

THE FRANCISCAN FRIARY AND CIVIL WAR DEFENCES AT FRIARN MEADOWS, BRIDGWATER

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SUMMARY

A programme of archaeological mitigation works was carried out on the site of the former Franciscan friary, Bridgwater (founded c. 1245), in advance of proposed development. The layout and development of the friary are poorly documented and the excavated remains poorly preserved. Interpretations offered here must be seen as conjectural only.

The orientation of the friary buildings was unorthodox, but apparently dictated by the size and shape of the allotted precinct, which lay outside the town defences constrained by a stream to the south-east and possibly by suburban development to the north-west. This excavation recorded medieval foundations, mostly robbed, which must be part of the main claustral complex. The excavated features form a number of buildings, on the whole unidentified, associated with the friary complex, including a large undated vault, with a court and possible minor cloister to its north-east. Due to the limited nature of the excavations, a number of interpretations of the buildings are possible. A quantity of *ex situ* floor-tiles allow speculation as to decorative schemes in use.

A large vertical-sided ditch is interpreted as part of a Civil War defensive work constructed during the siege of Bridgwater. Analysis of animal bones raises the possibility that horse and diseased cattle may have been eaten during the siege; a number of musket balls was retrieved.

INTRODUCTION

Wessex Archaeology undertook a programme of archaeological mitigation works in advance of the proposed construction of a new Cadet Centre, rifle range, access road and parking areas on land at Friarn Meadows, Bridgwater (Fig. 1: NGR 3296 1367). The site was known to contain remains of the Bridgwater Greyfriars, a Franciscan friary founded in or before 1245.

The site comprised an irregular, elongated polygon, approximately 3900m² in extent. It was bounded to the north-west by the rear gardens of Friarn Avenue, to the south-west by an access road serving the nearby YMCA, to the south-east by the canalised Durleigh Brook and to the north-east by the Broadway (Fig. 1).

The site lay on the extreme south-eastern edge of the Mercian Mudstone Group (Keuper Marls) dating to the Permian and Triassic periods, which rise steadily to the west. Some patchy terrace deposits and alluvium are also mapped. At the time of the excavation the site was under rough grass, lying on a gentle south-east facing slope at between 9m and 10m above Ordnance Datum (aOD). Forming the south-eastern boundary of the site was the north-east flowing Durleigh Brook. To the south-east, beyond the Bridgwater and Taunton Canal, lies the broad, flat flood-plain of the Hamp Brook, a minor tributary of the River Parrett.

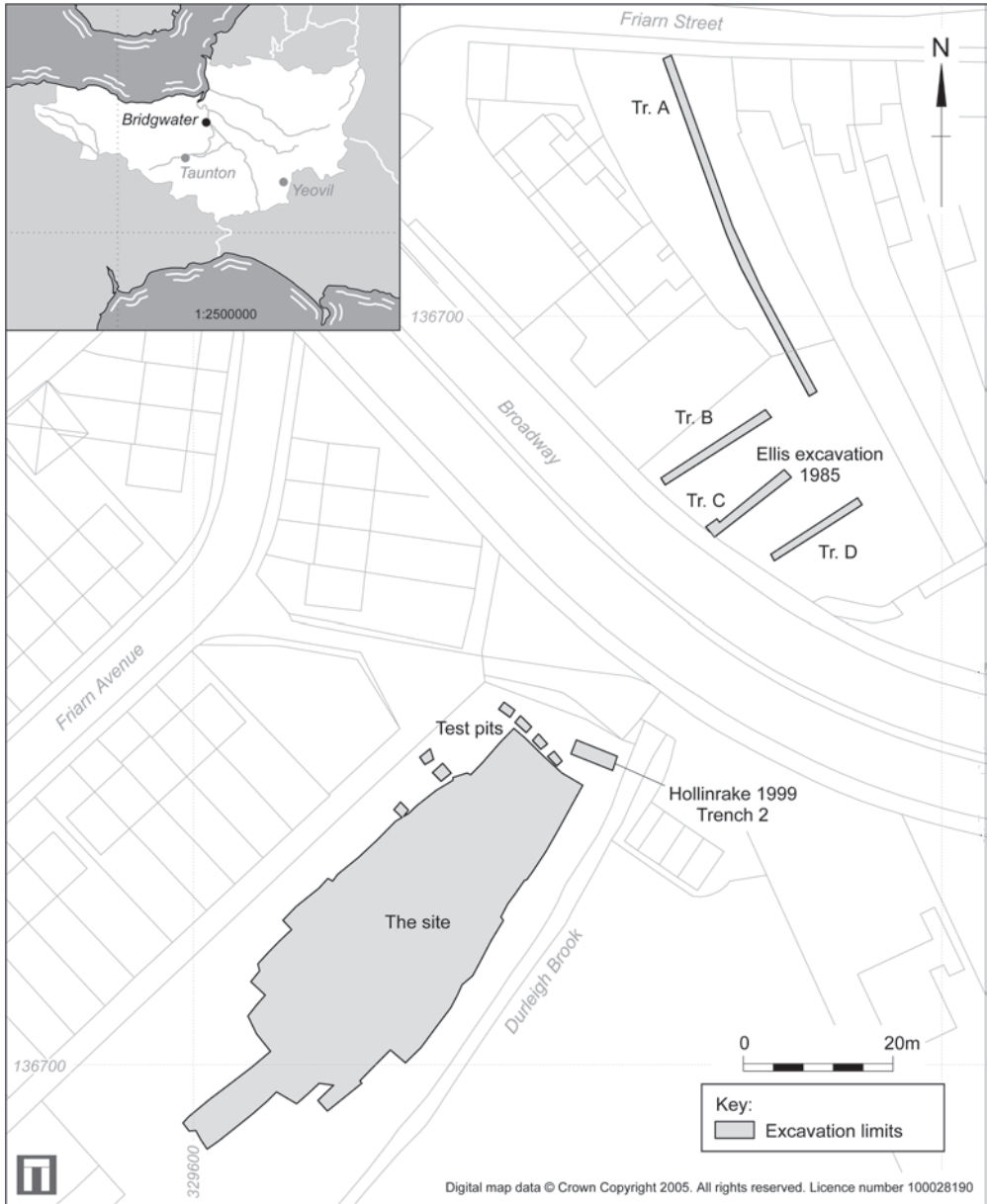


Fig. 1 Site location and trench location

HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The first Franciscan friary in Bridgwater was founded in or before 1245 possibly by William Brewer. The original foundation was within the town

defences, but in 1245 the friars were assigned more suitable land to build a church. The assignment was ratified in 1246. Building was in progress by 1250 and continued throughout most of the remainder of the 13th century, with timbers given for the construction of unspecified buildings in the 1250s,

for the dormitory in 1278 and further buildings in 1284 (Dunning 1992, 203). Land was possibly added to the precinct in 1349. The friary church was rebuilt in the early 15th century, with church and burial ground consecrated in 1445. The dimensions of this building are recorded as 210 feet by 52 feet, or approximately 64m by 16m (Martin 1937, 215). The friary was dissolved in 1538 and, by the 1540s, the property had been granted to Emanuel Lucar, a merchant from London. References to the land and property continue until 1653 (Ellis 1985, 72–3).

Maps from c. 1775 and through to the 19th century show the site as open ground but in the 1920s and '30s houses were built to its north-west. In the later 20th century the site was in use as allotment gardens. A house known as 'The Friars', formerly situated on Friarn Street, to the east of the site, was once assumed to mark the position of the friary's major domestic buildings. Excavations on that site in 1985 (Ellis 1985) found no evidence to substantiate such a view.

Immediately north-west of the present site, during the development of Friarn Avenue in the 1920s or '30s, evidence for four medieval structures was recorded, presumably parts of the friary complex (Martin 1937, 215–17). These are marked on Figure 2 as Structures 1–4, following the plan published by Martin (*ibid.*, fig. 14), but with an apparent rotational error corrected in the light of recent findings. Structure 1 was described as one side of an aisled building and was interpreted as a possible infirmary hall. The aisle piers supported Ham Hill stone columns at c. 3.5–4m centres (the published plan appears irregular), with three-quarter round shafts at each angle, and the aisle itself was c. 2.2m wide (*ibid.*, fig. 14). No interpretation was offered for Structure 2, a 0.38m wide wall, with a Ham Hill stone plinth and unusually shaped buttress on its west face, and a tile floor to the east. Structure 3 was recorded as a 0.4m wide wall, truncated to the east. A stone-lined drain (Structure 4) passed close to Structures 2 and 3.

