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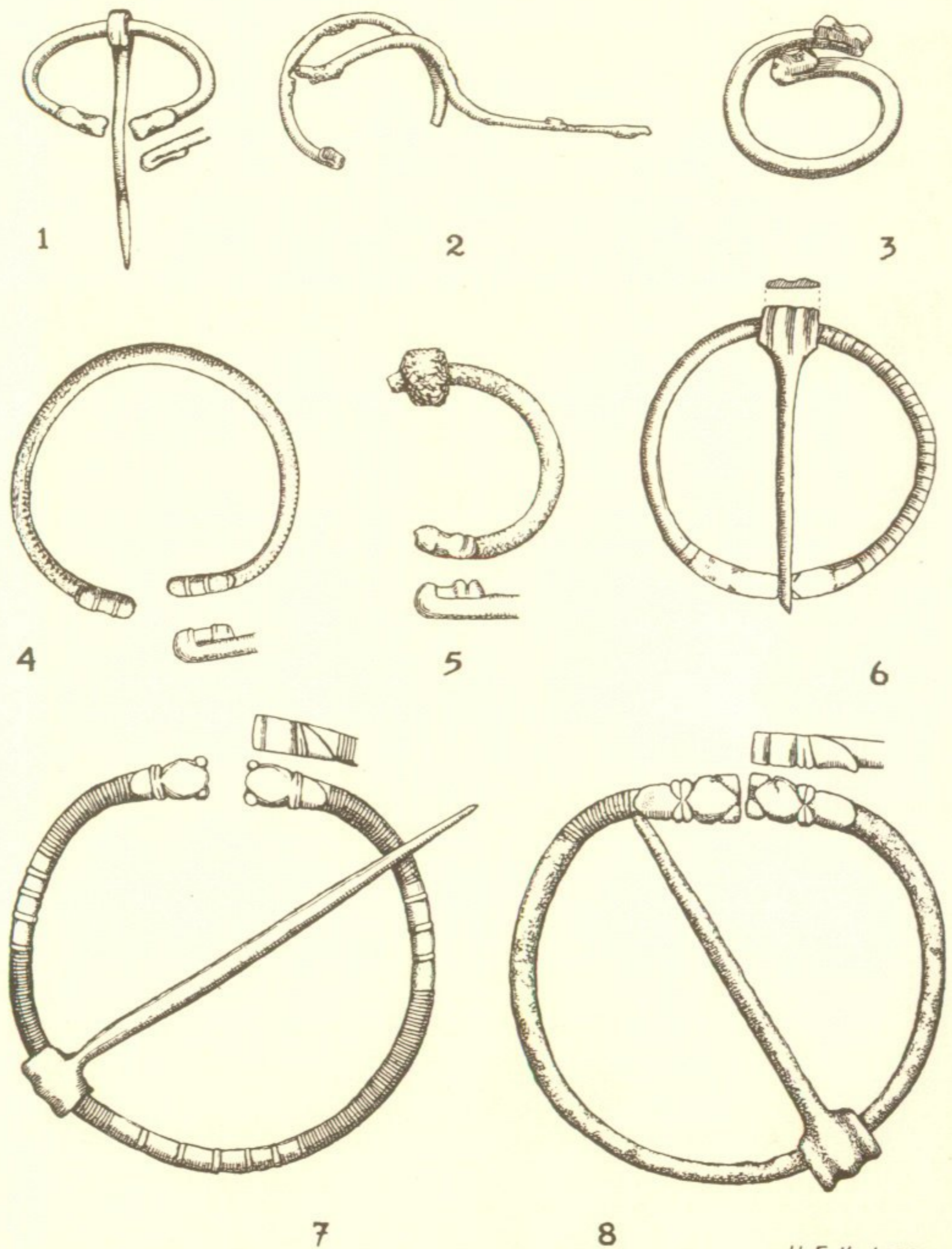
SCOTS ZOOMORPHIC PENANNULAR BROOCHES. By H. E. KILBRIDE-JONES, F.S.A.Scot.

This paper is but the prologue to a dissertation of some length. For that reason it does not claim to be comprehensive, but is intended to serve as an introduction to the study of the zoomorphic penannular brooch and its distribution in these islands. The present paper is confined to a study of the Scottish brooches.

The type of penannular brooch which forms the subject of this paper derives its name from the fact that its terminals simulate the head of an animal—head, ears, eyes, and snout being all represented in the fully developed form. The type is peculiar to these islands.¹ Apart from the fifteen specimens² from Scotland, there are many examples from England and Wales, but the type is most numerous in Ireland. The history of the origin and development of the type is singularly complete; but, in the course of the present paper, only the early history of the brooch in Scotland will be considered. Finally, it has not been found

¹ This statement is not intended to imply that the penannular brooch itself was invented in these islands; it refers only to the penannular brooches with the peculiar treatment of the terminals as outlined hereafter.

² Only thirteen brooches are considered in the present paper. The remaining two specimens belong to a later episode in the history of the series, and do not come within the scope of the present paper.



