Holy Trinity Church, Cambridge

Archaeological Excavation and Monitoring 2016-2017

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HOLY TRINTIY CHURCH, CAMBRIDGE:
Archaeological Excavation and Monitoring, 2016-17

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Summary

An archaeological excavation and associated monitoring programme was conducted at Holy Trinity Church, Cambridge, between October 2016 and September 2017. The earliest features to be encountered were medieval in date. Along with an early 12th-century gravecover, a series of contemporary pits were identified; their presence suggests that the earliest iteration of the church, predating the present standing building, may have been situated further to the west. In addition, three phases of 19th to 20th-century vestry structure were investigated and a total of seventeen articulated burials encountered. Of these, two were medieval in date, seven were 17th to early 19th-century in origin and had been interred within earth-fast graves and eight had been buried within early 19th-century brick-built burial vaults. One of the latter individuals had been autopsied, while another was interred with jewellery.

CONTENTS

FIGURE LIST

INTRODUCTION

This report presents the results of an archaeological excavation and associated monitoring programme that was conducted by the Cambridge Archaeological Unit (CAU) at Holy Trinity Church, Cambridge, between the 7th of October 2016 and the 1st of September 2017. The site, which is centred on TL 4498 5852, is situated in the historic core of Cambridge. It is bounded by Market Street to the north, Sidney Street to the east and a range of standing buildings to the south and west (Figure 1). The area of excavation itself, which measured 69.8sqm in extent, was located immediately to the south of the church's nave and occupied the space where a 19th-century vestry had previously stood; this latter structure was demolished prior to the commencement of the investigation. Additional monitoring – covering an area of 137.4sqm – was undertaken both inside and outside the church (Figure 2). Altogether, 207.2sqm – representing 15.5% of the 1340sqm site – was investigated (although it should be noted that, due to the limited depth of the development, in most instances only the uppermost portion of the archaeological sequence was examined).

This archaeological investigation was commissioned by Purcell UK Architects on behalf of Holy Trinity Church, Cambridge, in advance of the refurbishment of Holy Trinity Church and the construction of a new visitor entrance to the site. The work was carried out in accordance with the Written Scheme of Investigation prepared by the CAU (Dickens 2016) in response to a brief set out by the Cambridgeshire County Council Historic Environment Team (Gdaniec 2016).

Topography and geology

Topographically, Holy Trinity Church is located in the historic core of Cambridge, within the circuit of the King's Ditch that formed the town's medieval boundary (Figure 1). Geologically, the site is situated upon second terrace river gravels that are underlain by Gault clay (British Geological Survey 1976, sheet 188). The terrace itself was formed from drift deposits associated with the River Cam, which arises from springs situated along a northwest-southeast aligned Cretaceous chalk ridge located to the southeast of the town. Valley gravels and alluvium cover the valley bottoms, bisecting the surrounding gravel terraces. At the time of excavation, the surface height of the principal area of investigation lay at 8.64m AOD. Terrace gravels were encountered archaeologically at 6.88m AOD, but their original undisturbed height probably lay at around 7.20m AOD (as determined via augering). Internally, the ground level within the church's south transept lay at 8.54m AOD when monitoring commenced (following the removal of the preceding floor surface).

Methodology

During the course of the excavation, modern deposits and overburden – including layers of concrete, hardcore and 20th-century brick footings – were broken out and removed by a 360° mechanical excavator with a 2m wide toothless bucket under close archaeological supervision. All stratified features and deposits were then excavated by hand and recorded using the CAU-modified version of the MoLAS system (Spence 1994).

Figure 1. Site location, also showing the development area in relation to the extent of Holy Trinity parish

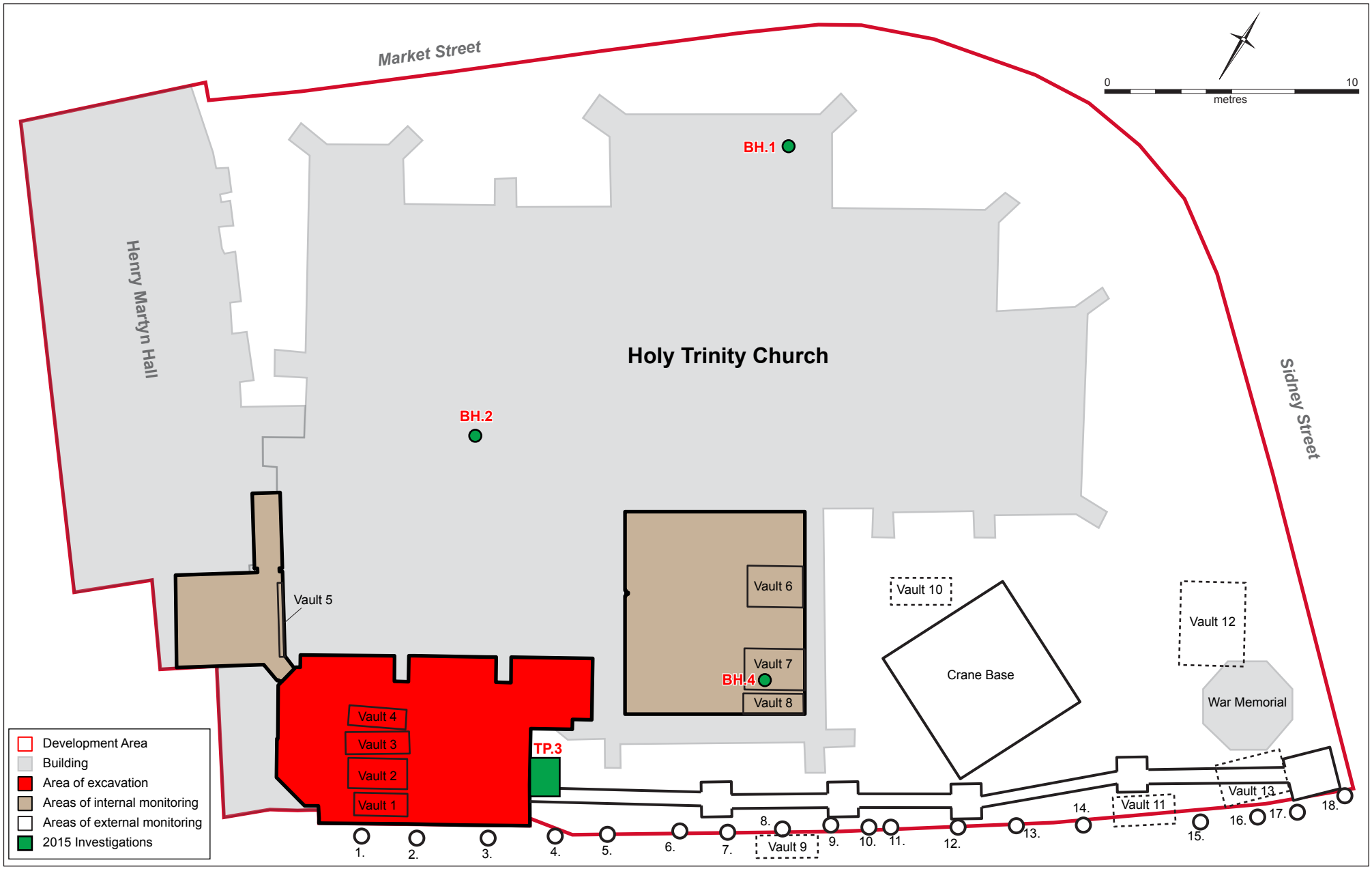


Figure 2. Areas of investigation, including the principal area of excavation as well as zones of internal and external monitoring and the various burial vaults that were encountered