Excavations to the north-east, on Friarn Street (Ellis 1985, 70–1) revealed no evidence for buildings relating to the former friary, but were notable for confirming the location and alignment of the town's defensive ditch. A group of postholes and a small ditch were recorded just within the defended area. Also noted was the presence of a 4.5m wide, vertical-sided trench, of post-medieval date (*ibid.*, 71). On the Friarn Meadows site itself two small evaluation trenches opened in connection with a previous development proposal suggested that the earliest

occupation on the site dated to the first half of the 13th century, and that debris from the demolition of medieval structures was spread across the site (Hollinrake 1999, 8). A possible bank topped by a robbed wall footing were provisionally interpreted as a northern monastic precinct boundary (*ibid.*, 7 and 9; see also Fig. 2). The actual plan and arrangement of the friary buildings and precinct remained unclear. The best summary of the medieval topography of this part of Bridgwater remains that based on Ian Burrow's summary of the documentary sources (Ellis 1985, fig. 2), which is used as the basis of Fig. 6.

Between February and April 2003, Wessex Archaeology undertook a two-phase programme of archaeological investigations on the site. The first phase comprised a 'strip, map and record' evaluation, where topsoil was removed by machine under direct archaeological supervision. Exposed surfaces and features were then hand-cleaned and planned, with limited sample excavation undertaken where appropriate in order to expedite initial dating and phasing. A meeting was held on site between Wessex Archaeology, Somerset County Council's Development Control Archaeologist, the Project Architect and the Client, at which strategies for the preservation in situ of the best preserved medieval remains were discussed and agreed. This led to some of the proposed foundations being relocated to less archaeologically sensitive parts of the site. Limited excavation and recording of areas to be preserved in situ was undertaken, to clarify plan, phasing and dating. More extensive excavation was undertaken in areas likely to be disturbed by the proposed development, predominantly in the northern and eastern areas of the site. In some areas, new foundation positions were excavated as a series of hand-dug test pits. All excavation areas and test pits are illustrated in Fig. 1.

STRATIGRAPHIC SEQUENCE

The exposed archaeological sequence was straightforward, comprising a reddish-brown silty clay, identified as a geological deposit, through which the majority of the visible archaeological features were cut. Close to the Durleigh Brook, along the southern side of the site, were deposits similar in appearance to these natural layers but which were found to overlie archaeological material. They were thus assumed to represent either overbank flood deposits, or redeposited material dumped to reclaim

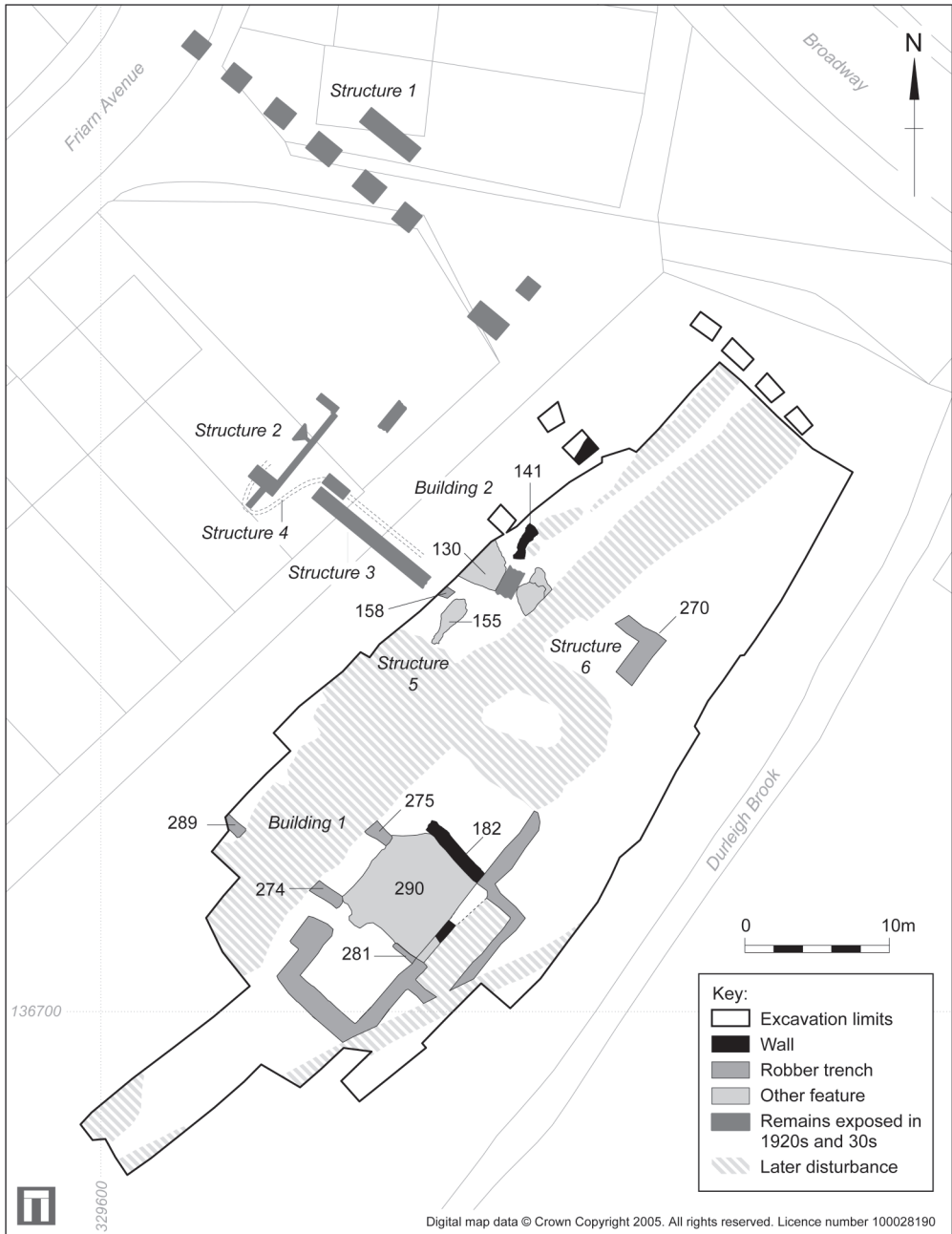


Fig. 2 Plan of excavated medieval features, also showing friary remains recorded in the 1920s and 1930s and possible precinct boundary found in 1999

or consolidate ground in the vicinity of the stream. Severe post-medieval flooding is known to have affected the region (Bryant and Haslett 2002; Haslett and Bryant 2005). Medieval archaeology was present

as cut features, sealed by demolition rubble and topsoil. Topsoil was a dark greyish-brown silty clay loam, generally c. 0.2m deep and exhibiting a relatively sharp lower boundary where it overlay the

natural, alluvial clays. Over the larger, mortar-filled features, it was found to reach up to *c.* 0.4m depth, exhibiting an unclear lower boundary, with frequent root penetration and bioturbation. There was some evidence for 'double-digging' associated with the documented use of Friarn Meadows as allotment gardens in the second half of the 20th century.

All archaeological features described in the text are illustrated in Fig. 2 (medieval) and Fig. 4 (post-medieval). Context numbers are given where necessary to identify features on the figures and other parts of the report.

MEDIEVAL

Building 1 ?Ancillary Building

A large, north-west to south-east oriented building lay towards the south of the excavated area. The south-east end of the building lay some 6.5m from the west bank of the Durleigh Brook. It was *c.* 7.5m wide internally at its south-eastern end, and in excess of 20m long, extending beyond the north-western limit of the excavation area. Two wings, rooms or aisles projected to the north-east and south-west, extending the building's width to over 19m. No floor surfaces survived within the building's footprint (although decorated and plain floor-tiles were found in Dissolution or Civil War period demolition rubble overlying it).

The external walls were represented by robber trenches which survived no more than 0.2m deep, 1.0m to 1.2m wide, cutting natural clay. The robber trenches were filled predominantly with lime mortar and small fragments of sandstone, lias and Ham Hill stone. A gap in the robber trench on the south side of the building might indicate the position of a doorway, or just a localised area of shallow foundations. Beside this gap, the robber trench expanded to 2.0m wide for a distance 2.5m, possibly showing the position of a stair or other feature.

Possible internal foundation 182 survived as large rounded cobbles laid directly on top of natural sub-soil, apparently closing off the north-eastern wing or aisle. It may have been a sleeper foundation, or even a non-structural part of the setting out of Building 1. Two robber trenches (274/289 and 275), parallel to the axis of the building are very narrow to be external walls, and could represent internal stone fittings, such as the bases of benches or choir stalls.

A backfilled cellar or vault measuring *c.* 7.0m by

7.5m lay towards the south-eastern end of the building. The full depth of this feature was not achieved during the excavation, as the deeper stratified deposits were not under threat from the proposed development. However, a well preserved, north-west facing wall was exposed, the uppermost course of which was recorded at a depth of 0.7m below the level of surviving natural. It comprised mortared limestone, faced internally with plaster/mortar. The upper parts of the cellar or vault had been robbed at or after the Dissolution, leaving an irregular pit, whose upper fill (290) consisted of demolition rubble, including both decorated and plain floor-tile fragments, stone fragments, plaster and mortar. It remains unclear whether this vault was directly related to the building above (Building 1) as lower deposits were not excavated and dating is therefore, at best, tentative.

