

VIII.

A CATALOGUE AND SURVEY OF THE METAL-WORK
FROM TRAPRAIN LAW.

BY ELIZABETH BURLEY, M.A., F.S.A.Scot.

INTRODUCTION.

Traprain Law is too well known among the prehistoric sites of Scotland to need further introduction here. It is famous not only for its significance as an early settlement site in a commanding position, but also for the remarkable hoard of Late Roman silver found there in 1919, during the course of the excavations there. It is not however with the Treasure, nor with the structural remains revealed by the excavators, that the present paper is concerned: but rather with the considerable quantity of metal objects also found. For this would seem a not inopportune moment to attempt to construct what may appear a more coherent account of the occupation and history of Traprain as revealed from this other evidence. It is therefore the purpose of this survey and catalogue to study in detail, in the light of recent work on the period, the evidence provided by this metal-work, and to make the material itself available in a more convenient form than that given by the long series of Excavation Reports.

Since the Law forms a perfect natural defensive site, it is hardly surprising that there are evident signs of human occupation visible on the surface. Most noticeable are the ramparts of turf faced with dry-stone walling which, using the natural rock outcrop as a base, enclose the summit from the southern precipice to the quarry. The recent survey of Traprain undertaken by the Royal Commission on Ancient Monuments for Scotland has shown that besides these ramparts there are many rectangular and sub-rectangular structures all over the hill, principally at the western end between the 500 and 600 foot contours, (R.C.A.M. plan, p. 95). It is not proposed to enter here into a consideration of these features, particularly as the evidence is of a very uncertain and dubious nature. Little is in fact known about the house types on Traprain; though Hogg (1951, 209, fig. 53), by combining the excavators' plans of the upper levels, has shown that sub-rectangular houses, with several rooms, were grouped around an irregular square crossed by a narrow road. But with the exception of the bronze axes, T. 1-T. 3, and of the Treasure which are fairly accurately

located near structural remains, the finds by and large were not related to, or associated with, particular structures but only to their "level" and "area."

The material to be discussed was found in the fairly extensive excavations on the plateau at the western end of the hill, under the direction of A. O. Curle and James Cree from 1914 to 1915 and again from 1919 to 1923. Owing to their method of excavating in strictly horizontal "levels" or "floors," regardless of structures or associated finds, the excavators found themselves on occasion in the anomalous position of having identical objects found on different "levels" in the same excavated area. Probably in this case there should have been no distinction drawn between one level and the next—Curle himself wrote "where the dividing stratum is shallow and uneven an occasional confusion is, I fear, inevitable," (*P.S.A.S.*, LIV (1919–20), 79). On the other hand in each year of excavation the material found forms a fairly consistent pattern with the "top level," (usually 1), yielding objects which would be dated on any other site later than objects from the "lowest level," (usually 4). However, it does not seem to have been a question of there being no distinguishable occupation layers. In 1915 Curle and Cree pointed out that there were really two groups of pairs of levels in that year, interrupted by a gap in occupation (*P.S.A.S.*, L (1915–16), 86). The pottery appears to fit into this general scheme and so do the coins for that year. (Levels 4 and 3 yield only late 1st century and possibly 2nd century coins while Levels 2 and 1 only 4th to early 5th century). Each interim report stands by itself; the problem is to interpret them as a whole.

Unfortunately the excavators, who should have been those best qualified to do so, produced no definitive report embodying and synthesising the material scattered in the interim accounts, nor does the excavation as a whole seem to have been planned with such an end in view. The interim reports in these *Proceedings* are, as is well known to archæologists, almost incomprehensible if read as a whole. As a result the Traprain Law excavations, instead of being a *locus classicus* for the study of the interaction of Roman and native cultures in north Britain, have not been given the attention due to them.

It must however in justice be admitted that the excavators were faced with a difficult task: it is obvious that the distinction of natural stratigraphy could not have been easy. Photographs such as those in *P.S.A.S.*, XLIX (1914–15), 151, fig. 7 and *P.S.A.S.*, L (1915–16), 66, fig. 2, well illustrate the problems with which the excavators had to contend. Cree evidently endeavoured to interpret the evidence as he saw it, and his conclusions about the occurrence of selected objects on various levels, (*P.S.A.S.*, LVIII (1923–24), 261), are useful and informative, even if his tables are mere approximations because he adhered to the "Level" method. A. O. Curle, (R.C.A.M., *East Lothian*

(1924), 97), later wrote of Traprain: "At about fourteen inches below the present surface, the latest floor level is encountered. From here downwards to natural rock, evidences occur of more or less continuous occupation, but it has been found *advisable to take four arbitrary levels at a few inches apart*" (my italics). Later on he stated that "none of the levels, except the top one, can be taken as representing an exactly contemporaneous occupation." In the 1920 report the excavators wrote, (with reference to a trumpet brooch), "from its style it obviously does not belong properly to this level of occupation (top), but to the lowest, and consequently is *only proof of the mingling of relics* of different periods which *unavoidably occurred last season*" (my italics), (*P.S.A.S.*, LV (1920-1), 194). In 1921 they saw that "the old system of removing the ground in horizontal layers by no means yielded reliable results," but, nevertheless, "the old system was adhered to," and even increased, thus making no less than six "levels" in two areas in that year. Some of these levels were subdivided in one area and were not found on the other, thus apparently restricting occupation to a selected space 60 ft. by 30 ft., (*P.S.A.S.*, LVI. (1921-2), 196 and 201 and fig. 7). In the same report (p. 206) we read "it will be realised that the term 'level' in connection with a continuous occupation is *necessarily inaccurate*, although for descriptive purposes this method is more convenient and has its advantages."

The Coin Evidence.

From this it is evident that little reliance is to be placed on the arbitrary "levels." Yet it is not possible to discount them altogether; as was noticed above, p. 119, the 1915 excavations do fall into two well-defined and dateable groups and it should be possible to use the evidence from other years in the same way. The coins may be used as partial aids to correlating the levels, provided that the dangers of so doing are allowed for; *i.e.* the long circulation of coins, their relative scarcity on Traprain itself, and their inability under such circumstances to give absolute dates. If a possible correlation of levels over a period of years can be achieved with the aid of the coins and if similar correlations can be made with objects like brooches which are well dated elsewhere, it may be possible to fit these two together. In fact, if the metalwork is studied objectively, without *first* considering stratigraphical evidence, a distinct logical pattern does emerge. This may then be seen to coincide quite closely with the excavation "levels;" but instead of being confined merely to each individual area, it will apply throughout. It is possible to interpret the reports if each class of object is independently dated by reference and comparison to better excavated sites, and then fitted into place. In reality the only two seasons of excavations which fit less satisfactorily this scheme are those of 1920 and 1921,

TABLE I.

Years.	1939.	1915.	1914.	1922.	1919.	1923.
Late 1st B.C.	Silver Republican Coin 45 B.C. Rampart E. End.					
Early } 1st A.D.		Leg. Den. Mark Antony. F4.				
Middle } 1st A.D.	Vespasian, Rampart E. End.	2 Den. Vespasian. F4.				
Late } 1st A.D.		2nd Brass Domi- tian. B.	2nd brass Trajan. Middle.	3rd brass Titus. P3.		
Early } 2nd A.D.	Den. prob. Hadrian. Rampart.		Den. Hadrian. 1B. Den. Ant. Plus. 1B.	3rd brass prob. Hadrian. Q2.		
Middle } 2nd A.D.		2 poss. 2nd cen- tury. Denarii. F3.			1 Den. 1 brass Faustina the Elder. 4.	
Late } 2nd A.D.						
Early } 3rd A.D.						
Middle } 3rd A.D.				Small brass. Gallienus. Oa2. 3rd brass Gallienus Maximianus. P2.		
Late } 3rd A.D.						
Early } 4th A.D.		3 small brasses 3rd or 4th century. 2.				
Middle } 4th A.D.		Small brass Con- stantine. F1.		One of Constantian Age. Oa2.		
Late } 4th A.D.		2 Constantine J. F2. F1.				
		2nd brass Magen- tius. F2.				
		Small brass Valentian. F1.				
		Small brass Arcadius. F1.				
Early 5th A.D.					Small brasses of Probus, Carausius, Allectus. 3.	2nd brass Constan- tine II. 4th brass prob. Valentian II or Theodosius I. Level I.
					(With Treasure.) 1. Valens. Valentian II. 2 of Honorius.	

where such correlations cannot be made. In 1920 the "top level" produced coins ranging from Domitian to Arcadius; in 1921 the "third level" (near the bottom), had coins of Nero, Trajan and Carausius. One recalls the excavators' remarks cited above, (p. 120), made in reference to these years. But if the coins from the excavations in 1939, 1914, 1915, 1919, 1922 and 1923 (though so few were found in these latter two years that probably their evidence is less valid), are synchronised, Tables I and II are the result, (pp. 121 and 122).

Some interesting points emerge from Table I, most notably the complete absence of any coins after Antonius Pius and Faustina the Elder. There

TABLE II.

On the above the "Levels" can be correlated approximately thus:

1915 Levels 4 and 3 (1st and 2nd century coins).	=	1914 1922 1919 Middle and lowest = Levels 3 and Q2 = Level 4. (Late 1st-2nd century coins).	
1922 1919 Levels Oa2 = Level 3 (Late 2nd century coins).			
1915 1922 Level 2 = Level P2 (Early 4th century coins).	=	1919 1915 1923 Levels I-II = Level 1 = Level 1 (Treasure) (Mid-Late 4th century coins).	

is a quite distinct break between the mid to late 2nd century coins and the mid 3rd century ones, suggesting either a gap in occupation of the site or a cessation of contact between the inhabitants and the Roman world. There are no Severan coins (not even from the chaotic years 1920 and 1921), and this despite the known dealings of Severus and his successors with the Scottish tribes. It has been suggested that the Severan reorganisation brought the tribes north of Hadrian's Wall into closer diplomatic contact and demanded their co-operation with the Romans (Steer, forthcoming). If this is so, it is strange that there should be no coins on Traprain and few from other non-Roman sites of this period until well on in the 3rd century, though there does appear to have been an increase in trade, and Cramond yielded a fair number, (Robertson 1950, 160, Table II and III). It may well be that the disturbed conditions at the end of the 2nd century, when the Antonine Wall was abandoned and Hadrian's Wall attacked, caused the people of Traprain to leave or to cut themselves off from Roman contact or even to attack the Wall themselves. The late 3rd century coins reflect more settled conditions and renewed communication between

native and Roman. The presence of a few 1st century coins may show that Traprain was occupied before the Roman advance into the Scottish Lowlands, and in this respect there are a few objects which can be put in the 1st century B.C./A.D. period, *e.g.* the solid ring-headed pin, 95, and the iron-socketed axe, 473. These will be discussed later; but it is of interest to note that the coinage evidence would indicate early 1st century occupation. The coins from the 1914 excavations, although the Trajanic coin came from a higher "level" than the Hadrianic one, do form a close group, and need not be considered muddled evidence. The same applies to the 1922 coins where level Oa2 yielded a coin of Gallienus and one of the Constantian Age, but this probably has little significance.

Method and Arrangement.

An abstract of the "levels" and "areas" will be found on p. 144 preceding the catalogue but a word of explanation is necessary about the arrangement of this paper. The catalogue which forms the bulk of the work will be found separately from the discussion, on p. 145. It is divided into two parts: the Late Bronze Age material numbered and prefixed with the letter "T;" and the Roman and Native numbered 1-573. Reference to selected objects is thus made simpler by citing their catalogue number. The discussion which follows treats of the Late Bronze Age occupation as distinct from, but possibly connected with, the subsequent pre-Roman and Romano-Native period. The survey of this material is succeeded by an attempt to set Traprain Law in its historical and legendary position, to see whether the archaeological evidence adds to, or detracts from, the somewhat insubstantial historical knowledge of the Lowlands of Scotland in the Dark Ages. It must be stressed however that any conclusions reached in this paper are to be regarded as preliminary and tentative. The primary source of knowledge on metal types of the Roman period in the Scottish Lowlands is, and has been since 1911, James Curle's publication of Newstead. This paper, like so many others, stands in constant debt to that achievement. Professor Stuart Piggott's recent study of the Carlingwark, Blackburn Mill and Eckford hoards (*P.S.A.S.*, LXXXVII(1952-3) 1-50), has been used extensively for comparative material; this paper and that of Sir Cyril Fox on the Llyn Cerrig Bach hoard have been employed as the models for the present survey.

DISCUSSION.

(a) *The Late Bronze Age Material.*

The peculiar difficulties which the "levels" at Traprain present are *most apparent* when dealing with the Late Bronze Age material. For here are objects which anywhere else would be firmly placed in the late first millenium B.C. turning up "associated" with 2nd century A.D. brooches—the penannular armlet T. 29 came from the same "level" as the trumpet fibula 2. However the strictures which have already been made regarding the relevance of these levels must constantly be borne in mind. It is clear that the Late Bronze Age material comes consistently from the lowest levels in all the seven years of excavations. There are one or two examples where objects come from an upper level (T. 5 and T. 28), but these were both found during the 1920 excavations and Curle admitted the unavoidable mingling of relics that year (*P.S.A.S.*, LV (1920-1), 194). Apart from this one year, there is a constant occurrence of Late Bronze Age objects which the excavators usually record as being "at the bottom of the level" or "in the subsoil." Despite the associated finds of a later period, therefore, the lowest levels in all the seven years must surely represent a Late Bronze occupation. It is conceivable that there was a settlement on the hill at that time; the "hut" discovered in 1921 on the lowest level in area Ha and from near which came axes T. 1 to T. 3 and a cache of barley may well be a Late Bronze Age dwelling (*P.S.A.S.*, LVI (1921-2), 201-5, fig. 8). Possibly some of the burnt clay showing the marks of wattles belonged to wattle and daub huts of this time. But there is not enough reliable evidence from the excavations to prove that the habitations are of one period rather than of another.

Although the associations seem hopelessly astray, it is possible to see the Late Bronze Age finds falling into a compact dateable group in each area excavated. If one views the evidence objectively it appears that Traprain was occupied from at least the 7th century B.C. onwards, for the majority of the finds in question can be dated by reference elsewhere to the Late Bronze II/III transition and Late Bronze III. But it is arguable, because of the associations with Roman types, that the Late Bronze Age on Traprain is a retarded form and hence must be brought down in date nearer the coming of the Romans. This theory, however, will hardly bear close examination, especially as the whole series seems so closely related to and paralleled in Late Bronze II/III hoards in Britain.

Though some of the Traprain objects may be later than their southern parallels, certain unusual ones can be more accurately dated. Thus the razor T. 27 is a Class III "exotic" type perhaps ultimately derived from the West Alpine region and dated by C. M. Piggott to *c.* 600 B.C. and

after (C. M. Piggott 1946, 128). The Llyn Fawr parallel which Childe cited occurred in a hoard with an iron Hallstatt sword, bridle cheek pieces and discs of the "phalerae" class; these, paralleled on the Continent, suggest a date in the late 7th or early 6th century (Piggott 1953 i, 184). T. 27 is not the only one of its class in Scotland, despite Childe's assertion (Childe 1935, 155), but the relative rarity of these Class III razors suggests a restricted distribution in time. Therefore T. 27 must come within the same period and a round date of 6th century B.C. would seem sensible. This razor occurred in the same area and "level" as the socketed axes T. 1 to T. 3 and the pins T. 33 to T. 35. The dating given by the razor coincides with the dating given to the axes and pins by comparison with other hoards. Thus Heathery Burn had axes and pins closely comparable, and Hawkes puts it in the 7th century B.C. (Piggott 1953i, 183, n. 3). Traprain and Heathery Burn have certain elements in common, besides the axes and pins. There are the buttons, of which T. 43 is very close to the Heathery Burn example. The tanged chisels, the bronze ring of triangular section, even the gouges (though of Type 2), all fit into the same pattern and increase the assumption that Traprain was occupied, though possibly not permanently, from at least the 6th century B.C. The presence of personal ornaments would indicate that people were staying on the hill at least intermittently and the cinerary urns found in 1920, (*P.S.A.S.*, LV (1920-1), 162-4), one with a cremation, imply the use of the hill as a burial ground.

The parallels cited for the socketed axes give a round date of c. 600 B.C. and, despite the parallels which could be cited for the spear tip T. 10, (Meldreth, Cambs. hoard, mid 7th century, *Invent. Arch.*, G.B. 13), or the gouge T. 13 (Thorndon, Suffolk hoard, late 8th century, *op. cit.*, G.B. 11), this period, Hawkes' Late Bronze III, seems to suit all types. The knives, T. 7-T. 9 are akin to those from Jarlshof, Quoykea and Glentrool, which have good Late Bronze Age associations. It is noted in discussing the chisels T. 14-T. 26 and the Class I razor T. 28 how the Glentrool hoard is comparable here, (p. 149-150). Similarly the tanged stopped chisels T. 11 and T. 12 are close to the one from the Adabrock hoard which contained a bronze bowl of von Merhart's type B2f (Piggott 1953i, 185 and refs.). A point of interest here is that the socketed gouge from the Adabrock hoard is of the type which occurs also in the Wester Ord hoard, associated with a necklet with Hallstatt connexions. The Hallstatt derived objects in these hoards are later than those represented in the Horsehope hoard for example. Childe pointed out how these later, probably late 6th-early 5th century hoards are confined to Eastern Scotland (Childe 1935, 163-5). The Type 1 gouges have a predominantly eastern and southern distribution whereas the Type 2 ones are western. This complementary distribution suggests contemporaneity and may be a case for bringing down the period

of Type 1. Even so a date within the 6th century is feasible for both types. On the available material it would seem that Traprain was free from these later Hallstatt influences seen farther north; this seems a little odd in view of the earlier contacts exemplified by the razor T. 27 and by its relation to other similarly influenced Hallstatt I hoards.

Hencken in publishing Ballinderry Crannog No. 2 discussed at some length the connections between it, Traprain Law and Heathery Burn. Traprain and Heathery Burn are similar in many of their types; though the Traprain material is probably later, yet still within Hawkes' Late Bronze III. Hencken puts Ballinderry 2 in the last four centuries B.C. but there may be a case for raising his upper limit. The socketed knife comes near the Scottish ones already noted; the sunflower pins are paralleled at Knocknappa which also yielded a socketed gouge identical with T. 13. It may well be that T. 13 is an import from Ireland; T. 2 is a common Irish socketed axe type (Henderson 1938, 155). In this respect the hollow perforated ring T. 31 must be mentioned. The associations in Ireland at Trillick, and in Wales in the Llangwyllog Hoard would put it at least 6th century B.C. Lough Gara, Crannog 61, has produced several examples in a Late Bronze Age context, though said to be associated with iron-working. The Maryborough hoard, Co. Leix., also has a number of rings of this same distinctive type and is Late Bronze with Hallstatt influence. Such rings seem a peculiarly Irish type, and though they may last a long time in Ireland, that is no reason for discounting a date for the Traprain ring close to the Llangwyllog one, which is fairly safely tied down by the associated objects in the hoard to the Heathery Burn period.

From the same "level" at Traprain as the razor T.27, the socketed axes and pins, all of which should be 6th century B.C., came an iron socketed axe (473), a copy of a bronze one. This axe with the girdle-ring T. 32 from the same lowest level in an adjacent area constitute a major problem. It seems impossible in view of the dating of the razors, axes, pins, buttons, gouges and penannular armlet, and the ring of triangular section, to bring down the beginning of the Late Bronze Age occupation of Traprain much below 500 B.C. Probably 600 B.C. would be a more reasonable date. Yet the iron axe was apparently found on the lowest level. However, as the Late Bronze Age series forms such a well-defined, well-paralleled group, it seems likely that one must discount the presence of the iron axe. As will be discussed below, there are signs of continuous occupation in the 1st century B.C./A.D., and the axe, solid ring-headed pin, some of the small bronze pins possibly T. 38 to T. 40, and the bronze spiral finger or toe rings seem more at home here. (Although Iron Age A was in Yorkshire by mid 5th century, this is no argument for the working of iron in southern Scotland at that date.) The girdle ring must remain a puzzle; it does seem out of place with the razor T. 27, whereas the hollow perforated ring T. 31 (although

not from the same area but an adjacent lowest level), does not (but see last remarks under T. 32 in the catalogue).

Hodges' recent paper on Late Bronze Age clay moulds (*Ulster J.A.*, 3rd ser., xvii (1954), 62–80), renders it unnecessary to enter into a detailed discussion here: he omits, however, the spear mould T. 46 from his list of Scottish moulds. He includes the mould for a domed spear butt (ref. should be *P.S.A.S.*, LIV (1919–20), 89—not 80—fig. 20), which is probably much later. It was found on an upper level with no Late Bronze associations and very similar moulds came from Dunagoil (*T.B.N.H.S.*, ix (1925), 58 pl. 40) in a context which does not suggest Late Bronze Age occupation, and one notes how the solid ring-head pin from Traprain resembles the open ring-head pin from Dunagoil. Admittedly domed spear butts occur in bronze on the lowest level in the same year as the spear butt-mould. But again in view of the parallels to these from at least 1st century A.D. contexts in Scotland, and in view of the comment of Dio, as quoted by Xiphilinus, on the dome-shaped butts of the spears of the Caledonians, the Traprain ones seem less likely to be Late Bronze Age. The sword mould T. 47 is undoubtedly Late Bronze in period and the Jarlshof parallels are remarkably close. Despite the discovery of this mould on a higher level than the rest of the Late Bronze series (it came from the "level" above that which contained the hollow ring, T. 31), there can be no doubt that it is a mould referable to the same general Late Bronze III period. A fair number of the Traprain moulds are so broken as to be indeterminate *e.g.* T. 54, hence the uncertain attributions. Yet the relatively large number of pieces obviously from different moulds, taken in conjunction with the rough metal, wasters, gates of moulds and even fragments of socketed axes (*e.g.* T. 4–T. 6) suggest considerable bronze-working as at Jarlshof. The tradition must have persisted into the Roman period, judging by the clay moulds which appear in considerable numbers. None of the ingot moulds have been included here in the Late Bronze series. All are stone moulds and occur on the upper levels. Presumably the Traprain smiths cast their raw metal in some shape but it would be unwise to assume that the stone moulds are Late Bronze Age, especially as good parallels come from definitely later contexts—Dunadd and Buston Crannog for example.

A few general comments on the Late Bronze Age of Traprain may not be out of place here. The material is comparable to that from hoards in England and Scotland; the site itself to sites like Covesea Cave and Ballinderry 2. Hencken noted the pottery similarities especially between Traprain and Ballinderry No. 2 and other sites (Hencken 1942, 22–25, esp. fig. 8—the distribution map), and suggested that it represented a movement from Scotland to Ireland. This flat-rimmed ware is, however, so undistinctive that it is unsafe to postulate migration using it as a basis (Piggott 1955, 57). All one can really say is that there is ample evidence

from the metal work for contact between Ireland and Scotland from the 6th century B.C. onwards: Traprain with its Irish type gouge, axe and perforated ring gives sufficient evidence of this. Similarly the amber beads from Traprain, only from Level 4, and the triangular cross-section jet/shale armlets, only from the lowest levels again, point to contacts between Traprain and Ballinderry (and probably other sites too). Triangular cross-section jet armlets also occurred at Heathery Burn.

In the same way the flat rimmed ware has been used to argue an actual immigration of Hallstatt peoples into Scotland in the 6th or 5th century as Miss Benton did in her discussion of the Covesea Cave (Benton, 1931, 203). The presence of certain personal ornaments like penannular armlets of her Type 2 and the gold-plated penannular rings of triangular section (a Hallstatt device) would perhaps indicate more than pure imports. Traprain itself has thrown no further light on the subject despite the references to Hallstatt influenced objects, and there are no "horsey" elements there, as in the Horsehope Hoard or at Heathery Burn. Traprain Law was obviously in contact with the Continent (*cf.* the undoubted import from Hallstatt Europe, the razor T. 27), but in the same way that the depositors of the Llyn Fawr or Horsehope hoards were. A point which Childe made (1935, 152), and which Hodges emphasises (*op. cit.*, 74), is the almost total lack of founders' hoards in Scotland as in Ireland. The Traprain evidence, although there was bronze-smithing, does nothing to alter the general pattern. Traprain has neither evidence of contact with the carp's tongue sword complex nor with the exotic continental types found in Scotland, represented by the Braes of Gight hoard; it would seem to come somewhere between the two groups. The penannular armlet T. 29 for example can be paralleled in Scotland in the Adabrock and Balmashanner hoards, (with penannular gold rings of triangular section and part of a bronze bowl), and in the Braes of Gight hoard with a Class I razor and the continental necklet. Adabrock is earlier than the Braes of Gight but Traprain may well span them both.

It seems, therefore, on present evidence and by reference to more securely dated metal-work hoards elsewhere, that the earliest major period of occupation on Traprain was in the 6th and 5th centuries B.C., and probably well into the 4th and later centuries. There is some slight evidence of a much earlier, possibly intermittent, occupation of the Law, but that does not concern us here. What is of importance is to see whether or not there is evidence to link the Late Bronze Age of Traprain with the undoubted 1st century A.D. dwellers on the hill. Is it possible, in fact, to see continuity of occupation?

(b) *The Question of Continuity.*

Professor Childe in 1935 in the *Prehistory of Scotland*, 249, wrote of Traprain: "There is no justification for interpolating an indefinite interval of desertion between this well-documented 'Bronze Age' occupation and that during the 1st century of Roman rule." He went on to cite the socketed iron axe, 473, and the ring-head pin, 95, as showing the gradual transition from a bronze to an iron industry. But his argument seems to have been based on the assumption at that time that his "Abernethy" people brought the use of iron direct from the Continent some time in the 3rd century B.C. With the use of iron came La Tène 1c brooches and ring-headed pins, and these types turn up on "Gallic" and vitrified forts alike from Abernethy, the Laws of Monifieth, Dunagoil and elsewhere. Because La Tène 1c brooches and ring-head pins were thought not to survive beyond 3rd century B.C. in England, Childe thought that they should be only a little later in Scotland. Hence the appearance of a ring-head pin on Traprain, close to the Dunagoil example, inclined him to link the Late Bronze Age occupation and the earliest appearance of iron on that site. Iron socketed axes too seem part of this "Abernethy Complex." From a list in *Scotland before the Scots*, 81, they occur on sites either part of this complex (Dunagoil and Laws of Monifieth) or associated with it by the type of fortification (Rahoy—the axe from which is forged). Traprain thus seems to partake of his Earliest Iron Age in Scotland, and in his scheme there appeared to be no need to postulate a gap in the occupation.

However, since 1935, Childe has revised his opinion and has suggested a date around 100 B.C. for the brooches in Scotland. C. M. Piggott (1950, 129–132), in her report on Bonchester Hill has demonstrated the Southern English affinities of the culture and stressed the 1st century B.C. if not early 1st century A.D. dating, for the probable arrival of ring-head pins and La Tène 1c brooches, and presumably the introduction of iron. There is therefore no inherent reason why the ring-head pin from Traprain should be any earlier than the 1st century B.C./A.D., and the socketed iron axe must be seen as an attempt by the surviving Late Bronze Age smiths to use a new metal. There is plenty of other evidence besides the ring-head pin for an immigration of people from the south and west of England into Scotland, as was shown at Bonchester (1950, 131). The same may be seen at Traprain; bronze spiral rings, though admittedly occurring in all levels, do come from the lowest, and suggest that the people of Traprain adopted the new fashion, and translated it into silver later on, e.g. 147, as they did with the ring-head pins. There are no La Tène 1c brooches but this need not alter the argument; there are comparatively few of them from Scotland and as Childe pointed out (1935, 231) "the fashion never took root in Scotland." There is little question of Traprain being occupied by these

incomers from the South; the ramparts show few signs of new constructions, and there seems nothing comparable to Bonchester or Hayhope Knowe (though future excavations may change our knowledge).

It would seem therefore that about the 1st century B.C./A.D. the people of Traprain came into contact with newcomers, who were few in number probably a warrior group as Piggott suggests (1955, 61), from the South of England. It is, however, extremely difficult to say precisely whether or not the Late Bronze occupation continued on Traprain until the new contacts with the builders of timber-laced wall forts in the 1st century B.C./A.D. As Childe said, there is no reason for implying desertion, and the bronze types are not necessarily all to be dated in the 6th-5th-century range. The only objects that are so dated are the exotic types which represent imports from more advanced areas farther south. The fragments of socketed axes show the continuing smithing tradition, and certainly the pottery can be paralleled, in its character as *kümmerkeramik*, in other Scottish sites where there is reason to suppose that a degenerate Late Bronze Age tradition persisted right into the Roman period (Hogg 1951, 214-19). The same problem as at Traprain exists at Covesea Cave where there is a Late Bronze occupation, probably later than at Traprain, followed by an occupation well on in the Roman period. Covesea Cave seems more likely to have been deserted for a period, but neither with this site, nor with Traprain is it possible to be categorical on this point. A possible point in favour of continued occupations at Traprain is the lack of evidence for change in fortifications and the character of the metal objects acquired, which seem rather imitations than actual examples. Presumably the inhabitants of Traprain continued in their Bronze Age traditions but acquired new elements, much as they had acquired Hallstatt types five or six hundred years earlier. One must remember also that the excavations so far carried out cover only a fraction of the hill, and that more evidence regarding this period before the Roman advance may be forthcoming. The probable route used by the builders of the timber-laced forts, which brought them into touch with the Lowlands of Scotland, may have been via the Welsh marches and Northern England (Piggott 1955, 62), and that there is some reason to suppose that this was a route used later in the mid/late 1st century A.D. by refugees from the Romans. Certain types at Traprain are comparable to ones in South-West English contexts, though these could be merely a common substratum.

(c) *The Later Metal-work.*

As Piggott pointed out in connection with the hoards from Carlingwark Loch, Eckford and Blackburn Mill, a large proportion of the iron-work of the period is neither characteristically Roman nor Native Early Iron Age but

draws on sources common to both. Therefore, in the discussion which follows, the undoubtedly Roman elements are treated first but the remainder are considered under the general grouping Native/Roman, noting types more especially Early Iron in character. One general point should be made first, that is the concentration of certain types in certain levels and areas. The large group of harness mounts, for instance, come principally from the lower levels but the iron tools from the upper. Few tools which are certainly of native type come from the lower levels; the sickles and shears are on the upper levels, as are the files. But the Native type swords, 375, etc., also come from "upper" levels whereas the Roman come from the lower. Certain Roman objects occur invariably on the lowest levels; brooches, some finger rings and a fair proportion of the miscellaneous mounts, but not the toilet articles such as tweezers or nail cleaners, which all occur on the upper levels. In fact one might almost characterise the four "levels" at Traprain by saying that the two lowest are predominantly Roman and the two upper chiefly Native and Romano-British. Is this a question of acquisition at first, followed by assimilation and development? But there can be no question of solely Roman types on the lowest levels for the evidence of the "boss" style harness-mountings, dress fasteners, terrets and the Class II penannular fibula (with knobbed ends) indicates a flourishing native industry, only partly influenced by Roman standardisation. In view of this, it is surprising that so few characteristically native tools occur in conjunction with the obvious native ornaments. One explanation may be that the division into four quite arbitrary "levels" had the extraordinary effect of apparently dividing all finds into four groups, whereas on balance they fall more reasonably into two groups. Thus, Levels 1 and 2 are obviously chronologically later and are more native in character. Most of the knives occurred on these levels and none are specifically Roman, though under Roman influence. Levels 3 and 4 are the earliest, and taken as a whole, show a happy balance of Roman, Native Iron Age and Romano-British. We have seen above (p. 122), how the coin evidence supports this division. But one thing is characteristic throughout the occupation and that is the wide range of contacts which the people of Traprain had with the Roman World to the south and overseas as much as with the native world of which they were essentially part and parcel despite their superficial Romanization. Though they acquired Roman objects, it seems to have been acquisition and not imitation, except most notably in the case of personal trinkets. In the case of ornaments, exactly identical objects can be cited from many Roman sites in the Civil Province; in the case of tools and similar articles, only similarities can be shown.

Traprain was therefore in the 1st century A.D. occupied by people who had some knowledge of iron-working and probably some contacts with the south of England, and indeed one portion of the rampart may have

been constructed either against the refugees fleeing from the Roman army or the advance of that army into southern Scotland. But presumably the Romans left Traprain alone, or the natives made submission, for there are not many indications of extensive rampart buildings, but see R. W. Feachem, pp. 284-9 for current opinion. The presence of the two early coins, one a Republican one, the other a denarius of Mark Antony, suggests that either by trade or by contact with incoming people the inhabitants of Traprain were prepared to encounter the Romans. (But against this theory must be set the fact that Republican coins do not necessarily imply early 1st century A.D. contacts between the native population and Rome. Clearly Republican coins had a long life in Scotland—*vide* the Falkirk hoard which ranged in date from 83 B.C. to A.D. 230, (*P.S.A.S.*, LXVIII (1933-4), 32-40). The disturbed conditions 100 B.C.—A.D. 100, as C. M. Piggott pointed out (1949, 62), when refugees were moving north driven by pressure from the south due to fear perhaps of Rome, largely accounts for the occurrence of objects from southern England. Probably no special significance should be placed on their appearance at Traprain, either in the mid 1st century or later. However, while it is impossible on the available evidence to be categorical, it does seem as though there was a move in the 1st century A.D. from the south-west of England into Southern Scotland, along the route mentioned earlier (p. 130). Such objects as the U-shaped bindings, the leaf-shaped spears, especially 384 and 387, the tiny domed studs, the bronze handle, 449, the bill-hook, 481, can all be paralleled at Bredon Hill (Glos.), in the mid 1st century A.D., and again at Glastonbury and other South-West English sites. C. M. Piggott suggested that the Hayhope Knowe spear, which is close to 384, could have been acquired during the last century B.C. or early A.D. (C. M. Piggott 1949, 58, fig. 10). Admittedly these objects cannot be dated closely; on Traprain leaf-shaped spears and bronze bindings continue in use, and, judging by the parallels from Newstead, could have derived just as well from the Celtic army in Scotland marching against the Romans as from the people retreating from the Romans in South-West England. The question must remain an open one.

There is at any rate more substantial evidence for post-Flavian contacts with Rome, if the pre-Flavian are doubtful. The evidence of the trumpet brooches is revealing in this respect and shows that the main weight of occupation of Levels 4 and 3 must fall in the 2nd century A.D. Brooch 1 from the lowest level, would fit well into a late 1st—early 2nd century, context, and the Rii brooches, only slightly later, occur on the lowest levels (with three exceptions). So that the early 2nd century probably saw the proper beginnings of contact between Traprain and the Romans. The Ri and Rii brooches were at first entirely Roman but by the mid 2nd century the native Celtic element was asserting itself in a weakened state as brooches 10, 13 and 14 imply. By this time, too, polychrome enamel-

ling had reached Traprain and the people were quick to make use of it. Thus all the head-stud brooches with enamel seem if anything to be earlier than the trumpet brooches with enamel decoration. But the only example of single colour enamelling, *i.e.* red, comes from the lowest level. The brooches with hinged pins are from the Traprain evidence only a little later than the spring-type ones. The only trumpet brooch to have a hinged pin is 10, and it seems clear that it was under the influence of the head-stud brooch that the hinged pin appeared. But brooch 21 has a hinged pin plus the odd imitation of a loop and collar as on brooch 1. Traprain at any rate well illustrates the inventiveness of the Celtic artists given an original form. It may well have been the knee brooch, with the partially enclosed spring which gave the idea of the fully enclosed (*i.e.* hinged) pin. The association of knee brooches with other types, despite evidence from better documented Roman sites, implies that knee brooches were in existence by the early 2nd century (*e.g.* 40 and 20 plus disc brooch 51), and lasted, like the head-stud brooches, till the late 2nd century. The dragonesque brooches at Traprain had a brief life however, occurring exclusively, except for 35 and 36, on the lowest levels, and these two came from the third level, suggesting contemporaneity. The other brooches at Traprain, 46, 47 and 49 (this last with its exact parallel at Colchester is instructive and will be mentioned again), the bar brooch 50 and the disc brooch 52 all suggest 2nd century dates and none occur on the upper two levels. The iron brooches 54 and 55 despite their unusual appearance, must, both by stratification and parallels, be given a second century date too. In fact the only brooch which seems to be a late type is of the "crossbow" variety, 53, and this satisfactorily comes from an upper level.

The fashion for brooches obviously changed around the end of the 2nd century, as Hogg claimed (1951, 208), but all other bronze ornaments continued to be made, though Hogg (*op. cit.*) implies that this was not so. It seems quite clear that while the idea of the brooches was an acquisition from the Roman army, the native ornaments of pins and penannular brooches persisted. Once brooches fell out of fashion, it is noticeable how pin types flourished. Thus the old ring-head pin which owed nothing to Roman influence was transmuted into "rosettes" and "proto-hand pins." Ring-head pins on Traprain are in lower levels rather than upper but rosettes (and their moulds) are in upper levels. The evidence of the dress fasteners points the same way: while Class I and their moulds are early, Class IV are later. No particular conclusions can be drawn regarding the finger rings; the silver ones must show the influence of Roman silver-work, as do the few examples with settings, though 159 is surely a rather ugly native development. There is no evidence to imply the cessation of bronze working or of the manufacture of bronze ornaments.

But apart from the brooches, there are other obvious Roman traits.

The amulet, 262, the mounting from a casket leg, 266, the medicine spoon, 260, and of course all the nail-cleaners, scratchers, the "ear scoop," and the patera, 444, have no parallels in the native Early Iron Age, and undoubtedly represent trade or perhaps successful raiding. The swords too, 379 and 380, the shield rib, 382, and possibly the shield boss, 381 (but *cf.* cautionary remarks, Piggott 1953, 47), must represent acquisitions from the Roman forts, probably early on in the 2nd century to judge by the lower stratification. The javelin head, 402, and the arrow heads, 404 and 405, have their closest parallels in Newstead types. The iron ferrules, which may just as well be shods for poles (*cf.* Newstead Pl. LVIII, 6), are neither specifically Roman nor native but have a common ancestry. Certain of the spears show Roman influence: 395 with its counterpart at Newstead may, however, be part of the Iron Age tradition common to both. The knives are extremely disappointing and none seem especially Roman with the characteristic triangular blade and straight back. The only one, 424, that does show more than vague similarities comes from a low level. The same stricture applies to the tools which are more Romano-Celtic than true Roman. It is odd that no heavy axes or picks have so far turned up on Traprain; that they were acquired by the native population is shown by the Carlingwark and other hoards. Perhaps the answer is that the inhabitants preferred their own types of tools, yet were not slow to obtain rather more unusual items. The axe, 475, is the closest copy of a Roman type and again occurs on a low level. The iron stylus, 460, reflects the penetration of more than a mere veneer of civilisation; though one cannot assume that the inhabitants of Traprain could either write or read, one must recall the first four letters of the alphabet scratched on a stone in Roman characters. Such things as keys and locks, 461-463, and the possible lamp chain, 465, equally reflect a desire to imitate Roman customs and manners.

There is no indication, however, of a radical change of life at first. In southern England the Roman occupation brought considerable differences to the older ways; in the military province life must have gone on very much as before, and Rome made very little impression except on the surface. Probably at first the impact of Rome on the Celtic Highland Zone meant not much more than an opportunity to scrounge and trade with the invader; hence the patera handle, 444, wrenched from its bowl, the broken swords and shield fragments. But in the later period of Traprain appear all the more characteristically Romano-British elements, objects paralleled so often in Romano-British villages in southern England (*cf.* Woodcuts, Rotherley, etc.) and in the later occupations of military forts. The toilet articles and tweezers, the keys and locks, all come from the later levels. The Romanization at Traprain is in fact of two kinds: the earlier being confined to personal ornaments and more uncommon items; the later is more the ordinary, everyday objects when the Celtic style of ornament reasserted itself.

Besides contact with the Roman world proper if, however, it is possible to speak of such an absolute in connection with Britain, Traprain shows evidence of contact with the Gallo-Roman World, with the Limes forts and with what Piggott has so aptly called the Romano-Belgic World (1953, 16-19). The spatulate knife, 419 (and probably 420 and 421 as well), are related to those in the Vermand Cemetery, as is the belt or casket hinge, 456. Perhaps a visiting merchant brought these with him when he came with the new-fangled painted and engraved glass bowls from Strasbourg. The contacts between Traprain and the Limes forts are rather in the sense of similarity of certain types, *e.g.* the mounting in trumpet style, 316 (p. 190), than in actual imports or exports, though it is known that trumpet brooches went over with the Legions, and Feachem has shown how dragonesque brooches went with the Army from Britain.

But certainly the contacts between Traprain and South-East England are notable and add to the picture drawn by Piggott of the movement of peoples from Belgic Britain to Scotland at the end of the 1st century A.D. (1953, 19). Thus the ploughshare, 479, cited by Piggott (*op. cit.*) and Payne seems a Romano-Belgic type (*Arch. J.*, CIV (1947), 82-111). But the linch-pin peg, 357, and the heavy spear-butt, 409, both with vague parallels in the Santon hoard which seems Boudiccan in date, indicate more than an acquaintance with the Romano-Belgic population. The remarkable coincidence of two similar brooches of Sii type, 49, at Traprain and Colchester; the occurrence of two unenamelled dragonesque fibulae at Traprain, 36, and Braughing, Herts. in the Belgic area, the highly similar polychrome enamelled bowls from Linlithgow and Braughing again seem to indicate that the contact once established with South-East England by the arrival, forcible or otherwise, of some Belgae was maintained. Thus the terret with an enamelled stud in red and yellow has obvious affinities with those in East Anglia, though the same type appears in Yorkshire in the Brigantian area as well. It has been plausibly argued (F. Henry 1933, 103) that polychrome enamelling was introduced from the Continent towards the end of the 1st century B.C. to south-eastern England, and it appears in Scotland presumably about the early 2nd century A.D. at least. Enamelling was carried out on Traprain itself: there are thin-walled triangular clay crucibles, some bearing traces of molten glass in the bottom. Is it not possible that when the Belgae came north into Scotland, they brought enamel workers too? As Hawkes (1940, 355) pointed out, fully polychrome enamelling goes along with the boss style in the 2nd century A.D. Possibly via the same east-coast route came the silver bar, 269, the bronze plate, 270, and the amulet, 262. The style of the scroll work on the bar fits better a Romanized Celtic World than the more northern and western area of the Highland Zone.

On the other hand, such objects as the ox-head bucket mount, 264, the raven, 265, and the antler model, 267, imply the continuing influence

of the Celtic West, if in a degenerate form. It is perhaps illuminating to note that all these came from upper levels (though from excavations when the assigning of objects to levels was hardly observed). This would agree with the resurgence of Celtic rather than Roman traits in ornaments during the later period of occupation. But the "boss" style so characteristic of Traprain in its early phase must also imply native workmanship. Although there are obvious Roman types, among the harness, 332 for example, the majority is Celtic and native. Its affinities with Brigantian work is probable but the use of red and (?) yellow diamonds on a saddle dee from the lowest level, 334, may again be a pointer to Belgic influence. Yet the "boss" style at Traprain comes nowhere near that of the Middlebie hoard; it is much heavier and perhaps more under the influence of Rome. Thus 316, the open-work trumpet style from the lowest level, is followed seemingly by 317 and 318 which are less well modelled than the "dress" fastener, 222, from the same level and area as 316. The evidence from Traprain in fact would imply that the use of "boss" style mountings had a remarkably short life, presumably because there was no continuing demand for such trappings. No proper "boss" style objects occur above Level 3 (336 is an obviously degenerate example), and the same applies to the dress fasteners (except for the enamelled varieties 232 and 233). It would appear, in fact, that the "boss" style lasted only into the mid-late 2nd century. The same applies to the knobbed terrets, which, although they persisted elsewhere till the 3rd or 4th century (Piggott 1953, 22), seem to end abruptly on Traprain at the end of the 2nd century A.D.