Due to the presence of lead coffins at the site, a range of safety precautions were taken during the excavation process; including the use of appropriate personal protective equipment such as masks, gloves and disposable paper suits (Figure 3). Base plans were drawn at a scale of 1:20 whilst sections were drawn at a scale of 1:10. Context numbers are indicated within the following text by square brackets (*e.g.* **[001]**), and feature numbers are denoted by the prefix F. (*e.g.* **F.03**). All stratified contexts have been assigned a feature number, whilst inhumations have also been assigned a separate burial number (*e.g. Burial 1*). A table of concordance, providing more detailed information on each individual feature as well as its associated numbering, is presented in Appendix 1. The photographic archive consists of a series of digital images. All work was carried out with strict adherence to Health and Safety legislation and within the recommendations of FAME (Allen and Holt 2010). The sitecode for the project was HTC16 and the event number was ECB 4419.

Because of the site's use as an active ecclesiastical venue in the Church of England, the jurisdiction of the investigation fell under a Church Faculty as opposed to Planning Policy Statement 6 (which covers archaeological excavations conducted at most other development-types in Britain). The principal consequence of this distinction pertains to the treatment of the human remains encountered during the course of the investigation. The faculty prohibited the removal of such remains from the site during the period of their analysis and stipulated that they should be reinterred within the churchyard. Accordingly, a temporary work space was established within the south aisle of the church, in which analysis could be conducted (Figure 3). In addition, special dispensation was granted by the Diocesan Council for scientific samples to be taken and analysed by members of the 'After the Plague' project at the McDonald Institute, Department of Archaeology, University of Cambridge. This work was conducted alongside the broader process of osteological recording and analysis (Figure 3).

The subsequent reinterment of the human remains presented a number of practical challenges, not least because of the substantial quantity of material – which, including disarticulated remains, equated to approximately 200 individuals – recovered. Historic England's *Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England*, produced in partnership with the Church of England and the Advisory Panel on the Archaeology of Burials in England, states that:

> "Remains should be reburied in locations which would not disturb existing burials or other archaeological features. Accurate records should be made of the location of the burial pit(s) and these records should be deposited with the site archive. Skeletons should be bagged separately and placed in the pit(s) as individuals rather than co-mingled" (Mays 2017, 47).

At Holy Trinity, the intensive use of the historic churchyard for burial over many centuries has resulted in the presence of large numbers of densely packed interments. Consequently, excavating a trench of sufficient size and depth within this cemetery to receive the excavated material would in all probability have disturbed a sizable quantity of both articulated and disarticulated human remains. Fortunately, however, during the course of the investigation a suitable alterative venue for reburial was identified. This comprised a large brick-built burial vault situated in the southeastern portion of the churchyard (*Vault 12*, Figure 2).

Figure 3. Photographs showing the excavation (left) and recording (right) of human remains at the site. Note in particular the temporary workspace that was established within the south aisle of the church to allow osteological analysis and sampling to take place

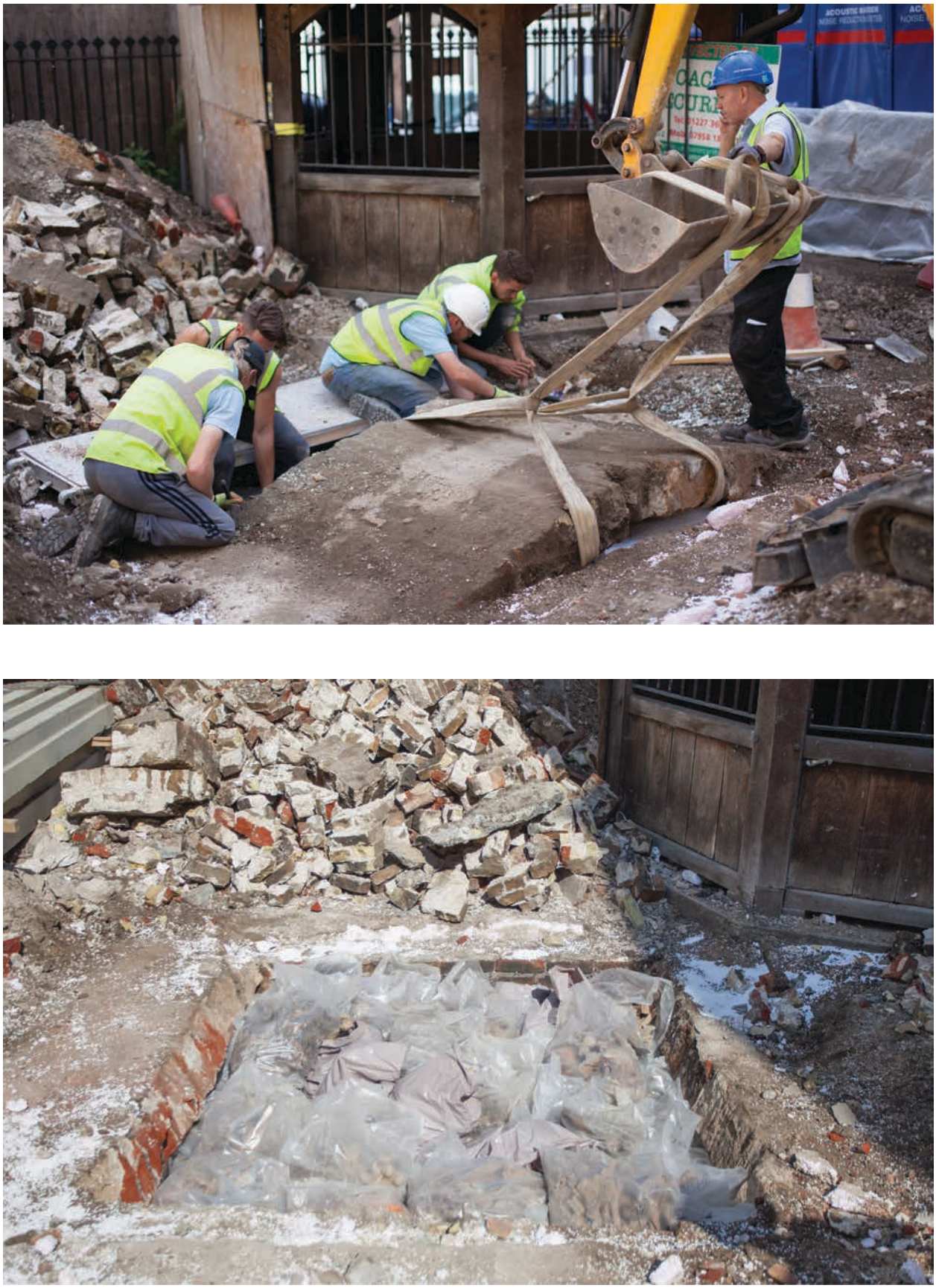


Figure 4. Photographs showing the reinterment of the human remains, including: top, the removal of the vault roof following the protection of the remains inside, and; bottom, the individually bagged and labelled remains in situ prior to the addition of a new, flat roof to the structure (the white pellets visible in both images represent part of the packing material used to infill the vault)

This vault had been designed to be repeatedly opened over several generations, in order to allow the introduction of multiple members of a single family (a more detailed description of the vault's interior is presented in Part III of the results section, below). Significantly, the remains of these individuals, which were still present within the structure, comprise an important heritage asset (Cox 2001; Elders *et al.* 2010):

> "Vaults and their contents represent a key component of community heritage: they are the repository of the remains of former human beings, former parishioners; they are part of the sacred space of extant places of worship, and they are significant historical, demographic and archaeological resources capable of making very real additions to our knowledge of past cultural, religious and demographic experience" (Elders *et al.* 2010, 10).

