

Archaeological evaluation in the choir, presbytery and aisles of Exeter Cathedral, Exeter



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Summary

Between January and March 2021 archaeological evaluation was carried out by Oakford Archaeology in the presbytery, choir, choir aisles, retrochoir and crossing of Exeter Cathedral (SX 9212 9254). In total, 21 trenches were excavated; they were generally dug to a depth of 0.5m. No archaeological excavations had previously been undertaken in these parts of the cathedral, but a valuable record of the choir floor of 1763 survives, and the buried Romanesque east end of the cathedral had been seen below the choir in G.G. Scott's restoration of 1871–6.

Regarding the overall understanding of the cathedral, the most significant find was in the western bay of the presbytery (Trench 8), where a small part of a massive and deeply robbed foundation was exposed. The foundation had been robbed when the presbytery had been built at the end of the 13th century. Its outer edge cut obliquely across the choir; there can be little doubt that this was the diagonally set eastern side of the foundation of the apsidal end of the Romanesque Cathedral, first seen but not adequately recorded during Scott's restoration of the cathedral in 1871–7. As well as establishing the precise position of the apse, the excavation showed that contrary to previous impressions much of it remains undisturbed. On its eastern (outer) side a humic soil was preserved. This key discovery shows that the apse was the eastern end of the building, with garden soil outside, rather than being an internal wall within an ambulatory, as has been proposed recently.

The excavations also recovered some new information about the form of the foundations of the cathedral of the late 13th/early 14th century. A compacted raft of crushed Salcombe stone underlies much (perhaps all) of the choir and presbytery.

The excavation demonstrated that the medieval floor has been removed from nearly all the areas sampled, but a small fragment of medieval tile pavement survives in the presbytery (Trench 7). It consists mainly of Low Countries tiles, probably attributable to a documented repair to the pavement in 1392 but incorporates reused inlaid tiles probably from the floor documented in 1302. Loose tiles suggest the former presence of inlaid tile pavements of c. 1300 in the presbytery and aisles, the latter repaired with late 15th/early 16th-century tiles imported from Normandy.

The excavations encountered numerous graves in the aisles – some earth-cut, other stone- or brick-lined. Several are demonstrably of 18^{th} - or 19^{th} -century date; two appear on the 1763 plan. Fewer graves were found in the choir.

Finally, evidence was found about the likely impact of a proposal to install underfloor heating in the choir and presbytery to a depth of 0.5m. In the eastern part of the choir (Trench 8), all pre-1963 deposits have been disturbed to a depth of 0.4–0.48m and the medieval floor has been removed. On the north side of the presbytery (Trench 4), almost all the area examined was disturbed after 1763 to a depth of c. 0.55m. The sanctuary preserves some medieval pavement below the floor of 1939.

1. INTRODUCTION

This report has been prepared for the Dean and Chapter of Exeter Cathedral and sets out the results of an archaeological trench evaluation undertaken by Oakford Archaeology (OA) between January and March 2021 in the choir, choir aisles, retrochoir and Lady Chapel, Exeter Cathedral, Exeter (SX 9212 9254). The work was commissioned on the advice of the Archaeological Consultant to the Dean and Chapter of Exeter Cathedral to provide information in support of a forthcoming Faculty application for the provision of lighting, heating, data and sound in the east end and new lavatories in the room on the south side of the choir.

1.1 The site

The site (Fig. 1) occupies the choir, choir aisles, retrochoir and Lady Chapel of Exeter Cathedral, at a height of between 38-39m AOD. The underlying solid geology belongs to the Whipton Sandstone Formation, formed approximately 252 to 299 million years ago in the Permian Period and gives rise to clayey soils.¹

1.2 Historical and archaeological background

The east end of the cathedral overlies part of the site of the fortress of the Second Augustan Legion dating from *c*. AD 50–75 and buildings of the succeeding town of *Isca Dumnoniorum* (AD 75–400). The focus of the Anglo-Saxon minster lay to the west of the cathedral, on the site of the later medieval church of St Mary Major. In 1114 Bishop Warelwast started the construction of a larger building on the present cathedral site. The eastern part of his cathedral was dedicated in 1133.² Work on the Gothic cathedral started under Bishop Bronescombe around 1270. The Lady Chapel was completed in the period 1280–1300, the presbytery by 1302 and the choir by 1310.

Previous antiquarian work

Although no archaeological work has previously been conducted in this area, reference may be made to two earlier records. First, the positions of the old ledger stones and their inscriptions were carefully recorded prior to the replacement of the floors of the choir and presbytery in 1763. Figs 2–3 show the positions of ledger stones before 1763 and their subsequent movement to new positions in the floors of the aisles and elsewhere around the cathedral.

Second, the central apse of the Norman cathedral was found but not properly recorded during Scott's restoration of the choir (1871–6).

2. AIMS

The principal aim of the evaluation was to establish the presence or absence, character, extent, depth, date and condition/state of survival of any archaeological features and deposits within the footprint of the proposed development. The results of the evaluation will inform the planning process - particularly whether there are any remains present of sufficient significance and state of preservation to affect the principle or layout of the proposed development and may also be used to formulate a programme of further archaeological work either prior to and/or during groundworks to mitigate the impact of the development on any remains present.

¹ www.bgs.co.uk.

² Thurlby 1991, 21.

3. METHODOLOGY

The evaluation was undertaken in accordance with a project design prepared by the Archaeological Consultant to the Dean and Chapter of Exeter Cathedral (2020), submitted to and approved by the Cathedral Fabric Commission for England and Historic England (HE) prior to commencement on site. This document is included as Appendix 1.

The work comprised the excavation of 21 trenches totalling 24.78m in length. They were positioned to provide a spatial sample of the site and their positions were agreed with the Archaeological Consultant to the Dean and Chapter of Exeter Cathedral prior to commencement on site. The positions of trenches as excavated are shown on Fig. 5.

Hand-excavation of the trenches was undertaken by OA following the lifting of the stone floor slabs by Andy French Stone Conservation. The underlying archaeological deposits were cleaned by hand, investigated and recorded to formation level. The standard OA recording system was employed. Stratigraphic information was recorded on *pro-forma* context record sheets and individual trench recording forms, plans and sections for each trench were drawn at a scale of 1:10, 1:20 or 1:50 as appropriate and a detailed digital photographic record was made. Registers were maintained for photographs, drawings and context sheets on *pro forma* sheets.

4. RESULTS

Relevant detailed plans and sections are included as Figs. 6-11 and context descriptions for the trenches are set out in Appendix 2.

4.1 **The trenches**

Trench 1 (Detailed plan Fig. 6, Plates 5-6)

This shallow trench was opened on the east side of the retrochoir. It measured 1m x 0.42m and was excavated to a maximum depth of 0.37m. The recorded layer sequence is set out in Table 1, Appendix 2.

The work exposed the top of the adjacent pier foundation (103) at a depth of 0.15m below current ground level (38.37mAOD). It consisted of volcanic trap rubble bonded with white lime mortar and was overlain by a charnel soil (102) up to 0.26m thick containing frequent slate and cbm fragments, and rare inclusions of Beer stone and Salcombe fragments. This layer was in turn sealed by a 0.03m thick layer of light yellowish white lime mortar, interpreted as a post-medieval (early 19th century?) floor bedding and located underneath 0.07m thick stone floor slabs.

Trench 2 (Detailed plan Fig. 6, Plates 7-8)

This trench was dug on the north edge of the south aisle of the presbytery. It measured 2.06m x 0.6m, was orientated approximately E-W and was excavated to a maximum depth of 0.34m. Context descriptions for this trench are set out in Table 2, Appendix 2.

The work exposed the stepped foundation of the southern side of the south presbytery arcade wall and wall-bench (204) at a height of 38.22mAOD). This consisted of volcanic trap ashlar bonded and covered with a light yellowish white lime mortar. The upper footing projected 0.12m beyond the line of the bench, while the lower foundation projected *c*.0.5m beyond the

line of the wall-seat above. At the eastern end the lower projection of the foundation was in part truncated by a possible grave (207). This extended below the formation level of the works and was not excavated. The uppermost fill (208) consisted of a light to mid brown silty clay with frequent volcanic trap and mortar fragments. Butting up against the northern face of the foundation was the brick lining (206) of grave (205), whose bricks were 18th-19th century in appearance. The grave extended north beyond the limit of the trench and was not further investigated. These features were overlain by a 0.19m thick dark brown silty clay (202) with rare inclusions of cbm flecks.

A total of 31 medieval floor tile fragments including three 13th-14th century tiles, three small square corner tiles with yellow slip and five half tile border tiles, two green glaze half tiles including one with slip and copper green, and two 15th-16th century Normandy tiles, as well as a single fragment of medieval ridgetile were recovered from this deposit. These suggest that the aisle was paved with inlaid tiles with half border-tiles and was repaired in the late 15th or early 16th century with plain Normandy whiteware tiles Layer (202) was in turn sealed by a 0.03m thick layer of light yellowish white lime mortar (201) and located underneath 0.07m thick stone floor slabs (200).

Trench 3 (Detailed plan and section Fig. 6, Plates 9-10)

The trench was dug on the south side of the south presbytery aisle near Oldham's doorway to the Bishop's Palace. It measured 2.3m x 0.8m, was orientated approximately E-W and was excavated to a maximum depth of 0.4m (38.16mAOD). Context descriptions for this trench are set out in Table 3, Appendix 2.

The projecting foundation of the wall-seat (303), consisting of volcanic trap ashlar bonded with light yellowish white lime mortar, was exposed at a height of 38.44mAOD. This was uninterrupted for the whole length of the trench, with the remains of a former lined grave (304) exposed immediately to the south. The grave fill (306), containing frequent volcanic trap rubble and stone floor slab fragments, and rare fragments of cbm fragments, was partially excavated to a depth of 0.4m below floor level. The presence of a large quantity of rubble suggests that a former void, perhaps a burial vault, had been deliberately infilled, perhaps in the mid- to late 19th century.

These features were overlain by a 0.07m thick dark brown silty clay soil (302) with rare inclusions of cbm flecks. Two medieval floor tile fragments incl. one 12th-13th century inlaid tile fragment and one red tile ?Normandy, three fragments of 18th-19th century brick and one single 19th century red tile fragment were recovered from this deposit. The floor-tiles are very similar to those in Trench 2, suggesting the same sequence of paving. This layer was in turn sealed by a 0.03m thick layer of light yellowish white lime mortar (301) and located underneath 0.07m thick stone floor slabs (300).

Trench 4 (Detailed plan and section Figs. 12-13. Plates 11-14)

This trench was dug on the north side of the presbytery in Bay 7, close to Bishop Marshall's tomb. It measured 2.1m x 1.6m x 1.6m and was excavated to a maximum depth of 0.61m (38.61mAOD). Its triangular plan resulted from the removal of a portion of Scott's pavement of the 1870s which was laid at 45 degrees to the axis of the cathedral. Context descriptions for this trench are set out in Table 4, Appendix 2.