Structure 5 ?Ancillary building

To the north-east of Building 1, a robber trench appeared to represent the corner of an ancillary structure. It was only some 0.10m deep, irregular in profile and not perfectly aligned with the robber trenches forming Building 1. The form and dimensions of Structure 5 are unknown. Its position in relation to the projected course of Structure 4 (above) and a curious kink in the west bank of the adjacent stream may suggest a service function.

Building 2: ?Claustral building

Building 2 is ascribed to a number of structural features which lay to the north of Building 1. A single course of masonry wall foundation (141), 1.0m wide was recorded within the main excavation area and in a test pit to the north. It had faces formed of large, roughly faced rubble and a sandstone rubble core. Later disturbance makes the original form and extent of the structure uncertain. However, a robber trench (158) of similar dimensions to the wall may indicate a return to the north-west, and is perhaps part of the same wall recorded as Structure 3 in the early 20th century (above). The apparent extent of this structure is suggestive of either a range of buildings or a cloister. Possible traces of internal or walkway floor surfaces survived as a disturbed sand layer (130) containing a number of decorated tiles and mortar spreads which may have been bedding for a tile floor. Two small fragments of painted window glass and a coin of Henry VII were recovered from cleaning above this layer.

Structure 6: ?Courtyard enclosure

A single disturbed foundation (270), similar to that of Building 2, may have been part of a building or court lying between Building 1 and Building 2. No associated floor surfaces survived.

Finds relating to the friary Lorraine Mepham

Most medieval finds were recovered from post-medieval contexts, principally from features thought to relate to the Civil War period (below). Most are building materials (ceramic tiles, stone fragments, mortar/plaster, window glass and lead came) from the demolition of friary structures, but there is a small quantity of other finds, principally pottery.

Ceramic building material shows an interesting bias, being dominated by two main types – glazed

ridge tiles and floor-tiles – supporting earlier suggestions that the friary was roofed in stone rather than ceramic tiles (Hollinrake 1999, 9). Crested ridge tiles appear in several different forms, with thumbbed or knife-cut crests, some knife-slashed; all examples are glazed. A number of other glazed fragments, lacking crests or other distinctive features, probably derive from crested ridge tiles which were relatively thin-walled and V-shaped in profile rather than curved. Ridge tiles of this form were made at Donyatt from at least the 14th century (Coleman-Smith and Pearson 1988, figs 167–8), and this is the most likely source for the Bridgwater tiles. The decorated floor-tiles (Fig. 7) form a small but significant addition to the known tiles from Somerset, and are discussed with the plain floor-tiles separately (see Appendix).

Apart from a single small fragment of marble, the stone building material falls into four main

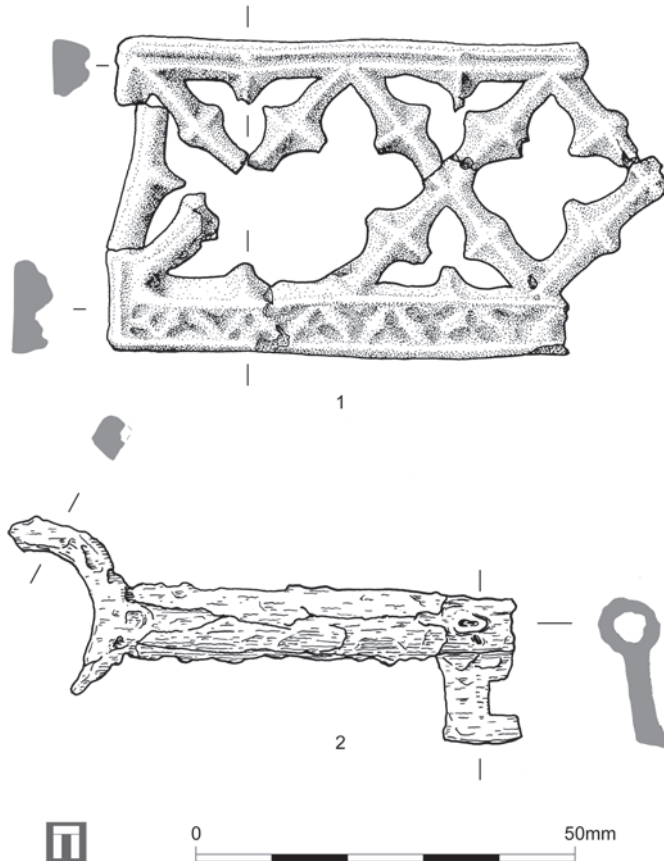


Fig. 3 Medieval finds: 1 Lead panel, possibly a casket mount; 2 Broken iron key

categories: fragments of Ham Stone (originating from the Ham Hill quarries), including one cylindrical column section, one squared ashlar and one chamfered fragment with a square perforation; fragments of Pennant sandstone, including recognisable roof tiles with nail holes; fragments of blue lias limestone; and fragments of roofing slates. All this material is likely to derive from the friary structures, suggesting they conformed to the local medieval stone-building traditions.

Four small fragments of window glass are also likely to derive from the friary. All are in poor condition and oxidised to varying degrees; one fragment has grozed edges and two fragments are painted. A few lead came fragments were also recovered, as well as a small openwork lead panel (Fig. 3, no. 1), possibly a casket mount to be compared with a late medieval or early 16th-century example from Salisbury (Egan 2001, fig. 8, no. 195). A broken iron key (Fig. 3, no. 2) from a topsoil context has a hollow stem and rolled-in bit, characteristic of medieval keys (Goodall 1993a, 159).

Very little medieval pottery is present amongst the assemblage (31 sherds). Some at least of these are likely to originate from the medieval kilns (13th/14th century) at Donyatt. Alongside these are three fineware types: Ham Green ware (13th century), 'Tudor Green' ware (14th/15th century), and a fine, white, green-glazed ware of unknown source (13th century). The early post-medieval assemblage is augmented by a few sherds of early German stonewares – single examples of Langerwehe and Raeren vessels (late 15th/16th century), and one Cologne/Frechen jug with an illiterate relief-stamped motto (later 16th century; Fig. 5, no. 4). All of these sherds occurred residually in later contexts.

A single human bone (proximal femur from an adult male), found amongst demolition rubble in Civil War ditch 285 (below), could represent a disturbed burial from the friary, although the location of the cemetery remains unknown. No animal bone was recovered from medieval deposits.

POST-MEDIEVAL

Robbing of friary walls

No precise date is available for the robbing of the stonework of the friary walls. It must have occurred between the Dissolution and the mid 17th century.

Structure 7 ? Civil War defences

A large ditch (285) crossed the site from north-east to south-west (Fig. 4), cutting through several of the robber trenches described above. The feature was 3m to 4.5m wide and 2.1m deep, with vertical sides and a flat base. It was not quite parallel to Durleigh Brook, being only 8m from it in the north-east and diverging somewhat to the south-west. The feature extended beyond the limits of excavation to the north and south. Its fills were rich in lime mortar and small fragments of stone, presumably derived from the demolition and robbing of medieval buildings. Artefactual evidence recovered from the feature suggests a date no earlier than the mid 17th century (below). An extension of this feature to the east (294) was 'U'-shaped in plan. Its fill of rubble and loose mortar was excavated to a depth of 1.2m and augered to a further 0.8m.

Given their character, date and location, it appears most likely that these features represent a Civil War entrenchment, supplemented by outworks, possibly gun emplacements. A similar feature, possibly part of the same defence, appears to have been recorded in excavations to the north-east (Fig. 4, and see Ellis 1985, 71). It would have presented a formidable barrier to an attacking force after scaling the west bank of the Durleigh Brook. The eastern extension (294) may have been an outwork providing enfilading fire, positioned to overlook the Durleigh Brook and the floodplain to the south.

In the extreme west of site, the edge of a large pit-like feature (131) was identified. It was not fully exposed but had dimensions greater than 6m by 2.5m with an augered depth in excess of 2m. Although not fully excavated, its position and visible dimensions, along with finds collected from its upper fills, suggest it is likely to represent another Civil War outwork similar to 294.

Several other features to the west of ditch 285 are interpreted as the remnants of a shallow, irregular ditch (286). The feature contained large amounts of ashy material, possibly derived from coal, but its function remains unknown. All the recovered artefacts were post-medieval in date and a connection with the Civil War period is probable.