Accordingly, the roof of the vault was removed and the *in situ* remains were carefully protected but otherwise left undisturbed prior to the additional material being introduced (Figure 4). Where discrete individuals had been identified amongst the excavated assemblage, their remains were bagged separately and labelled accordingly. The vault was then resealed and a new, structurally superior flat roof constructed.

Historical and archaeological background

The historical and archaeological background of the development area's environs has been discussed in detail in a previous desktop assessment (Appleby 2011), whilst the wider background of Cambridge itself is reviewed in a number of published sources (*e.g.* Cam 1959; Lobel 1975; Bryan 1999; Taylor 1999). Consequently, only an outline summary is presented here.

In the first instance, only limited evidence of Prehistoric activity has been identified in the vicinity. This is primarily indicative of transhumant usage of the gravel terraces flanking the River Cam. Similarly, only limited evidence of Roman occupation is known from this part of Cambridge. Although it is probable that the site lay within the southern agricultural hinterland of the principal settlement on Castle Hill at this time, the scale and extent of this area, and any associated suburban development, is as yet relatively poorly understood (see further Alexander & Pullinger 2000; Evans & Ten Harkel 2010; Cessford 2017). Subsequent evidence for Early Saxon (*c*. 410-700) activity in and around Cambridge primarily comprises material recovered during the 19th century from pagan cemeteries on the outskirts of the city (see Dodwell et al. 2004; Cessford with Dickens 2005). Very little occupational evidence from this period has yet been identified. Middle to Late Saxon activity (*c*. 700-900), in contrast, appears to have been primarily refocused upon the Castle Hill area, where a 7th to 9th-century execution cemetery has been investigated (Cessford *et al*. 2007).

By the mid-9th century it is clear that some form of settlement had been re-established, as this was occupied by the Viking Great Army in 875 and the region was subsequently incorporated into the Danelaw from *c*. 886 until its conquest by Edward the Elder in *c*. 917 (Cam 1934, 39; Lobel 1975, 3). Nevertheless, up until the mid-10th century this settlement remained only an "economically viable backwater" (Hines 1999, 136). Following this date, however, it emerged as

a significant urban centre. By the late 10th century a mint had been established (Lobel 1975, 3) and the town was being linked to a group of important trading centres including Norwich, Thetford and Ipswich (Fairweather 2005), thereby emphasising the central role played by river trade in its rapid economic growth. Indeed, by the beginning of the 13th century Cambridge acted as the leading inland port in the county, through which goods and services were disseminated to many of the surrounding regional towns (Cam 1934, 43).

By this time the town was fully established on the eastern side of the river and was probably already enclosed by an extensive boundary work that later became known as the King's Ditch. Although the eponymous 'king' is usually interpreted as being either John (1167-1216), who repaid the bailiffs of Cambridge the costs of enclosing of the city in 1215, or Henry III (1207-72), who paid for its refortification in 1267 (Cooper 1842-53), a recent radiocarbon determination derived from the basal fill of the ditch at the Grand Arcade site indicates that the boundary was at least partially extant by the late 11th or early 12th century (Cessford & Dickens in prep.). By the early 17th century, however, the ditch had largely silted up beyond practical use (Atkinson 1907) – despite numerous edicts having been passed for its cleaning and maintenance – and Cambridge's role as a dominant port was similarly long since over (Bryan 1999, 97).

At this stage the economic wealth of the town was no longer based upon river-borne trade, as it had been throughout the medieval period, but was instead largely centred around the University (founded *c*. 1209). The expansion of this institution had greatly benefited from royal investment, especially from the 15th century onwards (Bryan 1999, 94-6), and its growth was also given significant impetus by the Dissolution of the Monasteries in 1536-40 since many of the disbanded religious houses were subsequently converted into colleges (Willis & Clark 1886). Indeed, the influence of these colleges has been one of the primary factors in shaping the landscape of Cambridge ever since, with the central riverside area – once the heartland of medieval river trade activity – having been increasingly encroached upon from the 14th century onwards (Bryan 1999, 95).

Holy Trinity Church itself was established during the medieval period. The date of its initial foundation is unknown; the present Grade II-listed building was constructed on the site of an earlier building that was probably destroyed during the 'Cambridge Fire' of 1174 (Cam 1959, 125). The earliest extant architectural element in the present church comprises the flint pebble wall at the west end of the nave, which is late 12th century in origin (RCHM 1959, 257-58). Several subsequent phases of building construction have also been identified. These include the rebuilding of the chancel in *c.* 1300 and the addition of north and south aisles as well as work on the north and south arcades of the nave in the late 14th century. The west tower was also added at the same time, with the grand north and south transepts and the clearstorey being constructed in the 15th century. Additional work undertaken in the 15th century included buttressing added to the eastern side of the west tower and strengthening work on the tower arch, whilst in the early 16th century the south aisle was rebuilt. During the 17th and 18th centuries the majority of alterations were restricted to the remodelling of the interior, including the addition of box pews as well as galleried mezzanines in the north side of the nave and both transepts (Cam 1959, 125; see also Figure 5).

Figure 5. East-facing view of church's interior, c.1830, from Le Kleux's Memorials of Cambridge. This image depicts the nave and chancel prior to the extensive alterations that were undertaken in the 1830s

In common with parish churches located throughout the country, for most of its history Holy Trinity Church was more than just a building; it was also at the heart of the local community. By the early 12th century the parish, which had originated as a Late Saxon unit of ecclesiastical control and pastoral care, became and remained until the middle years of the 19th century the basic area of secular administration (Pounds 2000). At Cambridge, by the end of the 13th century the majority of parishes appear to have coalesced into stable entities whose boundaries have remained largely unchanged until the present day (Brooke 1985, 54) and the parish church was a central feature in the lives of its parishioners. In addition to forming the venue for a weekly routine of religious worship as well as an annual cycle of ceremonies, festivals and observances, the church also levied a tax upon its parishioners in the form of tithes. These took three forms; praedial (on crops), mixed (on animals and their products) and personal (on profits from trade or industry). In addition, up until the mid-19th century almost all of the residents of Holy Trinity parish would have been interred in its churchyard; meaning that there are likely to be in excess of 8,000 burials at the site.

