Objects of Bone and Antler

Paula Levick

A total of 503 worked bone and antler objects, mostly fragments, were recovered during the eleven seasons of excavation. The assemblage comprised a range of tools and objects characteristic of the Iron Age and Roman periods. These have been classified into four main groups; Hair Pins; Needles; Small Points and Shafts – these being the broken fragments of hairpins, needles and small awls which could not be identified further, and Objects. The latter category included tools, gaming counters, decorative and dress items and bone-working waste. Ten within the Objects category could not be classified but could be identified to bone type and species, eight of which were ovicaprid long bones. These possibly represent unfinished and broken tools. Details of these are included in the accompanying tables.

Raw Materials

Hair pins and small points and shafts made up the largest part of the assemblage totalling 131 and 214 respectively. A further 28 were needles. All have been crafted from lengths of long bone which could not be identified to species or bone type. Within the category of Objects, the tools and other implements showed a high degree of correlation between the type of implement and the material used to make it, with their manufacture deviating little from the natural shape of the bone. Of the 130 objects, 67 (51.5%) could be identified to species and/or bone type, with 35 of these being ovicaprid long bones. Goat was represented by a single horn core, cattle by 11 implements and horse by a single piece of bone working waste. The use of pig bone was not identified although pig bones were recovered on site. Pig bone tends to splinter and is more porous making it a less suitable material for tools. Teeth of pig, cattle and dog were used in a variety of ways. Wild animals were represented by fish and deer, with antler and fish vertebrae used for dress items.

The Assemblage

Hairpins

These were used to secure the elaborate hairstyles of Romano-British women but could also have functioned as dress pins in the absence of brooches.



One hundred and thirty carved hairpins were Identified and classified according to Crummy (1979, 157-163). All except Type 4 of the Crummy Types were represented, with the largest assemblage being 73 Type 2 pins dated to the 1st-2nd century. The remainder were 21 Type 1 – 1st-4th century, eight Type 3 – 2nd-4th century; six Type 5 - 3rd-4th century; five Type 6 – 3rd-4th century.

Of the Type 3, which Crummy dates to the 2nd-4th century, Greep (1983: 350) suggests that a small number may be dated to the mid and later second centuries with the date range extended to c. CE 150-400.

Only four were complete (SF91, 1765, 2188, 4665), the majority broken during or prior to deposition. They demonstrated a range of skill levels in their manufacture with many probably created in the home. Three had traces of green staining. A small number showed evidence of being re-sharpened, probably after the shaft had broken and many were polished, particularly at the points, providing evidence that they had been used for some time prior to deposition or loss.

Sewing needles

Twenty-eight bone sewing needles were recovered from mostly Roman period contexts across 12 trenches. Seven of these were Type 1 with a pointed head, which Crummy (1995: 65) determined were the counterpart of the Type 1 hairpin and only found in bone. Five of these had green staining to imitate those made from copper alloy. A further three were Type 2 (1st-4th century) with a flat spatulate head. The remainder were broken across the eye and no classification could be made.



Some had eyes created by drilling a single hole. Examples of these include SF531 and 2081, or by drilling two overlapping holes forming a figure of eight aperture as with SF1220 and 4009. SF138, 4015 had a rectangular eye. Crummy's study of this type showed this type of eye was achieved by drilling two holes close together and linking them via a rectangular slot cut using a knife or chisel.

Some of the shafts were relatively long and thick and were probably only suited to coarse textiles (SF4015, 4009), others were short, fine and highly polished, for example SF997,

suggesting they had different specialist functions. Some of the larger needles might also have served as hairpins when not in use.

Tools

Fifty-nine tools were recovered, many using ovicaprid long bones. Evidence for modification of the bone was present. Many were polished through use although it is not possible to determine what use they were originally put to, and it is probable they served as multifunctional tools



Large Pointed Tools

Ovicaprid long bones were utilised for their shape and thick cortex which provided strength. The bone was left relatively unchanged and was either ground or shaved to a point at one end or modified with a single oblique diagonal cut across the shaft in a longitudinal direction. In this assemblage, all those manufactured on tibia had broken proximally.

