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Ancient Monuments Laboratory
Report 51/96

IRON COFFIN FITTINGS FROM
AILCY HILL, RIPON, NORTH
YORKSHIRE

J Watson

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Ancient Monuments Laboratory Report 51/96

**IRON COFFIN FITTINGS FROM AILCY
HILL, RIPON, NORTH YORKSHIRE**

J Watson

Summary

Four sets of iron coffin fittings, including hinges and locks, were examined which had traces of mineral preserved wood. The coffins were probably made from radial split oak boards and held together with oak dowels. The end of one appears to have been extensively repaired, suggesting that it may have been used as a large wooden chest that was repaired for use as a coffin. The site dates from the seventh to ninth centuries AD.

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Iron coffin fittings from Ailcy Hill, Ripon, North Yorkshire

Jacqui Watson

The excavations at Ailcy Hill, Ripon, were undertaken by Mark Whyman of the York Archaeological Trust during 1986 and 1987; and they located a cemetery dating from the seventh to ninth centuries AD. Many of the skeletons were thought to have been buried in wooden coffins, some of which had iron fittings including hinges and locks. The fittings from 4 coffins were selected by the excavator, and these have been examined in order to try and reconstruct the original woodworking. Wood was not preserved on all the ironwork which has limited the amount of reconstruction that could be done, nor were there any corner brackets which would have indicated the type of joints that were used. It was possible though to make some general comments on their construction. In the main they seem to have been made from radial surface boards probably as a result of radially split timber, Darrah (1982) gives a good description of this. It is likely that the coffin from burial 2005 had rebated butt joints held together with wooden pegs or dowels, and was later repaired with iron nails. A good description of these joints can be found in Milne (1982). As the fittings themselves are very similar to the coffin fittings from Thwing it is likely that the woodworking would be the same (Watson, 1993), but not enough evidence remains to be certain.

Fittings associated with burials 1043, 1045 and 1065

These three burials were found close together as can be seen in the grave plan in figure 1. The coffin associated with burial 1043 appears to have been made from radial surface oak boards, about 24mm or more thick. There is no indication of the type of joints used, but some of the nails (572, 593) may have been used to reinforce a dowelled construction in the same way as the coffin to burial 2005. The coffin associated with burial 1045 appears to have been made from less uniform boards than the other three, as the front with the lockplate had a tangential surface with other fittings indicating that the other sides were likely to have radial surfaces. The minimum thicknesses of the boards are between 22-27mm, and there is no indication of the type of joints used in its construction. There are not enough fittings with preserved wood to suggest the construction of the coffin associated with burial 1065, other than it was probably made from radial surface boards with possible oak dowels.

