EXCAVATIONS AT POOLE'S CAVERN, BUXTON: AN INTERIM REPORT

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INTRODUCTION

Poole's Cavern, (Buxton, Derbyshire, SK 0509726) opens at an altitude of 325 metres and has a length of 164 metres. It has long been an important and attractive show cave, in private hands until it was acquired in 1976 by the Buxton Civic Society. The Society was then under the chairmanship of the late Ivor Morten, a well known conservationist who master minded the creation of the adjoining country park with its interpretation centre, car park and nature trail into Grin Woods. With the acquisition of the cave, a number of Roman objects passed into the keeping of the managing committee, but without adequate details of provenance, so that it was impossible to exhibit the items as having originated — as suspected — from the so-called 'Roman Chamber', where the cave widens out at the junction with the northern side-chamber (Fig.1). For this reason the committee invited a combined team from the Peakland Archaeological Society and the Buxton Archaeological Society to carry out a proper investigation of this part of the cave, with the project co-ordinated by DB. Work commenced in the autumn of 1981 and at the time of writing (autumn 1983) a few remaining segments of deposit are still being excavated; baulks have been left between the main trenches. Meetings have been held fortnightly, at weekends.

THE EXCAVATION (DB, KD)

As Figure 1 shows, the area explored is a particularly wide one, entered from the low entrance passage. The main feature is the impressive span of limestone roof, under which lies a mass of river-borne silt brought into the cave by the infant river Wye. The silt is reddish brown, has lenses of grey clay in places, and embedded in it are numerous large blocks of the mountain limestone. The silt forms a kind of valley: it reaches high up each wall of the chamber, and slopes down to a lower central area which has been dug out to form the visitors' path. In excavating down to path level in one trench, an interesting bed of river gravel was encountered with much rounded gritstone and tabular pieces of chert, their edges smoothed by water action. This material demonstrates that a considerable force of water once swept through the cave, whereas now the river sinks into its rocky bed halfway along the cave and does not reappear until Wye Head, a resurgence about half a kilometre to the north.

The preliminary work on this bank of silt was a survey, followed by the laying out of a series of metre-wide trenches subdivided by 80cm baulks (Fig.9). The trenches were then excavated, but the upper squares of some of the intervening baulks were also uncovered where a stone structure or grave area was encountered. In some areas trowel gave way to hammer and chisel to find the Roman occupation deposits, for in places
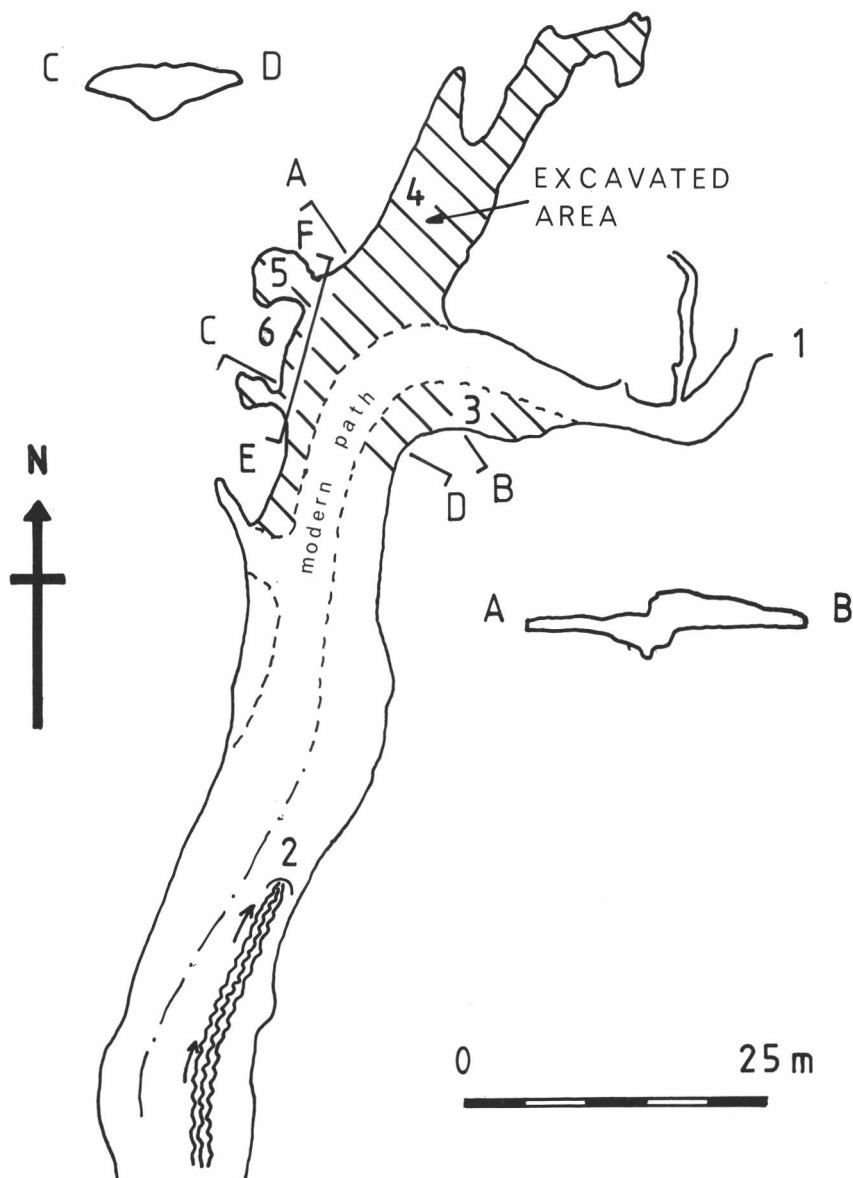
Fig. 1   Poole's Cavern: plan of cave showing excavated area. (1 — entrance; 2 — sink hole of River Wye; 3 — excavated area east of the modern path; 4 — principal excavated area with burials; 5 — side alcove, main deposition zone of 'ritual area'; 6 — area of rock pools, ?shrine. The section E/F is shown in Figure 9, together with a detailed plan of the ?shrine.

about 5cms of stalagmite covered these like a pie crust. In the silt the archaeological material was found 5-10cms below the surface, a depth sufficient to have kept it out of sight of casual visitors before the cave became a properly organised show cave. Some Victorian disturbance was noted, however, for example in the principal burial area (Fig.1: 4): apart from sporadic digging in search of relics at that time, disturbance was

also caused by the erection of candelabra and (later) gas piping. The area to the east of the visitors' path (Fig.1: 3) was also investigated by our team, although the excavation was complicated by the amount of spoil thrown up when the visitors' pathway was renovated. The excavated silt was taken outside the cave for hand sorting under natural light. It was then spread out and swept over with a metal detector (an Arado 120B VLF) before being discarded. The machine greatly facilitated the recovery of small metal finds such as bronze pins and iron tacks and studs.

The greatest concentration of finds occurred in the upper part of the silt bank to the west of the visitors' path (the upper parts of Trenches I to XXI), and in the small alcove on the same side (Fig.1: 5), where they were covered by a layer of stalagmite. The possible significance of the distribution is discussed in the final section of this report.

THE FINDS

1. **The pottery**. (KD)

Only an interim and qualitative statement can be provided here, as the existing collection is still under study and further important groups from current excavations remain to be studied also. The amount of pottery found in the cave is best expressed by the number of vessels which can be identified. This has been done by counting the different rims, but where a rim is not present for a different fabric, that fabric has been called one vessel. Overall, 97 vessels are represented so far. 37 vessels are of Derbyshire ware and its' varieties. These range from large jars (Fig.2: 6 and 7) down to beakers (Fig.2: 8 and 9). The varieties range from a type with a dirty grey soft fabric and a short flange to a very hard fabric with a more pronounced lip for holding a lid (Fig.2: 7). Colours range from grey with a red interior to orange with a grey interior (Fig.2: 8 and 9); some are grey on both surfaces.

16 vessels of Black Burnished ware are mostly jars (Fig.2: 1 and 18) and beakers (Fig.2: 4 and 5), with only two platters represented (Fig.2: 3). The burnishing on all these vessels has survived extremely well. One vessel (Fig.2: 18) is fine-to-coarse, with traces of orange colouring on its outer surface, although it has definitely been burnished. 26 vessels are of Grey ware. All of them are beakers, ranging in fabric from coarse grey to fine grey. The light grey ware (Fig.2: 13) is probably a South Yorkshire product (Buckland *et al.*, 1980); a rough cast beaker, colour coated over clay or grit fragments (Fig.2: 10 and 14), is the finest in this group. Fine orange pottery is represented by 4 beakers, one of which is a Lower Nene Valley product (Fig.2: 15) and one is colour coated (Fig.2: 11). Some of the fine orange wares (Fig.2: 16) are of a light orange fabric and are poor quality. 4 vessels of fine-to-coarse orange pottery are represented only by body fragments and again are of poor quality. Only one fragment of mortarium was found and is of a fine creamy fabric with grit as part of the matrix. 2 vessels of fine creamy pottery, one with a painted design, may once have been mortaria. There are only 9 pieces of Samian ware, representing 3 vessels; it is not possible to say where they come in the Dragendorff series. Imitation Samian is represented by 3 vessels, a bowl, a beaker (Fig.2: 12), and a jar. One vessel is of a coarse grey/buff fabric and is represented by a base (Fig.2: 17). The amphora sherds found in the cave are one vessel, of Spanish origin. Iron age pottery is represented by three tiny fragments, one of which has a stab mark on it as decoration. The coarse wares range through all the categories mentioned above, except for the fine orange, Samian, imitation Samian and the creamy ware which has been painted.