Post-medieval finds by Lorraine Mephram

Much of the recovered pottery, animal bone, glass, and metalwork is demonstrably refuse of post-Dissolution origin, relating to late 16th-century and

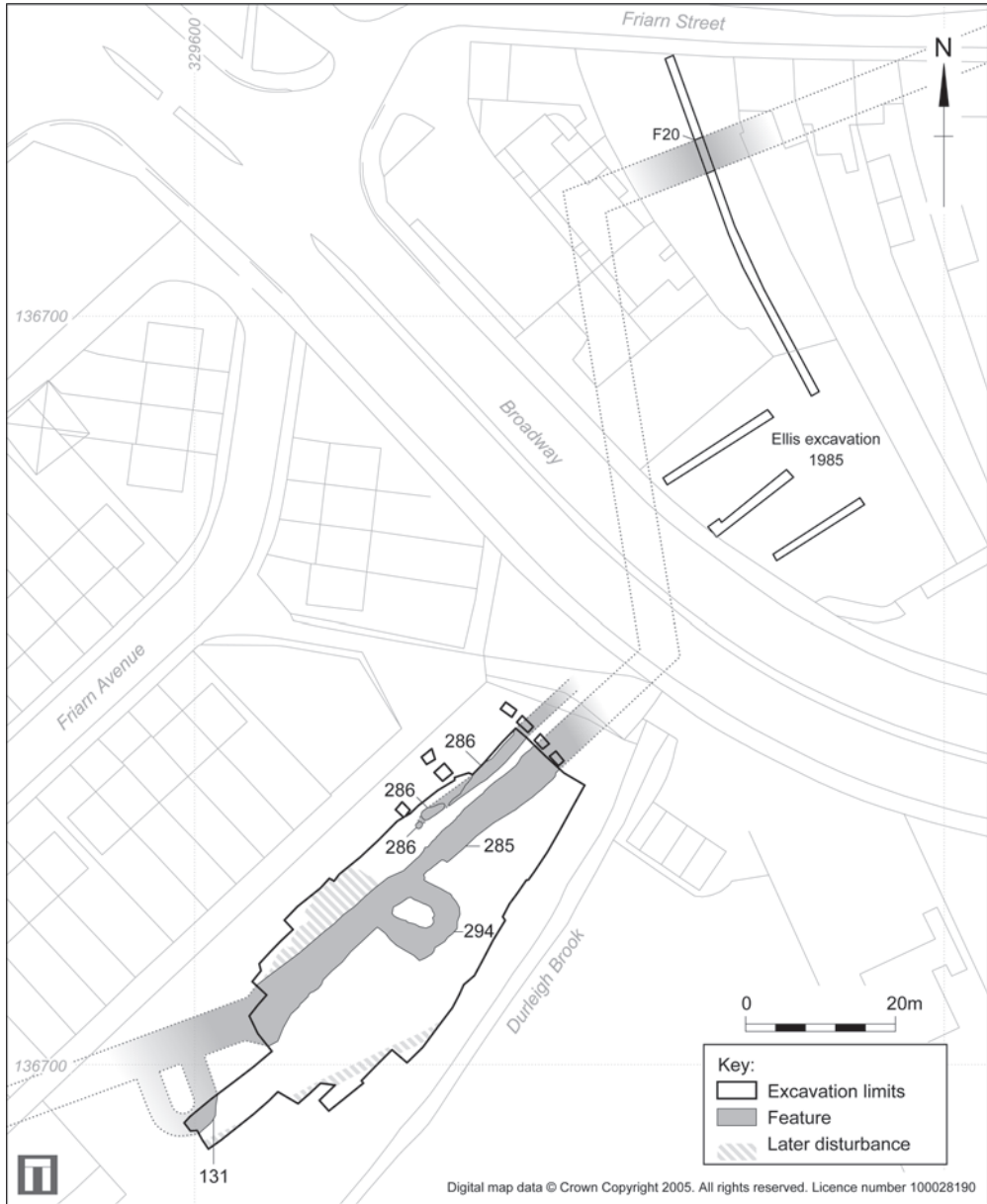


Fig. 4 Plan of the excavated post-medieval features, also showing the feature F20 recorded on Friarn Street and a conjectured reconstruction of the route of the Civil War defences

later activity in the area. A handful of pottery sherds has been more confidently identified as early post-medieval (16th century) Donyatt types on the basis of surface finish and decoration (white-slipped and green-glazed, with sgraffito combing). Much of the

pottery assemblage, however, consists of coarse redwares (including slipwares and sgraffito wares) which can rarely be definitively dated, and cannot therefore be placed confidently either within a pre or post-Civil War date range (16th–18th century).

As with the medieval wares, the source for much of these redwares is likely to be the Donyatt industry, but other sources such as Nether Stowey, Wrangway and Wanstrow are probably also represented. The post-medieval assemblage also includes German stonewares, from the Cologne or Frechen industries, broadly dated as 16th/17th century (Fig. 5, no. 4).

From ditch 285 came the base of a cylindrical glass beaker (Fig. 5, no. 5) with thin-cut trailing and applied, rigaree-decorated base-ring, of late 16th to mid 17th-century date (Willmott 2002, type 1.10, 41). The remaining glass fragments comprise post-medieval (1650+) bottle and jar fragments. A small, bone-handled, whittle-tang iron knife (Fig. 5, no. 3) from possible outwork 294 is no earlier than mid 16th century (Goodall 1993b, 130, fig. 96, no. 867). Of the 14 clay pipe fragments recovered, only one is datable – a bowl fragment with a heel stamp of John Hunt from a topsoil context. At least three pipe

makers of this name were working in Bristol in the later 17th century, and stamped pipes with this name are found widely across the south-west (Atkinson 1965, 90).

The only items which can be attributed with any degree of certainty to Civil War activity on the site comprise seven lead musket balls, at least two of which are misshapen through impact. Five came from the upper fill of defensive ditch 285.

Animal bone by Stephanie Knight

The post-medieval features produced an interesting animal bone assemblage, described fully in the archive report (Knight 2004). Only the main conclusions are presented here. All of the animal bone was recovered from the main defensive features (131, 285 and 286), the majority from the largest (Table 1). As the assemblage comes from secondary backfilling of the features it can only be loosely

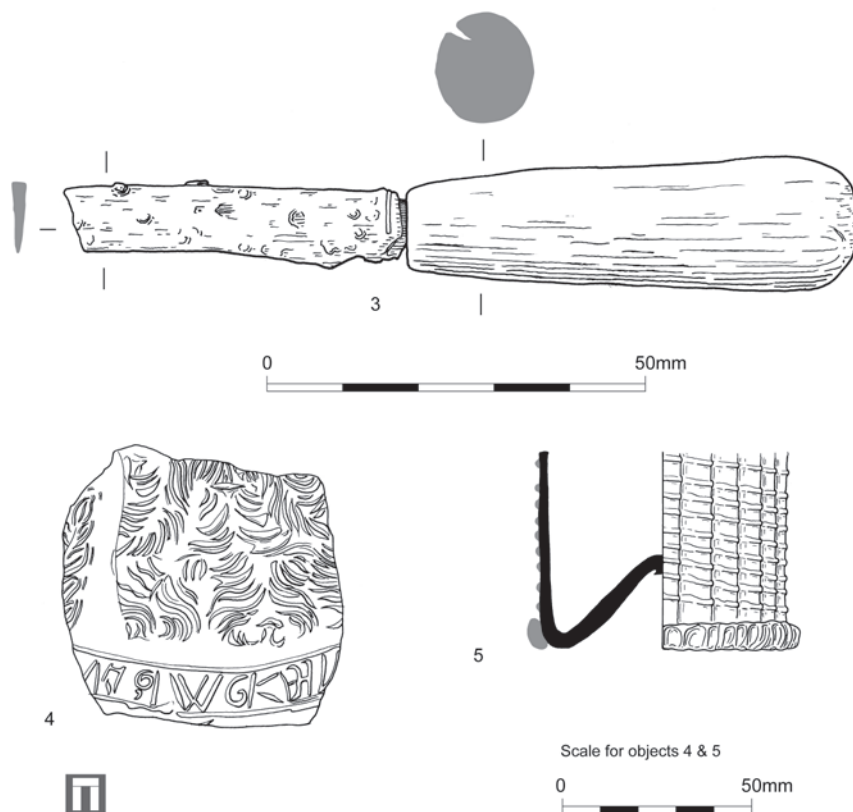


Fig. 5 Post-medieval finds: 3. Bone-handled knife; 4. 16th/17th century German stoneware vessel with illiterate motto; 5. Late 16th to mid 17th-century glass beaker

TABLE 1: SPECIES LIST AND NUMBERS OF IDENTIFIED SPECIMENS

Species	?Bastion 131	Ditch 285	Ditch 286	All features
Horse		1		1
Cattle	3	64	33	100
Pig		18	2	20
Sheep/goat	2	39	5	46
Sheep		6		6
Fallow deer		1		1
Rabbit		1		1
Domestic fowl		2		2
Mallard		1		1
Bird (indet.)		1		1
Fish			1	1
Large mammal		39	2	41
Medium mammal		19	10	29
Small mammal		1		1
Unidentified	11	13	19	43
Grand Total	16	206	72	294

connected with the possible Civil War milieu suggested above.

In ditch 286, periosteal bone growth, symptomatic of infection, was noted on five cattle forelimb and thoracic bones, perhaps indicating the slaughter and consumption of an animal in poor health. In other respects, the assemblage was similar to that from the defensive ditch 285.