In one respect, however, Holy Trinity was unlike almost all other churches in Cambridge. This is because, from the early 16th century onwards, it was closely associated with a form of evangelical Christianity in which preaching comprised a major component (Barton 1881). Significantly, a public lectureship was established at the church in 1610, but by the 18th century the popularity of preaching had abated. This changed in 1782, when Charles Simeon was appointed vicar. The church's active ministry revived and by the time of Simeon's death, in 1836, Holy Trinity was firmly established as the leading centre of evangelical Christianity in Cambridge. It maintained this position throughout the remainder of the 19th century; culminating in the construction of Henry Martyn Hall in 1887 as a focus for missionary work.

Corresponding to the increasing importance of Holy Trinity during the 19th century, and the concomitant increase in the size of its congregation, several episodes of remodelling and alteration were undertaken to the church's fabric during this period. Significantly, in the early 1830s the entire church was underpinned, the 13th-century chancel rebuilt in brick and the interior re-seated. A small new vestry was also constructed, replacing the original that had been situated on the north side of the medieval chancel. Further alterations were made in 1850 and 1878, when the interior was extensively remodelled; open pews were introduced, the earlier screens and galleries removed (excepting that in the south transept) and the vestry enlarged. In 1887 the east end of the chancel was rebuilt in stone and in 1889 its side walls were also replaced with masonry. Minor alterations continued to be made throughout the late 19th and 20th centuries (see the faculty records presented in Appendix 2 for further information).

Two phases of archaeological investigation have previously taken place at the site, although both were very limited in scope. The first occurred in 1999, when a watching brief was conducted during cable laying in Church Walk. Disarticulated human bone was encountered during this exercise but no *in situ* burials were identified (Dickens 1999). The second phase of work took place in 2015, when a series of geotechnical boreholes and a hand-dug test pit were monitored. Again, only limited archaeological deposits were encountered (Robinson 2015). Where pertinent, these findings will be discussed in the results section of this report.

ARCHAEOLOGICAL RESULTS

The following chapter is divided into three parts. Firstly, the results of the main open area excavation are presented (Section I). This is followed by the results of a programme of internal monitoring that was undertaken inside the church itself during its refurbishment (Section II). Finally, the results of a programme of external monitoring, conducted during the installation of a crane base and associated service works, are also discussed (Section III).

I) MAIN EXCAVATION

An open area measuring 69.8sqm in extent was excavated immediately to the south of the south aisle of Holy Trinity Church, in advance of the construction of a new visitor entrance, with offices above (Figure 6). Immediately prior to the commencement of this work, the space had been occupied by a vestry that had undergone multiple phases of enlargement and development during the 19th and 20th centuries. Usefully, the presence of this structure had served to protect portions of the archaeological sequence that had elsewhere been truncated by intensive burial activity. It should be noted, however, that the depth of the investigation – which varied across the area from 8.20m AOD to 5.88m AOD (see Figure 8) – was determined by the requirements of the development as opposed to targeting the full extent of the sequence; consequently, relatively few of the earliest deposits at the site were investigated.

In all, four phases of activity were identified during the course of the excavation. The earliest of these, which was medieval in date, was represented by a cluster of domestic pits and two heavily truncated burials. The second phase, meanwhile, was represented by a group of five burials of *c*. 17th to early 19th-century date, along with a contemporary plank-lined charnel pit. This group was sealed during Phase 3 beneath a vestry built in 1833/34. The remainder of the area was then infilled with burials, including eight individuals who were interred within four brick-built vaults. Phase 3 concluded in 1855, when the churchyard was closed to additional interments. Finally, the fourth phase encompasses the gradual expansion of the vestry during the late 19th and mid-20th centuries; it concludes with the building's demolition in 2016.

Phase 1 (medieval)

Due to the restricted depth of the investigation across much of the area, relatively few Phase 1 deposits were exposed (Figure 7). The principal exception to this pattern occurred in relation to a series of Phase 3 brick-built burial vaults (*Vaults 1-4*, below). Because the presence of these structures obstructed the insertion of a piled foundation for the new visitor entrance, they were comprehensively removed; thereby exposing the earliest deposits at the base of the sequence (Figure 8; see also Figure 15). A group of seven pits – **F.03**, **F.04**, **F.05**, **F.06**, **F.07**, **F.08** and **F.09** – was thereby revealed. These features were most probably Saxo-Norman in date, predating the present standing iteration of the church (which postdates 1174). Although the only dating evidence recovered consisted of a sherd of 12th-century grey coarseware, it is notable that no human remains were present in any of the pit fills; indicating that at the time of their insertion they are likely to have been situated outside the boundary of the churchyard.

Figure 6. A view of the principal area of excavation, facing east, part way through the investigation