A dark brown silty clay deposit (403) with rare inclusions of volcanic trap rubble, Salcombe fragments, cbm fragments, human bone fragments and animal bone fragments was exposed at

a height of 38.97mAOD and reduced to formation level. A single Roman box tile fragment, seven medieval floor tile fragments incl. two 12th-13th century inlaid floor tile fragments and one late medieval Dutch type floor tile fragment, two slices of 15th century Beer stone screen moulding, and three fragments of ?post-medieval floor tile were recovered from this deposit. In addition, a single sherd of English saltglaze stoneware (1730-60), three fragments of late 17th-18th century brick, two fragments of early-mid 18th century English Green Bottle Glass and a single sherd from a late 19th century James Keeler marmalade jar were also uncovered. Interpreted as a charnel soil this deposit was sealed in part underneath a 0.06m thick layer of light yellow Salcombe stone dust and chippings (408). Seen in more detail in Trench 8 this deposit has been interpreted as a construction deposit associated with the rebuilding of the east end of the cathedral in the late 13th century. Within the northern elevation this deposit was overlain by 0.05m thick dark grey lime mortar (416) containing rare pea grit and charcoal flecks and which was in turn overlain by a 0.05m thick light to mid grey lime mortar (414) with rare inclusions of pea grit and charcoal flecks. These two deposits were level with the base of the arcade pier and are likely an ash lime mortar floor make-up for the 1763 floor; the Georgian paving had all been removed.

To the south 408 was truncated by grave (420). This had a 0.04m thick white mortar lining (406) and a single fill (407) consisting of a dark brown silty clay with rare inclusions of volcanic trap, cbm flecks and white lime mortar flecks. This was truncated along its southern edge by an earth-fast grave (412) containing two fills. The lower fill (413) consisted of a dark brown silty clay with rare inclusions of volcanic trap rubble, Salcombe fragments, cbm fragments, human bone and animal bone fragments, while the upper fill consisted of a dark brown silty clay (405) rare with volcanic trap and cbm flecks. This is identifiable as grave 14 in the plan of 1763. Its ledger stone commemorated Richard Mervin, who died in 1669. Both the graves, the construction deposit and Georgian floor bedding were extensively truncated by construction of Scott's floor in 1871-7. This consisted of a 0.25m thick layer of hard cementitious mortar (402) with frequent stone rubble and slate fragments, and rare fragments of cbm. This was sealed underneath a 0.03m thick light to mid orange pink cementitious mortar bedding (401) for Scott's tiled pavement (400).

Trench 5 (Plate 15)

The trench was situated underneath the stalls on the north side of the choir. It measured 0.4m x 0.3mm and was excavated to a maximum depth of 0.33m (38.54mAOD). Context descriptions for this trench are set out in Table 5, Appendix 2.

The excavation revealed the top of a dark brown silty clay (502) at a depth of 0.26m. This contained rare inclusions of volcanic trap rubble, Salcombe fragments, cbm fragments, human bone and animal bone fragments and has been interpreted as a charnel soil. This was in turn overlain by a 0.01m thick layer of light yellow Salcombe stone dust and chippings (501), interpreted as part of the construction raft of compacted stone waste seen elsewhere in the choir. this was heavily truncated by the insertion of Scott's sub-floor (500) – a 0.25m thick deposit consisting principally of light grey cementitious mortar.

Trench 6 (Plate 16)

The trench was dug underneath the stalls on the south side of the choir. It measured 0.4m x 0.3mm and was excavated to a maximum depth of 0.30m (38.50mAOD). Context descriptions for this trench are set out in Table 6, Appendix 2.

At a depth of 0.2m the excavation revealed the top of a dark brown silty clay (601) containing rare inclusions of volcanic trap rubble, Salcombe fragments, cbm fragments, human bone and animal bone fragments and has been interpreted as a charnel soil. In this trench the early 14th-century construction raft seen in Trench 5 had been removed entirely by the insertion of Scott's sub-floor (600) – a cementitious mortar 0.25m thick.

Trench 7 (Detailed plan Fig. 8, Plate 17)

The trench was located at the centre of the upper of the two steps which lead up to the high altar platform. It measured 1.15m x 0.7m, was orientated approximately E-W and 0.35m deep. The removal of the wooden hatch exposed the remains of the late medieval pavement at a height of 38.45mAOD). Context descriptions for this trench are set out in Table 7, Appendix 2.

On the lower level, at the foot of the step, the edges of a 0.02m-thick layer of white lime mortar (704) was noted, overlying a mid to dark brown silty clay (705). The former is interpreted as the mortar bedding for a tile pavement, overlying a former charnel soil. The lower floor butted up against the kerb of a step of volcanic trap blocks of varying width. The tiled paving in the east part of the trench abuts this step. This is the sole visible portion of a strip of small diagonally-set medieval tiles exposed in 1939 when parts of Scott's presbytery floor were lifted and a plain new floor was installed on the upper platform around the high altar. ³ Fortunately a careful account of the discovery was made by the local antiquary Percy Morris, who studied the changes in the positions of the floors of the presbytery and choir and published his findings in one of the wartime issues of the *Antiquaries Journal*. ⁴ He noted that the southern end of the strip of tiles was then undisturbed, showing a pattern of tiles glazed alternately dark green and 'buff'; most of the glaze on the latter, he noted, had worn away.

Two groups of tile are visible in the exposed area: inlaid ones of Exeter Series 1, (represented by two tiles of design 51⁵ and two fragments) and plain ones, also about 130mm across, some of which show characteristic features of imported Low Countries tiles. The second group includes five example with plain dull green glaze, two with slip and yellow glaze and two with iron-rich black glaze. The two groups are of different dates, the inlaid tiles being typical of the primary paving of the eastern limb of the cathedral in the late 13th and early 14th centuries, and the plain tiles typical of the imports spanning the late 14th to early 16th century.

Specific documentation survives for two phases of presbytery flooring. The area was first paved in the years 1302–4. The 300 Ham Hill stones used for making the steps to the High Altar had been bought in 1301–2 and are listed in the celebrated entry in the fabric rolls which also records the purchase of colours for painting the bosses and corbels of the presbytery. ⁶ Some 3000 tiles were bought in 1302–3 at 7s 6d per thousand, followed by 11,500, bought and laid at 7s the thousand a few months later. The last entry evidently refers to the presbytery, since it was part of a purchase for 'glass and pavement' in which the glass is identifiable that of the presbytery clerestory and aisles. ⁷ Two thousand further tiles were bought in the following year. ⁸ The inlaid tiles of design 51 are attributable to this phase of flooring. As Percy Morris first pointed out, an entry in the fabric roll for 1392–3 records '*labor circa pavimentum*

³ Morris 1944, 12.

⁴ Morris 1944.

⁵ Allan and Keen 1984, 239.

⁶ Erskine 1981, 26.

⁷ *ibid.*, 27–9.

⁸ *ibid.*, 30.

chori ['] and this is probably the context for the plain later medieval paving tiles. ⁹ This work followed the reconstruction of the Great East Window in 1391 and was perhaps necessitated by damage to the older tiled floor caused by the building work. ¹⁰ The Low Countries tiles are of a type imported into England in very large quantities from the late 14th century until the early 16th century. In a south-west English context they are of interest as the earliest documented example of the many imported tiles of this type, preceding the entry in the fabric roll of 1417–8 for 33 pieces of large Flemish pavement for the vestry on the south side of the Lady Chapel. ¹¹

The floor extends beyond the limits of the trench and is overlain by a 0.04m thick layer of Portland cement bedding (701) for the mid-20th century floor (700).

Trench 8 (Detailed plan and section Figs. 8-9. Plates 18-24)

The trench was situated on the south side of the most westerly bay of the presbytery (Bay 7) and measured 4.2 x 1m. It was 'L'-shaped, the main part being orientated a north–south, with a short east–west extension at the northern end. Since a key archaeological feature was encountered, a small part of the trench was excavated to a maximum depth of 0.8m (38.04mAOD). Detailed context descriptions for this trench are set out in Table 8, Appendix 2. The crucial section is Trench 8, Section 5.

The earliest deposit (829), located at a depth of 38.28mAOD, consisted of a humic dark brown black silty clay. This is interpreted as the post-Roman dark soil preceding the construction of the Norman apse, but it may have continued in use until sealed by the construction of the presbytery in the period 1280–1300.

This was overlain by a 0.05m thick mid to dark brown silty clay (835) with rare gravel inclusions. Its interpretation is uncertain; it may have been upcast from the excavation of the Norman foundation, or from the new east end of the late 13th century. This was in turn overlain by a 0.19m thick layer of light yellow Salcombe stone dust and chippings (824). This might represent the start of the demolition of the Norman apse or may be one of the lowest layers in the raft of building stone waste associated with the construction of the new east end. Above this was a 0.04m thick deposit of mid reddish brown silty clay (835), interpreted as trample, and in turn overlain by a 0.05m thick layer of Salcombe stone workings (837).

Along their southern edge of the excavated area these deposits were cut by the foundation trench (827) for the sleeper wall (816) of the late 13th century south presbytery arcade, which consisted of Salcombe stone rubble bonded with lime mortar. Only the top fills of the trench were excavated: the basal deposit (828) consisting of a light to mid yellowish brown silty clay with frequent Salcombe fragments. A single sherd of Dressel 20 Amphorae was recovered from this fill. This was overlain by a 0.1m thick layer of dark brown silty clay (844) which was located in turn underneath (843), a dark brown silty clay with frequent Salcombe stone fragments and rare cbm flecks. A late 13th- early 14th century inlaid floor tile fragment with fleur-de-lys decoration was recovered from this deposit. The upper most fill (842) consisted of a 0.06m thick layer of dark brown silty clay. The backfill and the sleeper wall were sealed underneath a succession of deposits associated with the ongoing construction of the east end in the late 13th century. The lowest deposit consisted of a 0.05m thick layer of light to mid pink

⁹ Morris 1944, 10.

¹⁰ Brooks and Evans 1988.

¹¹ Bishop and Prideaux 1922, 99.

brown silty clay (838) with frequent inclusions of Salcombe stone dust and chippings. This was in turn overlain by a 0.03m thick layer of mid brown silty clay (839) and interpreted as trample. This was overlain by 840, a 0.03m thick layer of light yellow Salcombe stone dust and chippings, which was in turn sealed underneath a 0.06m thick layer of light yellow Salcombe stone betone dust (841).