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Fig. 1. Scottish Zoomorphic Bronze Penannular Brooches: No. 1, no locality; No. 2, Midhowe Broch, Orkney; Nos. 3, 5, and 8, Traprain Law, East Lothian; No. 4, Newstead Roman Fort; No. 6, Okstrow Broch, Orkney; No. 7, Longfaugh, Midlothian (‡).

possible here, for reasons of space, to consider that history as others have visualised it.¹

There seems to be little doubt that the forerunner of the present series of zoomorphic penannular brooches was a native adaptation of a Roman original. That original, being in the nature of a foreign product, or the product of foreigners, would be somewhat repugnant to the average Briton; so that, whilst the idea had much to commend it, he thought to adapt it to his own ideals. The result is a product such as that figured in fig. 1, No. 1, which, unfortunately, bears no locality. The manner in which such a brooch differs from any other form of penannular brooch is in the treatment of the terminals. The terminals themselves are formed by flattening the ends of the hoop, and then doubling back those ends upon themselves. This was done to prevent the pin from slipping through the opening in the hoop. But these native-made brooches also differ in so far as the terminals are pressed flat, and they have had given to them a characteristic constriction.

Although few in number, these native-made brooches have been found up and down these islands from Cambridgeshire to the Orkneys, but the type, if more abundant in Scotland, where there are five examples,² is of southern origin. In England, specimens have been recorded from Hauxton, Cambs³ (fig. 3, No. 9), from Margidunum, Notts⁴ (fig. 3, No. 10), and from Duston, Northants.⁵ Two brooches, one from the Roman fortress at Caerleon, Monmouthshire,⁶ and another from Caerleb, Anglesey,⁷ seem to be the sole specimens from Wales. Our assumption of a southern origin for the type at present under consideration is based almost solely on the date and development of the Margidunum brooch (fig. 3, No. 10). This brooch, which, because it was out of date, had been fashioned into a finger-ring, provides the one important and essential link in the chain of evidence, without which it would be almost impossible to complete the typological series—that is, with any degree of certainty.

The Margidunum brooch shows a slight advance in technique over the preceding examples. The terminal, instead of having a single

¹ Cf. *Archæologia*, vol. lxxv. p. 223.

² Four of these are illustrated in fig. 1, Nos. 1-4. Their locations are: no locality; Midhowe Broch, Rousay, Orkney; Traprain Law, East Lothian; Newstead, Roxburghshire. There is one-half of another specimen, similar to No. 3, also from Traprain Law.

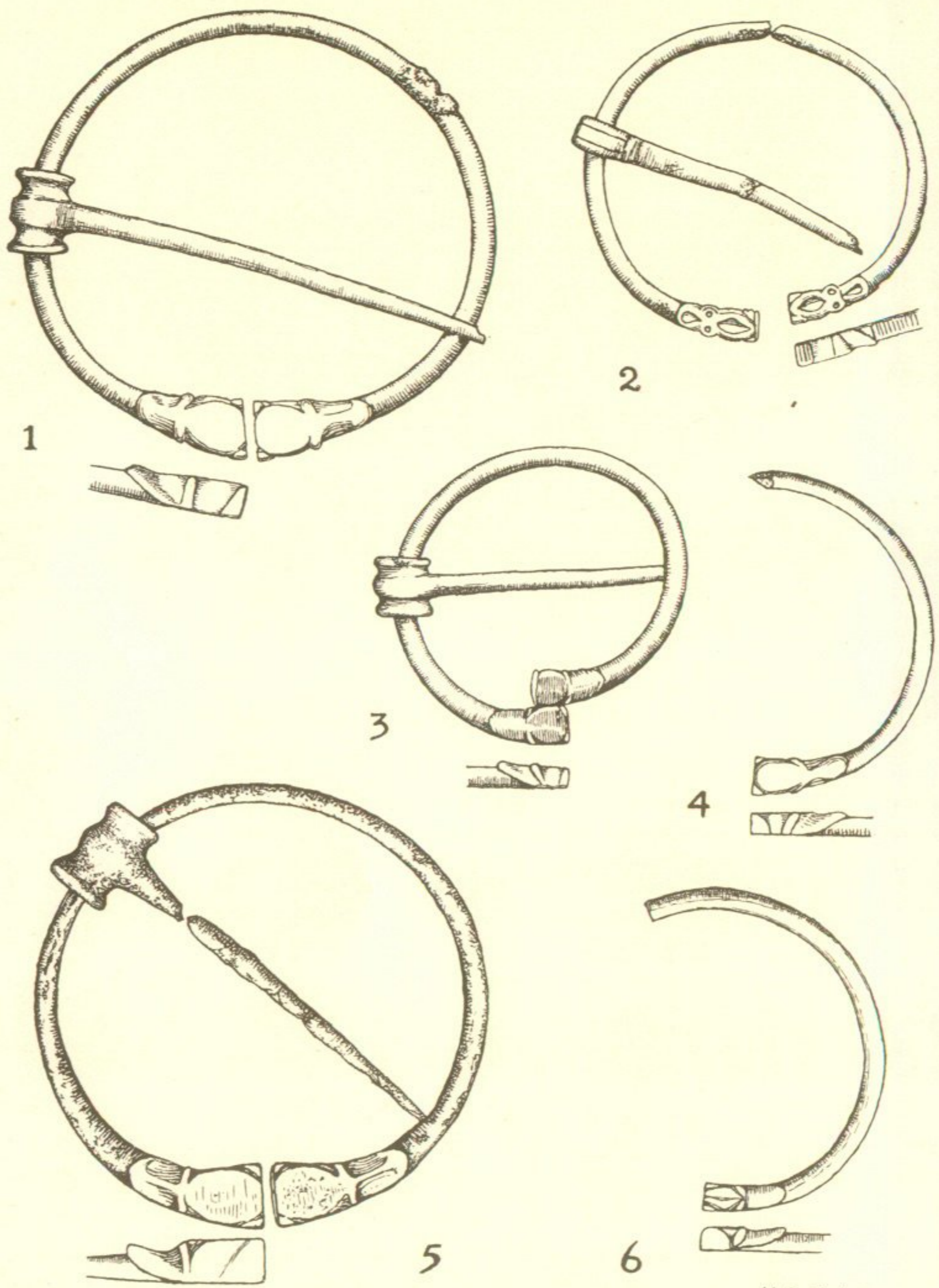
³ I am indebted to Professor R. A. S. Macalister for permission to publish this brooch here.