Seven items fall into this category (SF79, 130, 213, 364, 549, 979, 4805). Three were crafted on ovicaprid metatarsals and two on tibia, with a much shorter point manufactured from the distal end of an ovicaprid radius (SF4805). SF79 and SF130 had shallow diagonal cuts to the distal end which had been ground down. The proximal end was also ground down across the articular surface and drilled longitudinally. Both tools were highly polished, particularly across the points. Small holes had been drilled just below the proximal articular surface, possibly for suspension or attachment. Similar examples were recovered from Alfreds Castle where they were considered to be basketry tools (Raven, 2013; 133). A single tibia (SF549) had been shaved or ground to a semi-rounded point. Further possible examples of this type survived only as points (SF41, 101).

Grooved and Polished implements

This group has a wear pattern that distinguishes their use from other tools. Fourteen examples of these implements were recovered, eleven of which used ovicaprid metapodials (SF80, 368, 555, 577/578, 579, 584, 586, 594, 601, 602, 643, 648, 1394). A single mid-shaft fragment of ovicaprid radius (SF587) had a similar pattern of wear. They are notable for having a series of closely spaced very narrow, uniform grooves created through friction that

run transversely across the bone shaft. Some have further worn indentions into the bone, for example SF555 and 578. The grooved areas are highly polished from use. They are commonly recovered from Iron Age settlement sites and parallels for these have been found at All Cannings Cross (Cunnington, 1923), Maiden Castle (Wheeler, 1944) and more recently from Gravelly Guy (Lambrick & Allen 2004), and other sites in the Thames Valley. Their purpose is unknown, but they were possibly used in textile production or leather working. The regularity and uniformity of the grooves suggests their movement was restricted in some way.

Burnishing and Polishing Tools

An ovicaprid tibia and metatarsal (SF273, 6774) and a cattle metatarsal (SF581) had highly polished shafts brought about through repeated use. SF6774 has been perforated through the proximal surface with a further perforation directly below but not through the shaft and it was possibly hafted but had no further modification. Similar examples are known from Glastonbury (Bulleid and Gray 1917) and Meare Lake Village (Gray and Cotton 1966). Their purpose is speculative, but they were possibly used for burnishing pottery or leather.

Drilled implements

Three ovicaprid metatarsals (SF402, 599, 639) had large circular holes drilled through the proximal articular surface. The articular surface appears to have been ground down prior to being drilled and the majority are polished around the circumference of the perforation. All are broken across the shaft. A further example (SF585) now broken longitudinally also appears to have been drilled. A single broken metacarpal (SF272) had similar modifications but shows no sign of polish. Three are mid-shaft fragments (SF365, 588) with one end drilled longitudinally into the medullary cavity. All show a similar pattern of wear at the drilled end with the broken end of SF589 also having slight polish.

These are common finds on Iron Age sites. At Glastonbury and Mear one was found with a bronze spindle in the cavity of the shaft which Bulleid and Gray (1917, 426-7) suggested might be used as a bobbin.

Small Awls

Sixteen small, pointed implements, some crafted from teeth, were recovered from both Roman and Iron Age contexts. Many of these were spatulate at one end with a sharp point at the other. Both ends were polished through use indicating they might have served as a multifunctional tool, such as the scraping and boring of hides. Some were simple implements formed from a faceted length of bone (SF218, 485, 544, 563, 4325, 4706, 5451). Where pig Incisors were used the root had a deep, sloping cut to form a sharp point, with the incisal edge of the tooth retained as a scraper (SF1756, 4634). Similar examples (SF3683, 3830) were created from a root only. A cut created the spatulate end where the tooth was absent. Polish was present on both ends. A pig canine had also been utilised by being cut lengthways following the curve of the tooth to form a point (SF176). A triangular shard of pig canine tooth or possibly horn, had been cut to form a sharp point at the apex, with the straight edge forming a scraper (SF172).