The date range for all the pottery is confined to the early Roman period: the material is predominantly of the second century A.D., with a little of the late first century (Fig.2: 10, 12 and 14) and perhaps of the late second and early third centuries (Fig.2: 3). The Spanish Amphora has a date range of the second and third centuries A.D. The variety of types and fabrics of the Poole's Cavern pottery is unexpected, and contrasts with that of other cave and occupation sites in the Peak District. Likewise, the presence of the Spanish amphora certainly contrasts with other cave sites in the region and indicates in itself that Poole's Cavern was something other than a typical Romano-British settlement.
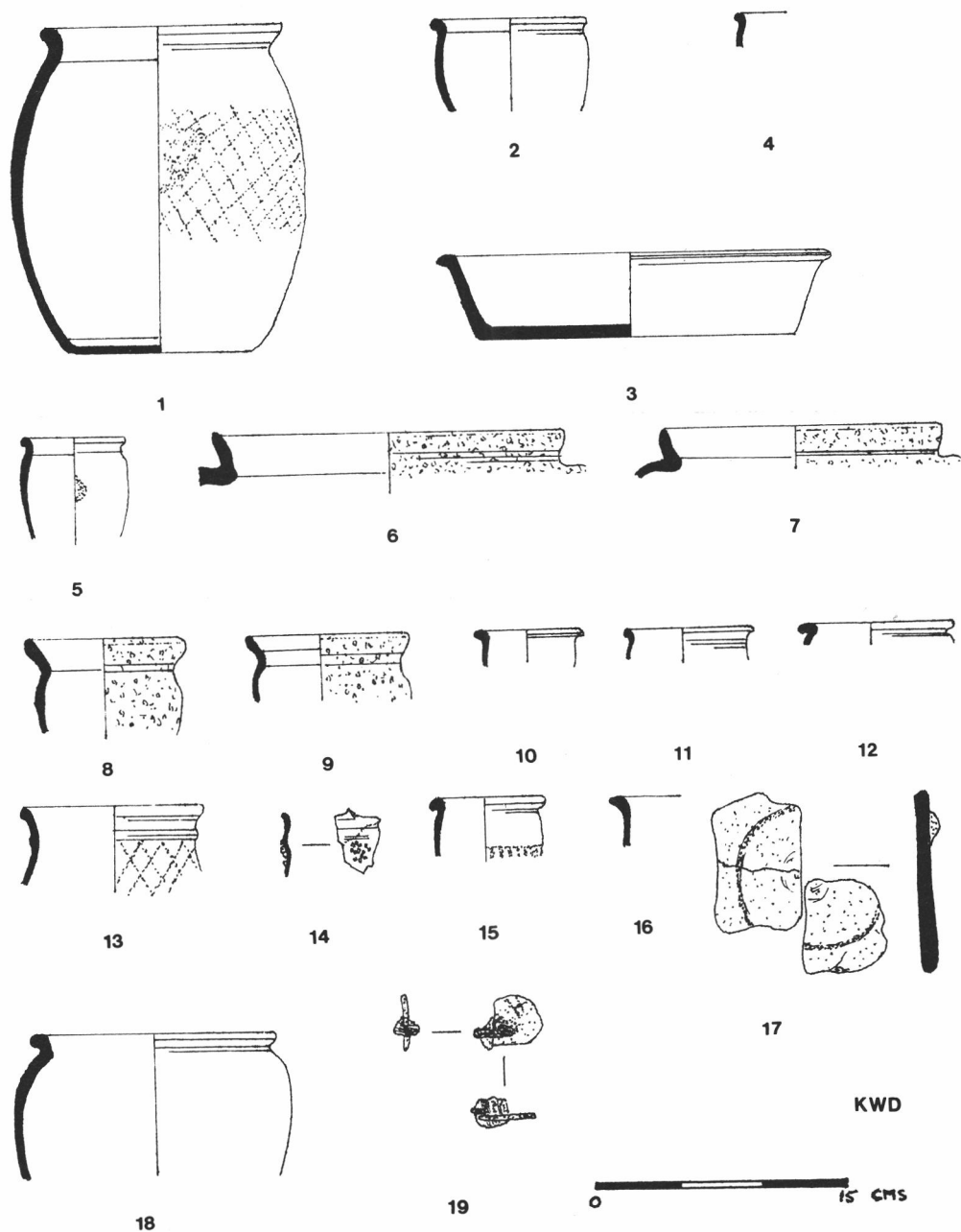
Fig. 2   Poole's Cavern: Roman pottery (for descriptions see text).

2. The coins (KD, JFD)

Twelve coins were found in the excavations. Four of these (with registration numbers 20a, 1762, 2005 and 3088) are silver long cross pennies of Henry V (A.D. 1412-22); all of these are clipped, all the legend has gone, and they have been identified only by the bust of the king. The remaining eight coins are all Roman, of the first and second centuries

A.D. The identifications, by JFD, are as follows:

1.   *Aes* As (worn and corroded)
     Obv. ?Claudius, bare-headed, 1,
          TI CLAVDIVS] CAESAR AVG PM [TR P IMP
     Rev. ?Minerva, advancing r. with javelin, holding shield on l. arm
          SC

     ?Rome mint, A.D. 41-45
     Roman Imperial Coinage (RIC) ?66 (cf. pl. VIII.130)
     British Museum Catalogue (BMC) ?149 (cf. pl. 35.4)

2.   *Arg.* Denarius
     Obv. Vitellius, laureate head, r.
          A VITELLIVS GERM IMP AVG TR P
     Rev. Libertas, standing r., holding pileus and rod
          [LIBER]TAS RESTITVTA

     Rome mint, A.D. 69
     RIC 18
     BMC 31 (cf. pl. 61.8)

3.   *Arg.* Denarius (poor quality - possibly plated: a contemporary forgery?)
     Obv. Domitian, laureate head, r.
          [IMP CAES] DOMIT [AVG GERM] PM [TR P VIII]
     Rev. Minerva, fighting r., with spear
          IMP XIX COS XIIII CENS P P[P]

     Rome mint, A.D. 88-89
     RIC 137
     BMC 151 (cf. pl. 64.14)

4.   *Aes* Sestertius
     Obv. Trajan, draped bust, laureate, r.
          IMP CAES TRAIANO OPTIMO AVG GER DAC PM [TR P COS VI PP]
     Rev. Fortuna, seated l., holding rudder and cornucopia
          [SENATVS POPVLVSQVE ROMANVS]; in exergue [F]ORT R[ED SC]

     Rome mint, A.D. 114-15
     RIC 651
     BMC 1016†

5.   *Arg.* Denarius (fragment)
     Obv. Hadrian, draped bust, laureate, r.
          IMP C]AES TR[AIANO HADRIAN(O) OPT AVG GER DAC]
     Rev. Concordia, draped, seated l. on throne, holding patera in extended r. hand
          PARTHIC] DIVI TRAIA[N AVG F PM TR P COS PP]

     Rome mint, A.D. 117
     RIC 4b, c
     BMC 9 (cf. pl. 46.5)

6.   *Aes* Dupondius/As
     Obv. Hadrian, bare-headed, draped bust, r.
          HADRIANVS AVG COS III PP
     Rev. Egypt, draped, reclining l., holding sistrum in r. hand, l. arm resting on
          basket of fruit; to l., ibis standing on low column
          [AEG]YPTOS; in exergue SC

     Rome mint, A.D. 119-138
     RIC 839
     BMC 1700/01

7.   *Aes* As (badly corroded)
      Obv. Antoninus Pius, laureate head, r.
          ANT]ONINVS [AVG PIVS PP TR P COS III]
      Rev. Draped figure (Felicitas/Genius Populi Romani/Pietas?), standing l.
          SC

      Rome mint, A.D. 140-44
      RIC 680/681/684
      BMC 1362f (cf. pl. 32.3)

8.   *Arg.* Denarius
      Obv. Antoninus Pius, laureate head, r.
          ANTONINVS AV[G PIVS PP TR P] XVIII
      Rev. Vesta, standing l., sacrificing with patera over altar and holding palladium
          COS IIII

      Rome mint, A.D. 154-55
      RIC 238
      BMC 829 (cf. pl. 17.13)

3. Small finds (Part One): the Roman brooches (DFM) (Figs. 3, 4)

One of the most interesting groups of finds from the excavations in Poole's cavern was a
series of Roman brooches, all of copper alloy unless otherwise stated in the following
account. They are described in turn, followed by citations of other known examples and
an assessment of the likely date of manufacture.

Colchester derivatives
1. (4a)   The spring is held in the Polden Hill manner; the spring is mounted on an axis
bar whose ends are held in holes in a plate at the end of each wing; the cord is held by a
rearward facing hook. Each wing is plain with a simple moulding at its end. The hook
behind the bow is raised to form a small crest lying in a triangular groove on the head of
the bow, which widens to accommodate the crest and leaves a reserved area in front of
it. The junction of the bow with the wings is masked by a curved step which rises from
the wings. On each side of the bow is a raised area with a rounded top, and on that is
another divided by a groove stopped at the top by a raised boss, the one on the right
having a cross-groove. These elements give a ribbed appearance to most of the length of
the bow. The foot is formed by a foot-knob with a cross-moulding along the top.
    The basic form of the brooch belongs to a well-established group, known to me as the
Dolphin, although I know of no precise parallel for the decorative scheme used here.
The plain version, without a foot-knob, had come into being before A.D. 75 (Hobley,
1969: 107, fig. 19:1); one from Verulamium with a foot-knob is dated A.D. 115-130
(Frere, 1972: 114, fig. 29:10); another similar, but more attenuated like the present
specimen, was found at Wall (Staffs.) in a deposit dated to Hadrianic or early Antonine
times, although the bulk of the rubbish accumulation was Trajanic-Hadrianic in date
(Gould, 1967: 17, fig. 7:7). An example with simple decoration (c.f. Ettlinger, 1973: 109,
Taf. 12:7) from Wroxeter was lost before the Hadrianic building of the Baths insula
(excavations, Dr. G. Webster: to be published). Three, including a plain footed one,
came from the Sanctuary Mound at Croft Ambrey and were dated there to the period *c.*
A.D. 75-160 (Stanford, 1974: 144, fig. 67:1, 2, 5. Date: ibid, 142); a slightly more
elaborate piece from Wroxeter came from a period dated A.D. 80-120 (Bushe-Fox,
1916: 23, pl.xv:5).
    As can be seen, there are a lot of dated parallels and the emphasis is on the period
from *c.* A.D. 75 to *c.* 150. What is represented here is the main period of manufacture
with a subsequent time during which surviving specimens gradually passed out of use;
most will have been discarded by *c.* A.D. 150.
2. (1000)   The pin is hinged and the axis bar was inserted into a slot behind the wings
and then the flaps forming the slot closed round it. On the head is a cast-on loop with a
small triangular projection in the bottom. Each wing has a pair of mouldings separated
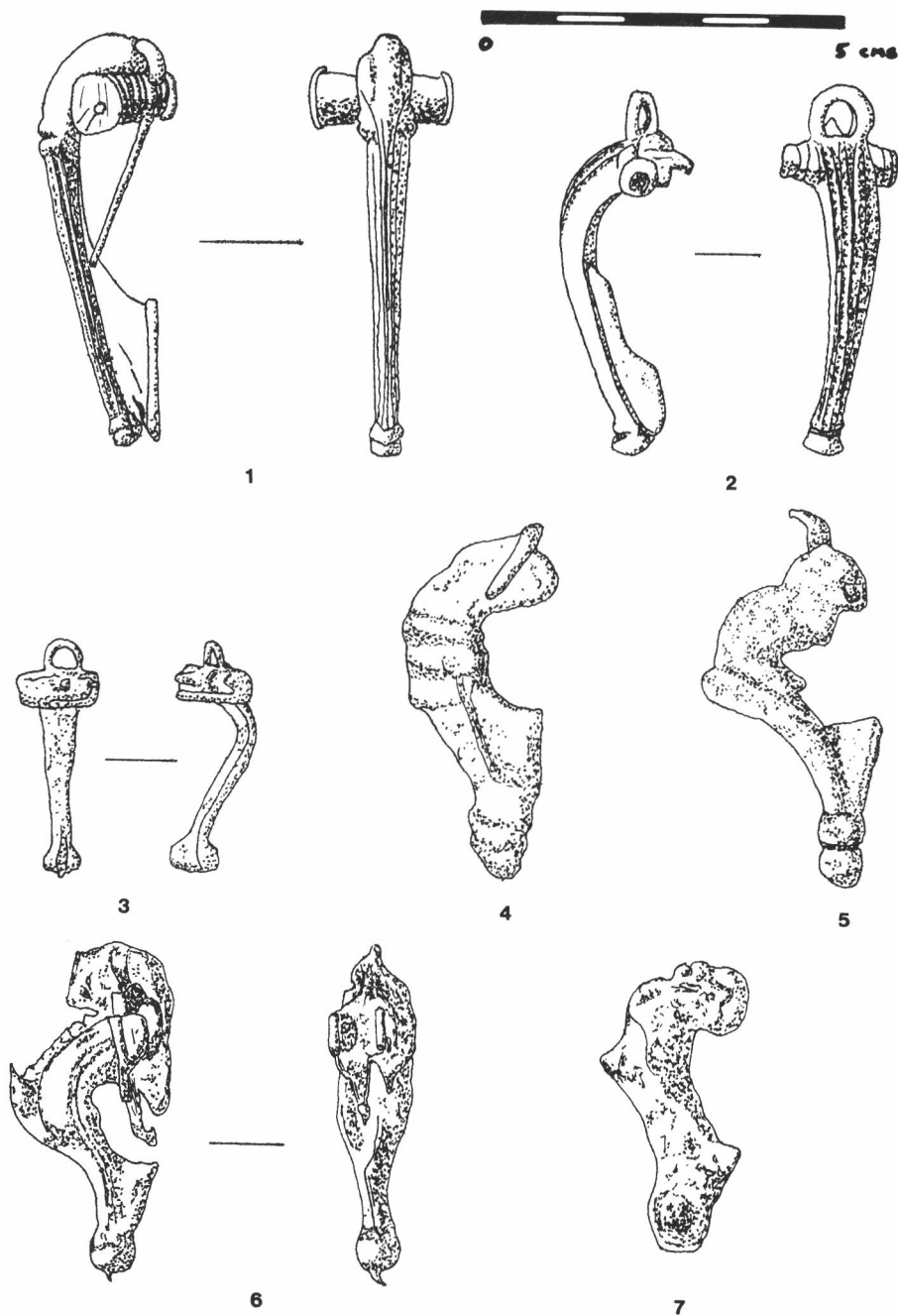
Fig. 3   Poole's Cavern: Roman brooches (for descriptions see text).