⁴ I am indebted to Dr Felix Oswald for kindly supplying information and a drawing of this brooch, through the courtesy of Sir George Macdonald.

⁵ Baldwin Brown, *Arts in Early England*, vol. iii., pl. xxxvii., No. 4.

⁶ *Arch. Camb.*, vol. lxxxvii. p. 89, fig. 37, No. 4.

⁷ *Ibid.*, vol. xii., plate following p. 214.



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Fig. 2. Scottish Zoomorphic Bronze Penannular Brooches: No. 1, Aikerness Broch, Orkney; No. 2, Barnton, Midlothian; Nos. 3 and 6, Traprain Law; No. 4, no locality; No. 5, Pinhoulland, Shetland (†).

constriction, has now got two; and one of these constrictions (that on the left) is accentuated by a line having been stamped across it. Moreover, an important beginning has been made in the matter of decoration. To the left of, and near the terminal, a single line will be observed, stamped on the hoop. This was an idea which was to strike a popular note as regards decoration, and this single line suggested all the later forms of ribbing. According to Dr Oswald, the date of this brooch cannot be later than A.D. 62,¹ so that, in consequence of that fact, we observe the necessity of considerably readjusting our ideas concerning the date of such brooches. Taking this date into consideration, it is obvious that little time could have been wasted by the native population in devising their own designs after having seen the first penannular brooch, and in view of the assumed antiquity of the Margidunum brooch at A.D. 62 (owing to its having been converted into a finger-ring) it would seem that the earlier specimens with a single constriction of the terminal could not have been made later than the beginning of the first century A.D.

Something like half a century seems to have elapsed before this form of penannular brooch penetrated into Scotland. At a first glance, the lapse of time would appear to be even greater, since the brooch from Traprain Law (fig. 1, No. 3) was found in a second-century context. It came from the third level, a level which produced bow fibulæ and Roman ware of the second-third centuries.² It will be noticed that this is another case of a brooch being adapted to fit the finger. The only suitable explanation for its presence in a late second-century context is that it must have been an heirloom, and was handed down by two or three generations of the same family. That it cannot possibly be of late second-century manufacture is proved, and that on evidence from the same site, because the brooch figured in fig. 2, No. 6 also came from the third level.

A specimen that might have been imported at a comparatively early period is that of fig. 1, No. 2, from the broch of Midhowe, Rousay, Orkney. Like the people of the Caithness brochs, those at Midhowe were in contact with Roman civilisation, as we observe from the occurrence of small sherds of Samian and other dark-coloured ware from the Rousay site.³ Fragments of a bronze patera were also found within the broch.⁴ The brooch was found in a passage outside the broch. We know, of course, that Roman pottery of first-century type has been found in the Everley broch, Caithness,⁵ so that there is the

