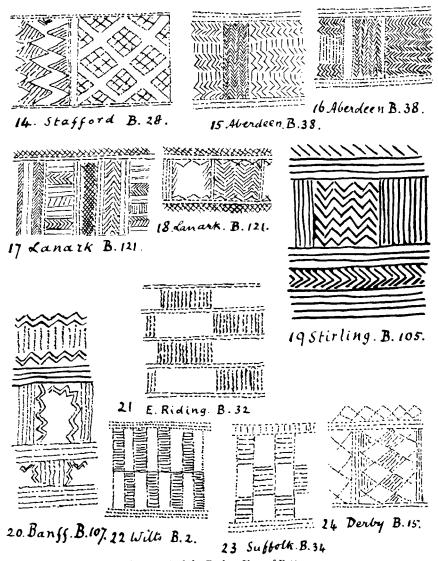
On Continental beakers that belong to or approximate type β in form, the incised or stamped lines of ornament are often filled with a white incrustation. In Britain this technique is extremely rare, though in some cases the stuff may have fallen out. The only example I know of

in England is B. 58 from Wilts, but there are certainly 2 in Scotland—B. 43 from Fife and B. 122 from Aberdeenshire. The white matter from the Fife example was analysed by Professor Olshausen, and found to be composed of phosphate and carbonate of lime, probably the result of burnt bones (*Zeitschr. f. Ethnologie*, 1898, p. 546).

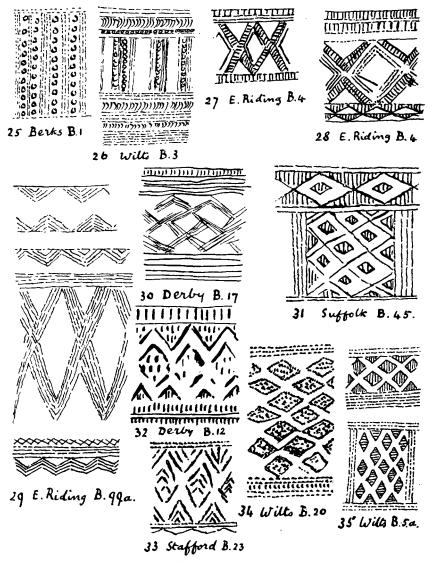
ERRATA.

P.S.A.S., xxxviii. p. 341, for "Turret Burn, North Toridale" read "Tarset Burn, North Tindale." Diagram II.: remove the figures 123-125 from the head of γl to $\gamma 2$.

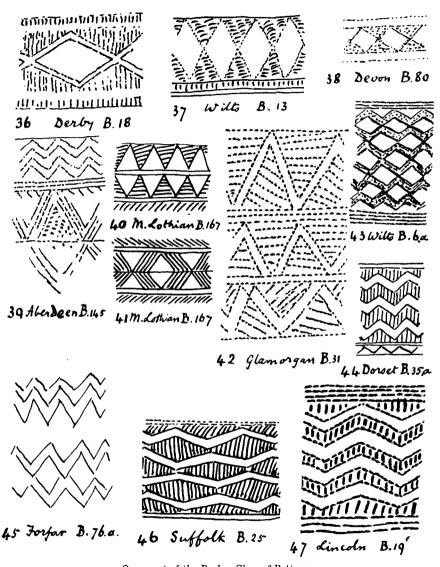




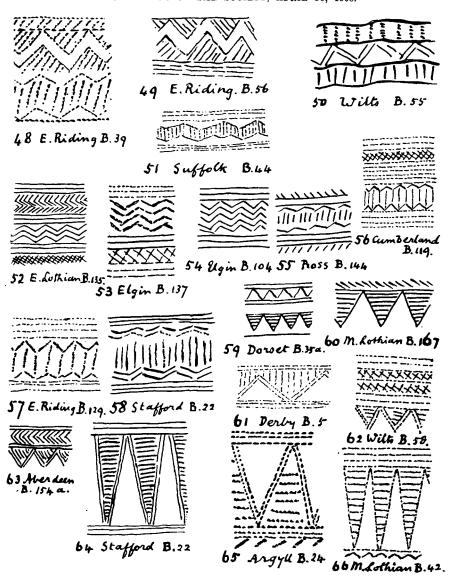
Ornament of the Beaker-Class of Pottery.



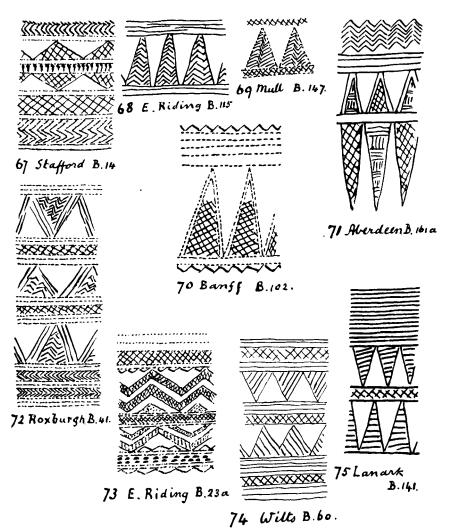
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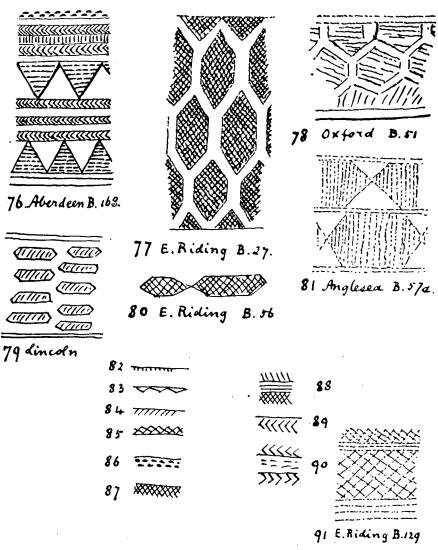
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