by a wide flute with an extra moulding at the end. The bow is wide with a flat back and tapers to a foot-knob with a cross moulding above. The front of the bow has a swell in
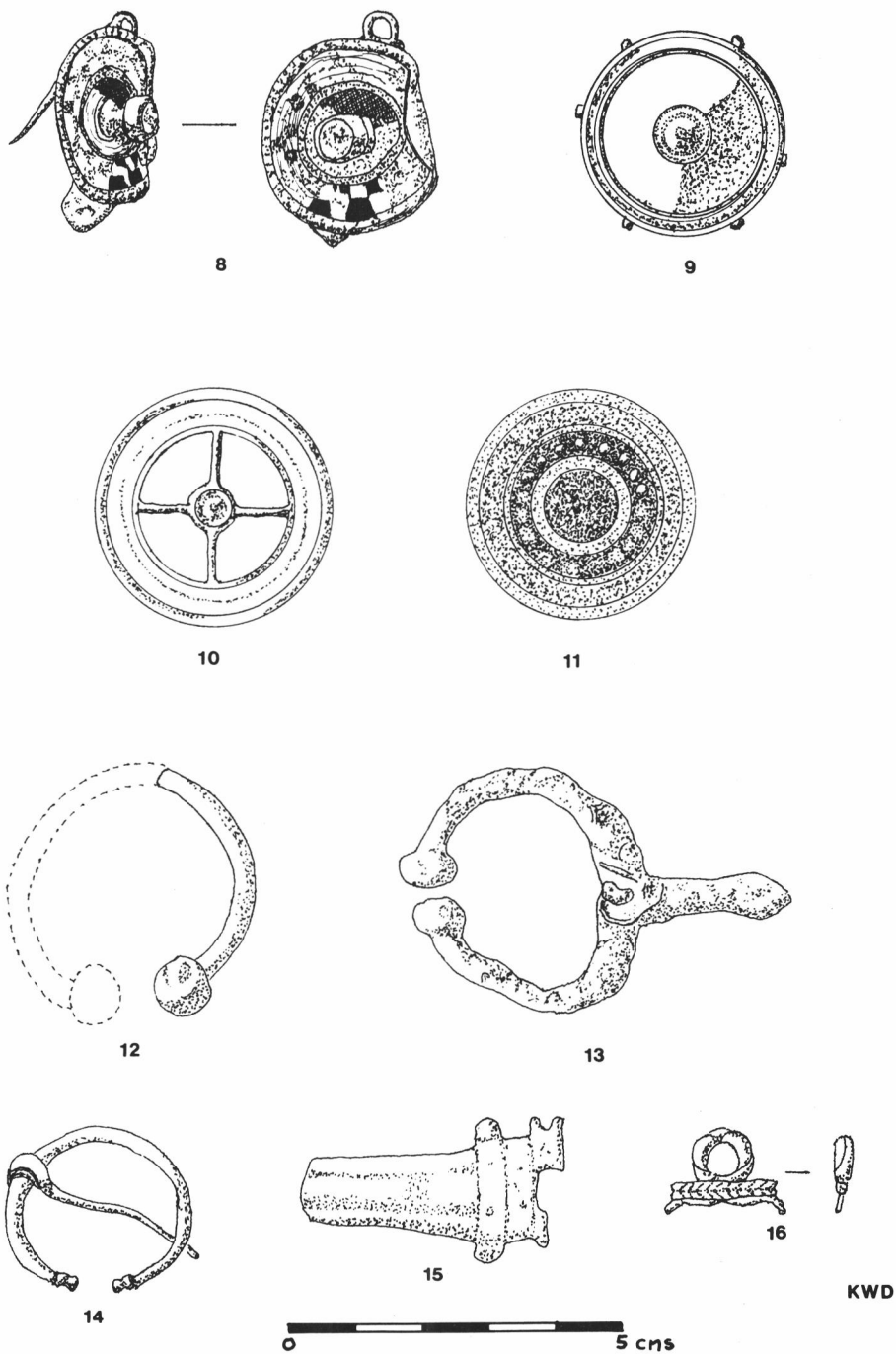
Fig. 4   Poole's Cavern: Roman brooches (for descriptions see text).

the centre dying out as a pair of mouldings down each side come together. The catch-plate is solid and has a long ridge running up the back of the bow to the point where the bow bends back towards the head.

Parallels are few and the only one exactly similar known to me comes from Thealby Mine (Lincs.) and is undated (Dudley, 1949: 200, fig. 52:6). However, a close parallel comes from Newstead (Curle, 1911: 323, pl.LXXXVI:18) where, as there are so few Colchester Derivatives in the collection, it should not be late in the occupation of the site, which runs from *c*. A.D. 80-180, with the possibility that it was re-occupied in the early third century (Hartley, 1972: 54). In the present case, as Colchester Derivatives were passing out of use by the middle of the second century, the date range is from *c*. A.D. 80 to *c*. 150 at the latest.

Knee
3. (IVD 756)   The spring is housed in a half-cylindrical head, a version of the manner used in brooches 1 and 5-7. On the top is a small cast-on loop. The front of the cylinder has the remains of a longitudinal strip of tin or silver. The bow is shaped like a cabriole leg with a plain splayed foot. There are traces of another tin or silver strip down the front of the bow. The surface of the brooch has largely disappeared and hence it is not possible to gauge how much of the surface decoration there may have been.

This is the British type of knee brooch. Unlike continental varieties on which decoration is largely confined to punched dots, the British type has a more varied ornamental repertoire: simple strips like the scheme which can be detected here (Gloucester excavations, H. Hurst: to be published); strips with enamel inserts (Gloucester, ditto); appliqué rosettes, possibly of silver (Corinium Museum); silver spots and a star (Curle, 1916: 97-8, fig. 22:4). Dating is difficult as only two have been published from dated contexts: Gadebridge (Herts.), late second or early third century (Neal, 1974: 127, fig. 55:25); and Wroxeter, before *c*. 130-150? (Bushe-Fox, 1914: 13, fig. 4:6). These two brooches may bracket the production period as well as the subsequent survival in use, *c*. A.D. 125-200.

Trumpet
4. (1007)   Now covered with corrosion accretions, not all the details are visible and the degree of decoration is hard to assess. The spring was once held by a single loop behind the head of the bow (see brooch 16). The trumpet head is narrow and has a small expansion at the top to provide cover for the spring. On the top is a small nib which once prevented the loose loop and collar from falling, or being pushed, over the head of the brooch. The knop is made up in gross terms of three strongly marked cross-mouldings. The central one at least may be divided into three, but the details cannot be seen. The lower bow has a recurve, a central arris and appears to be plain. The foot is made up of two strong cross-mouldings with a boss beneath. The catch-plate is solid and is based on the foot mouldings of the bow.

Brooch 4 has few parallels and none known to me is precisely like the present specimen, even allowing for obscuring by corrosion. The determining features are taken to be the single loop mounting for the spring, the cross-mouldings running right round the bow at the knop and the foot, and the narrow trumpet head. Following these criteria, two parallels occur at Manchester, but neither is given a context which can be dated (Jones, 1974: 121, 123, fig. 43:10, 12). Thereafter, one with a proper trumpet head and with a plain dished version of the flower ornament of item 17 (not illustrated) is dated to about the middle of the second century (Bushe-Fox, 1913: 26, fig. 9:6). Few trumpets seem to have survived until the end of the second century and, as the type had fully developed by A.D. 75 (Hobley, 1969: 110, fig. 19:9; 1973: 66, fig. 19:8), it is likely that variations should be counted as belonging essentially to the first part of the second century, possibly beginning in the first, and probably hardly expected to last much beyond A.D. 150-175.

Lead

5. (5a)   The spring, now lost, was mounted as that in brooch 6 would have been had it been finished. There is a loop rising from the base like that in brooch 6 and is placed on a head-plate of the same form. The head-plate has a step across its front. The bow has the same marked recurve in profile as in brooch 6 and also has a boss at the point of inflection. However, the form of the upper bow consists of a flat front with sides which taper to a thin rounded back. The front face is rounded under the boss and the lower bow has a median arris running down to the base mouldings which recall those of brooch 4, but without the boss under. The catch-plate rises from the base mouldings. The holes in the plates behind the head and the complete form of the catch-plate show that the brooch was finished with every intention of it being used.

Unclassified

6. (1268)   The spring would have been mounted on an axis bar which would have been held in a pair of pierced plates behind the head of the bow. On the head, and rising from a rectangular pedestal, is a tab which is lozenge-shaped but with the lower end truncated. The bow springs from a vertical plate with a squared top and a rounded bottom edge and has a circular section with a ridge down the front and another on each side. The profile of the bow has a marked recurve emphasised by a forward-facing boss at the point of inflection. The lower bow has an arris down the front and tapers to a two part foot-knob of the same general pattern as that on brooches 1 and 2, but the mouldings run all the way round and the catch-plate rises from them. The brooch was never finished and still has the flash marking the joints in the mould in which it was cast and a ridge on the catch-plate instead of a full return for the pin.

Iron?

7. (VIIC 1144)   Although the colour of the brooch is rusty and there is a distinct reaction to a magnet, the weight of the brooch is very light in proportion to its mass. The corrosion products disguise the surface details of the item. In basic form, this brooch is very close to the last two. The loop is broken and the form of the mouldings on the foot is not visible.

The type to which these brooches (5-7) belong looks as though it derives from the trumpet, but, whatever the true origin may have been of that type (Boon and Savory, 1975; Hildyard, 1945), the descent of the present type is securely fixed. The primary form is that of a Colchester Derivative whose spring is held in the Polden Hill manner (see brooch 1), has a decorated upper bow on which the ornament is stopped on the peak of the profile by a boss or a spot of enamel: Wall (Staffs.) Hadrianic-early Antonine (Gould, 1967: 15, fig. 7:5; but see Gould, 1967 under brooch 1 for added comment); Wroxeter mid second century (Bushe-Fox, 1916: 23, pl.xv:7) and undated (Webster and Daniels, 1970: 18-9, fig. 4:3). Another, with enamelled panels and reserved wavy lines, has the spring case riveted to the top of the bow, a rare habit, but paralleled in a brooch from Broxtowe (Notts.) (Campion, 1938: 11, pl.II:1), a site which was abandoned *c.* A.D. 70-75. However, the decorative scheme which marks the early stages of the present type is absent from this example, and it is only the comparison with the manufacturing technique which suggests that the type under discussion had come into existance so early: in many senses it is the technical aspects of brooches at a given moment which separates them into different schools, rather than ornamental tricks. That there is a cohesiveness in the group, despite the change in the course of time in the way in which the spring was mounted, is shown by two more brooches from Wroxeter, undated, which repeat the enamelled panels with reserved wavy lines as well as the spot of enamel at their base (Shrewsbury, Rowley's House Museum, X.24, X.26). Such close parallelism is matched by the growing emphasis on the recurve of the lower bow shown by the first of the Wroxeter examples given. The spring is now fixed in the system displayed by brooches 5-7 from Poole's Cavern, although the form of the brooch has not fully developed. One specimen of this stage of development comes from Silchester and was dated there A.D. 100-120 and has enamel in black and white on both upper and lower bow (Cotton, 1947: 145, fig. 8:3).