Defensive ditch 285 contained both the greatest number ($n = 206$) and variety (8 species) of animal bone remains. The number of unidentified fragments was very low at just 6%, and average completeness relatively high at 40%. This indicates that, although they were frequently broken or chopped through (13% bore marks from this activity, presumably for marrow extraction), bones were not targeted for further intensive processing to extract grease etc. They were also not normally trampled or exposed to scavengers; only three had been gnawed and just four loose teeth were present.

Of the main domesticates in all features, cattle bones predominate, with smaller proportions of sheep/goat (but no positive identifications of goat), pig and domestic fowl bones. Data relating to size and age at slaughter are available in the archive (Knight 2004). The animals killed prior to maturity include diseased individual(s) which may have been weak and of limited use for secondary products such as milk or traction, and were therefore culled for food. Six specimens show the same evidence of disease in the form of periostitis as was seen in ditch

286, although not limited to cattle bones but also found on sheep/goat and pig.

Wild resources were also exploited and include mallard, rabbit and fallow deer. As single bones of each of these species were found the likelihood is that the carcasses were dismembered and, while it is possible that they are residual, their good condition and relative completeness argue otherwise. It is more probable that they are food remains from fortuitous trapping or small-scale hunting activity, and the other parts of the carcasses have been deposited elsewhere.

Butchery marks were observed on 53 bones (26%), a relatively high number. Almost all had resulted from portioning the carcass or splitting bones with a heavy-bladed implement and it is clear that cattle and sheep/goats were split longitudinally down the spine to halve the carcass. Specific 'joints' of meat can be proposed from the remains, particularly for cattle: the proximal radius and ulna, chopped through midshaft, were commonly found, and as there is evidence for disarticulation at the distal humerus/proximal radius, this part may form a particular, not especially high value joint. Similarly chops through the proximal and midshaft of the femur indicate that the meat on this upper part of the hind leg also formed a standard 'cut' of meat. Large numbers of proximal tibiae, with no evidence of disarticulation at the proximal articulation, indicate that the distal femur and proximal tibia (the area around the 'knee') may have formed another joint. The bones that carry the largest proportion of meat, such as the pelvis and scapula, have in several cases been chopped through to divide the bone (and meat on the bone) into smaller portions, and the vertebrae and ribs also appear to have been chopped into chunks. Lower limbs were removed by chopping through the metapodials or at their base, and the head was removed at least in one case at the atlas. Bones may have been boiled up for soup to utilise the within-bone nutrients, and a chop on a cattle orbit, made from the inside of the skull presumably after it had been split open, suggests the extraction of the brain for consumption or the chopping of the skull into pieces for the pot (or both). Primary butchery waste is absent. The bones recovered probably result from purely consumption activity, probably of already butchered and portioned parts brought onto site.

One horse femur bore sharp cut marks from filleting after removal of the lower leg by chopping through the distal articulation, indicating that horse meat was eaten, although perhaps not in large quantities (only one positive identification of horse was made). The consumption of horseflesh was

prohibited by papal decree in the medieval period (Fiddes 1991), and authors such as Davis (2002, 55) find no documentary evidence for human consumption of horse meat in later English texts; indeed one from 1633 recommends feeding horseflesh to dogs. The meat may have been deliberately removed from a dead horse to feed dogs and filleting of meat from the bone would not have been necessary. However, it may be that in certain cases, especially when food was scarce, any social taboos against human consumption of certain foods were temporarily waived and this has applied historically in various war or siege conditions (Wilson and Edwards 1993, 51). It may be significant that, with the exception of horse, no bones from species generally regarded as non-food (for example cats, mustelids or, in some periods, dogs) are present.

The predominance of food species and meat or marrow-bearing parts of the carcass suggest that the bones were mainly waste from consumption (rather than butchery or industry). The bones were probably brought onto site as part of prepared meat joints and do not seem to have served any purpose except to provide food; after the easily available resources were consumed, the bones appear to have been rapidly deposited. Pigs seem to have been bred specifically for meat, while sheep/goats were more likely to have been kept for their secondary products, only killed when necessary or at the end of their useful life. Similarly, cattle may have been kept for meat and milk and, to a lesser extent, traction. Although young bones could indicate veal consumption, it is equally likely that they resulted from natural fatalities, and the majority of the cattle bones recovered here may have been from weak, perhaps ailing animals which were more use as food. Alternatively, poor conditions could have resulted in general illness in the stock or rapid transmission of disease. The tentative evidence for human consumption of horse flesh and the exploitation of a range of wild species might imply food scarcity or rationing, leading to the consumption of less usual meats, and the consumption of diseased individuals contributes to this interpretation. Hardship was inflicted on the people of Somerset by armies of both sides during the Civil War and it is likely that there would have been repeated food shortages during the mid 17th century (Underdown 1999).

In common with post-medieval assemblages in Taunton, cattle then sheep/goat bones predominate (Levitan 1984), but the wide date range and generally small size of the assemblages (L. Higbee, pers. comm.) prohibits more detailed comparison.

DISCUSSION

Bridgwater Greyfriars

The friary precinct was bounded to the north-east by the town ditch, to the south-east by Durleigh Brook and to the north-west by a forerunner of Albert Street or the rear of properties on its southern side; the south-western boundary is unknown (Aston and Leech 1977; Ellis 1985) and was not exposed during the investigations. Documentary evidence suggests a gate in the northern corner of the precinct, accessed from Friarn Street, and possibly a second entrance to the church ('properties on a road from the West Gate of the town to the Church of the Friars Minor', Ellis 1985, 72). The geographical constraints of the site dictated the layout of buildings within a roughly rectangular plot of land, aligned north-east to south-west or north-west to south-east. Local medieval topography and the favoured interpretation of the recorded foundations is given in Fig. 6, although the constraints of limited excavation and survival means that any interpretation is at best tentative.

Critical to any understanding of the layout of the friary buildings is the interpretation of the largest feature recorded on the site – Building 1. It measured more than 20m long and with an internal width of 7.5m (or over 19m including the additional rooms). It appears to have had an undercroft or vault, although this feature was not securely dated during the excavations, whilst its floor(s) were probably laid with both plain and decorated tiles. Building 1 is tentatively interpreted here as the presbytery of the church; its width being in broad agreement with the 7.3m (24ft) width of the main body of the nave (excluding aisles) provided by William of Worcester (Martin 1937, 215). However, Martin also suggested the presbytery was aisled, no evidence for which was recorded in Building 1, and it is possible that Building 1 represents an ancillary structure, with the church located closer to the town, represented by the aisled Structure 1 (Fig. 2).

Building 2 (incorporating Structure 3) and its associated tiled floor may relate to buildings such as the chapter-house projecting from the east walk of the main cloister in the area excavated by Martin. However, the foundations were shallow and without buttresses and are therefore difficult to reconcile with the two-storied claustral range usual to friaries (Martin 1937, 30), although this poor survival can be attributed to later truncation. Between the suggested presbytery Building 1 and Building 2, Structure 6 was a 12m wide walled space, interpreted