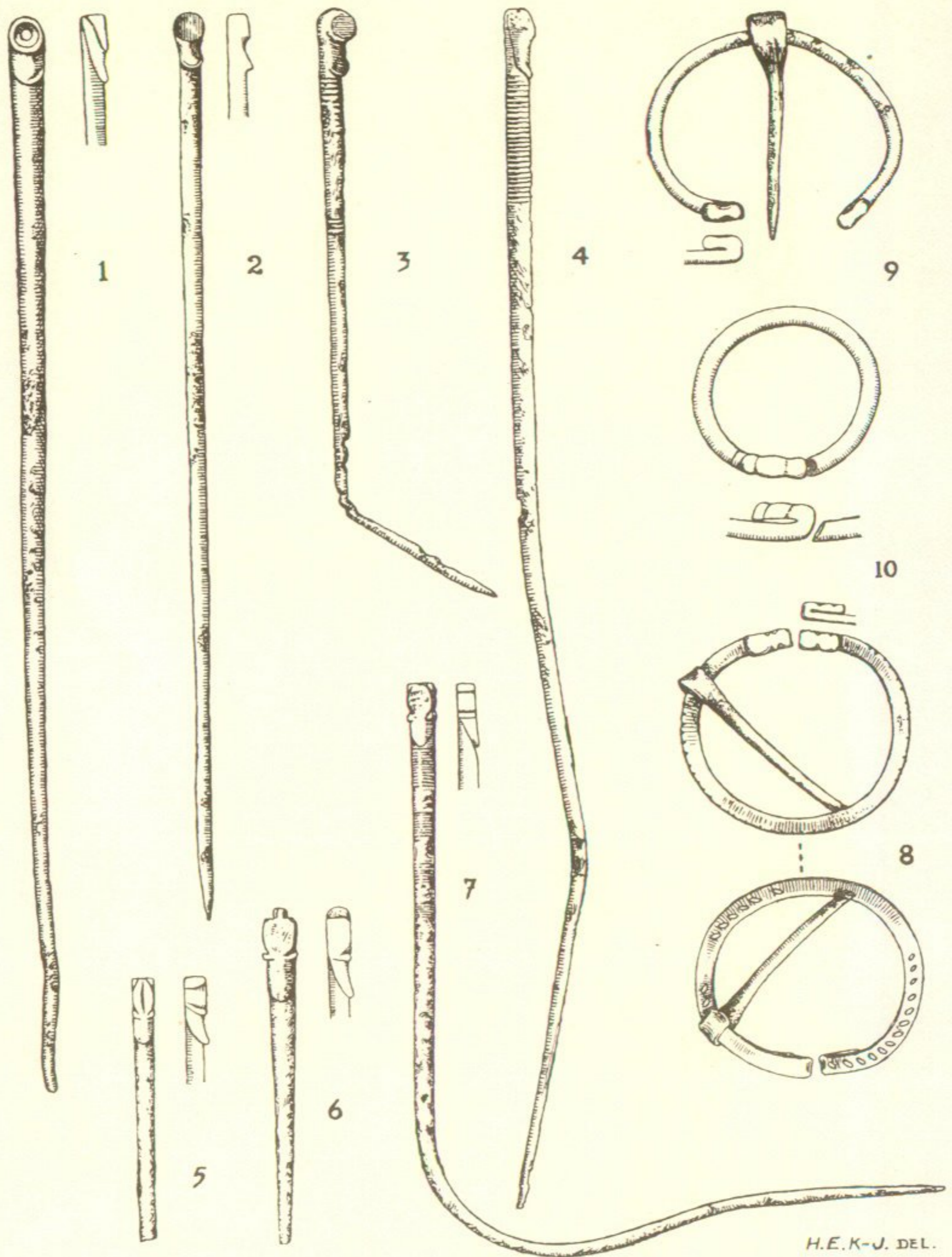
¹ Dr Oswald, in a letter written to the author, expresses the opinion that the owner of this ring (it was found on his little finger, left hand) was a victim of the Boudiccan insurrection of A.D. 62.

² *Proc. Soc. Ant. Scot.*, vol. liv. p. 78.

³ *Ibid.*, vol. lxxviii. p. 462.

⁴ *Ibid.*, p. 466.

⁵ *Journal Roman Studies*, vol. xxii. p. 74.



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Fig. 3. Scottish Zoomorphic-headed Pins and English Zoomorphic Penannular Brooches of Bronze: No. 1, Newstead; No. 2, Covesea, Morayshire; Nos. 3-7, Traprain; No. 9, Hauxton, Cambs; No. 10, Margidunum, Notts (†).

possibility of this brooch having reached Rousay by the end of the first century.

Our assumption of a first-century date for the form of brooch under discussion is borne out by the discovery of another example (fig. 1, No. 4) at the Roman frontier post at Newstead.¹ In this specimen, the two constrictions noted on the terminal of the Margidunum brooch have given way to a couple of raised bands on each terminal. This is to accentuate a feature, so that the present brooch forms a distinct advance on the earlier southern specimen. Moreover, the single line stamped on the hoop of the Margidunum brooch, near the terminal, has now given rise to a whole series of nicks on the side of the hoop of the northern example. These have not been continued round the whole circumference, but proceed for unequal distances on both sides from each of the two terminals. It is an experiment in decoration carried a stage further. Another noteworthy feature is the tendency for the hoop to increase in size. Unfortunately, the Newstead brooch cannot be dated exactly, but nevertheless it seems to belong to the original occupation of the fort *c.* A.D. 80. This brooch came from a site which yielded several other forms of penannular fibulæ, forms typical of so many Roman sites; but with the discovery of the zoomorphic pin² (fig. 3, No. 1) it would seem that the invaders also liked to acquire curiosities from native craftsmen. The Newstead brooch may have been acquired as a curiosity in the south, since the specimen found at Caerleon was very like it in detail. The latter was found in a surface deposit, so that here nothing is added to our knowledge of the exact date of the type at this stage in its development.

