

EXCAVATIONS AT
THE COMMANDERY,
WORCESTER, 2005-6

Darren Miller, Angus Crawford and Hal Dalwood

With contributions by Laura Griffin, Georgina McHugh, and Shona Robson-Glyde

Illustrations by Laura Templeton, Carolyn Hunt and Steve Rigby

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Historic Environment and Archaeology Service,
Worcestershire County Council,
Woodbury,

University of Worcester,
Henwick Grove,
Worcester WR2 6AJ



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Summary

This report describes the results of excavations at one of Worcester's most famous historic properties. The Commandery was a hospital in the medieval period and became a house after the Dissolution. It was used as the headquarters by the Royal army during the Battle of Worcester in 1651 and was substantially rebuilt some 50 years later. In the 18th and 19th centuries the Commandery was divided between several tenants who adapted the buildings to various purposes. Since the 1970s, the Commandery has been a museum run by the Museums Service of Worcester City Council.

The excavations formed part of a wider project to refurbish and promote the museum. The main excavations were undertaken by local volunteers, supervised by staff from the Service. Other excavations and some building recording were undertaken during the refurbishment.

The results of this work are described below, after a brief review of previous research. In summary, the excavations produced important new evidence relating to the medieval hospital, and to later buildings and garden features. In particular, the excavations exposed parts of eight medieval buildings, including the east end of the hospital chapel, and the corner of a possible hall. From this evidence, and other evidence considered below, it seems that the hospital was partly rebuilt in the 14th century, and almost completely rebuilt in the late 1470s. Later discoveries included parts of three unmapped buildings, a garden path, and an ornamental water feature. The excavations also produced a wide range of artefacts, including decorated medieval floor tiles and fragments of medieval windows or arcades.

Detailed report

1. Background

1.1 Introduction

The Commandery comprises buildings and land on the north side of Sidbury, outside Worcester city centre (Fig 1). It is well known as a museum of the Civil War, and as the headquarters of the Royal army during the Battle of Worcester in 1651. It is less well known as a medieval hospital, although several buildings survive from this period.

The fieldwork described in this report was associated with a major programme of refurbishment funded by the Heritage Lottery Fund. Most of the report is concerned with the Commandery Excavations, which took place over two seasons in 2005 and 2006. However, the report also describes fieldwork undertaken before, during, and after the excavations. It also incorporates other work, including documentary research, architectural analysis, and tree-ring dating.

1.2 Archaeological and historical background

The following section is based on sources collected before the first season in 2005. It describes the results of previous research and inferences made by the project team.

1.2.1 Prehistoric

There was no evidence for prehistoric activity on the site of the Commandery, or in the immediate area. The lack of evidence was thought to reflect a largely uninhabited landscape, rather than a lack of excavation. It was also thought that the area was wetland throughout prehistory because of the Frog Brook, a watercourse that flowed along the east side of Worcester and was latterly canalised as the City Ditch. The shallow tributary valley of the Frog Brook was subject to flooding from the Severn (Morris 1974, 26).

1.2.2 Roman

Despite the situation described above, there was evidence for Roman activity on the site. A coin of Tetricus (AD 272-3) was found during excavations in 1843 (Allies 1852, 5; Fendall 1968-9, 110). Also, as described below, 11 fragments of Roman roof tile were found in one of the evaluation trenches excavated in 2003. On this basis, it was thought that the site could have lain within or close to the Roman settlement. It was also thought that a road identified on the west side of the Frog Brook might have crossed the site and continued to the east (Carver 1980, 161-165; Darlington and Evans 1992, 95; Baker and Holt 2004, 186-7).

1.2.3 Anglo-Saxon

Knowledge of the site in the Anglo-Saxon period was limited due to a lack of contemporary evidence. The site was known to lie outside the Anglo-Saxon *burh* at Worcester, constructed in the late 9th century (Baker and Holt 2004, 133-4). However, it was also known that the suburb of Sidbury (*suthan byrig*) began to develop in the 10th century, possibly within a large oval enclosure partly defined by later boundaries (Carver 1980, 165 and 175-6; Baker and Holt 2004, 186-7, 192-3). The site also lay beside a major route leading southeast from the town, on the line of London Road. In this context, it was thought that the site could have been occupied in the late Anglo-Saxon period.

It was also acknowledged that the hospital chapel could have been a late Anglo-Saxon foundation. The chapel was dedicated to St Gudwal, a Breton saint whose cult was introduced to England from the Low Countries by the early 12th century. On this basis, and because of

documented connections in the 10th century between Worcester and Ghent, a case had been made for the chapel being founded *c* 960 (Baker and Holt 1990, 189-92; Baker and Holt 2004, 216-7).

1.2.4 Medieval

Knowledge of the medieval hospital was patchy, reflecting the evidence available from different sources. The following summary is based on research by Molyneux (2005), Marsh (1890), Locke (1906), and Latta (1977b).

The history of the hospital was known in outline from various medieval archives. It was named after St Wulstan, formerly Bishop of Worcester, and probably founded soon after his canonisation in 1203. It was certainly founded by 1221, as it features in a miracle recorded in that year. It was also known as the Commandery, a term usually applied to houses of the Knights Templar and Hospitaller. Although it is now presented as a monastic hospital, the hospital was in fact run by secular clergy appointed by the Bishop of Worcester. The officials consisted of a Preceptor, chaplains, and 'brethren', who followed the Rule of St Augustine. The hospital owned land in Worcester and elsewhere, which provided it part of a modest income. The rest was made up of gifts and bequests. Like most medieval hospitals, St Wulstan's hospital provided its inmates with accommodation, subsistence, and basic medical care. In 1294, there were twenty-two sick people in residence (possibly an unusually high number). In the later medieval period, the hospital housed 'corrodians' for a fixed payment or grant of property. Several charters record these arrangements, which were typical of hospitals of the period. The hospital was reformed by Bishop Bouchier in 1414. There was to be a Master or Preceptor, two chaplains, and five poor brethren and two sisters to pray for the benefactors. The masters from the 1470s onwards seem to have been members of the Bishop's household. According to Leland, who visited Sidbury in 1543, the hospital had been lately 'renewed' by the generosity of a local merchant (Smith 1908, 91).

The topography of the site was reasonably well known from archaeologically attested features and retrogressive plan-analysis. It was bounded to the south by Sidbury, and to the west by the City Ditch, on the line of the Frog Brook. The northern boundary was uncertain, but was thought to be that of the oval enclosure noted above (Baker and Holt 2004, 186-7, 192-3, and 323-4). The eastern boundary was also uncertain, but assumed to lie along Wyld's Lane.

With regard to the hospital buildings, a good deal was known about the surviving medieval fabric. Three buildings were dated to the period between 1475 and 1500. The earliest building was thought to be the southern part of the west range. A room in this range, the 'Painted Chamber' contains wall and ceiling paintings of the early 16th century. It was also noted that the south ends of the west and east ranges were aligned, and could have abutted an earlier building. The Long Chamber to the east and an extension to the west range were thought to date to a later phase of building around 1545.

Less was known about other buildings of this period, and the period before *c* 1475. However, there was some evidence from contemporary archives, antiquarian descriptions, and recent excavations. Taking the archives first, the Close Rolls record a grant of six oaks for 'for building the house of the hospital' in 1256, and another grant of oaks in 1264 'for timbering the church aisle'. These grants were thought to refer to the chapel of St Gudwal. A Forest Court roll of 1300 refers to a hall, while the hospital's own charters, mainly of the 14th century, refer to the chapel, chambers, and buildings on the street frontage. The chapel is also referred to by Leland, while deeds relating to the dissolved hospital mention a belltower, barn, and cemetery. A cemetery is also implied by a will of 1539 in which the testator and her husband request burial at the hospital.

The chapel, or at least a building like a chapel, is also referred to in two antiquarian descriptions. In the first account, published in 1814, part of the chapel is described as standing next to the Great Hall, although it is not located more precisely. The second account, published in 1861, does not mention this building but notes that recent excavations had found

remains of the chapel between Sidbury and Commandery House. It also notes that two pillars had been found and ‘preserved’. These pillars were thought to be among the three pillars standing in the south gardens and shown on Fig 3. The provenance of the third pillar was not known, but it was thought to be the pillar shown to the north of the Great Hall on a map published in 1890.

Besides this evidence, there was also some evidence from recent excavations. In 1976, excavations for a sewer trench between the west range and the canal exposed a substantial stone wall and overlying surfaces containing medieval and post-medieval artefacts (WCM 10039; Beardsmore 1976). The wall was clearly earlier than the west range, and on a different alignment, closer to north-east/south-west. Other walls were exposed when the canal bed was drained in 2002 (WCM 100898). Finally, in 2003, two trenches were excavated to evaluate the sites of proposed lift shafts (Goad, Crawford and Head 2004; Fig 3). Trench 1, in the west range, showed a sequence beginning with a large sandstone wall on an east-west alignment. This was abutted by a hearth, which in turn was sealed by the first of four surfaces. All of these remains were thought to date to the 14th century or later. The latest surface was cut by a robber trench, and the trench was sealed by post-medieval deposits. Trench 2 was excavated in Commandery House, in a room on the east side of Commandery House. The medieval sequence began with a layer cut by a pit and continued with deposits of clay. These were sealed by a cobbled surface which was thought to represent a yard. This in turn was sealed by a mortar floor which was thought to be inside a building. The sequence continued with a layer of debris, another mortar floor, and two burials aligned east-west. The burials were sealed with soils associated with the demolition of the building. The sequence was dated, on limited evidence, to the 14th and 15th centuries. At the time, the burials and building were not associated with St Gudwal’s chapel, but in 2005 this seemed more likely and was adopted as a working hypothesis.

Another hypothesis was adopted from recent cartographic research (Baker and Holt 2004, 322-325). Doharty’s map of Worcester in 1741 shows two ranges built at right angles to each other to the north of the Great Hall (Fig 2). The same buildings appear on Broad’s map of 1768 (Fig 2), but not on Young’s map of 1779, showing that they were demolished in the intervening period. Because of their antiquity, and the way they appeared to define a courtyard with the Great Hall and west range, these buildings were thought to have formed part of the late medieval hospital.

1.2.5 Post-medieval and modern

The later history of the Commandery is well known from more abundant sources (Molyneux 2005). The hospital was marked for suppression by Wolsey in 1524 and finally surrendered in 1540. In the interim period, its value was assessed at £66 8s 11d. The last Preceptor from 1539 was Richard Morrison. In 1541, the hospital was granted to Thomas Wylde, a local clothier, for 21 years at an annual rent of £8 13s 4d. The barn and a small amount of land were not leased to Wylde. In 1544, however, the whole site was sold a private dwelling to Thomas Wylde for £498. As noted above, two buildings on the site were thought to date to this period or the previous generation. The building on the street frontage and another building beside it (demolished in 1843) were thought to date to the 1620s.

By this time, the Wylde family were a gentry family, and they continued to rise throughout the 17th century. During this period, the Commandery had a brief but significant role as the royal headquarters during the Battle of Worcester (3rd September 1651). There was fierce fighting around the Commandery, with the main Parliamentary attack coming from the southeast (Latta 1977b, 12). However, none of the accounts refer to the impact of the battle on the Commandery, and there is no architectural evidence for mid 17th century damage or repairs.

In 2005, the Garden Wing and the Commandery House were thought to represent a major building programme in the 1680s. Both buildings were built entirely of brick, marking a departure from the earlier timber-framed tradition. The brickwork added to the east range, and the garden features shown on Doharty’s map were also seen as part of this development. The

effect of this development was to transform the Commandery from a converted hospital to a gentry residence, although after 1695, the main residence of the Wylde family became Glazely in Shropshire.

In 1763 the Commandery was sold by the Wylde to John Dandridge for £980. The west range was divided into rented houses and workshops, and occupied by craftsmen. In 1776, John Dandridge and his family occupied the Garden Wing, and Thomas Cameron occupied Commandery House. As noted above, Young's map of Worcester in 1779 shows that the buildings to the north of the Great Hall were demolished sometime in the previous decade.

In 1800, the Commandery was leased to Joseph Powell, a glovemaking. In 1805, the leasehold was inherited by Richard Mugg Mence, a lawyer. Mence bought back the west range in 1842 and returned it to domestic use. He also built a carriageway from Sidbury through the Great Hall to the north courtyard. He died in 1864 and his nephew, the Reverend Richard Mence, inherited the property. The property was let to R H Blair in 1866, who established a College for the Blind Sons of Gentlemen, although Commandery House continued to be occupied by relatives of the Mence family. The west range was divided into four properties in 1871, all inhabited by working class families.

The Blind College closed in 1887 and a printer, Joseph Littlebury, became the new tenant in 1888. In 1905, his firm bought the freehold and built workshops between the west range and the canal. The site was occupied by Littlebury's until the 1970s. Some of the buildings were restored, including the Great Hall in 1954. The site was bought by Worcester City Council in 1973. After a comprehensive restoration programme it opened as a museum in 1977.

1.3 **Research questions**

The brief for the Commandery Excavations required the following questions to be addressed (WCC 2004, 7.3):

- The extent and character of Roman occupation
- The nature of evidence for Roman activity in the Frog Brook valley
- The nature of evidence for post-Roman activity in the Frog Brook valley
- The location, dating and character of the hospital chapel
- The character of any pre-1200 occupation of the site
- The impact of the medieval defences on the Sidbury suburb
- The character of buildings, structures, and other remains of the Commandery in the period up to c1450
- The extent and dating of the burial ground documented in 1544
- Relationships between the late medieval buildings on the site and other remains
- The character of Civil War activity associated with the Commandery
- The character of other post-medieval buried remains and their relationships with standing structures

More specific questions were also framed for each trench, as described below.

1.4 **Methods**

1.4.1 **Documentary research**

Before the excavations began, information on the Commandery was obtained from the Worcester City Historic Environment Record. The information included a draft report on the buildings and documentary sources (Molyneux 2005), and over 100 records based on documents, maps, and observations of groundworks. Copies of maps were also obtained and brought to the same scale for ready comparison. Other sources were obtained from local libraries and Worcestershire Record Office. All of these sources were assessed to provide a synthesis of existing knowledge and a strategy for the first season. The results of this research have been summarised above. The same sources were also re-assessed before and after the second season.

1.4.2 **Fieldwork**

Evaluation

The first season of excavation in 2005 was preceded by a week-long evaluation, comprising geophysical survey and sample trenching.

The geophysical survey (by Geophysical Surveys of Bradford) set out to find demolished buildings relating to the hospital. The survey covered most of the gardens to the north and east of the present buildings. Both areas were surveyed using resistivity meters and gradiometers. Many anomalies were identified, but most of them corresponded to buildings and paths shown on 19th and 20th century maps.

The sample trenching was limited to the northern gardens, and targeted the buildings mapped there by Doharty and Broad. Three trenches were excavated to locate these buildings and assess their remains (Fig 3). The results of the evaluation have been incorporated into the main text below. In summary, however, the results defined the extent of the buildings, and showed that significant remains survived beneath unexpectedly deep soils.

Excavation

Seven trenches were excavated by volunteers over two six week seasons (Fig 3). Trenches 1 and 2 were started in 2005 and continued in 2006. Trenches 3-5 and Trenches 6 and 7 were excavated in 2005 and 2006 respectively.

For the most part, modern surfaces and soils were removed by a JCB fitted with a toothless bucket. Subsequent excavation was undertaken by hand. Drawn, written, and photographic records were created according to standard Service practice (CAS 1995). At the end of each season, the trenches were reinstated by replacing the spoil over geotextile sheets.

The artefact recovery policy conformed to standard Service practice (CAS 1995; appendix 2), although only selected artefacts were recovered from machine-excavated deposits, and from deposits with common brick/tile fragments.

The environmental sampling strategy conformed to standard Service practice (CAS 1995; appendix 4). Bulk samples were taken from several contexts, but none of them had significant potential for analysis.

Watching brief

The Service also undertook a watching brief during the refurbishment of the museum. Some building recording was required during the restoration of the painted chamber in the west range, and during repairs to the garden walls (Fig 3). This work is described in section 2.3.

Some salvage recording was also required inside the west range (Trench 10), and along the path to the west (Trench 8A). In the latter area, salvage recording led to further excavation (Trench 8B). Excavations inside Commandery House were also required as part of the watching brief (Trench 9). All of this work was undertaken according to standard Service practice (CAS 1995). The results are described in section 2.1, alongside the results of the Commandery Excavations.

1.5 Post-fieldwork analysis

1.5.1 Stratigraphy

Stratigraphic relationships recorded in the field were checked and supplemented by overlaying plans and comparing plans and sections. Harris matrices compiled for each trench were redrawn and divided into broadly contemporary deposits and features. These phases were then given absolute dates from pottery and other artefacts. Finally, the phases were grouped into periods according to a site-specific chronology.

1.5.2 Artefacts

All hand-retrieved finds were examined and a primary record was made on a Microsoft Access 2000 database. Artefacts were identified, quantified and dated and a *terminus post quem* date was produced for each stratified context.

1.5.3 Buildings

The evidence recorded in the painted chamber roofspace was compared with Molyneux's analysis of the fabric (Molyneux 2005), and with the tree-ring dates obtained in 2006 (Arnold, Howard and Litton 2006).

The photographic record of the garden walls was analysed for significant changes in materials and coursing. These are described below and dated below, as precisely as the evidence allows.

2. Results

2.1 Stratigraphy

The trenches and other interventions are shown together on Figure 2. Plans of individual trenches are reproduced as Figures 3-16.

2.1.1 Trench 1

Trench 1 was excavated to the north of the Garden Wing, on the path leading east towards Wyld's Lane (Fig 3). At its greatest extent, the trench measured approximately 17m from east to west, and 4m from north to south. Most of the trench was excavated to a depth of *c* 17.9m AOD, or 1.4m beneath the level of the garden to the north. Deeper excavations took place in three sondages, one excavated in 2005, and two excavated in 2006. The deposits and features can be divided into four phases, as described below.

Phase 1: Redeposited soils and timber buildings (late 13th to 16th century)

(Fig 4 and Plates 1-3; contexts 1129=1131, 1130, 1132, 1133, 1135, 1136=1137, 1138, 1134, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, and 1152)

The earliest deposits were encountered in the sondages excavated in 2006. These were soils with various inclusions, including roof tile, pottery, and animal bone. Some of the soils were

humic, and suggested dumps of topsoil or garden soil (contexts 1129=1131, 1140, 1150 and 1152). However, other soils contained subsoil, suggesting spoil from nearby excavations (e.g. contexts 1138 and 1151), while others contained refuse from burning and building (e.g. contexts 1141 and 1142; 1129=1130). Taken together, the soils suggest several episodes of dumping or landscaping.