The three brooches from Poole's Cavern bear a closer relationship to each other than to the others in this particular sub-group. None is dated and one which comes from the Antonine Wall (Robertson, 1970: 223, fig. 10:7) is not well enough associated with a Wall site for the known period of occupation of the system to be applied to the brooch itself (Hartley, 1972). The main decorative feature of the group, and of its associated forms in the next, is the presence of enamelling on the upper bow. As the dating which is emerging lays an emphasis on the second century, it is not surprising that there should occasionally be influence from the Trumpet type. However, the Trumpet's head itself is seldom seen (Hume, 1863: 71, pl.III:3; Leicester, Jewry Wall Museum, 116. 1962/1037; Radford, 1936: 55, pl.IX:1, ?), and the main effect comes from the Trumpet's knop. Yet it is not the 'acanthus' or petalled style which is to be seen, but the moulded version akin to the knop of brooch 4 here (Alcester, excavations, C.M. Mahany, to be published), which seems fairly quickly to have achieved its own form using lenticular bosses in pairs lying across the bow and coupled with cross-mouldings and flutes to create a variety of designs (Jones, 1974: 121, fig. 43:7, undated; B.M. Guide: 18, fig. 9:21); but very few are published and fewer are dated: Biglands, Cumbria, A.D. 125-180/97 (Potter, 1977: 171, fig. 11:16).

In general terms, the few dated examples suggest that the bulk of the type, including those under discussion here, belongs to the second century and had probably ceased to be made by c. A.D. 175. The distribution for all varieties of the developed type is markedly western and it is possible that the market area for most pieces lay in the western Marches and extended eastwards and northwards to Warwickshire and the southern Pennines.

Brooch 6 is of particular interest as it shows unequivocally the kind of mould in which it was cast. Mention has been made of the 'flash' present and this, because the casting was not 'fettled', shows that the mould was partible and, therefore, capable of re-use. Such a conclusion may hardly seem to be novel: several varieties of brooches show the step formed by badly fitting mould parts and, after hand-finishing, many of the traces of manufacture disappear. However, there is only one large collection of mould fragments known to me, from Caister-by-Norwich, and these reveal that the brooch type being made was a simple Colchester Derivative and its form was repeatable despite the fact that the *cire perdu* method was being used. In this, and possibly most cases, the wax pattern could be pressed from a mould of wood or a more durable material, and then invested in clay. This would allow for more than one brooch to be cast at a time as was, indeed, the case in the mould fragments from Caister-by-Norwich, and would lead to apparent mould joints. In the present case, the mould was a re-usable three part item although the casting does not clearly indicate where an 'ingate' was, as there is no pipe present or evidence that one has been cut off. As the joint 'flash' is present over most of the brooch length, the logical place for the 'ingate' is at the foot, in which case the brooch was cast upside down as far as the modern drawing convention is concerned, but in the correct mode for wearing the item (Wild, 1965). It is the form of the spring housing which dictates that a three-part mould is used, as it would be impossible to create it with two parts. One joint runs down the front of the brooch and up the back of the catch-plate return to the head-plate; the other is at right-angles and runs round the head-plate, thus allowing the hollow between the plates to be cast. The catch-plate itself is cast with a wide shallow ridge for the return, which was clearly cold-worked to form a usable return for the pin.

The presence of this item in the cave leads naturally to the thought that brooches had been made there, but it is worth considering that the unfinished brooch may have been in a bronzesmith's stock and may have been cast somewhere else. What evidence we have is equivocal as far as the character of the manufacturer's workshops is concerned. The evidence from Odell (Beds.) (excavations, Dix, forthcoming) is that an itinerant craftsman passed a brief sojourn there and the same may apply to a workman of a later age. The evidence from Caister-by-Norwich is less clear. There had been a bronze-smith's workshop, but it is not certain whether it was permanent in any sense, or had acted as a home base for a travelling man on a circuit, or represented a stay of a few

weeks only. What is certain from the Caister material is that a craftsman made many types of article and that brooches did not necessarily form the largest category.

Plate

8. (IIA 133)   There is a cast-on loop above the top of the hinged pin. The plate is flat and circular and has, riveted into the centre, a boss on a stalk with a recess filled with what is now enamel of a turquoise colour. Around the insert are two zones of enamel; the inner one contains some discoloured green which may contain elements of millefiore panels, the outer has traces of blue and white enamel mosaic. The edge of the plate has cross-cuts giving a beaded appearance.

The type to which this brooch belongs is almost certainly entirely continental in origin and manufacture: mosaic and millefiore do not seem to have been in the repertoire of British makers, and the same applies to riveted bosses. Good parallels are few and none seems to have come from a dated context. A second century date may be suggested on the grounds that mosaic and millefiore are not generally to be expected in the first or third centuries.

9. (3a)   The pin is hinged. The plate is circular and very carefully finished. The main part of the plate rises in a concave-sided cone to a central projecting border with a small point in the centre. Near the edge of the plate are two fine grooves and on the edge is a ridge on the outside of which are six equi-spaced projections. The fine finish suggests that the brooch may have been completed on a lathe.

This is a relatively common type found on the continent and in Britain and as far afield as Dura Europos (Frisch and Toll, 1949: 40, pl.IX:21) which, as that city was in Roman hands from A.D. 165 to 256, should have arrived there during that time. Another, with enamel around the outer edge, comes from Wroxeter and is earlier than *c.* A.D. 120 (Bushe-Fox, 1916: 25, pl.XVI:12). A more elaborate version from Gadebridge (Herts.) belongs to the second half of the second century (Neal, 1974: 128, fig. 55:29), and a plainer one from Caerleon was dated to A.D. 212-222 (Wheeler and Wheeler, 1928: 166, fig. 14:20). The balance of the dating suggests a date perhaps covering the whole of the second century.

10. (17a)   The pin is hinged. The form of the brooch is that of a four-spoked wheel with its 'axle' ornament like that in the middle of the last brooch. The outer ring has a recessed centre with a slight circular arris. It is possible that this brooch was finished on a lathe.

(PCCP) not illustrated. The form is precisely similar to the last brooch. These two brooches are so much alike that it is hard to believe that they were not cast from the same mould. Close inspection, however, shows that each was finished separately by hand and there are no flaws which are common to each, although the junction plate at the centre of the spokes is eccentric to exactly the same degree and direction in each. Neither brooch shows signs of having had enamel in the outer zone, but one from Cirencester has (Corinium Museum, B 331). None of the British parallels is dated. As the bias of the collection from Poole's Cavern is towards a fully second century date, it is suggested that these belong to the same period.

11. (1012)   The spring was housed between two pierced lugs recalling the system used in brooches 1, 5-7 and 17. The plate is circular, flat, and is recessed in three zones for enamelling. The central one is now empty, the middle one has the colour red with 17 circular spots of reserved metal, and the outer has blue enamel. Two of the reserved dots have appliqué bosses in what may be silver. There is one appliqué left on the outer margin of what once had been a continuous band and the same may be supposed to have been present on the other reserved bands.

The use of sprung pins on plate brooches seems to have been a peculiarly British trait, and, so far, I have only recorded appliqué white metal trim on plate brooches with springs. Hence, quite apart from the insular character of the designs, the deduction is that that kind of added decoration is also a British speciality. A parallel from Watercrook, Cumbria, was dated from *c.* A.D. 120 to 200 plus (Potter, 1979: 211, fig. 84:15) and two slight variants — there is a dagged outer edge to the outer zone — from

Newstead (Curle, 1911: 331, pl.LXXXIX:1, 6) should date to the period *c*. A.D. 80-180, although a Severan date cannot be discounted (Hartley, 1972: 54). Of smaller examples with only two zones of enamelling, but with reserved spots of metal, one from Overstone (Northants.) is given a date up to the middle of the second century (Williams, 1976: 126, fig. 13:107) and one from Chichester belongs to the third century (Down, 1978: 287, fig. 10:28, 55). Again, the bias is towards the second century and, like so many of these plate brooches found in the second century, there is always the possibility that some carried on in use into the third.

Penannulars

12. (18a)   The surviving portion of ring has an oval section and the remaining terminal is formed by a large knob.

13. (VC+ 346)   *Iron.* The ring has a circular section and each terminal is a slightly flattened knob. The pin, half of which is missing, is well humped.

14. (XVIIA+ 2191   The ring has an oval section. Each terminal is returned along the top surface of the ring and has a concave hollow in its top. The pin is well humped. (VIID 1271)   Not illustrated. Only the humped pin from a penannular brooch survives.

Brooch 14 belongs to Fowler's type D1, and brooches 12 and 13 to her type A or A1 (Fowler, 1960: 150-2). The first is given a date range of first to third centuries A.D., while the other two are either third-second century B.C., or first century B.C.-third century A.D. (Fowler, 1960: 176, 171, 174). The description of the D1 type shows that it comprehends many variants including cast terminals with false seam marks. Choosing parallels only from those with terminals with only a single depression, two from Hod Hill date to before A.D. 50 (Brailsford, 1962: 12, fig. 11:E11, E16; Richmond, 1968: 117-9) and two from Camerton are dated, one A.D. 150-200, the other after A.D. 150 (Wedlake, 1958: 234, fig. 54:63-4). While these are few, they suggest that Fowler's date range is probably correct. Plain knob terminals are more difficult as they are a primitive form and could, as Fowler's dates suggest, be made over a long time. Sufficient come from sites which have no known pre-Roman occupation to indicate that they could well belong to the Roman period in the main and in these instances should belong to the late first to early third centuries, the period covered by the rest of the brooches in this collection. On the other hand, the form of the pin is important, as Fowler points out in determining the principal features of her type A (Fowler, 1960: 150). It is thought that the humped pin is an early feature, but it should be noted that, apart from having a partly chronological significance, it also has a spatial and probably cultural one, in that it is to be expected in the north of Britain in the Roman period. The presence of two (and possibly three, if brooch 13 is to be included) at Poole's Cavern may represent a cultural rather than a temporal division.

Unclassified

15. (7a)   The object has the appearance of being the upper part of a brooch reminiscent of an Aucissa, except that the axis bar for what might have been a hinged pin is housed in a cast tube in the head of the 'bow'. Instead of the outer ends of the top cross-member being squared to seat the knobs which would have been fitted on the ends of the axis bar, they are hollowed for a purpose which is not clear. Beneath this element is a narrower section and then a repeat of the flattened cross-moulding. Beneath these is what seems to be a bow: it tapers gently and has a slightly swelled front between broad bordering ridges. If this is a brooch, it clearly belongs to the Aucissa series and should date to before *c*. A.D. 55-60 at the latest. However, I have not come across such a large specimen or one which has this design of bow and head. The slot for the 'pin' is much wider than is necessary and the general appearance of the object is only superficially like a brooch, but I cannot suggest an alternative interpretation.