If the dragonesque brooch did develop, as Leeds claimed, from the "broken-backed" scroll of the pre-Roman period, it was certainly embellished out of all recognition by the addition of enamel. Certainly the ridged ear of the early dragonesque (*cf.* 31, 34), bear a strong family-likeness to the leaved-ends of the coils on the Brighter gold torc. This is one element of late Celtic art seen at Traprain; the other is the "boss" style just discussed. It is in fact a combination of both elements that we see at Traprain plus the contribution of polychrome enamelling from the south. At Traprain, the zones cited by Hawkes (1940, 352) as mutually exclusive seem to unite. The purer Celtic school of the bead strung torcs, the "boss" style and the Romano-Belgic influence appear not on separate classes of objects but all the time. The rosette harness mount, 328, has obvious affinities with the bead-strung torcs, even though it is of a later date, but the trumpet brooches, 10, 13, 14, provide an illustration of the interaction of failing Celtic and stylised Romano-British ideas. The early to mid 2nd century A.D. seems to suit this mingling of art styles at Traprain, and conforms with Collingwood's and Leeds' dating of the Romano-Celtic art and the "boss" style.

From the subject of Romano-Celtic art, we must turn to the more

controversial one of the zoomorphic penannular brooches and pins. Far too much ink has already been wasted, and elaborate typological schemes evolved to suit a pre-conceived idea. And, as Savory (1956) points out, the subject appears to raise the most partisan of feelings. There is not the space here to discuss the whole subject with the fullness it deserves. But some general comments will be made, and more detailed ones about the Traprain examples. Penannular fibulae have a respectable ancestry in pre-Roman times and appear to have found equal favour with the Roman army, and the native population. The type of penannular fibulae with knobbed or milled ends needs no explanation; it is the type with the bent-back terminal, which Kilbride-Jones called his "Initial Form" and of which he cited five examples in Scotland (1936, fig. 1), which is in question. There can be no doubt that this form with its doubled-back, clinched terminal is early, as Kilbride-Jones said. The Margidunum finger-ring of the same type is remarkably close to the Traprain one, 138, and the former has been dated to the 60's of the 1st century A.D. The Traprain one is later by stratification but serves to point a moral, too easily forgotten by students of these brooches, that one should not assume that a natural typological development is inevitable. Traprain seems a conspicuous example of this, for we find examples of the "Initial" form on the same level and area as the so-called zoomorphic form (*e.g.* 85 and 86 on Level 3 Area F). It seems difficult to argue as Kilbride-Jones does (1936, 127), that both brooches cannot be of the same date because one is typologically more advanced, when all the associations are firmly 2nd century.

Where, however, a mistake seems to have arisen is by taking the "Initial Form" as *necessarily* leading to the zoomorphic form, or by laying so much stress on the decorative nicking and clinching of the early forms. All "Initial Form" brooches have rounded slightly bulbous heads and, whether doubled back or cast in imitation of this trick, have this fold clearly shown. But the "zoomorphic" brooches have squared heads, and no trace of the fold. The only thing that links the two classes is that both have their heads set vertically to the plane of the loop. Despite Savory's cogent arguments for assuming cross-breeding between the Romano-British type of brooch with thickened terminal at right angles to the hoop, and the type of bird-head brooch as at Lydney and Llanferres, the question still seems unsolved as to where the first brooch with squared terminals appeared. Savory's recent study suggests the probable existence of a Highland Zone school of penannular brooches, stretching from southern Scotland to the Welsh Marches. The craftsmen at Traprain and in the West Midlands/Wales area seem to have been working on the same problem about the same time. At Traprain, or near there, a specialised pin type with a rounded head, no vestigial fold, and incising below was being developed along with the brooch terminal; all these examples, except one, come from

the lower levels, implying a 2nd century date. This agrees with the evidence of the penannular brooches except for 85.

So that at Traprain by the middle rather than early 2nd century this early type of brooch and pin was flourishing. But the new type with squared terminal, delicate snout and the beginnings of ears had appeared as well (85 and 107, same level). The main concentration of this type however seems to occur on the top or second level both in pins and brooches (108, 109 and 87, 89). This development of a new type does not seem to have taken place at Traprain but elsewhere and the appearance of a similar brooch at Okstrow Broch in Orkney suggests that the school producing these brooches had wide contacts. There is no reason why the squared terminal brooch should not have started as a type in the 2nd century, but the real development came with the enlarging of the head of the brooch pin into the graceful barrel-end and the corresponding enlarging of the terminals till they almost met. In this development the type of brooch with flattened square, polygonal or faceted edges and often diamond or circle-patterns on the top seem to play no small part. Savory illustrates some of these from Wales; there are many others in England which, if studied, might throw some light on the problem. The pins of these brooches show rudimentary barrel-heads, as the pin-heads of the "Initial" form do not. Admittedly some of these brooches are probably 4th century but they do seem related to the "zoomorphic" terminal. One may note the resemblance between the Barnton brooch with the extraordinary hollowed diamond and the Castell Collen, Radn. brooch with its clearly defined diamond on top. The Castell Collen brooch could have easily developed into the Caerwent type while Barnton seems to have influenced Traprain 89. There is something to be said for the larger zoomorphic fibulae being later, and the progenitors of both the Irish brooches and the Scots/Welsh ones with flattened plate terminals. It is impossible to agree with Raftery who tries to derive the Irish examples from the Romano-British type of the first centuries A.D. There are no examples in Ireland as yet and it seems more reasonable to derive them from northern Britain. Kilbride-Jones' long chronology is difficult to substantiate and there may be much to be said for Raftery's suggestion that a great deal depended on the craftsman's own personal whim. (Raftery 1941).

There is, it is submitted, no need to date all "zoomorphic" brooches by their late associations as Savory does. Certainly the type continued into the Saxon period in a variety of forms, but one can hardly overthrow the Porth Dafarch, Caersws and Segontium associations, and, as has been shown, weight must be given to the Traprain stratifications. The only really zoomorphic penannular brooch, 89, occurs on a top level in what one might call a 3rd/4th century context. The Longfaugh brooch which is obviously related is only doubtfully associated with the 2nd century patera, as Savory

points out, and may well be later. There is surely no need either to date all zoomorphic brooches early, and then have to stretch out the duration of the fashion over centuries as Kilbride-Jones did, nor to date them all late as Savory seems inclined to do. It is conceivable that at Traprain, or a school of metal-working somewhere in the Highland Zone (the traditions implicit in the bead-strung torcs, and the Trawsfynydd tankard handle cannot just have petered out), craftsmen were producing, by the end of the 2nd century, brooches and pins like 85 or 107, and like the Minchin Hole, Woodeaton or Icklingham ones. Minchin Hole produced some 1st-2nd century pottery but the stratification of that site seems none too reliable. At all events by the 3rd century the "proto-zoomorphic" brooch is in existence, (reserving the name "true zoomorphic" for the ones with large, often splayed, terminals and carefully modelled heads). Thus at Traprain, 89 would seem to be near this class while pins 108 and 109 seem proto-zoomorphic. But no strict dividing line can be drawn between the two classes; quite obviously both continued side by side and are yet another witness to the ingenuity of the Celtic craftsmen under Roman rule. As was seen earlier (p. 133), the older native tradition in metal-working reasserted itself in new ways, possibly under the stimulus provided by Roman smiths.

The "proto-hand pin" must be considered here; from the Traprain evidence alone it must be a late 3rd/4th century development. Stevenson would like to make pin 119, on analogy with the Norrie's Law pins, at least 6th century but there seems little reason for this since, as will be stated later, it is likely on present evidence that Traprain was deserted by the end of the 5th century. Also pin 120, the tiny silver example, came from the secondary occupation deposit on the rampart cutting with early coins. An argument, perhaps a negative one, for the development of such pins in the 4th/5th century and not earlier, is that so far there are comparatively few examples from Traprain whereas there are numerous rosette-headed pins which were obviously being manufactured on the hill in the later stages of the occupation. However, perhaps one should not try to draw deductions from two examples and one mould of a hand-pin. As a whole, hand-pins are a Dark Ages type but may have started up in the latter part of the Roman period, as the evidence from Traprain and perhaps Covesea indicates.

As yet the native types of weapons and tools have not been discussed. First of all it is illuminating to note that apparently the native flat sword (as typified at Llyn Cerrig), seems to occur in late contexts at Traprain, *e.g.* 375 and 378 from upper levels. The sword chape, 399, and the bronze hilt-stop 400, likewise come from top levels. Does this mean a late resurgence of native Celtic elements on the hill, as the purely native developments in pin and brooch types, and in animal modelling imply? Yet against this argument may be laid the fact that the Celtic domed spear butts occur in 2nd century contexts rather than 3rd/4th century ones (though their moulds

come from upper levels). Though leaf-shaped spears occur throughout the occupation, the ones from the upper levels, 390-4, are smaller and less distinctively leaf-shaped. The two split-socketed spear heads are signs of something new; 397 is obviously an earlier version of one from Dunadd (N.M.A.E. No. G.P. 306). There does seem to be a change in weapon types therefore; although the non-appearance of the Celtic sword on the lower levels is disconcerting, it may just be the accident of non-discovery.

The knife evidence is disappointing. It is not known exactly what was the native type of knife during the Roman period since the "kick-back" type does seem post-Roman. The type of knife seen at Traprain with the gently curving shoulders to the blade (426 or 433) may be the native type. There are no distinctively "Dark Ages" knives at Traprain which may be another reason for postulating its desertion sometime in the 5th century. The knives which seem more native than Roman come from upper levels. This distribution cannot only be due to the method of excavation but must mean something. It seems again to point to the fact that during the 2nd century what tools and weapons the people had were more Romano-British or Roman than proper Celtic, but by the late 3rd century their own types were in use again. Thus the bucket handle, 445, is probably Roman, the axe-hammer, 475, is a copy of the heavier Roman ones, the ploughshare is Romano-Belgic and all come from lower levels. But the files, 493-5, and the sickles, though parallels exist at Newstead, are just as likely to be the Celtic Iron Age type and occur on upper levels exclusively. The shears on the other hand seem to be Romano-British. The iron pins with large looped heads and the staples are also Romano-British (*cf.* Pitt-Rivers I, Pl. XXVIII/1 and II, Pl. CIV/10) and from the lower levels. Yet against this picture of two groups at Traprain, the later one being more Celtic apparently, must be set the fact of the overwhelmingly Celtic style of the harness mountings and terrets from the earlier levels. These could be interpreted as the final fling of the pre-Roman Celtic spirit before the Roman advance. Certainly the mountings from the upper levels are ordinary and under Roman influence. Leeds pointed out how the late La Tène "broken-backed" scroll retreated north and west before the Roman advance and very probably found its way to Ireland and new favour. Similarly the far inferior "armlet" style of the north seems to have faded out, so it must be that on Traprain the "boss" style too became unpopular. But Celtic art did not die out completely as so many have argued; even on Traprain dress fasteners, 232 and 233, were enamelled in a trefoil pattern (presumably akin to the triskele pattern found on late Romano-British objects, *cf.* Leeds, 1933, 139 ff.). Possibly even the zoomorphic brooch 89 was enamelled on the hill in imitation of the old style even if it was not made there.

There has been reference several times to the idea of a break in occupation sometimes after the end of the 2nd century; the coin evidence points this

way and we now see that there are indications of other changes. Of course, it is not necessary to imagine a period of desertion on Traprain. But Albinus withdrew his frontier troops around this time, and as Hogg suggests (1951, 204), the people on Traprain may have suffered at the hands of either the Romans or the northern tribes themselves as they poured south over both Walls into England. But as Richmond so succinctly shows, in the early 3rd century Caracalla reorganised the military province north of Hadrian's Wall and probably converted the tribes in the south of Scotland into protectorates that were really buffer-states (1955, 59-60). The tribe in whose territory Traprain Law stands was the Votadini and perhaps Traprain was one of its strongholds. Therefore it may be that by the mid 3rd century when coins again appeared at Traprain, the hill was inhabited by people relying more on their own power backed by Rome than as previously under the control of Rome. Such a situation would agree with the difference in weapon and tool types. The Votadini would thus appear as a people learning from Rome how to control the area around them and borrowing civilised customs such as are suggested by objects like nail-cleaners, but remaining essentially native and developing their own fashions in dress ornaments. The same kind of situation seems to have arisen possibly a little earlier in Wales, too (Wheeler 1921).

If the genealogy of Cunedda as recorded in the Welsh annals means anything at all, it implies the existence of a native dynasty probably as early as the mid 4th century, bearing versions of Roman names. This would seem to fit in well with the situation as outlined above. And at the end of the 4th century, after the 367 raids, Count Theodosius had to bring order once again to the North. The Damnonii in the west and Votadini in the east were converted it appears into "foederati," a step which at least suggests that the Romans had had earlier political contacts with them. So that during the late 3rd and early 4th centuries Traprain was perhaps under the control of a native dynasty bearing Romanized names. The Welsh annals suggest that Cunedda, before he came to northern Wales, bore the title *guletic* (but note Jackson's cautions here (1955, 80)). Yet it may well be a pointer to the growth of a native kingdom under Roman tutelage; a kingdom now so little under Roman rule, perhaps as a result of Magnus Maximus' handing over the area north of the Wall to friendly princes (though this again is mere supposition), that its prince bore a Celtic name.

Such a reconstruction depended largely on somewhat ambiguous sources and cannot be claimed as wholly substantiated. But it is illuminating to see that the archaeological evidence does seem to tally, at least in part, with the historical. It has been argued that there is at the moment very slight evidence for any occupation later than the 5th century, unless one dates all the top levels of occupation to this period because of one hand pin and possibly a penannular brooch. It is generally agreed that the *Cunedag* of

the Welsh annals who came with eight sons from Manau Guotodin into North Wales is to be identified with *Cunedda* of the Votadini whose territories covered the Lothians and part of Northumbria, and whose migration is to be put about the mid 5th century (Hunter-Blair, 1947, 36). Though Traprain may not have been Cunedda's capital, one of his sons may have lived there, and left it deserted around this time. One wonders in fact whether the burying of the Treasure was not occasioned by this migration of people fearing the imminent approach of raiders now that the defences of Manau were depleted. Alternatively, and more probably, the treasure was the spoil of such raiders who may perhaps have camped on Traprain for a while once the Votadini had left. Hunter-Blair makes the interesting suggestion that the story of Octha and Eblissa going north about the time of Hengist's arrival in Kent preserves a tradition, albeit muddled, of a Germanic settlement in the border region about the mid or late 5th century. This may well have been due to the weakened state of Manau Guotodin after Cunedda's migration and to the need to protect the area against the Picts and Scots (*op. cit.* 17 and 49-50). So far there is little archaeological evidence to corroborate such a theory, but we do know that the Romans used Germanic auxiliaries in their army. The tradition may have persisted: certainly the evidence of an Anglo-Saxon settlement outside York in the late Roman period implies knowledge of the Teutonic world on the part of the Romano-Britons. As a wild and unfounded suggestion may it not have been a native ruler like Bede's *superbus tyrannos* who organised the move of Cunedda to North Wales to repel the Irish-Scots, and then found himself obliged to call in aid from overseas to protect the East and North against the Picts?

There is some evidence, at least from Wales, that Cunedda's people may have brought their ornaments and belongings with them. The Pant-y-Saer brooch resembles those from Tummel Bridge, Perth, which Leeds dated to the 5th century, (1933, 145, fig. 37). The plan of the houses on Gateholm is like the latest house types on Traprain as recovered by Hogg. A bronze penannular brooch, and two Traprain-looking spearheads came from Kenfig in South Wales (*Arch. Camb.*, VIII (1928), 200-2). These may be nothing more than the common Celtic substratum again but are worth considering perhaps as reasons for tying Cunedda's move down to more than negative evidence from Traprain. But in all fairness it must be pointed out that Bersu's excavation of the outer rampart at the western end indicates that it is 3rd or 4th century, and implies that the inner rampart was built subsequently, and might, but not necessarily, be Dark Ages (*Arch. N.L.*, 1, 5 (1948), 12). The massive silver chain with its obvious relation to those with Pictish symbols also suggests an occupation after the move of Cunedda and the Treasure burying. As Hogg said, the legend associating Traprain with St Monenna about A.D. 600 suggests that the hill was still inhabited (*op. cit.*, 1951, 207). But all that can be said is that on the evidence at present

available, none of the characteristic Dark Age objects appear at Traprain. Against the argument that the St Monenna legend implies habitation is the fact that she is traditionally supposed to have selected deserted hills as sites for churches. The problem must temporarily remain unsolved.

In this survey, therefore, I have tried to show that Traprain Law was occupied from at least the 6th century B.C. onwards. It may have been deserted, and then reoccupied around the turn of the 1st century B.C./A.D. Possibly its people came into contact with refugees from southern England in the 1st century A.D. and certainly from the beginning of the 2nd century contacts between Roman Britain and Traprain were strong. A period of desertion may have occurred sometime in the late 2nd to early 3rd centuries, but by the middle of the 3rd century people were again established and by mid 4th century a native dynasty was in control of the area. Cuneda may have caused the desertion of the hill in the mid 5th century; it seems possible, and apart from references in legends of saints (notably St Kentigern), the long and not inglorious story of the occupation of Traprain comes to an end.

This picture of Traprain has of necessity been one-sided; no pottery evidence has been cited in support of the conclusions reached about the two periods of occupation in the Roman period. But perhaps it may be said that the pottery shows no signs of conflicting with this view and might, if studied anew, provide more support for it.

Finally, it may be said that the writer cannot agree with the dictum of Sir Mortimer Wheeler (1925, 266), writing of the "lowlanders of Scotland who lived for centuries within their fastness on Traprain Law, remotely in touch with Roman things but utterly aloof from the world of Roman ideas." It seems too sweeping a statement to make when one recalls the evidence of widespread contacts which the people of Traprain had within the Roman world. But it must also be admitted that the closest links which seem to have existed between Traprain and the outside world were those with the cave sites of Scotland and Yorkshire, the crannog sites in south-west Scotland and the brochs, rather than with the civil sites of the Province. In the archaeological record the inhabitants of Traprain Law must be seen as comparable to those of the many native farmsteads and settlements ranging from Cornwall and Wales to Northumberland and the Border counties. On nearly all of these sites it is possible to have a faint idea of what the existence of the Roman civil province meant to these Celtic people—a scrap of Samian, a piece of glass, a coin with an emperor's head upon it. The difference between Traprain and these other sites is that this vague awareness seems to have been much more concrete, even judging by the metal-work alone. The dwellers on Traprain certainly benefited in no small way from the *Pax Romana*; perhaps they welcomed, rather than resented, the invaders, and were thus able to assimilate and absorb what they had to offer in the way of new ideas.

CATALOGUE.

The catalogue which follows here is divided into two parts: the first part consists of the Late Bronze Age material, numbered in order and prefixed by the letter T; the second part consists of the remaining material which can be classified as Roman or Native. The pre-Roman material has not been distinguished from the Roman, but as far as possible has been listed first in each group. A description and dimensions of each object are followed by its present Museum registration number (where ascertainable), its "Level" and area reference, all inside brackets. (The registration number of objects from the 1922 and subsequent excavations include an indication as find-spots, e.g. 1924.130.R2; in the preceding years the registration number runs as follows, XI.14.58; the level and area have been added where possible.) Then follows the reference in the excavation reports in *P.S.A.S.*, and general comments where appropriate. For convenience of reference here is appended an abstract of the "Areas" and "Levels" excavated each year from 1914 to 1923.

1914 Areas A, B, D, E. Area C. "Levels" used.	South end of plateau. 90 ft. down hill, north end of roadway. Lowest. Middle. Upper. (Area B seemed to show a subdivision of the lowest level.)
1915 Areas F and G. "Levels."	North of previously excavated area. Lowest (4). Third (3). Second (2). Top (1).
1919 Area G (remainder) and H. "Levels."	North of areas F and G. Four levels as in 1915.
1920 Areas I, J, K, and L. "Levels." Area X. "Levels."	Ground sloping away to west of previously excavated areas. Four levels as in 1915. North-west of K and L. 100 ft. from ramparts. Four levels.
1921 Areas Ha (extension of north line of section H) and M. "Levels." Areas N and O. "Levels."	North of 1920 areas. Lowest (6), (5a), 5, 4, 3, 2, (1a), Top (1). Adjoin M on the north. Reverting to previous practice, four levels.
1922 Areas P, Q and Oa. "Levels."	L-shaped area to north and east of 1921 area. Four levels.
1923 Areas R, S and T. "Levels."	West of area opened in previous years. L-shaped and sloping to north and west. Certain amount of indecision over the bottom Levels 4 and 3, so the excavator put them together as one. Levels 2 and 1 (top) remain.

The system of reference to other published works herein adopted is that used by Professor Stuart Piggott in *The Neolithic Cultures in the British Isles*, and a bibliography of all works so cited will be found at the end of the catalogue. The standard abbreviations are in use throughout; any not in common use are included in the bibliography.

It is impossible to illustrate every object found, and in the majority of cases the original illustrations in the excavation reports are fairly accurate. However certain representative objects have been selected, illustrated by line drawings, numbered in concordance with the catalogue, figs. 1-7, and indicated in the catalogue by an asterisk. Plates XIII and XIV illustrate the harness mountings and terrets.

LATE BRONZE AGE OBJECTS. T. 1—T. 58.

- T. 1. **SOCKETED AXE**, bronze. 4·7 ins. long, 2·1 ins. width of cutting edge; with external diameter of socket 1·48 ins., internal 1·0 in. Slight moulding round socket mouth, 0·63 in. below which is a band of three slightly raised half-round mouldings which encircle socket above loop. Body of axe is twelve-sided but merges into flattened surface lower down. Rough edges not hammered flat. (1922.231.Ha6. Near door of hut on lowest level.) *P.S.A.S.*, LVI (1921–2), 210, fig. 11/2. Castlehill, Forfar, axe is similar, (*P.S.A.S.*, II (1854–7), 65). Evans figures one from Belfast (139, fig. 169).
- T. 2. **SOCKETED AXE**, bronze, good patina. 4 ins. long, cutting edge (broken), 1·95 ins. Socket, trumpet-mouthed, 1·33 ins. external diameter, 0·98 in. internal. Moulding encircles socket 1 in. below mouth and loop below this. Body of axe octagonal (1922.232.Ha6. Five feet from T. 1 and T. 3). *P.S.A.S.*, LVI (1921–2), 211, fig. 11/3. Possibly an Irish type (Henderson 1938, esp. fig. 3/1 from Pennighame, Wigton). (*Cf.* Evans, from Newham, Norfolk, 129, fig. 151).
- T. 3. **SOCKETED AXE**, bronze. 4·05 ins. long, 2·25 ins. width of cutting edge. Socket 1·59 ins. external diameter, 1·1 in. internal. Moulding round top of socket below which three parallel ribs extend downwards on each side for about 1·5 ins. Loop immediately below mouth (1922.233.Ha6. Near T. 1). *P.S.A.S.*, LVI (1921–2), 210, fig. 11/2. Bell's Mill, Dean, Edinburgh (*P.S.A.S.*, VI (1864–66) 275) is fairly close.
- T. 4. **SOCKETED AXE**, bronze. Portion of socket 1·2 ins. long. Moulding round mouth and again 0·5 in. below. Faint traces of three parallel ribs extending downwards (XI.14.65. Lowest Level B). *P.S.A.S.*, XLIX (1914–15), 196, fig. 44/9 and LV (1920–1), 167, fig. 10/4. Possibly like T. 3. Fox's "Yorkshire Type." (Fox 1933, 158).
- T. 5. **SOCKETED AXE**, bronze. Portion of socket 1·85 in. long. Moulding round mouth and again 0·5 in. below. Faceted rather than ribbed (V.21.65. Level 2 K). *P.S.A.S.*, LV (1920–1), 167, fig. 10/3.
- T. 6. **SOCKETED AXE**, bronze. Portion of socket 1·9 in. long. Moulding round mouth, no decoration; probably an ovoid socket. (1923.231.Q4.) *P.S.A.S.*, LVII (1922–3), 193, fig. 5/11. Distinct resemblance to one in Bell's Mill Hoard. See T. 3.

These axes are all British Late Bronze Age types. T. 1–T. 3 and T. 6 figure as Nos. 146–9 in Henderson's list of Scottish Late Bronze Age axes (Henderson 1938, 168). T. 1, and probably T. 5, are examples of the faceted socketed axe, like Horsehope 1, with an east English distribution (Piggott 1953i, 177). T. 1–T. 3 seems to form a group, resembling the Bell's Mill hoard, though each is a representative of a different typological class. But a mixture of axe types in these Late Bronze Age hoards seems frequent; the Kalemouth, Roxb. hoard (*P.S.A.S.*, LXVI (1931–2), 423), the Stuntney Fen Hoard (Clark 1940, 58) and the Meldreth, Cambs. hoard (*Invent. Arch.* G.B. 13) to cite only three examples of large hoards, contained axes of varying types. The Traprain Law ones must fall into the same general class and period, the Late Bronze Age II/III transition.

- T. 7. **KNIFE/DAGGER BLADE**, bronze. Part of the blade 4.7 ins. long, breadth 0.85 in. Thickens to 0.2 in. in centre. Corroded point and edges (XI.14.190, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 185, *P.S.A.S.*, I (1915-16), 135, fig. 45 and *P.S.A.S.*, LV (1920-1), 167, fig. 10/1. Probably had a socket. Examples from Falkland, Fife, 2032 and Clova, Aberdeen, DO. 31 in N.M.A.E.
- T. 8. **KNIFE/DAGGER BLADE**, bronze. Part of the blade, broken off at point 2.5 ins. long, 0.8 in. broad. Very slight thickening in centre. Corroded edges (III.20.308, Level 4). *P.S.A.S.*, LIV (1919-20), 64, fig. 7/5, and *P.S.A.S.*, LV (1920-1), 167, fig. 10/2. Both these fragments bear some resemblance to the blade in the Isle of Harty Hoard (Evans, 212, fig. 253), which included socketed axes and moulds, (*P.S.A.Lond.*, 2nd Ser. v (1870-3), 408.) Fairly common Late Bronze Age type.
- T. 9. **KNIFE**, bronze. Bad condition. Tang and part of blade, 2.3 ins. overall, tang 1.1 ins. long. Blade 0.45 in. wide and 0.05 in. thick. Back of blade and tang slightly thickened. Somewhat "indeterminate" character (III.20.353, Level 4). No illustration. May be an unusual razor *cf.* one from "Old England," Brentford, Middlesex, *Arch. J.* LXXXVI (1929), 79-80 and Wheeler (1929, pl. I, fig. 2/8), but more likely an ordinary tanged knife, something like the larger version from the Isle of Harty Hoard (Evans, 214, fig. 260).
- T. 10. **SPEAR-TIP**, bronze. Tip of socketed spearhead, 1.3 ins. long and 0.6 in. broad, with oval socket 0.25 in. across. Rough edges and seems unfinished as well as broken (1922.181.M4). *P.S.A.S.*, LVI (1921-2), 212, fig. 13/5. Resembles spearhead fragments from the Meldreth, Cambs. hoard, *Invent. Arch.* G.B. 13, 3, 41 and 42.
- T. 11. **CHISEL**, bronze. 3.25 ins. long. Squared tang with stops 1.55 ins. from tip. Cutting edge and stops are very corroded. Length of blade 1.4 ins., breadth 0.85 in. (V.21.309, Lowest Level). *P.S.A.S.*, LV (1920-1), 165, fig. 10/15.
- T. 12. **CHISEL**, bronze. Faulty casting and only part of the tang and stops remain. 1.5 ins. long. 0.7 in. across stops (1922.213.M5a). *P.S.A.S.*, LVI (1921-2), 213, fig. 13/3.

Both these chisels are so close in dimensions as to appear from the same mould. Curle and Cree cited the chisel from the Yattendon, Berks. hoard (Evans, 169, fig. 196) as a parallel. But there are similar ones in Scotland, notably in the Adabrock, Lewis hoard (*P.S.A.S.*, XLV (1910-11) 28, fig. 6 which can be assigned to British Late Bronze II/III equating roughly with Continental Hallstatt I (Piggott, 1953i, 184). The Balneil, Wigtownshire, chisel has shoulders rather than stops and is probably typologically earlier (*P.S.A.S.* (1915-16), 302 fig. 2/1). The closest parallel is the example (with a much longer tang) figured by Evans, 170, fig. 198 and *P.S.A.S.*, XII (1876-8), 613 "no provenance" but possibly to be identified with chisel DO7 in the N.M.A.E.

- T. 13.* **GOUGE**, bronze, socketed. 2.7 ins. long; socket measures 0.7 in. external diameter, 0.45 in. internal. Markedly splayed blade 0.725 in. at broadest part. Portion of wooden handle still remains in socket (1924.223.R3). *P.S.A.S.*, LVIII (1923-4), 250, fig. 7.

This gouge belongs to a class relatively rare in Scotland, there being only four (possibly five) other examples of it (Appended table). Three other

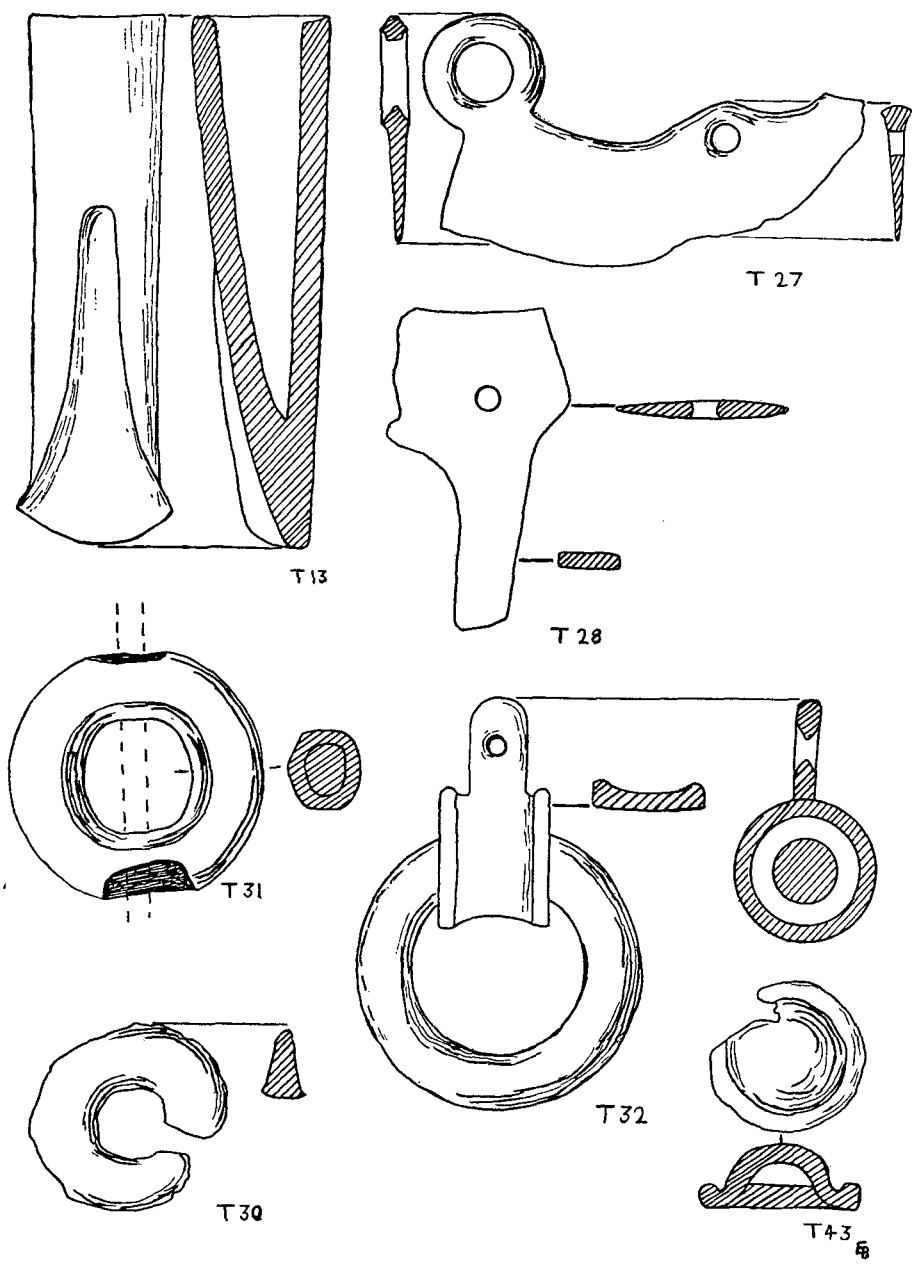


Fig. 1. Traprain Law: Late Bronze Age objects. (†.)

examples of gouges have mouldings round the mouth or a collar slightly below the mouth. These two classes are well represented both in England and Ireland (Evans, 174-6; *Invent. Arch.* G.B. 11 and references. E. MacWhite, 1944, 160 and references). Both the Dowris and Lusmagh, Co. Offaly hoards had examples close to Traprain (*B.M. Guide* (1953), pl. V, and fig. 12/6). Heathery Burn Cave, Co. Durham, also had socketed gouges, with mouldings forming a collar (Greenwell 1894, 100, fig. 15 and 16), though the blades are not markedly splayed. There is perhaps a chronological distinction to be made between the two classes as though some occur with Late Bronze Age associations, in Scotland the more elaborate examples (Adabrock and Wester Ord) had more exotic Hallstatt associations and may be later, after 600 B.C. In England the plain Type 1 (with or without splayed blade) does seem to occur chiefly within the "carp's tongue" sword group (Reach Fen, Minnis Bay, Meldreth, Thorndon, etc. *Invent. Arch.* G.B. 11), which would put them into the 7th century B.C. MacWhite (*op. cit.*) puts the introduction of the socketed gouge in Ireland into his Late Bronze Age A2, c. 700 B.C., but the Knocknalappa type gouge (paralleled exactly by T. 13), is Late Bronze Age B, c. 600 B.C., with Hallstatt contacts (Mahr 1937, 387 and MacWhite 1944, 165 for amended dating and comments). The Scottish gouges can be safely dated from at least the 6th century onwards. Type 2 may be later.

SOCKETED GOUGES IN SCOTLAND

	Site.	Reference.	Comment.
Type 1. No Mouldings.	1. Traprain Law T. 13.	Present paper.	
	2. Monmore, Killin, Perthshire. DQ54 (N.M.A.E.).	No. 13 in Callander's list (1923), 144.	Splaying of blade seems characteristic of Irish examples (Coffey, 81, fig. 74). Hoard of Late Bronze Age Association. Slightly splayed blade.
	3. Tynehead, Midlothian. DO36 (N.M.A.E.).		Broken at top. Blade not markedly splayed.
	4. River Tay. DO3 (N.M.A.E.).	<i>P.S.A.S.</i> , v (1862-4), 127. Evans, 175, fig. 208.	No associations. Dredged from river. Not markedly splayed blade.
	5. Stevenston Sands, Ayrshire.	<i>P.S.A.S.</i> , LXVII (1932-3), 27.	Stray find in sand dunes.
	6. Fortrie, Balnoon, Inverkeithing, Banffshire.	<i>P.S.A.S.</i> , I (1851-4), 138.	Doubtful as only socket about 1 in. long remains. Found with a button of Reach Fen/Heathery Burn type? and other objects of L.B.A. character.
Type 2. Moulding round mouth or ribs.	7. Torran, Argyll. DQ117 (N.M.A.E.).	No. 14 Callander (1923), 144 and references.	With socketed leaf-shaped spear head.
	8. Adabrock, Lewis. DQ213 (N.M.A.E.).	No. 15 Callander (1923), 144.	Collar about 1 in. below mouth. Very splayed blade. Hoard with exotic objects datable on Continent. Also stopped chisel like T. 11.
	9. Wester Ord, Invergordon, Ross-shire. DQ269 (N.M.A.E.).	No. 17 Callander (1923), 144 (though Callander fails to cite it among the hoard).	Elaborate ribbed top. Large hoard of socketed axes, spearheads, a penannular armet and part of a necklet possibly like Braes of Gight type.

- T. 14. **CHISEL or PUNCH**, bronze. 1.75 ins. long, square in section, 0.15 in. Roughly pointed at each end—not a good chisel-shaped point (XII.15.253, Lowest Level G). *P.S.A.S.*, L (1915–16), 134, fig. 44/5.
- T. 15. **CHISEL**, bronze. 2.475 ins. long. Rectangular in section at one end, 0.225 in. by 0.15 in., chisel ended. Oval section 0.5 in. diameter at other, pointed, end (III.20.240, Lowest Level). *P.S.A.S.*, LV (1920–1), 164–5, fig. 10/7.
- T. 16. **CHISEL/PUNCH**, bronze. 2.05 ins. long. Rectangular in section, 0.25 in. by 0.15 in. Pointed one end, chisel-like the other (III.20.341, Lowest Level). Reference as for T. 15, fig. 10/8.
- T. 17. **PUNCH**, bronze. 1.9 ins. long, square section 0.2 in. Blunt ended (III.20.342, Lowest Level). Reference T. 15, fig. 10/6.
- T. 18. **CHISEL**, bronze. 1.475 ins. long, square section 0.25 ins. Fair chisel-shaped end, squared the other (III.20.343, Lowest Level). Reference T. 15, fig. 10/5.
- T. 19. **PUNCH**, bronze. 1.45 ins. long, rectangular section 0.325 in. by 0.125 in. Both ends blunted (III.20.344, Lowest Level). Reference T. 15, fig. 10/9.
- T. 20. **PUNCH/CHISEL**, bronze. 1.95 ins. long. Resembles T. 15 in being half rectangular, half oval in section, and almost the same dimensions (V.21.306, Level 4 J). Reference T. 15, fig. 10/12.
- T. 21. **PUNCH**, bronze. 1.9 ins. long, squarish in section, 0.2 in. Pointed ends (V.21.307, Level 4 K). Reference T. 15, fig. 10/10.
- T. 22. **PUNCH**, bronze. 2.75 ins. long, square in section 0.2 in. Squared ends. May be merely a bar of bronze (V.21.308, Level 4 K). Reference T. 15, fig. 10/11.
- T. 23. **PUNCH**, bronze, broken. 1.05 ins. long, 0.2 in. square (V.21.231, Level 3 J). Reference T. 15, fig. 10/13 or 14.
- T. 24. **PUNCH**, bronze, broken. 1.05 ins. long, 0.225 in. square (V.21.121, Level 2 I). Reference T. 15, fig. 10/13 or 14.
- T. 25. **PUNCH**, bronze, broken. 0.85 in. long, 0.2 in. thick (V.21.46, Level 1 J). No illustration.
- T. 26. **PUNCH**, bronze. 0.7 in. long, 0.175 in. thick (1924.80.52). *P.S.A.S.*, LVIII (1923–4), 279, fig. 20/6.

These tools, whether punches or chisels, formed part of the bronze-smith's equipment and may have been used to produce the decorative patterns on metal objects. Types like T. 15 occur in the British Early Bronze Age (e.g. Plymstock Hoard, *Invent. Arch.* G.B. 9.2.21 dated c. 1500–1400 B.C.) and in the hoard from Glentrool, Kirkcud. (*P.S.A.S.*, LV (1920–1), 34, fig. 1/5 and 6) which would seem to be Late Bronze Age (Childe 1935, 149–50). But it is clear that the type continued well into the Late Bronze Age (Heathery Burn Cave, Co. Durham) and the Traprain examples probably fall into this class.

- T. 27.* **RAZOR**, bronze. Beautiful patina. Curved blade, broken at the point, 2.05 ins. long. Projecting loop at the other end measuring 0.325 in. internal diameter. From the tip of the loop to the broken edge of the blade is 1.15 ins. Back of blade is thickened and extends from the loop to the point in a curving ridge 0.1 in. thick. Immediately under this ridge, and 1.35 in. from the loop, is a hole 0.1 in. in diameter. Edge of the blade is 0.025 in. thick (1922.237. Ha6). *P.S.A.S.*, LVI (1921-2), 216, fig. 12/4.

This razor is a rarity in the British Isles and there seem to be no parallels except for a fragment of a razor dredged from the Thames at Sion Reach (*B.M. Guide* (1953), fig. 11/13) which may have once been a razor like T. 27. The excavators cited parallels from Swiss lake-dwelling sites (Keller, *Lake Dwellings*, esp. pl. lii/6 from Morgen and pl. liii/5 from Auvernier), and the Traprain example is obviously related to these continental types. The razors from "Old England," Brentford, Middlesex (Wheeler 1929, pl. 1, fig. 2 esp. 3 and 7) bear some resemblance to our example, but Childe (1935, 155) makes the most pertinent remarks on this razor and cites a Danish parallel and a Welsh one (Llyn Fawr). T. 27 presumably falls into Class III of C. M. Piggott's classification of Late Bronze Age Razors (C. M. Piggott 1946, 128), though does not figure in her schedule and its date must be somewhere in the 6th century B.C. or later.

- T. 28.* **RAZOR**, bronze. Rather corroded and fragmentary. 1.6 ins. overall length; tang 0.8 in. long, 0.3 in. thick. Blade 0.7 in. long and 0.95 in. broad. Small hole 0.1 in. diameter 1.1 ins. from end of tang. Appears to have only one cutting edge but as it is so corroded it is not easy to tell (V.21.232, Level 3 I). *P.S.A.S.*, LV (1920-1), 167, fig. 10/17.

If this is a razor, it is Class I type, I believe, which would accord with the predominantly Scottish/Irish distribution of this type (C. M. Piggott 1946, 126). Parallels are not easy to find as the position of the perforation seems unusual. The example from Carrow-James, Co. Mayo (No. 20 in the schedule of Class I razors and fig. 5) is closest though again an example from the "Old England" collection of razors is similar (Wheeler 1929, pl. 1, fig. 2/4). T. 28 may be earlier in date than T. 27, but it bears some resemblance to the razor from the Glentool hoard (*P.S.A.S.*, LV (1920-1), 32, fig. 1/10), though this has no perforation; this hoard we have seen is to be dated within the Late Bronze Age (see section under chisels). It would appear that T. 28 is less of a hybrid than either the Glentool or Adabrock examples (Nos. 79 and 81 in C. M. Piggott's schedule) and so may be earlier in date; like T. 27 in the 6th century. However the Middle Bronze Age dating of some Class I razors might be considered as evidence of a much earlier occupation of Traprain Law. (*Cf.* Butler and Smith 1956, 20-52.) T. 28 belongs to their Class 1A though it is not included in their additions to C. M. Piggott's list. In view of the stratification of T. 28 it seems more likely to be a late survival of an earlier type.

- T. 29. **PENANNULAR ARMLET**, bronze. About one-third of a penannular armlet with a flattened expanded termination; external diameter about 2.5 ins. Common Bronze Age type (XI.14.45, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 165, fig. 21 and *P.S.A.S.*, LV (1920-1), 167, fig. 10/18.

