Section 42 Crafts and industry

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Cross-references to Digital Supplement in red
Cross-references to Printed Synthesis in brown

Evidence for several different crafts was recovered. The largest assemblage was associated with metalworking, although evidence existed, on a smaller scale, for wood, leather, stone, and textile working. None of this indicated intensive activity, rather, it was suggestive of small-scale craft and domestic activity.

Metalworking

The evidence for metalworking falls into three categories: tools, materials (bar metal and ingots), and industrial debris. Iron, copper alloy, and lead-working are each represented in varying degrees.

Tools

Chisels 42.01/198-200

A total of ten metalworking chisels were identified, all hot chisels [42.01/198-200]. These were principally blacksmiths' tools and were used to cut the hot metal. They were generally hand-held and therefore had to be long enough to keep the hand away from the heat but slender enough to be driven into the hot metal. The heads are frequently burred and the tips damaged. Only one chisel was recovered from phase 5.2 deposits, the remainder derived from deposits of phase 6.1 and later, in the main from demolition layers. Only three were found in the same structure (S16), but all are thought to relate to post-occupation activity.

All examples are iron.

42.01/198
Sf 1497 T7 C502 [P7 S16D]
Hot chisel, expanded, burred head, shank tapering in width to wedge-shaped tip. Rectangular in section. Lth 73mm

42.01/199
Sf 1137 T7 C542 [P7 S16D]
Hot chisel, burred head, shank tapering in thickness to wedge-shaped tip. Rectangular in section. Lth 66mm

42.01/200
Sf 2100 T30 C1 [P6.2-7]
Hot chisel, rectangular in section, tapering at mid-point to wedge-shaped tip. Lth 89.8mm

Punches 42.01/201-202

Punches were used to make holes in hot iron but could also be used to sink nails. For this reason it is difficult to differentiate between blacksmiths' and woodworkers' punches. In section punches can be round, rectangular, or any

desired shape, the stems tapering either to a flattened tip or to a point [42.01/201-202]. Heads are frequently burred from hammering. The majority of the ten examples recovered have suffered damage, few retaining their heads or tips. Three further objects were too incomplete to determine between chisel and punch. These were considered with the latter category. Punches were found in all phases from 5.2 onwards. Two were found in deposits associated with S43 and two were from demolition deposits of S16. All are iron.

42.01/201
Sf 225 T30 C1 [P6.2-7]
Punch, burred head, tapering, rounded stem, rounded point. Lth 103.5mm

42.01/202
Sf 2141 T30 C1 [P6.2-7]
Punch, burred head, rectangular in section, tapering shank, tip missing. Lth 65.8mm

Pincers 42.01/203

Blacksmiths frequently acted as farriers, removing horseshoes with iron pincers which had curved jaws and a broad sharp gripping edge. The sole example recovered [42.01/203] had a hooked end on one handle which may have held a loop which closed over the knobbed end of the opposing handle. Carpenters also employed pincers.

42.01/203
Sf 628 T13 C122 [P6.1 S19D/63A]
Pincers, broad, sharp gripping edge, jaws in-turned. Handle incomplete, one arm hooked. Lth 117.5mm

Materials

Bar iron 42.01/204-205

The blacksmith's raw materials, other than scrap iron, comprised pieces of iron cut from blooms and lengths of bar iron of various shapes. Eight pieces of bar iron have been identified, the majority of which were tapering blocks of rectangular section. Bar iron was sometimes chisel cut resulting in a stepped break [42.01/204-205]. As there is minimal evidence at La Grava Priory for smelting, it is suggested that the bar iron was imported to the site. Goodall (1980a, 6) notes that the purchase of bar iron is frequently mentioned in medieval accounts. Six pieces of bar iron were recovered from P6.1 and later; no concentrations were apparent. The remaining pieces came from a ditch fill CF29 (T13 C656/58) phased to 5.1 and from a deposit of phases 5.4-5.5 associated with S30.

42.01/204
Sf 1621 T13 C 656/58 [P5.1 S15A]
Bar iron, tapering, rectangular section, one end chisel cut, resulting in stepped break. Lth 54mm

42.01/205
Sf 654 T13 C108 [P6.1 S29]
Bar iron, tapering, rectangular section. Lth 75mm

Ingots 42.01/206

Two possible lead ingots were identified [42.01/206]. Although lead smelting was carried out at the mine, lead was often melted on site and cast into the required shape. These ingots may have either been imported to the site or have been made on the site for use at a later date. Both ingots were found in S23 phase 6.1, and may have been originally associated with underlying S18 or S86.