Miscellaneous

16. (XVA 1685)   A fragment of a cast loop and collar which is a skeuomorph of the original arrangement to be found on most Trumpet brooches: the spring was mounted

on a rolled sheet metal tube running through the coils and the hole in the loop behind the head of the bow. The spring and tube were kept in position by means of a wire loop rising over the head of the brooch and whose ends were housed in the ends of the tube. The waist of the loop was clipped by a strip of metal, often decorated on the front, bound round and butting behind. The present piece shows the form of the loop and collar without the but joint of the latter. It is cast in one and the loop bears two curved grooves running along the curve and meeting in a forward-facing peak at the top. The 'collar' is divided by a groove front and back, but the former is marked by diagonal cross-cuts giving a herringbone appearance.

17. (VE 976)   Not illustrated. An ornament in the form of a flower with deeply divided petals, of which there may have been fourteen. From the dished centre of the flower rises a cone with a basal groove and topped by a small boss. Behind is the stub of a plate, the broken edge of which has the remains of two holes. This was clearly a variant form of collar and once mounted on a plain wire loop. The colour of the metal suggests that it may be base silver.

Neither 16 or 17 need have come from a Trumpet brooch, as wire loops and collars are known on Headstuds (e.g. Bushe-Fox, 1949: 114, pl.XXVIII:35; Stead, 1976: 198, fig. 99:13), and the 'daisy' occurs on a variant form of the type to which brooch 1 belongs from the Deepdale Cave, Buxton (Ward, 1894: 186, pl.IX:4). In the latter case, however, the manner of fastening the loop and collar to the brooch is not shown and it may be doubted if it is correctly associated, as there is no obvious way of joining the two. It is suggested here that the collar and the fragment of the loop were found separately, as in the present case, and then wrongly married. In general, the only type which consistently has versions of the wire loop and collar is the Trumpet and it is this type which has the greatest number of ornaments which offer parallels for item 17.

The flower attachment with variations, or alternative versions of the more normal collar, are uncommon but may be found on Trumpets with moulded knops and feet as on brooch 3 here: Winchester (to be published); Deepdale Cave, Buxton (Cox, 1891: 196, pl.xii:2); Corbridge (Forster and Knowles, 1911: 181, fig. 11). As may be expected, the most elaborately decorated Trumpets, those with moulded or inlaid ornament often with a Celtic cast to the decoration, employ the elaborate collar ornament of the same dished circular type: Wroxeter (Wright, 1872: 280, fig. 4: Rowley's House Museum, Shrewsbury, X.16); Holcombe (Devon) c. A.D. 70-180 (Pollard, 1974: 138-40, fig. 22:2; Boon and Savory, 1975: 55-6, pl.xv:c). The largest specimen now detached from its brooch comes from Bourton on the Water (Glos.) and was found with pottery dating to about A.D. 80-160 (O'Neil, 1949: 85-6, fig. 1) — in this case the flower is part of a crescentic plate. However, the finest example comes from Carmarthen and is part of a silver parcel-gilt brooch, unfortunately not dated. Boon and Savory (1975: 57) attempt to demonstrate that the brooch is to be dated to c. A.D. 50 at the latest, with the suggestion that the second quarter of the first century A.D. was the appropriate time for manufacture. The discussion is based upon largely undated items which display a

brooch no.	approximate date range (A.D.)
1	75-150
2	80-150
3	125-200
4	100-150/175
5, 6, 7	100-175
8	100-200
9	100-200
10	?
11	100-200+
12, 13, 14	75-225
15	?
16, 17	75-150/175

Table 1: Approximate date range of the Roman brooches from Poole's Cavern.

similar art style, but the art-historical argument is unsupported by any other evidence: the earliest published Trumpet brooches still remain the two from The Lunt, Baginton (Warks.) cited above (Hobley, 1969, 1973). The general dating available for Trumpets still places them firmly after this time and the skeuomorph loop and collar (item 16) and the decorative flower (item 17) are best placed in the period c. A.D. 75-150/75.

The dating evidence detailed in the preceding discussion is summarised in Table 1: as can be seen, the age range spans from the late first to early third centuries A.D., with the bulk of the material probably dating to the second century A.D.

4. Small finds (Part Two) (KD)
Bronze (Fig. 5)

1. (10a)	Figure attachment for a handle of a bucket or cauldron: ox-head or *bucranium*.
2. (VIID 1269)	Decoration with Celtic design (*triskele*), with no sign of attachments.
3. (1011)	Decoration in the shape of a seahorse, a creature often used for brooch design. There are two holes, one in the head and the other in the tail. This object was probably fastened full length to a piece of leather or a knife handle.
4. (1106)	Manicure. These are usually found with tweezers and an ear-scoop, all of which were held on a ring. There are three circles on this one, which could be the maker's mark. Found in the throw-up of the main path.
5. (VIIC 1146)	Split pin; tweezers?
6. (VIID 1270)	Finger ring of simple construction, similar to a gold ear-ring found at Bexhill near Sittingham (B.M. *Guide to the Antiquities of Roman Britain*, 1922: 70)
7. (XIC 1569)	Half ring, set with red enamel.
8. (IIM 2504)	Finger ring set with blue glass. The glass is moulded into a face which may represent a deity.
9. (VIIIG+ 817)	Link of a chain? There is no sign of wear: perhaps it had a leather cord running through it, rather than metal.
10. (XVIA 1846)	Pin head with brown and green enamel.
11. (IVK 2409)	Key; undecorated, with a loop for suspension.
12. (6a)	Iron stud with bronze head.
13. (IVD+ 256)	Stud with face; two of these have been found in the cave.
14. (1003)	Piece of scrap bronze; has been semi-melted at one time.
15. (XVIA 1805)	Pin. 27 of these have been found so far in the cave.
16. (VIF+ 590)	Piece of thin bronze sheet with two rivet holes and rivets; also with this piece was a fragment of wood, perhaps the remains of a scabbard (not illustrated).

Not included in the above list are small bronze studs very similar to some of the iron ones described below.

Lead (Fig. 6)

17. (1a)	Weight; hole in one corner.
18. (16a)	Lead seal. (See following section.)
19. (VIIE 1463)	Spindle whorl.
20. (VIB 1077)	Rivet.
21. (27a)	Lamp holder.

Miscellaneous (Fig. 6)

22. (IIIB 45)	Leather sole of sandal.
23. (VE 564)	Jet finger ring; the jet probably came from Whitby (Yorks.).
24. (IN 2534)	Iron stylus with decorated bone handle.

Bone and antler (Fig. 7)

25. (VA+ 317)	Polished piece of bone with 10 inscribed dot-and-circle motifs:
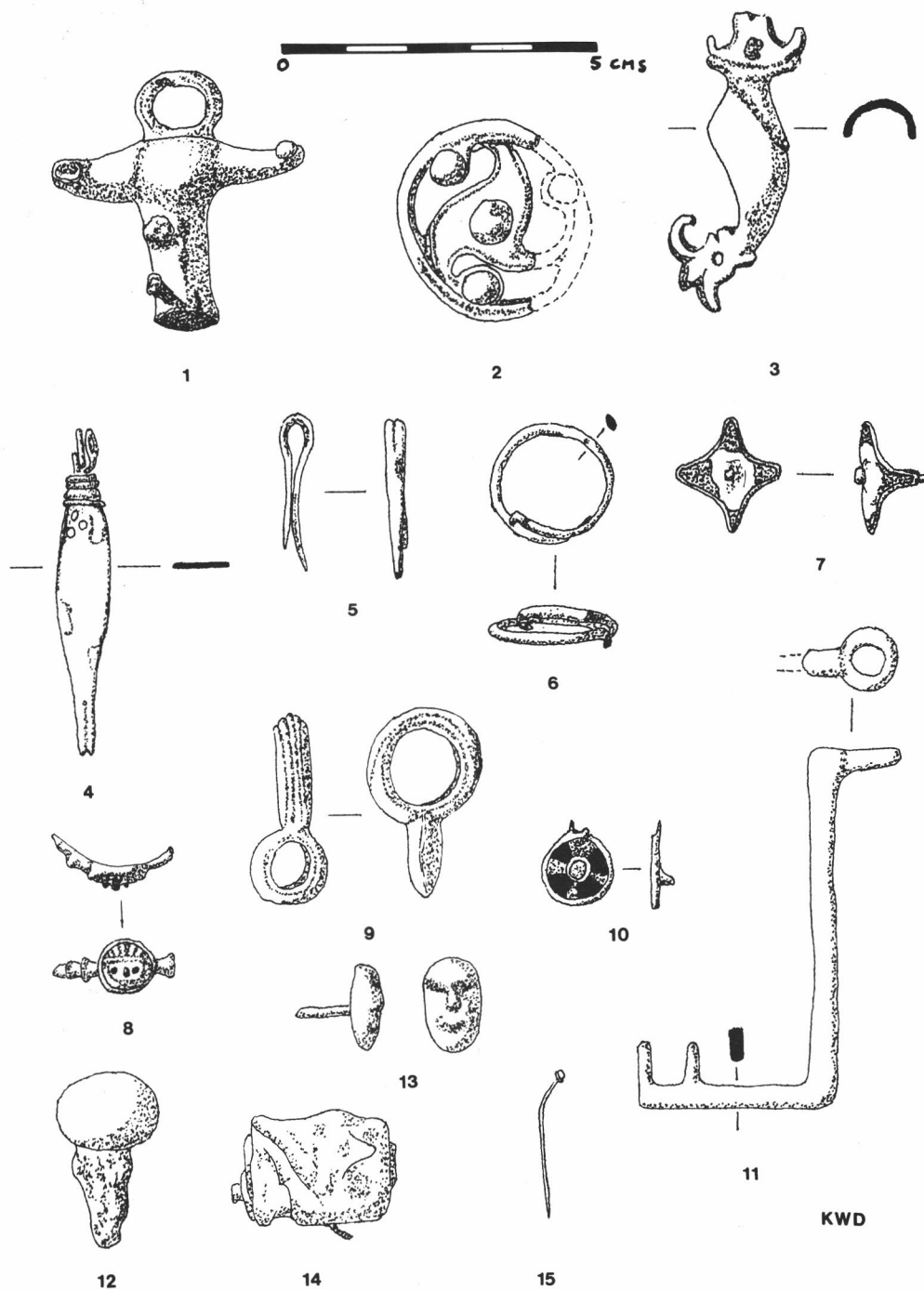
Fig. 5   Poole's Cavern: Roman small finds of bronze (for descriptions see text).

	counter or gamesman.
26. (IM 2480)	Counter or gamesman, of a type common at Roman sites.
27. (VIIC 1159)	Roughly squared object, plectrum-shaped, showing evidence of scoring; use unknown.
28. (IM 2479)	Bone point: could be potters' tool, or perhaps part of a game.
29. (XVIC 3066)	Peg or implement as 28, probably fashioned from a cattle metacarpal or metatarsal.
30. (VIA+ 1040)	Splinter shaped into a semi-circle, with a worn area where it has been held; possibly some sort of strigil, the scraping implement used when bathing.
31. (VIIE+ 659)	Knife handle, fashioned from a sawn piece of red deer antler.

Iron   (Fig. 8)

Items commonly missed on the sorting table were small nails and tacks of iron, which were very hard to distinguish from calcite fragments and other pieces of grit. A variety of small nails was found by scanning the sorted soil with a metal detector; a few of these are illustrated in Figure 8.

1. (XVIA 1804)	Nail
2. (XVIA 1832)	Nail similar to 1, but bent at right angles.
3. (XVIIA+ 2194)	Nail with an unusual wedge feature along its stem; found in association with wood in the main grave area.
4. (IIIA+ 77)	Nail with a large square head.
5. (XIB 1567)	Stud.
6. (VIB 1075)	One nail and two tacks showing similar features.
7. (XIC 1568)	Two nails of the same type and a small tack, almost like a drawing pin.
8. (XVIA 1836)	Three small nails of similar features but with different shaft sections.
9. (XVIA 1837)	Three tacks.