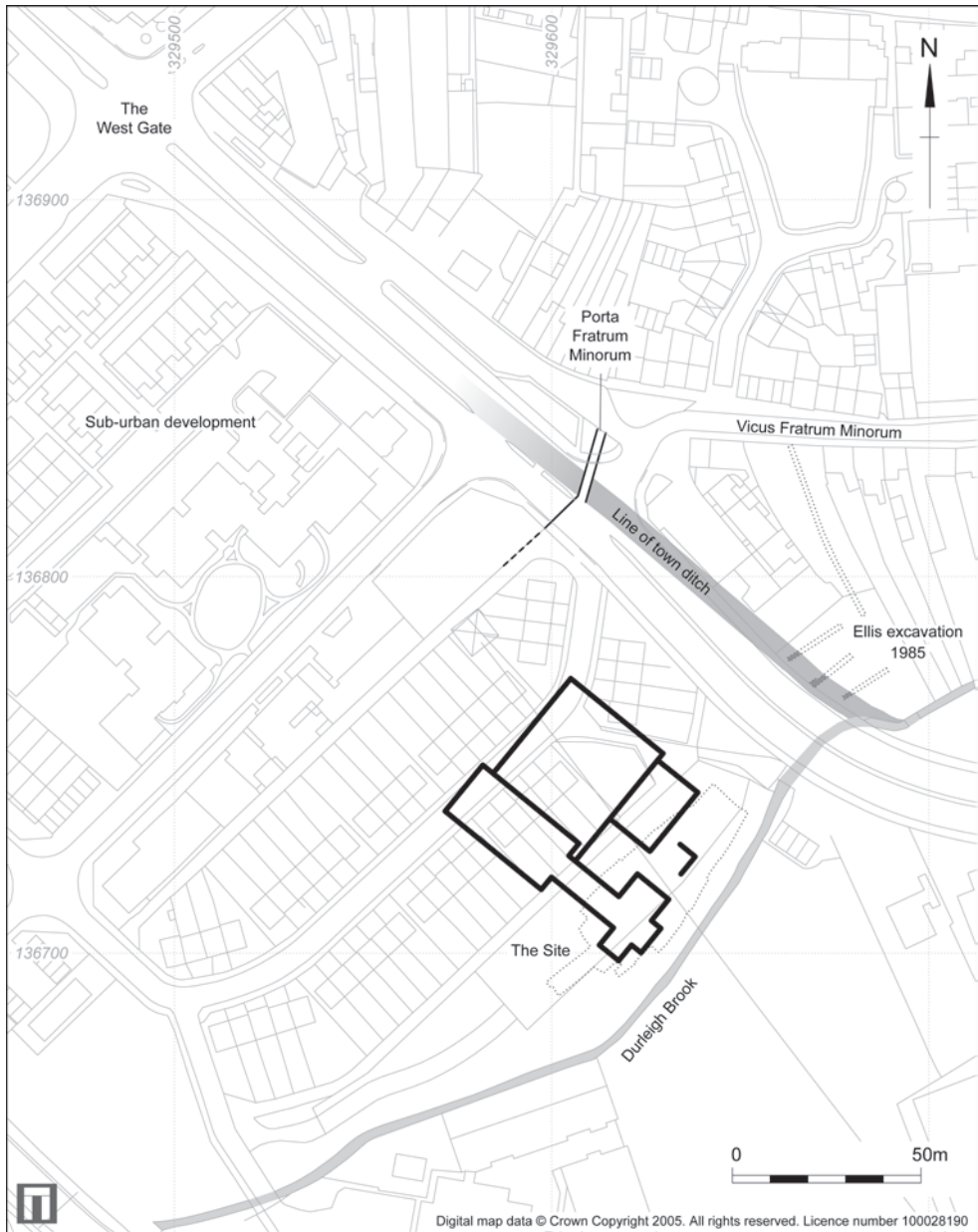


Fig. 6 Local medieval topography (after Ellis 1985, fig. 3) and a possible reconstruction of the friary

as an open court, a common feature of houses of mendicant orders, positioned to allow extra light into the church (*ibid.*, 29). Structure 5 could be a part of an ancillary building leading off the east walk of the cloister south of the chapter-house. The apparent position of the cloister in this interpretation on the

less secluded side of the precinct, facing the town is unusual, but was perhaps necessitated by site location, particularly water supply and drainage.

Other interpretations of the layout of the complex are certainly possible, but fuller understanding is unlikely to be resolved without further fieldwork. A

complicating factor should be acknowledged; that the church is documented to have been rebuilt in the 15th century (Martin 1937, 213). As discussed above, it is possible that Structure 1, the aisled building described during groundworks in the 1920s or 30s, was the church. It would thus be located closer to the entrance of the precinct, as was usual (*ibid.*, 29) and the main cloister would lie to the south-west of the church. One objection to this would be that the 2.4m (8ft) distance between the external wall and arcading would not be in agreement with Martin's interpretation of the measurements of William of Worcester as 4.25m (14ft). The excavated buildings and structures discussed here would then be interpreted as parts of the west and south claustral ranges and associated service buildings. The inventory lists chambers, a frater, kitchen and buttery (*ibid.*, 213). Within Building 1, the 'vault' could have been a cellar for storing food, or, given the proximity to the Durlough Brook, connected with the friary's water supply. The feature was surrounded by natural deposits, so it unlikely to relate to drainage, and it is assumed that arrangements for foul drainage lay to the north, further downstream. The *ex situ* plain and decorated floor-tiles were not necessarily in use in this part of the friary, or may have been reused from another building. Other building in the vicinity, such as the refectory or chapter house, may have had a floor decorated with heraldic tiles.

Civil War defences

Following the Dissolution the site of the former friary exchanged hands on several occasions and the 'site of the mansion house called le Grey Fryers' was mentioned in 1571 (Ellis 1985, 72) suggesting that at least some of the friary buildings had been converted for domestic use and were still inhabited. The date of the robbing of the excavated medieval walls has not been determined, although some had clearly predated the defensive features discussed here.

The largest defensive feature ran roughly parallel to Durlough Brook. A 4.5m wide vertical-sided cut (F20) on a similar alignment was recorded *c.* 60m to the north-east in the 1980s (Ellis 1985, 71); it was sealed by a layer deposited no earlier than the 18th century, and the similarity in date, size and shape strongly suggests that this was part of the same scheme. It is likely that this substantial trench formed part of Bridgwater's defensive earthworks of the Civil War when it is recorded that a 5.5m (6yd) wide ditch, which filled with water at high tide, was dug around the town (Green 1878, 16). In combination

with the already extant Durlough Brook a defensive feature of this type, and in this position, would form a useful outlier, supplying flanking fire to attacking forces on the floodplain whilst defenders could utilise the rise in ground level to the north-west. It is possible that the excavated soil was moved to reinforce more central defences as at Gloucester, where soil dug from defensive ditches was used to line walls to a thickness of *c.* 1.5m and gate towers were filled with soil to deaden cannon shot (Atkins and Howes 1993); the backfill of defensive features 285 and 294 contained little soil. The western side of Bridgwater was probably the most vulnerable, as the relatively flat land surrounding the rest of the town was probably susceptible to flooding, and only crossable along easily defended roads. The associated U-shaped extension (294) (and possibly a similar feature 131) of the main trench (285) is assumed to have been a bastion, possibly also a gun emplacement.

The animal bone evidence that horse and diseased cattle may have been eaten, and that many of the joints of meat were small or contained little meat (Knight, above) seems to contradict the documentary sources. After retreating, Lord Goring had left 260 oxen in the town and during the siege captured prisoners were quoted as saying 'that provisions were plentiful, with only mills lacking to grind corn'; this does not seem to have been 'spin' as, when the garrison surrendered, there were 600 oxen and provisions for four months (Green 1878). However, the town was well defended being surrounded by a wide and deep ditch, centred on a castle with 4.6m (15ft) thick walls and over 40 pieces of ordnance. Further fortifications were raised, especially on the Eastover side, and there were works at the east end of St John's field and between there and Dunwear, while between the north and west gates was a battery defending both. The defenders perhaps believed that the town could not be stormed and had reduced rations in anticipation of a lengthy siege. In the event the siege lasted less than two weeks.

It seems that the defences constructed through Friar Meadows were successful and were not carried by assault. In the first days of the siege Major-General Massey had camped to the south-west, near Petherton, setting up a battery on adjacent high ground 'to annoy' the town, and on 14 July his men, augmented by two other regiments, attacked while three further regiments assaulted the north side. Despite having scaling ladders and brush faggots it was found that the ditch was uncrossable and the northern regiments stopped their action following

intercessions from Massey's quarters, suggesting that the defences in the south repulsed their attack (Green 1878). The second assault on 21 July was in the north-east of the town with only a diversionary attack by Massey and his men in the south. Presumably during one, or both, of these assaults the recovered musket balls were fired.

The large amount of robber rubble-like material back-filling the Civil War features seems to imply that substantial friary remains, possibly incorporated or adapted as dwellings, had survived to the mid 17th century. Whether they were cleared before the siege, or were destroyed by fire during the attack is uncertain; the large amount of burnt material in ditch 286 might imply the latter.

The siege of Bridgwater was a bitterly contested action during which 120 of the 400 houses in the town were destroyed, the royal castle surrendered, over 100 officers and 1000 soldiers were captured, as were many cannon and small arms; the city of Bath was so demoralised that a week later it surrendered to a party of horse and dragoons of Fairfax's army. A side effect may have been the destruction of the last upstanding remains of Bridgwater friary.

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APPENDIX: THE MEDIEVAL FLOOR-TILES

Laurence Keen, with fabric descriptions by Lorraine Mephram

The excavations recovered 99 pieces of floor-tile, both plain and decorated. Unfortunately no tiles were found *in situ*. Seven fabrics have been identified on the basis of the clay matrix and visible inclusions, using a binocular microscope at x10 magnification: Fabric 1. Fine, dense, micaceous clay matrix with few visible inclusions; rare shale/mudstone and ?iron compounds; oxidised throughout.

Fabric 2. Fine sandy clay matrix (quartz <0.125mm) with moderate subrounded quartz, iron-stained (white/clear/pink) <0.5mm; oxidised throughout.

Fabric 3. Fine, dense clay matrix, slightly micaceous, with sparse, subrounded quartz, iron-stained (white/clear/pink) <0.5mm; rare ?iron compounds; oxidised throughout.

Fabric 4. Fine, sandy clay matrix (quartz <0.125mm) with rare ?clay pellets; oxidised with reduced core.

Fabric 5. Fine sandy clay matrix (quartz <0.125mm) with few other visible inclusions; oxidised, sometimes with reduced core.

Fabric 6. As fabric 2, but quartz is subrounded and not iron-stained (white/grey/clear); oxidised throughout.

Fabric 7. Fine, sandy clay matrix (quartz <0.125mm), very hard-fired; sparse subangular quartz (white/grey/clear) <0.5mm; oxidised throughout to dark brick red.