Both sondages also produced evidence for timber buildings. In the larger sondage, a linear feature with rounded ends suggested a trench for a pair of posts (context 1133), while the smaller sondage contained a posthole with a post-pipe of c 0.1m in diameter (context 1144). Judging by the stratigraphic sequence, the features represent two separate, short-lived buildings.

Phase 2: Stone-founded building, path, and surfaces (16th to late 18th century)

(Fig 4 and Plates 4-6; contexts 1006=1007=1106, 1033=1042, 1039=1080, 1048, 1058, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1075=1110, 1074, 1076, 1079, 1081, 1084, 1087=1101, 1096, 1097, 1102, 1124, 1115, 1125, 1126, 1127, and 1128)

The Phase 1 soils were sealed by similar deposits with common pebbles and fragments of tile (context 1039=1080, 1087=1101, and 1128). These deposits were interpreted as a building platform, as they were level, well compacted, and overlain by stone foundations (contexts 1006, 1007 and 1106). The foundations defined the end of a building that extended northwards into the garden. They were made of lias and sandstone blocks bonded with white lime mortar and made up with tiles. The longest foundation (context 1006) was topped by a course of chamfered sandstone blocks, although this may date to the rebuilding described below. Whatever the case, the area inside the foundations was raised by depositing half a metre of soil (context 1033=1042). As discussed below, this deposit was probably sealed by a sequence of floors, including tile pavements. Shortly after the construction of the building, the south-east corner was underpinned (context 1017). Around the same time, a path made of limestone fragments was laid to the west, on a north-south alignment (context 1126).

At a later date, the path was sealed by the first in a sequence of surfaces, interleaved with more discrete deposits (context 1125, followed by contexts 1124, and 1102 to the west and contexts 1075=1100, 1115, 1067, 1066, 1096, and 1064 to the east). The surfaces were recognisable as such by their compaction and frequency of pebbles and other inclusions. Judging by the pottery and other dateable artefacts, this sequence dates to the 17th and 18th centuries. There seems to have been little or no deposition in the 16th century.

Phase 3: Demolition, rebuilding, and resurfacing (late 18th to mid 19th century)

(Fig 5 and Plates 7-8; contexts 1003=1031=1063, 1005, 1008, 1011, 1012=1093, 1017=1045=1046=1047=1060=1061, 1018=1054, 1032, 1035, 1056=1104, 1057=1103, 1059, 1077, 1078, 1082=1105, 1083=1099, 1088, 1089, 1098, 1118, 1119, 1120, 1153 and 1154)

In the late 18th century, the Phase 2 building was demolished and partly rebuilt on a similar footprint. The old west and south foundations were re-used and a new east foundation was built, represented by a single course of stones (context 1005). The chamfered course along the south foundation may have been added at this time. A substrate of sand and ash was deposited inside the building (contexts 1031, 1032, 1035 and 1062), and a brick hearth and chimney were built in the south-west corner (context 1008). No other floor deposits survived.

Outside the building to the west, the latest Phase 2 surface was cut by a pit (context 1068), and sealed by closely-set cobbles (contexts 1018=1054, on bedding layer 1058). To the south and east, new surfaces were made from soil mixed with demolition debris (contexts 1003=1031=1063 and 1017=1045=1046=1047=1045=1060=1061). These deposits contained several kilos of roof tiles, and most of the floor tiles described below.

At a later date, the cobbles to the west were cut by four postholes (contexts 1077, 1103, 1118, and 1154) and one post-pit containing two postholes (context 1105). These suggest a timber building or substantial fence on an east-west axis.

Phase 4: Demolition and landscaping (mid 19th to present)

(Contexts 1000, 1001, 1002, 1004=1015, 1008=1108, 1009=1117, 1016=1110, 1022=1052=1053, 1023, 1024, 1025, 1044=1109, 1049, 1050=1121, 1051, 1064, 1085, 1086, 1090, 1091, 1095, 1112, 1113, 1114, and 1121)

This phase began with the demolition of the Phase 3 building, probably sometime in the early 19th century. The building and adjacent surfaces were then sealed by reworked soils. Some of these deposits contained large quantities of tiles which may have come from the Phase 3 building. However, the latest deposits were clearly intended to give the area its present contours. Two pits were also dug in this phase (contexts 1090 and 1112), as was a robber trench, (context 1110). Finally, a brick-lined drain (context 1050), and other services (not numbered) were excavated through the made ground.

2.1.2 Trench 2

Trench 2 was excavated in two stages (Fig 3). In 2005, an area measuring about 7.5 by 8.5m was excavated to the north of the Canal Range. In 2006, an area measuring 15.30m by 5.86m was excavated on the east side of the Canal Range. During both stages, however, the areas were reduced to allow deeper deposits to be investigated in the time available. The deepest excavations in 2005 took place across an area measuring about 4m by 3m. Similarly, the deepest excavations in 2006 took place in three sondages totalling 7m².

Phase 1: Alluvium (to 13/14th century)

(Plate 9; contexts 2086=2082)

The earliest deposits were identified by augering in the north-east corner of the trench (). This identified reddish brown sand and gravel at approximately 15.81m above Ordnance Datum, or 3.18m below the surface. The gravels were overlain by 1.20m of blueish grey to greenish brown alluvium (context 2082=2086). The alluvium was deposited in the flood plain of the Frog Brook, the former watercourse to the west of the site. Similar deposits were observed in the small evaluation trench excavated to the north of Trench 2. These deposits also contained a waterlogged tree bole, *in situ* or displaced.

Phase 2: Walls and associated deposits (13th/14th century)

(Fig 6; Plates 9-11; contexts 2069, 2072, 2199=2237, 2163, 2171, 2172, 2188, 2189, 2190, 2193=2202 2204=2227, 2205=2228, and 2217)

Deposits and features of this phase were exposed in the deepest excavations. In the north of the trench, the Phase 1 alluvium was sealed by a similar deposit containing 13/14th century pottery (context 2069). A wall or timber-framed building was then built on a foundation of roughly-hewn lias and re-used sandstone blocks (context 2072).

The same foundation, or one very like it, was exposed in two sondages to the south (context 2199=2237). In one sondage, two blocks of sandstone were found beside the foundation (context 2206), but were not bonded to it, or to each other. The foundation did not appear in the southernmost sondage and so may have returned to the east or west. It may also have continued on a different line, represented by more roughly hewn lias (context 2172, on context 2163).

Broadly contemporary deposits and features were found in two sondages to the east. In one sondage, a wall made of large sandstone blocks was represented by truncated remains (context 2217). These were abutted by clay and sandstone rubble (contexts 2193=2202, 2204=2227, and 2205=2228). In the other sondage, construction or demolition was represented by soils containing fragments of sandstone and mortar (contexts 2188, 2189, and 2190).

Phase 3: Building and associated deposits (13th/14th to 15th/16th century)

(Fig 7; Plates 11-13; contexts 2085=2218=2220, 2121, 2219, and 2231)

Soon after the Phase 1 walls were demolished, a new building was built of large sandstone blocks. Parts of the north and west walls were exposed (context 2085=2218=2220), and part of a later internal wall (contexts 2219=2121). Deeper excavations also exposed part of a sandstone floor (context 2231). The size of the building could not be established, and there was no evidence for its function. However, the scale of the walls and the quality of the masonry suggest a large and architecturally sophisticated building.

There seems to have been little deposition to the north of the building during this phase. The soils formed on the Phase 1 alluvium seem to have been reworked but not added to significantly (context 2070). Towards the end of the phase, three pits were dug, apparently for clay (contexts 2073, 2074, and 2075).

Phase 4: Building and associated deposits (15th/16th century to late 18th century)

(Fig 8 and Plates 14-16; contexts 2018, 2023, 2024, 2025, 2029, 2031=2032, 2059, 2063, 2064, 2065, 2066, 2067, 2068=2071, 2070, 2073, 2074, 2075, 2076, 2077, 2078, 2080, 2081, 2089, 2161, 2174=2186=2191=2195, 2185, 2187, 2192, 2196, 2197, 2198, 2200, 2201, 2202, 2203, 2206, 2208, 2209, 2219, 2224, 2235, 2238, and 2240)

Sooner or later, the Phase 3 building was demolished, levelled, and partially robbed (contexts 2187, 2224, and 2235). The remains were sealed by imported soil (contexts 2081, 2089, and 2185) and another building was built on lias foundations (contexts 2031=2162). The foundations defined a building that was 6m wide and probably much longer. There was no evidence to indicate whether the superstructure was timber or stone.

The area inside the building was levelled up with demolition debris and soil (contexts 2174=2186=2191=2195, and 2068=2071, 2075, and 2080). Most deposits above this level had been removed by later activity. However, a small patch of crushed green sandstone survived, suggesting floor of this material (context 2067). In addition, the remains of a hearth were found against the north wall of the building (context 2059). The hearth was made of closely set cobbles, roof-tiles, and fragments of sandstone and lias.

As in Phase 3, there seems to have been little deposition outside the building. To the north, a soil with few inclusions developed over the backfilled Phase 3 pits (context 2066). To the west, two more discrete deposits formed and were cut by a narrow soakaway (contexts 2018, 2023, and 2024).

Phase 5: Extension to west range, cess pits and surfaces (late 18th to mid 19th century)

(Fig 9 and Plates 17-21; contexts 2005, 2006, 2012, 2029, 2030, 2034=2035, 2038, 2039, 2040, 2041=2170=2173=2176=2122, 2042, 2043, 2044, 2045, 2046, 2047, 2050, 2055, 2056, 2057, 2058, 2090, 2210=2229, 2115=2175, 2118, 2124=2156, 2164, 2165, 2166, 2167, 2178, 2179, 2180, 2181, 2182, 2183, 2184=2212, 2211=2230, 2213, 2214, 2232, and 2233)

This phase began with the demolition and robbing the Phase 4 building (contexts 2057, 2058, and 2041=2170=2173=2176=2122). It is likely that the building was decayed, and it may

have been prone to subsidence. As shown on Plate 14, the north foundation had sunk by half a metre towards the east.

The area was then developed again. The west range was extended as part of this development, as shown by the present building and two substantial foundations (numbered together as context 2006). The foundations were made of irregular courses of sandstone and lias made up with bricks. The east foundation was built on the west foundation of the Phase 4 building while the north foundation was built on made ground. Four postholes found to the east of the foundations may represent the builders' scaffolding (context 2042, 2044, 2046, and 2055).

The area to the east was then provided with brick-lined drains and cobbled surfaces (contexts 2178, 2179, 2180, 2181, 2183, and 2184=2212), although these were only partially exposed and had been badly truncated by later services. At about the same time, two rectangular cess pits were built of re-used sandstone blocks and handmade bricks (contexts 2115=2175 and 2118). The cess pits were apparently covered by a wooden structure on brick foundations (contexts 2124=2156). The structure seems to have abutted the west range, and may have been entered from it. However, as a path was made between the cess pits (contexts 2150 and 2157), it was probably entered from without. Another path was made across the area to the north (context 2019), which had been levelled up with various deposits (contexts 2005, 2034=2035, 2038, and 2030).

Phase 6: Demolition and resurfacing (mid-19th century to present)

(Fig 10 and Plates 22-23; contexts 2001, 2002, 2003, 2004, 2007=2008, 2014, 2015, 2016, 2017, 2013, 2019, 2020, 2021, 2028, 2036, 2037, 2048, 2049, 2052, 2063, 2091, 2092, 2093, 2094, 2095=2096=2097=2108=2112=2130, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2107, 2109, 2110, 2111, 2113, 2114, 2116, 2117=2128, 2119, 2120=2152, 2105, 2106, 2123=2143=22151=2194, 2125, 2126, 2127, 2129, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2140, 2139=2141, 2142, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2153, 2154, 2155, 2157, 2158, 2159, 2160, 2168, and 2234).

In the mid-19th century, the west range was reduced to its present length, and the area to the east was resurfaced with cobbles and gravels (contexts 2095=2096=2097=2108=2112=2130 and 2126). The surface incorporated a mass of mortared limestone which can be associated with the pillar mapped in 1890 (context 2103). At about the same time, the path to the north was edged with low drystone walls (contexts 2007=2008).

At a later date, but probably not much later, the cess pits were backfilled and the annexe or lean-to above them was demolished. The path to the north was filled in with tiles and sealed with garden soil (contexts 2009, 2028, and 2036). The cobbled surface and pillar may have survived well into the 20th century, but some areas were resurfaced in brick before the Commandery was restored in the 1970s (contexts 2091 and 2152). The present surface of gravels over made ground probably dates to the 1970s or 1980s (contexts 2001, 2002, and 2003).

2.1.3 Trench 3

Trench 3 was excavated in the north garden of the Commandery, c 25m to the north of the Garden Wing. It was an extension of an evaluation trench excavated immediately before the 2005 season. Due to the depth of deposits in this area, the trench was stepped-in from an area measuring some 6.5 by 5.5m to one measuring 2 by 2m. Excavation stopped at an arbitrary point about 2.3m below the surface.

Phase 1: Alluvium (to 13th century)

(Plates 24 and 25; contexts 3022 and 3025)

Auguring in the base of the trench identified gravels at c 2.9m below the surface (16.3m below Ordnance Datum). The gravels were overlain by 0.15m of reddish brown silt (context 3025). This in turn was overlain by up to 0.4m of mottled greenish grey clay (context 3022). Both deposits were clearly of alluvial origin, but they were coarser than drier than those in Trench 2.

Phase 2: Reworked soil, pit, and made ground (13th to 18th century)

(Fig 11; contexts 3021, 3024, and 3016)

The Phase 1 alluvium was overlain by up to 0.4m of blue-green clay with few small pebbles and tile inclusions (context 3021). This deposit probably represents a long-established and latterly reworked soil. It was cut by a small sub-circular pit which probably represents small scale extraction (context 3023). The pit was filled with blueish grey clay (contexts 3023), and sealed with similar material (context 3016). The latter deposit produced several sherds of 14th to 15th century pottery, giving a baseline date of deposition. However, it also produced earlier pottery, including one sherd of 10th to 12th century Cotswold ware.

Phase 3: Rill or water channel (17th/18th century)

(Fig 11 and Plates 26 and 27; contexts 3006=3007, 3009, 3010, 3012, 3017, 3019, 3020, and 3026;)

This phase was represented by the remains of two walls set 0.40m apart. (contexts 3006 =3007). The walls were built of re-used sandstone blocks and abutted by mid brown sandy clay (context 3010). Part of an early 17th century pipe and two sherds of 17th/18th century pottery were found in the mortar between the stones. On this evidence, and the evidence of 18th century maps, which show formal gardens around the Commandery, this feature is best interpreted as a rill or ornamental water channel. It clearly did not form part of a building, as no buildings of the period were built in this fashion. It is also unlikely to have been a drain, as it was not filled with silt, capped, or sealed soon after its construction. Moreover, drains of this period were typically made of bricks, like the two drains found in Trench 6.

Phase 4: Made ground and garden soils (18th to present)

(Plate 24; contexts 3000, 3001, 3002, 3003, 3004, 3005, 3011, and 3015)

The water channel was filled and sealed by up to 0.50m of reworked soils (contexts 3011 and 3005=?3015). These soils suggest landscaping aimed at raising ground levels across the area. The next deposits in the sequence can also be interpreted in this way (context 3001-3005) although they were probably deposited individually. They were also more humic and may have been garden soils. The latest of these deposits was sealed by the present topsoil (context 3000).

2.1.4 **Trench 4**

Trench 4 was excavated in 2005 in the angle between the Great Hall and east range (Fig 3; Plate 28). The aim was to find evidence of earlier (pre-15th century) buildings. The trench measured 3 by 3m in plan and was excavated to a maximum depth of 1.45m.

Phase 1: Subsoil (to 14th century)

(Context 4034)

The earliest deposit was a soft brown silty sand with common gravels (context 4034). Due to various constraints, it was only partially exposed and left unexcavated. It was probably a subsoil developed on an unmapped deposit of sand and gravel.

Phase 2: Made ground, building, and associated deposits (late 13th century to c1468)

(Fig 12 and Plates 29 and 30; contexts 4011, 4012, 4013, 4014, 4015, 4017, 4018, 4019, 4023, 4025, 4026, 4027, and 4033)

The subsoil was overlain by a compact deposit of crushed greyish green sandstone (context 4027). It was overlain by a reddish brown deposit of similar composition and compaction (context 4026). These deposits were probably intended to raise and consolidate ground levels in the area. Indeed, they can be seen as substrate or building platform, as the next context was a truncated wall foundation (context 4028). This was made of red sandstone rubble and ran down the centre of the trench, parallel to the east range.

The foundation represented a building that extended to the north, south, and west. This was evident from the sequence of deposits in the west half of the trench. The sequence began with another deposit of greyish green crushed sandstone (context 4025). This was overlain by compact reddish brown sandy silt with common limestone and charcoal fragments (context 4017). These deposits probably represent infill and an earth floor. The later deposit was cut by a posthole set c0.70m from the line of the wall (contexts 4018 and 4019). This may represent a timber partition dividing one room from another. The sequence continued with yet another deposit of crushed greyish green sandstone (context 4015), another posthole set near the line of the wall (contexts 4013 and 4014), and a deposit of compact reddish brown sandy silt (context 4012). This pattern suggests that the building was refloored and refurbished along the same lines as before, although in this case, the position of the posthole in the sequence suggests a partition made before, rather than after the floor was laid. The latest deposit in the sequence was a thin and discontinuous layer of mortar (context 4011). This may have been the bedding layer for a tile pavement.

During this phase, two deposits of reddish brown clay silt formed outside the building to the east (context 4033 and 4023). The earlier deposit may be made ground contemporary with the construction of the building, while the later deposit may be made ground, or the result of trampling and natural soil forming processes.

The deposits of this phase date to the century before c1468, when both the Great Hall and east range were built. Pottery of 13th to 15th century date was recovered from the building platform, and pottery of late 13th to late 14th/15th century date was recovered from the internal deposits. A floor in another part of the building may have been laid around 1377, as a tile found in an overlying deposit (context 4008) had the same design as tiles laid in Worcester Cathedral in 1377 (see below, section 2.2.3).

Phase 3: Demolition, construction of bay window, and robbing (c1468 to 18th century)

(Fig 12; Plates 29 and 31; contexts 4009, 4010, 4016, 4029, and 4032)

This phase followed the demolition of the Phase 2 building and the construction of the east range. The first context in this phase was a curving foundation made of roughly-hewn oolitic limestone blocks (context 4029). This was found in the south-east corner of the trench, within a metre of the east range. From the plan of the foundation in relation to the wall, and from independent architectural and documentary evidence, it is clear that the foundation formed part of the original east range and carried a bay window similar to that on the north side of the Great Hall.