42.01/206
Sf 1878 T23 C133 [P5.2-6.1 S23A]
End portion of a lead bar ingot, tapering to one end, opposite end chisel cut. Weight 21.5g

Industrial debris

Metalworking debris included offcuts, slags, and waste. Offcuts are defined here as portions of sheet metal which have been trimmed off the main body in order to achieve the desired shape [42.01/207-208]. These pieces, depending upon their size, were either reused or retained as scrap for remelting. It is sometimes difficult to distinguish between purposefully cut pieces and fragments broken off objects. Thirty-three offcuts were identified, all retaining clear trimming marks; sixteen of copper alloy and seventeen of lead. The lead offcuts were likely to have been trimmed from various building fittings, for example flashing, and are a frequent find on medieval sites. Copper-alloy examples are less common, perhaps due to their more restricted use on decorative objects and vessels. No pattern in the dating was evident, examples occurring in all phases between phase 5.1 and Period 7. A minor concentration of offcuts was noted in the environs and destruction deposits of S16.

Fairly small quantities of slag and metalworking waste were recovered and generally these were not concentrated in a particular area, with the exception of S18. The earliest phases in which metalworking debris occurred was in phase 5.1. This was in the main concentrated within, or in the vicinity of, S18/86 and included both lead-working waste (777g) and smithing slags and hearth bottoms (3129g). Minor (215g) amounts of copper-alloy slag and casting waste were recovered from phases 5.2 and 5.3 associated with S21, while a portion of iron-smithing hearth bottom (1119g) was found incorporated within a wall (T13 C199) associated with S29 in phase 5.3. Other instances of metalworking debris in these earlier phases were of insignificant quantity with no distribution pattern discernible. A large piece of lead waste (1340g) was recovered from a long-lived deposit (T30 C152 P5.3-6.1) within S43 while limited concentrations of metalworking waste in phases 6.1 and 6.2 were identified in Structures 23, 19 and 63.

Offcuts 42.01/207-208

42.01/207
Sf 98 T13 C6 [P6.2-7 S16A]
Copper-alloy offcut, crescentic in plan, decorated with zigzag ornament. Lth 22mm

42.01/208
Sf 1826 T23 C97/2 [P7 S23A]
Lead offcut, tapering, one end partially cut. Lth 30.8mm

Woodworking

Woodworking tools 42.02/209–213

Woodworking is represented by the presence of a saw, axes, drill bits, and a divider. The handsaw, with cross-cut teeth, is of probable post-medieval date [42.02/209]. Of the three axes found, two were from unstratified contexts, the third from topsoil deposits. The most complete example [42.02/210] is a derivative of the bearded axe, Goodall's Type 5 (1980a), which became popular at the close of the medieval period. Augers with iron bits set into transverse wooden handles were used to bore holes in wood; examples of terminals of lanceolate shape [42.02/211] and spoon bits [42.02/212] and were found. Dividers [42.02/213] were used by both carpenters and masons. The single example recovered is closely paralleled by one from Battle Abbey from an 18th- to 20th-century context (Geddes 1985, fig 57.37).

The evidence for woodworking is limited and all the implements found were from destruction or topsoil deposits. Remains of two drill bits were recovered from phase 5.2 (Sf 2842 T13 L929 S28D) and 5.6 (Sf 1636 T18 L9 S51D) respectively; the remaining woodworking tools derived from deposits of phase 6.2 and Period 7. A concentration of objects, consisting of a saw, dividers, and two possible drill bits, occurred in destruction deposits of S16. Overall the evidence points to post-occupation activity.

All catalogued examples are iron.

42.02/209
Sf 1285 T7 C502 [P7 S16D]
Saw, portion of blade and tip only, with cross-cut teeth. Lth 372mm

42.02/210
Sf 2783 [us]
Derivative bearded axe, maker's mark on right cheek, pointed heel below base eye socket. Lth 180mm

42.02/211
Sf 208/04 T13 C78 [P6.2–7]
Lanceolate terminal of auger bit, incomplete, square-sectioned tang. Lth 74.5mm

42.02/212
Sf 1464 T7 C502 [P7 S16D]
Spoon bit, terminal tapering and end slightly splayed, bit damaged. Lth 98.4mm

42.02/213
Sf 947 T1 C2 [P7 S16D]
Dividers, incomplete, one arm, joint and top of second arm surviving. Lth 165.5mm

Stoneworking

For reports on stonework see [39].