This type (Miss Benton's Type 1, *P.S.A.S.* LXV (1930-1); 183-4), occurs both in gold and bronze and there are numerous examples in Scotland, England and Ireland. It is of interest to note that examples in bronze occur

in the Balmashanner, Angus hoard (*P.S.A.S.*, LVII (1922-3), 144 and references) with small penannular gold rings of triangular section, axes, and part of a bronze bowl among the other objects, and in the Braes of Gight hoard, Aberdeen (*P.S.A.S.*, LVII (1922-3), 146 and references) with a Class I razor and a type of necklet found in Alsace and datable 500-400 B.C. These other examples would seem to confirm the Late Bronze Age dating of T. 29, probably Late Bronze 2.

- T. 30.* **PENANNULAR RING**, bronze. Triangular section 1.05 ins. in diameter. Diameter of hole 0.4 in., corroded. Inner thickness 0.2 in. (1924.224.T3). *P.S.A.S.*, LVIII (1923-4), 251, fig. 8.

This object appears to be unique and no parallels to it exist in bronze, though a tiny ring, badly cast, from the Torostan Collection (N.M.A.E. DO38) may be an imitation. The Covesea Cave examples are, however, remarkably similar in shape if not finish (see below). Cree cited an example in Déchelette, II 3, 924, fig. 390/16 but it is not possible to see an exact similarity. However there are parallels, either in hollow gold (Evans, 390, fig. 489) or in bronze covered with gold plating, Covesea Cave (*P.S.A.S.*, LXV (1930-1), 182, fig. 5). St George Gray (1925, 141-4), discussed penannular rings of triangular section in gold, and Abbé Favret (1928, 16-33), discussed the same ornaments, listing three from French finds in bronze, of which the Choussy, Loir et Cher example seems cast, the St Martin-sur-le-Pré, Marne, plated in gold and the Venat, Charente, made of bronze sheets. He points out how the trick of plating bronze with gold is a Hallstatt device and suggests the French examples must be imitations of the Irish. But the Venat hoard is Late Bronze Age which would make these ornaments roughly contemporaneous in France and the British Isles. The Traprain example may have been intended to be gold plated. These ornaments possibly served as decorations for the hair. (I am grateful to J. D. Cowen for the identification and the French reference.)

- T. 31.* **HOLLOW RING**, bronze. 1.3 in. external diameter. Diameter of hole 0.55 in. Transverse perforations through ring on opposite sides, approx. 0.35 in. wide (1923.228.Q4). *P.S.A.S.*, LVII (1922-3), 193, fig. 6.

This again is unknown in Scotland but Evans, 399, and fig. 496 quotes the example from Trillick, Co. Tyrone, where there was a pin passing through two such rings. The Llangwyllog, Anglesey, hoard (*Arch. Camb.* 3rd Ser. XII (1866), 97) contained a similar ring as well as a razor, armlet and bronze button (both akin to the Heathery Burn examples). Though rare, T. 31 can be assigned to a Late Bronze Age context, on the basis of the Trillick and Llangwyllog associations.

- T. 32.* **GIRDLE-RING**, bronze ring with a fine dark purple patina passing through a loop of bronze. The ring measures 1.5 ins. in external diameter, 0.9 in. internal diameter, with a circular, cross section 0.325 in. The loop is 0.6 in. in breadth with upturned edges. Projecting from the loop is a tongue 0.45 in. long, 0.35 in. broad with a perforation 0.1 in. in diameter, countersunk on both sides, 0.2 in. from the tip of the tongue. The patina on this loop and tongue, obviously cast in one, is not the same as that on the ring (1922.239. Ha6). *P.S.A.S.*, LVI (1921-2), 216, fig. 16.

This is probably a girdle-ring, and again parallels are not easy to find. Déchelette, II, 3, 924, fig. 396/19 figures an object like T. 32 from a La Tène cemetery in Schleswig-Holstein; and the same author has on 1232, fig. 522

belts of linked loops from women's graves of La Tène date in Bohemia, Bavaria and Jutland. Although T. 32 does not resemble these closely it seems to be of the same general type. Dr Raftery thinks that the Traprain example should be very Late Bronze Age, even early Iron Age, *i.e.*, with La Tène contacts (verbal information from Mr E. Rynne). It is, however, a common dress ornament which in Gotland at least starts in the pre-Roman Iron Age and continues into the Roman and Viking periods. (Almgren 1923, 7, fig. 7 and 8, pl. V/54-60 and pl. IX/128-31). A somewhat comparable object was found in a cemetery of the pre-Roman Iron Age in Jutland (Madsen and Neergaard 1894, 185, fig. 39). Other examples have been found in Slesvig, Holstein and North Germany (*op. cit.*). Neergaard said that their prototypes lie in Hallstatt Germany and cited Kemble, 1863, pl. XXV, 10-11. The Traprain example could therefore fit in with the general Late Bronze Age pattern and occupy the same position as the Hallstatt razor 27, a rare Continental import. But the pre-Roman Iron Age examples from Jutland, that is from the last centuries B.C., are closer to T. 32, and it should be of the same period. If this is so, it would, like the socketed iron axe 473 and the ring-head pin 93, help to bridge the transition between the Late Bronze Age occupation and the Roman period.

- T. 33. **PIN**, bronze. 3.95 ins. long. Oval flattened head. Shaft is flattened oval (1922.234.Ha6). *P.S.A.S.*, LVI (1921-22), 213 fig. 12/1.
- T. 34. **PIN**, bronze, 2.9 ins. long. Circular head, 0.5 in. diameter. Slightly bent circular shaft (1922.235.Ha6). Reference T. 34, fig. 12/2.
- T. 35. **PIN**, bronze, 1.425 ins. long. Small circular head 0.2 in. diameter. Four groups each of two incised lines decorate the shaft (1922.236.Ha6). Reference T. 34, fig. 12/3.
- T. 36. **PIN**, bronze, approx. 3.0 ins. long. Disc head, 0.14 in. diameter. Slightly bent circular shaft (1923.230.Oa4). *P.S.A.S.*, LVII (1922-3), 193, fig. 5/8 and fig. 7.
- T. 37. **PIN**, bronze, 3.425 ins. long. Flat, ovoid head, possibly broken, 0.4 in. across (1923.229.P4). Reference as above.
- These five pins, with flat disc heads, though smaller in size, resemble the group from Heathery Burn Cave, Co. Durham (Greenwell 1894, 101). Evans, 371, says pins with flat heads appear to belong to the Bronze Age and Keller, *Lake Dwellings*, pl. XXXIV, 14 and 27, has some.
- T. 38. **PIN**, bronze, 1.1 ins. long. Flattened knob-head, akin to T. 34. Broken Shaft (XI.14.42, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), fig. 25/4.
- T. 39. **PIN**, bronze, 1.05 ins. long. Flattened head, 0.45 in. diameter. Broken shaft (V.21.328, Lowest Level). *P.S.A.S.*, LV (1920-1), 172, fig. 11/17.
- T. 40. **PIN**, bronze, 0.6 in. long. Flattened head, 0.35 in. diameter. Broken shaft (V.21.327, Level 4 K). Reference as T. 39; no illustration.
- T. 41. **PIN**, bronze. Broken at head. Approx. 2 ins. long with a band of close-set incised grooves one end. Some resemblance to T. 36 (XI.14.43, Lowest Level B). *P.S.A.S.*, XLIX (1914-15).

These pins may be Romano-British but the character of the heads of

- T. 39–T. 41 resembles T. 34 fairly closely. The excavators suggested that T. 39–T. 41 were studs or small nails of some type and did not include them in the Late Bronze Age relics.
- T. 42. **BUTTON**, bronze. Badly corroded. Plain disc. Approx. 0.9 in. in diameter. Loop on back 0.25 in. deep (III.20.333, Lowest Level). *P.S.A.S.*, LIV (1919–20), 67. This button may once have been more elaborate but it is now impossible to tell.
- T. 43.* **BUTTON**, bronze. Fragile condition. Simple boss with moulded edge and bar inside. 0.825 in. in diameter; 0.325 in. deep (III.20.332, Lowest Level). *P.S.A.S.*, LV (1920–1), 167, fig. 10/19.
- These examples may be Late Bronze Age buttons like the type figured by Coffey, 92, fig. 79. On the other hand the typical Late Bronze Age button is more the type with mouldings, like the Reach Fen or Llangwyllog examples. But the button from Heathery Burn (Greenwell 1894, 103), has some resemblance, though is more elaborate type, to T. 43. Déchelette, II 1, 337, fig. 134/2 has one exactly identical to T. 42, that is in his Bronze Age. A recent paper by Von Merhart (1956) on phaleræ, or ornamental buckles suggests that some of the British so-called “buttons” may have been the central discs of similar phaleræ. The two Traprain examples are somewhat parallel to German ones illustrated by Von Merhart (*op. cit.* fig. 8, Nos. 8 and 9) within his Hallstatt group. Such identification would suit the context of the other L.B.A. objects, but must be accepted with considerable reservations at the moment, particularly as the Traprain “buttons” are so fragmentary.
- T. 44. **EARRING**, bronze. Thin sheet of bronze, with small tab bent over, approx. 0.7 in. long. Seems broken (1922.197.M5). *P.S.A.S.*, LVI (1921–2), 226, fig. 24/2.
- This earring has a close resemblance, only smaller, to one in the Migdale hoard (*P.S.A.S.*, LVII (1922–3), 128, fig. 2/11). Déchelette II 2, 841, fig. 343 (that is within his Hallstatt period in France), and again II 3, 1263, fig. 542, has examples which seem similar. T. 45 may well be a Late Bronze Age type.

CLAY TWO-PIECE MOULDS.

- T. 45. **MOULD** for casting a spear with lunate openings in the blade (1922.227.M6). *P.S.A.S.*, LVI (1921–2), 215, fig. 14/5.
- T. 47. **MOULD** for hilt of a sword, of Late Bronze Age “V” Type (1922.142.M3). *P.S.A.S.*, LVI (1921–2), 214–15, fig. 14/1.
- T. 47a. Two **MOULDS** probably for swords and connected with T. 47 (1922.143 and 144.M3).
- T. 48. **MOULD**, portion of a mould for casting a sword blade? (connected with T. 47?). Longitudinal hole, for inserting a rod to reinforce mould when molten bronze was poured in (Hodges 1954, 64). (1922.115.M2). *P.S.A.S.*, LVI (1921–2), 238, fig. 14/2.
- T. 49. **MOULD** for a sword blade. The cross-section of this example is extremely interesting as it shows clearly how the moulds were made of an inner layer of fine clay and an outer of coarser clay and sand (Hodges 1954, 62). (1922.350.N4). *P.S.A.S.*, LVI (1921–2), 248–50.

- T. 50. **MOULD**, probably for a sword blade, even the hilt part? Perforation for reinforcement (1922.351.N4). *P.S.A.S.*, LVI (1921-2), 250, fig. 14/3.
- T. 50a. Three portions of **MOULDS**, probably all to be connected with T. 49, for a sword or sword blades (1922.352, 353, 354, all N4).
- T. 51. **MOULD**, for a narrow blade (1922.237, N4). *P.S.A.S.*, LVI (1921-2), 250, fig. 14/7.
- T. 51a. Five portions of **MOULDS**, all for flat blades, probably swords (1922.358, 359, 360, 361, 362, all N4).
- T. 52. Portions of **MOULDS**, all probably for swords and parts of different moulds (1922.225 and 230.Ha6) and (1922.179.M4).
- T. 53. Portions of **MOULDS**. As T. 52. Very fragmentary and registration numbers *not* clear (1922.393?N3) and 1922.319.320.N3). Obviously represents a great number of moulds, possibly not all from this level.
- The closest analogy to these clay moulds for swords is provided by the Jarlishof examples, *P.S.A.S.*, LXVIII (1933-4), 278-83, figs. 46, 47 and 48. Indeed some of the Traprain moulds resemble so closely the Jarlishof ones, particularly in the composition of the mould itself that they might have been made by the same craftsman. Several of the hilts of Late Bronze Age swords in the Museum resemble the mould T. 47.
- T. 54. **MOULD**, portion of a socketed axe mould. Perforation for reinforcement rod (1922.226.M6). *P.S.A.S.*, LVI (1921-2), 215, fig. 14/4.
- T. 55. **MOULD**, portion of a socketed axe mould. Provided with key (V.21.303, Level 3 J). *P.S.A.S.*, LVI (1921-2), 215, fig. 14/9.
- T. 56. **MOULD**, part of an axe mould (V.21.304, Level 3 J). *P.S.A.S.*, LVI (1921-2), 215, fig. 14/8.
- T. 56a. **MOULD**, probably from a socketed axe mould (V.21.305, Level 3 J).
- T. 57. **BRONZE RUNNER**, from gate of a mould (1922.180.M4). *P.S.A.S.*, LVI (1921-2), 212, fig. 13/4.
- T. 58. **BRONZE WASTERS, LUMPS**, etc. probably to be connected with Late Bronze Age casting (1922.238 and 397,Ha6, 1923.232.Q4 and 1924.236.R3).

ROMAN AND NATIVE METALWORK. 1-573.

Brooches (bronze unless otherwise stated. 1-57.)

1. **TRUMPET**, Ri. Massive type and complete except for broken pin and corrosion at the foot. Coiled spring, head loop drawn in by a heavy collar. The excavators in their drawing show this brooch to be inlaid with silver in scrolls but none of this now remains and the inlay channels are heavily patinated (XII.15.20 Level 4 G)). *P.S.A.S.*, L (1915-16), 98, fig. 22/1.

Apart from the fact that this belongs to a different group from the famous Backworth Treasure ones, the connection between them is close. These, as Collingwood suggested, may have been made in Hadrianic or even Trajanic times (Collingwood 1930, 41) though found with coins not later than A.D. 139.

Collingwood would date Traprain 1 late 1st century A.D. (*op. cit.* 41). The use of silver as an inlay is common on the Traprain brooches of all types even on the "lowest" stratified examples (knee brooch 37) but it would hardly seem to be late 1st century or early 2nd century judging by the late 2nd century penannular fibula with inlaid silver terminals from Newstead (note comments on the use of silver p. 174). On the other hand the presence of a few Flavian coins, not associated with 1 however, would suggest that Collingwood was right in believing that Ri began in the north of England in Flavian times (Collingwood 1930i, 253). Hawkes made the interesting point which Evans also noted (A. Evans 1896, 182) that possibly the trumpet-headed La Tène III brooches from Pannonia are to be regarded as the direct inspiration for the long North British series of trumpet brooches. He is right in showing that too long a gap exists between the Aylesford La Tène III type brooch (which Collingwood took as the progenitor) and the earliest Flavian brooches. Some Panonnian brooches have been found in Britain, and the North Legion, who occupied the eastern part of England up to and beyond York, came from Pannonia under Aulus Plautus. This is the very area where Collingwood took the start of the trumpet fibula, and whence came most of his early Ri group (Hawkes 1940i, 492-5). But despite the early dating of Ri types, the Traprain example, because of the silver inlay, should be at least middle 2nd century A.D. The Newstead example, *op. cit.* pl. LXXXV/8 came from the ditch of the early fort and must be late 1st century A.D., but its plain round moulding is less developed than the Traprain example again arguing for a later date for 1. Wroxeter produced a comparable example, dated first half of 2nd century A.D. (*Wroxeter* (1942), 205, fig. 37).

2. **TRUMPET**, Rii. Coil spring, pin with axial wire of spring caught in by a bronze collar. Simple type with no ornament (XI.14.28, Lowest Level D). *P.S.A.S.*, XLII (1914-15), 166, fig. 23/1. *Newstead*, 323, pl. LXXXVI/15 is extremely close and dates to mid 2nd century A.D.
3. **TRUMPET**, Rii. Coil spring; head loop gone. No ornament. Close to 2 (III.20.312, Level 4). *P.S.A.S.*, LIV (1919-20), 65, fig. 8/1. Probably one of a pair with 4, linked by a chain fastened to each head loop. Examples have been found elsewhere.
4. **TRUMPET**, Rii. As 2 only head loop and collar gone. Spring very corroded (III.20.319, Level 4). *P.S.A.S.*, LIV (1919-20), 65, fig. 7/7.
5. **TRUMPET**, Rii. As 2 only foot pin and head loop gone. Collar seems to be cast in one with head plate (XII.15.19, Level 4 G). *P.S.A.S.*, I (1915-16), 99, fig. 22/3.
6. **TRUMPET**, Rii. As 2 only head plate much bent, head loop and pin broken (V.21.30, Level 2). *P.S.A.S.*, LV (1920-1), 194, fig. 25/1.
7. **TRUMPET**, Rii. As 2. No pin or head loop but spring remains. Broken at foot (1923.151.Q3). *P.S.A.S.*, LVII (1922-3), fig. 15/1.
8. **TRUMPET**, Rii. No pin, spring or head loop remains. (Probably a hinged pin and not coil spring). Head plate smaller but foot of the bow and moulding each side of acanthus knob ornamented with milling (1924.118, Level 2). *P.S.A.S.*, LVIII (1923-4), 260, fig. 16/1.

9. **TRUMPET**, Rii. Fragment of the bow portion. No head plate remains. The remaining part of the foot is grooved and bears a perforation in centre, possibly for enamel or a setting (1932.177). *P.S.A.S.*, LXVII (1932-3), 10. One of the brooches from Woodcuts had a similar hole in the foot (Pitt Rivers I, 43, pl. XI/5) and it is common on the headstud variety from Traprain. 9 may perhaps be the result of influence from this group.
10. **TRUMPET**, Rii. Form unchanged but the pin is now hinged and the spring enclosed. The head loop and collar are now an integral part of the head plate and cast with it. The head plate is decorated with a single volute, "the last fading expression of the characteristically late-Celtic enrichment" (XI.14.29, Middle Level D). *P.S.A.S.*, XLIX (1914-15), 168, fig. 23/2. *Newstead*, 322, pl. LXXXV/11 is presumably the origin of the Traprain design, though the *Newstead* example is of a far higher standard and its companion, No. 12, was decorated with red enamel as well. Curle dated his 11 and 12 around the turn of the 1st century A.D. and there are other examples of enamelled Rii brooches from the fort in the early 2nd century A.D. Traprain 10, however, because of its hinged pin and degenerate design, must be mid 2nd century A.D.
11. **TRUMPET**, Riv. Corroded state and acanthus knob poorly executed. Coil spring, no pin, catch plate or head loop (1922.322.M3). *P.S.A.S.*, LVI (1921-2), 233, fig. 28/1.
12. **TRUMPET**, Riv. Fragment only of head plate and bow. Acanthus knob poorly done. Coil spring missing (1922.278.N2). *P.S.A.S.*, LVI (1921-2), 254, fig. 29/6.
13. **TRUMPET**, Riv. Nearly complete except for head loop. Coil spring. Enamelled in blue and red; on the head a three-leaved figure in blue set in red which extends up bow to acanthus knob. Two small settings of blue delimit the red here. Below the acanthus knob the bow is set with red squares (XII.15.18, Level 3 F). *P.S.A.S.*, L (1915-16), 99, fig. 22/2. In style close to *Newstead* examples, *op. cit.* pl. LXXXVI/13 and 14—mid 2nd century A.D.
14. **TRUMPET**, Riv. No pin, catch plate or spring. Enamelled in red, blue and yellow. Semicircular settings of blue placed each side of a medial line in a red? yellow field. Triangular red settings decorate the bow below the knob (1922.321.N3). *P.S.A.S.*, LVI (1921-2), 250, fig. 28/2. Similar to one from Wiesbaden (Collingwood 1930, 50, fig. 7, top right).
15. **TRUMPET**, Riv. Much battered example. Coil spring (V.21.236, Level 3 J). *P.S.A.S.*, LV (1920-1), 176, fig. 15/1.
16. **TRUMPET**. Two pieces of a trumpet brooch. Impossible to tell which group, probably Riv. Coiled spring. Enamelled head design vaguely like 13, yellow enamel with blue insets (V.21.238 and 237, Level 3 K). *P.S.A.S.*, LV (1920-1), 176, fig. 15/4.
17. **TRUMPET**. Fragment of head, impossible to tell which group. Coil spring and an iron pin (V.21.312, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 12/4.
18. **TRUMPET**. Fragment of bow, silvered along the top. Hollow space in foot recalling 9 (V.21.239, Level 3 L). *P.S.A.S.*, LV (1920-1), 176, fig. 15/3.

19. **TRUMPET**, (Possibly head stud). Bow and catch plate. Foot is elaborately grooved (V.21.125, Level 2 K). *P.S.A.S.*, LV (1920-1), 184, fig. 21/4.

The evidence from Newstead suggests that all types of R were current by the mid 2nd century A.D. These enamelled, coil spring examples of Rii appear as early as the late 1st century A.D. which would suggest an early to mid 2nd century A.D. date for Traprain 13 and 14. The association of 1 and 5 indicates the contemporaneity of Ri and Rii. Traprain 10, with its hinged pin and relative closeness to the Newstead examples should be mid 2nd century A.D. also and, for what it is worth, it comes from a higher "level" than 13 which would bear out its later date. Traprain 1 is still a problem and possibly it is very early 2nd century A.D. The trumpet brooches from the 1915 excavations do fall into a series, agreeing with the stratigraphy. Thus 1 is from the lowest level and seems to be earlier than 13 on the third level. It is noteworthy how most of the Rii brooches, which Collingwood suggested was a type earlier in conception than Riv do in fact occur on the lowest levels in most years except 1921 and that enamelled versions are on upper levels. The Traprain evidence would not suggest a long life for these trumpet brooches, though certain of the Riv are very poor and degenerate and could be late 2nd century A.D.

20. **HEAD STUD, Q.** No catch plate or spring. Bow enamelled with rectangular red compartments. Square boss on bow. Hook still remains which once held loop of spring, now only functional (XI.14.21, Lowest Level A). *P.S.A.S.*, XLIX (1914-15), 166-8, fig. 23/6. As Curle remarked, this example falls midway between the Lamberton Moor example and *Newstead*, pl. LXXXVI. The Newstead examples seem Antonine and Traprain 20 is surely earlier; the use of red enamel alone is an indication of early 2nd century date. (*Cf.* Newstead example cited under 10).

21. **HEAD STUD, Q.** Somewhat corroded state; no pin, catch plate or spring. Enclosed spring but the ends of the bar on which the pin swivelled are brought round the head through an enamelled collar to finish presumably in a loop, like the trumpet brooches. The collar and head are enamelled in yellow with blue spots; the bow is decorated with blue enamel diamonds in a yellow ground. Pierced cavity on bow and one in the foot—may have held a boss or setting (1924.227, Level 3). *P.S.A.S.*, LVIII (1923-4), 252, fig. 9/2. The similarity between this and the typologically earlier Lamberton Moor one, especially in the spring arrangement, is plain but the enamel work is clearly later.

22. **HEAD STUD, Q.** Spring now fully enclosed. Crest on head instead of the hook of 20 (also present in 21). Bow decorated in exactly same style as 21. Hollow cavity and no boss on bow. Foot has a cavity with a thin pin protruding, perhaps to hold a stud of enamel or even a stone? (XI.14.20, Lowest Level D). *P.S.A.S.*, XLIX (1914-15), 166, fig. 23/7. Very similar to one from Victoria Cave, Settle (Boyd Dawkins, *Cave Hunting*, p. 99 front fig. 1).

23. **HEAD STUD, Q.** Almost identical with 22. Enclosed spring; blue diamonds on bow with yellow triangles. Crest above cavity on bow. These cavities have small holes as if to hold a bronze pin which would keep the setting in place (*cf.* 25) (V.21.123, Level 2 J). *P.S.A.S.*, LV (1920-1), 184, fig. 21/2.

24. **HEAD STUD, Q.** Similar to 22, without the enamelling of the bow. Instead two opposing crescents of blue enamel are set in triangular compartments of decayed enamel, each side of the cavity. Usual crest and hollow spaces on bow and foot (XI.14.31, Upper Level). *P.S.A.S.*, XLIX (1914-15), 169, fig. 24/3. The motif of two crescents appears on a trumpet brooch from Saalburg (*cf.* Collingwood 1930, 50, fig. 7).
25. **HEAD STUD, Q.** Complete cast head loop and collar. No pin, broken catch plate. Spring enclosed in solid bar. Arms of the head plate grooved to imitate the original wire spring. Foot is decorated in a way reminiscent of 8 while the base of the foot is close to that of 9. On the bow is a bronze rosette fastened with a thin pin and washer (V.21.311, Level 4). *P.S.A.S.*, LV (1920-1), 169, fig. 12/1. The rosette is remarkably similar to those on the bronze mountings from Balmaclellan (*P.S.A.S.*, VII (1866-68), 349) and those on the brass strip from Newstead, pl. LXXV/5 which is dated to the 80's of 1st century A.D. 25 however cannot be as early as this but, despite Curle's assertions that it is late 2nd or even 3rd century, it must be mid 2nd century at least, judging by its similarities to 8 and 9.
26. **HEAD STUD, Q.** Simple type. Cast collar and head loop. No cavity on bow. Seems degenerate (V.21.124, Level 2 J). *P.S.A.S.*, LV (1920-1), 184, fig. 21/3.
27. **HEAD STUD, Q.** Cast ring and collar. Loop broken. Enclosed spring. Cavities on bow and base of foot. Remnants of a bronze strip extending from crest over cavity—perhaps, like the grooved arms, copy the spring in imitation of the loop of the wire spring once held there by a hook (*cf.* 20). This example could be earlier than 26 (III.20.186, Level 3). *P.S.A.S.*, LIV (1919-20), 78, fig. 12/1. *Cf.* *Newstead*, pl. LXXXVI/21 and 22 for close parallels, these are however enamelled.
28. **HEAD STUD, Q.** Cast ring, collar, enclosed spring, hinged pin. Grooved arms; cavities on bow and base of foot (1924.228, Level 3/4). *P.S.A.S.*, LVIII (1923-4), 252, fig. 9/3. Again probably earlier than 26.
29. **HEAD STUD, Q.** Almost identical with 28, except that foot is broken. Head loop remains; also the cast collar and crest (V.21.122, Level 2 I). *P.S.A.S.*, LV (1920-1), 184, fig. 21/1.
30. **HEAD STUD, Q.** Very close to 29. No head loop but cavities on bow and foot, plus thin pin protruding from centre of latter hollow. Bow is inlaid with silver? (V.21.310, Level 4). *P.S.A.S.*, LV (1920-1), 169, fig. 12/2.
- This group of brooches, as Collingwood showed, began in the early 2nd century, and the contacts between it and the trumpet brooch series must indicate contemporary manufacture and development. The typologically earliest example from Traprain, 20, does come from the lowest "level" but 22 also came from the lowest "level" in an adjacent area. 22 seems closest to the Newstead examples cited and these are Antonine and after. I would be inclined to put the head stud brooches early to mid 2nd century and continuing late into the century.
31. **DRAGONESQUE.** Part of head of one of these brooches with pin. No trace of enamelling. Moulding in relief on bar (XI.14.23, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 170, fig. 24/1. Falls into Feachem's class of

dragonesque with decorative elements in relief (Feachem 1951, 43). Bulmer's 3 (1938).

32. **DRAGONESQUE.** Ear and snout portion of similar brooch. Enamelled in red on ear (XI.14.22, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 170, fig. 24/2. Possibly comes under Feachem's class ii of dragonesque with lozenge motif on body. Bulmer's 21 (*op. cit.*).
33. **DRAGONESQUE.** Ear, snout and most of body. Much corroded. Panel of ? green enamel (probably faded blue) squares on body (III.20.315, Level 4). *P.S.A.S.*, LV (1919-20), 65, fig. 8/3. Feachem's class iv—single row of squares. Bulmer's 19 (*op. cit.*).
34. **DRAGONESQUE.** Almost complete brooch with remains of pin. Enamelled probably like 33 (III.20.314, Level 4). *P.S.A.S.*, LIV (1919-20), 65, fig. 8/2. Feachem's class iv. Bulmer's 18 (*op. cit.*).
35. **DRAGONESQUE.** Complete example but very fragmentary and broken snout. Blue enamel "eyes" with yellow surrounds. Body ornamented with lozenges of yellow enamel, bordered on each side by a trumpet-shape in blue, enclosing a yellow spot, on a red? ground. Ear enamelled with red as in 32 (1922.323.N3). *P.S.A.S.*, LVI (1921-2), 250, fig. 28/3. Feachem's class ii with lozenges. Bulmer's F. 3 (*op. cit.*).
36. **DRAGONESQUE.** Almost complete except for broken ear. Unenamelled. Shows wear caused by the pin (1922.150). *P.S.A.S.*, LVI (1921-2), 251, fig. 28/4. Feachem's class of unenamelled brooches (others are from Braughing, Herts. and Meols, Cheshire). Bulmer's 6 (*op. cit.*).
- Feachem dates these brooches from mid 1st century to latter part of 2nd century. Certainly the fragment of one from Borness Cave with a piece of terra sigillata D. 27 (if the association is to be relied on), would imply an early beginning. Traprain 31 and 32 may be close. It is noteworthy however that none came from the lowest level of the 1915 excavations which produced late 1st century coins and early brooches, e.g. trumpet 1. Number 35 with its eye resembles the Lamberton Moor example, and 33 and 34 must be typologically close to this one. We have seen how the Lamberton Moor must be early 2nd century (*cf.* under 20), and this would give a early/mid 2nd century date for 33, 34 and 35. This agrees with the mid 2nd century date already given for 3 and 4 from the same level. 36 is unusual and in view of its parallel from Braughing, one recalls the highly enamelled bronze bowl from the same place, and its relation from Linlithgow (F. Henry 1933, 114, fig. 25/2 and 6): these she dates to around the 1st/early 2nd century A.D. Collingwood said that the dragonesque brooch had a very short life and the Traprain evidence confirms this, since there are relatively few examples and all come from the lowest "levels."
37. **KNEE.** V. Plain type; enclosed spring; pin and catch-plate lost. Rudimentary loop on head. Small rosette in silver on left of bow (XI.14.26, Lowest Level A). *P.S.A.S.*, XLIX (1914-15), 166, fig. 23/4.
38. **KNEE.** V. Like 37. Fatter bow and foot. Six-pointed silver star on bow; silver spots along each side, silver inlay on head and possibly foot. Much of this silver has now gone (XII.15.16, Level 3 F). *P.S.A.S.*, L (1915-16), 97-98, fig. 22/4.

39. **KNEE, V.** Enclosed spring as usual. Head plate projects like a fan and is inlaid with crescentic yellow strip. Bow inlaid with ?silver and three spots of silver equidistant each side of bow (XII.15.17, Level 3 F). *P.S.A.S.*, I (1915-16), 98, fig. 22/5. Cf. Pitt Rivers, I, pl. X, fig. 7 from Rushmore.
40. **KNEE, V.** Like 38 in shape. Undecorated. No pin left (XI.14.27, Lowest 1 A). *P.S.A.S.*, XLIX (1914-15), 166, fig. 23/3. Various good parallels from *Newstead*, pl. LXXXVII, fig. 31 and 32 or Camelon, *P.S.A.S.*, xxxv (1900-01), 403, fig. 43.
41. **KNEE, V.** As 40 only thinner bow. Undecorated (1922.193.M5). *P.S.A.S.*, LVI (1921-2), 224, fig. 20/3.
42. **KNEE, V.** As 38; fluted effect given to bow. Enclosed spring, catch-plate, no pin (1924.119.R2). *P.S.A.S.*, LVIII (1923-4), 260, fig. 16/2.
43. **KNEE, V.** As 41. Undecorated (1924.120.T2). *P.S.A.S.*, LVIII (1923-4), 260, fig. 16/3.
44. **KNEE, V.** As 43 (1924.229.S3). *P.S.A.S.*, LVIII (1923-4), 252, fig. 9/4.
45. **KNEE, V.** As 41 (1923.152.Q3). *P.S.A.S.*, LVII (1922-3), 200, fig. 15.

These are all examples of a group which is supposed to belong to the latter part of the 2nd century A.D. being introduced from abroad. But 38 and 39 occur on the same level and area as a second brass of Domitian. However the evidence would imply that knee fibula on Traprain are not as early as late 1st century but not as late as 2nd century. They turn up in the lowest levels ornamented with silver, and Traprain 1 has shown the existence of this trick in the early years of the 2nd century. 42 to 45 are admittedly degenerate and in upper levels but I cannot see why, with the associations of early/mid 2nd century headstud and trumpet brooches, some of the knee brooches should not also be early. Yet the *Newstead* examples seem well established in the mid 2nd century. On the other hand 37 and 40 occur in the same level and area as head stud 20 which seems early to mid 2nd century A.D.

46. **PLATE ON BOW, Sii.** Trumpet-headed like R with a circular disc on bow. This disc has four projecting points at equal distances apart. The brooch has been enamelled but is now very corroded. Catalogue reports that the disc is "outlined in gold, filled in with red enamel and a spot of silver in the centre. Silver inlay along the bow to the head and spots of silver on the foot." Coiled spring type but cast head loop—very near the enclosed spring type (III.20.185, Level 3). *P.S.A.S.*, LIV (1919-20), 78, fig. 12/2. This is the brooch quoted by Jope (1951, 59) as having "enamel spots" along the side of the bow. It seems clear that the spots really are silver.
47. **PLATE ON BOW, Sii.** Very similar to 46 only larger. Still coil spring type but enclosed in compartment like knee brooches 37, 39, etc. Silver inlay along medial line of bow and head; three silver spots each side of foot. Disc has circle of blue enamel between two of silver and in the centre red enamel with silver spot. Like 46, enamel and silver are decayed (V.21.234, Level 4 I (Catalogue has Level 3)). *P.S.A.S.*, LV (1920-1), 169, fig. 12/3. Parallels at *Newstead* (*op. cit.*) pl. LXXXVI, No. 25, 24, Woodcuts, Pitt Rivers, I pl. X/3) and elsewhere.

48. **DISC**, from a brooch like 47. Blue enamel in centre. Two opposed perforations indicate method of fastening this onto the bow of the brooch by using a small pin to hold it in place (V.21.137, Level 2 K). *P.S.A.S.*, LV (1920-1), 188, fig. 21/16.
49. **FANTAIL AND PLATE**, Siii. Brooch akin to 46 only the head resembles a head stud type and the foot is now fantail in shape. The disc on the bow is of blue enamel, surrounded by red, and then blue. The fantail is enamelled with three diamonds in blue with yellow enamel triangles between. Pin is hinged and head loop cast (1924.230.T3). *P.S.A.S.*, LVIII (1923-4), 251, fig. 9/1. Remarkably similar to a 1st century example from Colchester (*B.M. Guide* (1951), fig. 11/25).

These brooches derive from the trumpet-headed type but are probably influenced by the head stud variety. Though 49 is much more likely to be influenced from Group X (bow and fantail) which in turn derives from Group W (the thistle type). This is a foreign Claudian type which lends currency to the early date (*e.g.* Colchester derivative example). Therefore Siii must start early. Yet its hinged pin suggests a later date. It looks as though 49 came direct from Eastern England and it occurs in a low level. 46-48 are all however good 2nd century types, and again illustrate the interaction between Groups R, Q and V.

50. **BAR BROOCH**. Unusual example in an alloy of copper. Rectangular plate inserted between the head loop and foot. This plate is enamelled in squares, the central vertical one being "turquoise blue" and yellow alternately. The other two are red and yellow alternately. Small boss below plate. Head loop ornamented with diagonal lines while collar has row of small pellets. Hinged pin (V.21.235, Level 3 K). *P.S.A.S.*, LV (1920-1), 176, fig. 15/2.

A very similar brooch in the N.M.A.E. comes from Peebles (FT. 66) and Collingwood figures one (1930 i, fig. 61/29). Probably mid to late 2nd century.

51. **DISC**, Beautifully enamelled disc brooch with pin. Enamelling now tarnished with copper oxide but once consisted of a central blue/green dot surrounded by a ring of triangles alternate white and blue, and again a ring of alternate red and yellow triangles (XI.14.25, Lowest Level A). *P.S.A.S.*, XLIX (1914-15), 168, fig. 23/5.

This is closely paralleled by the Camelton example (*P.S.A.S.*, xxxv (1900-1), 405, pl. A/2 dated between A.D. 80-180) and the Wroxeter one (*op. cit.*, I, 26, fig. 10/9 with coins of Vespasian). A more elaborate example was found in the baths at Newstead in a context which suggests early/mid 2nd century (*op. cit.*, pl. LXXXIX, 20). In view of the stated association of 51 with knee fibulae 37 and 40, one is inclined to give them all an early 2nd century date.

52. **DISC**. Corroded oval-shaped brooch, probably once round. Pin lost, though rivet for holding it extant. No enamel and flat-topped (V.21.249, Level 3 L). *P.S.A.S.*, LV (1920-1), 176, fig. 15/6. The example from Borness Cave, Kirkcub. is similar (*P.S.A.S.*, x (1872-4), 492, pl. XVII/134), and we have noted already the fragment of an early dragoon-like brooch from there (*cf.* under 36). But both these disc brooches look degenerate and a mid/late 2nd century seems more plausible.

53. **P-SHAPED**, T. Iron. Uncommon cross-bow type devoid of ornamentation; seems to have been gilt. Hinged pin and "safety-pin" type catch-plate (1923.63.Q2). *P.S.A.S.*, LVII (1922-3), 208, fig. 20/1. This type was rare in Britain till the 3rd century and No. 53 is unusual anyhow (*cf.* Collingwood 1930, i, 256, fig. 63/75). Its position in an upper level would suggest a late date. (*Cf.* a parallel from Panonnia, Kovrig 1937, pl. XVI/166 also *Saalburg* 1897, pl. XXXXIX/8.) These crossbow brooches appear in the German Limes forts in the early 2nd century (see Bushe-Fox's comments in *Richborough* II, 44-45).
- 54 and 55. **IRON BROOCHES**. Formed from a single plate of iron c. 2-3 ins. long with spring formed by coiling the end. The bronze pin (only remains on 54) passes up the spring in a groove. Very fragmentary condition. 54 appears to have a stud? at the foot (XII.15.21 and XII.15.22, Level 3 area A (terrace cutting) and Level 4 F respectively). *P.S.A.S.*, L (1915-16), 99, fig. 22/6 (only 54). Parallels to these odd brooches are not common; indeed they are extremely ill-fitted to be brooches. But the Dunagoil fort yielded a somewhat similar type an inch longer, which would agree with the probable early 2nd century dating of 54 and 55 given by other finds from the same area (T.B.N.H.S. IX (1925), 56 ff., pl. 43). The Harlow "Temple" site also produced a vaguely similar type (*Ant. J.* VIII (1928), 308, fig. 4/1), with a more arched bow, dated to last quarter of 1st century A.D.
56. Fragment of a **BROOCH** formed of silver wire wound round a small T-shaped piece of bronze. May possibly have been a brooch (XI.14.24, Lowest Level A). *P.S.A.S.*, XLIX (1914-15), 171.
57. **OBJECT** uncertain whether a clasp or brooch. Bronze, about 1 in. long, a long oval shape with the ends bent under. Could have fastened the two edges of a neck opening (1923.239.Q). *P.S.A.S.*, LVII (1922-23), 194, fig. 9. The excavators likened it to a Frankish type of ornament; but it must surely be Roman. Lochlee Crannog produced a much larger but similarly curious type of brooch (Munro, *A.S.L.D.* 129, fig. 141) and, though not associated, an early head stud brooch like Lamberton Moor and Traprain 21. *Cf.* also *Isca Silurum* (1862), pl. XXXI/16 which is called a cloak fastening.
- Penannular Fibulae*. (Bronze unless otherwise stated) 58-94.
- Class I with milled/grooved knobs.
- Class II with rounded/bulbous knobs.
- Class III with zoomorphic or pinched terminals.
58. **CLASS I** milled knobs, broken pin (XI.14.19, Lowest Level D). *P.S.A.S.*, XLIX (1914-15), 165, fig. 22/2.
59. **CLASS I** as 58; more of pin remains plus signs of wear on ring where pin swiveled (XI.14.18, Level 3 D). *P.S.A.S.*, XLIX (1914-15), 165, fig. 22/1.
60. **CLASS I** as 58; ring of pin only (XII.15.14, Level 3 F). *P.S.A.S.*, L (1915-16), 101, fig. 23/2.
61. **CLASS I** as 58 only knobs flatter and milling not so precise. Pin broken off short (XII.15.13, Level 3 F). *P.S.A.S.*, L (1915-16), 101.

62. **CLASS I** as 58, one knob gone and only fragment of ring of pin left (XII.15.15, Level 3 F). *P.S.A.S.*, L (1915-16), 101.
63. **CLASS I** as 58; knobs very poorly milled. Ring of pin plus tongue which has broken off completely (III.20.316, Level 4). *P.S.A.S.*, LIV (1919-20), 65, fig. 7/10.
64. **CLASS I**. Possibly a cross between Class I and Class II as the terminals are both bulbous and slightly milled. Appears to be two mouldings below terminals, but very corroded (III.20.317, Level 4). *P.S.A.S.*, LIV (1919-20), 65, fig. 8/5.
65. **CLASS I** as 58 but a perfect example with pin complete and beautiful patination (V.21.314, Level 4 K). *P.S.A.S.*, LV (1920-1), 171, fig. 12/7.
66. **CLASS I**, but with milling over top of terminal and mouldings below. Rudimentary barrel-shape to pin end (V.21.313, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 12/5.
67. **CLASS I** as 58; no pin (V.21.127, Level 2 J). *P.S.A.S.*, LV (1920-1), 184, fig. 21/5.
68. **CLASS I** as 58; very battered terminals; no pin (1922.116.M2). *P.S.A.S.*, LVI (1921-2), 236, fig. 29/1.
69. **CLASS I** as 58 but terminals crudely milled, more hat-shaped (1923.153.Q3). *P.S.A.S.*, LVII (1922-3), 200, fig. 13/6.
70. **CLASS I**. One side only with crudely milled terminal (no registration Level Q3). *P.S.A.S.*, LVII (1922-3), 200.
71. **CLASS I**. Terminals like 69, 70. No pin (1924.231.53). *P.S.A.S.*, LVIII (1923-4), 253, fig. 5/16.
72. **CLASS I** as 58, only one terminal extant; pin remains (1924.121.52). *P.S.A.S.*, LVIII (1923-4), 260, fig. 15/4.
73. **CLASS I** as 58; one terminal fully milled, the other only partially. Broken pin but a stray pin fits break (1924.82.T1). *P.S.A.S.*, LVIII (1923-4), 277, fig. 20/2.
- 74,* 75 and 76. **CLASS I**. All practically complete examples with finely milled terminals and well-shaped pins (1934: 72, 73 and 74). All "found" near Quarry at eastern end of hill.
77. **CLASS II**. Half a brooch only, no pin. Terminal is dome-shaped with raised collar/moulding below (XII.15.9, Level 4 F). *P.S.A.S.*, L (1915-16), 101, fig. 23/1.
78. **CLASS II**. Complete example, corroded, broken pin. Terminals are flattened down (XII.15.10, Level 3 F). *P.S.A.S.*, L (1915-16), 101.
79. **CLASS II**. Small part of a brooch; roughly rounded terminal (XI.14.30, Level 2 D). *P.S.A.S.*, XLIX (1914-15), 70.
80. **CLASS II**. Half a brooch, very corroded with end of pin rusted on. Possibly iron? Dome-terminal. (XII.20.284) no references.