By the 16th century, the foundations were abutted by c0.2m of greyish brown silt loam (context 4016). At a later date, the deposit was cut by a trench that followed the line of the Phase 2 wall and was clearly intended to remove all re-usable masonry (context 4010). It is not clear why the building was robbed so long after its demolition. Like most robber trenches, the trench was filled with a mixture of soil and rubble (context 4009). However, the fill also contained a fragment of moulded sandstone which may have come from an arcade or window (Fig 21).

Phase 4: Made ground and footpath (18th century to present)

(Contexts 4000, 4001, 4002=4020, 4003, 4004, 4021, 4022, 4006, 4007, and 4008)

The latest deposits in Trench 4 followed the robbing of the Phase 2 building and the demolition of the Phase 3 bay window. The demolished foundation was sealed by reddish brown silt loam with common mortar fragments and flecks (context 4008). This in turn was overlain by dark greyish brown silt loam with common brick, tile, and other inclusions (context 4007). These deposits were evidently brought in to raise ground levels across the area. Another, similar deposit followed (context 4004) and was overlain by a gravel path (context 4002 and 4003). The last deposit was the topsoil (context 4001).

2.1.5 **Trench 5**

Trench 5 was excavated in 2005 near the gate onto Wyld's Lane (Fig 3). The aim was to find remains of an ornamental gateway shown on Doharty's map of 1741 (Fig 2). A small area was opened first, but the main effort focused on a larger area measuring c3.8 by 2.4m.

Phase 1: Construction of house (mid 19th century)

(Fig 14 and Plates 32 and 33; contexts 5005, 5008, 5009, 5003, and 5004=5010=5011)

Excavation stopped at the top of a layer of redeposited marl (context 5008). This was probably spread in advance of construction, as it was cut by a trench containing a wall (context 5009 and 5010=5011). The wall ran along the east side of the trench and represented a building that faced onto Wyld's Lane. It was built of machine-made bricks laid in regular courses and bonded with a cement-based mortar (contexts 5010=5011). It also incorporated a doorway exactly 1m wide. At least the southern part of the house was cellared, as shown by the initial excavations. The cellar was at least 1.35m deep and had a brick floor (context 5003).

The house was identified as such from HER records and local volunteers (including a member of the last family to live there). Its date of construction and full extent are shown by large-scale maps. It does not appear on the tithe map of 1841 (WRO ref x760, BA 1572/534.1), but does appear on the Board of Health map of 1869 (WRO ref 010:33), and on later Ordnance Survey maps. It was also indicated by a strong anomaly in the geophysical survey.

Phase 2: Abandonment of house; demolition and landscaping (1970s to present)

(Contexts 5000, 5001, 5002, 5012, 5013, 5014, 5015, 5016, and 5018)

The house was abandoned and demolished in the 1970s. Its abandonment was represented by bricks blocking the doorway (context 5012), and by mixed deposits filling the cellar (context 5002). Its demolition was represented by the truncated walls and by brick rubble in later deposits (contexts 5014, 5015, 5015, 5017, and 5018). These deposits suggest landscaping on a considerable scale, aimed at removing all trace of the building and reducing what was apparently a significant difference in ground levels between Wyld's Lane and the northern gardens. At all events, the surface immediately outside the building was raised by about 1m. It was then covered by a thin layer of topsoil (context 5000).

2.1.6 **Trench 6**

Trench 6 was excavated on the east side of the east range in 2006. It was a speculative venture, taking advantage of an open area close to a late medieval building. Excavation began across an area measuring some 6.8 by 4.7m. After stepping in twice, the area was reduced to 6 by 2m. Finally, the area was reduced to two sondages, one at the north end of the area, measuring 1.9 by 0.7m, and the other at the south end, measuring 2.1 by 1.8m.

Phase 1: Foundation and associated deposits (13th/14th century)

(Fig 15 and Plate 34; contexts 6014, 6018, 6021, 6022, and 6023)

The earliest deposit, encountered in the northern sondage, was a layer of reddish brown sandy loam (context 6023). This was overlain by a foundation made of small to medium-sized sandstone rubble (context 6021). Only part of this feature was exposed, but enough to show that it was around 1m wide and had a north-east to south-west alignment. The foundation was abutted by another layer of reddish brown sandy loam (context 6022), and sealed by yet another (context 6014). In the southern sondage, the layer sealing the wall was overlain by dark grey silty clay (context 6018).

Pottery from the layer sealing the foundation suggested a 13th or 14th century date. It also included two of the 25 sherds of Roman pottery found in Trench 6.

Phase 2: Ditch and associated deposits (13th/14th century)

(Fig 15 and Plate 35; contexts 6019, 6020, and 6024)

By a happy accident, the southern sondage came across a well-defined ditch at right angles to the line of the feature (context 6019). The ditch cut the layer sealing the wall, and was at least 1.4m wide by 0.5m deep. It was partly filled by two deposits of reddish brown sandy loam (contexts 6020 and 6024).

Phase 3: Landscaping (late 15th century?)

(Plate 36; Contexts 6013, 6015, 6016, and 6017)

The upper fill of the ditch was sealed by crushed green sandstone like the building platform in Trench 4 (context 6016). Here, however, it seems that this layer was the first in a long sequence of levelling deposits. It was overlain by a dump of reddish brown clay (context 6017), then sealed by up to 0.50m of reddish brown loam with common limestone and sandstone fragments (context 6013 and 6015). These deposits suggest landscaping on a considerable scale, extending well beyond the area of the trench.

Taking the pottery from these deposits as a whole, it is likely that the landscaping took place during the rebuilding of the hospital in the late 15th century. Three of the 94 sherds recovered are admittedly of 17th/18th century date, but they were all from the uppermost deposit, and probably indicate natural or cultural reworking at the interface. The next latest pottery is of 15th or 16th century date, while the bulk of the assemblage is solidly medieval. If this dating is correct, then the purpose of the landscaping may have been to reduce a considerable difference in levels between the floor of the east range and the land to the west. Without the landscaping there would have been a drop or fall of c1.6m. With the landscaping, the difference would have been just over 1m.

Phase 4: Landscaping (17th/18th century)

(Plate 36; Contexts 6006, 6007, and 6008)

The next deposits in the sequence indicate a second phase of landscaping which raised ground levels by a further 0.6m (contexts 6006, 6007, and 6008). However, there was clearly a break between the two phases, represented by a discrete dump of tiles (context 6008). The pottery dates the second phase of landscaping to the 17th or 18th century, and it was probably contemporary with the refronting of the east range, and/or the construction of the Garden Wing to the north.

Phase 5: Underdrainage (19th century)

(Plate 37; Context 6003 and 6005)

The uppermost deposit of made ground (context 6006) was cut by two drains made of bricks and tiles (contexts 6003 and 6005). One drain ran diagonally across the trench on a north-west to south-east alignment (context 6010). It seems to have cut the other drain which ran along the south side of the trench (context 6003). The fall of the drains is uncertain, but seems to have been towards the west.

Phase 6: Garden soil (19th century to present)

(Plate 37; contexts 6000 and 6001)

The Phase 4 deposits were sealed by a discontinuous layer of marl (context 6001) and c0.4m of greyish brown sandy silt (context 6000). These deposits represent a third phase of landscaping before the present gardens were laid out in the late 19th century.

2.1.7 **Trench 7**

Trench 7 was excavated in a yard to the east of Commandery House (Fig 3; Plate 38). It was intended to test a hypothesis that the hospital chapel lay beneath the yard and the room to the west. As described above, this hypothesis was based on the discovery of two burials beneath the room. It was also supported by the suggestion that the east and west ranges abutted an earlier building (Molyneux 2005).

Phase 1: Chapel (13th century)

(Fig 16 and Plates 39-42; contexts 7051, 7053, 7055, 7054, 7065, 7066, 7068, 7069, 7070, 7071, 7072, and 7073)

As anticipated, remains of the chapel were found in Trench 7, and also in the north-west corner of Trench 9. Three walls defined the end of the chapel, and confirmed that it extended to the west.

The deepest excavations in Trench 7 showed that the walls were founded on red sandstone blocks (context 7066). Unlike most foundations on the site, the stones were laid in a construction trench (context 7070). The trench cut through layers of clay which were probably deposited together as a substrate (contexts 7069, 7072, and 7073). Sherds of 11th to 14th century pottery were recovered from these deposits, although as discussed below, the construction of the chapel can be dated more precisely to the 13th century.

The walls themselves were made of red sandstone rubble faced with large squared blocks of greenish grey sandstone. Most of the east wall, part of the north wall, and a buttress were exposed in Trench 7 (contexts 7051, 7053, 7054 and 7055). A small area inside the chapel was also exposed. The opposite buttress and part of the south wall were exposed in Trench 9 (contexts 10025 and 10026). The latter features showed that that the chapel was 6.87m or 22½ feet wide.

Up to five courses of masonry survived. The lowest course was squared and offset by 0.12m from the face of the wall. The next course was a chamfered plinth, and the course above was also chamfered. All the stones were dressed diagonally, and many of them bore masons marks. Thirty-three marks were identified on the east wall, five on the north wall, and eleven on the buttress, making 49 in all. The most common marks were four-pointed stars made from superimposed triangles, but there were other symbols based on combinations of lines, curves, and circles (Plates 39-40). None of the marks would have been visible in the 13th century or later, however. Traces of plaster on the external faces showed that they were rendered, while patches of limewash on the internal faces suggested more than one application.

Excavations inside the east wall showed another feature of the 13th chapel: a recess near the north-east corner (context 7006). The recess was 0.50m wide, 0.70m deep, and at least 0.60m high. By analogy with similar and similarly-positioned features in other churches and chapels of the period, the recess was probably an aumbry or cupboard for storing the vessels used in the mass (Hillaby 2003, 13). The base of the aumbry was probably about a foot above the original floor.

Once the chapel was built, a cobbled surface was laid outside it to the east (context 7065). This was sealed by reddish brown silt which may have been deposited as a surface (context 7063).

Phase 2: Annexe to north of chapel (14th to late 15th century)

(Fig 17 and Plates 43-45; contexts 7011, 7047, 7052, 7056, 7057, 7058=7061, 7059, 7060, 7062, 7063, 7064, and 7067)

In the 14th century, a building was attached to the north wall of the chapel. It was represented by a wall running northwards from the north-east buttress (context 7052), and also by a floor and a drain (contexts 7060 and 70161). The fill of the drain produced the best dating evidence: a jetton of Edward III (1322-1377). Like the chapel, the annexe was built of large sandstone blocks, and the lower courses were chamfered. It was also rendered inside and out, as shown by traces of plaster and/or limewash. However, it was founded on clay, not set in a trench, and the sandstone was reddish brown, not greenish grey.

Phase 3: Demolition of annexe and refurbishment of chapel (late 15th to late 17th century)

(Plate 46; Contexts 7049, ?7056, 7057, 7059, and 7062)

The annexe continued beneath the building to the north, and as this has recently been dated to 1468–1473, it is clear that the annexe was demolished by then. Deposits found on top of the floor and outside the annexe represented this demolition (contexts 7049, 7059, and 7062). The internal deposits contained 3.7 kg of floor tiles, several sheds of window glass and 7 fragments of limestone mullions (see below, section 2.2.4). This material probably came from the chapel and if so, it implies a major refurbishment. The mortar surface found inside the east wall of the chapel may have formed part of this refurbishment, possibly as a bedding layer for a new tile pavement. However, there were also stones on top of the surface which may have supported an altar or reredos (Rodwell 1989, 132). If an altar was placed against the east wall, this may explain why the recess near the north-east corner was blocked with sandstone rubble (context 7056). This may have occurred later, however, after the chapel went out of use.

Phase 4: Demolition of chapel, pitting, and landscaping (late 17th to early 18th century)

(Contexts 7026=7036=7037, 7029, 7033, 7038, 7039, 7040, 7041, 7043, 7045, 7046, and 7048)

The demolition of the chapel was represented by a deposit sealing the mortar surface (context 7046). The pottery from this deposit was not closely dateable, but a contemporary deposit to the east contained pottery of 17th or 18th century date (context 7045). Both deposits were apparently dumped, and both were overlain by demolition debris (contexts 7038 and 7041). Taken together with the date assigned by Molyneux (2005) to Commandery House (c 1680), and dates recently obtained for the Garden Wing by dendrochronology (1708), the evidence suggests that the chapel, or at least its east end, was demolished in the late 17th or early 18th century. Two pits were dug through the dumped deposits and were probably associated with the process of demolition (contexts 7040 and 7043). The pits were sealed by more made ground which also covered more of the slighted chapel walls (context 7036=7026=7037). Part of the east wall was still exposed, however, and it was partially robbed at the end of this phase (context 7033).

Phase 5: Timber building (18th/19th century)

(Contexts 7003, 7012, 7013=7030, 7014, 7015, 7016, 7020, 7023, 7024, 7025, 7027, 7028, 7031, 7032, 7034, 7035, and 7036)

The main features in this phase were four postholes, which were found in a line running parallel to the east wall of the chapel (contexts 7012, 7015, 7016, and 7027). They were cut through an extensive but shallow deposit containing 18th century pottery (context 7036). The postholes were small and unlikely to have held posts capable of supporting a roof. They are more likely to have the posts of a fence separating land near Commandery House from gardens to the east.

Phase 6: Drainage and surfacing (19th century to present)

(Contexts 7000, 7001=7002, 7004, 7005=7008, 7006, 7007, 7009, 7010, 7017, 7018, and 7022)

The penultimate feature in Trench 7 was a brick drain set in a trench cut along the west face of the chapel wall (contexts 7006 and 7007). This was cut by a small pit or posthole which, on its own, defies interpretation (context 7018). The deposits of this phase comprised miscellaneous dumps and spreads, overlain by gravels (contexts 7000, 7001=7002, 7004, 7009, 7010, and 7022).

2.1.8 **Trench 8**

In May 2006, a trench measuring c 4.5×0.6m was excavated by contractors across the cobbled path beside the west range (Fig 11, Trench 8A; Plate 47). The trench was recorded as part of the watching brief but due to later disturbance and restricted access the evidence could not be properly understood. Accordingly, in August 2006, a second trench measuring c2.0×1.0m was excavated 1m to the north (Fig 11, Trench 8B; Plate 48). As the trenches were adjacent, and showed such similar sequences, they were given the same number in post-excavation analysis. For the same reasons, the results from both trenches are best considered together.

Phase 1: Building (13th/14th to late 15th century)

(Fig 11 and Plates 47-50; contexts 8010, 8011, 8012, 8013, 8014, 8018=8037=8038, 8019=8032, 8020, 8021=8022=8036, 8023, 8024, 8032, and 8039)

The sequence began with a layer of clay which extended below the limit of excavation (context 8019=8032). The clay was then cut by a trench (context 8020), which was filled with unmortared sandstone rubble (contexts 8021=8022=8036). This provided the foundation for a wall made of large squared sandstone blocks, although only two complete blocks and some fragments survived (contexts 8018=8037=8038). The wall clearly belonged to a building that extended to the west, beneath the west range, as its west face was abutted by clay and mortar floors (contexts 8010 to 8014). With regard to the date of the building, a single sherd of 15th or 16th century pottery was recovered from the penultimate floor (context 8011). However, as the west range has recently been dated by dendrochronology to 1468-73, it is clear that the floor was laid earlier in the 15th century, and that the building it belonged to was demolished soon afterwards. Throughout this phase, there was little or no deposition outside the building to the east, although a less well defined spread of sandstone rubble may represent a contemporary path (context 8039).

Phase 2: Demolition and robbing (late 15th to 19th century)

(Fig 11; contexts 8016=8042, and 8017=8043)

Robbing of the demolished Phase 1 building was represented by a trench backfilled with loose sandstone rubble (contexts 8016=8042 and 8017=8043). There was no evidence associated with the construction of the west range. Also, as in Trench 4, there was no evidence for the courtyard defined by the west range and other contemporary buildings. It is possible that the courtyard was surfaced, and that all evidence of this has since been removed. However, it is more reasonable to assume that the courtyard was unsurfaced, or only surfaced with paths and thresholds.

Phase 3: Landscaping and surfacing (19th century to present)

(Fig 11; contexts 8000=8033, 8006=8034, 8007=8025, 8008=8026, and 8009=8027)

In the 19th century, the area outside the west range was levelled up with reworked soils (contexts 8006=8034, 8007=8025, 8008=8026, and 8009=8027). These were sealed by the cobbled path that has since been relaid as part of the refurbishment (contexts 8000=8033). Finally, in the 20th century, two service trenches were excavated along the path, and came close to removing the remains described above.

2.1.9 **Trench 9**

Trench 9 was located inside the building immediately to the south of Trench 7 (Fig 3). The floor was to be reduced by 0.50m, and excavation took place to this level.

Phase 1: South-west buttress of chapel (13th century)

(Fig 16 and Plate 51; context 10026)

As noted above, the south-east buttress of the chapel was exposed in the north-west corner of the trench (Context 10026). Part of the south wall was also exposed. Levelling showed that the masonry stood at much the same height as recorded in Trench 7. However, the upper courses had been severely truncated by modern features (contexts 904 and 932).

Phase 2: Building to south-east of chapel (16th/17 century)

(Fig 17 and Plates 52 and 53; contexts 989, 990, 995, 10000, 10001, 10002, 10003, 10005, 10010, 10011, 10013, 10021, 10022, 10027, and 10028)

Sometime after the construction of the chapel, another building was built to the south-east. The main walls were represented by narrow foundations of roughly-hewn sandstone (context 989). The northwest corner of this building was fitted into the angle of the buttress of the chapel. However, the building was clearly of a different character and probably supported a timber superstructure. It extended beyond the limits of excavation, making it at least 5m long from east to west and by 2.5m wide from north to south (16 by 8 feet).

After the main walls were built, a small extension was built to the north, using similar foundations. Three of these defined a rectangular area which had been infilled or backfilled with clay (context 995). Another foundation to the east extended beyond the limit of excavation (context 10010). It was not possible to expose more of these features, and their interpretation remains uncertain. They may represent one or two phases of a porch, or a staircase leading to a door at first-floor level.

Inside the building were compacted soils (contexts 990, 10000, 10001, and 10022), and two fragments of brick and tile surfaces (contexts 10021 and 10027). The bricks were of a type produced between 1500 and 1650. Pottery of this period was also recovered from two external deposits (contexts 10003 and 10028).

Phase 3: Rebuilding (17th/18th century)

(Fig 18 and Plates 54-56; contexts 946, 947, 949, 950, 952=963, 955, 956, 959, 964=985=968, 966, 967, 979=980, 982, 985=986, 969=971=973, 988, 992, 993, 994, 996, 997=10020, 998, 10004, 10007, 10011, and 10012)

The building described above was rebuilt in the late 17th or early 18th century. The existing north wall was retained, although a doorway was created near its west end. The west wall was demolished and replaced by a hearth and chimney. The building was also divided internally and completely resurfaced.