It was from above this level, post-dating the insertion of the foundation of the south presbytery arcade, that the feature interpreted as the Norman apse was robbed. The robbing cut (830) was almost vertical. The robber trench was backfilled with a homogeneous deposit (831) consisting of mixed silty clay and Salcombe stone with a few slate fragments (?from the roof of the Romanesque cathedral or attendant buildings). A single sherd of 10th-13th century coarseware ?Exeter fabric 20 was recovered from the backfill. Following the demolition of the Norman apse the robber trench was covered by two successive layers of Salcombe stone dust and chippings (820 and 823), overlain by a 0.05m thick layer of mid reddish brown silty clay (822), interpreted as trample. This was in turn overlain by a further succession of layers of Salcombe stone between dust and chippings (818, 820-1, 825-6) interspersed with a single layer of white lime mortar deposits (819).

Although the upper surfaces of these deposits had been truncated when the 18th, 19th and 20th century floors were installed (described below), leaving irregular patches of the highest deposits (plan, Trench 8, the meandering lines 818, 819, 821, 822, 823, etc), a small column of later deposits survived in the south-east corner of the trench against the pier base. Above 841 was a thin deposit (809) of white lime mortar. This was in turn overlain by a 0.02m thick layer of light yellow Salcombe stone dust (810), perhaps evidence of ongoing stone working or finishing. This was in turn overlain by a thin layer of mid brown silty clay (811), covered in turn by a thin layer of white lime mortar (812) and a thin deposit of silty clay (813), a further deposit of crushed Salcombe stone (814) and a thin layer of white lime mortar (815). These deposits have been interpreted as a succession of working surfaces associated with the construction of the choir. The medieval tile pavement must have been laid over all these deposits but no trace of it was recognised.

The tops of the medieval deposits had been extensively disturbed by the construction of the floors of 1763, 1871–6 and 1963, and no medieval floor-tile pavement or even the underlying tile bedding was found. Nothing survived of the chequered 'marble' floor of 1763, whose slabs had also been lifted and their bedding removed. Neither did anything survive from Scott's elaborate floor of the 1870s, apart from some loose tiles. The floor of 1963 had been laid by breaking up of the late 19th-century sub-floor (804/7), represented by a 0.35m-thick layer of grey cementitious mortar, and pouring a 0.18m thick reinforced concrete sub-floor (803) over it. The concrete of 1963 was overlain by a 0.04m-thick layer of cement bedding (802) for the present Purbeck stone floor (800).

Trench 9 (Detailed plan and section Fig. 10, Plates 25-26)

The trench was dug within the former vestry to the south of the south choir aisle which now serves as the flower arrangers' room. It was positioned against the south wall of the vestry, measured 0.72×0.46 m and was excavated to a maximum depth of 0.5m (38.30mAOD). Context descriptions for this trench are set out in Table 9, Appendix 2.

The excavation exposed the top of an inner offset projecting from the south wall (903) at a depth of 0.2m below internal floor level. This consisted of roughly squared volcanic trap bonded with lime mortar. The space beside the wall had been infilled with clean small rubble

of Salcombe stone and volcanic rubble (902) with mortar lumps identical to the lime mortar of the south wall foundation. This deposit is interpreted as undisturbed medieval rubble forming the sub-floor of the room. No medieval floor was found overlying this deposit; judging by the level of doorways and sills in the room, this must have been more-or-less at present floor level.

Both the foundation and the infill were sealed by a 0.2m-thick modern (post-1950?) concrete sub-floor (901) and a 0.02m thick layer of bitumen, topped with linoleum (900).

Trench 10 (Detailed plan and section Fig. 10, Plates 27-28)

The trench was located within the choir, immediately to the north of the bishop's throne. It measured 0.94m x 0.46m and was excavated to a maximum depth of 0.5m below current floor level (38.54mAOD). Context descriptions for this trench are set out in Table 10, Appendix 2.

The earliest deposit seen was the top of a compacted deposit of crushed Salcombe stone (1011) at a height of 38.59m AOD. This is interpreted as part of the construction of the early 14th-century choir raft. It was overlain by a second 0.06m-thick layer of the same material (1008), covered by a thin (0.01m) layer of brown silty clay (1007), interpreted as a layer of trample. This in turn was overlain by a 0.03m thick layer of lime mortar (1006), followed by a further very thin (0.02m) lens of silty clay (1005), perhaps a further layer of trample.

This succession of thin deposits was cut at the south-east corner of the trench by grave 1009. Only part of the fill (1010) was excavated.

The tops of this grave and of deposit 1005 were truncated (1004) by the insertion of the current floor in 1963. Broken-up and reused portions of Scott's floor of the 1870s formed a 0.17m-thick sub-base (1003) for the 20^{th} -century flooring; this was sealed below a 0.16m-thick reinforced concrete slab (1002) overlain by the current Purbeck stone paviours (1001). A single fragment of Roman *tegula* was recovered from (1003).

Trench 11 (Detailed plan and section Fig. 10, Plate 29)

The trench was dug at the western end of the choir, immediately in front of the south choir stalls. It measured 1.4×0.46 m, was orientated east-west and was excavated to a maximum depth of 0.49m (38.55m AOD). Context descriptions for this trench are set out in Table 11, Appendix 2.

The remains of a stone-lined grave (1105) were exposed along the northern edge of the trench. Its lining (1106) consisted of stone rubble bonded with lime mortar, while the grave fill (1107) contained tile or brick inclusions. This is probably the grave marked by ledger stone 24 on the plan of 1763 (Fig. 3); the accompanying text describes the inscription as 'quite obliterated'.

Underneath the choir stalls the burial was overlain by the 0.05m-thick layer of cementitious mortar which represents the bedding of Scott's tile pavement (1103). Outside the stalls this had been broken up and reused in 1963 to form part of the 0.12m-thick sub-base (1102) on which a 0.1m-thick reinforced concrete slab (1101) had been poured and the current stone floor (1100) laid.

Trench 12 (Detailed plan Fig. 11, Plate 30)

The trench was located in the south choir aisle, beside the sleeper wall on which the choir arcade stands. It measured $0.92 \times 0.42m$, was orientated approximately north-south and was

excavated to a maximum depth of 0.22m (38.54m AOD). Context descriptions for this trench are set out in Table 12, Appendix 2.

The foundation of the sleeper wall (1208), consisting of volcanic trap ashlar bonded with lime mortar, was abutted by a layer of Salcombe stone dust and chippings (1207), the remains perhaps of a construction raft like the one seen in the choir. This was overlain by a charnel soil (1202), cut to the east and south by graves (1203) and (1205) respectively. The fills of these (1204 and 1206) were similar to the surrounding charnel soil. The recovery of a fragment of 18th-century English green bottle glass from (1206) shows that this context dates from after 1700.

These deposits were sealed by a 0.03m-thick layer of lime mortar (1201) located underneath 0.07m thick stone floor slabs (1200). This probably represents the 18th- or early 19th-century bedding of the aisle paving.

Trench 13 (Detailed plan and section Fig. 11, Plate 31)

This trench was also sited within the south choir aisle, beside the sleeper wall on which the choir arcade stands. It measured 0.9 x 0.6m, was orientated north–south and excavated to a maximum depth of 0.54m (38.20m AOD). Context descriptions for this trench are set out in Table 13, Appendix 2.

The trench exposed the lower foundation (1308) of the sleeper wall of the south choir arcade. This consisted of volcanic trap rubble bonded with lime mortar, below the ashlar of the raised bench (1307), which seems to be largely of Beer stone. The foundation was abutted by a charnel soil (1306). This was cut along its southern edge by grave (1305) whose fill (1304) was excavated down to formation level. It contained bricks including one salt-glazed header, datable after *c*. 1700. Ten medieval floor-tile fragments including three of Normandy tiles with green glaze were also recovered, confirming the evidence from Trenches 2 and 3 that the early 14^{th} -century floor had been patched or repaired in the late 15th or early 16th century.

The grave fill (1304) was cut by a later grave (1303, fill 1302). The sequence was sealed underneath a 0.03m thick layer of light yellowish white lime mortar (1301) located underneath 0.07m thick stone floor slabs (1300). This probably represents the 18th- or early 19th-century bedding of the aisle paving.

Trench 14 (Detailed plan and section Fig. 11, Plate 32)

The trench was situated in the north choir aisle, measuring 0.66m x 0.4m. It was orientated north–south and was excavated to a maximum depth of 0.51m (38.11m AOD). Context descriptions for this trench are set out in Table 14, Appendix 2.

The excavation uncovered the remains of a single brick-lined grave (1404, the lining 1402), built against the north face of the wall-seat foundation. White mortar or plaster lined its internal face. The remains of a socket, cut into the wall-seat foundation and partly visible within the brickwork of the lining survived, although partly truncated by later activity. This may originally have held either a wooden or metal prop to support the ledger. The dark reddish brown fill of the grave (1403) was excavated to formation level. Two medieval floor tile fragments were recovered from the grave fill.

The grave was sealed underneath a 0.05m-thick layer of lime mortar (1401) located underneath 0.07m thick stone floor slabs (1400). This probably represents the 18th- or early 19th-century bedding of the aisle paving.

Trench 15 (Detailed plan Fig. 11, Plate 33)

The trench was dug at the east end of the north presbytery aisle. It measured 0.88 x 0.56m and was excavated to a maximum depth of 0.18m (38.36m AOD). The layer sequence is set out in Table 15, Appendix 2.

The excavation exposed the eastern end of a grave (1505) dug against the wall-seat foundation (1506). Its lining (1503) was built of rubble and earthenware tiles bonded in lime mortar. The inside face of the grave wall was rendered with lime plaster and the grave was filled with silty clays (1504, 1502). Three thin medieval floor-tile fragments of the late 13th or early 14th century, one with a scrap of inlay, were retrieved from the fill.

The grave was covered by a 0.03m-thick layer of lime mortar (1501) on which the 0.07m-thick stone floor slabs (1500) are laid. This probably represents the 18th- or early 19th-century bedding of the aisle paving.

Trench 16 (Detailed plan Fig. 11, Plate 34)

The trench was located in the north aisle of the presbytery and measured $0.95 \ge 0.72$ m. It was excavated to a maximum depth of 0.31m (38.30m AOD). Context descriptions for this trench are set out in Table 16, Appendix 2.

At this point the projecting foundation of the aisle wall-seat (1607), which consisted of volcanic trap rubble, was bonded with light to mid red lime mortar, different from typical white medieval mortars and perhaps indicating a post-medieval repair. It was abutted by a probable charnel soil (1602) whose southern edge was cut by a stone-lined grave (1603, the fill 1606). The inside face of the grave's stone lining (1604) retained evidence of lime plaster.

A thin (0.01m) layer of white lime mortar overlay the grave fill; this was probably the bedding for a later stone floor. It was overlain by a 0.2m thick concrete layer (1601), serving as a later bedding for the 0.08m-thick stone slabs of the present floor (1600).

Trench 17 (Detailed plan Fig. 11, Plate 35)

This trench was dug on the south side of the north choir aisle and measured 0.76 x 0.4m. It was orientated north–south and excavated to a maximum depth of 0.22m (38.44m AOD). Context descriptions for this trench are set out in Table 17, Appendix 2.