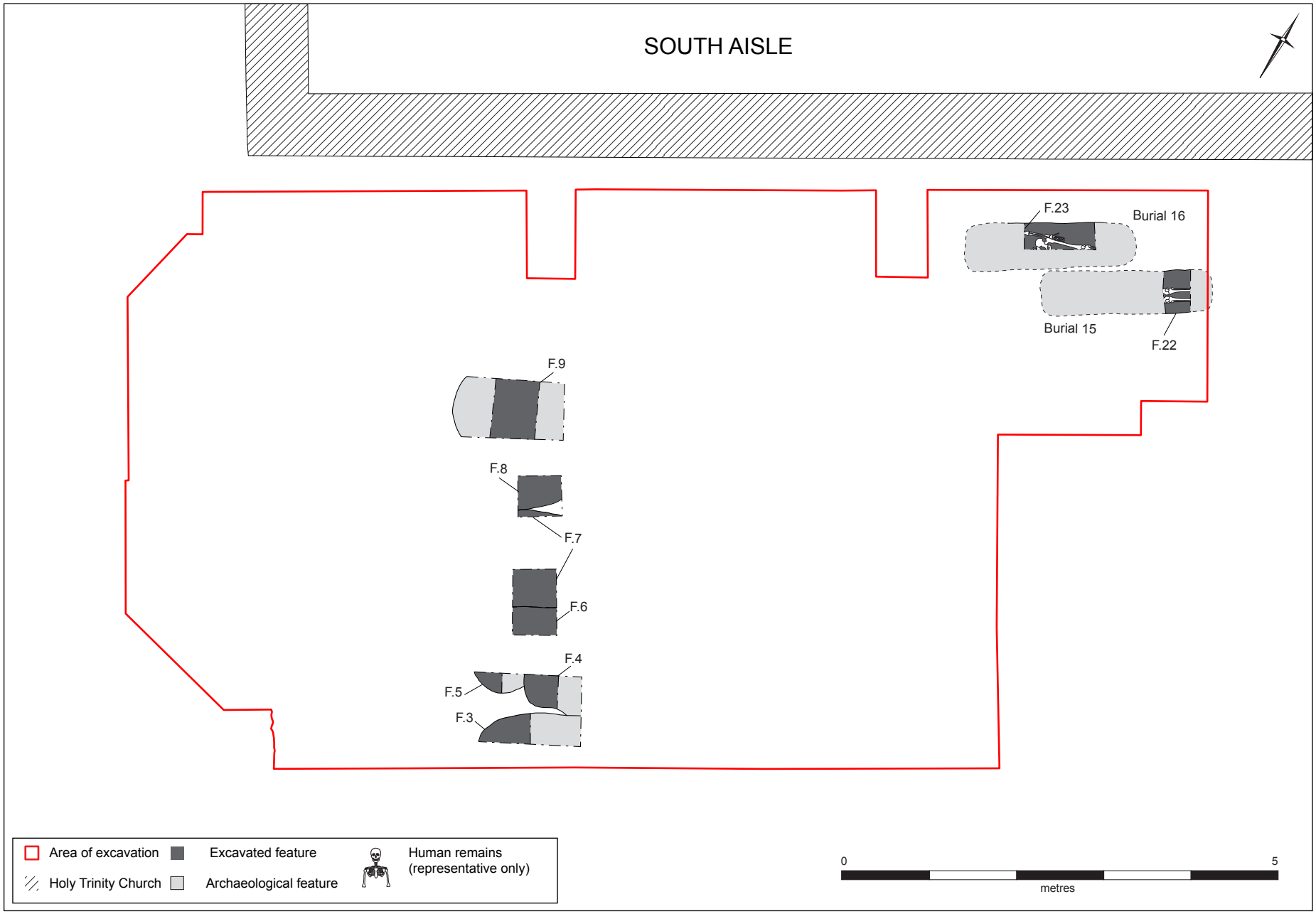


Figure 7. Plan of Phase 1 features, including a conjectural reconstruction of the church's south aisle prior to the construction of the transepts in the 15th century

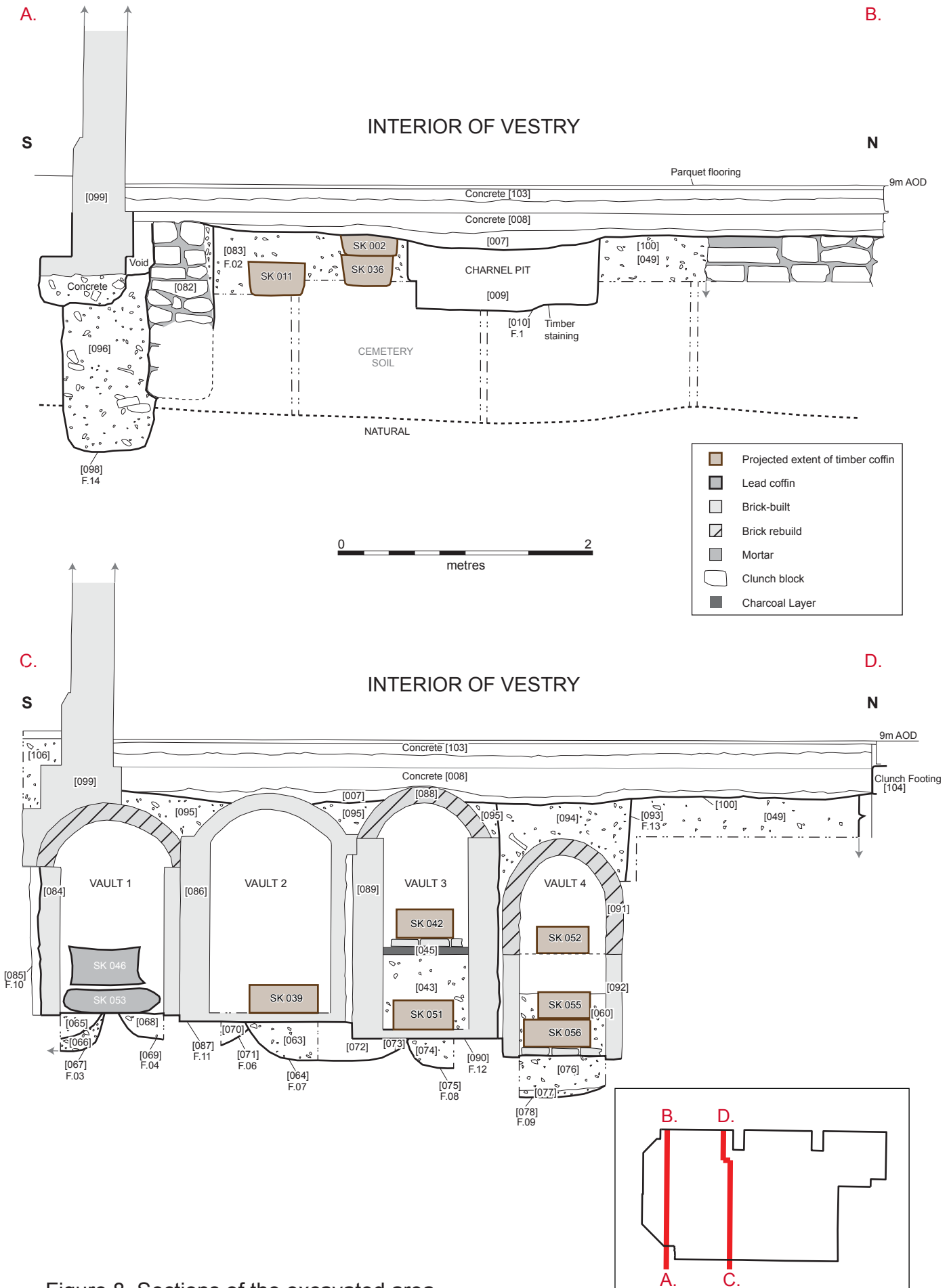


Figure 8. Sections of the excavated area

The pits were sub-oval in form and varied between 1.22m+ and 0.50m+ in length and 0.16m+ and 0.36m+ in depth. Location-wise, their tight spatial grouping is potentially significant. Although situated in close proximity north-south, no additional features were identified to the west (Figure 7); linear arrangements such as this are commonly present when discrete 'rows' of features abutted a boundary that is otherwise no longer archaeologically discernible (Schofield and Vince 2003, 80-82). In this particular instance, the boundary in question is most likely to have comprised the rear of a domestic plot that fronted onto Sidney Street to the east. Activities such as gravel quarrying frequently occurred at the rear of such plots during the Saxo-Norman period, typically resulting in features with relatively sterile fills that contain a low quantity of domestic refuse. Thus, whilst certainty is impossible given the limited extent of the exposure, it nevertheless appears likely that domestic occupation occurred in close proximity to the location of the present-day church during the 11th/12th century. This in turn suggests that the location of the original, pre-1174 church may potentially have differed from that of its replacement.

In addition to the pits, two medieval burials were also identified (*Burials 15* and *16*; Table 1). Situated on the periphery of the excavated area (Figure 7), the date of these interments could be determined via their truncation by the footing of the 15th-century south transept (**F.25**) and 16th-century south aisle (**F.24**) of Holy Trinity Church respectively.

Burial No.	Skeleton No.	Feature No.	Probable date	Age	Sex
15	029	F.22	15th century or earlier	Adult	Indet.
16	024	F.23	16th century or earlier	Young Adult	(female)

Table 1. Summary of excavated medieval burials

Both burials were only partially complete. They represent part of what was once a much more extensive horizon of medieval interments that was comprehensively disturbed by later, post-medieval sepulchral activity. These individuals only appear to have survived due to their location on the very margins of the available cemetery space. *Burial 15* comprised an adult of unknown sex (of whom only the legs remained). *Burial 16* comprised a female *c*. 24 years-of-age. Both were extended and supine and had most probably been interred in shrouds as opposed to coffins.