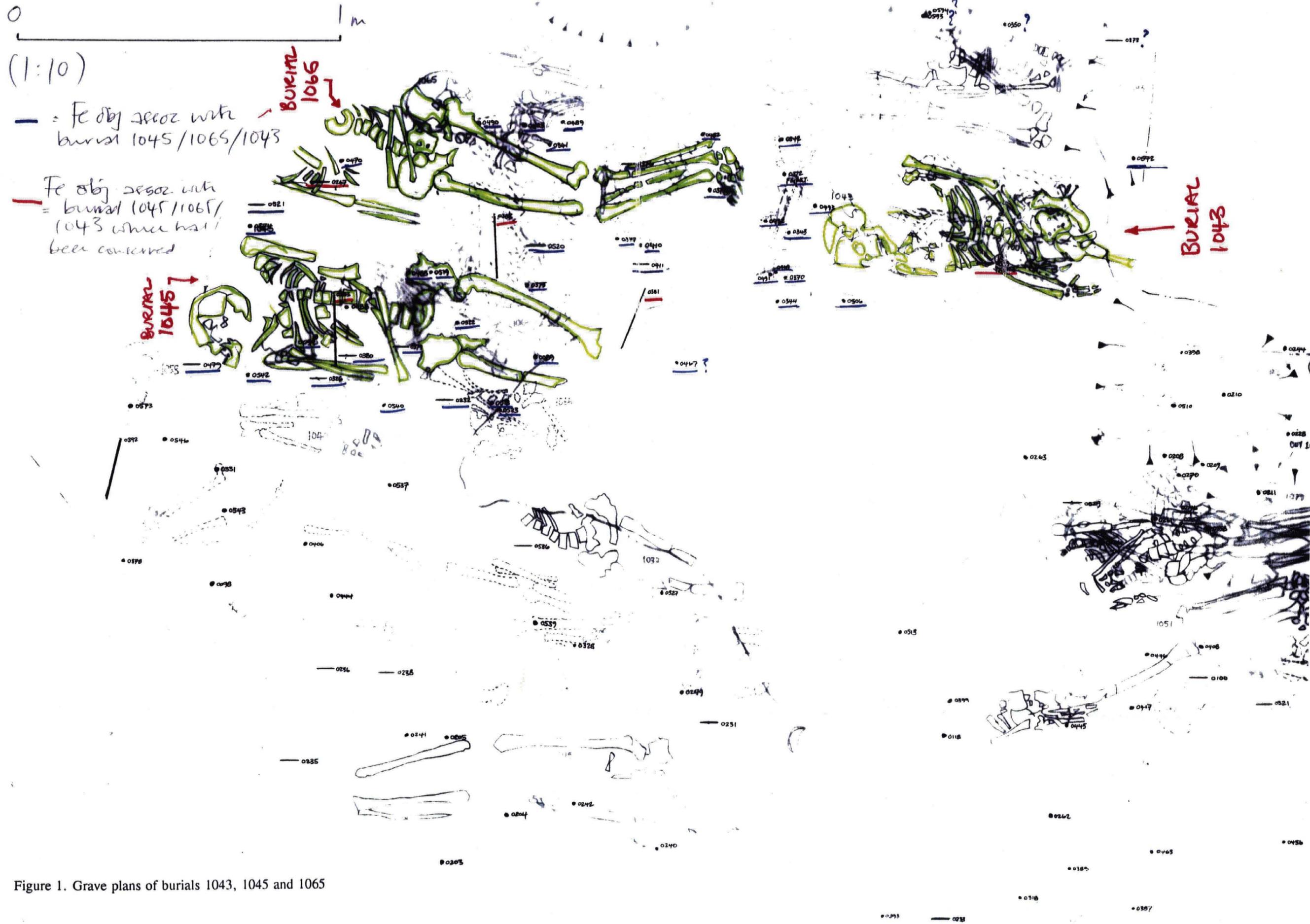


Figure 1. Grave plans of burials 1043, 1045 and 1065

1043

- 342 Nail with no organic material.
- 343 Nail put through the radial surface of a board made from a ring porous wood.
- 344 not seen
- 350 Nail head with no organic material.
- 369 Lockbolt mounted on an oak board with a radial surface, and a minimum thickness of 24mm.
- 370 Nail put through a radial surface oak board, c.24mm thick.
- 372 Possibly a piece of folded over strapping, with slight traces of wood on one side but not enough to record grain etc..
- 373 Staple with no organic material.
- 468 Nail, but no organic material.
- 491 Nail shank with oak preserved on it.
- 492 Nail put through the radial surface of a ring porous wood.
- 493 Nail, but no organic material.
- 506 Nail, but no organic material.
- 572 Nail put through the end grain of a board.
- 593 Nail put through the end grain of a board.
- 594 Nail with some wood, but not enough to identify or record grain detail.

1045

- 88 Large nail, but no organic material.
- 89 Large nail, but no organic material.
- 90 Large nail, but no organic material.
- 232 Corner bracket but with no organic material.
- 267 Lockplate that was mounted on a tangential surface. It can be clearly seen where the wood has been cut away to house the lock mechanism.
- 322 Fragment of nail that had been put through the end grain of a piece of wood.
- 326 Not seen.
- 374 Nail shank with no organic material.
- 375 Nail with wood but grain uncertain.

- 379 Staple, but no organic material.
- 380 Staple, but no organic material.
- 381 Hinge, the backstrap has no wood remains but a nail gives the minimum thickness of the board as c.23mm.
- 383 Hinge, backstrap has a looped end but no organic material. The lid had a radial surface, and a nail gives the minimum thickness of c.22mm.
- 467 Nail shank, but no organic material.
- 479 Nail shank with radial surface wood on it.
- 488 Fragment of strap with wood, but grain uncertain.
- 518 Nail put through radial surface oak.
- 519 Nail put through radial surface oak.
- 523 Nail with wood, but grain uncertain.
- 540 Nail put through the radial surface of an oak board, with a possible minimum thickness c.27mm.
- 542 Nail put through a radial surface board.
- 1065**
- 341 Small nail, but no organic material.
- 371 Nail with wood, but grain uncertain.
- 376 Nail with wood, but grain uncertain.
- 423 Small nail put through the radial surface of a board.
- 470 Nail put through the end grain of a board.
- 482 Nail, but no organic material.
- 489 Nail with wood, but grain uncertain.
- 490 Nail put through a piece of oak, with an oblique tangential surface along the shank.
- 1045 or 1065**
- 377 Nail but no organic material.
- 382 Hinge, cleaned with no organic material remaining.
- 410 Nail with traces of wood, but grain uncertain.
- 411 Nail put through the tangential surface of a board.
- 520 Not seen.