Six groups of tiles (Groups A–E) may be suggested on the basis of fabric, form and decoration.

Group A

The majority of the tiles excavated are in Fabric 1, with 13 decorated examples, some with enough

decoration surviving for the designs to be drawn, others with only a trace of the inlay surviving, insufficient for the design to be established. All of these may be assigned to this group.

There is a significant number of plain tiles. Where these survive sufficiently for the shape to be determined two shapes can be established: rectangles averaging between 137–140mm by 40–46mm, and squares with sides of 45 to 51mm. They have a fairly consistent thickness of between 20 and 25mm with plain backs. Where glaze survives on the rectangular tiles this is generally a green to dark olive. But six square tiles have been slipped and then glazed, so that they appear as yellow, as no doubt were the others where the surface has been worn away. The 23 rectangular tiles have been broken from larger tiles, scored before firing by two knife cuts into three units. The square tiles have also been broken from larger tiles, divided into nine units by knife cuts before firing. One square tile (Fig. 7, no. 1) is also white slipped and glazed, but it is uncertain if this is a ninth part of a larger tile or has been individually made: this would be unusual but not exceptional.

The decorated tiles (Fig. 7, nos 1–7) vary in thickness from 18 to 24mm. The more complete examples show that they had four shallow, conical keys on the back and, like the plain tiles, a slight bevel on the outer edges. The decoration has been achieved by filling the stamped design with a white slip inlay, which is usually 0.5–1mm thick.

This group is well represented in Somerset, Dorset and Gloucestershire. In Somerset, designs 1 and 4 have been recorded from Bridgwater, and these designs along with designs 2 and 7, have been noted from a large number of sites in Somerset (Lowe 2003, designs 150, 186, 342 and 404). Designs 2, 4 and 7 occur at Cleeve Abbey, where design 7 is found in the frater pavement (Harcourt 2000, design 43). At Wells Cathedral, design 1 is found in situ in the pavement of the Corpus Christi chapel (Rodwell 2001, fig. 465, design 65) and a variant of design 2, and designs 4 and 7 are also represented among the cathedral's excavated material (*ibid.*, designs 59, 52a and 50 respectively). In Dorset, design 1 is found at Sherborne Abbey (Keen and Ellis 2005, design 36), as is design 2 (*ibid.*, design 40). Design 4 is found there (Emden 1977, design 63) and also with the corner trefoil (as drawn in Fig. 7, no. 4 here in outline) (Keen and Ellis 2005, design 45). The other Somerset, Dorset and Gloucestershire sites are listed in Table 2. No parallels have been found for designs 3, 5 and 6.

The plain tiles of this group are particularly interesting, since the rectangular tiles (one-third of a full-sized quarry) and the white-slipped square tiles (one-ninth of a complete quarry) suggest a possible layout of the pavement as it was originally laid. Most probably, the decorated tiles were laid in groups of four, surrounded by a frame of plain dark glazed tiles laid against the sides of the decorated tiles, with white-slipped tiles in each corner. Such an arrangement occurs in the frater pavement at Cleeve Abbey, Somerset (Harcourt 2000, fig. 7). Here at Bridgwater groups of four, rather than a larger layout of nine or 16 decorated tiles is implied by design 2, which works properly only if arranged in groups of four. The lack of triangular plain tiles need not necessarily imply that the pavement from which the tiles came, was not laid at 45° to the walls of the space in which they were laid, since design 3 is a full tile scored before firing to form two triangles. This suggests that this tile was laid in a pavement arranged with an axis of 45° to the main walls. It is possible, however, that some of the decorated tiles could have been laid in panels, with the plain rectangular tiles used as frames to the panels.

The dating and origin of this group is not without difficulty. The tiles clearly owe their inspiration to the so-called 'Wessex School', which, as Norton has shown, originated in Winchester in 1241–42, with the tilers producing pavements for Clarendon Palace in 1244 and 1250–52 (Norton 1983, 79–80). From this early Wessex origin the industry expanded to influence the production of many tiles in Hampshire, Wiltshire and Dorset, which are very similar in their technique and designs; notably, at Salisbury Cathedral, in the lost pavement of the chapter-house and in the surviving pavement in the Muniment Room, both probably dating to the 1260s (Norton 1996).

The westward spread of this Wessex-influenced industry is well demonstrated among tiles of this group from Sherborne, Dorset, and in many sites in Somerset, principally Glastonbury, Wells Cathedral and Cleeve Abbey. The sites have been mapped by Drury (2001, fig. 467) who confirms Eames' view that the presence of tile wasters on Glastonbury Tor (Eames 1970, 76) suggests that the tiles found on Glastonbury Tor were made in or around Glastonbury. A Glastonbury production centre is further suggested by the presence of vitrified fragments among a group of tile wasters from excavations at Silver Street, Glastonbury, although it is noted that the fabric of these is not paralleled at

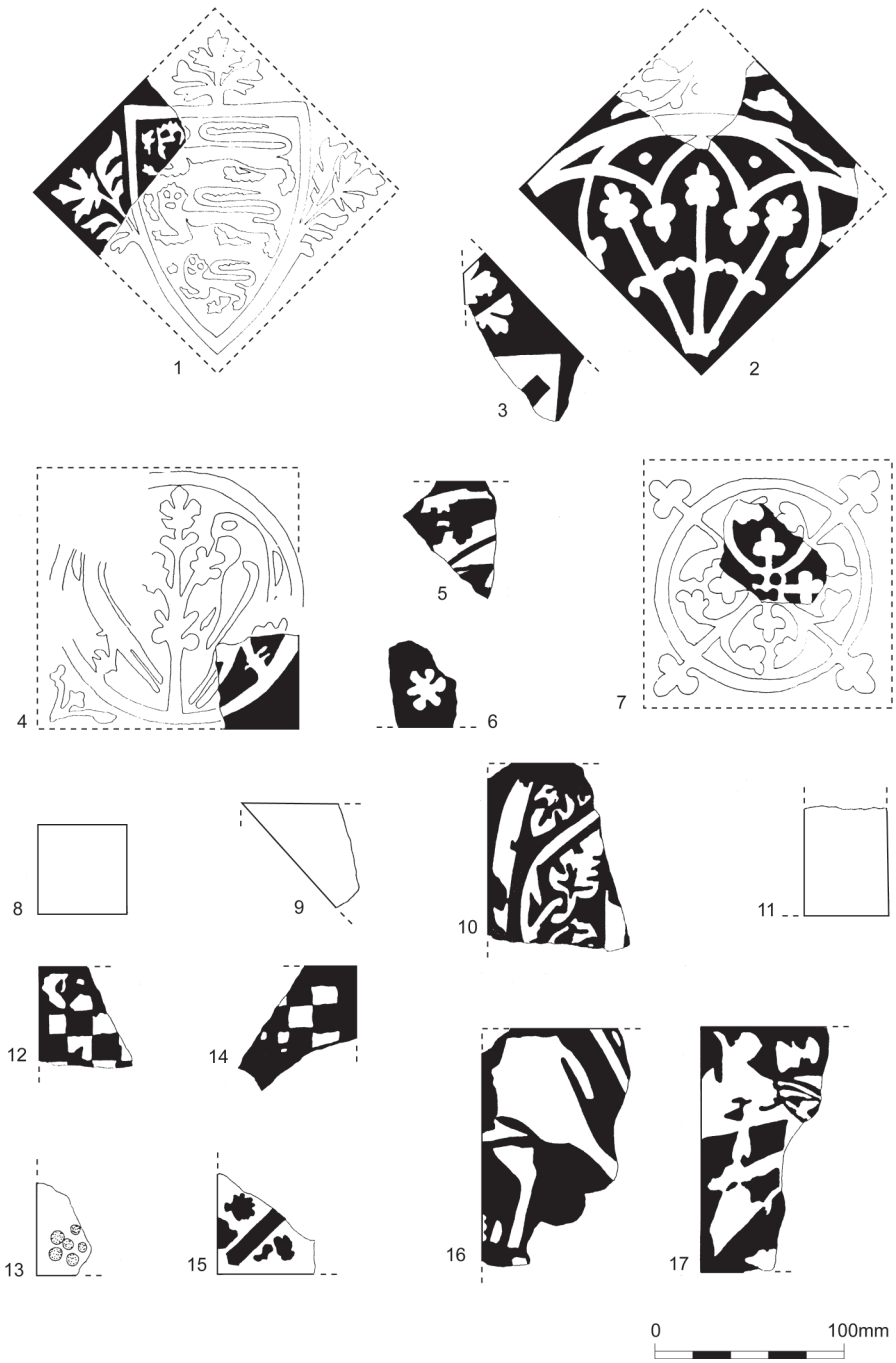


Fig. 7 Medieval floor-tiles

Glastonbury Tor, the Beckery Chapel, nor Wells Cathedral (Elias and Ellis 1982, 29). However, a Somerset origin seems likely. The distribution area extends beyond Somerset to include Blackfriars and St Bartholomew's Hospital, Gloucester. The Gloucester examples suggest that the tiles could have been transported from their Somerset production site to the coast, and then by boat up the Severn. This is surely confirmed by the presence of tiles of this group in south Wales, from such sites as Chepstow Castle, Llandaff Cathedral, Raglan Castle, White Castle and Tintern Abbey (Lewis 1999, group 9, 22–4). Lewis records that all 15 of the designs found in Wales are found at Glastonbury Abbey and that they share the same fabric and technical characteristics, indicating a common origin 'presumably somewhere in Somerset' (*ibid.*, 22).