Phase 2 (*c*. 18th century-1833)

This phase is represented by a sequence of five burials (*Burials 10-14*; see Table 2) and a charnel pit (**F.01**). Notably, all of these features had been sealed beneath a vestry structure, the construction of which marked the beginning of Phase 3 (see below). Although discretely clustered towards the western edge of the area (Figure 9), these features represent part of a much wider post-medieval cemetery horizon that was comprehensively truncated elsewhere by intensive 19th-century sepulchral activity. Much like the earlier Phase 1 burials, therefore, those of Phase 2 represent only a small sample of what was originally a much more extensive cemetery population.

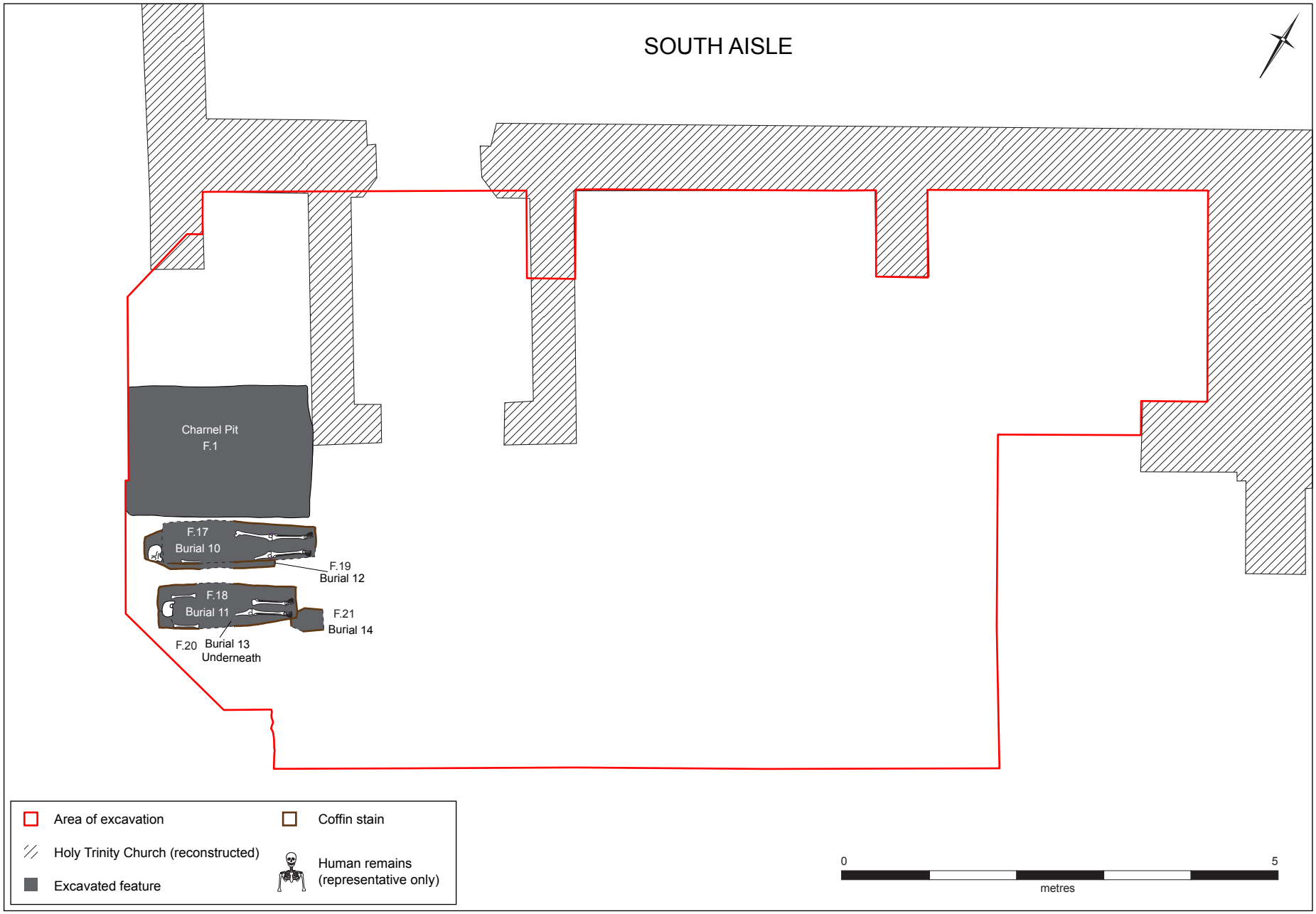


Figure 9. Plan of Phase 2 features, including a reconstruction of the church's extent from the mid-16th century until 1833 (based in part upon information contained in Figure 13)

Figure 10. Photographs of selected Phase 2 burials, including: top left, Burial 12; top right, infant Burials 13 and 14; bottom, charnel pit F.01

Burial No.	Skeleton No.	Feature No.	Probable date	Age	Sex	Significant pathology
10	002	F.17	18th to early 19th century	Adult	Male	Nonspecific infection?
11	011 110	F.18 = F.26	18th to early 19th century	Middle Adult	Female?	Nonspecific infection: Periostitis? Osteoarthritis, plus gout? Healed right rib fracture
12	036	F.19	18th to early 19th century	Adult	Male?	Osteoarthritis
13	016	F.20	18th century or earlier	Infant	Indet.	-
14	020	F.21	18th century or earlier	Neonate	Indet.	Syphilis?

Table 2. Summary of excavated Phase 2 burials

Stratigraphically, the earliest Phase 2 burials to be encountered were of infants. *Burial 14* comprised a perinatal infant of *c*. 39 weeks, while *Burial 13* comprised an infant of less than four years-of-age. Both individuals had been interred within small, purpose-built coffins (Figure 10). The presence of two infants in close proximity indicates that this location – which between the 16th and early 19th centuries lay immediately adjacent to the south porch of the church – may have formed a focus for such burials. The three succeeding interments were all adults. The earliest, *Burial 12*, comprised a ?male *c*. 40 years-of-age; the backfill of his grave contained sherds of 18th-century pottery. *Burial 11* comprised a ?female *c*. 37 years-of-age and *Burial 10* comprised a male adult of indeterminate age. All three had been interred within single-break timber coffins that are typical of the period (this familiar design has sides that flare out to accommodate the deceased's shoulders).