Possible corner bracket or hinge with oak preserved on the nail. Had been mounted on a board with a radial surface.

Fittings associated with burial 2005 figure 2

Wood preserved on the iron fittings indicates that the chest/coffin was made solely from oak, both the radial surface boards and the dowels or pegs used to attach the sides. The boards were most likely produced by radially splitting the timber, whereas the dowels/pegs seem to have been fashioned from mature timber rather than branch or juvenile wood. This chest/coffin was possibly a dowelled construction originally and which has been repaired with various types of iron nail before use as a coffin. Most of the nails with wood remains have been positioned over the pegs/dowels, this is clearly illustrated on a pair of nails corroded together (sf. 111) see figure 3. The nails are particularly clustered around the skull, which suggests that this end may have been badly damaged, requiring extensive repair. The lock and hinges appear to be on the same side of the grave, this could be due to either fortuitous slippage or the chest was placed in the grave on its side, the back board being on the floor.

Unfortunately there is no definite indication of the types of joints used in the construction of this chest, but it is most likely to have had butt or rebated butt joints based on the wood preserved on the nails (Watson, 1993). The individual boards could be up to 33mm thick in places, whereas in the joints the same board is only 10mm - this suggests that the edges were rebated to facilitate joining by pegs or dowels.

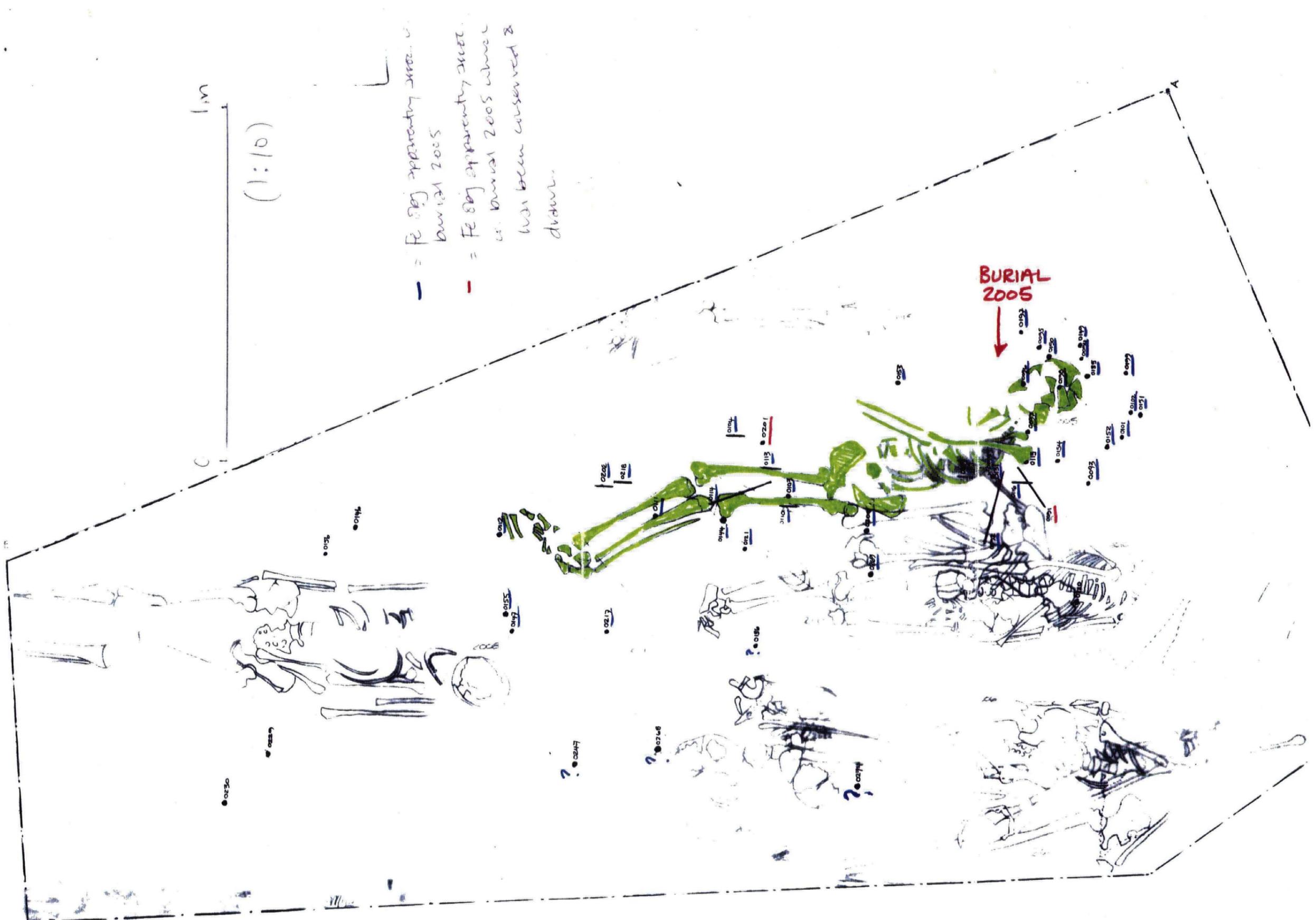


Figure 2. Grave plan of burial 2005

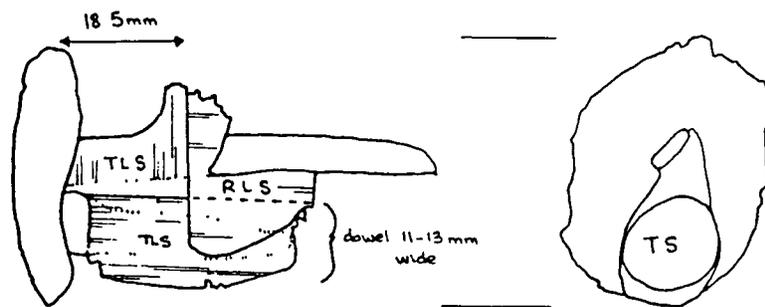


Figure 3. Two nails used to repair a joint originally held together with an oak dowel. Scale 1 1

- 91 Cleaned hinge with no wood remains.
- 92 Hinge with wood on nail that indicates that the original board had a radial surface and a minimum thickness of 21.6mm.
- 93 Part of a large nail with some wood preserved on it, but not enough to record.
- 94 Large nail with fragment of a radial surface board at the tip, but no sign of a join.
- 95 Small nail put through a radial surface board, but no sign of a join.
- 96 Small nail with no organic material.
- 97 Nail with no organic material.
- 101 Large nail with slight traces of wood on tip of shank.
- 102 Small nail with no organic material.
- 103 Looped headed fragment with no organic material.
- 104 Fragment of hinge or hasp, but no wood remains.
- 110 Possible fragment of hinge, but no wood remains.