- 81.* **CLASS II.** Almost perfect example, pin broken at end. Terminals are like 58 in shape, moulding below, and provided with a small hole in the top, for enamel or a stud? (V.21.315, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 12/6.
82. **CLASS II.** Two very similar halves of a brooch. Rounded knobs with slight moulding below. Probably not connected (V.21.241 and V.21.240, Level 3). *P.S.A.S.*, LV (1920-1), 176, fig. 14/7 and 8.
83. **CLASS II.** Two halves of a brooch, identical knobs and could have been joined. Traces of a pin on one (1922.149.M3). *P.S.A.S.*, LVI (1921-2), 233, fig. 29/11.
84. **CLASS II.** Half a brooch; massive knob terminal with careful mouldings below (1923.154.Q3). *P.S.A.S.*, LVII (1922-3), 200, fig. 13/7.
- These two classes are a common type on most Roman sites and all the Traprain examples are comparable. All except 64 and 84 are about the same size, c. 1 in. in diameter. Appears at Glastonbury, and at Newstead in 2nd century (*Op. cit.*, pl. LXXXVIII). Number 3 of that plate is close to 84 while 9, 11, 12 and 16 can be matched easily in the Class I range at Traprain. The prototype of Class I and II is presumably Type A at Camulodunum where the ends are coiled back on themselves, (*Camulodunum* (1947), 326). But the type from which Class II could have derived was present at Maiden Castle, Dorset, in the 1st century B.C. (*Maiden Castle* (1943), 264, fig. 86/2) and therefore the existence of both solid cast and coiled terminals must be allowed for when considering these brooches. However the milling of the knobs or the elaboration of the knobs with mouldings was developed especially in the north in the 2nd century A.D. It is noteworthy that both Class I and II are concentrated in Levels 4 and 3, only 4 examples of I coming from either Level 2 or 1 and only 1 of Class II coming from Level 2. The majority of these must be 2nd century A.D.
- 85.* **CLASS III.** 1.7 ins. diameter. All but one terminal of a brooch with zoomorphic terminals. Carefully modelled and cast as a whole (XII.15.12, Level 3 F). *P.S.A.S.*, L (1915-16), 101, fig. 23/5. Listed as 9 (Kilbride-Jones, 1937).
- 86.* **CLASS III.** Half of brooch; remains of iron pin rusted on. Terminal not like 85 as although cast it shows signs of its original doubling back. Constriction however on centre of terminal plus medial groove as on 85. Typologically earlier than 85? (XII.15.11, Level 3 F). *P.S.A.S.*, L (1915-16), 101, fig. 23/4. No. 5 (Kilbride-Jones, 1937).
- 87.* **CLASS III.** 1.7 ins. diameter. Complete example with well shaped barrel-ended pin. Terminals like 85 only less sure and flatter (III.20.66, Level 2 F). *P.S.A.S.*, LIV (1919-20), 88, fig. 19/1. No. 11 (Kilbride-Jones 1937).
88. **CLASS III.** Half of brooch; again terminal made to look doubled back. Cruder than 86 (1922.184, Level 4). *P.S.A.S.*, LVI (1921-2), 246.
- 89.* **CLASS III.** 2.4 ins. diameter. Complete example with beautiful well-moulded, barrel pin-head. Terminals are enamelled in a diamond in yellow on the head. One arm of the brooch has fine lines engraved on it (1924.81.R1). *P.S.A.S.*, LVIII (1923-4), 277, fig. 21. No. 8 (Kilbride-Jones 1937).

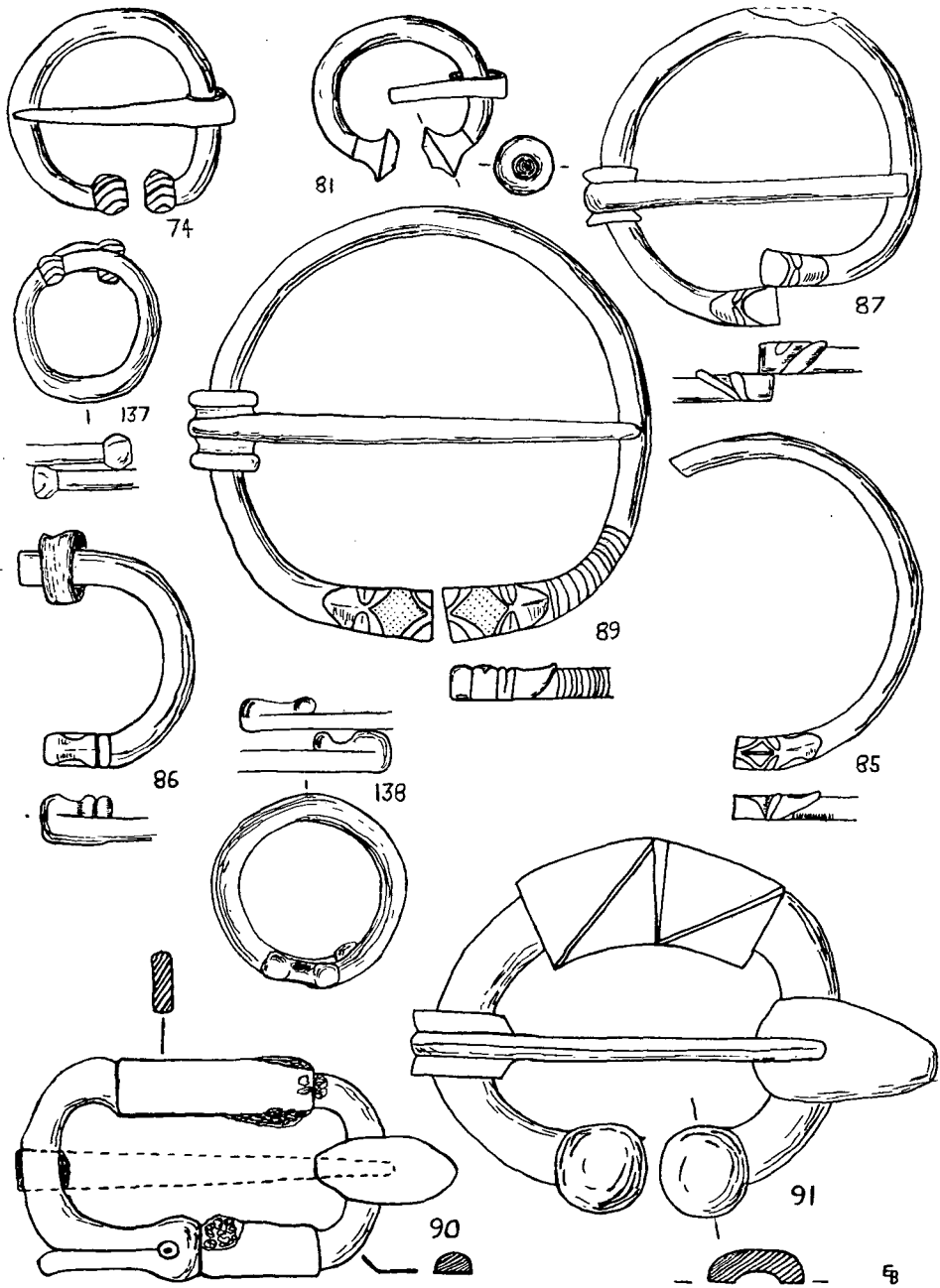


Fig. 2. Traprain Law: Penannular Brooches and Finger Rings. (†)

A full discussion of this class, together with the allied pins, will be found in the main body of the work. Here let it suffice to say that Kilbride-Jones in his 1936 and 1937 papers seems to strain the stratigraphy of the levels at Traprain too far and produces a relative and absolutely chronology plus a typology on the basis of five examples. Thus 89 is put earlier than 87 despite its obviously more competent and developed handling of the pin-head moulding, the more skillful modelling of the terminals and its higher stratification. 85 is put into a late 2nd century context, though occurring in the same level and area as trumpet brooch 13 which must be mid 2nd century. He also implies that 86 is the earliest zoomorphic penannular fibula in Scotland, from the same level and area as 85, while 88 is ignored. The Newstead example (*op. cit.*, pl. LXXXVIII/1) from the Retentura is obviously the prototype of 88 which is, however, more degenerate. A point of interest is that, while this class of penannular brooch is more or less evenly distributed over the "levels," the pins of the comparable class are concentrated in the lower "levels."

- 90.* **UNUSUAL ANNULAR BROOCH.** Oval in shape with the pin running parallel to the long sides. About 2.3 ins. long, 1.2 ins. broad. On one side the ring expands into a flat oblong plate while on the opposite a similar but smaller plate abuts against the head of a curve made by turning back one end of the rod. The annular character is thus suggested. The pin worked on a collar and its point rested on a lozenge-shaped plate. R. B. K. Stevenson has suggested, in conversation, that this plate may have derived from the pins with spade-shaped points. The points became unsatisfactory in wear but were retained as an integral part of the brooch while the pin resumed a normal form. The whole has a silvery appearance from being coated with tin (V.21.126, Level 2 J). *P.S.A.S.*, LV (1920-1), 184, fig. 21/6.

This brooch is a puzzle being neither a true penannular brooch nor a buckle as the pin works the wrong way. The curved-back end is very corroded but may have once been a bird's head (cf. *Lydney* (1932), 78, fig. 14 and *Llanferres, Denb.* in Savory, 1956, pl. V/a). Note also the pins with ring heads and bird-like terminals found in Ireland (*Lagore* (1950), 75, fig. 17). Presumably these are later developments of the *Lydney* type which, as Savory (1956, 48) notes, may have influenced the development of the zoomorphic terminal. No really good parallels to 90 exist anywhere except for a vague example from Caerleon (*Isca Silurum* (1862), pl. XXXI/9) where the animal is biting its own tail, is oval-shaped and may have been a brooch; no pin remains.

- 91.* **PENANNULAR BROOCH.** Large brooch, tinned bronze, roughly circular, 1.8 ins. diameter. Resembles 90 in that one side bears a plate, curved now to the curve of the brooch, and ornamented with two diagonal lines thus dividing the plate into two. Opposite this the terminals of the brooch do not join but form round, slightly domed knobs, about 0.5 in. diameter. The pin, which is bronze, lies like that of 90 on a lozenge-shaped plate, but the head of the pin is barrel-shaped like 87. The pin could not have moved far so the resemblance to a true penannular brooch is not close (1932.87). *P.S.A.S.*, LXVI (1931-2), 215, fig. 1. Quarry find.

This again is an oddity and parallels are not easy. It looks as though 90 and 91 were made by an experimenter not sure of his trade. Thus the pin of 91 is close to that of a true zoomorphic brooch and the ornament on the

plate is identical with that on the terminals of an Irish brooch, no locality (Kilbride-Jones 1937, Group C, 39, of mid 4th-century date). The dome-shaped terminals seem right out of context though there are vague similarities in brooches of the Viking period (Du Chaillu, II, 329) but nothing certain. It might even be medieval in date.

92. **PENANNULAR BROOCH**, very corroded and fragmentary (V.21.241, Level 3).
 93. Fragment of **PENANNULAR BROOCH** (V.21.16, Level 3).
 94. Three fragments of **PINS** from penannular brooches; one is registered (1922.282.N2).

Pins (all bronze unless otherwise stated). 95-136.

Divided into: Class I Ring headed.

Class II Zoomorphic headed.

Class III Beaded or Rosette-headed.

Class IV "Proto hand-pin."

Class V Miscellaneous and Indeterminable.

95. **CLASS I**. Unusual type with solid cast head, 0.8 in. diameter. Concavities each side of head, to suggest a hollow ring. Shallow grooving round centre of head and round each concavity. Pin stem, in same plane as head, is shouldered, 2.95 ins. long (1922.103.Ha1a). *P.S.A.S.*, LVI (1921-2), 215, fig. 15. Point downwards in a circle of stones.

Although an unusual type, it is presumably related to the British series of ring-headed pins (Dunning, 1934). Its nearest parallel is the cast pin from Dunagoil, where the head is a true ring and decorated with grooving like 95 (*T.B.N.H.S.*, ix (1925), 56, pl. 41; re-illustrated *P.S.A.S.*, LXXXIV (1949-50), 130, fig. 11). This example is equated with a La Tène II brooch. Despite the find position of 95, it must come into the same Early Iron Age of Scotland as the other crook and ring-headed examples, from the late 1st century B.C. onwards. The evidence from Bonchester suggests that the crook-headed pin there belongs to the early period around the 1st century B.C./A.D. The Dunagoil ring-head pin and the crook-headed one must be approximately contemporary which would make the Traprain one also early 1st century A.D. (C. M. Piggott 1950, 129-32). Though it may have been an heirloom which would account for its deposition on an upper level (*cf.* also an Irish example, no provenance in the National Museum, Dublin, figured by Dunning, *op. cit.* 1934, pl. 1/2).

96. **CLASS I**, not cast but wire ring-head, broken on one side, projects slightly from stem (XII.15.24, Level 3 F). *P.S.A.S.*, L (1915-16), 102, fig. 23/8.
 97. **CLASS I**, as 96 but complete head. Join is visible (XII.15.23, Level 3 F). *P.S.A.S.*, L (1915-16), 102, fig. 23/7.
 98.* **CLASS I**. Cast ring-head, bevelled internally. Head projects in plane parallel to pin stem (1924.232.53). *P.S.A.S.*, LVIII (1923-4), 253, fig. 10.
 99. **CLASS I**, as 98 with bevelling internally from back and front. Stem is curved (XI.14.37, Level 2 A). *P.S.A.S.*, XLIX (1914-15), 171, fig. 25/3.

100. **CLASS I.** Cast ring-head of iron, much thicker and clumsier, otherwise as 98 (III.20.204, Level 3). *P.S.A.S.*, LIV (1919-20), 84, fig. 15/7.
101. **CLASS I**, as 100, iron, more finished. Both 100 and 101 have larger heads than the bronze ones, 0.35 in. compared to 0.225 in. external diameter (1924.115.T1). *P.S.A.S.*, LVIII (1923-4), 277.
Like 95, 96-101 fall into the class of ring-headed pins and illustrate the progressive development of the type. 95 is representative of a type where the head and stem lie in the same plane. 96-101 develops from the plain wire kind, still current in S. England in late 1st century B.C. as at Maiden Castle, under the influence either of the Late Bronze Sunflower pin or of a rare Southern type with double stem and projecting head (again at Maiden Castle), cf. Stevenson (1955, 288). 96 and 97 came from the same level and area as trumpet brooch 13, which has a mid 2nd century date. But 99 was associated with 2nd century Samian (*P.S.A.S.*, XLIX (1914-15), 171) which suggests that the development from a wire ring head to a cast one took place very quickly. The Moredun iron pin with 2nd century fibula bears this out (*P.S.A.S.*, xxxviii (1903-4), 433, fig. 5, (see Childe 1935 and Dunning 1934 for comments on the Scottish examples and Stevenson *op. cit.* for recent opinions). It is a type of pin which obviously had a long life.
- 102.* **CLASS II**, Cast head, rounded with slightly raised snout. Seems typologically earlier than 87. Tiny incised lines round stem below snout. Corrosion noticeable (XI.14.39, Lowest Level A). *P.S.A.S.*, XLIX (1914-15), 171, fig. 25/1. Pin No. 3 (Kilbride-Jones 1937).
103. **CLASS II**. Very close to 102 but much longer, c. 6.3 ins. long. Same incised band of lines below snout (III.20.184, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 13. Pin No. 4 (Kilbride-Jones 1937).
104. **CLASS II**. Like 102 but much clumsier and heavily modelled (XII.15.25, Level 3). *P.S.A.S.*, L (1915-16), 102, fig. 23/9a and b.
105. **CLASS II**. Like 102 but smaller and without band of incised lines (III.20.65, Level 2). *P.S.A.S.*, LIV (1919-20), 88, fig. 19/3.
106. **CLASS II**. Unusual type resembling 102 but with addition of a hole for enamel? on the head. Faint trace of incisions below snout. Stem has a shoulder (V.21.317, Level 3 I). *P.S.A.S.*, LV (1920-21), 176, fig. 15/7. Closely comparable with one from an early building at Newstead, *op. cit.* pl. XCII/11 which had a setting of red enamel.
107. **CLASS II**. Squared head, ears and snout clearly marked. Medial line down head (XII.15.26, Level 3). *P.S.A.S.*, L (1915-16), 101, fig. 23/6. Reminiscent of penannular brooch 85, and possibly from same level and area. Pin No. 5 (Kilbride-Jones 1937).
- 108.* **CLASS II**. Like 107, but ears, eyes and snout now more clearly modelled; no medial line down head. Thin tracery of incised lines in bands, separated by diagonals below snout (recalls design on some of the toilet articles) (III.20.19, Level 1). *P.S.A.S.*, LIV (1919-20), 94, fig. 23/2. Pin No. 7 (Kilbride-Jones 1937).

109. **CLASS II.** Snout not as raised as 108 but with a medial line. Eyes marked but not ears. No division of head, and a crest, nicked in centre, protrudes from ear end (III.20.18). *P.S.A.S.*, LIV (1919-20), 94, fig. 23/1. Pin 6 (Kilbride-Jones, 1937).

These pins, like the comparable penannular brooches, constitute a major problem which will not be enlarged on here. There do seem to be two types involved however; the one having rounded ends and only vague zoomorphizing tendencies (102-6 and brooches 86 and 88), the other have squared ends and distinct attempts at rendering an animal (107-9 and brooches 85, 87 and 89). For what it is worth type one occur in lower stratifications than type two, though 107 and 85 are exceptions (and I believe Level 3 in 1915 excavations is roughly equal to Level 4 in the other years). But the main weight of good zoomorphic, (*i.e.* type two), pins and brooches comes in the upper levels. (Hogg 1951, 220 Appendix II under "pins" shows a wrong distribution by levels.) It is in fact incorrectly copied from the table in *P.S.A.S.*, LVIII (1923-4), 262. In any case two of the pins which Cree took to be zoomorphic from the top levels in 1920 and 1922 are doubtful examples. On the examples here catalogued the table should run (on Hogg's assumption that all the levels can be correlated accurately), Lowest 1. Third 5. Second 1. Top 2 (plus two very dubious examples, one is 128 and the other now appears as a corroded piece of bronze wire).

110. **CLASS III.** Cast annular ring formed of 6 pellets, flat surface at the back. Projects from stem in parallel plane (1922.216.M5a). *P.S.A.S.*, LVI (1921-2), 221, fig. 20/1.
- 111.* **CLASS III.** As 110, somewhat larger pellets (1922.119.Ha2). *P.S.A.S.*, LVI (1921-2), 236, fig. 29/4.
112. **CLASS III.** As 110, larger pellets and bent stem (V.21.128, Level 2 J). *P.S.A.S.*, LV (1920-1), 186, fig. 21/7.
113. **CLASS III.** Unfinished casting of unusual type. No perforation in centre (1922.279.O2). *P.S.A.S.*, LVI (1921-2), 254, fig. 29/7.
114. **CLASS III.** Remains of beaded pin with small pellets, approximately 18 at one time (1923.65.P2). *P.S.A.S.*, LVII (1922-3), 208, fig. 20/3.
115. **CLASS III.** As 110 (1924.122.S2). *P.S.A.S.*, LVIII (1923-4), 260, fig. 15/5.
116. **CLASS III.** As 110 (1924.123.S2). *P.S.A.S.*, LVIII (1923-4), 260, fig. 15/6.
117. **CLASS III.** As 110 (1932.176). Quarry find?

This class developed from Class I, probably, judging by Traprain, in the 3rd century or later. Fairly common type in Scotland, though does not appear at Newstead. It appears to be a native development and the moulds at Traprain, plus the evidence of 113, show that they were manufactured there. There should be no chronological distinction, though there is a typological one between small beaded pin heads, 114 and large rosettes, 110. Miss Benton (1931, 194-6), seems to spread out her pins unduly and Stevenson (1955, 290), has some pertinent remarks in this respect. Her dating of 2nd century for all the types except 3 and 5 seems too early in view of Stevenson's remarks about the "ibex-headed" and allied pins.

- 118.* **CLASS IV.** Semicircular flat plate with crescentic opening in centre; five pellets above. 0.6 in. diameter. Coated with tin. Not a true hand pin as in these (Norries Law examples), the pellets run horizontally across plate, not in a curve as here (XI.14.38, Level 2 B). *P.S.A.S.*, XLIX (1914-15), 171, fig. 25/2.
- 119.* **CLASS IV.** Very much smaller example 0.3 in. diameter and only three pellets, still in a curve (III.20.67, Level 2). *P.S.A.S.*, LIV (1919-20), 88, fig. 19/4.
- 120.* **CLASS IV.** Tiny silver example, three pellets, small hole in centre and probably closest to true "hand-pin" (1940.364). *P.S.A.S.*, LXXIV (1939-40), 57. Rampart excavations, secondary occupation deposit.

Like Class II, Class IV is something of a problem, though it seems clear that it developed from the rosette-headed pin, and fairly late on. Thus 118 still has five pellets and is comparable in size to Class III. It is paralleled by one from Corstopitum, found? near a cast ring headed pin (*Arch. Ael.* 3rd Ser. VII (1911), 188, fig. 34). 119 found in the vicinity of the Treasure, shows the beginnings of the handpin, and resembles a specimen from Ireland figured by R. A. Smith (1913, fig. 13). The problem is whether the types like 118 developed from the true rosette or from a type like Covesea 7 (*P.S.A.S.*, LXV (1930-1), 195, fig. 16). Covesea 7 is presumably akin to the "ibex-headed" group, which Smith dated to 1st century B.C. on the strength of the Sandy, Beds, grave and the Newnham Croft grave group (*cf.* Stevenson 1955, 290 on these two). There is at any rate no need now to assume such an early date for this group. But the proto-hand pin could have as easily developed from a type like Covesea 9 or North Berwick pin (*P.S.A.S.*, XLI (1906-7), 428-30, fig. 4), with the pellets flattened out and the corrugated upper part enlarged a little. Probably, however, pins like 119 developed under the stimulus both of types like 118 and the North Berwick type. Note however the pin from Hammersmith, Thames, which displays at once its origin in the Hallstatt "swan's neck" pin and its relation to the much later true hand-pin (*Archaeologia*, LX (1908-9), 271 and R. A. Smith, *op. cit.* fig. 7 and comments). Examples of small beaded, corrugated pins occur as far away as Lydney, Glous. (*Lydney* (1932), 83, fig. 18) probably 3rd or 4th century, Swandale, Rousay, Orkney, and Carraig Aille II, Co. Limerick (*P.R.I.A.*, LII (1948-52), 69-70) which suggest that they were more popular than Class III. Leeds (1933, 144), puts the beginnings of hand pin style at the very close of the Roman period, which accords with Traprain evidence.

121. **CLASS V.** Bent pin with finely ribbed top, see 136 (XI.14.41, Level 2 B). *P.S.A.S.*, XLIX (1914-15), 171, fig. 25/6. *Cf.* *Newstead*, pl. XCII/18 and 20.
122. **CLASS V.** Very bent, corroded pin, suggestive of a swan's neck pin, probably like 124 with head missing (XI.14.132, Level 1 B). *P.S.A.S.*, XLIX (1914-15), 171, fig. 25/7.
123. **CLASS V.** Pin with rolled-over head, slightly beaten-up flat stem below, ending in a stubby circular point. Excavators thought it was a awl for piercing leather (XI.14.36, Level 2 B). *P.S.A.S.*, XLIX (1914-15), 173, fig. 26/2. No good parallels but Dunning (1934, fig. 1/5) has a somewhat comparable type from Bergères-les-Vertus, Marne, which is an elaborated Hallstatt swan's neck type. The Traprain example may have some typological relation.

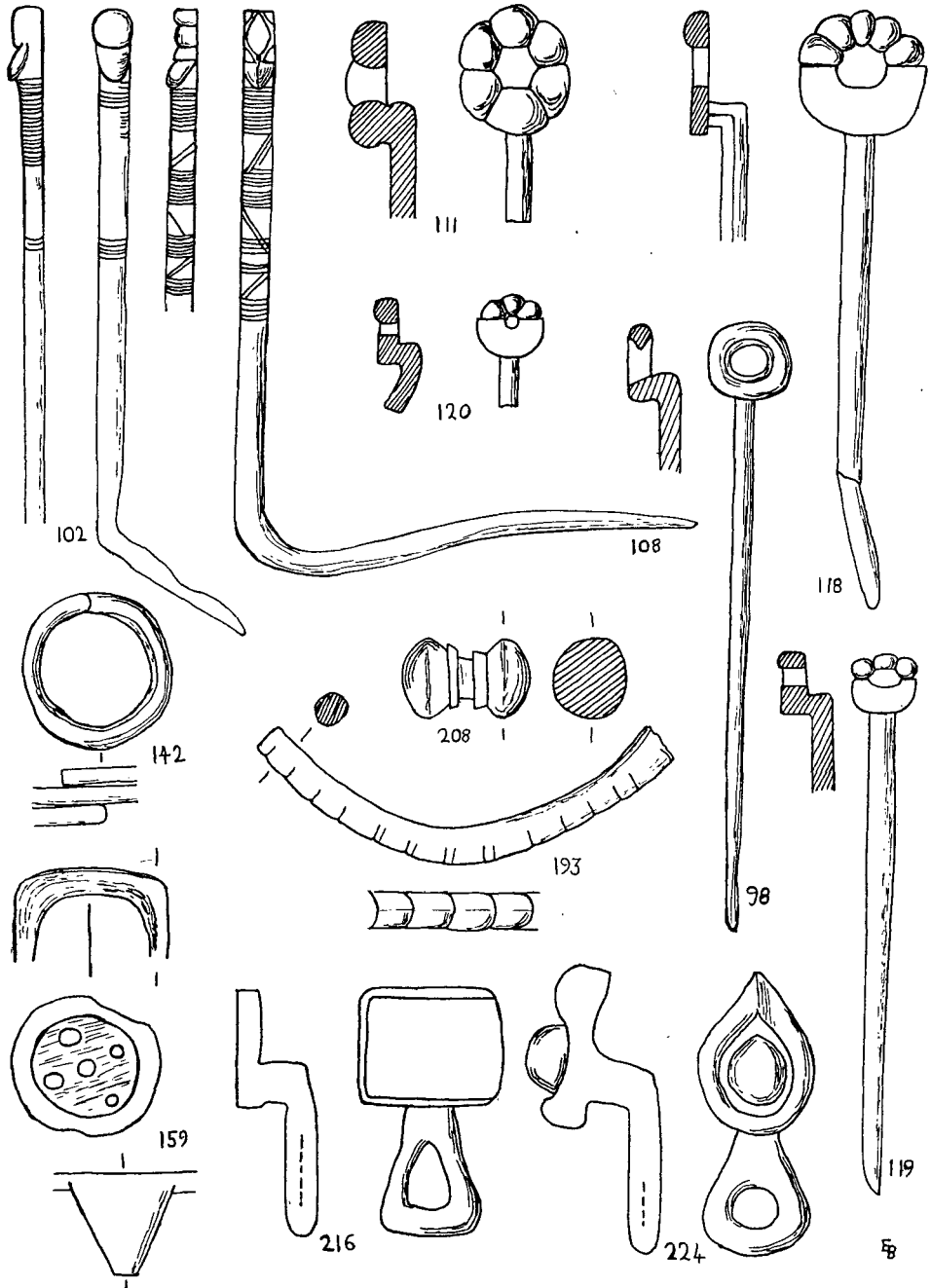


Fig. 3. Traprain Law: Pins, Finger Rings, Armlet, Dress Fasteners. (1.)

124. **CLASS V.** Stem of pin with bent neck; probably head missing (V.21.318, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 12/8.
125. **CLASS V.** Stem of pin, curved over neck (V.21.319, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 12/9.
126. **CLASS V.** Long pin, corroded (V.21.34, Level 1 I).
127. **CLASS V.** Two pieces, curving stem with nick at one end. Somewhat square in section (V.21.322, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 12/10.
128. **CLASS V.** Bent pin with traces of mouldings at top and a tiny crest, as on 109. Too battered to say whether it is a zoomorphic headed pin (V.21.33, Level 1 J). *P.S.A.S.*, LV (1920-1), 194, fig. 25/3.
129. **CLASS V.** Stem of pin with right angled bend at one end. Probably part of a Class I or Class III pin (V.21.129, Level 2 J). *P.S.A.S.*, LV (1920-1), 186, fig. 20/7.
130. **CLASS V.** Two similar pins with rounded slightly domed heads (resembling T. 33) (V.21.131 and 132, Levels 2 J and K). *P.S.A.S.*, LV (1920-1), 188, fig. 20/21 and 22.
131. **CLASS V.** Thin stem (1922.120.Ha2). *P.S.A.S.*, LVI (1921-2), 236.
132. **CLASS V.** As 129 (1922.104.M1a). *P.S.A.S.*, LVI (1921-2), 238.
133. **CLASS V.** Long stem, like 116 (1924.233.T3). *P.S.A.S.*, LVIII (1923-4), fig. 5/9.
134. **CLASS V.** As 130 (1924.235.T3). *P.S.A.S.*, LVIII (1923-4), fig. 5/10.
135. **CLASS V.** Three pieces of pin stem, seem to have been gilded. Very fragmentary and registration number not clear. May have been a stray find.
136. **CLASS V.** Portion of a pin with mouldings, *cf.* 121 (1924.140.T2). *P.S.A.S.* LVIII (1923-4), 266, fig. 15/19.

This class calls for no comment except that the plain headed ones may have once had heads of jet, of which a large number were found. The domed type, 130, would seem suited to this purpose and some of the examples listed in the Bronze Age Catalogue may in fact fit in here better.

Rings. 137-89.

- 137.* Bronze **CLASS I** type penannular brooch made into a finger ring so that the ends overlap. Worn smooth on outside of knobs (1923.24.P2). *P.S.A.S.*, LVII (1922-3), fig. 19/3.
- 138.* Bronze **CLASS III** ? type penannular brooch made into a finger ring so that ends overlap. Terminals like 88 doubled, and like 86, clenched (III.20.95, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 12/3. No. 3 (Kilbride-Jones 1936).

139. Bronze fragmentary **RING** with overlapping terminals one of which is knobbed (1922.24.M5). *P.S.A.S.*, LVI (1921-2), 224, fig. 20/5.

These three seem examples of reused penannular brooches: possibly it was a question of a broken pin and a new use found for an old treasured trinket. *Newstead*, pl. LXXXVIII/4 is similar to 139.

140. Bronze spiral **RING**, 0.7 in. diameter, broken. Slightly notched on one edge (XI.14.63, Lowest B). *P.S.A.S.*, XLIX (1914-15), 175, fig. 26/5.
141. Bronze spiral ***RING**, very small diameter and fragmentary (XI.14.141, Lowest D).
- 142.* Bronze spiral **RING**, three coils of wire (III.20.321, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/14.
143. Bronze spiral **RING**, two coils flattish wire (V.21.139, Level 2 J). *P.S.A.S.*, LV (1920-1), 186, fig. 21/9.
144. Bronze spiral **RING**, three coils fluted wire (V.21.31, Level 1). *P.S.A.S.*, LV (1920-1), 194, fig. 25/2. (*Cf.* Pitt Rivers, I, pl. XV/11).
145. Bronze spiral **RING**, one coil only with ribbed surface (V.21.243, Level 3 L). *P.S.A.S.*, LV (1920-1), 178, fig. 15/9.
146. Bronze spiral **RING**, three coils, thickened and incised at one end (1922.118. M2). *P.S.A.S.*, LVI (1921-2), 236, fig. 29/3.
- A type of ring not common in the Middle and Late Bronze Age of N. Britain. Probably introduced by the early 1st century B.C./A.D. immigrants from the South of England (C. M. Piggott 1950, 131). Common type at Glastonbury and Maiden Castle and elsewhere in the South of England and W. Midlands. Thence it comes to the Lowlands of Scotland, like the crook and ring-headed pins, and is often found in association with them, *e.g.* Castle Law, Abernethy. The type clearly developed in Scotland as 143-6 show. 140-2 are from their stratification early examples.
147. Silver spiral **RING**, two coils, engraved with regularly spaced bands of three incised lines (XII.15.33, Level 1 F). *P.S.A.S.*, L (1915-16), 103, fig. 23/11. *Cf.* similar ring in Dun Fheurian, Gallanach, Argyll, *P.S.A.S.*, XXIX (1894-5), 278.
148. Plain silver **RING**, 1 in. in diameter (III.20.320, Level 4). *P.S.A.S.*, LIV (1919-20), 65, fig. 7/12.
149. Fragments of a silver **RING**, ribbed and covered with tiny incisions (III.20.189, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 12/4 (where called a spiral ring).
150. Fragment of thin silver **RING** (1923.62.Q2). *P.S.A.S.*, LVII (1922-3), 208.
151. Silver **RING**, incised all round (1924.83.Oa1). *P.S.A.S.*, LVIII (1923-4), 277.
152. Silver **RING**, flat on inner, segmented on outer surface (XII.15.32, Level 1 G). *P.S.A.S.*, L (1915-16), 103, fig. 23/12.

153. Silver spiral **RING**, three coils, flattish wire (V.21.138, Level 2 J). *P.S.A.S.*, LV (1920-1), 186, fig. 21/8.

The increasing use of silver rather than gold for ornaments seems a Roman custom adopted by the Romano-British, even though the introduction of silver as a new material may be as early as the 1st Century A.D. *vide* the Hengistbury Head silver torc terminal (Rainbird Clarke 1954, 64 and n. 4). But as most of the silver trinkets found at Traprain were from upper levels, this would substantiate opinion that the use of silver is a late Romano-British development. It has been suggested that the late Roman silver hoards, looted from the more civilised areas, indicate the desire of the post-Roman/Dark Ages world to obtain silver. The Traprain Treasure was obviously destined for a melting pot and perhaps the manufacture of silver pins, rings and large penannular brooches.

154. Bronze **RING**, thin band of bronze with a small square of iron in front (XII.15.31, Level 4 F). *P.S.A.S.*, L (1915-16) 103, fig. 23/10. Seems a poor imitation of a Roman bezel ring.
155. Fragment of a bronze bezel finger **RING**, with a setting of blue enamel? (III.20.322, Level 4). *P.S.A.S.*, LIV (1919-20), 67.
156. **SETTING** of red amber, convex on the back and flat on front. Lattice-work pattern covers the face, filled with some white substance (V.21.184, Level 2 K). *P.S.A.S.*, LV (1920-1), 195, fig. 25/11.
157. Two halves of a silver **RING** to contain an oval setting, possibly 156, though found on a different level (V.21.32, Level 1 K). *P.S.A.S.*, LV (1920-1), 196, fig. 25/10.
158. Fragment of a bronze bezel finger **RING**, like 155 with an enamel setting, probably red (1922.195.M5). *P.S.A.S.*, LVI (1921-2), 224, fig. 20/4.
- 159.* Large bronze finger **RING**. Almost circular bezel filled with blue enamel and five spots of white enamel, one in the centre, others round the edge, hoop of ring broken (1923.67.Q2). *P.S.A.S.*, LVII (1922-3), 210, fig. 20/2. Two other examples from Scotland, Culbin Sands, Moray and Tentsmuir, Fife. (*P.S.A.S.*, LXVII (1932-3), 32-33, fig. 8.)
- These all seem to be native imitations of the more skilled and opulent Roman finger rings with bezels of nicolo intaglio bearing figures, and often made in gold. 154, 155 and 158, which seem to be nearest the originals, are all from lower levels. 159 is perhaps a forerunner of the later finger rings with millefiori enamel, *e.g.* Ballinard, Co. Limerick, or an unlocated example of red champleve enamel and four pieces of blue glass set in each corner (Ó Ríordáin 1947, 57-59).
160. Iron? **RING**, horizontal ridges encircle ring (XI.14.135?, Lowest B).
161. Fragment of bronze **RING**, grooved horizontally in centre (XII.15.34, Level 4 F).
162. Deep **RING** of bronze, 0.4 in. in breadth; ornamented at each edge with plain half round moulding (XI.14.62, Lowest B). *P.S.A.S.*, XLIX (1914-15), 175, fig. 26/4.

163. **RING** made of thin plate of bronze 0·4 in. breadth tapering each end (III.20.196, Level 3). *P.S.A.S.*, LIV (1919–20), 79, fig. 11/5.
164. **RING** like 163, tapering each end, 0·5 in. breadth ornamented with shallow groovings running round (V.21.144, Level 3 J). *P.S.A.S.*, LV (1920–1), 178, fig. 15/8.
165. Segment of a **RING**, 0·6 in. breadth, bevelled from inside towards outside; centre formed of a half round moulding and edges notched (1924.44.R2). *P.S.A.S.*, LVIII (1923–4), 266.
166. Bronze **RING** almost complete, 1·15 ins. in diameter. Bevelled internally, segmented on face (XI.14.59, Level 3 D). *P.S.A.S.*, XLIX (1914–15), 198, fig. 44/11.
167. Plain bronze **RING** pointed oval in section (XII.15.250, Level 1 F). *P.S.A.S.*, L (1915–16), 103, fig. 23/13.
168. Plain bronze **RING**. Larger than 167. Same in section (1924.226.R3). *P.S.A.S.*, LVIII (1923–4), 253, fig. 5/20. (*Cf.* Pitt Rivers, I, pl. XV/16.)
169. Plain bronze **RING**. Bevelled from both sides internally (1924.121.S2). *P.S.A.S.*, LVIII (1923–4), 263, fig. 15/7.
170. Odd bronze **RING**, oval in form, convex on the outer circumference; counter-sunk oblong opening in centre, as if for a setting (XII.15.249a). *P.S.A.S.*, L (1915–16), 103, fig. 23/18.
- 171, 172 and 173. Three bronze **RINGS**, roughly bevelled internally from both sides. One is c. 1 in. diameter. The others are c. 0·6 in. diameter (1924.135.134.133 respectively, all Level T 2). *P.S.A.S.*, LVIII (1923–4), 266.
174. Segment of bronze wire **RING** (1924.136.R2). *P.S.A.S.*, LVIII (1923–4), 266.
175. As 174 corroded (V.21.145, Level 2).
176. As 175, corroded and broader 0·25 in. (1922.196.M5). *P.S.A.S.*, LVI (1921–2), 226 possibly.
177. Minute, badly cast bronze **RING** (V.21.257, Level 3 L).
178. Bronze **RING** made by rolling over a thin sheet so that edges overlap, and fastening end (1932.103). Quarry.
179. Penannular bronze **RING** c. 1 in. diameter (III.20.16, Level 1). *P.S.A.S.*, LIV (1919–20), 94, fig. 22/7.
- 180 and 181. As 179, smaller (III.20.70 and 71 Level 2). *P.S.A.S.* (1919–20), 88, fig. 18/2 and 3.
182. As 179, much smaller 0·7 in. diameter (III.20.323, Level 4).
183. As 179, comparable size, one arm bent out (III.20.334, Level 4). *P.S.A.S.*, LIV (1919–20) probably fig. 7/13.

184. As 182 in size (1932.104). Quarry.

It is suggested that 179-84 formed the movable ring heads of pins such as occur in Ireland in the early Christian Period (cf. *Lagore* (1950), 71, fig. 14/1243). If this is so it is strange that neither complete examples of this type have turned up, nor fragments with the possible exception of 185, nor pins with perforations, to take such rings. They must surely represent the simplest type of ring. Possibly they were strung with a glass, jet or lignite bead and worn as earrings.

185. Bronze **RING** 1 in. diameter, with movable collar now rusted on. Excavator suggested that this was the head of a pin with movable ring head. Too uncertain to say (III.20.15, Level 1). *P.S.A.S.*, LIV (1919-20), 94, fig. 22/6

186. Bronze **RING** with loose smaller ring attached (V.21.146, Level 2 J). *P.S.A.S.*, LV (1920-1), fig. 20/13.

187. As 186 only larger and both rings not properly joined (V.21.246, Level 3). *P.S.A.S.*, LV (1920-1), 178, fig. 14/13.

188. As 186, slightly larger. Smaller ring not joined (1923.71.P2). *P.S.A.S.*, LVII (1922-3), 210, fig. 20/6.

Unknown use, possibly for harness trappings but almost certainly not for personal wear.

189. Four **RINGS**, unregistered. Two are spirals and one may be part of 140; the other could be the one cited in *P.S.A.S.*, LVI (1921-2), 226. Two plain ones like 174.

Armlets (all bronze). 190-201.

190. Segment of an **ARMLET**, ribbed or corrugated externally. Approximate external diameter 1.8 ins. (III.20.199, Level 3).

191. As 190, corrugations less marked. Same diameter (1924.143.R2). *P.S.A.S.*, LVIII (1923-4), 267.

192. As 190, corrugations only partial. Diameter c. 3 ins. (1924.85.R1). *P.S.A.S.*, LVIII (1923-4), 277.

193.* As 190, larger segment and more careful corrugations. Diameter 2.5 ins. (1922.253.O1).

194. Segment of a penannular **ARMLET**? as one end finishes in a rudimentary knob. Diameter 3 ins. (1923.159.Q3). *P.S.A.S.*, LVII (1922-3), 201.

195. Half an **ARMLET**, lozenge-shaped in section. Diameter c. 2 ins. (1924.84.T1). *P.S.A.S.*, LVIII (1923-4), 277.

196. Segment of plain band **ARMLET**, slightly concave section. Diameter c. 1.8 ins. (XI.14.129, Level 2 D).

197. Two segments of large **ARMLET**, circular section. Diameter c. 3.3 ins. (1924.138.R2). *P.S.A.S.*, LVIII (1923-4), 267.

198. Segment of an **ARMLET**, lozenge shaped in section. Diameter approximately that of 197 (1922.327.O3). *P.S.A.S.*, LVI (1921-2), 252.

199. Segment of an **ARMLET**? one end being thin and pointed. Diameter c. 2 ins. (V.21.321, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 11/15.
- 200 and 201. Two segments of small **ARMLETS** (V.21.149, Level 2 K), and (V.21.256, Level 3 L).
 All rather badly made imitations of Roman bracelets (cf. *Lydney* (1932), 82, fig. 17/ esp. P and S from which the Traprain ones seem to have descended) (cf. also *Richborough* II, 50, pl. XXII/62). Presumably some, e.g. 190, 191 and 199 were meant for children.

Silver Ornaments. 202-7.

202. **PIN**, fine point and broken head (1923.61.Q2). *P.S.A.S.*, LVII (1922-3), 208.
203. **PIN**, fine point, right-angle bend at head, possibly once had a head like 119 or 120 (proto-hand pins) (V.21.130, Level 2 L). *P.S.A.S.*, LV (1920-1), 190, fig. 20/28.
204. **PIN**, head, tiny domed head now bent over (1922.122.Ha2). *P.S.A.S.*, LVI (1921-2), 236.
205. **PIN**, bevelled ends and slightly twisted (III.20.200, Level 3).
206. **Coil of SILVER WIRE**, 0.4 in. long (III.20.72, Level 2). *P.S.A.S.*, LIV (1919-20), 91.
207. Three silver objects, unregistered. One a tiny plate hollowed on both faces; one a hollow boss at the end of a silver plate; one short stubby point.
 See remarks under 153. Again all these silver pieces occur in upper levels.

Buttons or Dress-Fasteners (all bronze). 208-40.