It will have been noticed that all the developments, in the several brooches so far reviewed, have taken place south of the Border. In turning to a consideration of the incomplete specimen from Traprain Law³ (fig. 1, No. 5) we feel that subsequent happenings took place on Scottish soil. This brooch is somewhat reminiscent of the Newstead specimen, but it shows one important and striking advance; the terminal, instead of being doubled-back, is now a solid affair, but it has been fashioned in such a way as to appear like a doubled-back terminal. This is a most important development, which was to have far-reaching effects. It seems strange that the craftsman should find it necessary to disguise the terminal in this way, and this perhaps serves to show how popular was the doubled-back feature. The two raised bands on the Newstead brooch have now given way to a constriction and an incision on the Traprain specimen. The incision has been moved very near to the end of

¹ Jas. Curle, *Newstead*, p. 346.

³ *Proc. Soc. Ant. Scot.*, vol. 1. p. 101.

² *Ibid.*, pl. xcii., No. 11, p. 337.

the terminal, and is therefore likely to disappear soon. The constriction is of a different nature from those noted on the earlier brooches; it is sharply defined, and, when viewed from above, has a triangular appearance.

No mention has yet been made of the zoomorphic character of the brooches. So far, that peculiarity has not manifested itself, although the last-named specimen would seem to show that the craftsmen were toying with the idea at this period.¹ In Nos. 1-5, fig. 1, we have noted the subtle changes that have taken place, and the impression conveyed has been that the craftsmen have been endeavouring to devise some form of design that would differ in all its essentials from anything that had been produced so far. In the last specimen from Traprain Law we were very near to something that is going to differ widely from its predecessors. We are here faced with a gap in the series,² but we can easily imagine what would happen. Once the incision on the inner end of the terminal is dispensed with, and the terminal itself ceases to imitate any longer the doubled-back feature of its predecessors, it is not difficult to visualise the outcome. Actually, the outcome of this trend in design is exemplified in the brooch from the broch of Okstrow, Birsay, Orkney³ (fig. 1, No. 6).

A production that might assist in spanning the gap between brooches Nos. 5 and 6 on fig. 1 is the pin illustrated in fig. 3, No. 3, which comes from Traprain Law. Here all pretence of imitating anything in the nature of a doubled-back terminal has been abandoned; the incision on the inner end of the terminal has gone, and the outer end has been accentuated into a round "head." The pin from Covesea Cave, Morayshire⁴ (fig. 3, No. 2) is also somewhat reminiscent of this example. The Traprain Law pin has also upon the stem two small bands of ribbing. It came from the lowest level in the excavations of 1914, a level which yielded *terra sigillata* of the first century, but bow and knee fibulæ of the second century. This disparity of periods, represented by the pottery and the fibulæ, should serve as a warning against attaching too much importance to the contexts in which some of the penannular brooches from the same site were found. If we assign the pin to the period represented by the pottery, it fills the gap very well. In turning to another pin from Traprain Law⁵ (fig. 3, No. 4, found in the third level), we observe what

¹ As much was implied when it was suggested that the terminal "has seemingly been fashioned into a zoomorphic form." *Ibid.*, p. 101.

² This gap in the sequence can probably be explained away by reference to the fact that so few sites of this period have been systematically investigated. Traprain Law still remains the one site in the east that has been systematically excavated. The missing link may yet turn up.

³ *Proc. Soc. Ant. Scot.*, vol. xi. p. 85.

⁴ *Ibid.*, vol. lxxv. p. 196. The pin is assigned to the "Roman period," whatever that may mean.

⁵ *Ibid.*, vol. liv. p. 79.

happened due to a decrease in prominence of the details of the pin-head. The ribbing here, however, is much more definite.

We have seen, on the evidence of these pins, that there is a tendency for the "head" and "snout" of the embryonic zoomorph to diminish, not so much in size as in prominence, until it seems likely that soon the pin-head will become on a level with the stem. It would be at this stage that some craftsman hit on the happy idea of omitting to round off the head, the usual practice until now, but, instead, marked off the somewhat squared corners with a couple of nicks with a sharp point, to suggest to the mind what was not obvious to the eye. The result of this pleasant disposition to laxity is to be seen in the brooch from the broch of Okstrow, Birsay, Orkney. It was indeed a happy thought; and it seems that, in spite of his lapse, the craftsman possessed an artistic eye, for, with some precision, he set about decorating the hoop with ribbing (which, incidentally, is now quite pronounced and definite), although he got no farther than half the circuit of the hoop.¹ Perhaps this indifference to convention was the result of fatigue produced by an endeavour to solve the problem of providing a really artistic and serviceable pin-head for the brooch, for here he has shown quite considerable originality, although the result of his efforts was not entirely satisfactory. This need for a heavier pin was the result of an increase in the size of the hoop, and a rather wide, plain pin-head would hardly enhance the appearance of any brooch. Hence the craftsman's efforts to relieve the plainness, and the provision of a couple of raised mouldings; but the result left much to be desired.