- 111 Two nails used to repair a butt/rebated butt joint that had originally been dowed together. The oak dowel is clearly visible on the smaller nail, and the longer nail with large head was applied later. The dowel appears to be a trimmed piece of wood rather than branch or brushwood. [may be worth illustration].
- 112 Large nail put through the end grain of one piece of wood, but over it are traces of a radial surface - most likely this nail was used to reinforce a dowed joint.

- 113 Part of a hinge, but no wood remains. The nail does indicate that the thickness of the board was c 30mm
- 114 Lockbolt mounted onto a radial surface board with a minimum thickness of 19.3mm. The spring was mounted onto wood 24.0mm thick, and large pupae cases are preserved on both sides.
- 115 Small nail with no organic material.
- 116 Not seen.
- 121 Not seen.
- 131 Nail with wood which indicates that it was used to join a radial surface board c.18mm thick to the end grain of another board.
- 135 Nail with no recognisable organic material.
- 136 Nail put into the end grain of an oak peg/dowel.
- 143 Nail joining a radial surface board 23.5mm thick to the end grain of another board.
- 144 A fitting, probably part of the lock mechanism, that was put on the inside of the front board.
- 147 Nail with mineral preserved wood, but the grain is uncertain.
- 149 Iron object with random fragments of wood preserved on it, this item is probably not part of the coffin construction.
- 150 Large nail joining two boards together, one could be as thick as 33mm and the other has a radial surface.
- 151 Nail put through a radial surface board, and likely to have joined this board to another.
- 152 Fitting rather than a nail, which was put through the tangential side of the board.
- 153 Nail put through the end grain of a piece of wood - possibly a peg/dowel.
- 154 Large nail with wood but no sign of joint.
- 155 Tip of large nail with radial surface wood.
- 197 Nail put through end grain oak, but no sign of joint.
- 198 Nail put through end grain oak, but no sign of joint.
- 199 Nail put through end grain oak, but no sign of joint.
- 200 Nail put into end-grain wood.
- 201 Incomplete corner bracket that was mounted on radial surface board.
- 202 Nail with mineral preserved oak on shank which appears to be slow grown with 25 rings over 16mm.
- 217 Not seen.

- 218 Part of corner bracket which was mounted onto radial surface oak board with a minimum thickness of 21mm.
- 219 Riveted plate with no wood remaining, nail indicates that the minimum thickness of the board was 16.6mm.
- 247 Nail put through a board up to 10mm thick, and into the end grain of a second.
- 268 Nail put through end grain of a peg, probably oak.
- 269 Nail with wood, but grain uncertain.
- 274 Nail put into end grain.

References

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