In addition to the articulated burials, plank-lined charnel pit **F.01** was also present (Figure 10). Alongside a sherd of 18th or early 19th-century Notts/Derby Stoneware, this feature contained a large quantity of disarticulated human remains, a sample of which is broken down by element in Table 3. Assuming that the sample is broadly representative of the assemblage's overall composition – as is strongly indicated by the relatively consistent representation of each of the major element groups within it – then the 314kg of recovered fragments represent a total of *c*. 4,500 bones equating to around 220 individuals. The presence of a charnel pit in a parochial cemetery is by no means unusual for the period. Depending upon the pressure for graveyard space, the bones of the dead might be disturbed and removed after only a few decades and the systematic use of charnel pits, rather than ossuaries, to accommodate the disarticulated remains is well-attested, particularly in heavily-used urban graveyards (Tarlow 2011, 43). Whilst it is possible that this particular feature was created in order to house remains that had been gathered on a piecemeal basis over a protracted period, during day-to-day burial activity, it is perhaps more likely that it reflects the impact of a substantial but short-lived episode of disturbance. As part of the construction phase that culminated in the construction of the new vestry in Phase 3, the church's former chancel was demolished and rebuilt; a significant event that is likely to have resulted in the disturbance of a large number of burials. Consequently, this represents perhaps the most likely provenance for the bones deposited in **F.01**.

Major element	Minor element	Side	Count	Total
Skull	Mandible	-	3	**15**
	Maxilla	-	1	
	Frontal	-	1	
	Parietal	Left	2	
	Occipital	-	3	
	Miscellaneous	-	5	
Torso	Clavicle	Left	2	**29**
	Clavicle	Right	3	
	Ribs	-	5	
	Vertebrae	-	6	
	Pelvis	Left	3	
	Pelvis	Right	7	
	Sacrum	-	3	
Arms	Humerus	Left	5	**23**
	Humerus	Right	5	
	Humerus	Unsided	2	
	Radius	Left	4	
	Radius	Right	1	
	Ulna	Left	3	
	Ulna	Right	1	
	Metacarpals	-	2	
Legs	Femur	Left	3	**37**
	Femur	Right	7	
	Femur	Unsided	8	
	Tibia	Left	4	
	Tibia	Right	3	
	Tibia	Unsided	7	
	Fibula	Left	1	
	Fibula	Right	2	
	Calcaneus	Left	2	
Unidentified	Unidentified	-	41	**41**
		Overall total		**145**

Table 3. Breakdown of a 10kg sample, representing 3.2% of the total amount of human bone recovered from charnel pit **F.01** by weight. A minimum number of seven individuals are represented in the sample (five fragments of animal bone have been excluded)

Phase 3 (1833-55)

This phase is the most extensively represented of the four archaeologically (Figure 11). It commenced in 1833/34 when a new vestry was constructed, part of a widespread programme of redevelopment stimulated by the church's growing success as a centre of evangelical preaching (Figures 12 and 13). Shortly afterwards, four brick-built burial vaults that contained a combined total of eight individuals were constructed against the east wall of this building (*Vaults 1-4*; Figure 14). The remainder of the exterior space between the vestry and the south transept was then infilled with burials that were interred within deep earth-fast graves. Although the grave

cuts were visible in plan, none of these latter individuals were exposed during the investigation due to the limited depth of the new footings. Sepulchral activity most probably continued at the site until the churchyard was eventually closed to new burials in 1855.

A new vestry

The new vestry replaced a preceding structure that had been situated on the north side of the chancel. Previously, the south aisle of the church had been accessed via a small porch that symmetrically mirrored the extant porch in the north aisle (this layout has been reconstructed in Figure 9). Although no physical traces of either the original vestry or the south porch were encountered archaeologically, these structures were recorded in a series of contemporary blueprints that were submitted as part of a funding application made to the Incorporated Church Building Society in November 1833 (Figure 13). By this date, the reconstruction work at the site was already well-advanced; the 13th-century chancel had been demolished in 1831 and much of the remaining redevelopment also appears to have at least partially commenced prior to the plans' submission. Accordingly, the precise date at which the new vestry was completed is unclear; but it was most probably either newly-built in 1833 or else completed relatively swiftly in 1834, since it performed an important function in the day-to-day running of the busy church.

The excavated remnants of the vestry provide a number of indications as to the structure's original appearance. Firstly, it was relatively small, measuring internally 5.38m by *c.* 2.40m in extent; only around half the size of its predecessor. This diminution may well have been a consequence of the intensive sepulchral usage of the churchyard at this date. Since as much space as possible was required for ongoing burial activity, less was available to accommodate an ancillary structure. Despite this limitation, however, it was nevertheless well-built. Footing **F.02** was composed of up to thirteen courses of reused masonry fragments, providing a solid foundation for what was most probably a predominately brick-built structure above (the new chancel was initially brick-built, for example, and this material was widely utilised in contemporary ecclesiastical architecture in Cambridge). The ground floor of the vestry was accessed via a round-arched doorway that was cut into the wall of the south aisle immediately to the west of the former porch (Figure 12). Given the depth of its foundation, it is possible that it also contained a second storey – much like its subsequent replacement in 1878 – although no physical evidence of this was identified.

The assemblage of worked and moulded stone fragments that was recovered from **F.02** is of some interest (see further the specialist report section, below). Architectural fragments of 13th-centry and 14th-century date – most probably derived from the demolition of the former chancel and associated rebuilding works – provide material evidence of the long sequence of the church's development. So too does an eroded gravestone or burial marker of late 17th- or 18th-century date (Figure 28). Inscribed gravestones were rare in parochial contexts prior to the mid-17th century (Finch 2003) but became increasingly common by the late 17th/early 18th century when they largely superseded wooden posts and uninscribed boulders as the dominant form of external mortuary marker (Mytum 2004, 25-7).