Three further, more unusual implements, possibly serving a similar function were crafted from a flat bone, possibly cattle rib. (SF475, 583, 5838). Two had a semi-rounded flattened

bowl at one end which was spatulate and chamfered. The other was square with a similar polished and chamfered edge. Only one was complete (SF5838) with a shaft that was polished and rounded in profile tapering to a sharp point. The others had broken across the shaft. Similar objects have been found at Conderton Camp (Thomas 2005); Lidbury (Cunnington and Cunnington 1917) and All Cannings Cross (Cunnington 1923). At Uley a similar example was manufactured in copper alloy (Woodward & Leach 1993).

Large Awls

These were manufactured on splinters of long bone that had been shaved or ground down at one end to form a sharp point (SF106, 582). Both showed evidence of use.

Blunt ended implements/scrapers

These appear to be ad-hoc items, manufactured from short lengths of bone to which an oblique cut has been made to one end. Four objects of this type were recovered (SF137, 149, 976 and 580). All were polished through use, with SF137, manufactured from the distal end of an ovicaprid metapodial.

Dress, Decorative and Gaming Artefacts

Beads, Pendants and Toggles

Evidence for the use of animal teeth, antler and bone in the production of jewellery and dress items was recovered from several trenches. Two appear to have been repurposed from items that could no longer be used in their current form.

Two perforated fish vertebra (SF173, 5195) were recovered from the fills of prehistoric pits in MFP TR4 and MF Tr36. A large central hole through the vertebral body and the type of wear and polish is consistent with them being strung and abrading against other objects. Fish vertebrae have been found with burials from the Neolithic through to medieval times. At Marcham they were recovered from trenches associated with Iron Age burials.

Similar items that were probably intended to be threaded and worn around the neck included a small, laminated fragment of pig or boar canine (tusk) (SF4095) from MF Tr4. A semi-circular cut at one end suggests it was once suspended through a circular perforation which has since broken, the surface of which is polished and has striations from grinding down. Boar tusk was considered sacred by Iron Age people, and in the Roman period thought to possess the properties of the boar and to also represent the crescent moon which was associated with the goddess Diana. When complete it was possibly worn as an amulet. A perforated canine tooth from a medium sized dog (SF2015) MF Tr18 was highly polished across all surfaces from wear and was possibly suspended individually or with other objects. These might have had some totemic significance or worn as an amulet.

Two cattle incisors worn almost to the root were recovered from MF TR26 and TR 36 (SF6776, 6777). Both had a broad groove at the junction of the enamel and tooth root. The incisal edge of the tooth and the area around the groove and root were highly polished. A similar example was recovered from Conderton Camp hillfort, Worcestershire (Thomas 2005, 168; BO21) where it was interpreted as a pendant or possibly a small toggle.

Further objects possibly created for suspension included a bead created from a small oblong tube of bone (SF6780) from MF Tr4 which had been drilled through its length and decorated

with a single incised line, and a small flat rectangular fragment of bone, rounded at one end and decorated with incised lines (SF644) MFNA Tr7. It had broken across a perforation at the other end and was polished on the undecorated side, possibly from wear.

Two antler objects which had been carefully crafted and decorated were reused after they were no longer suitable for their original purpose - a curving fragment of antler charred black and polished, possibly to look like shale, which appears to have come from a bracelet (SF465) MFP Tr4. A small, drilled perforation suggests had been drilled after it had broken to be used as a pendant or toggle.

A possible toggle (SF382) MFP Tr4 had been manufactured from a section of antler which had been lath-turned to form a cylinder with a large perforation running through it. It was decorated with incised horizontal lines at the top and bottom within which were diagonal lines forming a zig-zag pattern. One end of the object had been sawn through below the horizontal line where the pattern can be seen to continue, showing it had been repurposed from a larger object.

A further possible toggle (SF56) MFP Tr2 was crafted from the end of an ovicaprid metatarsal. The bone was perforated through the shaft with a notch or groove on each side which aligns with the hole.

Gaming Counters

Five circular counters were recovered (SF3462, 2675, 3061, 3878, 4527), four show evidence for having been lathe-turned, with the indentation of the lathe centre of one side and flat on the reverse. The fifth, a much smaller example, was ground smooth and flat on both sides (SF3878). SF2675 was notched around the circumference, almost identical in decoration to one from Colchester (Crummy 1997; 92, 2282). All show evidence of use in the form of abrasion around the edges and/or striations on the reverse.