It seems curious that this brooch should have been found so far north. Probably it was traded there. In any case, Orkney seems to have been well supplied with brooches from the very beginning of the history of the type in Scotland, as we have already observed from our consideration of the Midhowe specimen. It is notable that all the Orkney brooches were found on broch sites, and broch-dwellers seem to have been notorious for acquiring strange objects. There would appear to be no indication that any of the Orkney brooches were made locally, and they probably found their way north in the same manner as the *terra sigillata* that has come to light in our northern brochs.² But a

¹ There seems to be little doubt about the original intentions of the craftsman, for it will be seen that a start had been made with the ribbing to the left of the left-hand terminal.

² Attention has already been drawn (p. 127) to the occurrence of first-century ware in Caithness. The very clear and precise knowledge of our east coast shown by Ptolemy would seem to suggest that navigation up and down the coast was quite general in the middle of the second century, and it is quite possible that it may have been so in the first century. Men of Agricola's fleet ventured as far as the Orkneys, and they were not the only Roman sailors to sail so far afield (*Journal Roman Studies*, vol. ix. p. 138).

curious feature of the distribution of the zoomorphic penannular brooch in Scotland is the fact that between the Orkneys and Traprain Law there is not a single recorded example.¹

So far, little advance has been made in regard to the terminals themselves. We have seen them degenerate from the pure doubled-back form into a comparatively simple type. We have lost sight of the original purpose of the doubled-back feature—namely, to prevent the pin from slipping off the hoop—but we have gained in so far as decoration is concerned. The product of the early second century (to which period the Okstrow brooch probably belongs) needed little modification to give a fresh impetus to the development of the zoomorphic terminal, and henceforth that development proceeds along more definite lines. The terminal of the Okstrow brooch needed but the eyes to produce the true zoomorphic motif, as exemplified in the later brooches, and, having achieved this, a certain enthusiasm was lent to rapid progression in design. Although there is a gap in the series once more, No. 7 of fig. 1 is not so very far behind No. 6.

In turning to a study of the penannular brooch from Longfaugh, Crichton, Midlothian² (fig. 1, No. 7), the great advance that has been made in technique is at once apparent. Not only does this brooch exhibit a high degree of refinement, but here, at last, we have the fully developed zoomorphic motif—head, ears, eyes, and snout being all carefully defined and formed. The ears, from being represented formerly by mere incisions, are now precisely defined, and a groove, extending the depth of the terminal, marks their position when viewed from the side. Eyes and snout have also their corresponding grooves extending the depth of the terminal; and we shall see later that it is from the development or degeneration of these three grooves that much of our information is obtained in regard to date and so forth. As yet, the snout is indicated by little more than an engraved line. The ribbing is now complete; not only has it been divided into three sections, but it has also become closely spaced. The division of the ribbing into three separate lengths was not the whim of an individual craftsman. Not only must the idea have been evolved slowly, but, once evolved, it was reproduced with considerable fidelity for a long period, especially in Ireland. In addition, it seemed part of the general scheme to divide up the divisions themselves into four segments. In the case of the Longfaugh brooch, the bottom division has been divided into six segments, but that is exceptional.

¹ There is, of course, the Covesea brooch (*Proc. Soc. Ant. Scot.*, vol. lxx. p. 197), but it does not enter into this discussion, being of another type.

² *Proc. Soc. Ant. Scot.*, vol. ii. p. 237; vol. v. p. 188.

Another noteworthy point about this brooch is the development that has taken place in regard to the pin-head.¹ The marked difference between the well-evolved moulding on the pin-head of the present specimen and the tentative effort on the part of the maker of the Okstrow example is very striking, a further argument in favour of a very early date in the second century for the Okstrow brooch. The present form of pin-head is by no means final, of course, but development has been considerable, and that cannot happen in a short time. Yet the associated relics of the Longfaugh brooch, which included a bronze patera² and a buckle,³ would seem to place it in about the middle of the second century.

With the foregoing details before us, we turn to a consideration of the next specimen in our typological series—a further example from Traprain Law⁴ (fig. 1, No. 8). The context in which this brooch was discovered—it came from the upper levels in the final excavations of 1923—would seem to contradict all our previous conception of date and development, since coins of the latter part of the fourth century came from this level.⁵ But we have only to recall for a moment some of the lessons already learnt in the course of this discussion. The third level at Traprain Law yielded both primitive and the well-developed forms;⁶ but that is not going to urge us to conclude that the period of manufacture of the early form must, of necessity, have been the same as that of the fully developed type. It would therefore seem, on the basis of these arguments, that the present specimen is another which has seen long service.

It is in a very poor state of preservation. In consequence, only very little remains of the ribbing (to the left of the left-hand terminal in fig. 1, No. 8). This ribbing probably extended round the hoop, and may have been divided up in the manner of the ribbing on the Longfaugh brooch. The form of pin-head is now much more definite, and is well on the way to acquiring a beaded edge, so typical a feature of the later specimens. In regard to the terminals, it will be observed that several developments

¹ Like the terminals of the brooch, this pin-head could not have been evolved in a short time.