The excavation exposed the irregularly projecting foundation of the north wall-seat (1706), consisting of volcanic trap rubble bonded with red lime mortar. This was abutted by a layer of charnel soil (1702) which was cut by grave (1704) with a silty clay fill (1705) capped by a Purbeck stone ledger (1703) with tooled back surface. The grave was overlain by a 0.02m-thick mortar (1701) whose cementitious content indicates a date after c.1850. This was probably the bedding for the present floor; it was overlain by 0.1m-thick stone floor slabs (1700).

Trench 18 (Detailed plan Fig. 11, Plates 36-37)

The trench was located in the north choir aisle and measured 0.76 x 0.68m. It was orientated north–south and was excavated to a maximum depth of only 0.3m (38.42m AOD). Context descriptions for this trench are set out in Table 18, Appendix 2.

The earliest deposit was a small area of dark brown black silty clay (1809), cut along its northern edge by the foundation of the Norman north wall (1807). It contained single sherds of samian ware and amphora, both residual finds of the late $1^{st}/2^{nd}$ century. This layer's composition is typical of post-Roman dark soils; the fact that it is cut by the Norman east end indicates a date before AD 1114.

The foundation of the Norman north choir wall was built of volcanic trap rubble bonded with reddish-brown lime mortar. Its edge ran parallel with the aisle wall at the western end of the trench before stepping southward in the centre and eastern end of the trench, below the western side of the early 14th-century pier at the junction of Bays 10 and 11. Since this is also the expected position of the Norman respond between the two eastern bays of the eastern limb, it seems probable that the projection was the foundation of the respond at the junction of the eastern bays of the Norman church. The mortar colour may be noted; brown mortars are characteristic of late Saxon and early Norman building work elsewhere in Exeter, but it is possible that the mortar here has been discoloured since it has been buried.

The pre-Norman soil was also cut to the south and west by graves (1803) and (1805) respectively, the former with a stone lining (1804). All these features were covered by a 0.01m thick layer of white lime mortar (1801) located underneath 0.09m thick stone floor slabs (1800).

Trench 19

The trench was located in the south choir aisle and measured 0.76m x 0.76m and extended to a total depth of 0.56m (38.14m AOD).

The work exposed a purpose built service channel with concrete block walls and a concrete base, parallel with the south wall and extending from St James' chapel as far as the crossing.

Trench 20

The trench was located at the western end of the south choir aisle and measured $0.66m \ge 0.42m$ and extended to a total depth of 0.56m (38.17m AOD).

The work exposed a purpose built service channel with concrete block walls and a concrete base, parallel with the south wall and extending from St James' chapel as far as the crossing. A spur extended north across the south aisle at this point.

Trench 21

The trench was located towards the northern end of the crossing and measured $0.86m \ge 0.5m$ and extended to a total depth of 0.56m (38.18m AOD).

The work exposed a purpose-built N-S aligned service channel with concrete block walls and a concrete base, with a spur extending east towards the north choir aisle. In addition to service cables the trench also houses the organ pipes.

5. THE FINDS by John Allan

5.1 Introduction

The finds are briefly described below and itemised in Appendix 3. The most significant items are the medieval and Victorian floor-tiles; there are also a few Roman sherds and tile fragments.

5.2 Romano-British

Three sherds of residual Roman pottery were found: two from amphorae (one Dressel 20) and one plain samian. Single Roman tile fragments were recovered from Trenches 4, 8 and 10. One is a thin combed box tile, indication a hypocaust heating system, perhaps that seen in the1930s outside the chapels of SS Andrew and Katherine. Late Roman grey lias roofing slate fragments were recovered from Trenches 8 and 13.

5.3 Medieval

Floor-tiles

In total, 69 residual fragments of medieval floor-tile were recovered from Trenches 2, 3, 4, 8, 13, 14 and 15. Three groups are represented:

- (1) Inlaid tiles of the period *c*. 1290–1310 including four 13th/14th-century tiles (one the fleur-de-lys design 51), six half-width border tiles (two plain green-glazed, at least one with slip and copper green), with four small square corner tiles with yellow slip the type used at the intersections of the borders. These show that the aisles had tile pavements like those formerly in the choir and presbytery, using the traditional borders of half-tiles rather than the style with narrow third-tile borders, introduced at an unknown date in the range 1300–25.
- (2) Normandy tiles of the late 15th/early 16th century, some with traces of their distinctive brilliant copper-green and yellow glazes. These have been found in the south aisle, showing a late episode of late flooring (necessitated by burials?) in that area.
- (3) A single late medieval Low Countries fragment from Trench 4, of the type represented by the presbytery pavement in Trench 7. .

Pottery

A single sherd of 10th- to 13th-century Upper Greensand-Derived coarseware was recovered from the backfill (831) of the robber trench in Trench 8, while two sherds of residual 14th-15th century coarseware were recovered from grave fill (306). Sherds of late medieval or early post-medieval ridge-tile were recovered from the charnel soils in Trenches 2 and 4.

Architectural fragments

Finally, three thin slices of 15th-century Beer stone screen moulding from the choir screen were recovered from the charnel soil (403) and grave fill (405) in Trench 4. They suggest that the screen in this bay has been altered in the past – perhaps in the late 18th/early 19th-century repairs to this area.

5.4 Post-medieval

Victorian floor-tiles

In total, 28 tile fragments from Godwin's choir pavement were recovered from the reinforced concrete subfloor (803) and the underlying crushed sub-floor (804) laid in 1963 in Trench 8. They are of interest as the records of this pavement are poor, even though it was destroyed as recently as 1963.

The remaining assemblage consists of a single sherd of mid-late 17th-century Donyatt sgraffito dish and post-1750 industrial pottery, glass and brick, catalogued in Appendix 3.

6. DISCUSSION

6.1 Quality of results

Understanding of the deposits encountered is hampered by the limited size of the trenches and by the limited amount of secure dating evidence. Nevertheless, general interpretation, of character of many of the deposits and the known structural history of the east end.

6.2 Pre-Norman

None of the trenches was sufficiently deep to reach Roman deposits, whose top surface can be estimated to lie at least 1m below the cathedral floors. However, small exposures of post-Roman dark soil were seen in Trenches 8 and 18. In Trench 8 the dark soil (829) was cut by the robbing of the apse of the early 12th-century Norman cathedral; it may have continued in use as garden soil until buried below the foundations of the presbytery at the end of the 13th century. In Trench 18 the pre-Norman soil (1809) was cut by the projecting foundation of one of the responds of the Norman church.

6.3 Medieval activity

The plan of the east end of the Romanesque church

The excavations provided important new insight into the form of the east end of the Norman cathedral. In Scott's restoration of the cathedral in 1871–7 the foundation of a large apse was exposed below the choir floor. No plan was drawn at the time; the only record was published by Bishop and Prideaux almost 50 years after the discovery.¹²

Although all subsequent commentators have accepted that this was the foundation of the apse of the Norman choir, the way in which this formed a component of the overall plan the east end of the Norman cathedral has been interpreted in five completely different ways over the last 120 years (Fig. 12). Early commentators – Lethaby in 1903 and Bishop and Prideaux in 1922 – concluded that it was the eastern wall of the cathedral: a central apse which would have been flanked by chapels terminating the aisles, together forming a typical example of a Romanesque parallel apses plan. Subsequent writers have reinterpreted the discovery as the foundation of the wall separating the choir from a lost surrounding ambulatory, whose outer wall would lie further to the east, below the presbytery. In this more ambitious arrangement radiating chapels based on those at Norwich cathedral were envisaged by Radford. ¹³ Thurlby ¹⁴ found possible evidence of radiating chapels on the south side of the choir, reconsidered by

¹² Bishop and Prideaux 1922, 24–5. This was based on the recollection of Edwin Luscombe, then Clerk of Works, who had been present when the foundation was discovered.

¹³ Radford 1960.

¹⁴ Thurlby 1991a; 1991b.

the writer as remains of the adjacent Bishop's Palace. ¹⁵ In the most ambitious reconstruction, Jonathan Foyle has recently proposed that the Romanesque church had a larger eastern arm, projecting three bays from the towers instead of the two of previous reconstructions, to which a large early 13th century Lady Chapel was added, followed by flanking chapels. ¹⁶

Despite the limited scale of the evaluation trenches, the excavation has thrown important new light on this subject. It found the trench of a large and deep masonry foundation below the floor of the western bay of the presbytery, robbed and backfilled when the presbytery was rebuilt shortly before c.1300. The eastern side of the foundation trench cut obliquely across earlier deposits to the east at an angle of about 45 degrees, corresponding to the oblique form of the eastern side of the foundation seen in the 1870s. Given the position, size and stratigraphic position of the robbed feature, there can be little doubt that the two observations record the same foundation, and that both represent the apse of the Norman church. For the first time, therefore, this reliable record of the position of the outer edge of the apse foundation allows the apse to be located precisely (Fig. 13). Although the plan published in 1922 appears to indicate the exposure of the entire Norman apse foundation in the 1870s, it is clear, therefore, that only a part could have been seen; none of the area excavated in 2021 had been exposed previously but was instead sealed below building debris of c.1300. The Victorian observations were presumably on the north side. Perhaps the footing is preserved to a higher level there; Luscombe described a foundation rather than a robber trench.

A further key point in the interpretation is the exposure of an area of dark humic soil (Tr. 8, 829) to the east of the apse, buried in debris at an early stage in the construction of the 13^{th} century presbytery. The top surface of the soil as it stood *c*.1300 was well preserved, and there was no sign of intervening building activity between the Romanesque apse and the presbytery of *c*.1300. The character of the soil matches the post-Roman dark soil seen on many city sites; closely comparable deposits have been examined recently below the Chapter House floor and below the east walk of the cloisters, where soil analysis is being undertaken by Richard MacPhail of the University of London. The deposit marks the period between the end of Roman life in the 5th century and its resumption in the late Saxon period or later. Its presence to the east of the apse is clear evidence that the foundation was the external wall of the cathedral, cut into older garden soil to the east, rather than the floor of an ambulatory.

One more tentative observation may be made regarding the plan of the Romanesque church. Trench 18 was excavated on the north side of the north aisle, at the junction of Bays 10 and 11. A wall footing was found here, running east–west below the wall-seat. Below the western side of the early 14th century pier it stepped southward on its eastern side. This thickening of the wall foundation was interpreted as a pre-14th century feature, since there was no sign of such a projection in the 14th century wall-seat. It may have accommodated the respond at the junction of Bays 10 and 11 of the Norman church, which would have lain almost exactly where its successor in the 14th century cathedral stood. This interpretation, however, is tentative, since the date of the foundation was not firmly established. No corresponding evidence on the inner face of the south aisle wall survives, since this is faced below ground with post-1945 concrete blocks.

¹⁵ Allan 2014.

¹⁶ Foyle 2020, 27.