- 208.* Dumb-bell shaped **BUTTON** 0.65 in. long (V.21.279, Level 3). *P.S.A.S.*, LV (1920-1), 178, fig. 15/10.
209. Dumb-bell shaped **BUTTON**, 0.9 in. long and heavier than 208 (XI.14.32, Lowest Level C). *P.S.A.S.*, XLIX (1914-15), 172, fig. 25/10.
 This is very similar to *Newstead*, pl. LXXXII/6 and 8 with the collar mouldings each side of the central narrowed piece where the button was attached. It is a type that occurs on Roman sites (cf. *Wroxeter*, II, 14, fig. 5/17), and appears to have become very popular with the non-Romano-British people of Scotland both in the Roman period and after, and also in Ireland. Thus, while the metal ones are Roman in origin and probably came north with the army, bone and glass ones are of native workmanship, but cf. the horn one from *Newstead*, pl. LXXVII/16. Bone examples occur in cave sites in Yorkshire and Scottish sites, e.g. an exact parallel to the bone one from Ghegan Rock, E. Lothian (*P.S.A.S.*, I (1915-16), 233), is the one in the Eckroyd Smith Collection from Yorkshire caves, now in the Saffron Walden Museum, Essex. Glass examples are equally characteristic it seems of the sub-Roman period occurring especially in Ireland in plain (cf. *Lagore* (1950), 139, fig. 67/1471), and multi-coloured glass. It would not appear to be a particularly Irish type however (vide. *Lagore*, 141).

The remainder of the dress fasteners are divided into four classes (possibly chronological ones);

Square head—Class I
 “Eye” head—Class II
 Enamelled varieties—Class III
 Disc or ring head—Class IV

210. **CLASS I**. Complete with triangular loop for attachment, c. 0·8 in. square; incised line round edge and saltire across centre (XI.14.25, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 173, fig. 25/8.
211. **CLASS I**, loop broken, more rectangular head, no design (XII.15.30, Level 3 G). *P.S.A.S.*, L (1915-16), 104.
212. **CLASS I**, complete though edges of head corroded. Comparable in size to 210, no design (XII.15.29, Level 3 F). *P.S.A.S.*, L (1915-16), fig. 23/16.
213. **CLASS I**, as 210 complete. Incised line only round edge (III.20.329, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/17.
214. **CLASS I**, complete larger head, almost 1 in. square; no design (III.20.328, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/16.
215. **CLASS I**, loop broken, as 213 (III.20.330, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/18.
- 216.* **CLASS I**, complete, as 213 (III.20.194, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 11/6.
217. **CLASS I**, complete (III.20.11, Level 1). *P.S.A.S.*, LIV (1919-20), 95, fig. 22/8.
218. **CLASS I**, complete, as 213, no design (V.21.134, Level 2 K). *P.S.A.S.*, LV (1920-1), 186, fig. 21/11.
219. **CLASS I**, complete but head corroded. Design as 213 (1922.199.M2). *P.S.A.S.*, LVI (1921-2), 226, fig. 20/6.
220. **CLASS I**, loop broken, head corroded (1923.156.Q3). *P.S.A.S.*, LVII (1922-3), 200, fig. 13/10.
221. **CLASS I**, unusual example. Tiny rectangular head 0·5 in. long by 0·25 in. high, divided by a groove in centre. Slightly convex surface on front (1923.69.Q2). *P.S.A.S.*, LVII (1922-3), 210, fig. 20/4.
222. **CLASS II**, oval shape, boss in centre. Loop broken (XII.15.27, Level 4 F). *P.S.A.S.*, L (1915-16), 104, fig. 23/14.
223. **CLASS II**, complete as 222, only squatter and clumsier (III.20.193, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 11/8.
- 224.* **CLASS II**, complete as 222 (III.20.192, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 11/7.
225. **CLASS II**, as 222, loop broken (III.20.33, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/19.

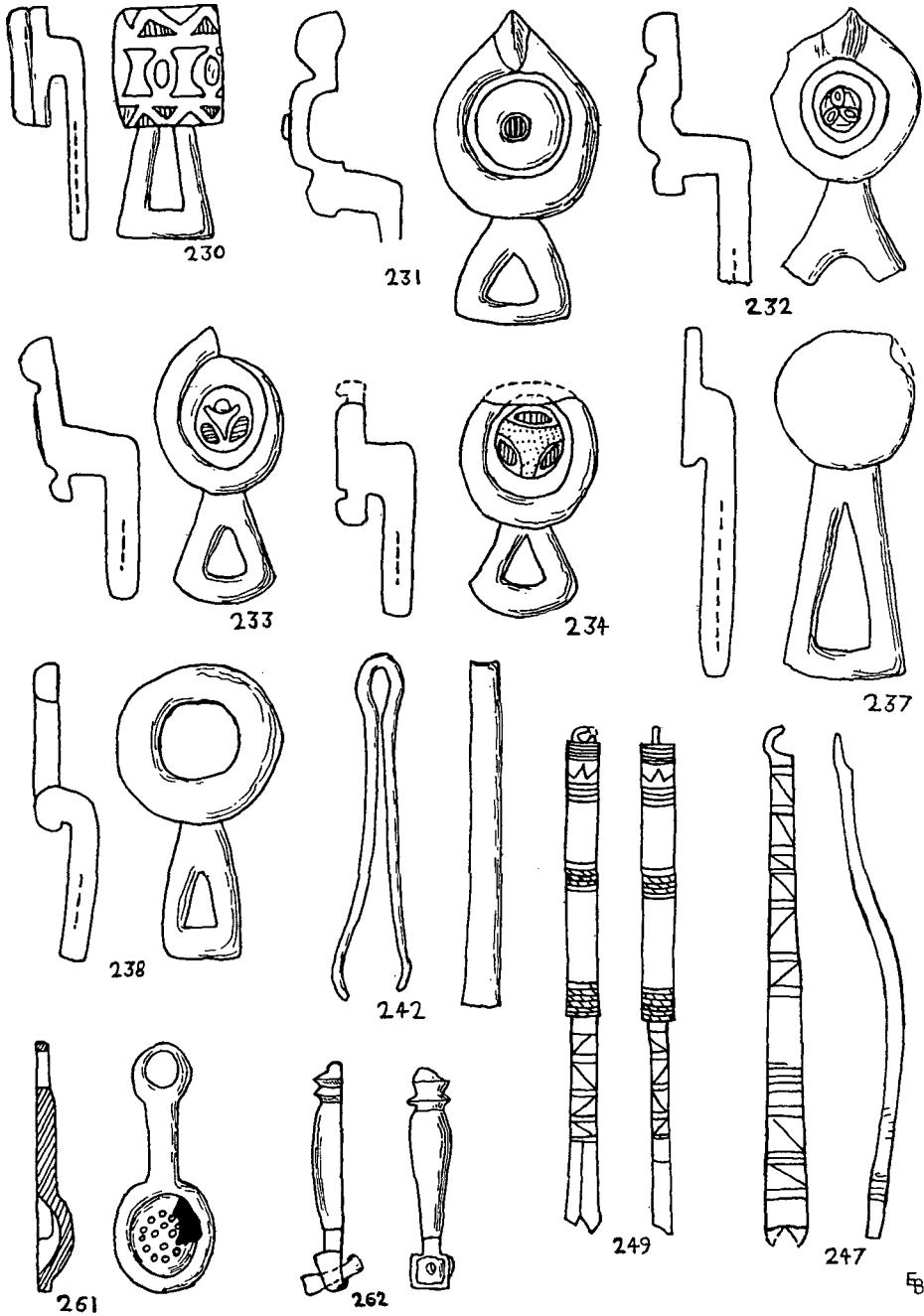


Fig. 4. Traprain Law: Dress Fasteners, Toilet Articles, Amulet. (3.)

226. **CLASS II**, as 222, loop corroded (V.21.133, Level 2 K). *P.S.A.S.*, LV (1920-1), 186, fig. 21/12.
227. **CLASS II**, doubtful, no loop only the oval, petal shape and no boss in centre, just a hollow (1922.324.N2). *P.S.A.S.*, LVI (1921-2), 251, fig. 28/7.
228. **CLASS II**, no loop, otherwise as 222 (1923.155.P3). *P.S.A.S.*, LVII (1922-3), 200, fig. 13/8.
229. **CLASS II**, no loop, more rounded and slight boss in centre only. Very corroded (1922.157.Q3). *P.S.A.S.*, LVII (1922-3), 200, fig. 13/9.
- 230.* **CLASS III**. Square head enamelled across the centre with blue ovals in white? Narrow bronze strips separate this panel from an edging of red triangles. Complete with loop (XI.14.34, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 173, fig. 25/5. *Cf.* the Drumashie dress fastener with a square head enamelled in red and yellow squares, *P.S.A.S.*, LVIII (1923-4), 12, fig. 1, (*Cf.* Leeds 1933, 130 for comments on dating).
- 231.* **CLASS III**. Class II type, enamelled with a blue spot in the centre of the boss. Complete with loop (XII.15.28, Level 3 F). *P.S.A.S.*, L (1915-16), 104, fig. 23/15. Close parallel to this is the one from York Station found 1874.
- 232.* **CLASS III**. In shape like Class II, loop broken but ornamented with three ovals set in trefoil shape. May once have been enamelled (1924.23.T3). *P.S.A.S.*, LVIII (1923-4), 253, fig. 9/5. For a somewhat comparable design with enamel, *cf.* the bit from Rise, Holderness, E. Yorks, where there are four ovals radiating from the centre of the boss (*Archæologia*, LV (1906), 281, fig. 23, the right-hand ring).
- 233.* **CLASS III**. Disc headed but having a segmental expansion one side increasing in breadth and ending abruptly at the top as if the loose end of a spiral. Loop complete. The slightly bossed centre is ornamented with three oval devices of red enamel in a white field (III.20.12, Level 1). *P.S.A.S.*, LIV (1919-20), 95, fig. 23/3.
- 234.* **CLASS III**. Very similar to 233 but broken at top which appears not to have an abrupt spiral ending as 233. Enamelled pattern more distinct; not a trefoil device as 232. Complete with loop (III.20.13, Level 1). *P.S.A.S.*, LIV (1919-20), 95, fig. 22/10.
- These last two were probably worn as a pair, being so identical, and it seems clear that they are a typological development from 232, both in shape and ornamentation. The higher "stratification" of 233 and 234 would support the later typological dating than 232 from the lowest level that year, and there would seem little point in deriving them from outside.
235. **CLASS IV**, Circular disc head c. 0.9 in. diameter, corroded. Loop broken (III.20.14, Level 1).
236. **CLASS IV**, as 235, much more corroded. No loop (V.21.135, Level 2 K). *P.S.A.S.*, LV (1920-1), 186.
- 237.* **CLASS IV**, complete with loop: head not a true disc (1924.125.T2). *P.S.A.S.*, LVIII (1923-4), 263, fig. 16/4.

- 238.* **CLASS IV.** Open ring head, complete example with loop (XI.14.38, Upper Level B). *P.S.A.S.*, XLIX (1914-15), 173, fig. 25/9.
239. **CLASS IV**, as 238 only longer loop with smaller opening. Loop joins ring by being twisted over it, not cast in one with the head as is usual. Resembles shank of 227 in this (V.21.136, Level 2 J). *P.S.A.S.*, LV (1920-1), 186, fig. 21/10.
240. Two loops with no heads (1924.126.127, R2 and S2 respectively). *P.S.A.S.*, LVIII (1923-4), 263, fig. 15/9 and 10.

Numbers 210-40 are all representative of a kind of dress-fastening, particularly common in the military province of Britain, though examples do occur in Eastern and South-West England. Cf. *Wroxeter*, I, 29, pl. X/4; II, fig. 5/15 and 16 (Class I, II and IV) and also in Germany, *Saalburg* 1897, pl. LIII, fig. 12 and 13. The evidence from Traprain would suggest that Class I and II are earlier than Class IV. Class I was being made on the hill itself (*cf.* mould 557) and probably the other types were too. Class II is linked to the harness mountings (see below), by its belonging to Leeds' "Northern Boss Style." This is characteristic of the Eastern Lowlands and Southern Scotland, replacing there the early 1st century Celtic art style which Leeds described as "the broken-back curve." It takes its rise from ornaments like the Plumpton Castle, Kirkcud. armlet (Anderson, I, fig. 112-13); a style which Hawkes (1932, 191) sees before the conquest and as part of the Arras culture. This "boss style" must have been going by the early 2nd century and is clearly of native manufacture (Curle 1913, 100). Two examples occur at *Newstead*, pl. LXXV/7 and 8 and the Middlebie, Dumfries. hoard of harness trappings are supreme examples of this style. The evidence from Traprain of 222 and 225 from levels which yielded early trumpet fibulae, *e.g.* 2 and 4 would imply that these dress fasteners were brought to the hill in the early to mid 2nd century A.D. 232-4 show how adept and quick were the smiths and enamellers of Traprain in adopting a model to their own use. 230 is somewhat of a problem since the use of multi-coloured enamelling seems late (but *cf.* Saham Toney hoard where "early" and "late" elements occur together). I cannot accept Leeds' date of 3rd century for 230 and the Drumashie fastener, not on the grounds of associations. Mid 2nd century would seem more appropriate. Class IV would seem to be a later development occurring exclusively in the upper two levels of every year, whereas Class II is principally on the lowest two (with one exception which seems to have slipped out of place). They are more likely to have been used on garments as fasteners rather than as strap or harness fittings as the loops are not strong enough to take a strain.

Toilet Articles (all bronze). 241-59.

241. **TWEEZERS.** Somewhat bent out of shape and all spring gone; attached to a ring, presumably once accompanied by other toilet articles (1924.86.T). *P.S.A.S.*, LVIII (1923-4), 277, fig. 20/4. Common Roman type *cf.* *Newstead*, pl. XCII/6 and 8, and Pitt Rivers, I, pl. XVI/13, 17, etc. Also Covesea. *P.S.A.S.*, LXV (1930-1), 196, fig. 17/1, 3, 5 and 6. All are about 2 ins. long.
- 242.* **TWEEZERS**, excellent condition; spring remains (V.21.35, Level 1 L). *P.S.A.S.*, LV (1920-1), 194, fig. 25/7.

243. **TWEEZERS**, one arm broken off; good deal of corrosion but spring remains and tip of each arm has a distinct bevelling (to enable a closer grip to be obtained) (XI.14.46, Upper Level D). *P.S.A.S.*, XLIX (1914-15), 175, fig. 26/6.
244. **TWEEZERS?** Remains of one arm so corroded as to be indeterminate but probably once tweezers (XI.14.139, Lowest E).
245. **TWEEZERS**, remains of one arm, bevelling at tip and curve of spring extant (1923.48.P1). *P.S.A.S.*, LVII (1922-3), 219, fig. 26/3.
246. **TWEEZERS**, one arm in bad condition (1923.144.P2).
- 247.* **NAIL CLEANER**, 2.7 ins. long furnished with a thin ring (broken) at one end and the remains of two projecting points at the other, broader end. Both sides are ornamented with a repeating pattern of transverse and diagonal incised lines (V.21.142, Level 2 L). *P.S.A.S.*, LV (1920-1), 190, fig. 21/15. Again an obvious Roman type closely paralleled by one from Wood Eaton, Oxford (*B.M. Guide* (1951) fig. 5/9).
248. **NAIL CLEANER**, 1.8 ins. long. Handle, circular section ornamented with incised lines in centre and each end, cast in one with stem, rectangular in section; two projecting points, now broken. (1923.70.Q2), *P.S.A.S.*, LVII (1922-3), 210, fig. 23/1.
- 249.* **NAIL CLEANER**, 2.6 ins. long. Handle, circular section ornamented with bands of incised lines in centre and each end, with minute oblique hatchings in between each pair of lines. Stem has a rectangular section and is ornamented on all sides like 247. Remains of a ring for suspension on handle top (1923.47.P1). *P.S.A.S.*, LVII (1922-3), 217, fig. 23/2.
250. **NAIL CLEANER**, 3.4 ins. long. Apparently attached to a strap as the square head is forked and traces of leather exist inside and there is a hole each side to take a stud to hold strap on. The point is notched and a groove runs up stem. Flat in section. Below strap stem swells out into an oval shape, thence becoming straight. Upper part ornamented with tiny "dot and circle" patterns common in the Iron Age of England (*Glastonbury*, II, pl. LXVIII/H/291) and seen at *Newstead*, pl. XCII/8 on tweezers, and most notably on bone combs of the sub-Roman period (XI.14.140, Middle B). *P.S.A.S.*, XLIX (1914-15), 173, fig. 26/1.
251. **NAIL CLEANER**, somewhat battered. 2.25 ins. long. Stem is straight and ornament impossible to see. Lower portion an oval ornamented with dot and circle motif. In between is a circular zone pierced by two holes. It is possible to see whether there was a ring on the head but the point does seem notched (1924.87.T1). *P.S.A.S.*, LVIII (1923-24), 277, fig. 20/3. Very close parallel to ones from Lydney dated post A.D. 367 (*Lydney* (1932), 84, fig. 19/82) and *Richborough*, II, 46, pl. XIX/34 and 35 and IV, 130, pl. XXXVI/125). Seems to be rare on 1st and 2nd century sites.
252. **NAIL CLEANER?** 1.8 ins. long. Formed from a flat strip of bronze the ends of which, after forming a loop, have been intertwined. The loop, presumably for suspension, has been hammered flat. No notched point remains. May not be a toilet article but cf. analogy with Covesea 7 (*P.S.A.S.*, LXV (1930-1), 196, fig. 17/7). (V.21.159, Level 5). *P.S.A.S.*, LV (1920-1), 178, fig. 15/2.

253. **NAIL CLEANER**, 1·2 ins. long. Heart-shaped; broken ring, for suspension, at the head. Carefully moulded collar below this. No trace of a notched point (III.20.318, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/29. Parallel at Rotherley (Pitt Rivers, II, pl. C. II/7).
254. **SCRATCHER**, 1·8 ins. long; broken but signs of four comb-like teeth one end, and pointed the other (V.21.37, Level 1 T). *P.S.A.S.*, LV (1920-1), 194, fig. 25/5.
255. **SCRATCHER**, 1·05 ins. long, as 254. Points of teeth now broken. Faint incised lines demarcate teeth (V.21.36, Level 1 L). *P.S.A.S.*, LV (1920-1), 194, fig. 25/6.
256. **SCRATCHER?** or scoop, 1·8 ins. long. Corroded. Rounded stem, flattened and hollowed one end (V.21.148, Level 2 K).
257. **LANCET**, tanged. Beautiful patina. Paper thin blade; ridged slightly. Line of hilt, (bone?), shown by brown discolourations on tang. 2·2 ins. long; blade 0·3 ins. broad, hilt 0·15 in. broad (XI.14.66, Lowest B). *P.S.A.S.*, XLIX (1914-15), 189, fig. 37/1.
258. **EAR-SCOOP**, c. 3 ins. long, corroded. Circular stem spatulate and hollowed at one end (V.21.141, Level 2 I). *P.S.A.S.*, LV (1920-1), 188, fig. 22/4.
 Ear-scoop, though somewhat large for such a delicate process; more probably a ligula for scooping cosmetics or ointment from a jar. This is a crude imitation of the elaborate Roman type found in the civil province (cf. *Wilts. A. M.* 1 (1854) 60 but no illustration, and *Catalogue of Devizes Museum*, Pt. II (1911), pl. XXVI/1).
259. **NEEDLE**, 2·45 ins. long, roughly pointed and provided with an eye, exactly parallel to the eye of a modern needle with the tiny groove to lead the thread in (1922.215.M5a). *P.S.A.S.*, LVI (1921-2), fig. 20/2. Cf. one from a souterrain at Cairn Conan, Angus (*P.S.A.S.*, IV (1860-2), 496).
 All these are derived from common Roman types. Their concentration in the upper levels is remarkable especially as the Roman type fibulæ practically cease here. This has been touched on in the discussion. Joan Kirk prefers to use the term **wick-lifters** for the objects described above as *nail cleaners* and they would be more suitable for this use (Kirk 1949, 25).
260. **SPOON**, folding, bronze, 4·5 ins. long. Handle represents outstretched lion between whose paws the bowl of the spoon has been hinged so that it folds upwards and over the lion's head. The other end of the handle is fan-shaped, split on one side and provided with a small hole, perhaps to take a lancet or needle lying along the handle resting on a catch near the lion's head. The under side of the handle is hollow to hold perhaps a probe or scoop, and a hinge is provided below the fan-shaped terminal. Usual shouldered, round-ended spoon (XII.15.254, Level 2). *P.S.A.S.*, L (1915-16), 130, fig. 41. Cf. *Wroxeter*, II, 14, fig. 5/19, and Smith, C. Roach, 1859, pl. XXXVII/13.
261. * **STRAINER**, silver 1·3 ins. long. Bowl is 0·55 in. diameter, pierced with fifteen perforations, four in centre and remainder round. Provided with a loop, well-worn one side, showing that it has been suspended. One side of

the bowl has been repaired at some stage, showing a small patch 0.2 in. long below the flattened rim (1922.285.N2). *P.S.A.S.*, LVI (1921-2), 254, fig. 20/9. Presumably a toilet article but very rare. Examples occur in Merovingian cemeteries but Traprain would seem to be earlier. (But cf. Déchelette, II, 3 (1914), 1274, fig. 549). For a much larger example cf. *Richborough*, IV, 130, pl. XXXVII/126.

Miscellaneous. 262-70.

- 262.* **OBJECT**, bronze, 1.1 ins. long in shape of a bisected baluster with a loop at one end through which an iron pin is thrust. Rather indeterminate (V.21.147, Level 2 K). *P.S.A.S.*, LV (1920-1), 190, fig. 22/8. Possibly an amulet, cf. *Verulamium* (1936), 218, pl. LXIII/A, for a comparable example in bronze.
263. **AMULET**, bronze 1.3 ins. long in shape of a human leg and foot. Pierced with a hole, which does not appear to go right through, at the knee. Very corroded and seems split in half. The inside may be iron but it is not easy to see (XI.14.137, Middle Level A). *P.S.A.S.*, XLIX (1914-15), 196, fig. 44/7. Curle thought it was rash to assume that this is a foot-amulet, cf. Déchelette, II, 3, 1306, fig. 567, but it seems quite feasible. Newstead, *op. cit.* pl. LXXVII/2 and 3 had amulets in the shape of arms and hands. 263 could not have formed part of a statue, being too thin and flat, instead of rounded with a flat foot.
- 264.* **OX-HEAD MOUNT**, bronze, 1.3 ins. long with loop worn slightly on top. The modelling of the horns which curve outwards, and of the ears, is not very good but this may be because the bronze is worn. The face slightly bulges to represent eye-ridge, narrows in below and expands again to form the muzzle-ridge. On the back of the head, below the loop is a distinct narrow groove, as if the head fitted on to a rim (V.21.140, Level 2 I). *P.S.A.S.*, LV (1920-1), 188, fig. 21/14.
- This, albeit a debased example, falls into the class of horned ox-heads on buckets studied by Hawkes (1951, 172-99 esp. 191-99). It is not however like any of the examples he figures as the horns hardly curve and the whole appearance is very rudimentary. It comes closest to one made in the North of England like the Ingleton, Yorks. pair on a mirror handle, or the Thealby, Lincs. pair surmounted by a bird's head. The stratification of 264 suggests either a much battered heirloom of earlier manufacture or a late but feeble resurgence of Celtic traits. In this respect the Traprain ox-head may, like the Mount Sorrel, Leics., heads, be an example of the pre-Roman animal style coming through to the Dark Ages. 264 seems late, like Mount Sorrel perhaps late 3rd century, but this may only be because of its battered condition. It would be unsafe to date it absolutely. It is doubtful whether it could ever have been mounted on a bucket rim, as others of this type were, for the loop does not show sufficient wear, as it would do, if a chain or handle had rubbed against it. Perhaps it was on a small bucket which was never suspended. (Though it might have been an amulet (cf. *Revue Archéologique de l'Est et du Centre-Est*, VII (1956), 57-63) where such are noted).

265.* **RAVEN MODEL**, bronze, cast, 1.8 ins. from head to tail, provided with a ring below its body, making it 1 in. in depth. The ring is much worn at its lowest point. Ridge on the back (0.6 in. across widest point), indicates folded wings. The eye and beak are roughly indicated (V.21.39, Level 1 L). *P.S.A.S.*, LV (1920-1), 196, fig. 25/9.

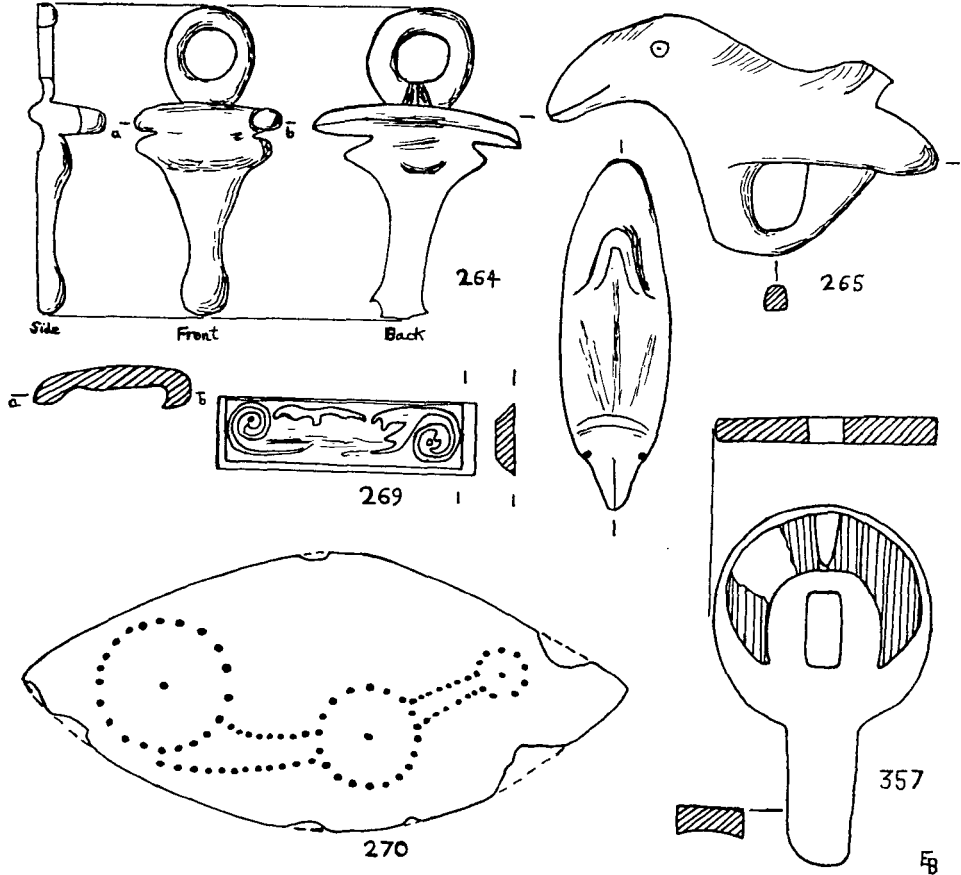


Fig. 5. Traprain Law: Ox-head, Raven, Silver Bar, Oval Plate, Linchpin Loop. (†)

An attractive if clumsy model of a bird. The ring below is unusual since there seems no means of attaching it unless it was pushed into a fork of metal or wood and a heavy pin driven right through to hold it upright. It may have been a harness mounting, but in view of the known association of ox-heads and birds (Hawkes, *op. cit.*, 196, Thealby, Lincs.) may this not have been similarly connected in some way to a bucket? 264 was found on an adjacent site. Models of birds are fairly common in the Romano-British world (presumably deriving from the Hallstatt/La Tène birds). Curle (1932, 351, fig. 39) has an eagle model from Currie, Midloth., provided with

- a flat foot for mounting and (*op. cit.*, 397, fig. 72) a bronze case for a stylus found in Midlothian, with a bird figure at one end. This bird, a duck?, seems to have had a long pin to fasten it through the case. Other bird models, besides eagles, ravens and ducks, are cocks (one from Great Bledwyn, Wilts., Roman villa in Devizes Museum, and another from *Wroxeter*, II, 12, fig. 5/18). The modelling of the Traprain one resembles the two birds found in a mid 3rd century hoard at Felmingham Hall, Norfolk (*B.M., Guide* (1951), 60, pl. 24/2 v and vi) also cf. *Camulodunum* (1947), 332, pl. XCIX/317 and ref. to Santon duck-rivets, *P. Camb. A.S.*, XIII (1908-9), 155, fig. 8.
266. **HORSE'S HOOF**, 1.5 ins. long, 1.1 ins. high, 0.9 in. in greatest breadth. Hoof and pastern joint; an incised line encircling hoof close to base may represent a horse-shoe (but see p. 191). Square hole 0.3 in. pierces model from top of pastern right through to base. May have been one of the feet of a vessel or stand (1924.12.T2). *P.S.A.S.*, LVIII (1923-4), 266, fig. 16/6. Liversidge (1955, 34-25, pl. 41 and 42) discusses the use of such animal feet or claws as stool or table bases.
267. **DEER'S ANTLER**. Cast in lead of original in iron. Resembles one half of a deer's antler with three points. Tip is much flattened and thinner as though it fitted into something (XI.14.204, and XI.17.34, Middle Level D). *P.S.A.S.*, XLIX (1914-15), 196, fig. 44/1. Unlike anything known. But there is a bronze model of a stag with vaguely similar antlers found near or with "Romano-British pottery, coins, flints, close to a rectangular hut" on Gateholm Island, Pems. (*Arch. Camb.*, VI (1926), 191. Later excavation of this site produced a bronze ring headed pin, a bronze plate and confirmed a date probably late in the Roman period (*Arch. Camb.*, LXXXV (1930), 366-74). In this context may be mentioned the sherd from Coll with a incised representation of a stag (Childe 1935, 243 pl. XVIb and also *P.P.S.*, XVIII (1952), 189, fig. 9).
268. **OBJECT**, bronze. Cruciform like the nave of a wheel with four broken spokes projecting from it. 0.7 in. across longer arms. The centre has two opposed hollows (III.20.339, Level 4). *P.S.A.S.*, LIV (1919-20), 70, fig. 8/8. Wheel pendants are not uncommon (cf. Backworth Treasure chain) but 268 seems too indeterminate to be sure. Déchelette II, 3, 1298, fig. 561 and 562 shows La Tène III wheel pendants.
- 269.* **BAR**, silver 1.35 ins. long, 0.4 in. broad. Bevelled edges (away from decorated face). Design seems to have been deliberately mutilated and only two scrolls remain at each end (III.20.310, Level 4). *P.S.A.S.*, LIV (1919-20), 70, fig. 8/9. This bar could have been a mounting on leather or in wood or metal. Possibly inlaid into a box or casket, and wrenched out, thus causing the destruction of the design. It is very difficult to parallel this scroll/volute motif. A plaque from South Shields, figured by F. Henry (1933, fig. 46/8) is much longer and broader but has a scroll-like pattern in bronze set in an enamel field. This is now so corroded that both the original colour and proper design are difficult to make out. Both this plaque and the Traprain bar, however, could be described as decorated with weak La Tène tendrils, possibly under Romanizing influence (cf. *Verulamium* (1936), 209, fig. 45/34). Also cf. Jacobstal (1944), 92 and Pl. 265/107-110 for the original idea behind the Traprain design.

270. **OVAL PLATE**, thin bronze with beautiful dark green patina. 3.2 ins. long by 1.4 ins. broad. Decoration of three circles of different diameter connected by double lines in punctulation done by repoussé work. This ornament follows the curve of the oval and progresses from big circle to smallest. Edge of plate is broken. Across the back the length of the oval runs a thick line of rust, thus showing the means of fastening (III.20.311, Level 4). *P.S.A.S.*, LIV (1919-20), 68, fig. 8/6.

This object was fastened on to something but what it is, is not clear. It could have been a decorative plate on a pin. Curle noted a similar object from Silchester (Reading Museum) which is longer but ornamented with repoussé dots along the edge; at the centre side is a circular perforation with a row of dots around. Similar mark of attachment down back. Another similar example is that from Fifehead Neville in Dorchester Museum (1896.3.61), which has oblique lines round edge and two studs each end for fastening.

Collection of Miscellaneous Objects, indeterminate.

271. One half of a **DISC** of bronze, 1.45 ins. diameter ornamented with a series of four incised concentric circles and raised circle in the centre, hollowed out (III.20.69, Level 2). *P.S.A.S.*, LIV (1919-20), 91, fig. 19/2. Could be part of a patera base?
272. Shallow **CUP?** of thin bronze with turned-over rim, depth 0.4 in. Diameter 1.6 ins. Centre perforated with small hole and signs of similar holes on edge of rim. Several broken fragments of same (XI.14.125, Middle Level B). Too shallow to be a scale-pan. *Cf.* Newstead, *op. cit.* pl. LXXXIV/9.
273. **DISC** of thin bronze, bent and fragmentary. Diameter 1.75 ins. Engraved with double concentric circle and round edge (V.21.152, Level 2 K). *P.S.A.S.*, LV (1920-1), 188, fig. 22/1. Probably a circular mounting of some kind though no visible means of attachment, several holes may have been rivet-holes.
274. Fan-like bronze **OBJECT** with shank. Rivet in centre 0.8 in. across (XI.14.131, Middle Level D).
275. Fragmentary piece of **BRONZE** 0.6 in. by 0.4 in., bent over (1923.62.P2).
276. Half of a **DISC** of bronze 1.3 ins. diameter, 0.1 in. thick. Trefoil or quatrefoil piercing in centre? Lockplate from end of a tubular padlock? (III.20.198, Level 3). *P.S.A.S.*, LIV (1919-20), 80.
277. Small bronze **OBJECT**, very thin, sides bent in and hole one end (XII.15.238). *P.S.A.S.*, L (1915-16), 70.
278. **DISC** of bronze 0.9 in. diameter. Corroded and thicker one side than the other (III.20.352, Level 4).
279. Odd shaped bronze **OBJECT**, 1.15 ins. long, slightly convex surface, 0.4 in. breadth with a semi-circular moulding, like a collar, on side (III.20.354, Level 4).

280. Bronze **OBJECT**, c. 0.95 in. long, 0.65 in. broad, 0.1 in. thick. Patterned with shallow pits. Corroded edges (V.21.367, cutting near rampart, 4 X). *P.S.A.S.*, LV (1920-1), 204.
281. Oval-shaped bronze **PLATE**, 2.9 ins. long, curving 0.7 in. broad. Very corroded edges (V.21.368, rampart cutting, 3 X). *P.S.A.S.*, LV (1920-1), 205.

Bronze Studs, etc.

282. Two tiny bronze **STUDS**, hollow domed (XI.14.136.. No registration for other. Lowest Level B for one). Cf. *Newstead* pl. XXV/35 and 36 for similar types. Possibly from a leather belt.
283. Bronze domed **STUD** (1922.121, Level 2). *P.S.A.S.*, LVI (1921-2), 255.
284. As 283 (III.20.350, Level 3 F). Both these may well have been pin-heads but as their domed heads are so small, they might have slipped out of the material, or if hair-pins, out of the hair.
285. Bronze **HEAD**, circular and sunk on top; shank 0.4 in. diameter (XII.15.148, Level 3 F). *P.S.A.S.*, L (1915-16), 113, fig. 28/5. May have been a pin-head.
286. Heavy bronze conical domed **STUD**, 0.65 in. diameter with shank (V.21.150, Level 2 I). *P.S.A.S.*, LV (1920-1), 188, fig. 22/5.
287. Circular, flat headed bronze **STUD**, or nail? Diameter 0.7 in. Length 0.8 in. (V.21.20). *P.S.A.S.*, LV (1920-1), 196?
288. **DISC** of bronze, bevelled downwards, 0.75 in. diameter. Pin, 0.7 in. long, projects axially from each face and traces of iron adhere to one side (III.20.324, Level 4). *P.S.A.S.*, LIV (1919-20), 68, fig. 7/24.
289. Bronze **RIVET**, 0.65 in. long, somewhat flattened head (V.21.156, Level 2 K).
290. Bronze **RIVET**, square section, 1.15 ins. long with circular washer, 0.4 in. diameter, fastened (XI.14.67, Lowest Level B). Ref. as for 291.
291. Bronze **RIVET** with flat head, 1.3 ins. long, head is 0.85 in. diameter. Square rivet attached, 0.4 in. (V.21.151, Level 2 L). *P.S.A.S.*, LV (1920-1), 190, fig. 22/7.
- Probably all these were used in mountings or for ornamenting objects. Examples like them occur on most Roman sites.
- 292-8. Fragments of **BRONZE WIRE**. Possibly some were pins. Others were obviously semi-manufactured pins; or used for rings, etc.
292. 1.35 ins. long, square section (1924.234.R3). *P.S.A.S.*, LVIII (1923-4), 253, fig. 5/18. Excavators claimed it for a zoomorphic-headed pin.
293. Two lengths of bent wire, oblong section. 3.25 ins. and 2 ins. long (1924.141, 142, T and S2). *P.S.A.S.*, LVIII (1923-4), 261, as "pins." (Also one strip, 2.2 ins. long, no registration. Level 1 T).
294. Length of bronze wire, square section. 2.65 ins. long (1922.182.M4). *P.S.A.S.*, LVI (1921-2), 228.

295. Two lengths of bronze wire, 3·2 ins., 3·5 ins. long, circular section (1923.46 and 66, P1 and P2).
296. Length of bronze wire, corroded and bent, c. 4 ins. long. Square section (III.20.345, Level 4). *P.S.A.S.*, LIV (1919–20), 68.
297. Four lengths of circular section bronze wire. 2·7 ins., 3·6 ins., c. 1·7 ins. and 2·15 ins. (XII.15.260, Level 3 F). *P.S.A.S.*, I (1915–16), 101, as pins.
298. Three pieces, well patinated bronze; one flat, the others triangular sectioned (III.20.349 and III.20.347, Level 4 M). *P.S.A.S.*, LIV (1919–20), 70.
- 299–301. **U-SHAPED BRONZE BINDINGS** for scabbards, sheaths, etc., cf. *Newstead*, 187, pl. XXXV/1–7. Occur on all levels so no particular conclusions to be drawn.
299. 1·85 ins. long, broken edges and clumsy repair effected with a broad piece provided with new rivet holes (XI.14.126, Middle Level B). *P.S.A.S.*, XLIX (1914–15), 184, fig. 34/4.
300. 2·3 ins. long; provided with fine loop and rivet to fasten it (XII.15.255). *P.S.A.S.*, I (1915–16), 116, fig. 30 F.
301. Sixteen pieces of binding as 299. (Lengths followed by registration nos. and citations in reports, if any).
 (4) 2·9 ins., 2·45 ins., 1·8 ins. and 2·7 ins. (XI.14.126, Middle Level B).
 (1) 2·95 ins. (XI.14.127, Lowest Level E).
 (1) 2·5 ins. (XI.14.128, Lowest C).
 (3) No lengths (XII.15.256, Levels 1 and 2 F). (Not possible to measure.)
 (2) 1·8 ins. and 1·1 ins. (III.20.73 and 74, Level 2). *P.S.A.S.*, LIV (1919–20), 91.
 (1) 0·6 in. (III.20. 351, Level 4). *P.S.A.S.*, LIV (1919–20), 70.
 (1) 2·5 ins. (V.21.45, Level 1 I).
 (1) 3·65 ins. (1923.49.Oa1). *P.S.A.S.*, LVII (1922–3), 219, fig. 26/4.
 (2) 2·3 ins. and 2·1 ins. (1924.159.199.R2). *P.S.A.S.*, LVIII (1923–4), 261, fig. 15/20.
- Most of these have rivet holes on the edges.
302. Three **IRON U-SHAPED BINDINGS** but no rivet holes. 1·55 ins., 1·2 ins. and 1 in. respectively. Perhaps forced over edges of a box or casket (III.20.84 and 85. V.21354).
- 303–5. Tiny **BRONZE TUBES** or coils, presumably used in mountings, etc.
303. Coiled bronze strip 0·6 in. long (1924.132.T2). *P.S.A.S.*, LVIII (1923–4), 266, fig. 16/9.
304. Tube 0·9 in. long. Rolled round a rod (1922.106.M1a). *P.S.A.S.*, LVI (1921–2), 238.
305. Four fragmentary rolls of bronze (III.20.75, Level 2) (1922.183.M4). *P.S.A.S.*, LVI (1921–2), 228) (1922.240) no level and unregistered fragments.
- 306–315. **BRONZE MOUNTINGS** from caskets; possibly some from armour (cf. *Newstead*, 157, fig. 11), all very thin.

306. Two pieces (should be more) of mounting incised with lines and given rivets for attachments. All slightly curving and small (XII.14.62, Lowest B). *P.S.A.S.*, XLIX (1914-15), 196, fig. 44/12 and 13.
307. Small strip, embossed with two parallel lines of dots (XI.14.134, Lowest B). *P.S.A.S.*, XLIX (1914-15), 196, fig. 44/4. Like the strips on the Santon Downham casket? cf. *Newstead*, pl. LXXXI/18.
308. Large piece, bent round over another. Three large repoussé dots along one side on each face (XI.14.138, Lowest E).
309. Three various fragments, one a large piece with one hole (XI.14.199?, Lowest B) (XI.14.133, Top B) and (XI.14.140).
310. Three pieces, two of which closely resemble the Newstead examples (*op. cit.*) (XII.15.257). No level.
311. Three pieces, one piece like Newstead, and two flat pieces (III.20.348, Level 4). *P.S.A.S.*, LIV (1919-20), 70. Level 4. (III.20.335, Level 4). (III.20.76, Level 2).
312. One piece, bent round, repoussé dots along one end (V.21.329, Level 4). *P.S.A.S.*, LV (1920-1), 171.
313. Four pieces, all with various holes (V.21.153, V.21.154, 155 and V.21.258. Levels 2 K, 2 L, 2 J and 2 J).
314. Piece of edging, bent round piece of wood with rivet still in place (1922.284.02). *P.S.A.S.*, LVI (1921-2), 237.
315. Two pieces, one much folded, other like Newstead types (1924.145, 146, T and R2). *P.S.A.S.*, LVIII (1923-4), 267.

It is very difficult to assign some of these mountings to specific objects. As they occur in all levels, it must be that the natives of Traprain went on using scabbards and perhaps wooden caskets, etc., through their occupation. It is conceivable that the U-shaped bindings were acquired from the Roman army but such bindings were known in the pre-Roman Iron Age (*cf.* Hencken, T., 1938, 66 and references).

Harness Trappings (all bronze). 316-56.

- 316.* **PIERCED MOUNTING** in trumpet style. 1.7 ins. long by 0.9 in. broad. Beautifully finished with sharp outline and edges of trumpet-ends bevelled. Not a complete example, and one of the two studs on the back for fastening is broken off at the head (XII.15.146?, Level 4 F). *P.S.A.S.*, I (1915-16), 111, fig. 28/1. A piece of mounting in the scroll-work manner known at Newstead (*op. cit.* pl. LXXVI/1-3) and in the Limes forts (Saalburg, etc.). Curle dates his examples at Newstead to the Antonine period. The low stratification of 316 would suggest an early to mid 2nd century date; the coins found on this level were 1st century. But there does seem to be some connection between the open-work scrolls seen on some of the Stanwick mountings, these trumpet-scrolled mountings and the "eye" or "boss and petal" dress fasteners and mountings. These last are heavier and clumsier

but their affinities with the first two groups is evident. All groups must have been going by at least the end of the 1st century and group one certainly earlier. In which case Traprain 316 and possibly Newstead could be earlier than Curle thought.

317.* **QUATREFOIL MOUNTING** with central boss, 1.9 ins. length and breadth, four leaves, slightly ridged and a square loop on the back for attachment (XI.14.56, Lowest B). *P.S.A.S.*, XLIX (1914-15), 181, fig. 32/2.