Bronze studs similar to the third item in 6 and the second in 9 were also found; all of these were probably nails for sandals or shoes. Two other large iron artifacts were found, which are not illustrated:

(VIIID 1426)	Binding for a wooden spade.
(IIN 2587)	Knife, found in several pieces; the blade is 22.3cms long, with the total length of the implement including the tang being about 30.6cms.

5.   Small Finds (Part Three) (MH)

Lead Seal (Fig. 6: 18)

Oval lead sealing measuring overall 23mm by 18mm, and 6mm thick. The drop of lead used was carelessly placed on the thread so that the thread-hole is off centre towards the left and partly breaks the surface of the metal. The back of the sealing is slightly concave. The impression of the seal itself is also oval, being 16mm or slightly more, by 12mm. It carries six letters in relief, three of the letters being set above the other three: to read VIN/OEN. There is no certain expansion of the letters. It does not appear to carry the name of a military unit, as on the majority of the sealings from Brough under Stainmore reported by I. A. Richmond *(Trans. Cumb. West. Antiq. Arch. Soc.* 36, 1936, 104ff). Stylistically it somewhat resembles the sealing from Ickham, Kent, which carries the city name Smyrna, in Greek capitals also set in two rows (published in *Britannia* 10, 1979, 350-3, no. 33e); but the only place name inside or outside the province suggested by the text is Vinovia (Binchester), in which case *Vino(vi)en(ses)* might be intended. (For the elision of the medial (v) see C. Smith 'Vulgar Latin Roman Britain', *Aufstieg und Niedergang der romischen Welt II,* Principat. vol 19.2, 1983, 893-8, p.916.) The adjectival form could refer either to the community living outside the fort, or possibly to the garrison itself, on the analogy of the altar (now lost) from Binchester which was

17

18

19

20

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KWD

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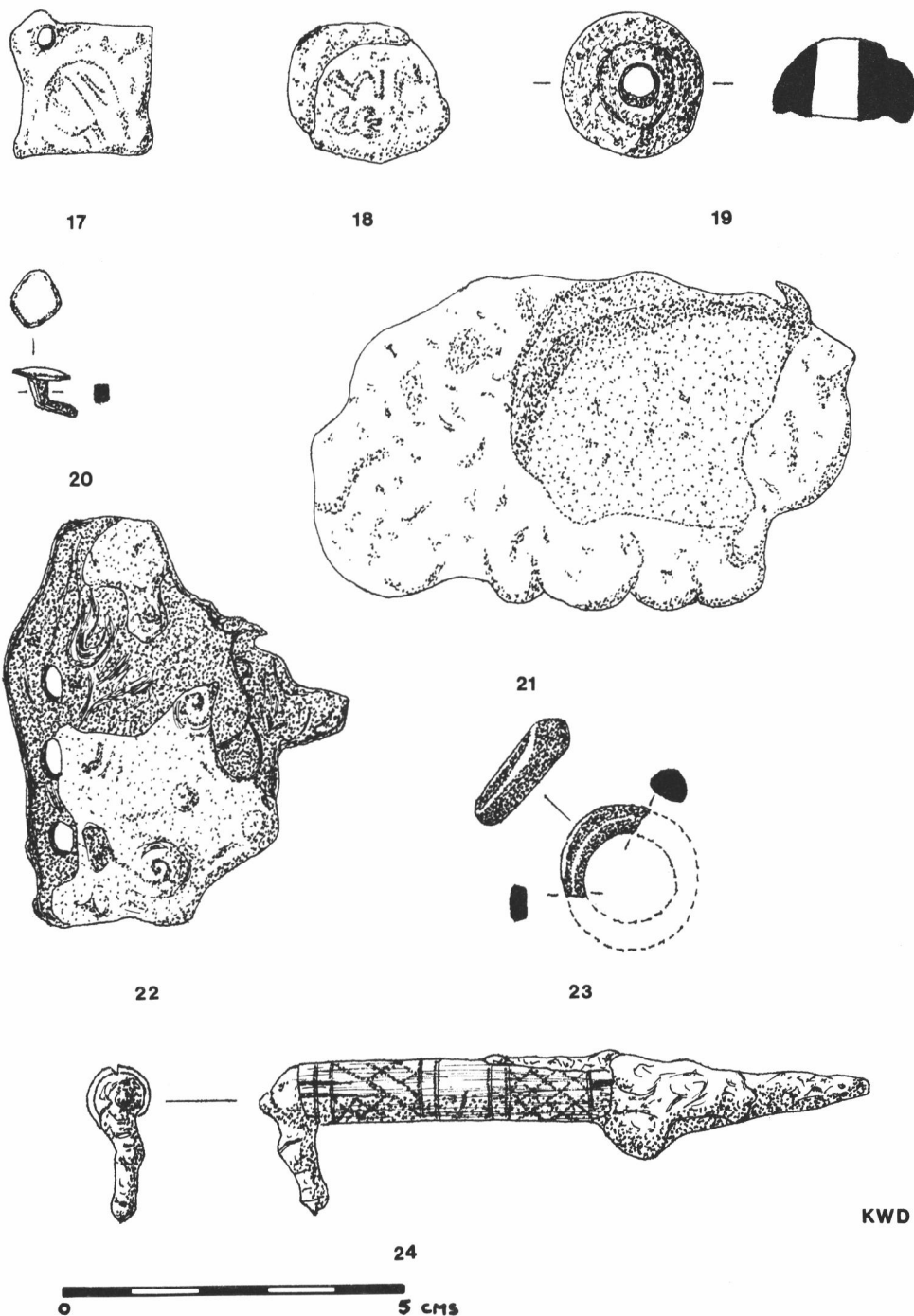0   5 CMS

Fig. 6   Poole's Cavern: Roman small finds of lead (17-21), leather (22), jet (23) and iron (24) (for descriptions see text).
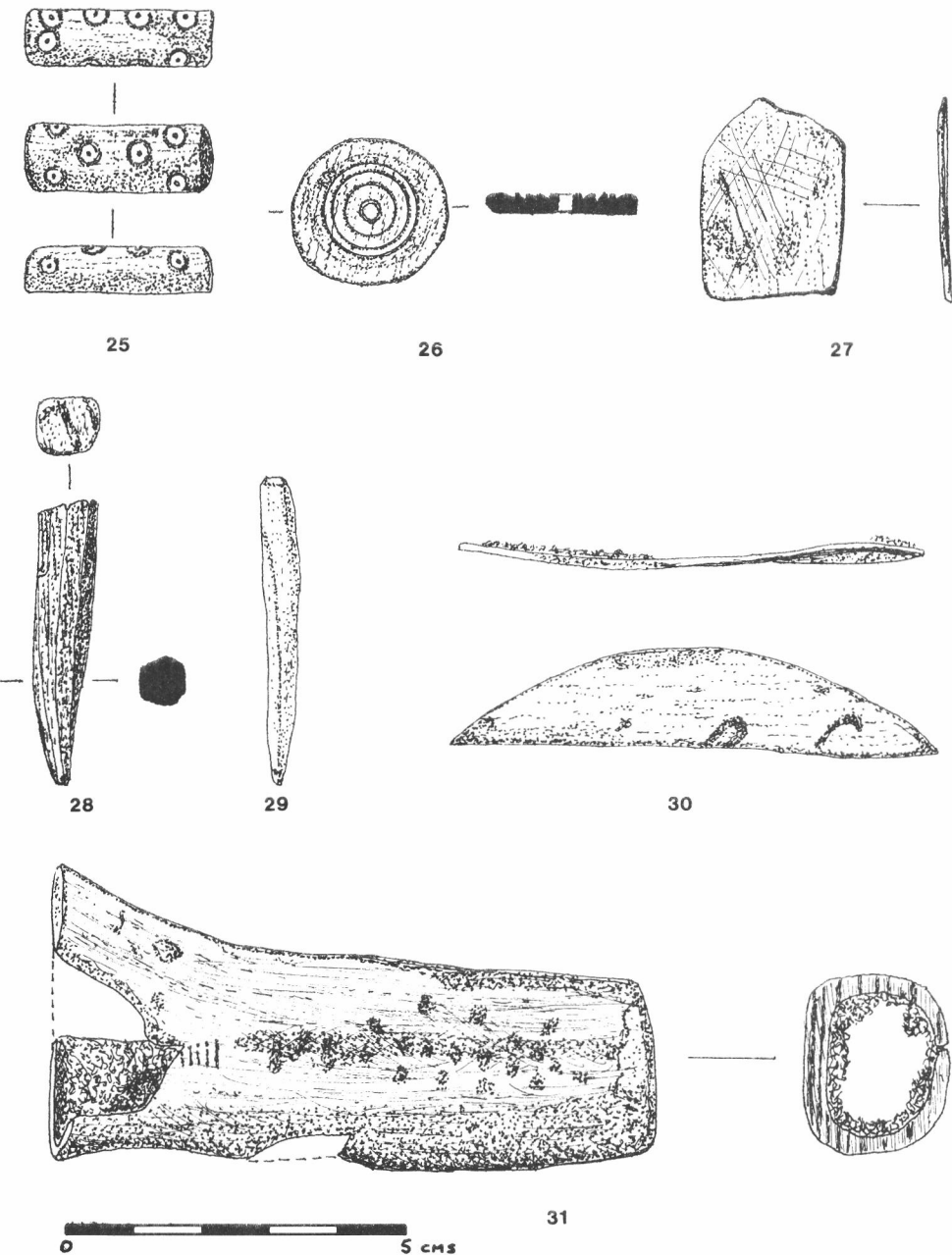
Fig. 7   Poole's Cavern: Roman small finds of bone and antler (for descriptions see text).

dedicated to a soldier 'from the formation of Frisians of Vinovia' *ex c(uneo) Fris(iorum) Vinovie(nsium)* (see R. G. Collongwood and R. P. Wright, *The Roman Inscriptions of Britain* no. 1036). However, such an explanation is far from certain.