7. CONCLUSIONS

The trench evaluation constitutes a thorough examination of the site, with trenches positioned to provide a spatial sample of the site and assess the potential impact of any proposed underfloor heating scheme.

In the choir the most important finding regarding the proposed heating scheme is the discovery that the late 19^{th} and mid- 20^{th} century reflooring have raised floor levels within the choir and disturbed the underlying archaeology to a depth of between 0.27 and 0.65m. It is therefore not anticipated that any proposed works would encounter burials or other sensitive archaeology within the 500mm ground reduction necessary to achieve a new underfloor heating scheme. Although the disturbance resulting from Scott's 1871-7 work and the 1963 reflooring was shallower towards the western end of the choir (0.27m in Trench 11), if the sampled areas are typical, it would be possible to achieve the necessary depth for a new underfloor heating scheme without any impact on significant underlying archaeological deposits. No medieval or Georgian floors were found within the excavations below these modern layers; and it is unlikely therefore that they survive below the choir. The medieval deposits which were examined in Trenches 4, 8 and 10 consisted almost entirely of thick dumps of compacted building waste, largely of Salcombe stone, dating from c.1300.

In the choir and presbytery aisles a dense pattern of burials, mainly of the period after 1700, was seen in Trenches 2, 3 and 12–18. It was noted, however, that a buried internal offset along the south aisle wall, c.0.4m below the surface, had been avoided by gravediggers. This may have been followed to provide a service corridor in Bays 9–11; an extension eastward in Bays 5–8 might therefore provide a convenient route for future service trenches.

Finally, no medieval floor survives in the area sampled in the southern vestry (flower arrangers' room). This is likely to be the case throughout the room.

PROJECT ARCHIVE

The site records have been compiled into a fully integrated site archive which is currently held at Oakford Archaeology's offices under project number 1728, pending deposition with the Cathedral Library and Archives. Details of the evaluation, including a pdf copy of the final report will be submitted to the on-line archaeological database OASIS (oakforda1-425974).

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Fig. 1 Location of Site



Fig. 2 The choir and presbytery before 1763 (from Jeremiah Milles plan, ECLA; Jones Ichonography; Chapple MSS in DHC) with known burials and approximate position of Norman apse (red).







Fig. 4 The remaining portion of Scott's pavement of 1873-6 (photo: Gary Young 2020).



Fig. 5 Trenches in the crossing, choir, choir aisles, retrochoir and Lady Chapel.







Fig. 7 Trench 4: plan and sections.



Fig. 8 Trenches 7-8: plans.

Fig. 9 Trench 8: sections.

Fig. 10 Trenches 9-11: plans and sections.

Fig. 11 Trenches 12-18: plans and sections.

Fig. 12 Previous reconstructions of the Romanesque east end, with approximate location of the 2021 observation in red.

Pl. 1 General view of the south choir aisle with Trenches 2-3 in the foreground. Looking west.

Pl. 2 General view of the south choir aisle with Trenches 12-13 in the foreground. Looking east.

Pl. 3 General view of the north choir aisle showing Trenches 14-16 and 18. Looking west.

Pl. 4 General view of the north choir aisle showing Trenches 14-18. Looking east.

Pl. 5 General view of Trench 1 showing pier foundation (103). 0.5m scale. Looking southeast.

Pl. 6 Close-up of Trench 1 showing pier foundation (103). 0.5m scale. Looking south.

Pl. 7 General view of Trench 2 showing the stepped foundation for the south wall and bench (204). 2m scale, Looking southeast.

Pl. 8 Close-up of Trench 2 showing the stepped foundation for the south wall and bench (204) and brick grave lining (206). 2m scale. Looking north.

Pl. 9 General view of Trench 3 showing the stepped foundation for the choir screen and bench (303). 2m scale, Looking northwest.

Pl. 10 Close-up of Trench 2 showing the stepped foundation for the choir screen and bench (303) and possible mortar grave lining (305). 2m scale. Looking south.

Pl. 11 General view of Trench 4 showing the extensive late 19th century sub-floor (402) above the heavily truncated 18th century floor makeup (416) and the late 13th century construction debris (408). 2m scale. Looking north.

Pl. 12 Close-up of pier (419) and pier foundation (421) showing the original level of the 18th and late 13th century floors. 0.5m scale. Looking northeast.

Pl. 13 General view of Trench 4 showing mortar lined grave (420) underneath possible late 13th century construction debris (408), and later grave (412). 2m scale. Looking west.

Pl. 14 General view of Trench 4 showing charnel soil (403) truncated by grave (412). 1m scale. Looking southeast.

Pl. 15 General view of Trench 5 showing the late 19th century sub-floor (500) above the heavily truncated early 14th century construction debris (501) and charnel soil (502). 0.25m scale. Looking south.

Pl. 16 General view of Trench 6 showing the late 19th century sub-floor (600) above the charnel soil (601). 0.25m scale. Looking south.

Pl. 17 General view of Trench 5 showing the late medieval pavement and Purbeck steps surviving underneath the late 19th century floor. The mortar bedding (704) of the original lower level is visible to the right. 1m scale. Looking south.

Pl. 18 General view of Trench 8 showing stone working and mortar deposits associated with the reconstruction of the east end in the late 13th and early 14th century truncated by the late 19th and 1960s flooring. 2m scale. Looking southeast.

Pl. 19 General view of Trench 8 showing stone working and mortar deposits associated with the reconstruction of the east end in the late 13th and early 14th century truncated by the late 19th and 1960s flooring. 2m scale. Looking south.

 Pl. 20 General view of Trench 8 of trench through medieval construction deposits showing the pre-Norman soil (829) truncated by curved robber trench (830) and the choir arcade sleeper wall foundation (827). 2m scale. Looking south.

Pl. 21 Section through Trench 8 showing the pre-Norman soil (829) overlain by late 13th century construction deposits and truncated by the curved robber trench (830) and the choir arcade sleeper wall foundation (830). 2m scale. Looking east.

Pl. 22 Section through Trench 8 showing the pre-Norman soil (829) overlain by late 13th century construction deposits and truncated by the curved robber trench (830) and the choir arcade sleeper wall foundation (830). 2m scale. Looking east.

Pl. 23 General view of Trench 8 showing the pre-Norman soil (829) truncated by the curved robber trench (830) and the choir arcade sleeper wall foundation (830). 1m scale. Looking west

Pl. 24 Close-up of successive thin layers of lime mortar surviving against the arcade pier base and vertical truncation of pre-Norman soil below. 0.5m scale. Looking east.

Pl. 25 General view of Trench 9 showing south wall (903) of vestry and infill above vaulting (902). 0.5m scale. Looking south.

Pl. 26 Section through Trench 9 showing depth of concrete (900), south wall of vestry (903) and infill above vaulting (902). 0.5m scale. Looking west.

Pl. 27 General view of Trench 10 showing late 13th or early 14th century construction debris (1008) truncated by later grave (1009). 0.5m scale. Looking south.

Pl. 28 Section through Trench 10 showing successive late 13th or early 14th century construction deposits. 0.5m scale. Looking north.

Pl. 29 General view of Trench 11 showing stone lined grave (1105) and a remnant of the late 19th century sub-floor (1103). 1m scale. Looking north.

Pl. 30 General view of Trench 12 showing late 13th or early 14th century construction debris truncated by graves (1203) and (1205). 0.5m scale. Looking east.

Pl. 31 General view of Trench 13 showing graves (1303) and (1305). 0.5m scale. Looking west.

Pl. 32 General view of Trench 14 showing brick lined grave (1404). 0.5m scale. Looking south.

Pl. 33 General view of Trench 15 showing stone rubble and clay tile lining (1503). 0.5m scale. Looking east.

Pl. 34 General view of Trench 16 showing stone lined grave (1603) and projecting stepped north wall and wall bench foundation (1607).
0.5m scale. Looking west.

Pl. 35 General view of Trench 17 showing Purbeck ledger stone with tooled surface. 0.5m scale. Looking south.

Pl. 36 General view of Trench 18 showing projecting foundation (1807) of possible Norman north wall pier. 0.5m scale. Looking north.

Pl. 37 General view of Trench 18 showing pre-Norman soil (1809) truncated by the projecting foundation (1807) of possible Norman north wall pier, stone lined grave (1803) and grave (1805). 0.5m scale. Looking north.

Appendix 1:

Written Scheme of Investigation for Archaeological works

1. THE PROPOSED SCHEME

- 1.1. The Chapter of Exeter Cathedral is developing proposals to improve the provision of lighting, heating, data and sound in the east end of their cathedral. These proposals will entail excavation of a series of new trenches below the floors of the choir, choir aisles, retrochoir and Lady Chapel.
- 1.2. Chapter also intends to build new lavatories in the room on the south side of the choir, currently used by the flower arrangers, which may have served as a vestry in the Middle Ages.
- 1.3. This Written Scheme of Investigation (WSI) sets out the programme of archaeological work that will be undertaken to mitigate the impact of these proposals on the cathedral's buried archaeological remains, and to provide information which will help determine the best positions for the new heating system and lavatories both to minimise archaeological impact and to ensure the survival of any remains that might be left *in situ*.

2. BACKGROUND

2.1. Context

The cathedral, one of medieval Europe's great buildings, is clearly a place of the highest architectural and historical significance. Very little study, however, has been undertaken on its floors; the current state of knowledge is described in Allan, J. 2019 'The Archaeology of the Floors of Exeter Cathedral', *John Allan Archaeology Report* **99/2019.**

2.2. Archaeological potential

Hardly any modern archaeological work has been undertaken below ground within the cathedral, and the full depth of deposits in the eastern limb of the church is unknown. The possibility of encountering the following features should be considered, however:

- 1. Later Roman buildings.
- 2. Post-Roman dark soils, perhaps with traces of pre-Norman buildings.
- 3. Foundations of the eastern termination of the Norman cathedral including the apse seen in Scott's restoration of the 1870s.
- 4. Medieval and later burials.
- 5. Tiled flooring or tile bedding of the 13^{th} , 14^{th} and 15^{th} centuries.
- 6. Traces of internal furnishings such as the early 17th-century choir rails now at Woodbury church.
- 7. Features connected with the reflooring of the choir and presbytery in 1763.
- 8. Floors from Scott's refurbishing of the choir (including reflooring) of 1871–5.

2.3. Proposed strategy

No archaeological works below ground have been recorded in the past in the Lady Chapel.