318.* **STAR-SHAPED MOUNTING**, 21 ins. by 21 ins., with central boss, on either side are two "boss and petals" and on the top and bottom an open petal, ridged as on 317. One square loop under each boss and petal, and two small holes, one each side, at the base of the boss and petal motifs (XII.15.144, Level 3 P). *P.S.A.S.*, L (1915-16), 112, fig. 28/2.

Both these mountings resemble ones in the Middlebie Hoard, Dumfries. (Childe 1935, pl. XV), and Newstead (*op. cit.*, pl. LXXXV/3). The open boss and petal recalls the similar dress fastener 227, also from a low level. These mountings seem linked to the examples from Saham Toney (*V.C.H. Norfolk*, I, 273) and Corstopitum (Museum), the former having two opposed open leaf motifs, ridged, with a small boss at the bottom and a square plate in the centre; the latter is a quatrefoil of open petals, one opposed pair has small bosses at the base. The Traprain ones are rather solid and less refined which suggests a date in the mid 2nd century, which agrees with the rough dates given to the dress-fasteners. The whole boss and petal style is clearly of a northern British development (*cf.* Curle, 1913, 100), but may well have started off farther south (*cf.* Leeds 1933, Chap. II. on his "incipient" boss style).

319.* **STRAP-END**, 2.3 ins. long with a boss and petal oval head and a thicker stem on a lower plane ending in a flat square plate with a crescentic moulding. Below the plate is a square loop which must have been attached to the end of a strap and linked with another loop of leather. (The stem below the petal is hollowed out and worn, as if from friction) (V.21.247, Level 3 L). *P.S.A.S.*, LV (1920-1), 178, fig. 16. Relation to 317 and 318 is clear, but parallels not very easy to find. It may have been a crupper attachment linking loop round tail and saddle cloth. *Cf.* the much more elaborate one from the Polden Hill horse trappings (Fox 1952, 52, fig. 4). However there are more similar examples from Lowbury Hill, Berks. (1916, 45, pl. XIII/7) and Richborough (II, 47, pl. XX/38).

320. **BOSS** in centre of an oval leaf, 1.5 ins. long whose edges are rolled up and over. Somewhat broken (III.20.327, Level 4). *P.S.A.S.*, LV (1919-20), 67, fig. 7/22. A much cruder version of the one in the Middlebie Hoard.

321. As 320, leaf edges flattened each side of boss; remains of square loop below, along length of oval (III.20.191, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 11/10. Probably a pair, despite different levels (*cf.* Curle's remark on this).

322.* As 320. Complete with loop, which is much worn. Boss shows corrosion (V.21.324, Level 4 I). *P.S.A.S.*, L (1920-1), 171, fig. 12/11.

323. Doubled **BOSS** and **PETAL** design, 1.3 ins. long, poor condition. Loop below, worn and broken, as in 321 (III.20.325, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/21.

- 324.* As 329, complete with bar below. Well shaped bosses (III.20.326, Level 4). *P.S.A.S.*, LIV (1919-20), 67.
325. As 323, complete only not such good moulding or shape (III.20.190, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 11/9.
326. As 323, complete, but the boss is now rudimentary and represents ends of loop joined to base of each petal. Hence a crescentic hole in each petal. Obviously a degenerate example (1924.128.T2). *P.S.A.S.*, LVIII (1923-4), 265, fig. 16/5.

All these mountings are comparable, except for 326 which is later both by stratigraphy and typology. It is not easy to see how these worked, as on harness straps, they would slip up and down, unless fastened on one end of a strap, and they do not seem to be suitable for use on the toggle principle, unlike the dress fasteners. Possibly they served as decorative elements in pairs. An example like 320 turned up in the Barracks at Newstead (*op. cit.*, pl. LXXV/9) which suggests that they may have been an article of dress rather than of harness. The fact that all these mountings are so comparable in size, in shaping of the bosses and petals, and relatively restricted to the lowest levels in only four years' excavations (except 326) implies manufacture on the hill itself. The same applies to the dress-fasteners earlier enumerated. A general discussion on this "boss" style is found in the body of the discussion.

- 327.* Equal-armed **CROSS-MOUNTING**, 1.65 ins., of five squares. The fifth, central one, is formed of two triangular tangential figures brought into prominence by a perforation each side. These projections swell up to point of junction and slightly overlap. Two square loops at back, like 318, obviously had two strap ends fastened to each one; perhaps a strap junction on the cheek part of the bridle (XII.15.145, Level 3 F). *P.S.A.S.*, L (1915-16), 112, fig. 28/3. Presumably allied to 317-18 but not in boss style, though of same period.
- 328.* Small six-petalled **ROSETTE**, diameter 0.9 in. in centre, square loop below; deep grooves separate each petal (XI.14.57, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 182, fig. 32/4. The similarity of this to the Newstead and Balmaclellan rosettes is clear. The peculiar grooving between each petal however is closely paralleled on the bead-string torcs, *e.g.* Hyndford; Lambertton Moor, Berwick; Lochar Moss. The Newstead rosettes are early-mid 80's of 1st century A.D. (Hawkes 1940, 348); Balmaclellan possibly earlier 1st century A.D. The Lochar Moss torc with its superb broken-backed curve ornament combined with bosses should be 1st century A.D., probably second half. The Lambertton Moor one is less sure and the beads are rather badly-shaped, which would agree with the later, *i.e.* 2nd century dating of this and the associated objects. 328 must be an adaptation in the early 2nd century A.D. of one of the bead motifs (though it is conceivable that the Roman melon-bead provided the inspiration).
- 329.* Small **CIRCULAR FASTENING**, like a button, slightly domed and moulded in the centre round a spot of enamel. Loop on back broken (1922.325.N3). *P.S.A.S.*, LVI (1921-2), 251, fig. 28/6.

330. Very similar **BUTTON-TYPE DISC**, but solid and more grooved around the top. Spot of enamel again. Partially broken loop on back (1922.326.N3). *P.S.A.S.*, LVI (1921-2), 251, fig. 28/5.
Obviously comparable types, somewhat like the Late Bronze Age Reach Fen type of button. But the presence of enamel and the heavier style makes an earlier attribution unlikely. Also the square loops at the back are a feature of the British type of harness mounts; the Late Bronze Age buttons seem to have semi-circular loops. (Also see under T. 43.)
331. Plain **DOMED MOUNTING**, c. 1 in. diameter. Convex on upper side; underside concave, crossed by a single bar for attachment (1923.68.P2). *P.S.A.S.*, LVII (1922-3), 210, fig. 20/5.
- 332.* **DISCOIDAL MOUNTING**, 1.5 ins. diameter. Concave centre with some tracery of lines, too faint to see. Outer edge convex. Two square loops on back, not parallel. Perforation in centre (1922.280.02). *P.S.A.S.*, LVI (1921-2), 255, fig. 29/8. Exactly parallel to ones from Newstead (*op. cit.*, pl. LXXIV/1 and 2). The perforation once held a stud, now gone; the position of the loops underneath suggest a strap junction where the straps are exerting a pull, not in a straight line (as in 318) but at an angle. The somewhat similar example from Camelon (*P.S.A.S.*, xxxv (1900-1), 397, fig. 29), has two opposed parallel loops on the extreme edges of the disc and between them, on one edge the remains of a hinge. Possibly all these disc-shaped mounts were used as in the Thorsbjerg bridle (Engelhardt 1863, pl. 13). (Cf. *Newstead*, 300-2.)
333. **SQUARE PLATE** with square loop below 0.75 in. square. Bar is very worn (XI.14.55, Lowest F). *P.S.A.S.*, XLIX (1914-15), 182, fig. 32/3. Resembles a modern "dee" on the fore part of a saddle.
- 334.* As 333, smaller and more oblong. 0.85 in. by 0.6 in. Enamelled on top, three blue diamonds in red enamel. Square loop below, placed lengthwise (XII.15.147, Level 4 F). *P.S.A.S.*, L (1915-16), 111, fig. 28/4. Belongs, like 316, to the early period.
335. As 333, 0.8 in. by 1 in. Marked hollowing on underside, one side, as if to take end of a strap fastened round usual square loop (V.21.325, Level 4). *P.S.A.S.*, LV (1920-1), 171, fig. 12/12.
336. As 333, 1.05 ins. square. Loop below, very corroded (III.20.189, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 11/11.
337. **CIRCULAR FLAT PLATE** with square loop in centre. 1.05 ins. diameter. Corroded (1922.198.M5). *P.S.A.S.*, LVI (1921-2), 266, fig. 20/7.
338. Thin hollow **DOMED MOUNTING**, 1.2 ins. diameter with remains of spike protruding both sides in centre (XI.14.58, Lowest B). *P.S.A.S.*, XLIX (1914-15), 183, fig. 32/5.
339. As 338, without spike, 1.1 ins. diameter. Very fragile. Neither of these has any visible means of attachment (XI.14.61, Lowest C).
340. **SEMI-CYLINDRICAL MOUNTING**, 1.95 ins. long, corrugated on upper surface (7 in number), closed at each end, pierced on top near each end, for a nail or stud (1924.130.R2). *P.S.A.S.*, LVIII (1923-4), 226, fig. 16/7.

341. As 340, with 10 corrugations, same length. Same holes each end (V.21.38, Level 1 J). *P.S.A.S.*, LV (1920-1), 194, fig. 25/4. A mould for these was found in 1919 (564). How these mountings were used is not apparent.
342. **HELMET-SHAPED OBJECT**, open at its base, and towards the lower edge of each side is pierced with an oblong rectangular opening. 0.715 in. by 0.9 in. at base and 0.75 in. high (V.21.143, Level 2 K). *P.S.A.S.*, LV (1920-1), 188, fig. 22/2. Seems as though it was used at a strap junction where two straps crossed each other at right angles.
343. Part of an enamelled **OBLONG ORNAMENT** now about 1 in. long, and 1.1 in. broad, divided into three panels? Broken across centre one. This panel is decorated with a leaf-shaped saltire, one interstice filled with blue enamel, another one pierced by a hole. The other panel is decorated vertically with a blue enamel diamond, with two blue enamel triangles above and below. In between there seems to have been red enamel. On the back is a raised moulding crossing transversely below dividing line of centre and adjoining panel. Presumably a form of mounting, let into leather perhaps and fastened by studs through the perforations in centre panel (1924.129.R2). *P.S.A.S.*, LVIII (1923-4), 266, fig. 16/8.
344. **SQUARE ENAMELLED PLATE** 0.9 in. Blue triangles opposed with yellow crescents in between. Edged with narrow strip of bronze and strips of bronze in between enamel (V.21.145, Level 3). *P.S.A.S.*, LV (1920-1), 186, fig. 21/13. Possibly a failure as one of the yellow crescents is not filled, the surfaces are unpolished and the enamel overflows its beds. A further indication of enamel-working on the hill.

TERRETS. (all bronze except 356). 345-56 (all illustrated pl. XIV.)

345. Loop of bronze, 1.25 ins. internal diameter, terminating in moulded collar linked by flat plate, slightly pointed outwards. Three symmetrically spaced knobs decorate loop (XI.14.47, Lowest B). *P.S.A.S.*, XLIX (1914-15), 182, fig. 32/1. Leeds' Class 7.
346. As 345, very corroded and broken on top. Internal diameter c. 1.45 ins. Collar mouldings and flat plate. Two knobs remain each side (XI.14.51, Lowest B).
347. As 346, broken in same place, but collar mouldings and plate more distinct and less corrosion (XI.14.50, Lowest B). *P.S.A.S.*, XLIX (1914-15), 180-1.
348. Complete example c. 2.1 ins. internal diameter, same collars; flat plate now lipped outwards. Three knobs, larger, as 345 (XI.14.49, Middle D). *P.S.A.S.*, XLIX (1914-15), 181, fig. 31/1 (cf. Middlebie one FA 59).
349. Complete example, 1.9 ins. internal diameter. Collar mouldings, flat plate. Knobs placed symmetrically as usual with two together on top (XI.14.48, Middle B). *P.S.A.S.*, XLIX (1914-15), 181, fig. 31/2.
350. Complete but corroded example 1.45 ins. internal diameter. Usual collar mouldings and plate. Three knobs which could be round with flat or domed tops (III.20.187, Level 3). *P.S.A.S.*, LIV (1919-20), fig. 11/1.

351. Fragmentary example, c. 1.35 ins. internal diameter. Two knobs remain each side, top broken (V.21.248, Level 3). *P.S.A.S.*, LV (1920-1), 178, fig. 14/15.
- 352 and 353. Two segments of two separate? terrets (the dimensions are almost identical but the cross section of the ring of 359 is larger and different from that of 352). Two flat topped studs at one end of segment (V.21.250 and V.21.326, Levels 3 J and 4 J). *P.S.A.S.*, LV (1920-1), 179, fig. 14/19, and 171, fig. 11/14. These may have been part of one terret, Leeds' Class 6 (like Middlebie FA 58 perhaps). However 352 and 353 are unenamelled which is not usual but *cf.* 355.
354. Complete example, except that ring is broken each side of central upper knob. 1.85 ins. internal diameter (1922.200.Ha5). *P.S.A.S.*, LVI (1921-2), 226, fig. 20/8.
355. Segment of a terret 1.6 ins. internal diameter. Flat plate, one collar and part of loop with a flat topped stud enamelled in yellow and red squares alternately (1922.252.Q1). *P.S.A.S.*, LVI (1921-2), 258, fig. 24/3. Leeds' Class 6. Closest parallel is one from Fremington Hagg, near Reeth, Yorks., which has blue and white squares. The Saham Toney, Norfolk, and Seven Sisters, Glam. hoards contain the prototypes, Leeds' Class 5; probably the former are mid/late 1st century. The stratification of 355 suggests a date well on in the 2nd century A.D., or even later, which the polychrome enamel would support (*cf.* discussion above on enamelling), though *Camulodunum* produced an example of a terret stud with enamelled diamonds in blue and red, in a Boudiccan context (*Camulodunum* (1947), pl. XCIX/5). Nos. 345-51, and 354 belong to Leeds' Class 7 and the group has a predominantly Lowland and Scottish distribution (Piggott 1953, 22 and list of other examples and dates). The concentrated distribution of this type on the lowest and second levels agrees with the evidence from the boss and petal harness mountings. It would appear that the type did not reach Traprain till the early/mid 2nd century A.D. The fragmentary condition of some of the examples is evidence of the considerable strain exerted on the terrets, presumably by reins, though it is difficult to see how these terrets were firmly attached on to the cart/chariot front.
356. Iron terret-ring, loop with smaller loop for attachment below, c. 1.7 ins. diameter (1940.365). *P.S.A.S.*, LXXIV (1939-40), 57 d. Rampart cutting. Secondary occupation deposit (*cf.* *Newstead*, pl. LXVI/6, and one in bronze? from Muirleuch, Lauder, with two Class 7 terrets. These might be better regarded as parts of harness than as terrets, since again the loop does not seem very substantial.

Other Objects associated with horses and harness. 357-74.

- 357.* Bronze **OBJECT**, circular head, 1.15 ins. diameter with longitudinal perforation 0.4 in. in centre, and shank broken at end. Overall length 1.85 ins. Crescent of red enamel around top of head, broken in centre by a "tongue-like" bronze strip (1954.234). Surface find near well on top of hill. This object is most unusual, and the only comparable example seems to be the one from the Santon Downham, Norfolk, hoard (*P. Camb. A.S.* XIII (1908-9),

150, fig. 3), which is 2.2 ins. long, and has a decoration of rather loose Celtic scrolls, like "boss and petals" elongated. The associated hoard of objects with a mounting like one from the Polden Hill hoard, casket handles and bronze strips with rosettes suggests a Boudiccan date. The Traprain example may be a direct contact with this area of Eastern England (*cf.* discussion above p. 135). This is too thin to be a linch pin on its own, but it may be the smaller pin which fitted through the loop of a linch pin (*cf.* *Newstead*, pl. LXX/1), instead of a chain holding the linch pin to the axle. The "tongue" of plain bronze over the red enamel suggests that something, perhaps a light chain, fastened through the perforations in the centre over this tongue.

- 358.* Part of a **LINCH-PIN**, iron. Square sectioned bar 0.35 in. thick with flat spatulate head. Length 5.5 ins. Broken head (XII.15.279, Level 4). *P.S.A.S.*, L (1915-16), 113, fig. 29/2 (as a sword-tang). Presumably like Eckford 4 (Piggott 1953, 23, fig. 5/4), but it might be a much broken version of *Newstead*, pl. LXX/1. Low stratification, probably early to mid 1st century.
359. Possible **LINCH-PIN**, iron, fragmentary. Like 358, smaller head 0.3 in. thick; 3.5 ins. long (1922.256.N1). *P.S.A.S.*, LVI (1921-2), 259.
- 359a. **BRONZE OBJECT**. Resembles a door-knob, 2.25 ins. overall height, consisting of a disc, 1.65 ins. diameter with a rounded stem rising from its centre and swelling into a knob, 1.2 ins. in diameter. A perforation at right angles to the stem bisects the knob. A broken-off iron pin of square section protrudes through the end of the knob into the centre of this perforation. The presence of this iron pin suggests that the object fitted into or on to something, possibly a cart or chariot fitting. (1955.237. Find from quarry in 1939.) The only object at all similar is the bronze object from the fort on Cairngryce Hill near Lanark (*P.S.A.S.*, LXXV (1940-1), 218, pl. LII/4). Childe, following a suggestion by Hawkes, put forward the hypothesis that this might be the ornamental terminal of a linch-pin, though the Cairngryce object has only a slender iron core. But the Traprain Law object has a fairly substantial iron peg, in size comparable to a normal iron linch-pin (358). It is not quite clear what was the function of the perforation in the knob unless a thin chain was passed through as an added fastening.
- 360.* **CHEEK-PIECE** of a bridle, iron, 4.55 ins. long. Square section bar, 0.35 in., with two loops (one broken), 0.4 in. apart one side of bar. Breadth from top of bar to base of loop 0.9 in. Internal diameter of loops, 0.35 in. (V.21.191, Level 2 K). *P.S.A.S.*, LV (1920-1), 192, fig. 23/8. No parallels seem to exist. Childe (1935, 229) describes this as a "metal version of the foregoing type," (*i.e.* antler cheek-pieces bored transversely), and says it came from a 3rd century level at Traprain. This last statement needs reservation, as does his reference (fig. 23/8 *not* 21/8) but he may be right on the first part. This piece was probably part of a double bit bridle, used in traction harnessing rather than riding. The fact that one of the loops is broken indicates that considerable strain was exerted on the bit by the reins, and that metal rings passed through these loops to form the junctions for bit and reins. Only metal, rubbing against the iron of the loops, could have produced such an effect. (The author has been informed by Miss Jane Butt that such cheek-pieces are known in modern harnesses, particularly for driven horses, since more severe control is afforded by the double bit than by the normal one.)

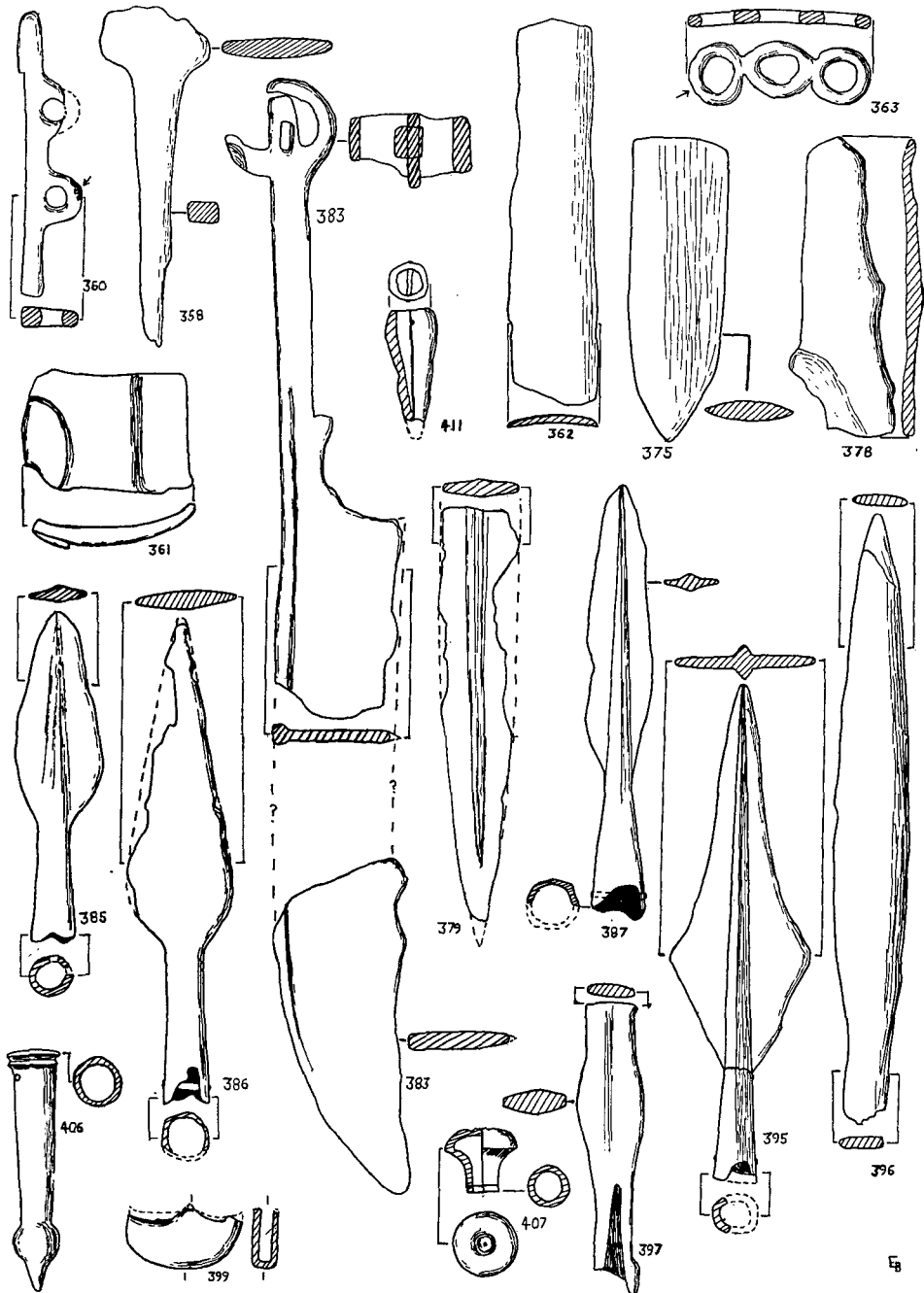


Fig. 6. Traprain Law: Weapons and Harness. (All iron except 363, 406 and 407 bronze.) (†.)

- 361.* Portion of a **HUB-LINING**, iron. Internal diameter 4.6 ins. and 0.25 in. thick. Traces of the bent back portion at the junction (XI.14.222). No reference or level. Cf. *Newstead*, pl. LXX/9.
- 362.* **TIRES**, iron. Two pieces, 6.1 ins. and 3.05 ins. long. 1.35 ins. and 1.4 ins. broad. Slightly convex surface (XII.15.295 and 296). *P.S.A.S.*, I (1915-16), 120, fig. 34/3. Cf. Piggott (1953, 23), for remarks on this type of tire. The Traprain ones are more convex than the Eckford, Carlingwark or Blackburn Mill examples. Possibly Fox's type C (*Llyn Cerrig* (1946), 74). These, like the cheek piece, hub-lining and linch pins point to the use of carts, if not chariots, by the people of Traprain. It is perhaps illuminating that this evidence is not concentrated on the lower levels but is scattered throughout the excavated areas, and would seem to suggest that the inhabitants were able to move about the country side quite freely throughout the Roman occupation. This perhaps explains the considerable evidence of trading contacts with places far abroad.
- 363.* Three joined **RINGS**, bronze. Length 2.9 ins. Internal diameter of rings approx. 0.55 in. Slight convex appearance. More wear on one end ring (XI.14.52). *P.S.A.S.*, XLIX (1914-15), 181, fig. 32/6. Possibly a simpler but similar version of the Middlebie three joined rings (FA 49, 50, 51), which have oval rings, "balusters" in centre of each and loops for straps at each end. The Traprain one must have fastened with straps each end. The slight curve noticed on both Traprain and Middlebie show that these perhaps fitted over the horse's muzzle.
364. Two partially complete examples of 363 and several fragments of others. All bronze. One is comparable in size with 363, the others are smaller (XI.14.53, 54, III.20.319 and 1923.143). (Lowest Level B for first two. Level 4 for third; Level 2 for fourth). *P.S.A.S.*, XLIX (1914-15), 181, for the first two; LIV (1919-20), 68, fig. 8/4 for third.
365. **OBJECT**, iron. Two arms curving into a flat plate at one end. Height 2.6 ins. length of plate 1.9 ins., breadth 0.6 in. (III.20.365, Level 4). *P.S.A.S.* LIV (1919-20), 74, fig. 9/11. Resembles a modern stirrup. Cf. *Newstead*, pl. LXVI/1.
366. **RING**, bronze. Internal diameter 1.3 ins. Swells out on two opposite segments (III.20.188, Level 3). *P.S.A.S.*, LIV (1919-20), 79, fig. 11/12. Probably connected with harness of some kind. Many other rings found fall into this class but have been catalogued later, as being of indeterminate use, 468-72.
367. **CIRCULAR OBJECT**, iron. Internal diameter 1.5 ins. Length 1.4 ins. (V.21.123). No Level known. Could this be a sheathing for a rod or pole, on a cart?
368. **QUADRANGULAR RING**, iron. Internal diameters 1.9 ins. by 1.5 ins. Worn on both long sides (XI.14.218). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/16. No level. Probably part of cart-fittings (cf. *Newstead*, pl. LXVI/2).
369. **OVAL OBJECT**, iron, overlain with thin bronze plate, 1.75 ins. by 0.85 in. and 0.4 in. thick. Rectangular transverse piercing, presumably for a strap, though the two holes are not equal in size (III.20.210, Level 3). *P.S.A.S.*, LIV (1919-20), 85, fig. 17. Unknown use—perhaps a belt-slider? Cf. bone object from Road Broch, Keiss, Caithness, *N.M.A.E.*, xxxv (1900-1), 131.

370. **OX-GOAD**, iron. Corroded and point broken off. Diameter 0.9 in., height 0.8 in. Formed from a tube of iron (1922.217.Ma5). *P.S.A.S.*, LVI (1921-2), 228. Type fairly common in Britain and in Germany in the Limes forts. (Cf. Pitt Rivers, I, pl. XXIX/10 etc., and *O.R.L.*, 35, Kastell Faimingen, Taf. IX/9). Presumably fastened on to a rod.
371. **OX-GOAD**, iron. Diameter 0.7 in., height 1.8 ins. Formed from a strip of iron rolled over (V.21.275, Level 3). *P.S.A.S.*, LV (1920-1), 182, fig. 17/4.
372. **OX-GOAD**, iron. Diameter 0.8 in. Length 1.4 ins. Formed from a twisted strip of iron (XI.14.203). *P.S.A.S.*, XLIX (1914-15), 188, fig. 37/2. Cf. Newstead example figured in same volume *op. cit.* 188, fig. 37/3.
373. **HORSESHOE**, iron, half a shoe. Four nail holes, one still retaining a nail (XI.14.217, Top Level E). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/9.
374. **HORSESHOE**, iron, half a shoe. Four nail holes, roughly oblong and sunk. No calkin (XII.15.297, Level 2 Terrace area). *P.S.A.S.*, L (1915-16), 120, fig. 34/2. Level 2 Terrace area.

These are of dubious Romano-British date. Ward (1941, 9-27) discussed the "Iron Age" type of horseshoe but Ward-Perkins (1941, 144-9) refuted his argument. The only securely dated horseshoe is the one from Sheepen Farm, Colchester, immediately pre-conquest 49 A.D. But there are no other examples in Britain firmly and accurately dated except for the Maiden Castle ones, and these are late 4th to early 5th century A.D. (*Maiden Castle* (1943), 290, pl. XXX B). The Traprain examples may be much later (note the finding of a medieval type spur on the hill), even though horseshoes are known from Roman sites in Germany (*e.g.* Saalburg). No shoes were found at Newstead which seems significant, and in view of the find spots of the Traprain examples (all surface or upper levels) they should be discounted as certainly of the Roman period. See also *Ulster J.A.*, 3rd Ser. XVI (1953), 47, the horseshoes from Boho Rath, Co. Fermanagh, and the analogies there cited from Brough, South Shields, and Cilurinum with refs.

Weapons (all iron unless otherwise stated). 375-418.

- 375.* **TIP of SWORD-BLADE**, 4.9 ins. by 1.55 ins. maximum width. Very corroded (1923.122.M2). *P.S.A.S.*, LVI (1921-2), 238, fig. 18/2. Cf. Carlingwark 26-29 (Piggott 1953, 35, fig. 9) for comparable examples. Native type of sword (*Llyn Cerrig* (1946), pl. XXXIV).
376. **TIP of SWORD BLADE**, 6.2 ins. by 1.1 ins. maximum width. Corroded (XII.15.280, Level 3 F). *P.S.A.S.*, L (1915-16), 113, fig. 29/1.
377. **TIP of SWORD BLADE**, 5.9 ins. by 1.1 ins. width. Corroded and bent (XII.15.281, Second level in Terrace X).
- 378.* **TANG of SWORD**, (or Dagger), 4.7 ins. long, widening out one end to c. 2 ins. from width of tang 1 in. Much corroded (III.20.81, Level 2). *P.S.A.S.*, LIV (1919-20), 92, fig. 21/3. Resembles the dagger from Newstead (*op. cit.*, pl. XXXIV/9). The dimensions of this tang 378 connect it with 375-7 (*cf.* also *Llyn Cerrig* (1946), 90, no. 92).

- 379.* **TIP OF SWORD**, point broken, approximately 7.1 ins. long by 1.2 ins. maximum width. Marked mid-rib 0.3 in. thick, though corroded (1923.211. P3). *P.S.A.S.*, LVII (1922-3), 204, fig. 18/1. The very pointed, rather than rounded point end and the presence of the mid-rib seem to indicate that 379 is a part of the sword carried by auxiliaries in the Roman army, the *spatha*. (Cf. *Newstead*, 183-5, pl. XXXIV/6). See also Ole Klindt-Jensen's comments (1952, 202).
380. Part of **SWORD BLADE**, very corroded. About 5.3 ins. by c. 1.3 ins. width. Mid-rib as in 379 (XII.15.293, Level 2). Presumably part of a *spatha* but very fragmentary.
381. **RIB of a SHIELD**. 3.4 ins. long, 0.5 in. broad and 0.2 in. thick. Large disc-like rivet or nail one end, c. 0.8 in. diameter (XII.15.274, Level 4 F). *P.S.A.S.*, I (1915-16), 115, fig. 29/7. Possibly like *Newstead* (*op. cit.*, pl. XXXIV/1, p. 182).
382. Part of a **SHIELD BOSS**, (the domed, central portion). Diameter c. 3.4 ins., rather fragmentary, and the encircling edge carrying the rivet holes fastening are gone (III.20.373, Level 4). *P.S.A.S.*, LIV (1919-20), 74, fig. 9/14. Cf. *Newstead*, pl. XXXIV/3 for similar larger type. Also *Verulamium* (1936), 219, pl. LXIV/5. 381 and 382 may well go closely together, their low stratification suggests an early date, and they may, like the Roman swords, represent acquisitions from the Roman army. 382 does however seem small for a shield boss.
- 383.* Two **SINGLE-EDGED KNIVES**. One consists of the hilt and blade in two pieces, other of the hilt only. Blades are heavy, and single-edged, with thick backs grooved below on one side. Edge and back are parallel except where cutting edge curves down and the back comes steeply down to form point. Tang, square in cross-section, has a projecting knob 1.015 ins. above beginning of blade, and ends in a pommel formed of a broad ring which narrows across the top. On both examples the pommels are broken and are fixed by a stout cotter-pin. Tang and pommel of one knife is 6.8 ins. long with part of the blade hence 10.2 ins. overall, and a broken-off part of the blade, 5.2 ins. long, c. 2 ins. wide. The total lengths of this knife can only be estimated as this was seemingly never recorded by the excavators. The other tang pommel measures 7.1 ins. long. The photo in *P.S.A.S.* is from the originals; the line drawing reconstruction is from the casts (1923.58a and 1923.59a.Q1). *P.S.A.S.*, LVII (1922-3), 219, fig. 27. As Curle pointed out the closest analogy is with the Teutonic scramasaxes at least in size and character, but no parallels exist. A similar object, though part of a pair of shears, was found near Reims (British Museum Reg. No. ML 2566). It has the same odd projection above the blade and a curving top which forms the spring part. Blade is 7.3 ins. long and 1.5 ins. broad. Tang is 5.85 ins. It seems apparent that 383 cannot be two arms of a pair of shears owing to the odd pommel. The fact that these ?knives may not be of the Roman or sub-Roman period should be considered, particularly in view of the medieval spur discovered in the surface of an adjoining level. Information received from Dr Hayes-McCoy, Dublin, to the effect that 16th-century Irish claymores have ring-pommels led to personal investigation. Both Dr Hayes-McCoy and the author see no resemblance between these Irish pommels and those of 383. It is perhaps illuminating to note that on several of the grave-slabs from

Kilmory Knap churchyard, Argyll, there are representations of shears closely parallel to the fragmentary Reims one, particularly in the odd projection above the blade. These grave-slabs are considered to be late medieval (*P.S.A.S.*, LXIX (1934-5), 16-19).

384. **SPEAR**, leaf-shaped, closed socket. Width of blade, 1.5 ins., 6.4 ins. overall length, socket 2.3 ins. (III.20.353, Level 4). *P.S.A.S.*, LIV (1919-20), 72, fig. 9/1. Cf. *Newstead*, pl. XXXVII/5 and 6. This type was very common at Newstead and may represent the native Celtic spear head.
- 385.* **SPEAR**, as 384, with closed socket, but slight mid-rib on blade, maximum width 1.5 ins. 5.3 ins. long, socket 1.8 ins., running up into blade (1922.364.04). *P.S.A.S.*, LVI (1921-2), 248, fig. 18/6. Presumably related to 384. Cf. however the Buston one, Munro, *A.S.L.D.*, 224, fig. 233.
386. **SPEAR**, leaf-shaped, closed socket. Width blade 1.7 ins., 7.8 ins. long, socket 2.5 ins. Rivet still in position at base of socket (XI.14.213, Middle Level B). *P.S.A.S.*, XLIX (1914-15), 183, fig. 33/4. Cf. *Newstead* examples again. Also one from Hodhill, Dorset, in late 1st century context (Smith, C. Roach, 1868, VI, pl. II/7) and *Verulamium* (1936), 219, pl. LXIV/2.
- 387.* **SPEAR**, as 386, but with mid-rib and not so broad a blade, 1.2 ins., 7 ins. long, 2.2 ins. socket (III.20.201, Level 3). *P.S.A.S.*, LIV (1919-20), 89, fig. 15/2. Possibly this mid-rib trick was a later development of the leaf-shaped spear-head, though La Tène spears have mid-ribs (cf. under 396). Cf. *Llyn Cerrig* (1946), 74, pl. XXXV/13 and Lochlee (Munro, *A.L.S.D.*, 125, fig. 191) which are both much longer. (Vide also Fett, 1938, fig. 19 for a type later in time, A.D. 400-500).
388. **SPEAR**, broken socket and corroded 5.7 ins. long socket c. 1.5 ins. Narrower blade, 1.2 ins. (V.21.272, Level 3 K). *P.S.A.S.*, LV (1920-1), 182, fig. 17/1.
389. **SPEAR**, leaf-shaped but short blade, closed socket, width 0.95 ins., 5.2 ins. long, socket 2.7 ins. (V.21.276, Level 3 L). *P.S.A.S.*, LV (1920-1), 182, fig. 17/2. Very comparable to 384, also cf. one from Dunadd, *P.S.A.S.*, xxxix (1904), 292, and N.M.A.E. No. M.P.O. 307.
390. **SPEAR**, like 388, 389, closed socket but more spatulate blade, width 0.9 in., 5.2 ins. long, socket 2 ins. Very corroded indeed (XI.14.201, Middle Level). May be the one figured in *P.S.A.S.*, XLIX (1914-15), 183, fig. 33/2.
391. **SPEAR**, leaf-shaped, closed socket, 4.1 ins. long, socket 1.9 ins. Width of blade 1.2 ins. corroded (1924.222.R2). *P.S.A.S.*, LVIII (1923-4), 273, fig. 19/1. Shorter type than usual but cf. one from an Ayrshire Fort, N.M.A.E. No. H.M. 341.
392. **SPEAR**, as 391, 5.2 ins. long, socket 2.2 ins., width of blade c. 1.2 ins., broken one side, socket point runs into blade (1923.133.P2). *P.S.A.S.*, LVII (1922-3), 214, fig. 24/1.
393. **SPEAR**, as 391, closed socket, 5.2 ins. long, socket 2 ins. Maximum width of blade 1.6 ins. (III.20.22, Level 3?). *P.S.A.S.*, LIV (1919-20), 83, fig. 15/1. Shown with slight mid-rib, now very corroded. Cf. *Glastonbury*, II, pl. LXII/I 42.

394. **SPEAR**, broken in two, top is 1.7 ins. long, socket and part of blade 3.2 ins. Closed socket. Maximum width c. 1.3 ins. Probably leaf-shaped variety (III.20.21). *P.S.A.S.*, LIV (1919-20), 97, fig. 25.
- 395.* **SPEAR**, angular blade with shoulder and well defined mid-rib. 8 ins. long, socket 1.8 ins. maximum width of shoulders 2.3 ins. Remains of rivet in base of socket (XI.14.212, Middle Level). *P.S.A.S.*, XLIX (1914-15), 183, fig. 33/1. Not a usual type and seems more Bronze Age. But cf. fragment of one from a surface find at Newstead, *op. cit.* pl. XXXVII/10, and a smaller version from a Fife site, Merlsford (N.M.A.E. No. MM 340). Curle cited an example from Cricklade (*P.S.A.Lond.* 2nd Ser. III (1864-7), 67) found with a wide range of coins, but this is however leaf-shaped rather than angular.
- 384-395 are all representatives of the leaf-shaped, socketed spear class, and the variations in size and shape must represent individual tastes rather than new types. They do not seem distinctively Roman and, though common at Newstead, are probably the native spear-head developed under Roman influence. Note the Lagore variety, *op. cit.* 95, 96, fig. 29.
- 396.* **SPEAR?** long and tapering, with a tang. 9.8 ins. long, maximum width of blade 1.2 ins. (XI.14214, Middle Level D). *P.S.A.S.*, XLIX (1914-15), 183, fig. 33/5. Seems unparalleled—perhaps akin to the long Ronaldsway one which had a slight socket, (*Ant. J.*, xx (1940), 83, fig. 3/10). But very probably 396 was a dagger rather than a spear. Cf. *Richborough*, IV, pl. LX/323. (Fett 1938, fig. 64, shows a very similar single-edged object from Norway which he calls a dagger, but this again is a later type.)
- 397.* **SPEAR**, socket and part of blade only. Split socket and narrow blade 4.4 ins. long; width of blade 1.1 ins. Slight mid-rib (XI.14.200, Upper Level 3). *P.S.A.S.*, XLIX (1914-15), 183, fig. 33/3.
398. **SPEAR**, split socket and very corroded pointed blade 4.2 ins. long (III.20.79, Level 2). *P.S.A.S.*, LIV (1919-20), 92, fig. 21/1.
- Both these spear heads must represent a new type of spear-head. Split sockets are usually taken to be characteristic of the Dark Ages and Anglo-Saxon period, and this would accord fairly well with the Traprain high stratification of 397 and 398. On the other hand, a spear from the early fort at Newstead has a split socket (*op. cit.*, pl. XXXVII/22) and it would be rash to assume a late dating for all split sockets. The most one can say is that the examples on Traprain seem later and different from the more common leaf-shaped variety.
- 399.* **CHAPE**, broken on top. Cf. *Newstead*, pl. XXXV/16-18, probably like 16 (XI.14.205, Middle Level). *P.S.A.S.*, XLIX (1914-15), 185, fig. 34/2. Unlike the Newstead examples, 399 appears to have no rivet holes for fastening. Presumably the top curved up in the centre. Typical Celtic type.
400. **SHEATH TOP**, bronze, oval 1.6 ins. long by 0.55 ins. Hollowed out on underside; to receive top of sheath or scabbard, or more probably, to act as a stop to prevent blade being thrust too far into sheath (1922.105.Ma1a). *P.S.A.S.*, LVI (1921-2), 213, fig. 13/1. Curle claimed this as Late Bronze Age, but an identical example came from the Roman level in Covesea Cave (*P.S.A.S.*, LXV (1930-1), 193, fig. 15/2). The Newstead native type swords have cocked-hat guards but the Traprain and Covesea examples must be far simpler and for smaller hilts. But cf. *Lagore* (1950), 92, fig. 27/D for straight guards, where Hencken claims that these are Viking in Great Britain.

401. **HILT MOUNTING?** Iron. Oval 1.2 ins. long by 0.55 in. and 0.6 in. high (XI.14.211, Upper Level). *P.S.A.S.*, XLIX (1914-15), fig. 45/14. Possibly slipped over hilt.
402. **JAVELIN-HEAD**, in two parts. Spatulate flat head, 2.1 ins. long, 0.65 ins. broad; split socket 1.8 ins. long (XII.15.275, Level 2). *P.S.A.S.*, L (1915-16), 115, fig. 29/6. Seems an odd weapon, and may be a small spear with the characteristic later split socket *cf.* 397 and 398. *Cf. Newstead*, pl. XXXVIII/11.
403. **ARROW-HEAD**. 5.1 ins. long, closed socket 2.5 ins. Head is triangular in cross-section and socket square (1923.212.P3). *P.S.A.S.*, LVII (1922-3), 204, fig. 18/2. *Cf. Newstead*, pl. XXXVII/16.
404. **ARROW-HEAD?** Very corroded, 1.4 ins. long but broken at stem. Registration uncertain. May be *P.S.A.S.*, L (1915-16), 115, fig. 29/5.
405. **ARROW-HEAD**, also corroded. 3.2 ins. long with roughly square-sectioned pointed head (1924.220, Level 2). *P.S.A.S.*, LVIII (1923-4), 274, fig. 19/4. There described as a ferrule but seems more like a battered version of 402. But *cf. Newstead*, pl. XXXVIII/9.
- 406.* **SPEAR-FERRULE**, bronze with pointed knob of iron attached to the narrower end. 4 ins. long, internal diameter of socket 0.55 in. Double convex moulding around top and one small rivet hole below (XII.15.278, Level 3/4). *P.S.A.S.*, L (1915-16), 115, fig. 29/4. Not a very common type; no comparable types from Newstead except in iron, *op. cit.*, pl. XXXVIII/12, etc., and these may have been for the shafts of ballista bolts (*op. cit.*, 189). But an exact parallel, though corroded, was found in a Late Bronze Age hoard at Lanant, Cornwall (*Archæologia*, xv (1806), 118) and the type may be derived from an earlier native one.
- 407.* **SPEAR-BUTT** or Hilt Pommel. Bronze dome-shaped, socketed. Maximum diameter 1.1 ins., 1 in. in length and internal diameter of socket 0.35 in. Top encircled by a incised line with what may have been a spike in the centre (III.20.336, Level 4). *P.S.A.S.*, LIV (1919-20), 71, fig. 8/16. Closest parallel is the Crichtie, Aberd. version possibly associated with a bronze terret of Leeds' Class 8 (*P.S.A.S.*, LXI (1926-7), 244, fig. 4).
408. Two **SPEAR-BUTTS** or **POMMELS**. Bronze faulty castings, and very heavy. Socketed like 407 but more elaborately moulded (III.20.337 and 338, Level 4). *P.S.A.S.*, LIV (1919-20), 68, fig. 8/7. Despite the faulty casting it is possible to see a strong resemblance to the Broch of Harray, Orkney example (*P.S.A.S.*, VII (1866-8), 103) which has two convex mouldings encircling the socket below the domed top. This in turn seems related to the bone hilt and pommel from Newstead, *op. cit.*, pl. XXXIV/19 which is much larger.
- One difficulty in discussing these domed spear butts is the fact that similar ones have occurred in Late Bronze Age contexts (*cf. Coffey*, 44, fig. 44) in Ireland; in La Tène contexts, *cf. Lisnacrogghera* ones (Munro, L. D., 384, fig. 124, 28, 29 and 30). Yet moulds for "door-knob" spear-butts occur in 1st-2nd century contexts in Scotland, *cf. Dunagoil (T.B.N.H.S., ix (1925) 56, pl. 40)* and at Traprain. This "door-knob" butt is probably a long-lived native type, in which case the Traprain examples could as well be early 1st as mid or late 2nd century. Probably in view of their low stratification, they are early and belong to the period around the turn of the 1st century B.C./A.D. like the ring-headed pin, 95, and socketed iron axe, 473.