The new arrangements were represented by the features shown on Figure 18. The doorway created in the north wall was 1.20m wide and had a threshold made of tiles set on edge (context 971). The hearth and were represented by two brick walls and a brick base (contexts 966, 967, and 978). The base was covered and the walls were abutted by thin deposits of charcoal and clinker (contexts 964=965 and 965). The area to the east was heavily truncated, but may have been surfaced with tiles like the threshold. Further to the east, the surfaces were all made of bricks laid on bed (contexts 996, 998, 999, 10014, 10015, 10019, and 10020). The pattern of the bricks suggested an east-west corridor (context 988) and a room to the south (context 999, 10014, 10015, 10019, and 10020). A timber partition on the same line was also suggested by a short brick foundation (context 997), and two postholes or post-settings (contexts 999 and 10019). The surface of the room between the partition and the north wall was very worn, suggesting intensive use. The coincidence of a hearth and a well worn surface might identify the building as a brewhouse although it could have been a dwelling house of modest proportions.

Phase 4: Service range (17th/18th to present)

(Contexts 901=902, 903, 904, 905, 906, 907, 908=922, 911, 912, 913, 914, 915, 916, 917, 920, 921, 923, 924, 925, 926, 927, 929, 930, 931, 932, 934, 935, 936, 937, 938=939=940=942=10008, 941, 943, 944=958, 945, 948=962, 949, 950, 951, 952=963, 953, 954, 955, 956, 957, 960, 961, 970=972=976=991, 974, 983, 984, 987, 993, 999, 10017, 10018, and 10029)

The building described above was replaced within a generation by the service range of Commandery House. The range included a kitchen to the west and another building to the south (Fig 3). The new walls were made of brick on re-used sandstone foundations. An early surface was represented by a layer of mortar (context 948=962) and two areas of bricks laid on bed (contexts 944 and 958). An early partition was also suggested by two sandstone foundations (contexts 985 and 986). This arrangement was short-lived, however, as shown by made ground and a brick foundation (contexts 938=939=940=942, 970=972=976=991, and 935). The contemporary surface may have been removed, or the made ground may have served as a floor. It is not clear what this part of the range was used for in the 18th or 19th century, but by 1898, it was divided between a coach house to the west, and a stable to the east (Marsh 1890, plan facing p. 1). Modern alterations were represented by three drains (contexts 917, 920, and 924), three brick foundations (contexts 904, 911, and 913), a brick surface (context 933), and postholes for a staircase (numbered together as context 901).

2.1.10 **Trench 10**

In June 2006, two small test pits were excavated by contractors in the West Range, behind the museum entrance and shop (Fig 19; Plate 57). The pits were less than a than a metre apart, and showed almost exactly the same sequence. They were therefore given the same number and are best described together.

Phase 1: Building (13th century to 1468).

(Fig 19 and Plate 58; context 1002)

The earliest feature was an east-west wall made of red and green sandstone blocks (context 1002). Only the south side of the wall was exposed in plan. It was therefore impossible to establish whether the building extended to the north or south. However, it was clear that the building pre-dated the west range, and so must have been built before 1468. If the building extended to the north, it may have included the perpendicular wall in Trench 8. On the other hand, if the building extended to the south, it may have adjoined the chapel identified in Trench 7. It is unlikely to have formed part of the chapel itself, unless it formed part of a longer chancel that was reduced in length before 1468.

Phase 2: Demolition and construction of west range (c1468)

(Fig 19; context 1001)

The truncated wall and the building above it were evidence enough of these events. However, the deposit abutting the south face of the wall probably represents demolition debris spread as a substrate (context 1001).

Phase 3: Resurfacing (17th/18th century)

(Fig 19 and Plate 56; context 1000)

The wall and the deposit abutting it were sealed by a truncated surface of 17th/18th century bricks (context 1000). Earlier surfaces had clearly been removed in the process of laying this surface.

Phase 4: Resurfacing (late 20th century)

(Fig 19 ; context 1003, 1004, and 1005).

The brick surface seems to have lasted well into the 20th century. Quite recently, however, it was replaced by a surface of tiles on a concrete base (contexts 1003, 1004, and 1005). This resurfacing raised the floor level by almost half a metre.

2.2 Artefacts

2.2.1 Pottery (Angus Crawford)

A total of 1581 sherds of pottery weighing 21.31kg were examined. These sherds were from secure stratigraphic contexts from site phases 1 to 3 and phase 4. The pottery assemblage could be dated from the Roman to post-medieval period and exhibited a generally good level of preservation (Table 1). All form types are referenced to the Deansway type series (Bryant 2004) unless otherwise stated.

Material	Total sherds	Weight (g)	% of total sherds adjusted to one decimal place
Roman pottery	34	267	2.1%
Saxon and early Medieval pottery	4	33	.2%
Medieval Pottery	1019	15230	63%
Post-medieval pottery	530	5776	33.3%

Table 1: Quantification of the pottery assemblage by period

Roman pottery

The Roman pottery assemblage consisted of 34 sherds, weighing 267g and accounting for 2.1% of the assemblage. The sherds were grouped and quantified according to fabric type (Table 2). In general, all sherds were well preserved with no specific forms apart from a single *mortaria* sherd. All of the Roman pottery was identified as residual material within later contexts.

Fabric number	Fabric name	Total	Weight (g)
12	Oxidized Severn Valley ware	6	51
12.2	Oxidized organically tempered Severn Valley ware	11	152
12.1	Reduced Severn Valley ware	3	14
12.3	Reduced organically tempered Severn Valley ware	3	18
32	Mancetter/Hartshill Mortaria	1	10
29	Oxfordshire red/brown colourcoated ware	2	2
22	Black-burnished ware	4	10
43	Samian (general)	3	7
43.3	East Gaulish Samian (Rheinzabem)	1	3

Table 2: Quantification of the Romano-British pottery by fabric

The Roman pottery assemblage was dominated by a range of locally-produced Severn Valley wares accounting for 23 sherds of the total assemblage. This fabric group made up almost 68% of the total Roman assemblage, which is consistent with other Roman urban assemblages within Worcester (A Jacobs pers comm). Of these sherds, eleven were of oxidised, organically tempered Severn Valley ware (fabric 12.2), which included a sherd with external lattice ‘pencil’ decoration, and three sherds of reduced, organically tempered Severn Valley ware (fabric 12.3). While Severn Valley wares are produced throughout the Romano-British period, the organically tempered variants are predominantly of mid-1st to 2nd century date. The remaining variants within this fabric type included six sherds of general oxidised Severn Valley ware (fabric 12) and three sherds of reduced Severn Valley ware (fabric 12.1). These fabric types were produced throughout the Roman period and therefore can only be generally dated to the mid-1st to 4th century.

Other Romano-British fabrics included a single sherd of Mancetter-Hartshill mortarium (fabric 32), two sherds of Oxfordshire red/brown colour coat (fabric 29) and four sherds of Black Burnished ware type 1 (fabric 22). Again, all sherds were of small size and of unidentifiable form types and the Mancetter/ Hartshill Mortarium was identified by fabric only. Mancetter-Hartshill mortarium was distributed extensively in the Midlands during the mid-2nd to early 4th century, whilst Oxfordshire produced colour coats were also widely distributed during the later 3rd and 4th century (Tyers 1996, Young 1977). The four sherds of Black Burnished ware, type 1, represent the late Iron Age Durotrigian pottery industry continuing into the Roman-British period. Gilliam suggests that this pottery type arrives in the Worcestershire region around AD 120, when these potters captured part of the Western and Northern military market, and lasts until the 4th century (Gilliam 1976, 57).

Imported finewares within the assemblage consisted of four sherds of Samian of mid-1st to mid-3rd century date (fabric 43). These were also of small size with only one sherd being more specifically identified as a sherd of east Gaulish Samian (fabric 43.3 from Rheinzabem).

A single fragment of Roman roof tile was identified from context 6013. Although the fragment was abraded it is probably a fragment of *imbrex* dating from the mid-1st to late 3rd century.

Anglo-Saxon and early medieval pottery

A total of four sherds of pottery weighing 33g dating from the 10th to 12th century were identified to this period (Table 3) but are from later contexts and are therefore residual.

Fabric number	Fabric name	Total	Weight (g)
57	Cotswolds unglazed ware	3	32
46.2	Stamford	1	1

Table 3: *Quantification of the Saxon and early medieval pottery by fabric*

Three of the sherds were of Cotswolds unglazed ware (fabric 57, two from context 6017 and one from context 3016; Fig 20). Of the two sherds from context 6017 one could be identified as originating from a straight-sided jar (Deansway type 3) and dating from the 11th to 12th century. The remaining two sherds exhibited sooted exterior surface indicating probable cooking pot sherds but could only be dated to this fabric's production span of 10th to 12th century.

A single sherd of Stamford type ware (context 2070, fabric 46.2) was identified. The rim sherd was of a small and undiagnostic but its thickness would suggest originating from a cup finished with a pale green glaze. Although Stamford wares were produced in Lincolnshire from the mid 9th to mid 13th century this fabric tends to date from the 10th to 11th century when found in Worcestershire.

Medieval pottery

The medieval pottery assemblage consisted of 1019 sherds weighing 15.23kg and accounted for 63% of the total pottery assemblage. The level of sherd preservation was good with few sherds exhibiting any degree of abrasion. Locally produced wares, namely those of the Worcester and Malvernian industries, dominated the medieval pottery assemblage with 95% represented by five local fabric types. These were early Malvernian glazed ware (fabric 53), Malvernian unglazed ware (fabric 56), oxidized glazed Malvernian ware (fabric 69), Worcester-type unglazed ware (fabric 55) and Worcester-type sandy glazed ware (fabric 64.1). The remaining fabrics within the medieval assemblage consisted of a single regional fabric, Ham Green ware (fabric 143.1), and two non-local wares being southern white ware (Tudor Green, fabric 70.1) and glazed sandy ware (fabric 64.2). All of these fabrics have been discussed in detail by Hurst and Rees (1992) and within the report for Deansway, Worcester (Bryant 2004). All sherds were of a standard domestic nature, with a range of forms and fabrics identified and discussed below.

Fabric number	Fabric name	Total	Weight (g)
69	Oxidized glazed Malvernian ware	747	11316
64.1	Worcester-type sandy glazed ware	110	971
55	Worcester-type unglazed ware	79	853
56	Malvernian unglazed ware	33	282
53	Early Malvernian glazed ware	1	18
70.1	Southern white ware (Tudor Green)	27	101
64.2	Glazed sandy white ware	7	34
143.1	Ham green ware type A	1	4

Table 4: *Quantification of the medieval pottery by fabric*

Locally-produced wares

The medieval pottery assemblage was dominated by oxidised glazed Malvernian ware (fabric 69) accounting for 74% of the total medieval sherd count (747 sherds weighing 13.58kg). This fabric was an important medieval and early post-medieval pottery industry located between the Malvern Hills and the River Severn with sherds of this fabric commonly dominating medieval pottery assemblages within Worcester. However there are occasional exceptions such as that from the City Arcade excavations where this fabric formed only 4% of the medieval pottery assemblage (Griffin *et al* 2004). While this industry has a broad production span from the late 13th into the early 17th century a number of form sherds were identified as medieval in date.

The most common forms within this fabric were that of jars and bunghole jars (types 69.7 and 69.8) with an estimated vessel equivalent of eleven vessels, dating from the 15th to 16th century (contexts 1033, 1066, 1125 1129, 2174, 2195 and 7045). Jugs were also well represented with a Type 69.2 jug of 14th century date from context 1128 and type 69.4 rounded jugs (contexts 1129, 4009, 4013, 6014 and 7049), which could be dated from the later 14th to 15th century.

Further domestic wares of this fabric included seven flared bowls (type 69.9) dating from the later 15th to 16th century (contexts 1067, 1125, 2018, 2066 and 7045) and five dripping dishes (type 69.5) dating from the early 15th to 16th century (contexts 921, 937, 971 and 1129).

The remaining identifiable forms consisted of two skillet sherds (type 69.6, contexts 1102 and 2066) and a single chaffing dish sherd (type 69.12; context 2186). While the skillets are probably of 15th century date the chaffing dish could be dated to the 16th century.

The second largest fabric group was of Worcester-type sandy glazed ware (fabric 64.1, 10%) with 110 sherds weighing 2.17kg. This fabric is believed to have been produced at a number of kiln sites in or around Worcester with documentary evidence referring to Worcester potters in 1187 (Hollins 1934-50) although no kiln sites have ever been located. The most common forms within the assemblage were jugs (type 64.1.4.1 dating from the 13th to 14th century) present in contexts 1127 and 2069. A possible type 64.1.4.3 was also identified from context 3010 and also dated from the 13th to 14th century. The remaining form in this fabric was a stab decorated handle from a type 64.1.1 tripod pitcher from context 1100 and dating from the 12th to early 13th century.

Worcester-type unglazed ware (fabric 55) comprised 79 sherds weighing 8.53 kg (7%). Worcester type unglazed ware was probably produced in the same kilns as the Worcester sandy type glazed ware as the fabrics are the same however, at time of writing, there is currently no archaeological evidence to support this theory. All forms identified were of jars with the majority of sherds displaying fire blackening/sooting indicating that their primary function was as cooking pots. A range of types could be identified against similar vessels excavated at Deansway with two type 55. 2 simple everted rim cooking pots (contexts 2066 and 2070), two type 55. 3 thickened, everted rim cooking pots (context 6017) and one type 55.7 pitcher (context 1127).

Thirty-three sherds of Malvernian unglazed ware (fabric 56 weighing 282g) constituted 3 % of the assemblage and would have been produced in the same locality as the oxidised glazed Malvernian ware. All sherds of this fabric exhibited sooted exteriors, indicating that all had originated from cooking pots. The majority of sherds could only be dated to the general production span for this pottery industry of late 12th to 14th century date. However a single diagnostic rim sherd could be more closely identified as a type 56.2 cooking pot with short everted folded rim dating from the early to late 13th century.

A single base sherd of early Malvernian glazed ware (fabric 53), with a thin yellow-green glaze, was identified from context 6006. Another product of the Malvern industry this pottery was produced midway between the Malvern Hills and the River Severn with documentary and archaeological evidence supporting the area of Hanley Castle as one probable location (Hurst 1994). The fact that only a single sherd is represented within the assemblage reflects previous

observation on the rareness of this fabric within assemblages from Worcester (Bryant 2004; Griffin *et al* 2004, 77-8). While the sherd was undiagnostic the evidence from Deansway suggests that a limited form range was produced with the main form being that of tubular spouted tripod pitchers with rod handles (Bryant 2004, 297). While the sherd could be dated to the late 12th to 13th century, context 6006 has a *terminus post quem* of 17th century date.

Non-local wares

Non-local wares formed only 3% of the sherd count of the medieval pottery assemblage and were representative of only three fabric types. These included sherds of Southern white ware, commonly known as Tudor Green (fabric 70.1), glazed sandy white ware (fabric 64.1) and Ham Green type A (fabric 143.1).

The dominant non-local ware was that of Tudor Green (fabric 70.1) accounting for twenty-seven sherds weighing 101g. This particular fabric was produced from the late 14th to 16th century on the Hampshire/Surrey border. All sherds had dark green glaze and while no distinct form types were present, sherds had the general appearance of originating from fine tablewares. These included possible cups from contexts 1081, 1128, 1136, 2066, 3003 and a possible jug from 1127. All sherds could only be dated to their general production span of late 14th to 16th century.

Seven sherds of glazed sandy white ware (fabric 64.2, 34g) were identified although, as with the Southern white ware, no distinct forms were present but the most commonly produced vessel forms are shouldered jugs. Sherds of this fabric could therefore only be dated by general fabric production span of 13th to early 14th century with sherds from contexts 1074, 1130, 2066, 3010, 6014 and 7036. The source of this ware is unknown though similarities with some vessels produced in Staffordshire may indicate a production source in this area (Bryant 2004, 317).

The remaining non-local ware consisted of a single sherd of Ham Green type A (fabric 143.1, 4g) from context 1079. No form was identified although all of the vessels of this fabric type excavated at Deansway were jugs (Bryant 2004, 310). This pottery industry was located at Ham Green on the outskirts of modern Bristol and was producing this fabric type during the 12th century with products traded as far as southeast Ireland.

Post-medieval pottery

A total of 524 (5.77kg) sherds of post-medieval pottery were examined from selected context groups and accounted for 34% of the total pottery assemblage. The post-medieval pottery consisted of a standard range of fabric and form types commonly encountered within post-medieval pottery assemblages from Worcester dating from the mid 16th to 18th century.

Fabric number	Fabric name	Total	Weight (g)
78	Post-medieval red sandy ware	346	3593
81.11	Frechen stoneware (Germany)	7	48
81.2	Westereald stoneware (Germany)	1	17
81.5	English white salt glazed stoneware	4	34
90	Post-medieval orange ware	27	814
91	Post-medieval buff ware	25	431
77	Midlands yellow ware	23	173
82	Tin glazed ware	19	120
108	Midlands purple ware	19	96
84	Creamware	18	41
83	Porcelain	5	19
70.2	Southern white ware (Border ware)	5	13
75	North Devon gravel tempered ware	4	180
72	Brown glazed speckled ware	1	2
81	Stonewares	12	116
81.4	Miscellaneous late stonewares	8	79

Table 5: Quantification of the post-medieval pottery by fabric

The dominant fabric type was of post-medieval red sandy ware (fabric 78), which is consistent with Worcestershire post-medieval assemblages due to the range of forms and scale of production. Three hundred and forty six sherds of this fabric were identified, weighing 3.59 kg, in a range of form types. While the majority of undiagnostic sherds could only be dated from the 17th to 18th century a few forms could be more closely dated by ceramic *tpq*. A second potential date range indicator for this fabric has been the identification of bands or pellets of off-white to white clay inclusions within fabrics specifically from 18th century contexts. This may be the result of English potters attempting to produce finer white-bodied fabrics to compete with imported continental and Chinese vessels. It would follow that any residual or waste clay would not be discarded and mixed with the red wares clay rather than wasted.

The most common forms present were those of cups/tygs with a black glazed finish over an iron rich red slip. Several were identified as dating from the 17th century by *tpq* from contexts 1125, 6006, 6013, and 7041. The remaining forms of this type could only loosely be dated to between the 17th and 18th century due to the potential for residuality in later 18th century contexts. The remaining identified forms included pancheons from contexts 7036, 907 and 906 dating from the later 17th to 18th century and storage jars from contexts 2018, 7004, 7013, 7036, 7045, 907, 915 and 937 dating to the 17th to 18th century. A rim sherd from context 7013 was identified as originating from an 18th century chamber pot. All of the post-medieval red sandy ware forms were typical of general household domestic vessels.