- 2.3.1. The proposed positions of trenches shown in Fig. 1 represent a design worked out between the Cathedral Architect, the Cathedral Archaeologist and the heating contractors. It arises from the need of the choir and congregation for heating in the Lady Chapel and choir and takes into account the places where disturbance of the floor is likely to be least damaging. The layout also takes into consideration all the known archaeological evidence, including the records of the former positions of medieval an early modern burials recorded in a group of manuscripts dating from 1763.
- 2.3.2. The two long east-west trenches in the choir follow two rows of slabs in the floor of 1962. Their positioning has the great merit of avoiding most of the known burials of the choir and presbytery. An initial design has been modified to avoid the early 14th-century reburial place of Bishop Brewer. The present layout cuts across the former positions of two ledger stones on the north side of the choir (Fig. 1, Nos 29 and 30), but both stones were recorded in 1763 as having their wider end to the east, suggesting that they were no longer *in situ*.
- 2.3.3. In the presbytery the design avoids the complex central rectangle of Scott's superb stone floor of the 1870s with its twelve polyfoils. The decayed bands of Pocombe stone which flank the north and south sides of the centre of the design are the obvious places for new heating trenches. Fortuitously, they almost avoid the known burials in this area.
- 2.3.4. No early plan of burials in the retrochoir or Lady Chapel is known; there is therefore no archaeological reason to favour one trench position over another.
- 2.3.5. The positioning of the trenches in the aisles is designed to establish the existing positions of services here.
- 2.3.6. The trench in the flower arrangers' room has been positioned to pick up any surviving medieval flooring at the west end.

3. STAGES OF WORK

- 3.1. The archaeological work will be conducted in two stages. First, evaluation in the Development stage will seek to establish as much information as possible about the character of the deposits which may be removed, and particularly to identify the routes of proposed trenches which will cause the least damage to buried archaeological features and deposits. The trench plan may be subject to variation as routes are opened up.
- 3.2. The second stage, carried out in the Delivery phase of the programme, will consist of the complete excavation of all deposits in the new trenches.

4. METHOD

In both phases the method will be as follows:

4.1. Staff

The site work will be carried out by the chosen contractor in close consultation with the Consultant Archaeologist.

4.2. Preparation

- 4.2.1. Before excavation is undertaken, the site staff will familiarise themselves with the architectural setting and previous archaeological studies in this part of the cathedral.
- 4.2.2. The lifting of the paving slabs will be carried out by a specialist contractor before archaeological investigation begins.
- 4.3. Procedure on-site: removal of stratified deposits

All excavation will be undertaken by archaeological staff by hand unless agreed otherwise by the Cathedral Archaeologist.

All deposits will be removed according to an agreed recording system which will include:

- survey and location of deposits or archaeological features using EDM surveying equipment and software;
- standard single context record sheets; survey drawings, plans and sections at scales 1:10,1:20 as appropriate;
- colour digital photography in line with the 'Digital Image Capture and File Storage: Guidelines for Best Practice' (Historic England, July 2015);
- labelling and bagging of finds on site from all excavated levels. (Post-1750 unstratified pottery will be discarded on site after listing).
- •
- 4.4. Human remains
- 4.4.1. Should any articulated remains be exposed, they will be fully cleaned initially but left *in situ*. An assessment will then be made to consider whether preservation *in situ* is possible; this will be our preferred approach.
- 4.4.2. If removal of articulated human remains is deemed necessary, a detailed proposal explaining the intended course of action will be submitted to CFCE, and excavation will not be proceed without separate written agreement from the CFCE.
- 4.4.3. If permission is granted, burials will be excavated in accordance with the CIfA 'Guidelines to the Standards for Recording Human Remains' (M. Brickley and J. McKinley 2004) and the CIfA Standards for Recording Human Remains (P.D. Mitchell and M. Brickley, CIfA 2017).
- 4.4.4. Where articulated human remains are identified, soil samples will be collected from the head, torso/pelvis, hands and feet areas. All human bone including disarticulated material will be retained for analysis and reported upon.
- 4.4.5. The question of C14 dating of selected burials will also form part of the post-excavation assessment, which will be submitted for approval by CFCE.¹⁷ No invasive testing of human remains will be carried out without a separate application setting out a clear and justified research purpose for this work.

¹⁷ For the procedure in other contexts, where HE rather than the CFCE is the relevant body see: <u>https://www.archaeologists.net/sites/default/files/14_Updated%20Guidelines%20to%20the%20Standards%20for%20Record</u> <u>ing%20Human%20Remains%20digital.pdf</u>

- 4.4.6. After analysis, human remains will be reburied within the Cathedral precinct.
- 4.5. Environmental evidence

If deposits containing potential environmental evidence are encountered, they will be assessed on site by a suitably qualified archaeologist, with advice as necessary from Allen Environmental Archaeology, to determine the possible yield of environmental or microfaunal evidence, and its potential for radiocarbon dating.¹⁸ If deposits with potential for environmental analysis survive, HE Guidelines for Environmental Archaeology¹⁹ will be followed, and outside specialists will be chosen to undertake further assessment and analysis. Material deemed suitable for C14 scientific dating will be sampled and submitted for dating.

4.6. Conservation

The cleaning, conservation, packaging and any stabilization of artefacts and ecofacts will be undertaken in accordance with relevant professional guidance.²⁰ If specific problems arise, the advice of the consultant conservator will be sought (see specialist consultants below). Subject to the requirements of the receiving museum, finds will be marked with the site and find codes, and relevant accession numbers. Stratified metalwork (including all iron objects) will be X-rayed by a suitable specialist following HE guidance (see n.4 above).

4.7. Treasure

Should artefacts be found that fall within the scope of the Treasure Act 1996, they will be removed to a safe place and reported to the local coroner according to the procedures laid down in the Act. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds. Historic England will also be notified promptly.

4.8. Specialists

The project will be organised so that the expertise of the following specialist consultants who may be called upon:

Prehistoric artefacts - Henrietta Quinnell (Exeter) and associates;

<<u>https://www.archaeologists.net/sites/default/files/14_Updated%20Guidelines%20to%20the%20Standards%20for%20Recording%20Human%20Remains%20digital.pdf</u>>

https://historicengland.org.uk/images-books/publications/x-radiography-of-archaeological-metalwork/>

¹⁸See < <u>https://historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/environmental_archaeology>/</u>

¹⁹ see HE/CfA Guidelines for Environmental Archaeology (HE CfA Guidelines 2002/1) and EH/CfA Guidelines 2nd edn, 2011 at:

²⁰ See specifically 'First Aid for Finds' Watkinson, D and Neal V, London: Rescue/UKICAS 2001; ClfA 2014 'Standard and guidance for the collection, documentation, conservation and research of archaeological materials'; *Investigative Conservation @ <<u>https://historicengland.org.uk/images-books/publications/investigative-conservation/</u>; Fell, V., Mould, Q. and White, R. 2006. <i>Guidelines on the X-Radiography of Archaeological Metalwork [@*

Roman finds - Paul Bidwell (Newcastle) and associates; Medieval and post medieval finds - John Allan (Exeter) and associates Clay tobacco pipes – David Higgins (Liverpool); Coins and tokens - Norman Shiel (Exeter); Dating techniques: Scottish Universities Environmental Research Centre, Glasgow; Charcoal identification: Dana Challinor; Finds conservation - Exeter RAM Museum Conservation Service (contact Alison Hopper-Bishop); Environmental sampling –Geoflo (Somerset); Allen Environmental Archaeology (AEA); Faunal remains and human remains – Charlotte Coles; Mandy Kingdom; Philip Armitage (fish) Plant remains – John Georgi Geological identification and mineral analysis – Roger Taylor (Exeter).

5. REPORTING

The contractor will:

- 5.1. Present the results archaeological work in a full report within four months of the date of completion of archaeological site work. The report will contain the following elements:
 - a location plan showing the positions of the groundworks and other archaeological features in the cloisters;
 - phased and annotated plans, sections and other drawn records (elevations, cross sections, etc) showing the stratigraphic sequence;
 - a written account of the exposed features and deposits, with discussion of their character and significance in the context of their architectural setting and of previous finds in the cloister;
 - specialist assessments and reports. [The level of reporting of any specific classes of find which may require further investigation (e.g. dating; analysis of organic materials) will be agreed with the Consultant Archaeologist during the course of the project];
 - an assessment of the work needed to analyse and publish any particularly significant finds and/or results.
- 5.2. Submit a pdf of the summary report, together with the site details, to the national OASIS (Online Access to the Index of Archaeological investigations) database within six months of the completion of site work; additional copies will be sent to the Cathedrals Fabric Commission for England, Exeter City Historic Environment Record and the Cathedral Library and Archive.
- 5.3. Produce, if results of any significance are found, a short report summarising the results of the project for inclusion within the 'round up' section of the journal *Medieval Archaeology*.
- 5.4. Produce an ordered site archive with reference to *The Management of Archaeological Projects* (English Heritage, 1991 2nd edn) upon completion of the project. The archive will consist of two elements, artefactual and digital, the latter comprising all digital

images, survey data, digital correspondence, site data collected digitally, etc) and digital copies of the primary site records and images, compiled in accordance with the ADS Guidelines for Depositors (2015).

- 5.5. The digital archive will be deposited with the Archaeology Data Service (ADS) within 12 months of the completion of site work, while the artefactual element will be offered to the RAM Museum, Queen Street, Exeter (contact: Tom Cadbury, Curator of Antiquities). A museum accession number will be requested before fieldwork begins. The hard copy of the archive, including the conservation records, will be deposited with the artefacts.
- 5.6. The contracting archaeologist will notify the Consultant Archaeologist upon the deposit of the digital archive with the ADS, and of the artefacts with the RAM Museum.
- 5.7. A programme of reporting by the specialists listed in para 4.8 will be agreed by the Cathedral Archaeologist.

6. GENERAL

- 6.1. The project will be undertaken by suitably qualified and experienced archaeologists, in accordance with the Code of Conduct and relevant standards and guidance of the Chartered Institute for Archaeologists (*Standards and Guidance for an Archaeological Evaluation*, 1994, revised 2008), and the *Standards and Guidance for Archaeological Excavation* 1994, revised 2008). The project will be overseen by the Cathedral Archaeologist.
- 6.2. The contractor will confirm that his/her business has appropriate insurance cover, including public liability insurance, and all archaeological works within this scheme will be carried out in accordance with current *Safe Working Practices (The Health and Safety at Work Act 1974)*.
- 6.3. Health and Safety requirements will be observed at all times by archaeological staff working on site, particularly when machinery is operating nearby. Personal protective equipment (safety boots, helmets and high visibility vests) will be worn by staff when plant is operating on site. A risk assessment will be prepared prior to work commencing.

