

ROMAN TILE

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A small assemblage of forty-two Roman tile fragments derives from historic excavations at Glastonbury Abbey. No complete tiles were present: the assemblage consists solely of small to medium-sized fragments in a varied state of preservation from fresh breaks to very abraded surfaces. While the majority of the tiles were unstratified, eight pieces were from contexts associated with Saxon glass-making structures and a single fragment had been incorporated into a wall of the transept of the abbey church. Full details of the methodology and quantification can be consulted in the online report, together with petrological analysis by Roger Taylor.

Tile was manufactured throughout the Roman period in Britain with little stylistic change. The absence of diagnostic features in this assemblage, such as lower cutaways, signatures or stamps, unfortunately prevents an attempt to establish the date of manufacture and primary use of these tiles.¹

FORMS

Over one third of the assemblage lacked the diagnostic features to enable identification of form. Of the remainder, 54% are the typical Roman forms of tegula (15%), imbrex (15%) and box tile (24%).

All the tegulae fragments are mid-section pieces and lacked lower cutaways or evidence of signatures. Two flange profiles were recorded (figure 00) which may indicate different manufacturers. The flange had been deliberately removed from two tegulae.

Five fragments of box tiles retain combed decoration: one fragment with twelve-tine combing, two pieces with seven-tine combing, and two pieces with deeply-scored, five-tine combing. One fragment retains a hobnail impression in a three-lobed formation and a further fragment has been modified for reuse.

A single example of an oblong flanged tile with a rectangular flue hole was identified (figure 00); the flange had been deliberately removed after manufacture. This unusual form is likely to be part of a cavity wall heating system, although such tiles are not common with a single flange.²

PETROLOGY (by Roger T Taylor)

The tiles were submitted for rapid petrological analysis to indicate the source of raw materials (at x20 magnification). Three tile fabrics have been identified: Further information see Appendix).

1. Smooth clay without any obvious sand content.
2. Sand tempered fabrics, varying from a sparse to moderate sand content. The predominantly angular to rounded quartz sand is generally less than 3 mm.
3. Abundant fine sand content.

Glastonbury is sited on the Jurassic mudstones of the Lias. These mudstones break down to clays which are normally calcareous and contain shelly fossils and with near-surface weathering the clays become decalcified. It seems probable that the clays for the majority of the Roman tile production were worked at shallow depth. The source for the sand content of the tiles is likely to be Glastonbury Tor, which is formed by an outlier of the Bridport Sand Formation.

REUSE OF ROMAN TILES

Eight fragments were recovered from contexts associated with the Saxon glass-making structures. A further nine fragments retain traces of glass or vitrified material or evidence of secondary heating, indicating they had been associated with the glass manufacture process. The three common forms of tile, tegula, imbrex and box, were used in the glass manufacture process, as was the possible cavity wall tile. Three tile fragments had been reshaped for this secondary use. Details of the fragments associated with the Saxon glass industry are summarised online.

A single fragment of box tile (GLSGA: 1998/3/297) is recorded from 1957 in the 'upper course of early transept wall'. The flange has been removed from this small fragment and the surfaces retain traces of mortar, both of which are appropriate for its reuse as structural hardcore material.

DISCUSSION

The material in this small assemblage originated from a Roman building with a tiled roof and hypocaust heating system. Fragments of Roman tile have been found at sites throughout Glastonbury town and therefore their presence at the abbey is not unexpected.³ The building from which they originated was probably early Roman in date: changes in architectural fashion resulted in the declining use of tegula and imbrex tiles in Somerset after the mid-second century, in favour of

stone roof slates.⁴ Ceramic roof tiles are absent from many later Roman sites in Somerset including Chew Park Villa and Gatcombe.⁵ The fabrics of the tiles suggest they were made locally to the area.

The small quantity and size of these fragments makes it doubtful that the Roman building was on the site of the abbey but likely in the near vicinity. Tile assemblages from the sites of Roman buildings are often significant and the fragments large; small fragments from such sites were often discarded in preference for larger and complete fragments, especially from antiquarian projects. The retention of these small fragments from the abbey suggests that little Roman tile was discovered.

The clear association between the tiles and the Saxon glass industry indicates that they were brought to the site for this specific use. The reuse of tiles in the Saxon period is well recorded in parts of Britain although the most typical form of secondary use in church architecture is not common in the West Country.⁶ The evidence for reuse in the abbey church expands our understanding of local practice. There are other examples from the West Country of the movement of Roman tile after its primary use, for example in the Roman period at Chew Park and the medieval period in Devon.⁷ The durability of Roman tiles made them eminently suitable for reuse, at Glastonbury both modified for specific purposes and used as found. The association of tiles with the Saxon glass industry is a significant addition to understanding both the reuse of Roman tile and the construction of Saxon glass-making furnaces (see Willmott and Welham, this volume).