A range of stoneware fabrics and vessels were also present (33 sherds weighing 298g.) and included both English manufactured and imported vessels. Of these twelve sherds could only be classified as general stonewares (fabric 81) with another eight of miscellaneous late stonewares (fabric 81.4) dating from the later 19 and earlier 20th century. However, seven sherds were identified as imported stoneware from Frechen in Germany (fabric 81.11, contexts 1048, 1081, 2066, 3011, 6014 and 10013). Jugs were the dominant form in this fabric, with a single tankard sherd from context 6014. All were distinguished by an external mottled tan salt glaze and are most likely dated from the 17th to 18th century when they were imported in large quantities. A single rim sherd was identified as Westerwald stoneware (fabric 81.2), also imported from Germany. This fabric is distinctive due to its grey salt glaze with cobalt blue highlights to the body decoration. The rim sherd could be identified as originating from an 18th century tankard (context 7045).

A small quantity of English white salt glazed stoneware (fabric 81.5) was also identified with the assemblage (four sherds weighing 34 grams). Forms identified consisted of a small jar (context 2063) and two plate sherds (context 1012). English white salt glaze was at its most popular from the 1720's with production mostly centred on fine tablewares and tea services. While white salt glazed stoneware was seen as a cheaper and more robust product than imported porcelain and tin glazed wares it eventually lost popularity with the introduction of Staffordshire creamwares in around 1760s.

Post-medieval orange ware (fabric 90) was the third largest fabric type accounting for 27 sherds weighing 814g, and is an 18th century fabric type of which little is known. While it may originate from Staffordshire, it is probable that it was produced at a range of kiln sites throughout the country and has a range of forms similar to those of post-medieval red sandy wares (D Hurst pers comm). The majority of sherds were undiagnostic with only a pancheon (context 1063), jar (context 965), press-moulded platter (7004) and two plate sherds (context 10007 and 10002). All sherds are finished as for those of fabric 78 with red slips and dark brown to black glazes.

Also identified were a number of sherds of post-medieval buff wares (fabric 91, 25 sherds weighing 431g). The development of this buff fabric during the 18th century is potentially the result of English pottery industries attempting to source or produce paler clay types to complement or compete with the importation of large quantities of white-bodied export Chinese wares during the period. The range of forms present within this fabric typically parallel those of post-medieval red and orange sandy wares with a range of domestic ware types. These included press-moulded platters (contexts 1058, 1075 and 7045) with piecrust rims further decorated with an internal ochre-yellow glaze with feathered and/or combed-through brown slip. Further forms in this fabric included a pancheon (context 1012), jars (context 907, 937 and 1012) and a tankard (context 907) all finished in a black on red slip glaze.

A total of 23 sherds of Midlands yellow ware (fabric 77, weighing 173 g) were identified with no form types present. While Midlands yellow ware is believed to have been produced at a number of kiln sites from the 16-17th century the majority of sherds from the Commandery were recovered from contexts with ceramic *tpqs* of 18th century date including those of more specific mid to late 18th century date (contexts 1012, 1058, 1063, 2066 and 907). While a level of residuality is to be expected, in the author's opinion, the Commandery assemblage suggests that Midlands yellow ware was produced into at least the mid-18th century.

Tin glazed ware sherds (fabric 82, 19 sherds weighing 120g) were identified from several contexts and could be generally dated from the 17th to 18th century. However a single decorative plate sherd from context 7036 has a pictorial decoration in using yellows browns and various blue glazes and has similarities to English produced 'Adam and Eve' decorated plates produced from the early to mid-17th century. The remaining forms identified were of small storage pots with various hues of blue bands commonly produced during the 18th century (contexts 1051, 7045). Unfortunately it was not possible to determine if the sherds were of imported or English produced wares.

A similar quantity of Midlands purple ware (fabric 108) was identified from 18th century and latter contexts (19 sherds weighing 96g). The distinguishing feature of this fabric is that it is very hard with an almost vitrified appearance to the fabric due to being highly fired. Few forms were identifiable due the small size and lack of diagnostic features, though a probable cup from context 2066 and tygs from context 2066 and 7023 were identified all possibly of 18th century date.

Creamware (fabric 84) sherds accounted for a total of 18 sherds weighing 41 g. As mentioned, creamwares replaced white salt glaze stonewares in the later 18th century. This fabric was also at its most dominant from around 1760 through to 1790, when it was in turn replaced by the growing demand for modern stonewares and English made porcelain. The few forms that were present were indicative of production of fine tablewares and included plates (contexts 1012,

7001, 7004, 7005, 907 and 970), cups (contexts 2027), small jar (context 2186) and bowl (context 7004).

A total of six porcelain sherds (fabric 83) were identified as post-medieval in date with all five sherds (weighing 19g) from mid to late 18th century contexts (1012, 1047, 1058, 1075 and 1081, 2066). Only two forms were identifiable which were cups (context 1012 and 1081) and a sherd from a plate (context 2066). The cup sherd from context 1012 has an early 'Willow ware pattern' in blue on white making this an early example of this decorative style. The plate sherd from context 2066 is distinctive with under painted glaze and of an appearance that makes it a possible Chinese import.

The remaining sherds from the post-medieval assemblage consisted of five of Southern white ware, commonly known as Border Ware (fabric 70.2, 13g), four sherds of North Devon gravel tempered ware (fabric 75, 180 g) and a single sherd of brown glazed speckled ware (fabric 72, 2g). The Border ware was produced along the Surrey/Hampshire border and was produced from the late 15th to early 18th century. All sherds identified of this fabric were from 17th to late 19th century dates indicating that these sherds represent probable 17-18th century production of this fabric. The only form identified was a cup handle from context 1102, which has a *tpq* of 17th to 18th century date. North Devon gravel tempered ware (fabric 75) was produced from the late 16th to 18th century with the only form type identified was a pitcher from context 1127 of late 16th century date. The single sherd of brown glazed speckled ware (fabric 72, context 7024) could be dated to the late 16th to 17th century and is a possible for runner to the post-medieval red sandy ware industry.

Discussion of the pottery assemblage

While the Roman assemblage consisted completely of residual material it does indicate a strong probability of well-preserved Roman archaeological deposits on site. Although sherd size was relatively small, the good level of preservation indicates a low level of disturbance to these potential deposits during later periods. While no distinct form types were present the assemblage is representative of general domestic tablewares, including finewares, produced throughout the Roman period and therefore, along with the roof tile fragment, indicates potential domestic settlement on site during the Romano-British period.

As with the Roman material, the Saxon and early medieval pottery sherds are residual. Due to the small number of sherds and limited fabric type it is difficult to discern the extent of Saxon and early medieval activity on site. However, the small quantity of pottery identified does not rule out the potential for well-preserved Saxon and early medieval archaeological features on site.

The medieval assemblage is interesting in that it reflects the occupation of the site during this period with a standard range of local and non-local wares encountered within Worcester. As a medieval site occupied by persons with a range of status and responsibilities (unlike the general town population) there is no differentiation in the fabrics and forms that are frequently encountered on other urban medieval sites in Worcester. This demonstrates that the medieval Hospital at the Commandery had access to the same markets and was procuring pottery vessels no different then those available to the general population of Worcester at that time.

The range of forms during the medieval period are of types used within kitchens for the storage, dispensing, cooking and final consumption of food and drink. As such, the pottery assemblage is a valuable insight into these social activities during the medieval period on the site and again reflects the similar domestic requirements of the Hospital to general urban occupation. It is also indicative, against the background of the standing buildings, of intensive occupation during the medieval period

The post-medieval assemblage is significant in the large range of fabric types represented. The range of types reflects the dynamics of the pottery industry during the 17th and 18th century with local produced wares and the competition for markets between non-local and imported

wares from Europe and the Far East. Interestingly the Wyld family, who were effectively local gentry, occupied the Commandery during the 17th century. This leads to the assumption that their position of high status within the community would be reflected in a range of fine and costly tablewares. The pottery assemblage from this period does not reflect this but the family may have owned a range of more expensive pewter and silverwares that would not normally enter the archaeological record

The pottery record for the later 17th and 18th century is indicative of the general rising wealth of the middle class with their ability to afford a range of ornate vessels (more so the imported wares such as Chinese porcelain and German stonewares) and a move from purely functional vessels into fine and decorative table wares that reflect individual status and wealth. It also further represents the industrialisation of manufacturing in general, with large-scale production and improved transportation reflected in the diversity of the pottery types from other regions and countries. It further shows the ongoing domestic occupation of the Commandery with a shift from the functionality of the medieval vessels to the desire for pottery in finer fabrics and finishes especially in the 18th century.

2.2.2 **Metalwork (Angus Crawford and Angie Bolton)**

Silver

A penny from context 7060 was in worn condition with both the obverse and reverse detail in poor condition. The crown detail denotes that this particular coin is probably that of Edward III (1327-77). The reverse details are also difficult to discern but features a long cross with three pellets in each quarter.

A heavily worn penny issued during the reign of Edward the IV (1461-70 and 1471-83) was identified from context 4008. The obverse features a crowned bust with the obverse displaying a long cross with three pellets in each quarter.

A further silver penny in fragmented and worn condition was identified from context 1127. The small size of the fragments and worn surface condition made identification difficult. However the partial legend visible is of a style that would indicate that this coin was produced between 1066 and 1135 (William I, William II and Henry I).

Copper Alloy

A copper alloy medieval strap end or book clasp with hinged terminal, from context 1063, could be dated from the late medieval to early post-medieval period (Fig 21). The hinged terminal was in the form of a cast circular boss, pierced through the centre and with a projecting loop to the end.

A slightly incomplete hammered copper alloy medieval jetton, minted probably in the 14th century was recovered from context 1129 (diameter 20.11mm, thickness, 1.23mm, weight 0.62g). The jetton is in a poor and encrusted condition, restricting further identification.

A further jetton was recovered from context 1128 and was identified as a slightly incomplete hammered copper alloy medieval English jetton, minted between 1280 and 1350 (diameter 21.3mm, thickness 0.72mm, weight 1.09g). The jetton is in worn but fair condition with the obverse portraying a bust facing forward, wearing a crown and collar in wedges. There is a star on either side of the neck and stars forming the border instead of an inscription. The reverse displays a long cross with three stars in each quarter with continuing stars instead of an inscription. The obverse and reverse detail is similar to those found on medieval coins.

A single Nuremburg token was recovered from context 7036. The overall condition was in worn but fair condition with the obverse depicting three crowns, alternately with three lis, arranged around a central rose. The reverse depicted an Imperial orb within a tressure of three

arches and three angles. Both the obverse and reverse legends are in poor condition however the obverse could be identified as the maker's name of Hans Shultes of which there were three generations producing under this name. However the use of a distinctive wedge shaped stop within the legend is typical of Hans Shultes I who was master in 1553 and died in 1584

Iron

A partial iron rowel spur was dated to the mid 14th century (context 1127). The D-section sides plunge in a deep curve that would have gone below the wearer's ankles and then risen upwards towards the terminals. The sides join in a pointed crest, which curves slightly above the low set neck. Both the terminals and the rowel box are missing.

Lead

A single lead alloy or lead uniface token was recovered from context 2041. In plan the token is sub-circular, with a portion of the edge being abraded and distorting the original shape. The upper surface is decorated with a high-relief 'AI' which has serifs terminating with pellets. The reverse is undecorated. The token measures 19.86mm long, 17.26mm wide and weighs 3.16g. The use of lead tokens or counters is debateable, but may have been used as pieceworkers tallies, gaming counters, communion tokens or reckoning counters and have been found in contexts dating from the 13th to 17th century. Lead tokens are also thought to date until the 19th century.

A fragment of unstratified lead alloy printing type was identified from trench two. The cast type set is for an advertisement for 'Cognac Brandies' of 'ordinary' and 'excellent quality' and most likely dates to the period when the Commandery was occupied by a print works (1905-70)

Further lead finds included a thirteen fragments of probable medieval 'H' profile window leading weighing 103 grams from contexts 1127, 7045, 7059, 7046, 7013 and 2148.

2.2.3 **Medieval floor tiles (Laura Griffin)**

A substantial assemblage of 451 floor tiles and fragments was retrieved from the site. These consisted of decorated, plain and a small number of unglazed types and could be dated to the later medieval period on basis of fabric and general appearance. A total of 47 individual designs could be identified from the 148 decorated tiles, whilst the 274 plain tiles displayed a variety of dark green, black, brown and yellow glazes.

Two main fabric types were identified, one being of Malvernian production and the other being largely sandy and reminiscent of that of roof tiles produced in Worcester during the medieval period. Typically, the Malvernian tiles were of higher quality than those of Worcester production but the body of the majority were well-made in the mould and bevelled slightly towards the base to allow the tiles to be set edge to edge without gaps or mortar showing from above. None of the tiles displayed keying on the underside, although all were sanded.

The assemblage consisted of two broad diagnostic groups consisting of general square pavement tiles and edging tiles which were either triangular or rectangular in form. As would be expected, square tiles dominated but of the edging tiles, the triangular form far outnumbered the rectangular indicating that the original pavements incorporated panels with diagonal designs, an assumption confirmed by a number of decorated tiles from multi-tile patterns.

A full fabric description of floor tiles produced in both Malvern and Worcester has recently been published (Lewis 1999, 44; Group 20). Although, an actual floor tile kiln has not so far been discovered in Worcester, the identification of a number of floor tile wasters from Silver

Street, Worcester and considerable documentary evidence (Brown 1990) points towards this having been a production site for tiles of this fabric and corresponding designs in the case of decorated examples.

The largest groups of tiles came from contexts 1063 and 7049 and contained 156 and 142 tiles and fragments respectively. The contexts were of distinctly different dates as indicated by both the floor tile assemblage itself and the artefactual assemblage as a whole. The earlier of the two was 7049 which was identified as a demolition layer lying within an annexe of the Chapel structure identified in Trench 7, with designs seen on the decorated tiles all of 14th century date. Although the tiles did not form a floor upon excavation, all had remnants of mortar adhered to the surfaces and had clearly been laid as a pavement previous to demolition. Although the datable designs from context 1063 included a number of 14th century types, there was also a small group which were clearly later, being 15th-16th century in date. As with context 7049, this was also a demolition layer with no definable surface on which the pavement would originally have lain.

Decorated floor tiles

A significant assemblage of decorated tiles was retrieved from the site with a total of 47 individual designs present (Table 6). The majority of these could be paralleled with examples from elsewhere, both local and from further afield. However, a number of designs appear to be unique to the site at the present time. In addition, a further 52 fragments of decorated tile were too small or worn to be assigned a specific design type and were recorded as unidentifiable. Where surviving, the dimensions of the decorated tiles fell into a thickness range of 19-34mm and length and width were between 97-131mm².

A total of 20 identifiable designs could be paralleled with published examples from Worcester Cathedral Singing School (Keen 1978), the majority coming from contexts within trench 7. As typical of the tiles identified at the cathedral, the inlay on these examples was an extremely thin skim of less than 2mm deep and the overglaze of poor quality. In some cases, impurities in the glaze had obscured designs and in others, the thin nature of decoration had resulted in designs being lost or unidentifiable due to wear and post-depositional abrasion. Patterns within this group included individual designs, as well as tiles from 4-, 9- and 16 tile patterns. Identifiable designs included a small number of coats-of-arms with those of the Beauchamp and Clare families represented. However, the presence of these tiles does not necessarily indicate a specific connection with either family as heraldry of this type was commonly used for decorative purposes during this period (*ibid*, 159). In addition, there were also a number of tiles displaying heraldic animals such as lions and birds of prey, including two from the 4-tile 'Lion of Cornwall' design.

Many of the tiles within this 'Worcester' group displayed areas of reduction towards the centre of the upper surface, a feature commonly associated with examples of the 13th and 14th centuries, where earlier firing techniques resulted in fusion of the glaze preventing complete oxidation of the surface beneath. The floor tile industry in Worcester is thought to have begun c 1340 (Lewis 1999, 44) and dating based on associated finds from this site and parallel designs from the Cathedral Singing School pavement which were laid in 1377, confirms a probable 14th century date for the tiles within this group.

In addition, a small number of edging tiles were also present within this group and consisted of five rectangular and five triangular. The rectangular examples all had 'chequerboard' decoration, with three also having a stylised 'S' within each of the plain squares running down the centre of the tile. Parallels for this latter type have been noted at St Oswald's Almshouses in Worcester (White 1992, fig 4, no. 2), whilst examples without lettering can be seen in the Cathedral (Parker-Hore Collection, design w173). All but one of these rectangular tiles came from context 1063, indicating that this design was particular feature of the tiled floor within that building.

The triangular edging tiles within this group were particularly notable as all appeared to have been cut to size from square tiles and as a result were of varying size. There are two possible explanations for this – the first being that they were trimmed to fit specific spaces within the pavement as it was lain or another possibility is that they were used to replace broken or missing tiles at a later date. Four of these tiles came from context 7049 and despite only one design being identifiable, the dating indicated by this, the fabric of tiles and dating of the context itself would suggest that these tiles were contemporary with the rest of the floor from the chapel annexe and most likely lain at the same time.

A further 12 designs had been previously recognized within pavements from Worcestershire and published within Eames' catalogue (1980) and/or as part of the Parker-Hore Archive Collection (online at <http://tileweb.ashmolean.org>).

The fabric of these tiles indicated that they were produced within the County and a small number could be attributed to the Great Malvern industry. These tiles were typically of higher quality than those of Worcester manufacture with the slip decoration being thicker and the glaze of a higher quality, resulting in much brighter designs and better preserved surfaces. Amongst the patterns in this Malvernian group were two monograms, one being a sacred inscription seen elsewhere on small wall tiles. The second was the monogram of Robert Elyot who was Abbot of St Augustine's, Bristol, between 1515-1525 (Eames 1466), parallels of which have been found within the Canynges Pavement and at St Peter's Church, Droitwich.

In addition, there were a small number which could be paralleled with other tiles recorded outside of the region (Eames 1980). These included two of Bristol/ Canynges type (contexts 1063 and unstratified) with designs identical to examples seen in the Canynges Pavement. However, the most interesting of these non-local designs were seen in a group of seven tiles from context 7049 which were of London or Westminster type, with known examples from Finch Lane, London, and Westminster Abbey Muniment room. However, the presence of such designs from pavements in Worcester would not be unexpected, as these types of tiles are found on numerous sites in the west midlands (Laurence Keen, pers comm).

Plain floor tiles

The plain floor tile assemblage bore many similarities to the decorated group described above, although the majority were thicker than the decorated examples, falling between 20-40mm. As with the decorated examples, the two most substantial groups of plain tile were from contexts 1063 and 7049. The square tiles appeared to fall roughly into two size groups with a small type averaging between 95mm² and 100mm² and larger examples being between approximately 120mm² and 130mm², with some slightly smaller and some slightly larger. The majority were well worn with even edging tiles displaying considerable surface abrasion and in some cases, the upper surface appeared unglazed due to only tiny fragments of glaze surviving.