John Allan, Consultant Archaeologist to the Dean and Chapter 22 Rivermead Road, Exeter, EX2 4RL 29 September 2020

Appendix 2: Context descriptions by Trench

Context	Depth (b.g.s.)	Description	Interpretation
No.			
100	0-0.07m	Stone slabs	Floor
101	0.07-0.1m	Light yellowish white lime mortar	Floor bedding
102	0.1-0.36m	Mid to dark reddish brown silty clay slate frags (1%), cbm flecks (1%)	Charnel soil
103	0.15m+	Volcanic trap rubble bonded with white lime mortar with slate flecks (2-3%) and pea grit (2-3%)	Pier foundation

Table 2: Trench 2

Context	Depth (b.g.s.)	Description	Interpretation
No.			
200	0-0.04m	Stone slabs	Floor
201	0.04-0.07m	Light yellowish white lime mortar	Floor bedding
202	0.07-0.26m	Mid brown silty clay with inclusions of	Charnel soil
		pea grit (5%), cbm flecks (1%), human	
		bone fragments (1-2%)	
203	0.26-0.35m	Dark brown silty clay with pea grit (5%) ,	Charnel soil
		cbm flecks (1%), human bone fragments	
		(1-2%)	
204	0-0.07m+	Volcanic trap ashlar bonded with light	Stepped south wall and wall-seat
		yellowish white lime mortar	foundation
205	0.07m+	E-W aligned feature	Cut of grave
206	0.07m+	Handmade mid orange-red brick (0.23m	Brick grave lining
		x 0.11m x 0.07m)	
207	0.35m+	Irregular feature	Cut of grave
208	0.35m+	Light to mid brown silty clay with	Fill of grave [207]
		volcanic trap and mortar fragments (5-	
		10%)	

Table 3: Trench 3

Context	Depth (b.g.s.)	Description	Interpretation
No.			
300	0-0.04m	Stone slabs	Floor
301	0.04-0.07m	Light yellowish white lime mortar	Floor bedding
302	0.07-0.14m	Mid brown silty clay with inclusions of pea grit (5%), cbm flecks (1%), human bone fragments (1-2%)	Charnel soil
303	0-0.07m+	Volcanic trap ashlar bonded with light yellowish white lime mortar	Stepped wall-seat foundation
304	0.07m+	E-W aligned feature	Cut of grave
305	0.07m+	Light yellowish white lime mortar with volcanic trap flecks (1%)	?Mortar grave lining
306	0.07m+	Dark brown silty clay with volcanic trap rubble (5-10%), cbm fragments (1-2%), human bone fragments (1-2%)	Fill of grave [304]

Context	Denth $(\mathbf{h} \mathbf{g} \mathbf{s})$	Description	Interpretation
No.	Depth (b.g.s.)	Description	interpretation
400	0-0.02m	Stone slabs	Floor
401	0.02-0.05m	Light to mid reddish pink cementitious mortar	Floor bedding
402	0.05-0.2m	Crushed cbm and light grey cementitious mortar	Scott Sub-floor
403	0.2m+	Dark brown silty clay with volcanic trap rubble (2-3%), Salcombe fragments (1%), cbm fragments (1-2%), human bone fragments (1-2%), animal bone fragments (1%)	Charnel soil
404	void	void	void
405	0.2m+	Dark brown silty clay with volcanic trap cbm flecks (1-2%)	Fill of grave [412]
406	0.38m+	White lime mortar	Mortar grave lining
407	0.2m+	Dark brown silty clay with volcanic trap cbm flecks (1-2%), white lime mortar flecks (1%)	Fill of grave [420]
408	0.24-0.3m	Light yellow Salcombe stone dust and chippings	Late 13 th century construction debris/sub-floor
409	0.19-0.24m	Purbeck marble floor slab	Floor
410	0.2m+	Narrow vertical cut	Modern intrusion
411	0.2m+	Dark brown silty clay	Fill of modern intrusion [410]
412	0.4m+	E-W aligned feature	Cut of grave
413	0.4m+	Dark brown silty clay with volcanic trap rubble (2-3%), Salcombe fragments (1%), cbm fragments (1-2%), human bone fragments (1-2%), animal bone fragments (1%)	Fill of grave [412]
414	0.2-0.25m	Light to mid grey lime mortar with pea grit (2-3%) and charcoal flecks (1%)	Georgian floor bedding
415	0.48-0.6m	Light yellow Salcombe stone dust and chippings	Late 13 th century construction debris/sub-floor
416	0.2-0.25m	Dark grey lime mortar with pea grit (2- 3%) and charcoal flecks (1%)	Georgian floor bedding
417	0.2m+	Narrow vertical cut	Modern intrusion
418	0.2m+	Dark brown silty clay	Fill of modern intrusion [417]
419	0-0.25m	Pier base	Pier base
420	0.25m+	E-W aligned feature	Cut of grave
421	0.25m+	Light pink white lime mortar with pea gravel (2-3%), lime flecks (1%) and charcoal flecks (1%)	Foundation of pier base

Table 5: Trench 5

Context	Depth (b.g.s.)	Description	Interpretation
500	0.0.25m	Crushed alter and light group	Soott Sub floor
300	0-0.2511	cementitious mortar	Scott Sub-11001
501	0.25-0.26m	Light yellow Salcombe stone dust and	Early 14 th century construction
		chippings	debris/ sub-floor
502	0.26m+	Dark brown silty clay with volcanic trap	Charnel soil
		rubble (2-3%), Salcombe fragments	
		(1%), cbm fragments (1-2%), human	
		bone fragments (1-2%), animal bone	
		fragments (1%)	

Table 6: Trench 6

Context No.	Depth (b.g.s.)	Description	Interpretation
600	0-0.25m	Crushed cbm and light grey cementitious mortar	Scott Sub-floor
601	0.25m+	Dark brown silty clay with volcanic trap rubble (2-3%), Salcombe fragments (1%), cbm fragments (1-2%), human bone fragments (1-2%), animal bone fragments (1%)	Charnel soil

Table 7: Trench 7

Context	Depth (b.g.s.)	Description	Interpretation
No.			
700	0-0.7m	Stone slabs	Floor
701	0.07-0.11m	Portland cement	Bedding
702	0.11m+	Purbeck slabs	Floor
703	0.11m+	Medieval floor tiles	Floor
704	0.29-0.31m	White lime mortar	Floor bedding
705	0.31	Mid to dark brown silty clay	?Charnel soil

Table 8: Trench 8

Context	Depth (b.g.s.)	Description	Interpretation
800	0-0.03m	Stope floor	1963 floor
801	0-0.19m	Purbeck step	Floor
802	0.03-0.07m	Mid grev cement	Floor bedding
803	0.03 0.07m	Reinforced concrete	1963 sub-floor
804	0.07 0.2m	Scott's broken-up sub-floor	Modern sub-floor
805	0.2-0.45m	Stone slabs	Modern sub-floor
806	0.5 0.44m	Modern truncation	Cut for 1963 floor and sub-floor
807	0.45-0.55m	Scott's broken-up sub-floor	Modern sub-floor
808	0.45 0.55m	Mid to dark brown silty clay	Remnants of ?Charnel soil
809	0.33-36m	White lime mortar	Lime working
810	0.33-36m	Light yellow Salcombe stone dust	Stone working
811	0.33-36m	Mid brown silty clay	Trample
812	0.33-36m	White lime mortar	L ime working
813	0.33-36m	Mid brown silty clay	Trample
814	0.33-36m	Light vellow Salcombe stone dust	Stone working
815	0.33-36m	White lime mortar	Lime working
81J 916	0.35-3011	Roughly squared Salaomba rubbla	South groads glooper well
810	0.40111+	bonded with light vellowish white lime	South areade sleeper wan
		mortar	
817	0.47m+	Light vellow Salcombe stone dust and	Late 13 th century construction
017	0.17111	chinnings	debris/sub-floor
818	0.45-0.46m	Light vellow Salcombe stone dust and	Late 13 th century construction
010	0.15 0.1011	chinnings	debris/sub-floor
819	0.45m+	White lime mortar	Late 13 th century construction
017	0.15111	to fine fine moral	debris/sub-floor
820	0.45-0.5m	Light yellow Salcombe stone dust and	Late 13 th century construction
020	0.15 0.511	chippings	debris/sub-floor
821	0.48-0.55m	Light vellow Salcombe stone dust and	Late 13 th century construction
021	0.10 0.55111	chippings with slate fragments (5-10%)	debris/sub-floor
822	0.52-0.57m	Mid brown silty clay	Trample
823	0.57m+	Light vellow Salcombe stone dust and	Late 13 th century construction
5-5		chippings	debris/sub-floor
824	0.52-0.71m	Light vellow Salcombe stone dust and	Late 13 th century construction
		chippings	debris/sub-floor

825	0.54-0.57m	Same as 818	Construction debris/sub-floor
826	0.42-0.47m	Same as 818	Construction debris/sub-floor
827	0.47m+	E-W linear feature	Construction cut for sleeper wall
828	0.68m+	Light to mid yellowish brown silty clay	Fill of construction trench [827]
		with Salcombe fragments (10-15%)	
829	0.68m+	Dark brown black silty clay	Pre-Norman soil
830	0.43m+	Curvilinear feature	Robber trench of Norman apse
831	0.43m+	Mid brown silty clay with mid yellow	Fill of robber trench [830]
		Salcombe stone fragments (10-15%) and	
		slate fragments (5%)	
832	0-0.03m	Light grey cement	Bedding for presbytery step 801
833	0.03-0.07m	Same as 802	Same as 802
834	void	void	void
835	0.64-0.69m	Mid to dark brown silty clay with gravel	Foundation trench upcast
		(2-3%)	
836	0.5-0.54m	Mid reddish brown silty clay	Late 13 th century construction
			debris/sub-floor
837	0.44-0.47m	White lime mortar and mid yellow	Late 13 th century construction
		Salcombe stone dust and chippings	debris/sub-floor
838	0.42-0.47m	Light to mid pink brown silty clay with	Late 13 th century construction
		Salcombe stone dust and chippings (15-	debris/sub-floor
		20%)	
839	0.38-0.41m	Mid brown silty clay	Trample
840	0.36-0.39m	Light yellow Salcombe stone dust	Stone working
841	0.35-38m	Light yellow Salcombe stone dust	Stone working
842	0.44-0.5m	Dark brown silty clay	Fill of construction trench [827]
843	0.52-0.63m	Dark brown silty clay with Salcombe	Fill of construction trench [827]
		stone frags (5-10%), cbm flecks (1%)	
844	0.65-0.75m	Dark brown silty clay	Fill of construction trench [827]

Table 9: Trench 9

Context	Depth (b.g.s.)	Description	Interpretation
No.			
900	0-0.02	Linoleum and bitumen	Floor
901	0.02-0.22m	Concrete	Sub-floor
902	0.22-0.55m+	Volcanic trap rubble bonded with light to mid pink lime mortar with lime flecks (1%) and pea grit (2-3%)	Infilling above vault
903	0.22-0.55m+	Volcanic trap bonded with light to mid pink lime mortar with lime flecks (1%) and pea grit (2-3%)	South vestry wall