List of illustrations in monograph

1. Flange profile, GLSGA:1991/269
2. Flange profile, GLSGA:1991/118/1
3. Probable cavity wall tile, GLSGA:2008/3/65/2

¹ Warry 2006.

² Brodribb 1987, 63-83.

³ Rahtz and Hirst 1974, 66; Rahtz and Watts 2003, 32.

⁴ Williams 1971, 16-9.

⁵ Rahtz and Greenfield 1977, 52; Branigan 1977, 111.

⁶ Eaton 2000; Allan *et al* 2008; Smart 2008.

⁷ Rahtz and Greenfield 1977; Allan *et al* 2008.

Appendix

GLSGA: 1988/1377

Refired Imbex and tegula fragments, tegula with traces of glass. Traces of internal banding but no fabric detail visible in tegula. Traces of internal banding and mica flakes visible on the surface of the imbex.

GLSGA: 1989/970

Tegula fragment, refired terracotta becoming grey. Smooth clay fabric.

GLSGA: 1991/117/7

Terracotta with buff internal streaks. Fabric very finely silty.

GLSGA: 1991/118/1

Bright terracotta fired with core partly reduced. A moderately sandy fabric with angular to sub-rounded quartz up to 0.2 mm and some fine shell fragments, the matrix is not calcareous.

GLSGA: 1991/269

Reused tegula edge with later glass drip. Intensely refired. Smooth clay with little internal detail visible.

GLSGA: 1993/71

Fragment with green glass. Intensely refired deep red. Probably contains fine-grained quartz sand and some mica but little internal detail visible.

GLSGA: 1998/3/297

Bright terracotta oxidised, predominantly smooth clay with sparse angular to sub angular, predominantly quartz sand, up to 0.7 mm.

GLSGA: 1998/3/258

Bright terracotta fired, essentially similar to 1998/3/297 with very sparse quartz sand.

GLSGA: 1998/3/257

Bright terracotta fired, essentially similar to 1998/3/297, sand very sparse with some ferruginous grains.

GLSGA: 1993/79/1-3

Fragment oxidised with pale buff internal streaks. Smooth clay with sparse angular to sub-angular quartz sand up to 0.3 mm and with small white shell fragments.

Fragment variably fired bright terracotta to slightly reduced. Finely sandy fabric.

Fragment bright terracotta fired. Smooth clay very sparse fine quartz sand.

GLSGA: 1998/3/83

Medium terracotta fired with moderate amounts of angular to rounded quartz sand up to 0.5 mm, rarely 1-1.2 mm.

GLSGA: 2008/3/6

Bright terracotta fired. Fabric smooth clay with some mica flakes.

GLSGA: 2008/3/8

Fragment, bright terracotta fired. Fabric smooth clay with some fine mica flakes.

GLSGA: 2008/3/34/4

Fragment bright terracotta fired. Fabric variable sparse to abundant angular to sub-rounded quartz sand, up to 0.2 mm. Remnants of sanding on the base.

Fragment refired deep red to grey spalled and crumbling on one surface, edge of grey section vitrified. Fabric abundant fine-grained quartz sand.

Refired red with a notable increase in density compared with other fragments. Fabric sparse angular to rounded quartz sand up to 0.1mm, with mica flakes up to 0.05 mm. Remnants of sanding on the base.

GLSGA: 2008/3/35

Fragment with fabric with a sparse to moderate content of angular to rounded quartz sand up to 0.2 mm. Remnants of sanding on the base of the first.

Fragment refired, bright terracotta becoming deep red, sanded on base. The core shows patches of buff clay and reaction rims around cavities left by other inclusions angular to rounded quartz sand up to 2.5 mm.

Fragment, bright terracotta fired. Fabric smooth clay with some muscovite flakes up to 0.1 mm.

GLSGA: 2008/3/36/1 T490 1955

Fragment bright terracotta fired. Fabric sparse to moderate content of angular to sub-rounded quartz sand up to 0.3 mm

Fragment bright terracotta fired. Fabric sparse quartz sand, surface cavities suggest possible original presence of shell fragments. Roughly finished and sanded on inner surface, the quartz sand with some mica is angular to sub angular up to 0.3 mm.

Fragment possibly spalled on one rough surface. Refired purplish to dark grey. Tile is partly vitrified with a thin glassy coating over the smoother surface and becoming more or less completely vitrified at the thinner edge and producing internal banding buff to red along one side.

GLSGA: 2008/3/65/2

Fragment fabric smooth clay with sparse quartz sand.

Fragment bright terracotta fired, refired grey becoming vitrified at one edge. Cavities on the upper surface and interior may indicate former presence of shell fragments. Smooth clay fabric with traces of sanding on the underside.

GLSGA: 2008/3/73/3

Refired purplish, encrusted with pale green glass. No fabric detail visible.