² *Proc. Soc. Ant. Scot.*, vol. lxii. p. 249: "The Longfaugh patera belongs to that type which shows the evolution of the base rim, a new protective device. This evolution can be traced from small beginnings early in the second century. We have a thickening of the wall, designed to protect the most vulnerable part of the vessel, in this patera from Crichton on Dere Street. And we have it fully developed in a silver patera found at Backworth, Northumberland, with brooches and coins, the latest said to be of Antoninus Pius, A.D. 139." See also, *Ibid.*, vol. lxvi. p. 352.

³ The buckle found at Crichton has a parallel at Newstead (Jas. Curle, *Newstead*, pl. lxxvi., No. 1) where one was found in the upper levels of Pit II. Dr Curle is of the opinion that such buckles would not antedate the Antonine period.

⁴ *Proc. Soc. Ant. Scot.*, vol. lviii. p. 279.

⁵ The coins were a second brass of Constantius II. (A.D. 335-361) and a fourth brass of the latter part of the fourth century A.D., probably Valentinian II. or Theodosius I.

⁶ The brooches referred to are Nos. 3 and 5, fig. 1, and No. 6, fig. 2.

have taken place. The ears, instead of being carefully rounded as in the case of the Longfaugh specimen, are now once more marked off at the corners; and this method of representing the ears obtains, with very little variation, almost throughout the history of the series. What does vary from time to time is the groove which, we noticed, accompanied the ear down the side of the terminal. The angle of this groove alters with the development of the terminal, and therefore serves as a useful guide to date. Similar remarks apply to the eyes. In the present brooch from Traprain Law the grooves are still vertical, so that there is very little difference in date between this specimen and that from Longfaugh. Both brooches may have come from the same workshop, since they both exhibit a peculiarity that is to be found on no other brooches in the series.¹ That peculiarity takes the form of a medial line on each eye, which gives them a sort of lip-effect, which is more pronounced on the present brooch than on the Longfaugh specimen, where it seems to be in the nature of an experiment.

It will have been noticed that, in so far as the Okstrow and Longfaugh brooches are concerned, there is no stop to prevent the pin from slipping through the opening in the ring. The purpose of the doubled-back feature was to prevent that happening. This absence of any form of stop, or check, must have proved an inconvenience, so that now measures are being taken to make good the deficiency. The result, in the case of the present brooch from Traprain Law, is that, apart from being larger, the snout has had its tip raised—only slightly, it will be observed, but this new feature becomes more accentuated in the later specimens. The terminals have been enamelled: in the middle of each head is a “blob” of red enamel. This might be taken as an argument for a later date; but it must be remembered that the same site yielded, in the excavations of 1920, a zoomorphic pin with enamelled head, from the third level,² which, incidentally, would seem to be the correct context for the brooch. An early form of pin, with enamelled head, also came from Newstead³ (fig. 3, No. 1).

In turning to a consideration of the brooches figured in fig. 2, we note the almost complete absence of ribbing. This, in some ways, is significant, since brooches possessing a plain hoop tend to be not earlier than the third century in Scotland. An exception, however, is a brooch from Traprain Law (fig. 2, No. 6) which came from the third level, and can therefore be assigned to the second century.⁴ Also from the same level

¹ There is, of course, the brooch from Stratford-on-Avon, but it is outside our province.

² *Proc. Soc. Ant. Scot.*, vol. lv. p. 177, fig. 15, No. 7.

³ *Newstead*, pl. xcii., No. 11.

⁴ *Proc. Soc. Ant. Scot.*, vol. l. p. 101.

came a zoomorphic pin, almost identical in form (fig. 3, No. 5).¹ Both the pin and the brooch were therefore contemporary with one or two of the more ambitious examples of brooches lately studied. The brooch itself provides a problem which might have remained unsolved but for the technique employed in manufacture. The various features of the terminal have been formed by scoring rather than by moulding. The snout is no further developed than that of No. 8 of fig. 1, but curious results have been achieved by giving the brooch a narrow terminal, which, incidentally, is a strong argument for a second-century date, third-century terminals being considerably wider. This narrowness of terminal, coupled with the oblique angle at which the ears have been engraved, has given to the groove at the side of the terminal the appearance of being the arc of a circle. This is due to a miscalculation on the part of the craftsman, since the eyes are correct; and this error of judgment might have led us to assign to the brooch a third-century date but for the width of terminal, form of eyes and snout, and the fact that it was actually found in a second-century context. Finally, to add another peculiarity, both brooch and pin possess a medial line on their respective terminals.