Two square examples, one manufactured from a flat bone, probably rib, had a simple ‘X’ inscribed on it (SF2262) and the other a ring and dot motif (2939). These are less certain as counters and might possibly have been decorative inlays or broken from larger objects

Miscellaneous

Combs

One incomplete comb and two fragments were recovered. They comprised (SF489) a double-sided composite comb with flat side-plates and a single row of eight iron rivets manufactured from antler. Most of the teeth are now lost, but where they survived, they appear to be of equal size on both sides of the comb, suggesting an Anglo-Saxon date. They are often associated with settlements and burials.



A short fragment of a tooth plate (SF1024), most probably from a double-sided composite comb. Six broken teeth survive on one side and eight finer ones on the other and is probably Roman in date. It retains the remains of holes at either end with slight iron staining from the pins which held the side-plates in place. A small fragment from a comb (SF486) which had only five stubs of teeth, with a further three surviving intact, could not be dated.

Decorative Items

Two fragments of flat bone decorated with incised lines (SF1772, 1759) recovered from MF TR2 and 14 were possibly the remains of decorative inlays. Two further possible examples (SF2262, 2939) are discussed above

Two joining fragments of bone (SF1379/1778) decorated with a ring and dot motif. The shape follows the natural curve of the long bone and possibly came from a handle.

Unknown Objects

Twenty objects could not be classified but provided evidence of use or modification in the form of polish, perforations or cut marks and were likely to be further fragments of the tools recorded elsewhere on the site.

Bone Working Debris

Six pieces of debris from bone working were recorded, most of which were lengths of faceted bone with no evidence of use, or where sections of bone had removals (SF647). A horse metatarsal (SF231), sawn across the proximal end, provided the only evidence for horse bone being used.

Main distributions

Of the total assemblage of hairpins (129), small points and shafts (204) and needles (24), the majority were recovered from MF Trenches, 8, 15, 18 and 24, all considered to have had a religious focus. A further large assemblage was recovered from MF Trench 2, a building of uncertain function. The remaining 13 hairpins, 29 points and shafts and 7 needles were recovered in small, often single numbers from trenches across the site and probably represent accidental loss or discard.

Trench 24 - Roman shrine

An assemblage of 48 hairpins was recovered from 20 contexts, mostly layers and associated cobbled surfaces around the shrine in Trench 24. Layer (24002) was the most productive producing 19 pins. Only one was complete. Of these 35 were Type 2, with a further nine being Type 1. A further two pins had damaged heads, three more were uncertain. Layer (24070) produced the next largest assemblage of seven hair pins, six of which were Type 2. Seventy-nine small points and shaft fragments were recovered with (24002) and (24070) again recording the highest numbers, with 23 and 11 respectively. Further large distributions were (24012) with six. Seven needles, all broken but identifiable were recovered from six contexts

Although some modern breaks were observed, the majority of all three types had staining on the breaks consistent with that of the shaft, indicating they were broken during or prior to deposition. Polish on some of the hair pins and pin fragments show they had been in use for some considerable time before being deposited. Two hairpins, three small points and shafts and a single needle had green staining.

Thirteen objects were recovered from seven contexts within this trench. Many appeared to be offcuts, five of which were short lengths of faceted bone and a further one of antler (SF4882). Others had some polish on the surface suggesting they had broken from implements which could not be identified. Further objects included two sharp curving points fashioned from tooth roots (SF3830, 4706), a Type 1 gaming counter (SF4527) and a fragment from a possible ligula (SF5226). A similar example of this type was recorded from excavations at Stonea Camp (Greep, 1996; p535). As with the other objects (24002) appears to have been the main focus for deposition, with six of the thirteen finds from this context.

Trench 8 – Deposits outside the arena bank

This small trench was shown to be particularly productive with 31 hairpins, 66 small points and shafts, five needles and a single object.

No evidence of a structure was found but the quantity of artefacts recovered suggests an area or structure delineated for special deposits that has long since disappeared. Of the 31 hairpins, 21 of these came from layers (8501), (8505) and (8512). Twenty-six of the hairpins were Type 2, the remainder Type 1.

