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EXAMINATION OF TECHNOLOGICAL
MATERIAL FROM ST. MARTIN-AT-PALACE
CHURCH, NORWICH, NORFOLK.

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Summary

A small quantity of medieval and later technological material was recovered from excavations inside the church of St. Martin-at-Palace. The majority of the material was identified as iron smithing slag, though much of this was probably post-medieval. Other material examined included some possible bell metal waste and a possible fragment of litharge.

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EXAMINATION OF TECHNOLOGICAL MATERIAL FROM ST. MARTIN-AT-PALACE CHURCH, NORWICH

Excavations inside the church of St. Martin-at-Palace in Norwich recovered a small quantity of technological material. The excavations included the areas of the nave, chancel and tower of the church but due to the limited stratigraphic information obtained from the excavation it has only been possible to divide the material into rough period groups.

The only material from Period I, which is dated to the late 10th - early 11th century AD, is a small fragment of iron smithing slag. It is likely that iron smithing would have been taking place in the area of the church and the fragments of smithing slag recovered from the whole excavation (less than 3600 g) represent a background spread from a local activity rather than indicating that iron smithing was undertaken on the site. Much of the material from the later levels is also smithing slag (see Table 1) but the presence of coal in this slag indicates that it is likely to date from the post-medieval period.

The Period III material covers a broad time span of the 11th - mid 19th centuries AD. The majority of this material is iron smithing slag. Two fragments of copper alloy were also found. These were analysed qualitatively using energy dispersive X-ray fluorescence and were found to be bronzes (copper-tin alloy) with minor levels of lead. Medieval bells are normally made of alloys of this type so the two fragments may be the waste from a bell founding operation in the church. Similar operations have been found from other medieval churches such as that at Castle Rising in Norfolk (Heyworth 1989).

The material from period IV is viewed as broadly "modern" or residual material. This includes some smithing slag which may relate to earlier phases, and also some fragments of clinker which are probably modern. A small quantity of iron oxide concretion was also recovered, though it is unlikely to be associated with a technological process and may originally have been used as a pigment. A small fragment of possible litharge was identified and EDXRF analysis showed it contained lead and some copper. If the identification is correct, it would have been a by-product of the refining of precious metals, however as only one small fragment was recovered it is not possible to confirm this.

Reference

Heyworth, M P, 1989 The evidence for bell-founding and other technological activities from Castle Rising, Norfolk, Ancient Monuments Laboratory Report 38/89.

Table 1

<u>SF No.</u>	<u>Context No. and Period</u>	<u>Weight</u>	<u>Identification</u>
5015	182 (4)	2 g	Fuel ash slag (with copper, tin and traces of zinc)
5027	223 (3)	53 g	Copper alloy fragment (copper with traces of tin and lead)
5082	348 (3)	416 g	Smithing slag
5136	167 (4)	86 g	Iron nail, Iron oxide concretion
5173	418 (4)	32 g	Clinker
5175	334 (4)	5 g	Litharge fragment ? (lead and copper)
5179	368 (3)	847 g	Smithing slag
5180	461 (-)	81 g	Smithing slag
5185	431 (4)	24 g	Smithing slag
5186	167 (4)	1231 g	Iron oxide concretion
5188	461 (4)	10 g	Clay fragment, hearth lining ?
5202	422 (4)	85 g	Smithing slag
5205	418 (4)	19 g	Clinker
5219	424 (4)	12 g	Smithing slag
5230	505 (4)	9 g	Clinker
5231	505 (4)	5 g	Clinker
5241	626 (3)	37 g	Copper alloy object (copper with traces of tin and lead)
5352	571 (3)	53 g	Fired clay fragment, daub ?
5357	582 (3)	300 g	Smithing slag
5368	630 (1)	38 g	Smithing slag
5389	713 (3)	116 g	Smithing slag
5392	251 (4)	277 g	Smithing slag
5397	418 (4)	9 g	Clinker