The glaze colours fell into fifteen groups, all based around four main colours of yellow, green, brown and black. Those with a yellow glaze dominated with 86 tiles - over twice as many present than the second largest group consisting of those with a dark green speckled glaze. In addition to the general yellow glazed group, there were a further 18 which could be described as yellow were separated out due to a distinctive pinkish hue to the slip beneath the glaze. All were came from context 7049, of triangular edging form and of the sandy Worcester-type fabric described above, indicating them to be of 14th century date.

There were 30 tiles with black glaze and these were of particular note for having a noticeably thicker glaze than those of other colours and were also generally smaller and thicker. The majority were identified within context 7049 and similar tiles were also noted within the assemblages from the nearby sites at Friar Street and Deansway which could both be dated to the 14th century and as with the small group of distinctive yellow tiles above, the fabric indicates them to be of local manufacture.

Tiles with green glaze, fell into three groups consisting of speckled green, dark speckled green and dark green. In addition, there were further variations with a small number so dark in colour that they were almost black and some of a more brownish hue. It is not known whether these variations in colour were actually intended or whether firing and glazing techniques have resulted in noticeable variations.

Only 16 tiles were decorated with brown glaze but once more there was considerable variation within this small group with colour ranging from a dark purplish brown through to brown with green speckles. As with those with green glazes above, it is not clear whether these differences were deliberate.

Plain edging tiles consisted of 66 triangular and two rectangular examples. Of the triangular tiles, 37 came from contexts within trench 7 and 26 came from trench 1. The majority of these triangular tiles were clearly produced as such in the typical manner, having been scored and snapped. However, once more a small number appeared to have been roughly cut down from tiles intended to be square. Both of the rectangular examples came from context 1063 and both also appeared to have been cut from larger tiles.

Discussion

As mentioned above, the majority of the floor tiles from this site came from two distinct areas of different date (Trenches 1 and 7) and therefore, the discussion below shall look at each of these groups in turn.

Trench 7. The 187 floor tiles retrieved from this trench appear to have resulted from the demolition of a small room attached to the chapel. Of these, 142 came from a single layer (context 7049) and could be dated to the 14th century on the basis of both fabric and identifiable designs. Although the tiles were no longer *in situ*, all had mortar adhered to the surfaces and displayed levels of wear consistent with having been used as a floor surface. Furthermore, the presence of triangular edging tiles in combination with the orientation of patterns, both on individual tiles and on those making up multi-tile designs, would indicate that the original layout of the pavement had incorporated diagonal panels.

Identifiable designs amongst the decorated tiles from this trench could be directly paralleled with a number from Worcester Cathedral (Keen 1978). The presence of such designs would be expected within a pavement of this date in Worcester and has been noted on other sites such as nearby Friar Street (Griffin 2002) and Deansway (White 2004). However, more interestingly, there were also a small number of 'Westminster' type designs identified.

Trench 1. A total of 199 tiles were retrieved from Trench 1, coming primarily from a large spread of demolition and ground surface make-up material (context 1063). Dating of the designs and the occurrence of tiles of Malvernian fabric within this group, would indicate the floor to have been later in date than that from the Chapel with examples of 15th-16th century date present.

As with the material from Trench 7, although no longer *in situ*, the tiles had clearly been lain as a pavement. Once more, there were a number of triangular edging tiles retrieved from this layer indicating the use of diagonal panels within the floor but there are also a number of rectangular edgers and patterns on both individual and those from multi-tile designs which could have been lain squarely.

Significance

This is the largest collection of floor tiles retrieved from an excavation within the City of Worcester and it is therefore significant for this reason alone. However, there are a number of additional features which make this assemblage stand out as being one of particular interest. Within Worcester, such tile pavements when found *in situ* have been identified within buildings of a religious nature, the cathedral having the largest collection, but also in smaller

buildings such as churches, chapels and religious houses. However, the building from which this floor came has no evidence, artefactual or otherwise, to indicate whether it was of a religious or domestic nature. A domestic dwelling with a floor such as this would be unique within the region, despite being widespread during the 14th century in other areas of the country, such as Seal House, London (Egad 1998, 38). The most well-known example outside of London, is that of Canynges Pavement in Bristol. This group of tiles appears to consist of 'seconds', originally produced for pavements elsewhere. If this was the case of the floor at Friar Street, the tiles may have been originally intended for use in one of the city's many religious buildings. However, Friar Street itself was on diocesan land during this period and it is possible that the building was originally occupied by a person with close connections with the cathedral.

<i>Type no</i>	<i>Design description</i>	<i>Where design identified</i>	<i>Where design produced</i>	<i>Date range</i>
Eames 1418; Parker-Hore collection w107	Sacred monogram	Great Malvern Priory	Great Malvern	1450s
Eames 1466; Parker-Hore collection w067	Monogram of Robert Elyot, Abbot of St Augustines, Bristol 1515-1525	St Peter's, Droitwich and Canynge's Pavement	Great Malvern and Canynges/Bristol type	L15C
Eames 1480; Parker-Hore collection w097	Heraldic - England before 1340	Great Malvern Priory	Great Malvern	1450s
Eames 1757	Lion	Westminster Abbey Muniment Room	?Westminster	14C
Eames 2108	Series of large circles and double band	Finch Lane, London	Westminster	14C
Eames 2209	Four fleur de lys and diagonal cross	London	?London	?14C
Eames 2243	Fleur de lys	Unknown	Westminster	14C
Eames 2581; Parker-Hore collection w218Q	Fleur de lys, quatrefoil, rosette, rose, cross, knot	Great Malvern Priory and Halesowen Abbey	Great Malvern/Worcestershire	?15C
Eames 2771	Part of a 4-tile design containing fleur de lys and foliage	Unknown	Gloucestershire/West Midlands	14-15C
Eames 2803	Part of a 4-tile design with rose and double band containing scrolling foliage	?Lilleshall Abbey/Evesham	?Worcestershire	15/16C
Eames 2980; Parker-Hore collection w070	Part of a 16-tile design with rose and foliage	Broadway Priory/?Evesham	Worcestershire	15/16C
Eames 2984	Part of a 16-tile design with foliage and double band	Halesowen Abbey	?Worcestershire	15/16C
Eames 3003	Part of a 16-tile design with foliage and double band containing roses	Broadway Priory	?Worcestershire	15-16C
Similar to Eames 2321	Large, central flower within a circular band	Lesnes Abbey	?Kent	14C

Similar to Eames 2336	Central flower within circle punctuated by series of dots and small circles in each corner	Unknown	?Penn	14C
Similar to Eames 2695	Part of a 4-tile design with foliage and a double band containing roses	Great Malvern Priory Church	Great Malvern	1450s
Similar to Eames 2895	Part of a 9-tile design with double band, roses and foliage	Canynges's Pavement	Canynges/Bristol type	L15C
Keen 6	Two birds facing with heads turned towards each other, with central stem	Worcester Cathedral	Worcestershire	
Keen 8	Part of a 4-tile design – 'The Lion of Cornwall'	Worcester Cathedral	Worcestershire	
Keen 10	Part of a 4-tile design – 'The Lion of Cornwall'	Worcester Cathedral	Worcestershire	
Keen 12	Part of a 9 tile design with trailing leaves in a double circular band and ivy leaves.	Worcester Cathedral	Worcestershire	14C
Keen 18	Two birds facing with heads turned away, with a central stem and leaves.	Worcester Cathedral	Worcestershire	14C
Keen 24	Part of a 4 tile design with double band containing leaves with 3 oak leaves at each corner.	Worcester Cathedral	Worcestershire	14C
Keen 27	Part of a 16 tile design.	Worcester Cathedral	Worcestershire	
Keen 30	Part of a 16 tile design with double band containing a geometric leaf motif and part of a pelleted cusped band.	Worcester Cathedral	Worcestershire	14C
Keen 31	Part of a 16 tile design with double band containing a geometric leaf motif and part of a pelleted cusped band.	Worcester Cathedral	Worcestershire	14C
Keen 35	Heraldic shield with central horizontal	Worcester Cathedral	Worcestershire	

	band and six crosslets – Beauchamp family Coat of Arms			
Keen 38	Heraldic shield with diagonal fret	Worcester Cathedral	Worcestershire	
Keen 43	Lion passant within a circle with fleur-de-lys at corners.	Worcester Cathedral	Worcestershire	14C
Keen 45	Four fleur-de-lys in a diagonal cross	Worcester Cathedral	Worcestershire	
Keen 46	Geometric quatrefoil	Worcester Cathedral	Worcestershire	
Keen 47	Fleur-de-lys.	Worcester Cathedral	Worcestershire	
?Keen 11	Part of a 9-tile design with foliage and a double band containing scrolling leaves	Worcester Cathedral	Worcestershire	
Similar to Keen 37	Heraldic design with series of chevrons and foliage around base of shield - ?Clare family Coat of Arms	Worcester Cathedral	Worcestershire	
Similar to Keen 41	Heraldic design with stag's head and foliage	Worcester Cathedral	Worcestershire	
Parker-Hore collection G063	Rose and foliage	Gloucester Cathedral	?Worcestershire	15/16C
Parker-Hore collection w173	Geometric and architectural design - chequerboard	Worcester Cathedral	Worcestershire	14C
Parker-Hore collection w070	Part of a 16-tile design with rose and foliage	Broadway Priory/?Evesham	Worcestershire	15/16C
White 2	Chequerboard design with stylised 'S' in plain squares	St Oswald's Almshouses, Worcester	Worcestershire	14C

Table 6: Decorated tiles

Glaze colour	Total	Weight (g)
Black	1	242
Brown/black	1	178
Dark brown	1	240
Dark green	13	1954
Dark green/black	6	878
Dark green/brown	2	310
Green	25	5198
Greenish brown	2	168
Greenish yellow	2	268
Yellow	5	990

Table 7: Undecorated tiles

2.2.4 Worked stone (Georgina McHugh)

Stone objects

A total of 3 stone objects were recorded (Table 8). All building stone was quantified by count and weight (Appendix 1). The diagnostic pieces of building stone have been catalogued by provisional interpretation, architectural date and stone type.

Context	Identification	Context date	Stone type
1053	Broken irregular-shaped stone (4cm x variable width 2-3.5cm x variable depth 0.5-1cm). Possible whetstone	Mid 19 th century to present	Unknown
2018	Trapezoid-shaped undamaged piece (c.3.5cm x 2.5cm x 1cm). Whetstone.	15 th /16 th century to late 18 th century	Unknown
2071	Broken, roughly rectangular piece with 1 slightly concave edge (7cm x variable width 3.5-4.5cm x 2cm). Whetstone.	15 th /16 th century to late 18 th century	Unknown

Table 8: Catalogue of stone objects

Building stone

In total 876 pieces of building stone were examined from The Commandery site. The method of study was by macroscopic examination. Quantification of the stone has been summarised in Appendix 1. The following types of building stone were identified:

Lower Lias. Blue Lias limestone was used in the Roman, Anglo-Saxon and medieval periods in Worcester, for paving slabs and probably for building foundations, and was the commonest building stone found in medieval contexts at Deansway (Roe 2004, 477). It is not a 'freestone' that can be carved. It was used as in the precinct wall of Worcester Cathedral but not in the building itself (Prentice 1994).

Lower Keuper (Bromsgrove) Sandstone. This red Triassic sandstone is a common building stone in medieval Worcester, and was used to build the medieval City Wall (Roe 2004, 277) and was used in the Cathedral. The quarries for this stone were probably in Ombersley (P Oliver pers comm.).

Jurassic limestone. This oolitic limestone was used in the medieval period for architectural details. The stone was used extensively in Worcester Cathedral throughout different periods of construction and was transported from the Cotswolds (Prentice 1994).

Carboniferous sandstone. This greyish-green sandstone was used extensively in the construction of Worcester Cathedral in the medieval period, and was quarried at Highley and Alveley in Shropshire, close to the River Severn (Prentice 1994).

Other stone. As well as these four main types of stone examples of marble or alabaster, slate, chalk and black stone which is possibly Purbeck marble.

The majority of the architectural stone was Jurassic limestone (189 pieces). Of these 144 pieces were found in one context (6013). The rest of the architectural stone comprised Carboniferous sandstone (11 pieces), Lower Lias (6 pieces) and Lower Keuper (Bromsgrove) sandstone (6 pieces).

Discussion

The site produced a limited range of stone types most of which would have been available from local quarries. Most of the architectural stone was white Jurassic limestone but nearly every piece found was broken.

Concentrations of building stone occurred in only 5 contexts: 6013 (dated to the late 15th century) contained 140 pieces; 7049 (late 15th century) contained 7; 6006 (17th/18th century) contained 15; 1125 (16th to late 18th century) contained 7; and 2155 (mid 19th century to present) contained 10. Other contexts contained only 1 or 2 pieces.

Context 6013 produced most of the architectural stone found on the site. The majority of pieces were Jurassic limestone, tooled on one or two surfaces. Context 7049 contained 14 fragments of Jurassic limestone in the form of cylindrical shafts. As both contexts were broadly contemporary, and found less than 20m apart, the pieces may have come from the same building or feature. Indeed, they are most likely to represent a major refurbishment of St Gudwal's chapel. Later contexts produced only a few architectural pieces but included some distinctly decorative ones, such as the sandstone arcs from context 4006 (Fig 22), and a cylindrical fragment of sandstone with traces of red paint and gold leaf from context 1126 (Fig 22). There was also a Jurassic limestone finial from context 3016 (Fig 22). All three pieces were medieval, and residual in the contexts in which they were found.

2.3 **Building recording (Shona Robson-Glyde)**

2.3.1 **Painted chamber**

Recording of the roof space above the painted chamber took place in June and July 2006. The recording consisted of photographing and drawing the timbers revealed once the roof tiles were removed in preparation for re-roofing the structure. The drawings of the revealed timbers within the roof space produced 1:10 elevations of the two gable ends of the room and 1:20 sections of the rafters.

The painted chamber is situated between Trusses 4 and 5 of the west range and formed part of the late medieval hospital. Truss 5 forms the north gable of the chamber and truss 4 forms the south gable. This phase has been dated to 1468-73 by dendrochronology. The chamber has decorated panels on its two gable walls, a decorated ceiling, and stencilling between the truss

posts and wind braces on the sidewalls. It was believed that all the decoration, and therefore all the timber fabric were of the same date.

The recording of the timbers revealed the two gable ends of the room containing their original staves, wattles and daub coverings. This daub was very white in colour, and contained a large amount of straw. The north gable (Plate 59) had a hole cut through it to allow access from the adjoining roof space. The south gable (Plate 60) had been partially filled with brick in the early 18th century when alterations were made to the building. The original rafters of the building (Plate 61), despite added pieces of wood on the exterior to strengthen the rafters when new tiles were put on the roof, were intact on the interior (Plate 62).

All of the timbers recorded were typical of the architectural style expected for the 15th century and therefore are consistent with the dendrochronological date given to the building. The ceiling joists holding the painted ceiling were nailed to the purlins. If these joists had been the same date as the purlins, they would have been jointed together. The internal faces of the rafters and the trusses had surviving patches of lime wash (Plates 61 and 63) still attached to them. These two pieces of evidence show that the painted ceiling must date later than the painting of the rest of the chamber as there would be no need to lime wash the interior faces of the timberwork in the roof space if they were to be hidden above the painted ceiling.

The removal of the roof tiles revealed the external facing of the laths used on the side pitches of the painted chamber. The lath and plaster for the areas between the trusses and the wind braces (Plate 64) had a different type of plaster and laths than the rest of the roof pitch. It is probable that these areas had their lath and plaster repaired in the 19th century or later and may even date to the 1930s restoration of the painted chamber by Miss E M Moore

2.3.2 Garden walls

Recording of the boundary walls took place in July 2006 (Fig 3). The recording consisted of photographing the brick walls around the north, east and south gardens of the Commandery and those dividing the gardens. Digital photographs were produced with scales in each shot.

A number of phases of brickwork were recorded during the photography. The north boundary, running between Derby Road and Wyld's Lane, had partially collapsed (Plate 65) by heavy rains immediately prior to the recording. This boundary contained a large amount of early bricks (Plate 66), giving the wall a date of probably the early 18th century. This is earlier than the construction of all the houses along Hamilton Road and those on the corner of Derby Road. The top courses of this wall seem to date to the mid-late 19th century.

The east boundary wall, from its junction with the north wall to the Wyld's Lane garden gate appears to also date to the mid-late 19th century. The size and coursing of the bricks (Plate 67) are typical for this period. Also on this portion of the wall is evidence of a building that stood within the grounds of the Commandery garden. A section of the wall has been white washed, which shows that it was an interior face (Plate 68). A break in the white wash can also be seen where a door led off Wyld's Lane and into the building. The rest of the east boundary wall was constructed as one phase in the late 18th century (Plate 69). The Wyld's Lane gate (Plate 70) dates from the 19th century although it is possible that there was a gate in this position prior to that time as the garden dividing walls have brickwork predating the 19th century (Plate 71).

The south boundary wall and the south garden dividing wall were very much obscured by vegetation and trees. Their style of brickwork (Plates 72 and 73) is also typical of the late 18th century.

2.3.3 **Dendrochronology**

In autumn 2006, a team from English Heritage obtained tree-ring dates from timbers in the Commandery's buildings (Arnold, Howard and Litton 2006). The summary is sufficient for present purposes, however, and it is reproduced in full below.

Core samples were obtained from 77 oak timbers within eight different parts of the Commandery, Worcester. Analysis of 73 of these (four samples having too few rings) produced four site chronologies, WORDSQ01-SQ04, comprising 47, 9, 2, and 3 samples, of overall length of 190, 101, 87, and 86 rings respectively. The first three of these site chronologies could be dated as spanning AS1284-1473, AD 1608-1708, and AD 1569-1655, respectively.

Interpretation of the sapwood indicates that the majority of timbers used in this complex building, certainly those found in the Great Hall, the solar range [i.e. east range] (including a corridor partition wall), long chamber, and infirmary range [i.e. west range], were felled over the period AD 1467-73, as building work proceeded.

The timbers used in the house on the street frontage could have been felled at this time to, but some timbers could have been felled slightly earlier and some slightly later. No post-medieval dates have been obtained from this building.

The roof of the 'garden wing' uses timber felled in AD 1708, this providing a date for the brick extension and refacing of the medieval building on the garden side.

The timbers of the infirmary addition [ie extension to the west range] could not be reliably dated.