Masons' tools 42.02/214–216

Evidence for stone working was limited to wedges and single examples of a masonry chisel and a plastering trowel. The five wedges were used in quarrying stone; the wedges being driven into the stone until a fissure was created. The complete examples from La Grava have turned-over tops to prevent them from slipping too far into the stone [42.02/214]. Parallels from Wharram Percy and Bayham Abbey date from the late 15th to the 16th centuries (Goodall 1980a fig 36.3–5). The sole masonry chisel [42.02/215] could have been used for carving mouldings and decorative detail (Goodall 1980a, C35–37). The trowel [42.02/216] is of probable post-medieval date. The narrowness of the blade suggests that it may have been for more decorative plastering.

All the implements associated with masonry were recovered from the final two phases of the site in destruction and topsoil deposits. Their presence is likely to have been the result of demolition and post-occupation activity. The mason's wedges were concentrated in the environs of S16 and S63.

All catalogued examples are iron.

42.02/214
Sf 557/01 T13 C123 [P6.2 S63D]
Mason's wedge for splitting stone, turned-over head, rectangular sectioned shank, tapering to wedge-shaped point. Lth 64.6mm

42.02/215
Sf 2702 T30 C398 [P6.1–6.2 S38D]
Possible mason's chisel, square-sectioned tang damaged and incomplete, tapering to wedge-like blade. Lth 123.8mm

42.02/216
Sf 387 T13 C1 [P6.2–7]
Plaster's trowel, narrow tapering blade with central ridge. Cranked tang, corkscrewed, end of tang looped over. Lth 255mm

Leatherworking

Evidence for leatherworking took the form of awls, needles, and a possible leatherworking knife.

Awls 42.03/217–219

A total of thirteen awls were identified; twelve iron and one copper alloy [42.03/217–219]. These were used mainly in leatherworking to pierce the hide. The blades can be of varying shape, rectangular, diamond, or rounded, depending upon the hole to be pierced and the stitch to be used. The tangs are invariably square or diamond shaped to prevent the tool from turning in the handle. The awl was usually straight although curved examples for corner stitching are known [42.03/218]. Ten of the awls came from deposits of phase

6.2 and Period 7; three from topsoil and seven in destruction or associated deposits of S16 and S63.

42.03/217
Sf 1308 T7 C538 [P7 S16D]
Awl, square-sectioned tang and shaft, tapering to a point. Copper alloy. Lth 86.5mm

42.03/218
Sf 513/01 T13 C140 [P6.2 S16A/63A]
Awl, diamond-sectioned tang, square-sectioned shaft, bent. Incomplete Lth 91mm

42.03/219
Sf 533 T13 C169 [P6.2 S63D]
Awl, square-sectioned tang, shouldered and rounded shaft, tapering to a point. Lth 103mm

Needles 42.03/220

Two iron needles were recovered; both over 90mm in length with circular-sectioned shanks which become triangular towards the points [42.03/220]. Needles with triangular-sectioned points are suitable for sewing leather as the point would more easily pierce the thickness and make a wider opening for the head to pass through. Parallels for such needles are known from the 13th and 14th centuries (Goodall 1980a, fig 42.77) and the 18th and 19th centuries (Biddle and Elmhirst 1990, 807). Both examples from La Grava were from deposits of phase 6.2; one from the destruction of S29 (which also yielded an awl) and the second from the vicinity of S19.

42.03/220
Sf 603 T13 C89 [P6.2 S29D]
Iron needle, enlarged head, circular-sectioned shank becoming triangular nearing tip. Bent. Lth about 95mm

Knife? 42.03/221

Leatherworking knives, used to both cut and pierce the hide, have whittle tangs and waisted blades which split at the tip forming a spike and blade (cf Goodall 1980a, fig 41). The tentatively identified example from La Grava [42.03/221] appears to have a scale tang and a straight blade split at the tip. This may have been used to cut fairly thin leather, for example gloves.