In the dating of this group the frater pavement at Cleeve Abbey is of special significance. There, large tiles with the arms of England, de Clare and Cornwall have been considered to commemorate the marriage of Edmund, earl of Cornwall and Margaret de Clare, daughter of Richard de Clare, earl of Gloucester and Hertford, in 1272 (Ward Perkins 1942, 41–2; Harcourt 2000, 63). They were legally divorced or separated in February 1293/4 (Cockayne 1912, 433).

But the same large heraldic tiles are found at Blackfriars, Gloucester, together with other tiles decorated with the arms of Berkeley. The same designs are found at Wells Cathedral (Rodwell 2001, designs 69–71), along with a fragment of the same Berkeley arms (*ibid.*, design 72), which was not recognised in the publication. The presence of the Berkeley arms at Gloucester and Wells may suggest that this series of large heraldic tiles owes its origin to a commission somewhere in Gloucestershire, not for Cleeve Abbey. There appear to be no connections between the Crown, de Clare, the earls of Cornwall and the lords of Berkeley until about 1316, when Maurice Berkley married Isobel, daughter of Gilbert de Clare (Cockayne 1912). This is too late a date to have any relevance here. This series of tiles, therefore, probably derives, not from a commemorative commission, but as part of a decorative scheme illustrating patrons of a major church. Nevertheless, the Gloucestershire material may serve to demonstrate that, if the production centre were in Somerset, it was sufficiently well-known to attract commissions from some distance.

Design I is found, as have been noted above, at Wells Cathedral, in a panel in the Corpus Christi Chapel pavement. The pavement, on architectural and historical evidence was laid before the chapel's

dedication in 1328 (Rodwell 2001, 452; Drury 2001, 458–9), with Eames favouring the last decade of the 13th century (1981, 44). The presence of tiles of the large heraldic series in Bishop Burnell's great hall at Wells, apparently complete by the time of his death in 1292 (Rodwell 2001, 451; Drury 2001, 458) suggests, on the basis of wasters on Glastonbury Tor and the vitrified fragments among the Silver Street, Glastonbury, wasters, that a Glastonbury factory was established in the 1280s to supply Cleeve Abbey, and then the pavement in Bishop Burnell's great hall at Wells by, say 1290. If this dating is correct, it may imply, not that the production centre was still in operation in the 1320s to supply the Corpus Christi Chapel at Wells, which is a possibility, but that enough old stock was available to use in the chapel's pavement before its dedication in 1328.

Group B

This group is defined entirely because its clay body is in Fabric 2. Only seven pieces are represented. They are all plain and where glaze survives it is dark green to brown. The fragments are about 20–25mm thick with plain sandy backs. No complete tiles are present, so the sizes cannot be determined. There are two fragments of triangular tiles, scored and broken from large square quarries (Fig. 7, no. 9) and two largish pieces from square tiles. It is possible that these were used with tiles of Group A.

Group C

The tiles in this group are of fabric 3 and represent the second largest group with 21 fragments, of which three pieces have remains of decoration. The plain tiles are 20–25mm thick with plain backs. Where glaze survives it is predominantly dark green to brown. One of these is large enough to show that it is part of a rectangular tile 44mm wide and 56mm long (Fig. 7, no. 11), showing that it comes from a large tile about 135mm square, scored into three parts by two knife cuts before firing: the knife cut visible here is from 6 to 8mm deep. There is one fragment of a triangular tile with a maximum side length of 128 mm. Among the other plain fragments there are two, lead-glazed over a white slip. One has sides of 60 and 61mm, broken along score lines from tiles about 125mm square, which had been divided into quarters.

Only one of the decorated tiles is large enough for the design to be drawn (Fig. 7, no. 10). It is 28mm thick with a slight bevel and a plain sandy back. The

TABLE 2: GROUP A TILE DESIGNS FROM SOMERSET, DORSET AND GLOUCESTERSHIRE SITES

Group A parallels	Somerset	Dorset	Gloucestershire
Design 1	Bleadon Church, Athelney Abbey Bath Abbey, Bridgwater Friary, Glastonbury Abbey, Muchelney Abbey, Stoke-sub- Hamdon, Tintinhull, Wedmore (Lowe 2003, design 404), Wells Cathedral (Rodwell 2001, design 65	Sherborne Abbey (Keen and Ellis 2005, design 40), Glanville's Wootton (Emden 1977, design 149)	
Design 2	Worspring Priory, Glastonbury Abbey. and Chaplain's house, Muchelney, Watchet St Decumen's, Shapwick are not exact parallels (Lowe 2003, design 342), Cleeve Abbey (Harcourt 2000, design 54), Wells Cathedral is not exact parallel (Rodwell 2001, design 59)	Sherborne Abbey (Keen and Ellis 2005, design 40). Emden 1977, design 199 is not an exact parallel	Blackfriars and St Bartholomew's Hospital, Gloucester
Design 3			
Design 4	Stoke-sub-Hamdon, Bleadon Church, Glastonbury: Glastonbury Abbey, Chaplain's house, Watchet St Decumen's, Wedmore, Woolavington Grange, Bridgwater, Ilchester (Lowe 2003, design 150), Glastonbury: Beckery Chapel (Eames 1974, design 14), St John's church Ellis 1982, fig.4.1), Tor (Eames 1970, fig.32.6), Cleeve Abbey (Harcourt 2000, design 44), Wells Cathedral (Rodwell 2002 design 52a)	Sherborne Abbey (Emden 1977, design 63)	Blackfriars, Gloucester
Design 5			
Design 6			
Design 7	Glastonbury Abbey, Athelney Abbey, Donyatt Chapel Farm, Chaplain's house, Glastonbury, Ilchester (Lowe 2003, design 186), Wells Cathedral (Rodwell 2001, design 50), Cleeve Abbey (Harcourt 2000, design 43), Beckery Chapel, Glastonbury (Eames 1974, design 11)		St Bartholomew's Hospital, Gloucester

inlay is quite shallow. No parallel for the design has been found.

Group D

Fabric 4 identifies this group, which has only three fragments, one of which has inlaid decoration (Fig. 7, no. 12). This is 20mm thick with a plain back. It

is too small for a precise parallel to be suggested. One of the plain fragments has a clear lead glaze over a white slip.

Group E

This group is defined by four tiles being in Fabric 5. All have remains of decoration and three have

enough to be drawn. They are rather thin at 18–20 mm, with plain backs (Fig. 7, nos 13–15), and too small for parallels to be suggested. Number 15 is probably the corner of a design found at Stogursey, Somerset (Lowe 2003, design 212). Number 13 is of interest since the stamped design (1mm deep) has not been filled with inlay. The single fragment in Fabric 6 is too small for special comment or for another group to be designated.

Group F

There are seven tiles in this group, made in Fabric 7. Five are plain and two decorated. The plain fragments are 25mm thick. One is a small square with sides of 63 and 65mm, and two come from triangular tiles, all with worn surfaces. These derive from tiles *c.* 130mm square. This is the dimension of no. 17 (Fig. 7), about 28mm thick with a flat sandy back and badly fired. Number 16 (Fig. 7) is slightly thinner at 23mm and the tile also has a flat sandy back and is also badly fired: it was probably the same size as no. 17, *i.e.* *c.* 130mm square. The design of no. 17 is too badly executed for the design to be paralleled, but it may have been heraldic. Number 16 is of special interest since it is clearly the hind-quarters of a horse, apparently within part of a circular frame. If this is so, it must surely be part of a nine-tile design for the horse to be complete. This would be unusual. No parallel has been identified.

Conclusion

This small collection is a valuable addition to the tiles previously recorded from Bridgwater Friary (Lowe 2003, 135, 138). The predominance of Group A is not surprising, since, as has been shown, the group is particularly well represented in Somerset. The other groups are of special interest because they add designs, apparently without known parallels, in different fabrics, suggesting that the medieval tile industry in Somerset is as complicated to understand as most other areas of the country. Group F, at present, stands out because of the possibility of the nine-tile design (Fig. 7, no. 16) which is probably 14th-century in date. In due course further excavations may reveal more information and suggest a likely production source.

For all of the groups, the plain tiles allow suggestions to be made about the layout of the pavements in which they were laid and demonstrates that, although there is a natural tendency for emphasis to be given to decorated tiles, it is important

that plain tiles should be available for specialist study.

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