- 409.* **SPEAR-BUTT**, bronze, 1.3 ins. long. Socket, 1.3 ins. internal diameter. Sides slightly concave. Top is cupped with a conical projection in centre. Remains of 2 rivet-holes, one each side below socket mouth (1932.88). *P.S.A.S.*, LXVI (1931-2), 216, fig. 2. Quarry find. Seems unparalleled but there is a fairly similar example in the Santon Downham hoard (*P. Camb. A.S.*, XIII (1908-9), 151, fig. 5). See under 357; possibly the two objects came together to Traprain along the same route?
410. **SPEAR FERRULE**, iron. Broken point, split socket. 2.45 ins. long (XII.15.305, Level 3 F).
- 411.* **SPEAR FERRULE**, as 410, complete with pin still in place at top of closed socket. 1.8 ins. long (V21.193, Level 2 K). *P.S.A.S.*, LV (1920-1), 192, fig. 23/6.
412. Three **SPEAR FERRULES**, all split sockets and corroded. 2.8 ins., 2.7 ins. and 1.5 ins. long (1924.T1).
413. **SPEAR FERRULE**, closed socket, 0.35 ins. internal diameter. 5.2 ins. long (III.20.80, Level 2). *P.S.A.S.*, LIV (1919-20), 91, fig. 21/2.
414. **SPEAR FERRULE**, as 411 probably. Top broken. 0.45 ins. internal diameter of socket. 3.7 ins. long (XII.15.276, Level 1?). *P.S.A.S.*, I (1915-16), 115, fig. 29/3.
415. **SPEAR FERRULE**, battered. 1.85 ins. long (XI.14.1, Middle Level B).
416. **SPEAR FERRULE**, closed socket c. 0.35 ins. internal diameter. 2.2 ins. long with well-rounded point (V.21.192). *P.S.A.S.*, LV (1920-1), 192, fig. 23/5.
417. **SPEAR FERRULE**, split socket, broken tip. 1.2 ins. long. No registration.
418. **SPEAR FERRULE**, fragmentary. 1.5 ins. long. Uncertain registration.
All presumably in same class as Newstead, *op. cit.*, pl. XXXVIII/12-13, 15-17, only much simpler and imperfect examples. Cf. *Lowbury Hill* (1916), *op. cit.*, pl. XIV/15 and also *Newstead*, pl. LVIII/6 for more comparable examples.

Knives (all iron unless otherwise stated).

- 419.* **SPATULATE BLADE** of iron, with a bronze handle, overall length 6.2 ins.; handle 3.1 ins. Width of blade 1.55 ins. The handle is divided into two longitudinal quasi-cylindrical mouldings; a sharp double-edged moulding runs down the centre of each side and cord moulding down each edge. Two sockets in the base indicate existence of a finial fastener at one time. The peculiar striations on the blade are probably due to the impressions of straw into the rust and corrosion (XI.14.197, Middle Level B). *P.S.A.S.*, XLIX (1914-15), 187, fig. 36/1. Curle likened 419 to knives found in the 3rd century Gallo-Roman cemetery of Vermand (Eck, 196, pl. XII/15); one knife had a circular bone handle ornamented exactly like 419; these knives are larger than those from Traprain.
420. **SPATULATE BLADE**, as 419, 5.7 ins. long. Width of blade 1.6 ins. No handle (XI.14.196, Middle Level B). *P.S.A.S.*, XLIX (1914-15), 187, fig. 36/2.

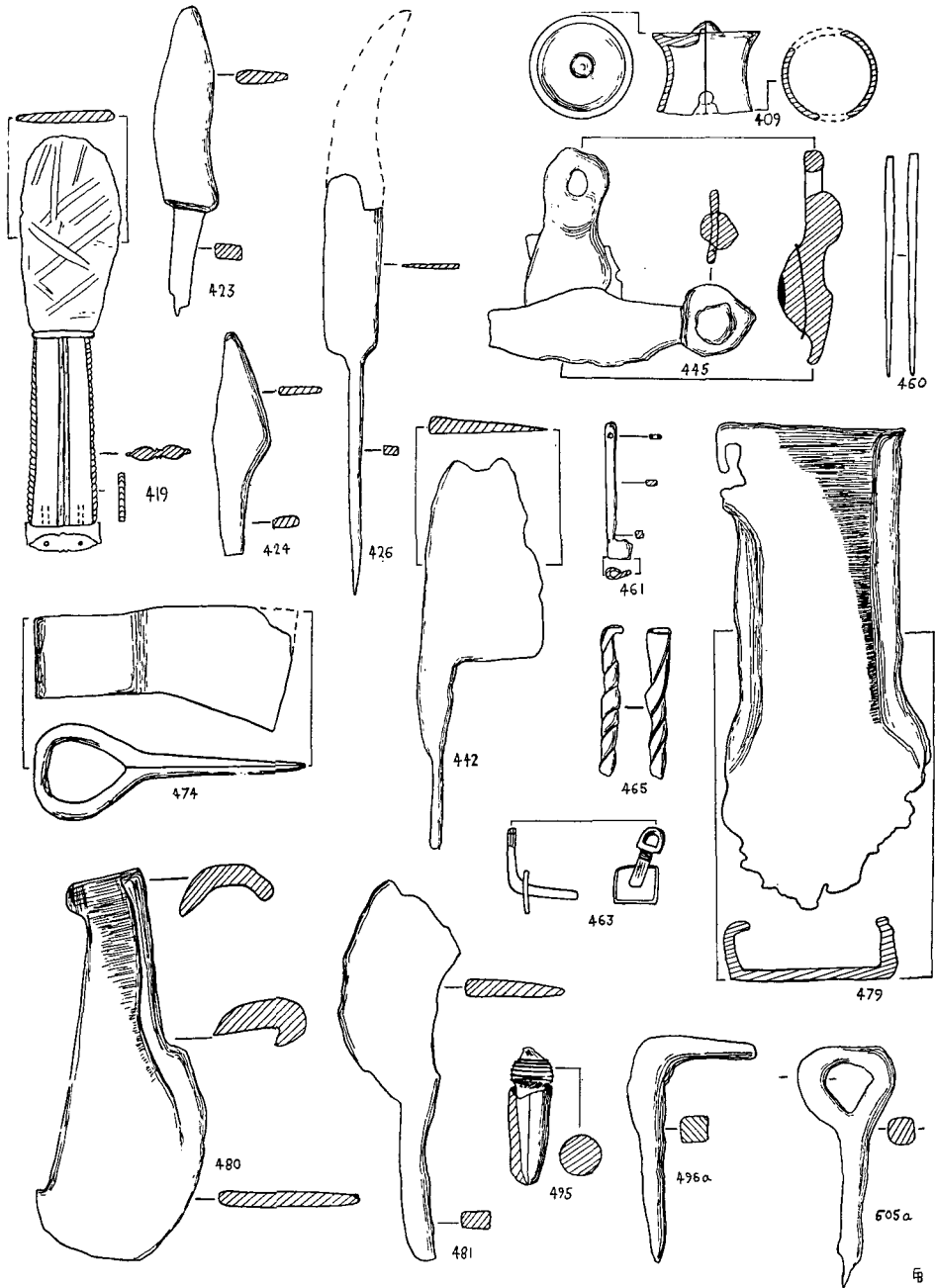


Fig. 7. Traprain Law: Knives, Household Objects and Tools. (All iron except 409, 461, 463 and handle of 419 bronze.) (1/4).

421. **LONG BLADE**, 5 ins. long. Very corroded, possibly (XI.14.195). *P.S.A.S.*, XLIX (1914-15), 187, fig. 36/3.
 These three knives seem of the same class and similar ones are known also in Germany (*Niessen*, I, 229 and II, Taf. CXXX). It is not improbable that the people of Traprain had contacts on the Continent—*cf.* the fragments of painted glass from Traprain and one engraved piece which are related to glass vessels found in the Gallo-Roman cemetery at Strasbourg. (Curle 1931, 294 and refs.).
422. **KNIFE POINT**, very corroded. 3 ins. long, 0.9 ins. broad (XI.14.225). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/1. Too corroded to say what type of knife, possibly like 421.
- 423.* **KNIFE**, 4.7 ins. long; tang 1.7 ins. with a well-defined check at beginning of blade, which is slightly curving and narrows to tip (XII.15.269, Level 1). *P.S.A.S.*, L (1915-16), 116, fig. 31/1. Something like *Newstead*, pl. LX/13. Also *cf.* *Saalburg* (1897), Taf. XXXVII/23.
- 424.* **KNIFE**, triangular blade and tang. 3.5 ins. long, tang c. 1.1 ins. long. Very slight slope away from tang on back (III.20.207, Level 3). *P.S.A.S.*, LIV (1919-20), 83, fig. 15/4. *Cf.* *Newstead*, pl. LX/8.
425. **KNIFE**, flat straight blade and tang. 2.95 ins. long, tang 0.9 in. Maximum breadth 0.7 ins. (III.20.89, Level 2). *P.S.A.S.*, LIV (1919-20), 92, fig. 21/7.
- 426.* **KNIFE**, cast or original. 9.3 ins. long, tang 3.7 ins. square cross section. Blade curving round to top. Slight thickening of back of blade and distinct tendency for both sides of blade to curve out from tang, but not a marked "kick-back" (1923.136a.P2). *P.S.A.S.*, LVII (1922-3), 214, fig. 24/2. Unlike *Newstead* knives but *cf.* one from *Buston* (*Munro, A.S.L.D.*, 223, fig. 229) which has a more marked back. Also *Wookey Hole*, Balch, 85, fig. 8. (The lower part of the blade and tang remains; the line drawing is a reconstruction from this and the cast).
427. **KNIFE**, smaller version of 424. Point broken. c. 2.1 ins. long (1923.217.Q3). *P.S.A.S.*, LVII (1922-3), 204, fig. 18/7.
428. **KNIFE**, imperfect example, 4 ins. long, trace of a tang. Slight tendency to "kick-back" as in 426. No registration. Possibly *P.S.A.S.*, LVII (1922-3), 214.
429. **KNIFE**, very fragmentary, 4 ins. long. Slight "kick-back"; spatulate-like blade (III.20.206, Level 3). *P.S.A.S.*, LIV (1919-20), 83, fig. 15/6. This is the object said to be a "poker" like *Déchelette*, IV, 933, fig. 639 and referred to as such in *P.P.S.*, III (1937), 54, fig. 8. Other similar examples are quoted as parallels for a "poker" found on the early Iron Age site at Southcote, Reading. However, the *Traprain* example is too fragmentary to say one way or the other.
430. **KNIFE**, extremely fragmentary. Broken point, otherwise like 428. Length c. 2.6 ins. (III.20.208, Level 3). *P.S.A.S.*, LIV (1919-20), 83, fig. 15/5.
431. **KNIFE**, possibly a shear blade. Very fragmentary. 3.4 ins. long, one straight edge (V.21.188, Level 2 I). *P.S.A.S.*, LV (1920-1), 193, fig. 23/3.

432. **KNIFE**, possibly a shear blade, 2·9 ins. long with one straight edge (1922.196). No level known.
Nos. 433–8 are exceptionally badly preserved and it has been impossible in some cases to ascertain length.
433. Two **KNIVES**, 5 ins. and 5·35 ins. long respectively, sloping shoulders (V.21.186 and 185, Level 2). *P.S.A.S.*, LV (1920–1), 192, fig. 23/2 and 1. Recall the knife-roughout from Blackburn Mill Hoard (Piggott 1953, 45, fig. 12/19). Curle thought they were shears but it does not seem likely. *Cf.* Newstead, N.M.A.E. No. FRA 275.
434. **KNIFE**, pointed, like 432 without tang (XII.15.272). *P.S.A.S.*, L (1915–16), 116, fig. 31/4.
435. **KNIFE ? SPOKESHAVE**, 2·25 ins. long, thick at one end with a curved hollow on lower edge (XII.15.271, Level 3 G). *P.S.A.S.*, L (1915–16), 116, fig. 31/6.
436. **KNIFE**, probably one figured in *P.S.A.S.*, L (1915–16), 116, fig. 31/2. Level 2. No registration and very corroded.
437. **KNIFE**, probably *P.S.A.S.*, L (1915–16), 116, fig. 31/5.
438. **KNIFE**, like 432. 2·2 ins. long. Corroded. No registration.
439. **BLADE**, slight mid-rib thickening. Point broken, 3·8 ins. by 0·55 maximum width (1923.137.Q2). *P.S.A.S.*, LVII (1922–3), 214, fig. 24/3.
440. **KNIFE**, long tang, domed at end. 4·1 ins. overall, tang 2·8 ins. Blade is parallel-sided. 0·5 in. broad and broken (1924.284). Rampart? Vague resemblance, to the flat parallel-sided, but larger, ones from Buston (not figured in Munro *A.S.L.D.*).
441. Tang and part of **BLADE**, 2·5 ins. long overall, of a knife like 440. Blade 0·4 ins. wide (1923.138.Q2).
- 442.* Large **SINGLE-EDGED KNIFE**. 6·2 ins. long, blade 1·9 ins. Thin tang. Registration uncertain. Distinct resemblance to one from Mumrills Fort (*P.S.A.S.*, LXIII (1938–9), 559, fig. 22/2). *Cf.* also *Verulamium* (1936), pl. LXIV B/12. May be the one referred to from Level 1 in *P.S.A.S.*, LIV (1919–20), 97.
443. Collection of corroded knife tangs, points etc. (XII.14.3?, Level 2). *P.S.A.S.*, XLIX (1914–15), 198, fig. 45/4. ?Tang. (XI.14.230). *P.S.A.S.*, XLIX (1914–15), 198, fig. 45/12 ?knife point. (XI.14.240). *P.S.A.S.*, XLIX (1914–15), 198, fig. 45/11. Blade. (XII.15.313). *P.S.A.S.*, L (1915–16), 122, fig. 34/8. Broken point. (III.20.78, Level 2). Blade? Level 2.

An interesting point to note about these knives is their concentration in the upper levels. Few come from the lower levels and these are closest to Roman originals. The only seemingly Roman one has, unfortunately, no registration, 442. But note similarity of 424 with one from Bredon Hill, Glous. (Hencken, T., 1938, 79, fig. 9/2). The Traprain knives fall neither into the class of knife seen at Buston, nor into the Newstead type. Some of them are paralleled however in broch finds. It is a pity that the condition of the Traprain knives is not more satisfactory.

Implements and Tools.

444. **PATERA HANDLE**, bronze. 4.5 ins. overall length. Flat but with flanged edges underneath. Covered with a chequer pattern in incised lines, poorly executed. Handle swells out slightly towards rim, then curves in again. Traces of four rivet holes along the rim segment. The underside bears marks indicating that the handle was wrenched off (XI.14.199, Middle Level B). *P.S.A.S.*, XLIX (1914-15), 196, fig. 44/6. Presumably a Roman type, though this example seems not to have been cast in one with the bowl. The Glenshee ladle and colander have similar shaped handles, though not the method of fastening (Curle, 1931, 306, fig. 16). But the bronze vessels in the Irchester Hoard seem to have handles attached like the Traprain one (*V.C.H. Northants.*, 183, fig. 14/esp. 7 and 8). The normal patera handle found in Scotland has a perforation for suspension.
- 445.* **BUCKET HANDLE**, iron but with bronze plate (part of bucket rim?) riveted at the back. 3.4 ins. long; top loop and one arm only. Much corroded but traces of expanded oval end to arm with domed rivet (V.21.273, Level 3 J). *P.S.A.S.*, LV (1920-1), 182, fig. 18. Cf. Carlingwark 11 for a much better preserved version. Probably Roman.
446. **HANDLE**, twisted bronze wire, curving up at one end into a small domed top. Approximate distance between the two ends 3.8 ins. (1923.158.Q3). *P.S.A.S.*, LVII (1922-3), 201, fig. 13/11. Excavator thought it was a torque but it seems closer to the handle type as seen at *Camulodunum* (1947), pl. C/3.
447. **HANDLE**, twisted bronze wire, 2 ins. long with loop at top. Possibly too straight for a handle, but too fragile for a lamp-hook (III.20.309, Level 4). *P.S.A.S.*, LIV (1919-20), 67, fig. 7/15.
448. **HANDLE**, bronze, approximate internal diameter 2.9 ins. Circular cross section, one end curves round, but both ends are broken (XII.15.251, Level 2 F). *P.S.A.S.*, I (1915-16), 132, fig. 40/4. Level 2 F.
449. **HANDLE**, more complete, bronze. 2.7 ins. internal diameter (III.20.346, Level 4). *P.S.A.S.*, LIV (1919-20), 68.
450. **HANDLE**, bronze, broken, as 449 (XII.15.252, Level 4 G). *P.S.A.S.*, I (1915-16), 132, fig. 40/5.
- These three handles, presumably for caskets, are closely parallel by one from a mid 1st century A.D. context in Bredon Hill (Hencken, T., 1938, 71, fig. 4/17). The Newstead examples, *op. cit.*, pl. LXXXII are straighter.
451. **HANDLE**, bronze, double curve. 2.2 ins. overall. Very thin bronze wire (1924.88). *P.S.A.S.*, LVIII (1923-4), 278, fig. 20/5. Resembles *Newstead*, pl. LXXXII/5, only much smaller and more fragile. Probably from a casket and served a decorative rather than functional use. Known in Roman and Romano-British contexts (*Camulodunum* (1947), pl. C/32).
452. **LAMP HOOK?** Iron. Long curved strip, 6.4 ins. with flat section and coiled (III.20.209, Level 3). *P.S.A.S.*, LIV (1919-20), 84, fig. 15/9. Described as a "spring."

453. **U-SHAPED OBJECT**, bronze, 1.9 ins. long, arms are corrugated externally (III.20.17, Level 1). *P.S.A.S.*, LIV (1919-20), 96, fig. 23/4. Exact parallel to one from Covesea Cave (*P.S.A.S.*, LXV (1930-1), 191, fig. 15/1).
454. **OBJECT**, bronze, 1.7 ins. overall, crescent-shaped with swelling in centre (1924.89.Q1). Unknown use.
456. **CURVED STRIP**, bronze, 2.85 ins. between ends with engraved lines. Possibly a mounting or handle fixed horizontally (V.21.144). *P.S.A.S.*, LV (1920-1), 188, fig. 22/3.
457. **HINGE**, bronze, 1.6 ins. by 1.5 ins. One half of the hinge. Pierced with holes, badly done as drilling overlaps. Probably fastened to leather (XI.14.44). *P.S.A.S.*, XLIX (1914-15), 174, fig. 26/3. Cf. one from Zugmantel on the Limes (*Saalburg Jahrbuch* (1910), Taf. VIII) but also cf. a buckle from the Vermand Gallo-Roman cemetery (Eck. pl. XVI/1a). The Gallo-Roman knives 419-21 came from this level and area.
458. **SCALE-PAN?** bronze, internal diameter 1.9 ins. Depth 0.5 in. Fragmentary but few rivet holes around rim (1923.141.Q2). *P.S.A.S.*, LVII (1922-3), 211.
459. **BRONZE BOWL**, two fragments of rim. 1.7 ins. and 1.2 ins. respectively along rim. 0.1 in. thick (XI.14.195 and XI.14.120, Middle Level D). Cf. Curle, 1931, 308, fig. 17, the Helmsdale, Sutherland, bronze vessels.
- 460.* **STYLUS**, iron, 3.5 ins. long (III.20.360). *P.S.A.S.*, LIV (1919-20), 74, fig. 9/6. Cf. Pitt-Rivers, III, pl. CLXXIV/15 and 17. *Newstead*, pl. LXXX has more elaborate versions.
- 461.* **KEY**, bronze, 2.15 ins. long with perforation at top for suspension. For a tumbler lock. Formed from sheet bronze folded over (V.21.42, Level 1 J). *P.S.A.S.*, LV (1920-1), 196, fig. 25/8. Cf. Lochspouts one (Munro, *A.S.L.D.*, 177, fig. 176). Simplified version of *Newstead*, pl. LXXVIII/13.
462. **BARREL PADLOCK**, bronze, spatulate with perforated shank. 1.35 ins. long. Probably Roman (V.21.254, Level 3 J). *P.S.A.S.*, LV (1920-1), 178, fig. 15/11. Cf. *P.S.A.S.*, XLVI (1911-12), 192-6, for similar, if larger, examples from Scotland.
- 463.* **BOLT of a BARREL-LOCK**, 1.2 ins. high by 1.1 ins. long, bronze. Strip of bronze with a horse-shoe shaped and perforated top bent through a flat plate at right angles (1923.268). *P.S.A.S.*, LVII (1922-3), 222, fig. 28. "Tank on hill." Covesea Cave (*P.S.A.S.*, LXV (1930-1), 192, fig. 15/3 and 4) yielded an almost identical specimen except that 443 has engraved lines below the perforated loop. Type of lock common in Roman Britain. (*B.M. Guide* (1951) fig. 41). 463 has lost its spring.
464. **LATCH-LIFTER**, corroded iron. 7.1 ins. long with crook-shaped top (1924.215.52). *P.S.A.S.*, LVIII (1923-4), 273, fig. 19/2. Cf. *Newstead*, pl. LXXVIII/3. Occurs on Romano-British and Roman sites.
- 465.* **LAMP-ROD**, iron, twisted, 2.4 ins. long, curved top. Broken (XII.15.2, 89 Level 3 G). *P.S.A.S.*, L (1915-16), 120, fig. 33/4. Cf. *Newstead*, pl. LXXIX/5. Or might be part of a cauldron chain? (cf. Piggott 1953, 24, fig. 5/7).

466. **QUERN SPINDLE**, iron, 5·8 ins. long, pointed one end, rounded other (XII.15.291, Level 3 F). *P.S.A.S.*, L (1915-16), 118, fig. 32/2. Cf. *Newstead*, pl. LXVI/16 and 17 for better preserved examples.

467. **4 QUERN SPINDLES** as 466. Iron.
 (III.20.357, Level 4). *P.S.A.S.*, LIV (1919-20), 72, fig. 9/3. 9·6 ins. long.
 (III.20.375, Level 4). *P.S.A.S.*, LIV (1919-20), 74, fig. 9·4. 4·1 ins. long.
 (III.20.358, Level 4). *P.S.A.S.*, LIV (1919-20), 74. 5·8 ins. long.
 Unregistered. 5 ins. long.

Bronze rings (too large and thick to be finger-rings, possibly connected with harness, or chains). 468-70.

468. **D-SHAPED LOOP**, internal diameter 0·95 in. by 0·8 in. (1924.137.T2). *P.S.A.S.*, LVIII (1923-4), 266, fig. 15/15.

469. There is no 469 in the catalogue. (Number omitted by mistake).

470. RINGS.

(a) Internal diameter 0·25 in.; cross section 0·75 in. (XI.14.60, Lowest E). *P.S.A.S.*, XLIX (1914-15), 198, fig. 44/10.

(b) Internal diameter 0·65 in.; cross-section 0·3 in. (XII.15.249, Level I). *P.S.A.S.*, L (1915-16), 103, fig. 23/17.

(c) Internal diameter 1·4 ins.; cross-section 0·25 in. Not joined (XII.15.248, Level 4 F). *P.S.A.S.*, L (1915-16), 132, fig. 40/2.

(d) Internal diameter 1·5 ins.; cross-section 0·1 in. (1932.90). *P.S.A.S.*, LXVI (1931-2), 399.

(e) Internal diameter 0·9 in.; cross-section 0·2 in. (1932.178). *P.S.A.S.*, LXVI (1931-2), 399.

(f) Internal diameter 0·9 in.; cross-section 0·15 in. (1932.179). *P.S.A.S.*, LXVI (1931-2), 399. (*d*, *e* and *f* all quarry finds.)

(g) Internal diameter 0·8 in.; cross-section 0·2 in. (V.21.320, Level 4 K).

Iron rings, mostly corroded. 471-2.

471. **D-SHAPED LOOP**, as 468, probably for a buckle (XII.15.300). *P.S.A.S.*, L (1915-16), 132, fig. 40/3.

472. RINGS.

(a) Internal diameter 1·6 ins.; external, 2 ins. (XII.14.224, Level 1 F).

(b) Internal diameter 2·5 ins.; external, 3 ins. Broken in half (XII.15.299). *P.S.A.S.*, L (1915-16), 132, fig. 40/1.

(c) Internal diameter 1·5 ins.; external, 2·1 ins. (III.20.369, Level 4).

(d) Internal diameter 1·4 ins.; external, 1·9 ins. (III.20.370, Level 4).

(e) Internal diameter 1·4 ins.; external, 1·8 ins. (III.20.371, Level 4).

(f) Internal diameter 1·1 ins.; external 1·6 ins. (III.20.86, Level 2).

(g) Internal diameter 1 in.; external, 1·45 ins. only half (1922.281.N2).

(h) Internal diameter 0·95 in.; external, 1·4 ins. broken (1922.291.N2).

473. **SOCKETED AXE**, iron. 5·25 ins. long. External diameters of socket are 2·375 ins. by 2 ins. Metal is c. 0·3 in. thick. Cutting edge measures 2·5 ins. (1922.241.Ma6). *P.S.A.S.*, LVI (1921-2), 217, fig. 17. An obvious copy of a bronze socketed axe of which other examples are known in England and Wales (*cf.* Evans, 144. Rainbow 1928, 170-5), and Scotland (*cf.* one, from

Bishop Loch, Glasgow; Culbin Sands) and Ireland (Loch Mourne, *P.S.A.S.*, xx (1885-6), 330). There are variations in style between all these (note list given by Childe, *Scotland before the Scots*, 80-96) where two types are noticeable. It would appear from the low stratification of 473 that it belongs to the early period around the turn of 1st century B.C./A.D. or perhaps a little later like the ring-head pin 95. 473 belongs to Rainbow's Type A, without drooping blade.

- 474.* **AXE-HAMMER**, iron, shaft-hole. 4.1 ins. long; shaft 1.3 ins. depth; width of blade at cutting edge (which curves down), 1.9 ins. Internal diameters of shaft 1.2 ins. by 1 in. (1924.274.S3). *P.S.A.S.*, LVIII (1923-4), 256, fig. 11/2. The squared butt and drooping cutting edge seems characteristically Roman (cf. *Newstead*, pl. LXI/1) but 474 is without the side-clips of the Roman type, nor has it such a long butt. But a somewhat similar type is in the Museum of Archæology and Ethnography, Cambridge, from Rectory Farm, Worlington, Suffolk (Reg. no. 55. 131-3) and 174 may be related. Also cf. Gt. Chesterford one (*Arch. J.* xiv (1856), pl. I/9). The axe from the fort on Laws Hill, Monifieth, Angus, may show this type to be Romano-British (N.M.A.E. No. GN. 37. *P.S.A.S.*, xvii (1882-3) 301).
475. **AXE**, iron, shaft hole. 4.7 ins. long, shaft is 1.2 ins. in depth, 1 in. from butt end and internal diameters 0.9 ins. by 0.8 ins. Distinct rounded butt end. Cutting edge droops, 1.3 ins. across. Oblique perforation from near butt end to shaft hole, presumably for nail to hold axe on to shaft (XI.14.215, Lowest Level). *P.S.A.S.*, XLIX (1914-15), 185, fig. 35/6. Seems akin to *Newstead*, pl. LXIII/6, which is however a hammer. A Roman type. See Pitt Rivers, I, 81, fig. 3 for similar axes found with Samian pottery. Cf. axes from Silchester (*Archæologia*, LIV (1894), 147, fig. 12?) and vaguely similarly ones in the Gt. Chesterford hoard (*op. cit.*). Déchelette, II, 3, 1358, fig. 594 for a La Tène type).
476. **ADZE/HAMMER**, iron. Shaft hole in centre. 3.4 ins. long; 0.5 in. depth and blade approx. 0.5 in. across. Rounded butt end. Oblong shaft, 0.45 in. by 0.2 in. The blade end much corroded (1924.113.1). *P.S.A.S.*, LVII (1923-4), 281, fig. 19/8. Probably a small hammer-head but the drooping blade end is reminiscent of one from Silchester (*Archæologia* LIV (1894), 148, fig. 13) which is much larger.
477. **AXE**, iron, much repaired. 5.5 ins. long. Shaft hole at one end 0.7 in. by 1 in. oval. Butt end 1.3 ins. depth, blade approx. 4 ins. maximum width. The illustration shows it with a well-defined shoulder on the upper? side (V.21.48 (or 68)?, Level 1 K). *P.S.A.S.*, LV (1920-1), 200, fig. 26/1. The "plaster reconstructions" of the blade have produced a tool very difficult to assess accurately and there do not seem to be comparable examples. Though from the Roman site of Caistor by Norwich came a miniature iron axe with the same shoulder as shown in the illustration of 477, and a long sharp cutting edge (Reg. no. in Castle Mus., Norwich 747.76.94). The Roman villa at Box, Wilts., also produced a similar type with a flat thin blade (*Cat. Devizes Museum*, Pt. II (1911), pl. XXXIII/4). Not a common Roman type and seems closer to the later Teutonic and Frankish axes (cf. *Lagore* (1950), 106-9) though these were much larger. A point of interest is the way in which the shaft hole of 477 was made not by casting but by wrapping one side over on to the blade and smelting it. Traces of this lap-over ridge still remain. It is a technique seen also on a looped pin (504).

478. **AXE/ADZE**, iron, flanged socket. 3.85 ins. long; flanges curve upward and in, 0.8 in. Width inside flanges 0.9 in., outside 1.3 ins. Approx. width of blade (corroded) 1.4 in. (XI.14.216, Middle Level). *P.S.A.S.*, XLIX (1914-15), 186, fig. 35/3. Cf. Déchelette, II, 3, 1359, fig. 595/5 for La Tène parallels. 478 seems very close but it is difficult to see how it was used as an axe; an adze seems more likely. Nothing comparable from Newstead. Blackburn Mill 39 has a proper shaft hole.
- 479.* **PLOUGHSHARE**, iron, 7.6 ins. long, maximum breadth 3.2 ins.; thick plate 0.2 in. folded in at upper end to make a socket more oblong than oval 2.2 ins. by 0.65 in. (1924.275.S3). *P.S.A.S.*, LVIII (1923-4), 255, fig. 11/1. Much smaller than Eckford 10 but of same family (cf. Payne, *Arch. J.*, CIV (1947), 82-111) and Piggott 1953, 27 and fig. 5/10.
- 480.* **HOE ?** iron, 6.2 ins. long; breadth of blade 2.5 ins., socket formed as in 479 by folding flanges in. only one side now remains (1922.151.M3). *P.S.A.S.*, LVI (1921-2), 236, fig. 30. The Newstead hoe, *op. cit.*, pl. LXI/9 is entirely different and Traprain 480 may not be one. It almost looks like a very large socketed sickle which has been badly made.
- 481.* **BILL HOOK**, iron, part of blade and tang 5.7 ins. long; square sectioned tang 0.4 ins. approx. Maximum width of blade 1.6 ins., distinct back 0.25 in., and thinner cutting edge (V.21.420, Level 1 X). *P.S.A.S.*, LV (1920-1), 206. Cf. *Glastonbury*, II, 366-8, pl. LXI/I 28. Probably an Iron Age type; no examples from Newstead.
482. **SICKLE**, iron, tanged. Cast of original crescentic blade 0.7 in. thick with tang 0.4 in. (1922.124a.Ma2). *P.S.A.S.*, LVI (1921-2), 217, fig. 18/1. "Balanced" type of sickle, cf. *Newstead*, pl. LXI/2 for much larger example.
483. **SICKLE**, iron. As 482, but with blade 0.95 in. thick, tang 0.6 in. and greater crescent-shape. Tang is turned over as in Newstead example cited above. Also cast of original (1922.290.N2). *P.S.A.S.*, LVI (1921-2), 256, fig. 18/5.
484. **SICKLE**, iron, no tang remains. Blade is 0.65 in. thick. Cast of original (1923.216.P3). *P.S.A.S.*, LVII (1922-3), 204, fig. 18/6.
485. **SICKLE**, iron, much smaller than foregoing. Blade 0.7 in. maximum width; slight beginnings of a tang (III.20.83, Level 2). *P.S.A.S.*, LIV (1919-20), 92, fig. 21/6.
486. **SICKLE**, iron, socketed. Fragmentary, blade 0.8 in. thick. Mouth of socket approx. 0.4 in. internal diameter. Blade broken at tip (XII.15.282). *P.S.A.S.*, I (1915-16), 118, fig. 33/10. (Cf. Wookey Hole, Somerset, example *Archæologia*, LXII (1911), 576, pl. LXXVIII fig. 13).
487. **SICKLE**, iron, in several pieces. Blade 1 in. thick (V.21.57):
488. Two **SICKLE** blades, iron and fragmentary. 0.7 in. and 0.9 in. are the blade thicknesses. Both corroded (V.21.198, Level 2 L, and uncertain registration). Nos. 482-8 are all examples of the balanced sickle, though smaller than the Newstead, Carlingwark and Blackburn Mill ones. Early Iron Age type but appears in Roman contexts.

489. **SHEARS**, iron, cast of original 8.4 ins. long, blades 0.75 in. wide and 3.4 ins. long (III.20.203 and 1934.104, Level 3). *P.S.A.S.*, LIV (1919-20), 83, fig. 15/3. Common Iron Age type which persisted through the Roman period (*cf.* Figgott 1953, 45 and list of parallels). It is in fact a type which has lasted right down to the present day with only minor modifications. The author saw a pair in use on Iona in 1956 and the sheep were sheared with remarkable speed and efficiency.
490. **CRUCIBLE TONGS**, iron, complete but for tip of one side of head. 5.2 ins. long, pincers being 1.4 ins. long from junction rivet and 0.4 in. thick (XI.14.207, Middle Level). *P.S.A.S.*, XLIX (1914-15), 186, fig. 35/4. Very similar, if smaller, to Newstead tongs, *op. cit.*, pl. LXIII/4 and 2. Probably used in enamelling and/or glass work as the thin-walled crucibles would have had to be held by something and the blunted ends of the Traprain example would be admirable.
491. **SHEAR BLADE**, iron, 2.7 ins. long and 0.6 in. maximum thickness (XII.15.311, Level 4 G). Possibly part of *P.S.A.S.*, L (1915-16), 118, fig. 32, of which there is no trace.
492. **SHEAR BLADE**, iron 2 ins long, fragmentary (XII.15.312, Level 2 F).
Some of the knife-blades may be shear-blades, *e.g.* 428, 433. Also see under 546 for possible others; too corroded to be determined.
493. **FILE**, iron. 5.5 ins. long by 0.4 in. wide, grooving on one face only (V.21.49, Level 1 K). *P.S.A.S.*, LV (1920-1), 200, fig. 26/2.
494. **FILE**, iron, in two halves and very corroded. *C.* 5.2 ins. long. No trace of grooving (1923.214.P3). *P.S.A.S.*, LVII (1922-3), 204, fig. 18/4. Both these examples close to *Glastonbury*, II, 374, fig. 141/I 81 but it is equally at home on a Roman site (*Newstead*, pl. LIX/5).
- 495.* **FILE**, iron, socketed, 2.2 ins. long of which 1.5 ins. is the socket. Traces of grooving still exist round main part of tool, at least, five grooves (1923.134.Q2). *P.S.A.S.*, LVII (1922-3), 214, fig. 24/4. *Cf.* *Glastonbury*, II, 374, fig. 141/I 47.
496. **STAPLES**, iron, L-shaped. Corroded.
*(a) 3.6 in. overall, square cross-section stem 0.4 in (XI.14.238). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/22.
(b) 2.5 ins. overall, diamond cross-section stem 0.4 in. (1922.292.N2). *P.S.A.S.*, LVI (1921-2), fig. 257.
(c) 3.2 ins. overall, stem as (a) (1922.255.O1). *P.S.A.S.*, LVI (1921-2), 259.
(d) 3.7 ins. overall, thinner (1922.186.M4). *P.S.A.S.*, LVI (1921-2), 232.
Presumably Roman type of staple (*cf.* *Newstead*, pl. LXVII/7) 4. (a) and (c) may have been hinge-staples, though they seem rather short (*cf.* Carling-wark 52, Figgott 1953, 37).
497. **HOOK?** iron 3.6 ins. overall, curving top and narrow oblong perforation at base of stem (III.20.372). *P.S.A.S.*, LIV (1919-20), 74, fig. 9/12. *Cf.* *Newstead*, pl. LXVII/8 for a larger version?
498. **HOOK**, iron, flattened top. 3.65 ins. overall. May have once been a staple or a hook (1924.116.S1). *P.S.A.S.*, LVIII (1923-4), 281, fig. 19/6.

499. (a) **BOLT or HOOK**, iron. 3 ins. overall (XII.15.319). *P.S.A.S.*, L (1915-16), 120, fig. 34/16.
 (b) As 499 (a) 2.85 ins. overall (XII.15.306). *P.S.A.S.*, L (1915-16), 120, fig. 34/19.
 (c) As 499 (a) 2.1 ins. overall (XII.15.286, Level 3 F). *P.S.A.S.*, L (1915-16), 120, fig. 34/11.
500. **HOOK**, (possibly a latch lifter like 464), iron. 4.6 ins. overall, crooked top (1923.P3).
501. Thin **HOOK** or bolt, iron, c. 5.1 ins. overall. Q2.
502. **PIN**, iron, 5.7 ins. overall; 0.25 in. thick. Square perforation in head 0.4 in. and 0.7 in. from rounded tip (XII.15.284, Level 2 F). *P.S.A.S.*, L (1915-16), 120, fig. 33/5.
503. **PIN**, iron, 4.3 ins. overall, c. 0.4 in. thick. Odd triangular head with circular perforation 0.3 in. (1922.254?). *P.S.A.S.*, LVI (1921-2), 253, fig. 18.4.
 Probably both these akin to Newstead, pl. LXVII/14.
504. **LOOP**, iron, 5.5 ins. by 3 ins. overall. Internal diameter of loop 2.45 ins. Made in same way as axe 477. Stem is square section.
505. **LOOPS**.
 (a) Iron, corroded, 3.9 ins. by 1.6 ins. Internal diameter of loop 0.7 in. (XII.15.298). *P.S.A.S.*, L (1915-16), 120, fig. 34/1.
 (b) Iron, 4.6 ins. by 1.6 ins. overall. Internal diameter of loop 0.7 in. (1922.328.N3).
 (c) Iron, 4 ins. by 1.2 ins. overall. Internal diameter 0.35 in. (1922.329.N3).
 (d) Iron, corroded, 4.5 ins. by 1.9 ins. overall. Internal diameter 1 in. (1923.135.P2). *P.S.A.S.*, LVII (1922-3), 214, fig. 24/5.
 Probably Roman types, cf. *Newstead*, pl. LXVII/5. Some may have been linch-pins. 505 (a) is much worn on top of loop but is very corroded as well.
506. **SPLIT LOOP**, iron, 3.2 ins. by 1.35 ins. overall, internal diameter 0.55 in. (1922.330.N3). *P.S.A.S.*, LV (1920-1), 253, fig. 18/3. Close to Newstead types, *op. cit.*, pl. LXVII/10-13 but with right-angle ends.
 These staples, loops and perforated pins indicate considerable building activity on the hill, in wood or stone; though they might have been stolen for their potential value as a source of iron from Roman forts. Few of these loops occur however on the lowest levels where the huts were probably of wattle and daub (though plenty of nails do come from these low levels).
507. **CHISEL**, iron, 1.9 ins. long, 0.3 in. broad, 0.15 in. thick (III.20.212, Level 3). *P.S.A.S.*, LIV (1919-20), 85, fig. 16. Described as a "mortising chisel."
508. **CHISEL**, iron 3.4 ins. long, 0.3 ins. by 0.15 ins. cross-section (1923.218.Q3). *P.S.A.S.*, LVII (1922-3), 204, fig. 18/8.
 Both these are presumably not complete but are so corroded that it is impossible to tell. 508 comes near one from Lochlee (Munro, *A.S.L.D.*, 123, fig. 128) and the Newstead ones are related.
509. **AWL**, iron 3.75 ins. long (1922.139.Q1?). Cf. Buston one (Munro, *A.S.L.D.*, 224, fig. 232).

510. **PUNCH**, iron, 2 ins. long, rounded one end (XII.14.242). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/3.
511. **PUNCHES**,
 (a) Iron, 1.85 ins. long (XII.15.314, Level 3 F).
 (b) Thicker iron, corroded. 2.9 ins. long (XII.15.315, Level 3 F). *P.S.A.S.*, L (1915-16), 120, fig. 34/4.
 (c) Iron, 1.6 ins. long (XII.15.316, Level 2 G). *P.S.A.S.*, L (1915-6), 120, fig. 34/5.
 (d) Iron, 2.25 ins. long (XII.15.317, Level 2 G).
 (e) Iron, 2.5 ins. long (XII.15.290, Level 3 G). *P.S.A.S.*, L (1915-16), fig. 33/3.
 Much smaller examples but obviously similar to Newstead punch, *op. cit.*, pl. LXVI/20. Also Lochlee punch (Munro, *A.S.L.D.*, 124, fig. 130) and Buston (*op. cit.* 224, fig. 231).
512. **BURNISHER?** iron 5.3 ins. long; rounded one end, square section the other (XI.14.231). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/20.
513. **LINK**, figure of eight, iron. 1.45 ins. by 0.7 in. overall. Made by bending ring of iron together in centre (V.21.194, Level 2 K). *P.S.A.S.*, LV (1920-1), 192, fig. 23/9.
514. Three **LINKS**, iron, broken and corroded, presumably identical to 519. One is 1 in. by 0.65 in. overall; nearly half a figure of eight. The other two are small segments (XI.14.54; XI.14.239; and XII.14.243 respectively. Lowest Level; Middle Level; Unknown).
515. Two **LINKS**, iron, broken and corroded. One is one side of a figure eight link, 2.1 ins. long by 0.1 in. broad; the other is a small looped piece, 1.2 ins. by 0.75 ins. (III.20.20, Level 1 for first, III.16.9 for second). *P.S.A.S.*, LIV (1919-20), 95, fig. 25.
 These links are of a type common in the early Iron Age (cf. *Llyn Cerrig* (1946), 38, 85 for larger varieties) but occur on Romano-British sites (cf. Pitt Rivers, II, pl. CV/7 here probably pre-Roman in date), and Lowbury Hill, *Lowbury* (1916), pl. XV/15. Part of chains, possibly cauldron-chains.
- 516-20. **NAILS**, all iron. A great many nails were found but seem to have corroded or disappeared so the following list is not exhaustive:—
516. (a) 2 ins. long, broken point and head (XI.14.237).
 (b) 27 nails about 2.6 ins. long or shorter, flat heads (XI.14.244). Cf. *P.S.A.S.*, XLIX (1914-15), 100, fig. 46 for type.
517. (a) 3 ins. long, flat head (XII.15.302).
 (b) 4.1 ins. long, flat head set off centre on stem (1.16.1).
518. (a) 3.3 ins. long, no head (III.20.363, Level 4). *P.S.A.S.*, LIV (1919-20), fig. 9/4.
 (b) 2 ins. long, flat head not on centre (III.20.23, Level 1).
 (c) 4.7 ins. long, flat head set off centre (III.20.361). *P.S.A.S.*, LIV (1919-20) fig. 9/7.
 (d) 2.8 ins. long, flat head (III.20.362). *P.S.A.S.*, LIV (1919-20), fig. 9/8. Both Level 4.