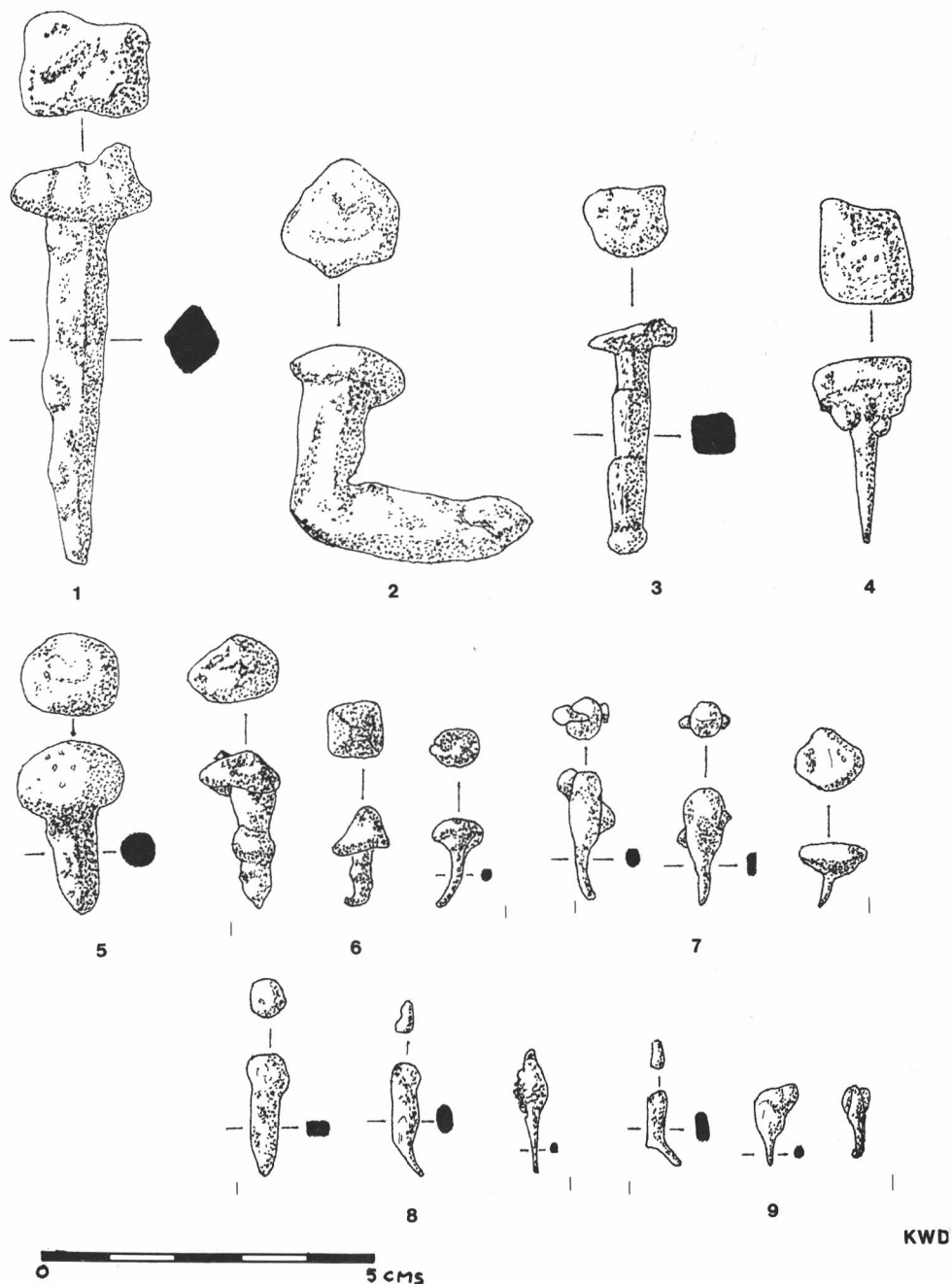Fig. 8   Poole's Cavern: Roman small finds of iron (for descriptions see text).

6.   Human teeth (KLL)

The isolated teeth recovered from the excavations (Table 2) have been charted as seen looking at the head from the front, as follows:

permanent teeth $\dfrac{87654321 \mid 12345678}{87654321 \mid 12345678}$

(incisors-1, 2; canine-3; premolars-4, 5; molars-6, 7, 8)

deciduous (temporary) teeth $\dfrac{edcba \mid abcde}{edcba \mid abcde}$

Thus an upper left central incisor is charted $\underline{\mid 1}$ and a lower right third molar (wisdom tooth) is $\overline{8\mid}$. The age of the body at death has been calculated from wear on the occlusal surface of the tooth and from the amount of recession and erosion in its neck area, with the following code used in column 3 of Table 2:

A — 10-20 years; B — 20-30 years; C — 30-40 years; and D — over 40 years.

Five groups of teeth (marked 1-5 in the last column of Table 2) bear some resemblance to each other, and may have come from the same skulls: *group 1* — marked cervical erosion, heavy occlusal wear from gritty diet, age category D; *group 2* — occlusal surface worn smooth, no obvious cervical erosion, age category C; *group 3* — little occlusal wear, root surfaces very brown, age category B; *group 4* — rough mottled enamel, little wear or cervical changes, age category B or C; *group 5* — no occlusal

Registration Number	Position in jaw	Age category	Resemblance to other teeth
1694	$\underline{\mid 3}$	B	4
1829	$\overline{4\mid}$	B	3
1871	$\overline{5\mid}$	A	-
1882	$\overline{\mid 7}$	A	5
1958	$\overline{1\mid}$	D	1
1959	$\overline{2\mid}$	B	3
1960	$\underline{\mid e}$	A (10-12 yrs)	-
2000	$\underline{\mid 4}$	C	5
2090 (i)	$\overline{\mid 3}$	B	3
(ii)	$\underline{\mid 1}$	B	3
(iii)	$\underline{\mid 1}$	C	-
(iv)	$\underline{\mid 4}$	B	3
(v)	$\overline{\mid 3}$?	D	-
(vi)	$\underline{\mid 8}$?	A	-
2043	$\overline{5\mid}$	A	5
2206	$\overline{\mid 78}$	D	1
2207	$\overline{\mid 2}$	A	3
2696	$\underline{\mid a}$	A	-
2704 (i)	$\overline{\mid 3}$	A	5
(ii)	$\overline{2\mid}$	C	4
(iii)	$\underline{\mid 1}$	B	-
(iv)	$\overline{e\mid}$	A (6-8 yrs)	-
(v)	$\underline{\mid 8}$	B	-
2744 (i)	$\overline{\underline{8\mid}}$	A	-
(ii)	$\overline{e\mid}$	A (c. 12 yrs)	-
2905	$d\mid$?	A	-
2958 (i)	$\underline{\mid 1}$	D	2
(ii)	$\overline{\mid 1}$	D	2
2980 (i)	$\underline{\mid 7}$ or$\underline{8}$	D	2
(ii)	$\underline{8\mid}$	D	2
3023 (i)	$\overline{7\mid}$	A (10-12 yrs)	-
(ii)	$\overline{8\mid}$	B	5
(iii)	$\overline{5\mid}$	A	3
(iv)	$1\mid$ or $\overline{2\mid}$	B	-
3098	$\underline{6\mid}$	D	2

Table 2: The human teeth from Poole's Cavern (see text for further details).

wear, teeth unerupted or recently erupted, age category A.

Three specimens in Table 2 deserve additional comment. 2206 consists of two teeth in a fragment of the left side of a mandible from a mature individual. 2696 is a fragment of the alveolar process of a maxilla in the molar region, showing the socket of a deciduous tooth and the smooth rounded concavity on the upper surface marking the position of an unerupted premolar tooth; a small conical fragment is the remains of a deciduous tooth whose root has been absorbed prior to normal loss at 6-8 years; age *c.* 10 years. 3023 (iii) is an unerupted premolar tooth with the roots not yet formed, from an individual *c.* 8 years old.

An examination of three skulls and a mandible in the Poole's Cavern Visitor Centre, which may have come from the Cavern, found no obvious resemblance to the separate teeth found in the present excavations. One skull is without teeth, one has 87| teeth and the third has 765|. The mandible has 65 | 5678 standing.

7. The animal remains (DB)

The animal bones recovered from the excavations in Poole's Cavern have suffered from the trampling of feet over a lengthy period, and many of the fragments are lacking in diagnostic features. Likewise they seldom allow useful measurements to be taken for comparison with other Romano-British sites. The predominant food animals are cattle, sheep and pig, with a lesser number of pig slaughtered than sheep. Some teeth of a pony-sized equine are present, but no butcher's joints were noted, so this animal may not have been eaten; (Boyd-Dawkins also speaks of horse remains being found in the earlier excavations in the cave). Parts of a domestic fowl were probably from one individual and complete the domestic list, but one or two other remains indicate that the diet was supplemented from the woods, streams and the sea. Red deer was almost certainly taken, for a knife handle found was made from a big antler, whilst wild boar is represented by a humerus and other parts from a young animal, and there are bones of brown hare. Variety in the staple diet is further demonstrated by a spine of a moderately-sized fish and there are shellfish in the form of oyster and cockle, presumably brought from the Dee estuary. In general these food remains are very similar to those of other Romano-British sites in the Peak District, particularly in the ratio of the main stock, the presence of a variety of game foods, and the small size of the stock. The available measurements are listed in Table 3.

It is estimated that a minimum number of four cattle is present in the excavated sample. Two cattle mandibles, with the third molars unerupted, belong to animals about eighteen months old at the time of slaughter, according to modern ageing criteria (which are at least an approximate guide even though modern improved breeds probably mature faster than stock in antiquity) (Silver, 1969).

An absence of metacarpal and metatarsal (cannon bone) shafts may indicate that these were salvaged for use in tool and ornament manufacture. Sheep and goat can rarely be differentiated unless there are substantial portions of their skulls or horn cores (Boessneck, 1969), and we cannot tell whether the stock found in Poole's Cavern were sheep or goats, although it is thought that goats' hair was longer and therefore of more use for spinning and weaving than the wool of the sheep of the period, which may have resembled the modern Soay sheep in both morphology and fleece. Several specimens were young adults according to tooth eruption data — the lower third molar erupts at *c.* 18/24 months in modern sheep and four are present in the sample (Table 3).

Other vertebrates are present in very small numbers, including dog, fox, wild cat (?), field vole, wood mouse, mole, frog or toad, bat, and several small song birds, and remains of water vole are abundant. The smaller creatures in this list presumably formed the prey of predators which inhabited the cave in antiquity — for example, some small bone accumulations certainly resemble owl pellets.

DISCUSSION (DB, KD)

The excavations at Poole's Cavern have clearly established that the cave was utilised in

Cattle
Humerus, distal width   66, 69, 71
Radius, proximal width   65
Metacarpal, proximal width   43
Tibia, distal width   52.5
Lateral maleolus, length   22.5, 26.7
Astragalus, length   50, 52, 57, 57
Calcaneum, estimated length   117, 120
Hoof core, length × proximal height   76 × 41
First phalanx, proximal height (estimate)   50
Axis vertebra, anterior width   78
Third lower molar, length × width   32.5 × 19.9

Domestic fowl
First phalanx of wing, length   15.6

Pig (probably wild boar)
Humerus, distal width   53

Sheep/Goat
Mandibular tooth row   59, 62.5, 64
Third lower molar, length   18, 19, 19, 21.5
Horn core (goat), outer curve length   151
Atlas, maximum anterior width × length   54 × 46.6
Axis, anterior width × length   39 × 50
Humerus, distal width, range of 7 specimens   23.4-26.7
Radius, proximal width, mid shaft width, distal width, total length, respective measurements for 2
specimens: 26.2, 24.5; 14, 13.3; 24.9, 22; 141, 126
Metacarpal (1), same measurements as for radius: 19, 12, 24, 109
Femur, distal width   31, 32
Tibia, proximal width   34.6, 37
Tibia, distal width, range of 5 specimens   19.4-22.3
Astragalus, length, range of 10 specimens   22.5-27.4
Calcaneum, length, range of 10 specimens   41.6-52
First phalanx, length, range of 7 specimens   25.4-35
Second phalanx, length   19

Table 3: Measurements taken from Poole's Cavern fauna (in millimetres)

Roman times, and that the small museum collection of Roman relics from the Victorian period almost certainly derives from the site, presumably from the main part of the cave termed since then the Roman chamber. The principal period of occupation according to the detailed study of the Roman brooches is the second century A.D., with some evidence pointing towards utilisation in the late first and early third centuries A.D. as well (Table 1). The pottery broadly supports this age range, whilst most of the Roman coins are also second century (although the others are all first century rather than third). In sum, therefore, the evidence suggests consistent utilisation of the cave from the first to the third centuries A.D.