Similarly, the small points followed the same distribution with 46 of the 66 recovered from these contexts, including three stained green. Needles also followed this distribution, in four of the five recovered, three of these had green staining. A further single needle was recovered from layer (8563) along with a small length of bone, faceted to give four sides, which might have served as a proxy for a pin or needle or a roughout for one of these. The remainder were distributed in ones and twos among the other contexts in Trench 8.

The concentration of pins and small points indicates a significance of this type of object to the devotees, representing what the worshipper was able to offer. The majority were broken, probably sacrificed to a particular deity which is currently unknown

Trench 15 and 18 – Buildings associated with temple precinct

Trenches 15 and 18 investigated buildings to the north and south of the entrance to the temple precinct. Eight hairpins were recovered from Trench 15, three being type 6 coming from context (15081=15083). Type 2 and 3 were also represented. In addition, 11 points and shafts and three needles were recovered.

Trench 18 produced seventeen hairpins, nine of which were Crummy Type 2, the remainder date from 1st – 4th centuries. Seventeen points and shafts, including one stained green which was recovered from the topsoil, and one needle were recovered.

Objects recovered from these trenches were similar to those from elsewhere on the site with two possible awls (SF3683, 5451) and a gaming counter (SF3462) from Trench 15 and a splinter of bone identified as a rough-out for a pin or needle (SF3699) a perforated dog tooth (SF2015) and a gaming counter (SF3878) from Trench 18.

Trench 2 – Rectilinear building

Thirteen hairpins were recovered, with six giving a 3rd - 4th century date, three of which came from context (2145). The remainder provided dates ranging from 1st-4th centuries. In addition, nine small points and shafts and a single needle were recovered.

Of the 21 objects recovered, nine were the range of tool types found elsewhere on the site. A possible stylus (SF36), gaming counter (3061), tally (475) and pin beater (SF2499) were also recovered.

Noah's Ark Trenches - MFNA

A relatively small number of worked bone artefacts were recovered from the six MFNA trenches, the majority from prehistoric contexts comprising 15 objects, two small points and shafts and a single hairpin.

In Trench 1, eight artefacts were recovered from an area of pits and ditches. These have a similar profile to those in the Iron Age trenches and are probably of a similar date. Most were recovered from pit fills and included grooved and polished implements (SF80, 648), a possible basketry tool (SF130) and a handle fragment from a weaving comb (SF81). Bone working debris were also recovered. A spatulate tool (SF46) was recovered from the fill of the barrel-shaped enclosure ditch. A single fragment of bone working debris was recovered from an area of possible Bronze Age activity in Trench 2 and a single cattle horn-core (SF42) from a stoney layer (3026) in Trench 3.

From the trenches placed to investigate the temple area, a single fragment of sawn and perforated long bone (SF645) was recovered from a destruction layer around the temple in Trench 6. Trench 7, the area of the temple pathway and ambulatory, produced five artefacts. A further two small points, possibly from pins (SF183, 638) one from the fill of the earlier Bradford and Goodchild trench and the second from a layer around the temple. A grooved and polished tool (SF643) similar to those found in the prehistoric trenches, a comb fragment (SF486) and a possible pendant (SF644), were all recovered from the ambulatory or temple pathway. A possible gouge or basketry tool (SF639) was also recovered from a layer within the temple area. A complete Type 2 hairpin (SF91) was a topsoil find from the south-east corner of the temple

Iron Age Trenches - MFP

MFP Trench 1, Pit

A single shaft fragment from a hairpin or needle (SF590) recovered from fill (1054) of pit [1053] was the only worked bone implement recovered from Trench 1

MFP Trench 2, area of D-shaped enclosure.

Sixteen objects of bone were recovered from Trench 2, 10 of which were mostly tools such as large points and awls and possible bone working waste. An exception to this is a possible stylus (SF36) fashioned from a length of long bone recovered from fill of gully (2042). All breaks are modern and it would have been deposited as a complete object. Two needles (SF92 and 316) were recovered from the fill of ditch [2049] and midden deposit (2292). Three small points and shafts were recovered from fill of pit [2042], and midden deposit (2329). A single hairpin fragment (SF19) was recovered from topsoil which might be residual from elsewhere on the site.