A slight digression is caused here by the brooch from Barnton, Midlothian (fig. 2, No. 2). It has obviously been fashioned by some craftsman who, although acquainted with the essential features of the zoomorphic type, found that it had little appeal for him in its familiar form. Even the ribbing is there, but it has been relegated to the side of the hoop. The peculiarities of manufacture would seem to place the brooch in the late second or early third century; the terminals are small, and the ears are still vertically represented on the side of the terminal, but are now decorated with three vertical incised lines, executed probably at the same time as the so-called ribbing on the hoop. The treatment of head, eyes, and snout is peculiar. A deep groove has been cut down the middle of the head, and this might have been suggested by the medial line on No. 6. The snout has been treated in a similar fashion. The pin is a slovenly affair, and is possibly a later addition to the brooch. The grooves of the true barrel-headed pin are here indicated by no more than a couple of incised lines; and this, coupled with the narrowness of pin-head, is a true indication of decadence, and therefore the strongest argument in favour of the pin being a secondary affair.

There is yet another brooch from Traprain Law (fig. 2, No. 3) and it came from the second level.² The context in which it was found

¹ *Proc. Soc. Ant. Scot.*, vol. l. p. 102.

² *Ibid.*, vol. liv. p. 88.

suggested a fourth-century date, but it is a third-century brooch which, like so many others, has seen long service. It is obviously much later than any other brooches hitherto considered from this site, as we shall presently see. The pin-head is nearing the ultimate form, whilst the terminals show less tendency to experimentation in design. We observe how both ears and eyes have narrowed—a third-century tendency—whilst the angle of their side grooves has increased. It is curious to note, however, that when once the grooves pertaining to the ears leave the vertical, those of the eyes return to the vertical, after having been the first to leave that position. This has probably been done to balance the effect produced by the slanting side groove of the snout. Once the eye-groove attains the vertical it never leaves that position throughout the whole history of the series. The moulding of the snout is now more definite. Undoubtedly, the brooch belongs to the first half of the third century. Another specimen that is not so very far behind it is No. 4, fig. 2, which, unfortunately, bears no locality. Here we see how the eye-groove is about to return to the vertical, whilst the ear-groove is now more slanting. But the most noteworthy development is in regard to the snout; for it will have been noticed that the snouts of all the previous examples have had a smooth, rounded surface, whereas, in No. 4, a slight constriction is apparent on the snout towards the head. In addition to this important development, this is the first cast specimen to come under our notice.

The northernmost example in the present series of penannular brooches is that from Pinhoulland, Walls, Shetland (fig. 2, No. 5). It was found in a peat bank,¹ and is in rather a poor state of preservation. It is clear that this brooch belonged to a period when brooches of this type had heavier work to do,² for they are of far more robust construction than anything that has gone before. The pin-head is fast nearing its ultimate form; it has increased in width here in consequence of the additional strain put upon the pin. The heaviness of the terminals is another notable feature; but in spite of that fact, they are hand-wrought. We note the increase in the angle of the ear-groove on the side of the terminal, and the fact that the eye-groove has now attained the vertical; but of particular importance is the outcome of the slight constriction of the snout of No. 4, which has now become a definite medial ridge; and this medial ridge, once established, persists throughout the whole history of the series. In the Pinhoulland brooch the tip of the snout has been

¹ *Proc. Soc. Ant. Scot.*, vol. lxvi. p. 80.

² In some cases the pins are considerably arched, a condition brought about by the weight which they had to carry. The brooch thus seems to have become a pure article of utility.

raised a little more. This brooch would probably belong to the late third or early fourth century.

It is interesting to observe how all the features noted in the Pinhoulland brooch have been faithfully preserved in the next specimen, from the brooch of Aikerness, Evie, Orkney,¹ which has been cast, and was formerly gilt (fig. 2, No. 1). The hoop was cast in annular form, but was afterwards sawn through midway in the expansion representing the two terminals. The form of head, ears, and eyes is perhaps rather more definite than in the case of the previous specimen, but this would be due to the fact that all these several features have here been cast instead of being moulded by hand. The eyes, however, were subsequently improved by hand. The ridge of the snout, so pronounced in the Pinhoulland brooch, now possesses a somewhat rounded appearance, also due to the fact that it has been cast in a mould. The most marked development, however, is in the form of pin-head, which has now attained its ultimate form. It is pleasantly symmetrical; its grooves are well defined; and the central ridge, from being rounded, is now flat. Actually, this barrel-headed form of pin-head was quite simply produced; the pin was cast with a plain circular pin-head, after which a couple of grooves were filed to the recognised form. Hardly a more artistic form of pin-head could be imagined, and during the remainder of the history of the series, especially in Ireland, it was a form that was held in particular esteem by the Celts themselves. The Aikerness brooch is labelled: "found in last year's scree," so that nothing is added to our knowledge of the history of the type in Orkney. On typological grounds, however, it may be safely assigned to the fourth century.

Thus, rather abruptly, ends our story in so far as Scotland is concerned. As already pointed out, this discussion is but the prologue to the greater history of the zoomorphic penannular brooch, which history the author hopes to relate elsewhere in the near future.

Finally, especial thanks are due to Dr J. Graham Callander, Director of the National Museum of Antiquities of Scotland, who not only suggested the subject of this paper, but gave the author every facility for studying the brooches contained in the Museum.

¹ I am indebted to Mr J. S. Richardson for permission to publish this brooch ahead of his monograph.