3. **Discussion**

3.1 **Prehistoric and later alluviation**

No evidence of prehistoric activity was recovered. The alluvium identified in Trenches 2 and 3 represents periodic flooding of the Frog Brook valley from the River Severn (Morris 1974, 26). The alluvium was not studied in detail, and nothing certain can be said about the local environment during this period. However, by analogy with evidence from similar situations, the floodplain was probably wooded, with the dominant species being alder and hazel. It is also likely that the floodplain became drier and narrower over time. This is suggested by the contrast between the alluvium in Trenches 2 and 3, and by the later evidence discussed below.

3.2 **Roman activity**

Some evidence of Roman activity was anticipated at the start of the excavations. As noted above, a Roman coin was found on the site in 1843, and 11 fragments of Roman roof tiles were found in Trench 1 of the 2004 evaluation. There was also evidence of a Roman road and settlement at the west end of Sidbury.

In the event, no Roman deposits were identified, but 34 sherds of Roman pottery were recovered from later deposits. This is a significant number, given the limited amount of deep excavation that was possible, and it suggests intensive activity, if not settlement. The dateable forms also suggest sustained activity from the late first to the third or fourth century. This evidence needs to be considered in the context of an area that was subject to flooding. It is possible that the road identified at the Sidbury excavation continued to the east and crossed the site (Darlington and Evans 1992, 95; Baker and Holt 2004, 186-7; Dalwood and Edwards 2004, 17-18). However the topography of the flood plain and the rising ground to Fort Royal Hill seem problematic for this interpretation. Another interpretation would be that the main

Roman road south from Worcester is on the same alignment as Sidbury/London Road, which was clearly the main road in the 10th century. The artefacts from The Commandery are not conclusive, but probably represent a site lying close to the road.

3.3 **Anglo-Saxon/Anglo-Norman activity**

The possibility of Anglo-Saxon activity was acknowledged at the start of the excavations, as was the case for the hospital chapel being a 10th century foundation. In the event, the excavations produced a small amount of late Anglo-Saxon/Anglo-Norman pottery, and although a chapel was found, it showed no evidence of pre-conquest work. The small amount of pottery is not insignificant, given the limited amount of deep excavation and the fact that pottery was not produced locally before the 11th century, but it does not suggest that the area was fully developed before the Conquest. The street frontage may have been developed, possibly with a chapel dedicated to St Gudwal, but it seems that the land behind it was farmland for most of the Anglo-Saxon period, and waste ground between the 10th and 13th centuries. This interpretation is also consistent with the plant remains found in Trench 1 of the 2003 evaluation (Goad, Crawford and Head 2004, 14-15).

3.4 **The medieval hospital in context**

The excavated evidence has been interpreted within the context of current understanding of medieval hospitals as a type of religious institution with a range of architectural expressions (Clay 1909; Orme and Webster 1995).

The foundation in the early 13th century occurred during the proliferation of hospital foundations in England in the 12th and 13th century, with as many as 389 in existence by 1350; most of these were small institutions, with a master and a small number of brothers and sisters, housing a dozen or so sick patients (Orme and Webster 1995, 35-6). St Wulstan's Hospital was not a large institution and its foundation, under the patronage of the Bishops of Worcester, reflects the common national pattern. Its location on the edge of Worcester, next to a major road, is also typical, as hospitals provided food and lodging to poorer travellers, and sought donations from wealthier travellers (Orme and Webster 1995, 43-8).

Medieval hospitals were religious houses with a specialist function, the care of needy groups within society. The majority of hospital institutions followed the Rule of St Augustine, which allowed the clergy to undertake tasks in the secular world (Orme and Webster 1995, 70), and St Wulstan's Hospital followed suit. The charity provided by medieval hospitals comprised long-term care of the infirm, medium-term care for the sick, short-term hospitality for travellers, and the distribution of alms to the poor. The care of the sick in hospitals, at least for poor inmates, largely comprised 'bed rest, warmth, cleanliness and a adequate diet' rather than medical care, which was expensive (Carlin 1990, 31). In early hospitals, accommodation for the poor and sick was communal (although men and women were housed separately), and substantial infirmary halls were the largest buildings in hospital institutions (Orme and Webster 1995, 88-90). The infirmary hall was usually arranged to be close to the chapel. Worship was important function of hospitals, and the chaplains held seven daily services (the 'hours') and a daily mass in the hospital chapel, assisted by the lay brother and sisters; inmates were expected to attend and participate (Orme and Webster 1995, 49-52). The nature of hospital institutions, and their intended functions, was reflected by a common pattern of buildings: a chapel, an infirmary hall for the sick, a common hall for dining and for accommodating overnight visitors, and accommodation for the master and the brethren (Orme and Webster 1995, 90). There was considerable variation of layout of the buildings, as although the model was probably a courtyard plan based on the pattern of monasteries, many urban sites were restrictive and the plan had to be adjusted to fit (Orme and Walker 1995, 85-7).

The nature of hospital institutions did not remain constant throughout the medieval period. Hospitals suffered from the impact of the Black Death in the 1340s, and in the early 15th

century there were widespread calls for reform of hospital institutions which were seen as no longer flowing their original purpose; the 15th century was a period of refoundation of existing hospitals and the foundation of new hospitals (Orme and Webster 1995, 127-138). There was a widespread move towards privacy by the 15th century: large infirmary halls were often divided into individual cells, and late hospital foundations adopted new designs that did not include a large infirmary hall (Orme and Webster 1995, 91). Hospitals were not a major target of the Reformation, but rather fell because they were religious houses and were caught up in the wider process, which seems to have been the case with St Wulstan's (Orme and Webster 1995, 155-157).

3.5 **The medieval hospital to c 1468**

The excavations produced important new evidence for the hospital in the period before the late 15th century rebuilding. The evidence is summarised in Figure 23, as are the following inferences and hypotheses.

As described above, remains of the hospital chapel, dedicated to St Gudwal, were found in Trenches 7 and 9. Only the east end of the chapel was exposed but the evidence can bear a considerable amount of interpretation. In the first place, it seems that the chapel was built when the hospital was founded, or shortly after. The pottery associated with the construction of the chapel was of late 11th to 14th century date, while later deposits included late 13th or 14th century fabrics. A 13th century date of construction is also consistent with the evidence from Trench 1 of the 2003 evaluation, although an early 14th century *terminus post quem* for the sequence was preferred in the report. Secondly, it seems that the chapel was a large building, incorporating a chancel and a north or south aisle. This interpretation is based on the substantial nature of the east wall and corner buttresses, which imply a tall building with a proportionate length, and on the assumption that the piers excavated in the early 19th century came from the chapel. Thirdly, it seems that the chapel had windows, arcades, or other features made of slender shafts of white limestone. This is certainly implied by the fragments found in the later annexe and in Trench 6 nearby, and such features would have been typical of the contemporary Early English style.

Apart from the chapel, a number of other buildings that formed part of the pre-late 15th century chapel were identified from short lengths of stone foundations. This evidence has proved difficult to interpret. The simplest layout of medieval hospitals was a large infirmary hall in line with a chapel at the east end (Gilchrist 1995, 17). This layout does not seem to have been adopted at St Wulstan's, as there was clearly not enough space between the chapel and city wall for this arrangement. Instead, the hospital buildings seem to have been arranged from south to north, which was the general arrangement of the 15th century hospital buildings.

The remains of other 13th or 14th century buildings were found in Trenches 2 (Phases 2 and 3) and 6 (Phase 1). The foundation in Trench 6 and the earlier foundations in Trench 2 were only partly exposed and cannot bear much interpretation. However, they clearly represent buildings or walls, while their location suggests that the built-up area was more extensive around 1300 than it was in the late 15th century. The later foundations in Trench 2 were also partly exposed, but better preserved and more amenable to interpretation. The foundations were large and the walls were probably carried up in stone to the eaves. As a substantial stone building, it is unlikely to have been less than four bays long by medieval reckoning, and using the average length between bays in the west range as a guide (4.24m or 14 feet), this would equate to c17m. The long axis of the building is likely to have been east-west, rather than north-south, given the presence of contemporary buildings to the south. However, the building did not extend as far as Trench 3, implying a building that was wider in proportion to its length than the west range, and more in keeping with the proportions of the Great Hall. This may imply that the building was the hall documented in 1300. It could also have been the infirmary, but this probably stood closer to the chapel.

The contemporary buildings referred to above included the building in Trench 8, and the building in Trench 2 of the 2003 evaluation. Both buildings certainly pre-date 1468 and could date from the foundation of the hospital. The building in Trench 8 extended beneath the west range, and could have had a similar span (5.98m or 19½ feet). It could also have been as long as the west range, especially if the wall found in Trench 10 formed part of the same building. Assuming this was the case, the building would have been about 25m or 83 feet long. If the building found in the evaluation trench extended to the south, and was as large as its foundations suggest, the two buildings would have been separated by less than 10m. This is perfectly possible, but it is perhaps more likely that the latter building extended to the north. Unfortunately, this issue could not be resolved in the evaluation, and has not been resolved by re-examining the archive. However, re-examination has raised the possibility that the robber trench identified in the evaluation trench represented the east wall of the building. All of these inferences have been incorporated into Figure 23.

The figure also shows the likely extent of two 14th century buildings. One of these was the annexe attached to the north side of the chapel in Trench 7. This was clearly a substantial building designed to resemble and complement the chapel. On this basis, and in view of its location and date, it was probably a vestry or sacristy (Cox and Bradley Ford 1941, 43). As such, although it was solidly built and could easily have been two storeys high, it was probably not very long or wide. The other building was the one identified in Trench 4. This building was probably separated from the building to the west by a path that led to Sidbury. If so, this would mean that the chapel was about 17m or 56 feet long. The length of this building is uncertain, but it probably stopped well short of the chapel and extended into the area of the Great Hall.

Finally, to include evidence from other sources, the figure shows a building between the 13th or 14th century west range and the street frontage. No archaeological evidence for this building was found, but there is architectural evidence that the late 15th century west range abutted an existing building to the south (Molyneux 2005, 20). The figure also shows a cemetery to the south of the chapel, and a row of buildings along the street frontage. As noted above, buildings on the frontage are attested in 14th and 15th century charters, while a cemetery is mentioned in a lease of 1544.

The plan of the hospital before the late 15th century cannot be discerned in any detail, although it is apparent that it included extensive buildings including a large hall. The buildings north of the chapel must represent the infirmary hall and the accommodation for the master and brethren.

3.6 **The medieval hospital c 1468-1540**

All the 14th century buildings seem to have stood until c 1468, when work started on a major programme of rebuilding. Much was known about this programme before the excavations began from the detailed survey of the standing buildings (Molyneux 2005). However, the excavations produced further evidence, as did the tree-ring dating in 2006. As a result, there is now a vast amount of information on the last phase of the medieval hospital; the following discussion is focused on the new excavated evidence.

As shown in Figure 24, the chapel was retained, but it seems to have been modified extensively. This is suggested by the resurfacing of the east end, and also by the limestone shafts and 14th century floor tiles that were dumped inside the vestry. It is also possible that the aumbry in the east wall of the chapel was blocked at this time. At a later date, two people were buried in the chancel, probably just beneath the main altar. It is possible that the burials were those of John Beupe and his wife Margery Hosyer, and that the latter was buried in 1539. However, it is equally possible that the couple were buried outside, in the hospital cemetery.

All the other buildings were demolished and replaced. The vestry and the building found in Trench 4 were demolished and a long East Range was built abutting the chapel. The East Range incorporated the accommodation for the master of the hospital, and a further extension was built to the east, the Long Chamber (now dated to 1471). A new West Range was built, and the Great Hall constructed. The North Range appears to be a detached building. Finally, the buildings on the street frontage may also have been replaced, judging by the date of one surviving building (1468-73). This was clearly a major redevelopment, and a rapid one, by medieval standards. It would also have been very expensive, costing many times the annual income of the hospital, which at that time was about £125 (Marsh 1890, 114). Clearly, the hospital must have received a large donation to fund the redevelopment, and it is reasonable to associate this with Leland's reference to a local benefactor. The Preceptor at the time (William Vance, 1467-79) may also have made a substantial contribution, as a local worthy and former Bishop's chancellor (Marsh 1890, 8).

The rebuilt hospital had a more regular and integrated plan than the earlier hospital. The Great Hall, East and West Ranges, and the chapel formed a courtyard that was probably entered through a building on the street frontage. To the north, the construction of the North Range defined a larger area between it and the Great Hall. The courtyard was not surfaced, it appears, and it could have been a lawn or bare earth. The same may be true of the area to the north, and the area on the other side of the west range, although both areas were landscaped and could have been cultivated as gardens or orchards.

Taken together, the evidence suggests that the late 15th century hospital consisted of a compact group of substantial buildings with open ground to the north and east. It also suggests that the buildings were designed for specific and complementary functions. This is obvious in the case of the chapel and Great Hall, while the East Range was clearly built to accommodate the Preceptor and his guests. Similarly, the building on Sidbury was obviously a house, and may have accommodated the chaplains and servants. The function of the West Range is less clear, but it seems to have been built to provide standard accommodation for inmates in separate chambers. The same was probably true of the North Range, beyond the Great Hall, and if so, the two ranges may reflect a division between male and female residents, or between corrodians and other inmates. As noted above, the Painted Chamber represents a slightly later alteration to the west range. It is therefore not necessary to assume that the paintings reflect the original function of the chamber or the building.

In summary, it seems that most elements of the late 15th century hospital have now been located and identified. However, the picture is inevitably incomplete, and among the missing elements are the belltower and barn referred to in post-Dissolution leases. In view of the plan described above, the belltower may have been attached to the chapel, or it may have stood in the southern courtyard. The location of the barn is less certain, but it probably stood some distance to the north, beyond the present boundary (Spackman 1918, 278). Finally, although no other buildings are documented, it can be assumed that the hospital had a stable, wainhouse, and other outbuildings, like those documented in later inventories.

3.7 **Post-medieval buildings and garden features**

As a result of the excavations, and especially as a result of the tree-ring dating in 2006, it seems that the Dissolution of the hospital and its conversion to a 'mansion place' was not accompanied by significant changes to its fabric (*cf* Figs 24 and 25). No buildings were demolished, not even the chapel, although the surviving buildings were partly refurbished. Moreover, three buildings that were once thought to date to the immediate post-Dissolution period have been re-dated to the late 15th century. The only buildings that could date to this period are those identified in Trenches 1 and 9, although the former could be earlier, and the latter could date to the early 17th century. Also, except in Trench 1, there is no evidence for resurfacing or landscaping in this period.

Similarly, there is little evidence for late 16th or early 17th century development. As mentioned above, the building in Trench 9 could date to this period, as could a long-demolished house on the street frontage, but in general, it seems that the Wyldes were content to retain and adapt the existing buildings. It also seems that Battle of Worcester had no lasting impact on the site. At all events, the buildings were left intact, and no battlefield debris or defensive works were found in any of the excavation trenches.

According to the evidence now available, the real break with the medieval past came in the late 17th or early 18th century, when the Commandery was transformed into a gentry residence. This transformation included the construction of the Garden Wing and Commandery House, and a major refurbishment of the west range (Fig 25). It also included extensive landscaping, resulting in the gardens shown on Doharty's map, and probably the water feature found in Trench 3. This phase had been dated on architectural grounds to *c* 1680, but as the Garden Wing has since been dated to 1708 by dendrochronology, it is likely that the other buildings and refurbishments were broadly contemporary. A date around 1708 would also fit the evidence from Trenches 7 and 9, which suggests that the chapel was demolished in the 17th or 18th century along with a newly built brewhouse or dwelling house. In addition, if the rebuilding and refurbishment took place around 1708, it may have included the north garden wall.

3.8 **Modern buildings and garden features**

The modern period can be said to have begun with a suite of changes in the late 18th century, when the property was held by William Dandridge. In summary, the buildings to the north of the Great Hall were demolished, a house was built on one set of foundations, and the west range was extended by several bays. New surfaces were also laid outside the buildings, and the gardens were landscaped and provided with new walls and paths.

Figure 25 shows the house and other modern features against the background of the first edition map. The superimposition of mapped and excavated features suggests that the cobbles found in Trenches 1 and 2 extended over most of the area between the west range and Garden Wing. It also shows that the house found in Trench 1 had been demolished by 1884, and that the west range had been reduced to its present extent. In fact, these changes pre-date 1869, according to the larger-scale Board of Health map. The map also shows the house on Wyld's Lane, and some of the sheds and greenhouse shown on the first edition map along the northern boundary of the site.

Taking these observations alongside evidence for internal alterations, new garden walls, and more landscaping (including underdrainage), it seems that the mid 19th century was another period of change in the history of the Commandery. The following century seems to have been less eventful, with the only significant changes being the demolition of the later buildings referred to above, and the restoration of the 1970s. The deposits of this period bore little relation to the documented use of the buildings, but a fragment of metal type from Trench 2 almost certainly came from one of Littlebury's printing presses (Fig 21).

4. **Research questions**

The excavations produced evidence relating to most of the research questions identified in the brief. In summary, there is now circumstantial evidence for Roman occupation on the site, and for a continuation of the road found at the west end of Sidbury. There is also some evidence for Anglo-Saxon activity, but not for occupation before the 13th century. With regard to the hospital, the chapel and other 13th and 14th century buildings have now been located, and the evidence allows the location of the cemetery to be reliably inferred. Also, with regard to the relationship between medieval and later arrangements, the evidence suggests that most of the hospital buildings were retained long after the Dissolution, and that the real break with the medieval past came around 1708, with the demolition of the chapel, the construction of new buildings, the refurbishment of others, and extensive landscaping.

Inevitably, however, some research questions could not be addressed. No trenches were excavated near the City Ditch or the street frontage, and it is therefore uncertain how the hospital stood in relation to the defences and the suburb. There was also no evidence relating to the Battle of Worcester in 1651. This may indicate that the Battle had no serious impact on the site, or it may reflect a concerted effort to remove all traces of this tragic event.

Finally, the excavations have raised a host of new questions for future research. Keeping to large issues, the northern and eastern boundaries of the hospital are still uncertain, as is their nature (e.g. walls or earthworks). It is also uncertain how the site was drained, protected from flooding, and supplied with water of most of its history. These questions, and the questions that could not be addressed, might be seen as the basis of a new research agenda, although most of the original questions are still valid and capable of being answered more fully.

5. **Publication summary**

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, and unless directed otherwise, the Service intends to use the following summary as the basis for publication in local or regional journals.

This report describes the results of excavations at one of Worcester's most famous historic properties. The Commandery was a hospital in the medieval period and became a house after the Dissolution. It was used as the headquarters by the Royal army during the Battle of Worcester in 1651 and was substantially rebuilt some 50 years later. In the 18th and 19th centuries the Commandery was divided between several tenants who adapted the buildings to various purposes. Since the 1970s, the Commandery has been a museum run by the Museums Service of Worcester City Council.