MFP Trench 3, Curvilinear Ditch [3011]

Eight objects, the assemblage similar to that of Trench 2, comprising mostly implements and bone working debris, including two grooved and polished tools and a needle were recovered from the area around a large curvilinear ditch [3011] and its fills.

MFP Trench 4, Area of intercutting pits and graves

Trench 4 was the most productive of the prehistoric trenches with 18 objects in the assemblage. It comprised a similar assemblage to that of the other trenches, including pointed tools, awls and grooved and polished tools. Two possible burnishers were also recovered from the fills of pits [4061] and pit [4195]. Both implements had a high level of polish along their shafts but no further modification. A perforated fish vertebra and a fragment from an antler bracelet were also recovered as discussed above.

MFP Trench 5, large enclosure ditch

Seven implements were recovered from this trench, five of which were grooved and polished tools.

MFP Trench 6, Intercutting pits continuing from Trench 4.

Trench 6 was a continuation of the intercutting pits found in Trench 4. Thirteen artefacts, mostly bone-working waste and broken implements were recovered, including a possible scraper manufactured from a large mammal rib (SF580) and a fragment of knife-cut bone (SF379) which at one end three small V-shaped cuts had been made. This was capable of making three evenly spaced lines when run across soft material such as clay. Two small points and shafts and a needle or bodkin (SF6766) were also recovered. Within pit [6123] an Anglo-Saxon composite comb (SF489) was recovered along with artefacts of a similar date.

The assemblage recovered from the prehistoric trenches point to a self-sufficient community involved in crafts such as textile manufacture and use, and possibly the processing of hides and basketry. The small pit in Trench 6 provided evidence that activity on Trendles field continued in the Anglo-Saxon period.

References

Bulleid, A and Gray, H St G, 1917. *The Glastonbury Lake Village*, vol 2. Taunton: Glastonbury Antiquarian Society.

Crummy, N, 1979. A chronology of bone pins. *Britannia*, 10, 157-64.

Crummy, N. 1995. *The Roman small finds from excavations in Colchester 1971-1979*. Colchester: Colchester Archaeological Trust Ltd.

Cunnington B.H. and Cunnington M.E. 1917 (1919). Lidbury Camp: being an account of excavations carried out by Mr. and Mrs. B. H. Cunnington in 1914. *Wiltshire Archaeological and Natural History Magazine*, 40.

Cunnington, M.E. 1923. *The Early Iron Age Inhabited Site at All Cannings Cross*. Devizes.

Gray, H St G and Cotton, M A, 1966. The Meare Lake Village, vol 3. Taunton: Glastonbury Antiquarian Society.

Greep, S. 1983. *Objects of animal bone, antler, ivory and teeth from Roman Britain*. Unpublished PhD thesis: University of Cardiff.

Greep, S. Objects of worked bone and antler in. Jackson, R.P.J. and Potter T. W. 1996. *Excavations at Stonea, Cambridgeshire, 1980-85*. London: Published for the Trustees of the British Museum by British Museum Press, 525-538

Lambrick, G H and Allen, T G, 2004. *Gravelly Guy, Stanton Harcourt, Oxfordshire: the Mount Farm*, Appendix 10: Bone implements. Thames Valley Landscapes Monograph 21. Oxford: Oxford Archaeology.

Thomas, N. 2005. *Conderton Camp, Worcestershire: A Small Middle Iron Age Hillfort on Bredon Hill.* York: CBA Research Report 143.

Raven, S. The worked bone and antler. In Gosden, C. and Lock, G. 2013. *Histories in the Making*. *Excavations at Alfred's Castle 1998–2000*. Oxford: University of Oxford, 129-135.

Wheeler, R E M, 1943. *Maiden Castle, Dorset*. Oxford.

Woodward, A and Leach P 1993. *The Uley Shrines: Excavation of a Ritual Complex on West Hill, Uley: Gloucestershire, 1977-9*. English Heritage Archaeological Report 17. London: English Heritage.