Interpretation of this Roman-British utilisation, however, is rendered particularly difficult given the amount of disturbance of the archaeological deposits in the Victorian period. First, the cave may well have been used to some extent as a living site, like other Peak District caves. Domestic activities could have resulted in the food refuse and other artifactual debris. Also, there was one major fireplace or hearth (an arrangement of flat limestone pieces filled with charcoal) in the area we excavated, and there are patches or charcoal widely scattered over the more level parts of the silt, suggesting that fires were used to illuminate the cave and to cook food. We found one lamp holder of lead (Fig. 6:21) and our predecessors found three ceramic lamps. The principal food recorded is meat (beef, mutton and to a lesser extent pork), but plant remains have not survived and plant foods may well have been at least as important; the oysters, cockles and the (? wine) amphora also suggest a more variable diet. However, if the cave was principally a living site, there seems a striking shortage of faunal material (and especially the small

splinters of butchery waste that are normal on most domestic sites) and of domestic items such as spindle whorls, loom weights and weaving combs, although one lead spindle whorl was found (Fig. 6:19). Carved hairpins of bone, common in many other Romano-British cave sites (presumably for women's coiffures), were not found (c.f. Storrs-Fox, 1911).

The cave was certainly used, like many other caves in the Peak District in the Roman period, as a burial site. Remains of four skeletons were found in a side chamber in our excavations, although it is clear that we have mainly recovered the extremities (loose teeth, phalanges, and a few — mainly cervical — vertebrae), whilst our Victorian predecessors secured the skulls and most of the limb bones. Three of the skeletons are darkly stained and are almost certainly Roman, whilst the fourth (much fresher in appearance) is medieval; the latter is discussed at the end of this section. The fragments of the three were found under the stalagmite crust, and the museum specimens of the same individuals also have stalagmite crust adhering to them.

The large number of brooches and the striking diversity of pottery (in terms of forms and fabrics) indicate that this is not a shepherd's summer residence, or some makeshift homestead. The wealth of material on the one hand and the absence of common domestic rubbish point to a specialised use of the site. A possible explanation for this range of material and its particular location in the cave (described below) is that there was a small sanctuary here during the second and early third centuries A.D.

Rural shrines and sanctuaries have received relatively scant attention from Roman archaeologists, whilst by contrast temples sited within wealthier military, urban, and villa-owning communities are better documented (Lewis, 1966: Rodwell, 1980; Wedlake 1982). Small octagonal and circular temples have been found on isolated hilltops and by roadsides in Wessex. The Pagans Hill temple at Chew Stoke (Somerset) (Rahtz, 1951, 1956-7) or the Nettleton Scrubb roadside temple (Wiltshire) (Wedlake, 1982) are familiar examples of each type. In both cases the range of metalwork (pins, brooches, plaques) is striking, as are the unusual pots smashed close to these sanctified buildings. Similar temples, always classical in form, have been excavated in the Midlands at Colley Weston (Northamptonshire), where a hexagonal, an octagonal and a circular shrine were discovered, and at Brigstock in Northamptonshire, where two circular and one polygonal building were excavated by Greenfield (1963) (c.f. Todd, 1973: 102-5). These sites, like those noted by Todd in Nottinghamshire and in Lincolnshire, are readily identified not only by their plans but also by the array of metalwork, sculpture, and the unusual pottery accompanying the buildings. The Midlands' shrines, however, are in the heart of agricultural communities amongst whom, unlike in Wessex, rich villas are far fewer in number. We might anticipate that each shrine served a number of farmsteads much as army units had their own shrines attached to their stations (c.f. Breeze and Dobson, 1978: 259-270, describing shrines on Hadrian's Wall).

But were all shrines so classical in form? Clearly not, if we are correct in identifying a shrine in Poole's Cavern. The greatest concentration of finds was in the upper part of the western silt bank and, under stalagmite, in an alcove which forms a kind of ante-room to the Roman chamber (Fig. 1:5 and Fig. 9). The alcove in turn opens onto a very low-roofed chamber with actively dripping stalactites, below which are two large ancient hemispherical formations of stalagmite. The drips run down the latter to produce two large clear pools, from which the water finally seeps away into unseen crevices. The coins and fibulae were principally in this part of the cavern, whereas the pottery and food refuse were in the main silt deposit (with the burials) to the north. The 'ritual area' mapped in Figure 9 forms a most attractive watery grotto: conceivably it was regarded as a *genius loci*, possibly the abode of a nymph or river god to be worshipped with ceremony and votive offerings in coin or kind, from pins to fibulae. It is noticeable that nearly all the bronze items have been disfigured in some way, and it may well be that this is not simply the result of trampling: brooches are buckled, or have broken pins, or the pin is missing and most of the 27 pins are bent — perhaps deliberate damage was a way of putting a personal 'signature' on the object selected for discard, as well as ensuring it could not be used as an everyday object again. The
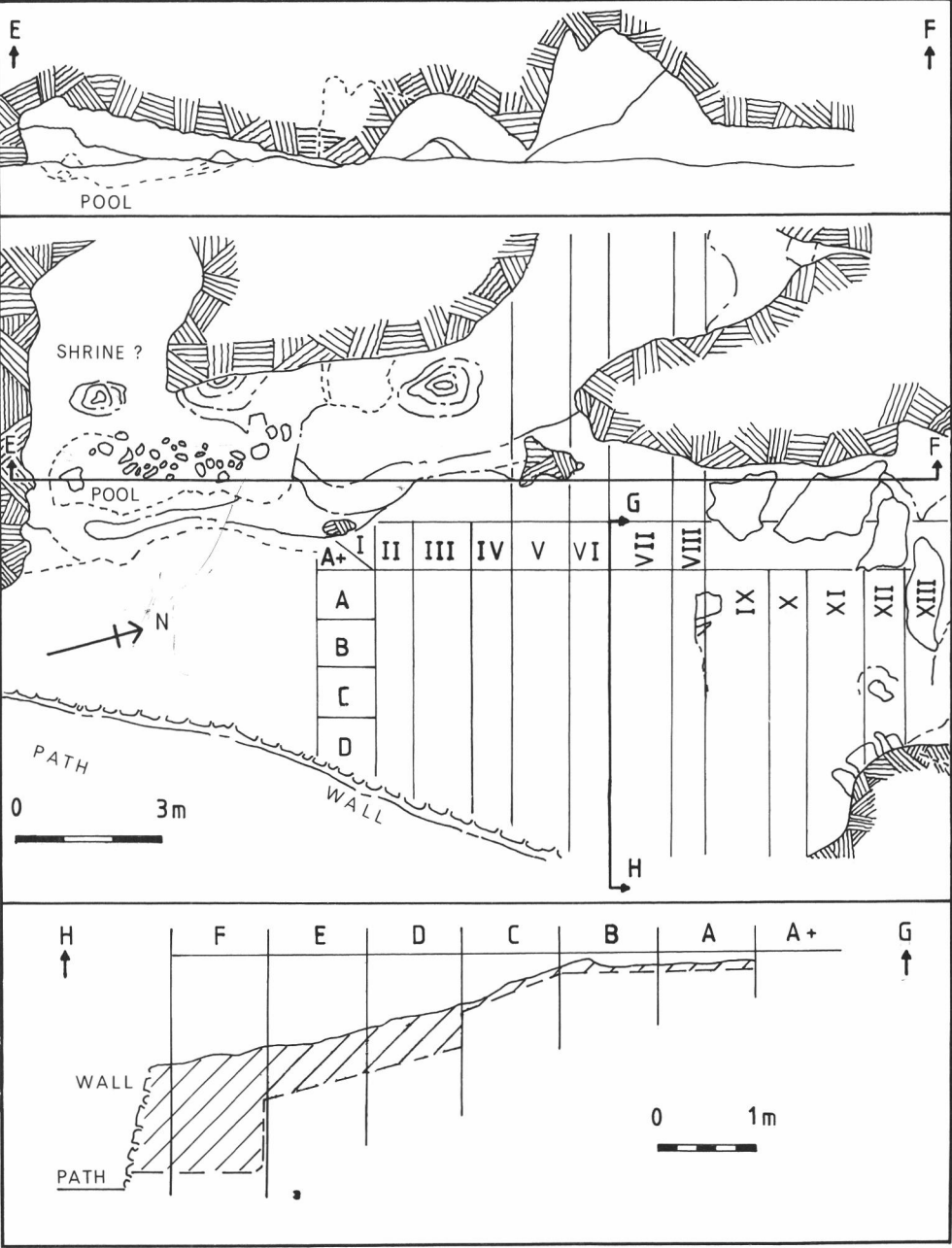
Fig. 9   Poole's Cavern: section (top) and plan (centre) of the area of the ?shrine. The position of the section E/F is shown in Figure 1. The section H/G (the position of which is marked in the central plan) shows the slope of the deposit from the alcove to the modern wall, and the amount of soil excavated.

sanctuary is comparatively small, but the existence of two zones within the area — one in which the coins and fibulae were found, and the other containing the pottery and food refuse — should be noted. Most of the shrines and temples excavated in other regions of the Roman empire consist of the temple as such, and a small ancillary building alongside it. The famous late Roman shrine found by Wheeler at Maiden Castle is perhaps the most familiar example in Britain of a temple with a so-called priest's house next to it (Wheeler, 1943). Indeed, all the parallels cited above have much the same layout, confirming that there was a common ritual practice embracing all classes of Romano-British society.

The coins, metalwork and pottery suggest that the Poole's Cavern shrine was principally being used in the second half of the second century A.D. The incidence of a few first century coins and brooches may indicate an earlier phase of use, though it is more likely that the objects were already old when they were deposited in the cave. This is an especially interesting period in the history of the White Peak. Hodges and Wildgoose (1981) have argued that following the military withdrawal from the region to take up postings on Hadrian's Wall, favourable leases were granted to communities in the Midlands to encourage the colonisation of the White Peak. The Roman authorities, they argue, were endeavouring to increase civilian lead-mining in this area as well as wool production. They demonstrate this sudden growth in the prosperity of the region at Roystone Grange, a settlement near Parwich on the southern fringe of the limestone plateau. The history of this site, as well as the conspicuous number of mid-second century coin hoards from the Peak, tend to support this thesis. The economy of the region then seems to have suffered a reverse in the third century, when the Roman economy in general experienced a sharp recession. As a result, from the later second century onwards, the White Peak had less and less in common with the agricultural communities of the Midlands to the south, and more and more in common with the 'impoverished and unenterprising people' of the Pennines (Todd, 1973: 102). The sanctuary at Poole's Cavern would seem to fall exactly into the brief phase of Peakland influence triggered by the imperial demand for Derbyshire lead and wool. We must emphasise, however, that unlike most of the villages and cave sites considered by Hodges and Wildgoose, Poole's Cavern is close to a small spa town, Buxton (*Aquae Arnemetiae*). Whether Buxton shared the economic fortunes of the surrounding villages has yet to be resolved (Hart, 1981: 94), but there is every reason to suppose that, although it was a spa town, it also owed some of its wealth to its status as a local market in the Peak. Perhaps farmers travelling to and from the town paused at the shrine in Poole's Cavern, just as shrines elsewhere in Roman Britain are associated with rural markets (Todd, 1973: 102).

Finally, the occurrence of one skeleton much fresher in appearance than the three Roman burials, and the discovery of four silver long cross pennies of Henry V (A.D. 1412-1422) in the same part of the deposit, shows that medieval intruders entered and buried a person alongside the Roman graves. Although the outlaw Poole who has given his name to the cave lacks an authentic history, he is traditionally thought to have lived in — very approximately — the period of the medieval grave. The coins have all been clipped round the edge, which was an illegal practice, and a small ingot of silver indicates the eventual treatment of clippings from such coins. Perhaps it is not too fanciful — and certainly it is attractive! — to link the coins and the skeleton with an outlaw and robber (perhaps even a murderer) such as Poole using the cave as his hideout.

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