42.03/221
Sf 1171 T7 C539 [P5.5 S16]
?Leatherworking knife, iron, scale tang, damaged blade, tip split into spike and blade. Lth 212.5mm

Textile production

Textile working, that is spinning, weaving, cloth preparation, and sewing, is evidenced by spindle whorls, bone weaving implements, a possible bead used in spinning thread, needles, tenterhooks, and thimbles.

Spindle whorl 42.03/222

The two spindle whorls identified were both made from reused pottery sherds; one of fabric type C59B [42.03/222], provisionally dated to the 12th century, while the second is possibly of late Iron Age/early Roman date. Neither spindle whorl was stratified, although both were recovered from the vicinity of a sunken-feature building, S1.

42.03/222
Sf 1426 T8 C1 [S1A]
Ceramic spindle whorl made from reused pot sherd, fabric type 59B. One surface sheared, oval in plan, lth 30mm, width 27mm

Bone weaving implements 42.03/223-224

Five bone implements were recovered, all needle-like in appearance [42.03/223-224]. Examples from Southampton are variously described as skewers, bodkins, or needles (Platt and Coleman-Smith 1975, fig 277.1921, 1929; fig 248.1931); other suggestions include mesh-knitting implements (MacGregor 1985, 193). Six similar objects from Winchester have been identified as eyed weaving implements and are suggested to have been used as a type of pin beater for freeing warp or weft threads which had become caught. These may have been used either with two beam looms or in tablet weaving; the eye served to attach the tools to the weaver of the loom to avoid loss (Keene 1990, 232-3). Dating of the Winchester implements ranges from the 11th to 13th centuries and those from Southampton from the 12th to 14th centuries. These implements first appeared in phase 5.2. Two examples of each were found in, or associated with, S17 and S23. The fifth example (Sf 1771 P6.1-6.2) came from topsoil deposits.

42.03/223
Sf 1877 T23 C133 [P5.2-6.1 S23A]
Bone weaving implement? rounded shank, small eye at head, tip broken off. Lth 121mm

42.03/224
Sf 1771 T23 C1 [P6.1-6.2]
Bone weaving implement? ovoid shank, irregular rectangular eye at head, lower shank and tip missing. Lth 82.5mm

Tenterhooks 42.03/225-226

After cloth had been fulled it was stretched on a tenter to dry out evenly. The cloth was attached to the tenter rails by means of tenterhooks. Iron tenterhooks are slender and have tapering shanks and hooks which are commonly straight and either slightly in-turned [42.03/225] or vertical [42.03/226]. Four were identified, and are paralleled from finds from Winchester, Rhuddlan, Clwyd, and Brixworth, Northants (Goodall 1980a, 55), ranging in date from the 12th to 15th

centuries. Tenters were still in use in the 16th century as evidenced by ordinances issued against the excessive stretching of cloth (Goodall 1980a, 55). Alternative uses for these objects may have been as a support for wall hangings and tapestries (Goodall 1990b, 235). Three examples were from phase 6.1, the fourth from Period 7. Only two were found within the same structure, S16.

42.03/225
Sf 1549 T7 C517 [P7 S16D/65D]
Iron tenterhook, straight, tapering shank, in-turned tapering hook. Lth 38.5mm

42.03/226
Sf 2847 T30 C123 [P6.1 S50A/30A]
Iron tenterhook, straight, tapering shank, straight tapering hook. Lth 35.2mm

Thread bead? 42.03/227

A single lathe-turned bone cylinder with axial perforation was found in deposits of phase 5.6 [42.03/227]. Parallels for this were found at Goltho (Beresford 1975, 77), Ellington, Hunts, Lyveden, Northants, York, and Perth (MacGregor 1985, 183–4), all dating from the 12th to 14th centuries. These objects have been tentatively identified as bobbins although their precise use is not clearly understood. A second suggestion for these objects is that they are beads. Beads served to protect winder's fingers against cuts while a ball of thread was being wound, the thread or yarn being drawn through the axial perforation (Groves 1973, fig 4).

42.03/227
Sf 2171 T30 C81 [P5.6 S59A]
Thread bead? lathe-turned with axial perforation. Decorated with bands of incised lines and mouldings, incomplete. Lth 52mm

Needles 42.03/228

Two copper-alloy needles were found both with thin rectangular-sectioned points; the nearly complete example exceeding 95mm in length [42.03/228]. Due to their size these may have been packing needles for sewing up parcels in an outer covering for storage or transport (Groves 1973, 17–18). The earliest occurrence (not illustrated) was in phase 5.5 associated with S30, while the second needle was recovered from Period 7 destruction deposits of S16.