- (e) 2·2 ins. long, flat head (III.20.81, Level 2).
 (f) 3·1 ins. long, flat head (III.20.22, Level 1). *P.S.A.S.*, LIV (1919-20), 9/9.
 (g) 7·9 ins. long, large mushroom head c. 1·5 ins. diameter. Cast of original (III.20.359, Level 4). *P.S.A.S.*, LIV (1919-20), 74, fig. 9/5.
519. (a) 3·3 ins. long, conical head c. 1·9 ins. diameter (V.21.195, Level 2 J). *P.S.A.S.*, LV (1920-1), 192, fig. 23/11.
 (b) 1·5 ins. long, point broken, large flat head c. 1·2 ins. diameter (V.21.52, Level 1 I). *P.S.A.S.*, LV (1920-1), 100, fig. 26/6.
520. Curved **S-SHAPED NAIL**, iron, c. 2·8 ins. overall. Domed head (1923.215.Q3). *P.S.A.S.*, LVII (1922-3), 204, fig. 18/5.
521. **BOLT**, iron, with flat washer heads each end. 2·6 ins. long; heads c. 1 in. diameter (XI.14.210, Middle Level). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/21.
- 522 Two **WASHERS**, iron, c. 1·2 ins. diameter; square perforations 0·2 in. and 0·2 in. thick (XI.14.220 and XII.15.304, Middle and Level 3 F). *P.S.A.S.*, XLIX (1914-15), 196, fig. 45/15 and I (1915-16), 120, fig. 34/7.
Newstead, pl. LXVII has a similar range of nails and bolts, etc. They appear to come from all levels on Traprain. Bolts like 521 occur at Covesea Cave and on Viking sites, *e.g.* Jarlshof.

IRON BARS and indeterminate rods, etc.

523. (a) Bar, 9·5 ins. long, rectangular section 0·7 in. by 0·8 in. Tapers at each end (XI.14.221). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/19.
 (b) Bar, 2 ft. 5 ins. long, pointed one end, squared other. Cross section 1·2 ins. by 0·8 in. Pierced by holes for carrying which are 0·4 in. diameter at 9·9 ins. and 1 ft. 1·1 ins. from pointed end (V.21.377, Level 1 K). *P.S.A.S.*, LV (1920-1), 200. Probably bars cast from crude metal into more workable shape.
524. **MORTISING CHISEL?** 9 ins. long, corroded, with a slight point (III.20.3.56 Level 4). *P.S.A.S.*, LIV (1919-20), 72, fig. 9/2.
525. (a) **BAR**, 3·5 ins. long, square section, c. 0·45 in. (1922.266.N2).
 (b) **BAR/BOLT (PUNCH?)** 4·8 ins. long, thicker and rounded one end (XII.14.232). *P.S.A.S.*, XLIX (1914-15), 187, fig. 35/2.
 (c) **BAR**, 4 ins. long, corrodes (XII.14.233). *P.S.A.S.*, XLIX (1914-15), poss. fig. 45/18.
 (d) **ROD**, 2 ins. long, flat (XII.15.270, Level 2 F).
 (e) **BAR**, 4·6 ins. long, corroded, square one end, round other (III.15.292, Level 2, rampart). *P.S.A.S.*, I (1915-16), 120, fig. 34/4.
 (f) **BAR**, 5·4 ins. long, 0·4 in. section. Corroded (XI.14.234).
526. **HOOK**, iron, 1·7 ins. long, like modern picture-hook but without nail or perforation in top (XII.15.307). *P.S.A.S.*, I (1915-16), 120, fig. 34/10.
527. (a) **HOOK**, corroded, as 526. 1·6 ins. long, broken top and bottom. Ref. as 526, fig. 34/11. Level 2 G.
 (b) **HOOK**, corroded, 1·7 ins. long, as 527 (a) (XI.14.227).

- (c) **HOOK**, corroded 1.2 ins. long, as above (III.20.205, Level 3). *P.S.A.S.*, LIV (1919-20), 84, fig. 15/8.
- (d) **HOOK**, corroded, 1.6 ins. More complete, like 526 (III.20.366, Level 4). *P.S.A.S.*, LIV (1919-20), 74, fig. 10/2.
528. Three **CLAMPS**, 1.25 ins. long, 1.2 ins. long and approx. 0.9 in. (bronze), References respectively (S2), *P.S.A.S.*, LVIII (1923-4), 273. (XI.14.228), *P.S.A.S.*, XLIX (1914-15), 188, fig. 34/1? and (1922.214.M5a (poor condition)). *P.S.A.S.*, LVI (1921-2), 213, fig. 13/2.
529. **ROD**, iron with perforated top and something broken off on one side. 2.7 ins. long (V.21.274, Level 3 L). *P.S.A.S.*, LV (1920-1), 182, fig. 17/3. Excavators suggested part of a cheek-piece of a bit.
530. (a) **PLATE**, iron, circular, perforated end. 1.8 ins. by 1.2 ins. overall. Level 2 T.
 (b) As 530 (a), 1.8 ins. by 0.9 in. overall (XII.15.201, Level 2 F). *P.S.A.S.*, L (1915-16), 120, fig. 34/6.
531. **PLATE**, iron, flat. 1.95 ins. by 1 in. Hole in centre (V.21.189).
532. **PLATE**, iron. 2.7 ins. by 1.7 ins. Two holes 1.4 ins. apart in centre (XII.15.294).
533. Two flat **PLATES** of iron 2.7 ins. by 1.3 ins. by 0.5 in. and 1.5 ins. by 1.5 ins. by 0.35 in. (XI.14.223 and XII.14.2).
534. 4 odd iron objects, resembling miniature, but too pointed, plough share tips. All very corroded and fragmentary. Approximate thickness 0.2 in. lengths respectively 3.5 ins.; 2.1 ins.; 3.2 ins. by 1.9 ins. overall; and 2.2 ins. The third one is the most likely to have once formed some part of a plough (XII.14.8). *P.S.A.S.*, XLIX (1914-15), 200, fig. 45/6; Q2: no registration and (XII.15.279, Level 1 F) respectively.
535. **L-SHAPED STAPLE** with bolt? 2.3 ins. overall. A strip of bronze adheres to one side (III.20.368, Level 4). *P.S.A.S.*, LIV (1919-20), 74, fig. 10/1. Level 4.
536. **NAIL** with flat head in same plane? 1.5 ins. overall (XII.15.237). *P.S.A.S.*, L (1915-16), 120, fig. 33/6. May be a pin of some sort.
537. **OBJECT in SOCKET?** 1.8 ins. long (XII.14.7). *P.S.A.S.*, XLIX (1914-15), fig. 45/10. A much corroded socketed file? Cf. 495.
538. **HASP?** flat plate bent at right angles 1.4 ins. long, broken at bend. Remains of two nails in pointed end (XI.14.219). *P.S.A.S.*, XLIX (1914-15), 198, fig. 45/2.
539. **HINGE?** Too corroded to say. 2.1 ins. long by 1 in., bent (XII.15.285, Level 3 F). *P.S.A.S.*, L (1915-16), 120, fig. 33/8.
540. **Y-SHAPED OBJECT**, 2.2 ins. by 1.3 ins. overall. *P.S.A.S.*, LVII (1922-3), 214. Level 2 P (no reg. no.). Resembles Blackburn Mill 22 very slightly.
541. **OBJECT**, like one side of 540 (1922.294.N2).

542. **TWO RODS**, smaller versions of 540? 2·2 ins. and 2·2 ins. long (1924.112 and 217). *P.S.A.S.*, LVIII (1923-4), 273, fig. 11/3 and 19/5.
543. Five very corroded broken **RODS** which may have been punches, etc. Respectively 3·9 ins.; 3·9 ins.; 2·2 ins.; 2·9 ins.; 1·8 ins. in length. Rounded square sections (XI.14.209: V.21.345, Level 4 I: XII.15.303, 320, and 319 respectively).
544. **IRON OBJECT** 6·3 ins. long, curved. One end flat; other oval-section (1922.293). *P.S.A.S.*, LVI (1921-2), 256? Cf. *Newstead*, pl. LVIII/7 and 8? pick-like objects of uncertain use.
545. Two **THIN RODS**, 3·1 ins. and 2·1 ins. long (III.20.24 and 364, Levels 1 and 4).
546. List of registration numbers and brief description of objects too corroded to identify clearly. All iron unless otherwise stated. Some may be illustrated. Registrations not clear.
1. (XII.15.277, Level 3 F). Rod with flattened end. 2 ins.
 2. (III.20.211). Bar, oblong cross section. 4 ins.
 3. (1922.297.N2). Possibly a ring segment.
 4. (1922.295.N2). Bent bar. 3·2 ins.
 5. (XI.14.235). Bar. 5·6 ins. long. 0·35 in. by 0·2 in. thick.
 6. (III.20.77). Handle? 4 ins. overall.
 7. (XII.14.6). 4 tangs/blades. 1·95 ins. by 0·45 in. overall; 1·3 ins. by 0·7 in.; 2·35 ins. by 0·3 in.; 1·65 ins. by 0·4 in.
 8. (I.16.3). Nail? 2·4 ins.
 9. (I.16.2). Nail/bolt. 4·1 ins.
 10. (XI.14.226. ?). 1·2 ins. long.
 11. (V.21.196. Level 2 J). Rectangular plate 2·35 ins. by 1·35 ins.
 12. (V.21.190. Level 2 K). Rod, twisted, 7·7 ins.
 13. (XI.14.236. Lowest Level). Rod, flattened, splayed head, 5·9 ins.
 14. (? Level 3 J). Rod. 8·8 ins. long.
 15. (III.20.197). Bronze bar, two pieces. c. 0·5 in. long.
 16. (III.20.89), "Part of a knife," now totally corroded.
 17. (XII.14.5), Tang. 1·6 ins. by 0·75 in.
 18. (V.21.369), Bronze ring fragments.
 19. (P3). U-shaped binding.
 20. (1922.298.N2). Bar.
 21. (XI.14.208, Middle Level). Shear blade? 4·4 ins. long, blade 1·6 ins. 0·8 ins. broad. Cf. *P.S.A.S.*, XLIX (1914-15), 187, fig. 35/1?
 22. (XI.14.241). Nail. 2·2 ins. long.
 23. (1924.216.S2). Two halves of ring rusted together. External diameter 1·9 ins.
 24. (1922.125.M2). Bar, 4·7 ins. long, 0·4 in thick.
 25. (III.16.9). Pointed iron bar, 2·6 ins. long by 0·2 in. thick.
 26. (1924.114.T1). Bar, flattened, chisel end. 6 ins. long, 0·8 in. at splayed end.
 27. (1924.119.R2). Bar, 4·5 ins. long.
 28. (1924.221.192). Perforated blade? 3·4 ins. long. Blade 0·8 in. broad by 0·1 in. thick.
 29. (V.15.1). Bar, 2·3 ins.

30. (XII.14.5). Curved object.
 31. (1924.276.53). Nail, flat head, 4·8 ins. long.
 32. (1924.218). Bolt/Nail; flat rivet plate. 2·1 ins. long.
 33. (1921, Level 1 K). Pointed object. 3·85 ins. long by 0·7 in. broad.
 34. (1921, Level 2 I). Tang of knife?
 35. (1921, Level 1 X). Plate 1·65 ins. by 1·8 ins.
 36. (V.21.53). Iron rod or nail. 4·8 ins.
 37. (III.20.374). Oval plate, point at right angles on one side. 1·5 ins. by 1·1 ins.
 38. (1921, Level 3 I). Ring. External diameter 1·95 ins.
 39. (1923). Bent rod.
 40. (Un-numbered). Two rings.
 41. (1921, Level 1 L). Nail, 2·75 ins. long.
 - (1921, Level 1 K). Thick rod. 5 ins. long.
 - (1921, Level 1 L). Nail/Rod. 4·4 ins. long.
 - (1921, Level 1 K). Nail, flat head. 3·5 ins. long.
 - (1921, Level 2 I). Square bolt. 2·1 ins. long.
 - (1921, Level 3 L). Nail, flat head. 3·1 ins. long.
 - (1921, Level 3 J). Bolt, two heads. 2·1 ins. long.
 - (1921, Level 3 J). Nail, flat head. 2·8 ins. long.
 - (1921, Level 3 I). Nail, domed head 1 in. diameter 1·4 ins. long.
- Various un-numbered, fragmentary iron objects; remains of links, possibly sickle tips; knife points, etc.

Moulds. 547-73.

All the clay moulds are very like the Late Bronze Age ones in composition.

PINS.

547. Ring-headed pin (maybe beaded but too uncertain to claim it as a hand-pin mould (XI.14.162, Lowest Level B). *P.S.A.S.*, XLIX (1914-15), 191, fig. 39/4.
- 547a. Ring-headed? (XI.14.170, Middle Level A). Same reference.
548. Ring-headed. (Report suggests ibex-headed) (XII.15.197, Level 3 F). *P.S.A.S.*, I (1915-16), 126, fig. 37/4.
549. Rosette/beaded (XI.14.165, Top B). *P.S.A.S.*, XLIX (1914-15), fig. 39/6.
550. As 549 (XIII.20.10, Level 1). *P.S.A.S.*, LIV (1919-20), 46, fig. 22/4.
551. As 549, three or five bosses (III.20.65, Level 2 G). *P.S.A.S.*, LIV (1919-20), 89, fig. 18/6.
552. Proto-hand pin? (III.20.180, Level 3 H). *P.S.A.S.*, LIV (1919-20), 80, fig. 14/2.
553. Unusual pin. Cinquefoil shape (III.20.181, Level 3). Ref. as above, fig. 14/3.
554. Hand-pin (III.20.64, Level 1 G). *P.S.A.S.*, LIV (1919-20), 96, fig. 24.

555. Indeterminate moulds, probably for casting pin stems.
 (a) (XI.14.163, 164, 168, 169, 171, 172, 173. First three Lowest A. Last four Middle A.)
 (b) (III.20.168, Level 3). *P.S.A.S.*, LIV (1919-20), 80, fig. 11/21?
 (c) (1922.228, 229, 230, All Ha6.)
 (d) (1922.391.Oa2). *P.S.A.S.*, LVI (1921-2), 257.
 (e) (1924.181.R2.)

DRESS FASTENERS.

556. Unbroken mould (XII.15.194). *P.S.A.S.*, L (1915-16), 124, fig. 37/1.
 557. Class I type (XII.15.195). *P.S.A.S.*, L (1915-16), 124, fig. 37/2. Both Level 3 F.

RINGS.

558. Portion only (XI.14.167, Lowest B). *P.S.A.S.*, XLIX (1914-15), 131, fig. 39/5.
 559. Two ring moulds, one still with ring inside. Comparable in size of ring (XII.15.198, 199, Level 3). *P.S.A.S.*, L (1915-16), 126, fig. 37/5.
 560. Several pieces of moulds for rings, probably at least two separate moulds (XII.15.201, Level 3 F).

SPEAR BUTT MOULDS (door-knob type).

561. Fragments only (III.20.61, 62, 63, Level 2). *P.S.A.S.*, LIV (1919-20), 89 fig. 20?
 562. Half of mould (XII.15.200, Level F 2).
 563. Half of mould (1923.140.Q2). *P.S.A.S.*, LVII (1922-3), 214. (Possible fragments of other spear butt moulds, XI.14.255 and 256.) The mould on show in the Museum is un-numbered, and is the one illustrated in *P.S.A.S.*, L (1915-16), 89, fig. 20.

MISCELLANEOUS.

564. Mould for casting corrugated harness mounts, like 340 (1922.356.N4). *P.S.A.S.*, LVI (1921-2), 250, fig. 14/6.
 565. Mould for a buckle? a square-shaped object (XII.15.196, Level 3). *P.S.A.S.*, L (1915-16), fig. 37/3.
 566. Two parts of mould for a hollow cylindrical object. *P.S.A.S.*, LIV (1919-20), 80, fig. 14/1.
 567. Mould for an object with circular head and stem; a small spear butt? (V.21.373, 374). *P.S.A.S.*, LV (1920-1), 198.
 568. Mould for a disc (XI.14.249, Middle Level A). *P.S.A.S.*, XLIX (1914-15), fig. 40/1.

569. Mould for a curved object (1922.356.N4).

570. Mould for? object (III.20.182, Level 3). *P.S.A.S.*, LIV (1919-20), fig. 11/21.

SANDSTONE MOULDS, for casting ingots about 3·4 ins. long.

571. (a) (XI.14.245, Top B). *P.S.A.S.*, XLIX (1914-15), fig. 40/5.
 (b) (XI.14.248, Top 1 E). *P.S.A.S.*, XLIX (1914-15). Two moulds, on one stone, one for an ingot.
 (c) (XI.14.246, Middle A). *P.S.A.S.*, XLIX (1914-15), fig. 40/2. An actual ingot (XI.14.189), from Lowest B fitted this mould.
 (d) (XI.14.247, Middle A). Ref. as above, fig. 40/4.
572. (XII.15.205, Level 2 F). *P.S.A.S.*, L (1915-16), 127.
 (XII.15.206, Level 2 F). Ref. as above.
 (XII.15.207, Level 2 F). Ref. as above, fig. 39, 3, a colossal block of stone.
573. (1924.213.R2). No ref.
 (227 ?). No ref. Narrow ingot mould.
 (No number, Q2). No ref. Huge block with two ingot moulds.

These stone moulds are all on upper levels and good parallels for them come from Dunadd (*P.S.A.S.*, XXXIX (1904-5), 311-13, Buston Crannog and Lochlee Crannog (Munro, *A.S.L.D.*, 211-12, fig. 194 and 105, fig. 54, a mould used as a hone), and from earth-houses, vitrified forts and other sites with evidence of occupation in Roman and post-Roman times (*e.g.* Mac Mhic Connain, N. Uist; Dun Beag, Skye). They appear to be a particular feature of the post-Roman world, though they occur on many early A.D. sites, *e.g.* Finavon, Angus. On Traprain the stone moulds seem to be a late development, though the ingot from the lowest level suggests that they were in use by at least the mid 2nd century A.D. The clay pin moulds are revealing and bear out the comments made above on the pins themselves. The only certain hand-pin mould comes from a top level and again suggests a later development of this type whereas the ring-headed moulds occur principally in the lowest two levels. The rosette moulds, like the pins, occur in the upper levels.

BIBLIOGRAPHY

BIBLIOGRAPHY OF AUTHORS CONSULTED OR CITED, AND ABBREVIATIONS
NOT IN NORMAL USE.

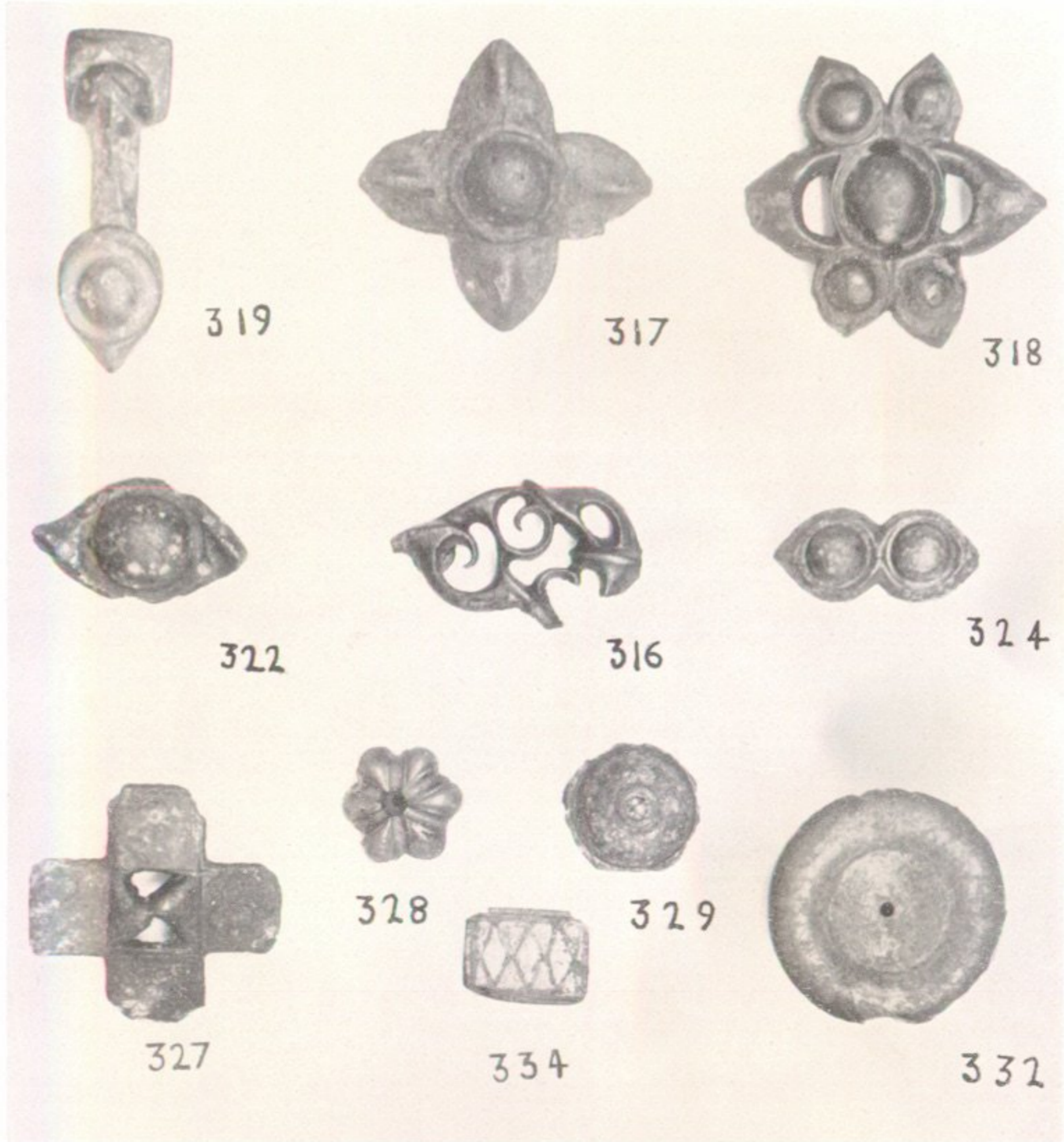
- Aarboger. Aarboger for Nordisk Oldkyndighed og Historie.* Copenhagen.
- ALMGREN, 1923. Almgren, O. and Nerman, B. *Die Altere Eisenzeit Gotlands* (1923).
- ANDERSON, I. Anderson, J. *Scotland in Pagan Times*, I (1883), The Iron Age. *B. M. Guide*, (1951). Brailsford, J. W. *Antiquities of Roman Britain* (1951). *B. M. Guide*, (1953). Brailsford, J. W. *Later Prehistoric Antiquities of the British Isles* (1953).
- BENTON, 1931. Benton, S. "Excavation of the Sculptor's Cave, Covesea, Morayshire." *P.S.A.S.*, LXV (1930-31), 177-216.
- BULMER, 1938. Bulmer, W. "Dragonesque Fibulæ." *Ant. J.*, XVIII (1938) 146-53.
- BUTLER and SMITH, 1956. Butler, J. J., and Smith, I. A., "Razors, Urns and the British Middle Bronze Age," *University of London Institute of Archaeology*, 12th Annual Report, 1956, 20-52.
- CAERLEON, 1850 and 1862. Lee, J. E. *Roman Remains found at Caerleon* (1850) and *Isca Silurum* (1862).
- CALLANDER, 1923. Callander, J. Graham. "Scottish Bronze Age Hoards." *P.S.A.S.*, LVII (1922-23), 123-66.
- Camulodunum*, 1947. Hawkes, C. F. C., and Hull, M. R. *Camulodunum*, Soc. Ant. Lond. Research Committee Report, no. XIV (1947).
- CHADWICK, H. M. 1949. Chadwick, H. M. *Early Scotland* (1949).
- CHILDE, 1935. Childe, V. Gordon. *The Prehistory of Scotland* (1935).
- CLARK, 1940. Clark, J. G. D. "A Late Bronze Age Find near Stuntney Fen." *Ant. J.*, XX (1940), 52-71.
- COFFEY, 1913. Coffey, G. *The Bronze Age in Ireland* (1913).
- COLLINGWOOD, 1930. Collingwood, R. G. "Romano-Celtic Art in Northumbria." *Archæologia*, LXXX (1930), 37-58.
- COLLINGWOOD, 1930i. Collingwood, R. G. *The Archaeology of Roman Britain*, 243-60.
- CURLE, J., 1913. Curle, James. "Roman and Native Remains in Caledonia." *J.R.S.*, III (1913), 99-105.
- CURLE, J., 1932. Curle, James. "Inventory of Objects of Roman and Provincial Origin found on sites in Scotland not definitely associated with Roman constructions." *P.S.A.S.*, LXVI (1931-32), 277-400.
- DECHELETTE, II, 1/2 and 3. Dechelette, J. *Manuel d'Archeologie* . . . II, 1/2 (1910-1913), and 3 (1914).
- DU CHAILLU, I and II. Du Chaillu, P. B. *The Viking Age* (1889), Vols. I and II.
- DUNNING, 1934. Dunning, G. C. "Swan's Neck and Ring-Headed Pins of the Early Iron Age in Britain." *Arch. J.*, xci (1934), 269-95.
- ECK, 1891. Eck, T. *Les Deux Cimetières Gallo-Romains de Vermand et de Saint-Quentin* (1891).
- ENGELHARDT, 1863. Engelhardt, C. *Thorsbjerg Mosefund* (1863).
- EVANS, A., 1896. Evans, Arthur. "On Two Fibulæ of Celtic Fabric from Æsica." *Archæologia*, LV (1896), 179-98.

- EVANS. Evans, John. *Ancient Bronze Implements* (1881).
- FAVRET, 1928. Abbe Favret. "Les Ornaments Penannulaires." *Revue Archéologique*, 5th ser., xxviii (1928), 16-33.
- FEACHEM, 1951. Feachem, R. W. "Dragonesque Fibulæ." *Ant. J.*, xxxi (1951), 32-44.
- FETT, 1938. Fett, Per. *Arms and Armour in Norway, A.D. 400-600*. Bergens Museums Arbok. (1938).
- FOX, 1933. Fox, Cyril. "Distribution of Man in East Anglia." *P.P.S.E.A.*, vii (1933), 149-64.
- FOX, 1952. Fox, Cyril. "Triskeles, Palmettes and Horse Brooches." *P.P.S.*, xviii (1952), 47-54.
- GLASTONBURY I and II. Bulleid, A., and Gray, H. St G. *The Glastonbury Lake-Village*, I (1911), and II (1917).
- ST GEORGE GRAY, 1925. St George Gray, H. "A Gold Ornament from Castle Cary, Somerset." *Ant. J.*, v (1925), 141-4.
- GREENWELL, 1894. Greenwell, W. "On the Antiquities of the Bronze Age found in the Heathery Burn Cave, Co. Durham." *Archæologia*, liv (1894), 87-114.
- HAWKES, 1932. Hawkes, C. F. C., and Kendrick, T. D. *Archæology in England and Wales*, 1914-31.
- HAWKES, 1940. Hawkes, C. F. C., and Corder, P. "A Panel of Celtic Ornament from Elmswell, E. Yorks." *Ant. J.*, xx (1940), 338-57.
- HAWKES, 1940i. Hawkes, C. F. C. "Note on an 'Aylesford' La Tène III Brooch from Arundel Park." *Ant. J.*, xx (1940), 492-5.
- HAWKES, 1951. "Bronze-Workers, Cauldrons and Bucket-Animals in Iron Age and Roman Britain." 172-99, *Aspects of Archæology, Essays presented to O. G. S. Crawford*. Ed. W. F. Grimes. (1951).
- HENCKEN, H., 1942. Hencken, Hugh. "Ballinderry Crannog, No. 2." *P.R.A.I.* XLVII C. 3 (1942), 1-76.
- HENCKEN, T., 1938. Hencken, Thalassa. "Excavations on Breden Hill, Glous." *Arch. J.* xcvi (1938), 1-111.
- HENDERSON, 1938. Henderson, W. "Scottish Late Bronze Age Axes and Swords." *P.S.A.S.*, LXXII (1937-38), 150-77.
- HENRY, 1933. Henry, F. "Émailleurs d'Occident." *Préhistoire*, II (1933), 65-146.
- HODGES, 1954. Hodges, H. W. M. "Stone and Clay Moulds and Wooden Models for Bronze Implements." *Ulster J. A.*, 3rd ser. xvii (1954), 62-80.
- HOGG, 1951. Hogg, A. W. "The Votadini." 200-20, *Aspects of Archæology, Essays presented to O. G. S. Crawford*. Ed. W. F. Grimes. (1951).
- HUNTER-BLAIR, 1947. Hunter-Blair, P. "The Origins of Northumbria." *Arch. Ael.*, 4th ser. xxv (1947), 1-51.
- Invent. Arch. Inventaria Archæologica.*
- JACKSON, 1955. Jackson, K. "The Britons in S. Scotland." *Antiquity*, xxix (1955), 77-88.
- JACOBSTHAL, 1944. Jacobsthal, Paul. *Early Celtic Art*. (1944).
- JOPE, 1951. Jope, E. Martyn. "A Bronze Butt or Ferrule from the River Bann." *Bulletin of the Belfast Municipal Museum and Art Gallery*, I, no. 4 (Feb. 1951), 57-65.
- KEMBLE, 1863. Kemble, J. M. *Horæ Ferales*. Ed. Latham and Franks (1863).
- KILBRIDE-JONES, 1936. Kilbride-Jones, H. E. "Scots Zoomorphic Penannular Brooches." *P.S.A.S.*, LXX (1935-36), 124-38.

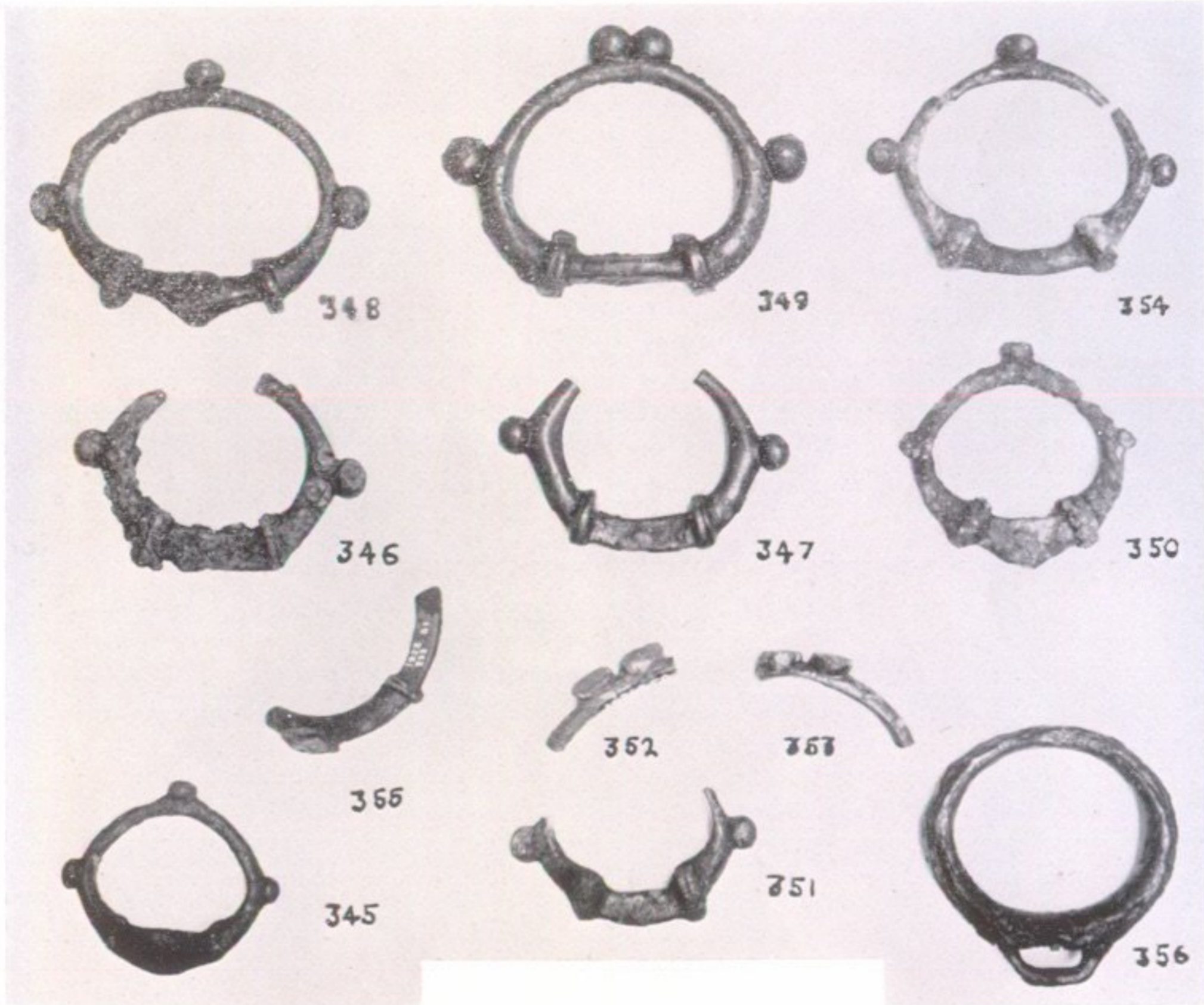
- KILBRIDE-JONES, 1937. Kilbride-Jones, H. E., "The Evolution of Penannular Brooches with Zoomorphic Terminals in Gt. Britain and Ireland." *P.R.A.I.*, XLIII C. (1935-37), 379-455.
- KIRK, 1949. Kirk, Joan. "Bronzes from Woodeaton, Oxon." *Oxoniensia*, XIV (1949), 1-45.
- KLINDT-JENSEN, 1952. Klindt-Jensen, O. "Keltisk Tradition i Romersk Jernalder." *Aarboger* (1952), 195-228.
- KOVRIK, 1937. Kovrig, I. *Die Haupttypen der kaiserzeitlichen fibeln in Pannonien*. Dissertationes Pannonicae, ser. 2, no. 4.
- Lagore, 1950. Hencken, Hugh. "Lagore Crannog." *P.R.A.I.*, LIII C (1950), 1-247.
- LEEDS, 1933. Leeds, E. T. *Celtic Ornament down to A.D. 700* (1933).
- Llyn Cerrig, 1946. Fox, C. *A Find of the Early Iron Age from Llyn Cerrig Bach, Anglesey* (1946).
- LIVERSIDGE, 1955. Liversidge, Joan. *Furniture in Roman Britain* (1955).
- Lowbury Hill, 1916. Atkinson, D. *The Roman British Site on Lowbury Hill, Berks* (1916).
- Lydney, 1932. Wheeler, R. E. M. and Wheeler, T. V. *Report on the Excavation in Lydney Park*, Glous. Soc. Ant. Lond. Research Committee Report no. IX (1932).
- MACWHITE, 1944. MacWhite, E. "Bronze Socketed Gouge in Ireland." *J.R.S.A.I.*, LXXIV (1944), 160-5.
- MADSEN and NEERGAARD, 1894. Madsen, A. P., and Neergaard, C. "Jydske Gravpladser fra den forromerske Jernalder." *Aarboger*, 2nd ser. IX (1894), 165-212.
- MAHR, 1937. Mahr, A. "New Aspects and Problems in Irish Prehistory." *P.P.S.* III (1937), 261-436.
- Maiden Castle, 1943. Wheeler, R. E. M. *Maiden Castle, Dorset*. Soc. Ant. Lond. Research Committee Report, no. XII (1943).
- MUNRO, A. S. L. D. Munro, Robert. *Ancient Scottish Lake-Dwellings* (1882).
- MUNRO, L. D. Munro, Robert. *Lake-Dwellings of Europe* (1890).
- N.M.A.E. National Museum of Antiquities, Edinburgh.
- NEISSEN. Neissen. *Beschreibung Römischer Altertümer*.
- Newstead. Curle, James. *A Roman Frontier Post and its People: The Fort of Newstead* (1911).
- O.R.L. *Der obergermanisch rätische der Limes des Roemerreiches*.
- Ó RÍORDÁIN, 1947. Ó Ríordáin, S. P. "Roman Material in Ireland." *P.R.I.A.*, LI. C. 3 (1945-48), 35-82.
- PIGGOTT, 1953. Piggott, S. "Three Metal-Work Hoards of the Roman Period from Southern Scotland." *P.S.A.S.*, LXXXVII (1952-53), 1-50.
- PIGGOTT, 1953i. Piggott, S. "A Late Bronze Age Hoard from Peebleshire." *P.S.A.S.*, LXXXVII (1952-53), 175-86.
- PIGGOTT, 1955. Piggott, S. "The Archæological Background." 54-65. *The Problem of the Picts* ed. F. T. Wainwright (1955).
- PIGGOTT, C. M., 1946. Piggott, C. M. "The Late Bronze Age Razors of the British Isles." *P.P.S.*, XII (1946), 121-41.
- PIGGOTT, C. M., 1949. Piggott, C. M. "Excavations at Hayhope Knowe." *P.S.A.S.*, LXXXIII (1948-49), 45-67.
- PIGGOTT, C. M., 1950. Piggott, C. M. "Excavations at Bonchester Hill." *P.S.A.S.*, LXXXIV (1949-50), 113-37.

- PITT-RIVERS, I, II, III. Pitt-Rivers A. *Excavations in Cranbourne Chase*, I (1887), II (1888), III (1892).
- RAFTERY, 1941. Raftery, J. "A Bronze Zoomorphic Brooch and other objects from Toomullin, Co. Clare." *J.R.S.A.I.*, LXXI (1941), 56-60.
- RAINBIRD CLARKE, 1954. Rainbird Clarke, R. "The Early Iron Age Treasure from Snettisham, Norfolk," *P.P.S.*, xx (1954), 27-86.
- RAINBOW, 1928. Rainbow, H. N. "Socketed and Looped Iron Axes from the British Isles." *Arch. J.*, LXXXV (1928), 170-75.
- Richborough, I, II, III, IV. Bushe-Fox, J. P. *First Report on the Excavations of the Roman Fort at Richborough, Kent*. Soc. Ant. Lond. Research Committee Report no. VI (1926); *ibid.*, *Second Report*, *ibid.*, Report no. VII (1928); *ibid.*, *Third Report*, *ibid.*, Report no. x (1932); *ibid.*, *Fourth Report*, *ibid.*, Report no. XVI (1949).
- RICHMOND, 1955. Richmond, I. A. *Roman Britain*. Pelican History of Britain, Vol. I. (1955).
- ROBERTSON, 1950. Robertson, A. S. "Roman Coins Found in Scotland." *P.S.A.S.*, LXXXIV (1949-50), 137-69.
- Saalburg, 1897. Jacobi, L. *Der Römerkastell Saalburg bei Homberg vor der Höhe* (1897).
- SAVORY, 1956. Savory, H. N. "Some Sub-Romano-British Brooches from South Wales." 40-58, *Dark Age Britain: Essays . . . to E. T. Leeds* ed. D. B. Harden (1956).
- SMITH, C. ROACH, 1859. Smith, C. Roach. *Illustrations of Roman London* (1859).
- SMITH, C. ROACH, 1868. Smith, C. Roach. *Collectanea Antiqua*, VI (1868).
- SMITH, R. A., 1913. Smith, R. A. "The Evolution of the Hand-Pin in Great Britain and Ireland." 281-89, *Opuscula Archæologica Oscari Montelio Septuagenario Dicata* (1913).
- STEER (forthcoming). Steer, K. A. "The Severan Re-Organisation." *Roman and Native in North Britain*. (Lecture delivered at the Scottish Summer School in Archæology, Dumfries, 1953).
- STEVENSON, 1955. Stevenson, R. B. K. "Pins and the Chronology of Brochs." *P. P. S.* XXI (1955), 282-94.
- T.B.N.H.S. *Transactions of the Buteshire Natural History Society*.
- Verulamium, 1936. Wheeler, R. E. M., and Wheeler, T. V. *Verulamium: A Belgic and Two Roman Cities*. Soc. Ant. Lond. Research Committee Report no. XI (1936).
- VON MERHART, 1956. Von Merhart, G. "Über Blecherne Zierbuckel, (Falern)." *Jahrbuch des Römisch-Germanischen Zentralmuseums, Mainz*. 3 (1956), 28-104.
- WARD, 1941. Ward, Gordon. "The Iron Age Horseshoe and its Derivatives." *Ant. J.*, XXI (1941), 9-27.
- WARD-PERKINS, 1941. Ward-Perkins, J. "The Iron Age Horseshoe." *Ant. J.*, XXI (1941), 144-9.
- WHEELER, 1921. Wheeler, R. E. M. "Roman and Native in N. Wales." *Transactions of the Honourable Society of Cymmrodorion* (1920-21).
- WHEELER, 1925. Wheeler, R. E. M. *Prehistoric and Roman Wales* (1925).
- WHEELER, 1929. Wheeler, R. E. M. "'Old England' Brentford, Middlx.," *Antiquity*, III (1929), 20-32.
- Wroxeter, I, II, III. Bushe-Fox, J. P. *First Report on the Excavations of the Roman Town at Wroxeter, Shropshire*, Soc. Ant. Lond. Research Committee Report, no. 1 (1913); *ibid.*, *Second Report*, *ibid.*, Report no. 2 (1914); *ibid.*, *Third Report*, *ibid.*, Report no. 4 (1916).
- Wroxeter, 1942. Atkinson, D. *Excavations at Wroxeter, 1923-27* (1942).

Acknowledgments.—I should like to express my gratitude and appreciation to the Keeper of the National Museum of Antiquities of Scotland, Mr R. B. K. Stevenson, and to Miss A. S. Henshall, Assistant Keeper, for their many kindnesses and much valued help, and for providing the facilities for carrying out this work. Professor Stuart Piggott has throughout given constant advice, criticism and encouragement, and my debt to him is very great. It is impossible to enumerate individually all the many Museum Curators and other friends who have helped me so willingly, but some acknowledgment to them will be found in various places in the text. My grateful thanks are due to them all.



Traprain Law: Harness mountings, all bronze. (3.)



Traprain Law: Terrets, all bronze except 356, iron. ($\frac{1}{2}$).