Table 10: Trench 10

Context	Depth (b.g.s.)	Description	Interpretation
No.			
1001	0-0.04m	Stone slabs	Floor
1002	0.04-0.2m	Reinforced concrete	1963 sub-floor
1003	0.2-0.37m	Scott's broken-up sub-floor	Modern sub-floor
1004	0-0.39m	Modern truncation	Cut for 1963 floor and sub-floor
1005	0.37-0.39m	Mid brown silty clay	Trample
1006	0.39-0.42m	Light greyish white lime mortar	Lime working
1007	0.42-0.43m	Mid brown silty clay	Trample
1008	0.43-0.49m	Light yellow Salcombe stone dust	Late 13 th century/early 14 th
			century construction debris
1009	0.49m+	Sub-rounded cut	Cut of grave
1010	0.37m+	Mid to dark brown silty clay	Fill of grave [1009]
1011	0.37m+	Light yellow Salcombe stone dust	Late 13 th century construction
			debris/sub-floor

Context	Depth (b.g.s.)	Description	Interpretation		
No.					
1100	0-0.05m	Stone slabs	Floor		
1101	0.05-0.15m	Reinforced concrete	1963 sub-floor		
1102	0.15-0.27m	Scott's broken-up sub-floor	Modern sub-floor		
1103	0.22-0.27m	Mid yellowish brown cementitious mortar with cbm fragments (5%), volcanic trap rubble (5%)	Scott's sub-floor		
1104	0.27m	19 th century truncation	Cut for Scott's sub-floor		
1105	0.27m+	E-w aligned feature	Cut of grave		
1106	0.27m+	Stone rubble bonded with white lime Stone grave lining mortar			
1107	0.27m+	Mid to dark reddish brown silty clay with cbm flecks (1%), white lime mortar flecks (1%)			

Table 11: Trench 11

Table 12: Trench 12

14010 12. 1101						
Context	Depth (b.g.s.)	Description	Interpretation			
No.						
1200	0-0.07m	Stone slabs Floor				
1201	0.07-0.1m	Light yellowish white lime mortar Floor bedding				
1202	0.1-0.18m	Mid to dark reddish brown silty clay ?Charnel soil				
1203	0.18m+	E-W aligned feature Cut of grave				
1204	0.18m+	Mid to dark reddish brown silty clay	Fill of grave [1203]			
1205	0.18m+	E-W aligned feature Cut of grave				
1206	0.18m+	Mid to dark reddish brown silty clay Fill of grave [1205]				
1207	0.18m+	Light yellow Salcombe stone dust and Late 13 ^{th/e} arly 14 th centu				
		chippings	construction debris/sub-floor			
1208	0-0.18m+	Volcanic trap ashlar bonded with light wall-seat foundation				
		yellowish white lime mortar				

Table 13: Trench 13

Context	Depth (b.g.s.)	Description Interpretation			
No.					
1300	0-0.07m	Stone slabs floor			
1301	0.07-0.1m	Light yellowish white lime mortar	Floor bedding		
1302	0.1m+	Mid to dark reddish brown silty clay	Fill of grave [1303]		
1303	0.1m+	E-W aligned feature Cut of grave			
1304	0.1m+	Mid to dark reddish brown silty clay Fill of grave [1305]			
		with cbm fragments (10-15%)	-		
1305	0.1m+	E-W aligned feature	Cut of grave		
1306	0.1m+	Mid to dark reddish brown silty clay	?Charnel soil		
1307	0-0.2m	Volcanic trap ashlar bonded with light	wall-seat foundation		
		yellowish white lime mortar			
1308	0.2m+	Volcanic trap rubble Lower wall-seat foundation			

Table 14: Trench 14

Context No.	Depth (b.g.s.)	Description	Interpretation
1400	0-0.07m	Stone slabs	floor
1401	0.07-0.12m	Light yellowish white lime mortar	Floor bedding
1402	0.25m+	Handmade mid orange bricks with white lime mortar render	Brick grave lining
1403	0.12m+	Mid to dark reddish brown silty clay with cbm fragments (1%), Salcombe fragments (1%), slate fragments (1%)	Fill of grave [1404]
1404	0.12m+	E-W aligned feature	Cut of grave

Table 15: Tre	ench 15		
Context	Depth (b.g.s.)	Description	Interpretation
No.			
1500	0-0.07m	Stone slabs	floor
1501	0.07-0.1m	Light yellowish white lime mortar	Floor bedding
1502	0.1-0.15m	Mid to dark reddish brown silty clay with cbm fragments (1%), Beer fragments (1%), white lime mortar fragments (1%)	?Charnel soil
1503	0.15m+	Stone rubble and clay tiles bonded with light pink lime mortar with lime flecks (1%), slate flecks (1%), charcoal flecks (1%). Lime render on inside face.	Grave lining
1504	0.15m+	Mid to dark reddish brown silty clay with cbm fragments (1%), Salcombe fragments (1%), slate fragments (1%)	Fill of grave [1502]
1505	0.15m+	E-W aligned feature	Cut of grave

Table 16: Trench 16

Context	Depth (b.g.s.)	Description	Interpretation
No.			
1600	0-0.08m	Stone slabs	floor
1601	0.08-0.1m	Concrete	Floor bedding
1602	0.1-0.16m	Mid reddish brown silty clay with white	?Charnel soil
		lime mortar fragments (1%)	
1603	0.1m+	E-W aligned feature	Cut of grave
1604	0.1m+	Stone rubble bonded with mid yellow	Grave lining
		lime mortar. Lime render on inside face.	
1605	0.1m+	Light greyish white lime mortar with	?Grave capping
		charcoal flecks (1%) and fine grit (1-	
		2%)	
1606	0.1m+	Mid to dark reddish brown silty clay	Fill of grave [1603]
		with cbm fragments (1%), Salcombe	
		fragments (1%), slate fragments (1%)	
1607	0m+	Volcanic trap rubble bonded with light	wall-seat foundation
		to mid red lime mortar	

Table 17: Trench 17

Context	Depth (b.g.s.)	Description	Interpretation		
No.					
1700	0-0.1m	Stone slabs	floor		
1701	0.1-0.12m	Light pink mortar	Floor bedding		
1702	0.12m+	Mid reddish brown silty clay ?Charnel soil			
1703	0.15m+	Purbeck ledger with tooled back surface	Ledger stone		
1704	0.12m+	E-W aligned feature	Cut of grave		
1705	0.15m+	Mid to dark reddish brown silty clay Fill of grave [1704]			
		with cbm fragments (1%), Salcombe			
		fragments (1%), slate fragments (1%)			
1706	0m+	Volcanic trap rubble bonded with light wall-seat foundation			
		to mid red lime mortar			

Castant		Description	T			
Context	Depth (b.g.s.)	Description				
No.						
1800	0-0.09m	Stone slabs floor				
1801	0.09-0.1m	Light yellowish white lime mortar	Floor bedding			
1802	0.1-0.13m	Mid reddish brown silty clay with white	?Charnel soil			
		lime mortar flecks (2-3%), cbm				
		fragments (1%), slate fragments (1%),				
		volcanic trap fragments (1/2%)				
1803	0.13m+	E-W aligned feature	Cut of grave			
1804	0.13m+	Volcanic trap rubble and brick bonded	Stone and brick grave lining			
		with white lime mortar with charcoal				
		flecks (1%), lime flecks (1%)				
1805	0.13m+	E-W aligned feature	Cut of grave			
1806	0.13m+	Mid to dark reddish brown silty clay	Fill of grave [1805]			
1807	0.13m+	Volcanic trap rubble bonded with mid	Norman north wall pier			
		reddish brown lime mortar with lime	foundation			
		flecks (1%), charcoal flecks (1%), pea				
		gravel and grit (2-3%)				
1808	0.13m+	E-W linear feature	Construction cut for north wall			
			pier foundation			
1809	0.13m+	Dark brown black silty clay	Pre-Norman soil			
1810	0m+	Volcanic trap ashlar bonded with light to	wall-seat foundation			
		mid red lime mortar				

Appendix 3: Finds quantification

Context	Feature	Spot date	Quantity	weight	Notes
202					31 medieval floor tile fragments incl. 3 13 th -14 th century tiles, 3 small square corner tiles with yellow slip, 2 green glaze half tiles incl. one with slip and copper green and 5 half tile border tiles incl. 1 with slip and 1 with snapped edges, and 2 Normandy tiles (15 th -16 th century); 1 sherd of medieval ridgetile; 4 fragments of late 17 th -18 th century brick.
302					2 medieval floor tile fragments incl. 1 12 th -13 th century inlaid tile fragment and 1 red tile ?Normandy (15 th -16 th century); 3 fragments of 18 th -19 th century brick and 1 19 th century red tile fragment.
306					2 medieval floor tile fragments ?Normandy (15 th -16 th century); 2 sherds of 14 th -15 th century coarseware; 1 glass fragment (16 th -17 th century); 1 fragment of 18 th -19 th century brick.
403					1 Roman box tile fragment; 7 medieval floor tile fragments incl. 2 12 th -13 th century inlaid floor tile fragments and 1 late medieval Dutch type floor tile fragment; 2 slices of 15 th century Beer stone screen moulding; 3 fragments of ?post-medieval floor tile; 1 sherd English saltglaze stoneware (1730-60); 3 fragments of late 17 th -18 th century brick; 2 fragments English Green Bottle Glass incl. neck (early-mid 18 th century); 1 sherd James Keeler marmalade jar (late 19 th century).
405					1 fragment of ?medieval floor tile; 1 fragment of 15 th century Beer stone screen moulding.
803					1 medieval floor tile fragment; 1 sherd of late 19 th century English stoneware; 1 late 19 th century glass fragment; 5 late 19 th century Goodwin tile fragments incl. 1 green border tile, 1 black tile and 1 decorated tile.
804					1 Roman cbm fragment; 1 Roman grey lias roofing slate fragment; 9 medieval floor tile fragment incl. 1 square and 1 half tile; 23 late 19 th century Goodwin tile fragments.
828					1 sherd of Dressel 20 Amphorae.
831					1 sherd of medieval coarseware ?Exeter fabric 20 (10 th -13 th century).
843					1 12 th -13 th century inlaid floor tile fragment with fleur-de-lys decoration.
1003					1 Roman tegula fragment.
1206					1 sherd of Donyatt sgraffito ware dish (mid-late 17 th century); 1 sherd English Green Bottle Glass (18 th century).

Context	Feature	Spot date	Quantity	weight	Notes
1304					1 Roman grey lias roofing slate fragment; 10 medieval floor tile fragments incl. 3 Normandy tiles with green glaze (15 th -16 th century); 19 fragments of 18 th century cbm incl. 1 'Heavitree' brick with saltglaze header.
1403					2 medieval floor tile fragments; 1sherd of late medieval or early post-medieval ridgetile with red fabric; 3 fragments of 17 th -18 th century cbm.
1502					3 thin medieval floor tile fragments incl. 1 with scrap of inlay (14th century).
1802					1 sherd of Samian (1 st -2 nd century AD); 1 sherd of Amphorae flagon (1 st -2 nd century AD).