42.03/228
Sf 1282 T7 C502 [P7 S16D]
Copper-alloy needle, narrow and elongated rectangular eye, grooved at either end. Rectangular in section. Lth 99mm

Thimbles, Forms 1, 2, 3 42.03/229–234

Metal thimbles are likely to have come into common use with the advent of the metal needles; by the 14th century onwards most thimbles were made of copper alloy. The eight thimbles from La Grava are copper alloy and are decorated with indentations which helped guide the head of the needle. This assemblage falls into three categories based upon shape.

Thimbles were not found in deposits predating phase 5.4, the earliest occurrence being of form two. Two of the thimbles were found associated or within destruction deposits of S16 and S65.

Form 1 Hemispherical thimbles with short sloping sides were beaten from a sheet of metal and then stamped with a round-headed instrument. The decoration was started on the top, in a continuous spiral, and then, at the start of the shoulder, continued in parallel vertical lines; sometimes only the sides were decorated [42.03/229]. Some thimbles of this form had perforations at their apex [42.03/230]; it has been suggested that these may have held a nail which pinned the thimble to a shaped piece of wood while it was being beaten into shape and stamped (Biddle and Elmhirst 1990, 805). Parallels from Winchester date from the 14th century into the early 16th, while an example from Bramber Castle, Sussex, dates from the 13th to 14th centuries (Barton and Holden 1977, 60).

42.03/229
Sf 1316 T7 C623 [P6.1 S16D]
Form 1 Copper-alloy thimble beaten from a sheet of metal, hemispherical in form. Indentations in vertical rows, top of thimble undecorated. Base has two incised lines. Dia 17.5mm, ht 13.6mm

42.03/230
Sf 1341 T7 C675 [P6.1 S16D/65D]
Form 1 Copper-alloy thimble beaten from a sheet of metal, hemispherical in form. Indentations form spiral on dome, slightly diagonal lines from shoulder downwards. The thimble is perforated at its apex. Single incised line around base. Dia about 16.25mm, ht 11mm

Form 2, while retaining the domed shape of the previous group, has elongated sides [42.03/ 231-232]. These thimbles are made in the same manner as described above. The decoration can be applied as outlined in the preceding paragraph or, as in the case of [42.03/232], possibly with the use of a revolving lathe and knurled wheel. The coarser thimbles of this type have the appearance of being cast but the presence of a pleat along the bottom edge of [42.03/232] indicates that this thimble was beaten from a sheet of metal. Its greater thickness may indicate use in sewing leather as opposed to cloth.

42.03/231
Sf 2267 T30 C190 [P5.3-5.4]
Form 2 Copper-alloy thimble made from beaten sheet, hemispherical with elongated sides, pleats visible in interior. Indentations in vertical lines, dome plain. Double line incised around base. Dia 17.75mm, ht 18mm

42.03/232
Sf 2262 T30 C5 [P5.4-7 S50A]
Form 2 Copper-alloy thimble, made from beaten sheet, hemispherical with elongated sides, one pleat visible. Horizontal rows of indentations, slightly askew; possibly formed by knurled wheel. Double line incised around base. Dia 20.5mm, ht 20mm

Form 3 thimble has a straight, elongated body with flattened top [42.03/233-234]. These were made from two sheets of metal, one for the dome and one for the body, with the indentations stamped on first; the two parts were brazed into place. This form is of post-medieval date; parallels from Winchester (Biddle and Elmhirst 1990, 805, 812) and Basing House (Moorhouse 1971, fig 26.166) date from the 17th century onwards.

42.03/233

Sf 2338 T30 C1 [P6.2-7]
Form 3 Copper-alloy thimble made from two sheets brazed into place, straight elongated body with slightly flattened top. Indentations stamped prior to forming thimble. Dia 14mm, ht 18mm

42.03/234
Sf 1342 T7 L736 [P6.2 S65D]
Form 3 Copper-alloy thimble made from two sheets brazed into place, straight elongated body, now flattened. Indentations stamped prior to forming thimble. Double line incised around base. Ht 21mm