The excavations formed part of a wider project to refurbish and promote the museum. The main excavations were undertaken by local volunteers, supervised by staff from the Service. Other excavations and some building recording were undertaken during the refurbishment.

The results of this work are described below, after a brief review of previous research. In summary, the excavations produced important new evidence relating to the medieval hospital, and to later buildings and garden features. In particular, the excavations exposed parts of eight medieval buildings, including the east end of the hospital chapel, and the corner of a possible hall. From this evidence, and other evidence considered below, it seems that the hospital was partly rebuilt in the 14th century, and almost completely rebuilt in the 1470s. Later discoveries included parts of three unmapped buildings, a garden path, and an ornamental water feature. The excavations also produced a wide range of artefacts, including decorated medieval floor tiles and fragments of medieval windows or arcades.

6. **Acknowledgements**

The Commandery Project was designed and managed by Ian Rutherford and his colleagues in the Museum Service of Worcester City Council. It was funded by the Heritage Lottery Fund. The excavations were planned and monitored by James Dinn, the City Archaeological Officer. Amanda Lunt, the manager of the Commandery Museum, and her colleagues provided every assistance in the field. Particular thanks are owed to Sarah Bourne, Carol Campbell, Sarah Cotterell, Amanda Fretwell, Chris Hallam, Pat Ladler, Kate Phillipson, Dave Nash, and Alex Woodward. The 2006 season and watching brief took place during the refurbishment of the museum, and the fieldwork would have been impossible without the full cooperation of the contractors, Sapcotes, and especially Arthur Clarke and George. Finally, although all the volunteer excavators and find staff are listed below, it is fitting to acknowledge their contribution here. Their response was magnificent, and their enthusiasm was matched by considerable dedication and skill.

7. **Personnel**

The 2005 evaluation was undertaken by Geophysical Surveys of Bradford (geophysics) and by Darren Miller, Christine Elgy, Jon Milward, and Alvaro Mora-Ottomano (sample trenching). The 2005 season was led by Darren Miller with assistance from Angus Crawford, Jon Milward, and Alan Jacobs. The volunteers in 2005 are listed in Appendix 2. The 2006 season was led by Justin Hughes, with assistance from Angus Crawford, Sarah Phear, and Adam Lee. Emily Gough, Darren Miller, and Steven Potten covered leave and absences. The volunteers in 2006 are listed in Appendix 2. The watching brief in 2006 was led by Simon Sworn and Andy Mann, with assistance from Richard Axe, Angus Crawford, Darren Miller, and Sarah Phear. The building recording element of the watching brief was undertaken by Shona-Robson Glyde.

Stratigraphic analysis was undertaken by Adam Lee (Trench 2), Sarah Phear (Trench 7) Simon Sworn (Trenches 9 and 10), and Darren Miller (other trenches). Adam Lee and Steven Potten also assisted in constructing and drafting phase plans. The artefacts were analysed and by Angus Crawford (pottery and metalwork), Laura Griffin (floor tiles), and Georgina McHugh (stone objects and worked stone). Angie Bolton, the Portable Antiquities Officer for Worcester City Council, also identified several metal objects. The illustrations were drawn by Laura Templeton (plans) and Steve Rigby (artefacts). The project manager was Hal Dalwood.

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Appendix 1 Building stone

Context	Context date	Stone type	Count	Weight (kg)
969	17 th /18 th C	6 Jurassic limestone; 2 Lower Lias	8	10.945
971	17 th /18 th C	1 Jurassic limestone; 1 Carboniferous sandstone; 2 Lower Lias	4	2.025
973	17 th /18 th C	7 Carboniferous sandstone; 2 Lower Lias	9	3.100
988	17 th /18 th C	1 Carboniferous sandstone	1	0.850
1002	13 th C to c1468	3 Carboniferous sandstone; 1 Jurassic limestone	4	0.850
1012	Late 18 th to mid 19 th C	4 Lower Lias; 1 Lower Keuper (Bromsgrove) sandstone	5	1.775
1013	Fill of evaluation trench	2 Unidentified;	2	0.050
1028	Unstratified	1 Lower Keuper (Bromsgrove) sandstone	1	0.325
1033	16 th to late 18 th C	2 Jurassic limestone; 1 Lower Lias	3	2.300
1047	Late 16 th to mid 19 th C	3 Carboniferous sandstone; 5 Lower Lias; 4 Jurassic limestone	12	5.000
1053	Mid 19 th C to present	2 Lower Keuper (Bromsgrove) sandstone; 1 Carboniferous sandstone; 1 alabaster	4	0.025
1054	Late 18 th C to mid 19 th C	2 Lower Lias; 2 Jurassic limestone; 3 Lower Keuper (Bromsgrove) sandstone; 1 alabaster 1 red limestone (?)	3	0.575
1058	Late 18 th C to mid 19 th C	2 Lower Lias; 1 unidentified red chip; 1 unidentified white chip	4	0.075
1063	Late 18 th C to mid 19 th C	1 Lower Lias	1	1.250
1064	Mid 19 th C to present	2 Lower Lias	2	0.075
1065	16 th to late 18 th C	2 Lower Keuper (Bromsgrove) sandstone (1 with plaster)	2	0.250
1067	16 th to late 18 th C	1 Lower Keuper (Bromsgrove) sandstone	1	0.750

	C			
1075	16 th to late 18 th C	1 Jurassic limestone; 1 Lower Lias	2	1.000
1097	16 th to late 18 th C	2 Carboniferous sandstone; 1 Lower Lias	3	0.300
1125	16 th to late 18 th C	8 Lower Lias; 8 Carboniferous sandstone; 4 Lower Keuper (Bromsgrove) sandstone; 5 Jurassic limestone; 1 slate (?)	26	4.775
1126	16 th to late 18 th C	1 Carboniferous sandstone	1	0.175
1127	16 th to late 18 th C	6 Lower Lias; 4 Jurassic limestone; 26 Carboniferous sandstone; 7 Lower Keuper (Bromsgrove) sandstone; 1 Alabaster (?)	44	1.725
1128	16 th to late 18 th C	1 Lower Keuper (Bromsgrove) sandstone; 12 Carboniferous sandstone; 4 Lower Lias; 2 Jurassic limestone; 1 red limestone (?)	20	2.200
1129	Late 13 th to 16 th C	9 Carboniferous sandstone; 6 Lower Keuper (Bromsgrove) sandstone; 3 Lower Lias; 1 Jurassic limestone; 1 black stone (Purbeck marble?)	20	1.525
1132	Late 13 th to 16 th C	3 Lower Keuper (Bromsgrove) sandstone; 3 Carboniferous sandstone; 1 black stone (Purbeck marble ?)	7	7.075
1135	Late 13 th to 16 th C	2 Carboniferous sandstone; 3 Lower Lias; 1 Lower Keuper (Bromsgrove) sandstone	6	0.275
1139	Late 13 th to 16 th C	4 Jurassic limestone; 3 Lower Lias; 1 Lower Keuper (Bromsgrove) sandstone	8	0.300
1140	Late 13 th to 16 th C	1 Lower Lias; 1 Carboniferous sandstone; 1 Lower Keuper (Bromsgrove) sandstone; 3 Jurassic limestone	6	0.325
1141	Late 13 th to 16 th C	1 Carboniferous sandstone	1	0.025
1145	Late 13 th to 16 th C	1 Carboniferous sandstone; 2 Lower Keuper (Bromsgrove) sandstone	3	0.275
1148	Late 13 th to 16 th C	3 Carboniferous sandstone	3	0.125
1149	Late 13 th to 16 th C	1 Jurassic limestone	1	5.500
2005	Late 18 th to mid 19 th C	1 Lower Lias	1	0.175

2013	Mid 19 th C to present	4 Lower Keuper (Bromsgrove) sandstone; 3 Carboniferous sandstone; 1 grey sandstone; 1 slate; 1 Lower Lias	10	0.975
2017	Mid 19 th C to present	1 Jurassic limestone	1	0.175
2018	15 th /16 th to late 18 th C	1 Lower Lias; 1 Jurassic limestone; 5 Carboniferous sandstone; 2 Lower Keuper (Bromsgrove) sandstone; 1 Black and white marble (?)	10	0.300
2021	Mid 19 th C to present	7 Lower Lias; 1 Jurassic limestone; 1 Carboniferous sandstone; 1 Chalk	10	4.975
2028	Mid 19 th C to present	1 Marble/Alabaster	1	0.175
2032	15 th /16 th to late 18 th C	1 Lower Keuper (Bromsgrove) sandstone; 1 Carboniferous sandstone	2	Under 0.025
2035	Late 18 th to mid 19 th C	1 Lower Lias; 1 Carboniferous sandstone	2	0.450
2037	Mid 19 th C to present	3 Carboniferous sandstone; 1 Lower Keuper (Bromsgrove) sandstone; 2 Lower Lias	6	0.625
2041	Late 18 th to mid 19 th C	1 Lower Keuper (Bromsgrove) sandstone; 1 Carboniferous sandstone; 3 Lower Lias	5	2.125
2050	Late 18 th to mid 19 th C	1 Carboniferous sandstone; 5 Lower Lias; 1 Jurassic limestone	7	0.550
2052	Mid 19 th C to present	1 Jurassic limestone	1	0.250
2066	15 th /16 th to late 18 th C	1 Jurassic limestone	1	0.075
2070	15 th /16 th to late 18 th C	2 Carboniferous sandstone	2	0.900
2075	15 th /16 th to late 18 th C	4 Lower Lias (2 with cement attached); 1 Carboniferous sandstone	5	0.775
2104	Mid 19 th C to present	2 slate; 4 unidentified	6	0.025
2118	Late 18 th to mid 19 th C	1 Carboniferous sandstone	1	22.0
2122	Late 18 th to mid 19 th C	1 Lower Keuper (Bromsgrove) sandstone	1	1.050
2123	Mid 19 th C to present	3 Jurassic limestone; 1 Lower Keuper (Bromsgrove) sandstone; 4 unidentified	8	0.600

2141	Mid 19 th C to present	2 Lower Lias	2	8.500
2149	Mid 19 th C to present	1 (grey sandstone?); 1 Lower Lias	2	0.300
2155	Mid 19 th C to present	3 Lower Keuper (Bromsgrove) sandstone; 2 Lower Lias; 1 (yellow unidentified stone); 50 Jurassic limestone	56	7.950
2170	Late 18 th to mid 19 th C	1 Carboniferous sandstone	1	0.050
2174	15 th /16 th to late 18 th C	1 Carboniferous sandstone	1	0.125
2176	Late 18 th to mid 19 th C	2 Carboniferous sandstone	2	0.200
2185	15 th /16 th to late 18 th C	3 Lower Keuper (Bromsgrove) sandstone; 1 Jurassic limestone	4	0.100
2186	15 th /16 th to late 18 th C	1 Carboniferous sandstone	1	0.275
2187	15 th /16 th to late 18 th C	2 Lower Keuper (Bromsgrove) sandstone; 1 Lower Lias with mortar attached	3	0.400
2195	15 th /16 th to late 18 th C	2 Lower Keuper (Bromsgrove) sandstone with mortar attached; 3 Lower Lias;	5	3.975
2198	15 th /16 th to late 18 th C	1 Lower Lias	1	0.300
2202	15 th /16 th to late 18 th C	1 Carboniferous sandstone	1	0.750
2209	15 th /16 th to late 18 th C	2 Lower Keuper (Bromsgrove) sandstone; 2 Lower Lias	4	0.300
Trench 2	Unstratified	1 Carboniferous sandstone; 1 slate	2	0.225
3005	18 th C to present	1 slate; 1 Lower Lias	2	0.050
3010	17 th /18 th C	1 Jurassic limestone	1	0.100
3016	13 th to 17 th /18 th C	2 Jurassic limestone; 1 Lower Lias	3	0.400
3020	17 th /18 th C	1 Lower Lias	1	1.800
3021	13 th to 17 th /18 th C	1 Jurassic limestone	1	Under 0.025
4006	18 th C to	1 Jurassic limestone	1	1.475

	present			
4009	c1468 to 18 th C	1 Carboniferous sandstone	1	2.775
5000	20 th C	1 Jurassic limestone	1	0.875
5006	Unstratified	1 Jurassic limestone	1	2.750
5007	Unstratified	1 Jurassic limestone	1	2.425
6002	Unstratified	1 Jurassic limestone; 2 Lower Lias; 1 Carboniferous sandstone	4	0.225
6006	17 th /18 th C	1 Lower Lias; 26 Jurassic limestone; 1 Lower Keuper (Bromsgrove) sandstone; 1 Carboniferous sandstone	29	5.325
6013	Late 15 th C	6 Carboniferous sandstone; 365 Jurassic limestone; 5 Lower Lias; 4 Tufa; 10 Lower Keuper (Bromsgrove) sandstone; 1 Black unidentified stone with mortar attached; 1 Black unidentified worked stone (Purbeck marble)	392	61.725
Trench 6	Unstratified	1 slate; 1 Carboniferous sandstone	2	0.225
7001	19 th C to present	1 Black stone chip	1	Under 0.025
7004	19 th C to present	1 marble chip; 1 ironstone (?) chip	2	Under 0.025
7010	19 th C to present	1 Lower Keuper (Bromsgrove) sandstone with plaster attached	1	0.675
7023	18 th /19 th C	1 Lower Lias	1	Under 0.025
7032	18 th /19 th C	1 Jurassic limestone	1	Under 0.025
7036	18 th /19 th C	3 Lower Lias; 2 Lower Keuper (Bromsgrove) sandstone	5	1.750
7041	Late 17 th to early 18 th C	2 Carboniferous sandstone; 6 Jurassic limestone; 1 Lower Lias	9	12.100
7045	Late 17 th to early 18 th C	1 Ironstone? Pebble; 1 Yellow crystalline pebble; 3 Lower Lias; 1 Lower Keuper (Bromsgrove) sandstone	6	0.325
7049	Late 15 th C	7 Jurassic limestone	7	8.075
7059	14 th to late 15 th C	1 Carboniferous sandstone; 1 Lower Keuper (Bromsgrove) sandstone	2	0.025

7062	14 th to late 15 th C	1 Lower Keuper (Bromsgrove) sandstone; 1 Carboniferous sandstone; 14 Lower Lias	16	0.600
7063	14 th to late 15 th C	1 flint; 1 Lower Lias	2	0.025
7064	14 th to late 15 th C	2 Lower Keuper (Bromsgrove) sandstone; 1 Lower Lias	3	1.800
7065	13 th C	1 Lower Lias	1	Under 0.025
7066	13 th C	1 Carboniferous sandstone	1	0.025

Appendix 2 Project volunteers, 2005-6

List of volunteers in 2005

Rosie Adams	Matt Davies	Bill Holliday	Sue Millington	Katie Ross
Tara Armstrong	Alan Davis	Colin Hughes	Sarah Morgane	Shoana Salim
Richard Axe	Rona Davis	Phillip Humphries	Robert Morris	George Senior
Richard Badham	Lucy Elder	Amy Hunt	Lauren Murray	Richard Shakles
Kreys Barkus	Rosanne Elliker	Tony Jennings	Maggie Noake	Karen Shorey
Tony Bartle	Andrew Evans	Carla Jones	Bruce Officer	Sue Skrine
John Beatson	Elizabeth Evans	Matthew Jones	Miss Orly-Lord	Jessica Smith
Terry Beclington	Tom Fairman	Emily Kirkby	Matthew Ould	John Stafford
Stephen Belshaw	Sheila Giffard	Emily Knight	Dennis Page	Kathryn Stafford
Claire Blizzard	Sally Gleaves	Emma Knight	Nicky Pantland	Kevin Stanley
Karl Brady	Gordon Goodier	Shona Knight	Sheena Payne	Celia Steele
Niki Brady	Andrew Gunn	Anne Lee	Patricia Powell	Rachel Stevens
Graham Braysway	Kerry Gwillam	Helen Lee	Sarah Powell	Claire Stephens
Harriet Bussell	Jeff Hall	Denise Lee	Amanda Quick	Chantel Summerfield
James Carr	Mark Harding	Jean Longshaw	Steven Quick	Victoria Summers
Judith Clarke	Paul Harding	Thomas Longshaw	Richard Rammell	Rob Sutton
Annette Clews	Gary Hazelhurst	Pauline Lord	Kelly Marie Rice	Kayleah Swain
Simon Clews	Anter Harris	Christina Lythe	Max Rice	Julian Swinbourne
Carol Cole	Alex Hegenbarth	Mike McCurdy	Christine Robson	Piers Symon
Tegan Cole	Jake Hemmings	Nicola Marshall	Joe Mercer	Linda Talbot
Tom Cuckworth	Harry Hill	Mary Melton	Jo Mildren	Adrian Tame

Laura Templeton	Joe Warbuton	Sally White	Dennis Williams	
Phil Tisdall	Ian Warren	Hazel Whitefoot	John Williams	Steve Woodhouse
Mo Uyt den Bogaard	Andrena Wears	Laura Willetts		

List of volunteers in 2006

David Appleton	Erica Dyde	Neal Johnson	Angharrad Morgan	Gemma Lea Shaw
Rebecca Arnott	Elaine Edwards	Carla Jones	Michael Nicholson	Karen Shorey
Simon Avery	Mike Ellison	Lynne Kellow	Bruce Officer	Christine Silvester
Richard Axe	Elizabeth Evans	Helen Kirkup	Maureen Ogg	Claire Smith
Sarah Ball	Lynda Evans	Emma Knight	David Orr	Eric Steed
Shirley Barlow	Lynsey Fairweather	Emily Knight	Phoebe Perkins	Thomas Stewart
Carol Brook	Debbie Fox	Maureen Knight	Celia Phillipps	Tom Stokes
Hilary Burton	Tim Gaylard	Alethea Law	Georgina Pickett	Valerie Strassmann
J M Carter	Chris Gibbs	Helen Lee	Patricia Powell	Chantel Summerfield
Sarah-Louise Clearer	Marilyn Griffiths	Patricia Lloyd	Steve Quick	Julian Swinbourne
Simon and Annette Clews	Kerry Gwilliam	Tom Longshaw	Amanda Quick	Linda Talbot
Donald Cullerne	Gary Hazelhurst	Jean Longshaw	David Rastall	Tammy Thornhill
Edward Curry	Bill Holliday	M & S McCurdy	Paul Richardson	Richard Thornton
B & L Daniels	Will Hollins	Debbie McEvoy	Andrew Rowley	Nina Marie Watkins
Dan Davidson	Paul Hudson	Nicola Marshall	Gareth Sanders	Andie Webley
Nicola Davies	Gail Jacovon	Nicola Marshall	Larena Scott	Steve Woodhouse
Rona Davis	Rosalind Jefferies	Jo Mildren	Richard Shakes	
	Tony Jennings	Thomas Moffitt		

Figures

Plates