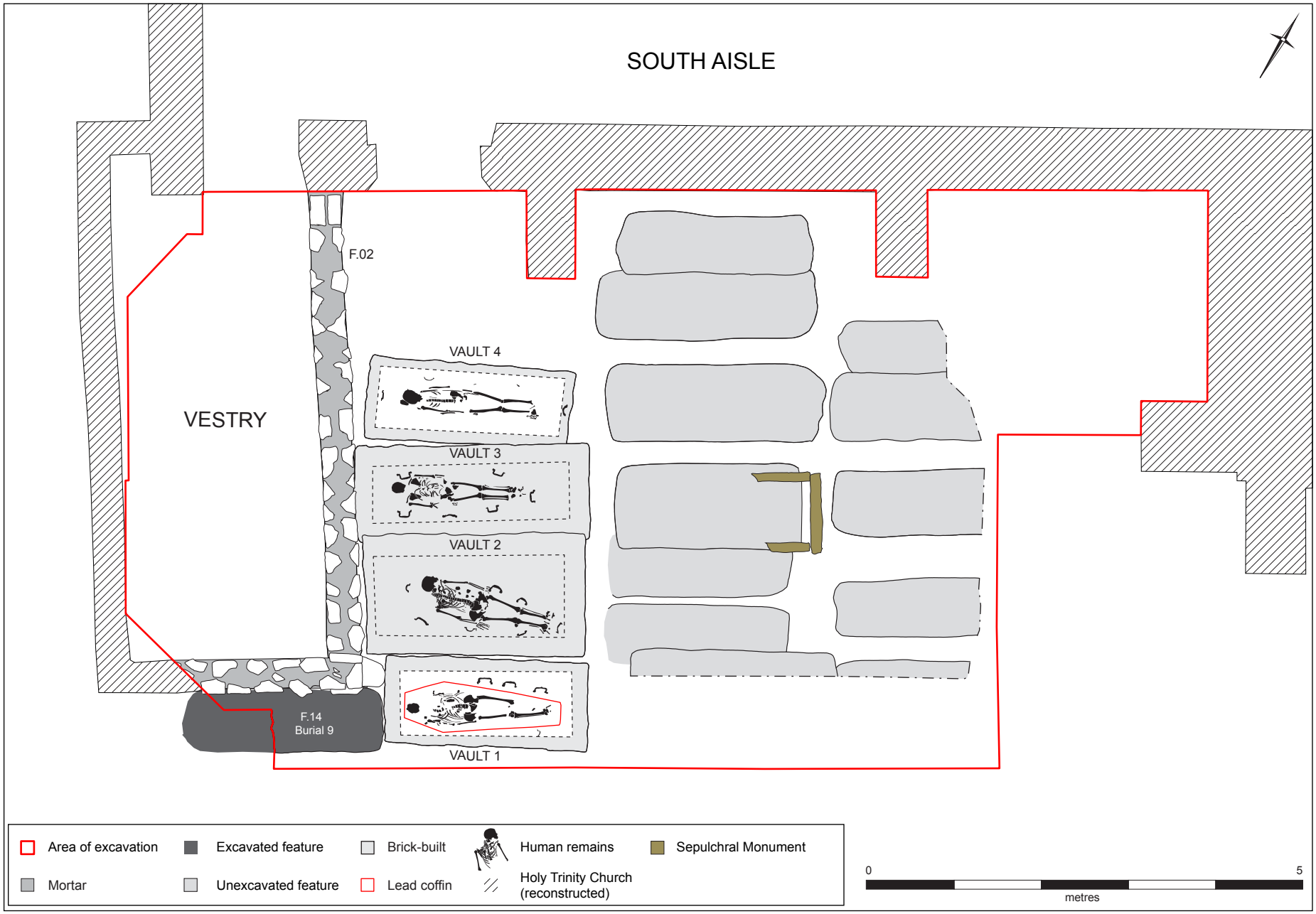


Figure 11. Plan of Phase 3 features

Figure 12. Photographs of the 1833 vestry, showing: top, wall footing F.02 in relation to the building's original doorway, now blocked (facing north, the roof scar pertains to the subsequent vestry of 1878); bottom, the elevation of footing F.02 (facing west)

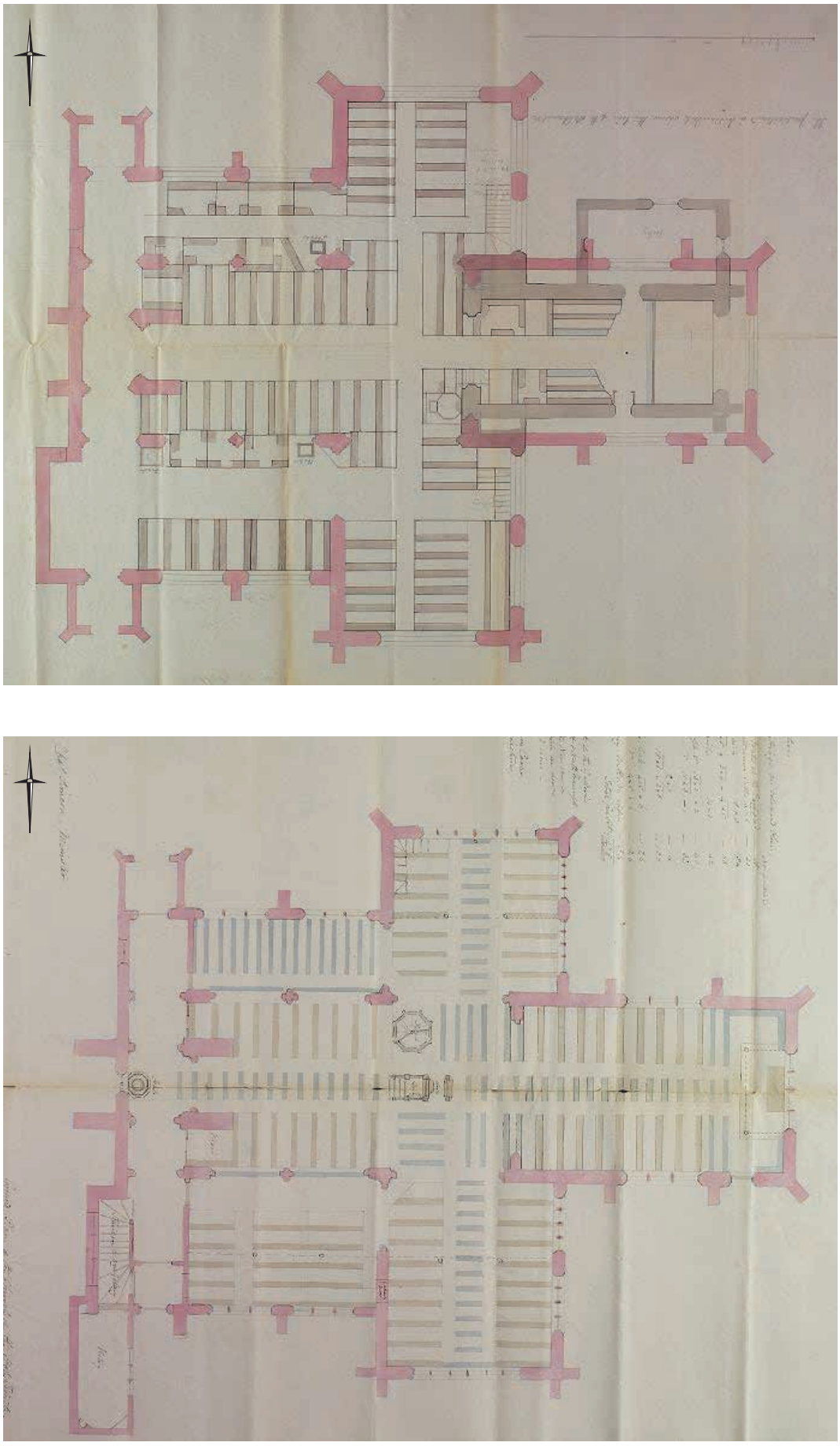


Figure 13. Plans submitted to the Incorporated Church Building Society in November 1833, showing; top, the pre-existing layout, with the earlier Gothic chancel shown beneath that of its newly-constructed replacement; bottom, the proposed new layout (images from Lambeth Palace Library)

Figure 14. Photographs of Vaults 1-4, showing: left, the vaults pre-excavation (facing south); top right, the interior of Vault 1; bottom left, part of the timber former recovered from Vault 2 that was utilised in its construction

Burial vaults

Almost immediately following the construction of the 19th-century vestry, a series of four brick-built burial vaults – *Vaults 1-4* – were inserted against its eastern wall (Figure 14). Because these structures were situated on the line of the piled foundation of the new, 21st-century visitor's entrance, their occupants were carefully recorded and lifted before the brick walls themselves were dismantled in order to allow the piles to be inserted. Usefully, this meant that both the vaults and their inhabitants could be studied in detail; providing a valuable case-study of early 19th-century parochial burial practice in Cambridge (Table 4).

Burial No.	Skeleton No.	Feature No.	Vault No.	Age	Sex	Significant pathology
1	052	F.13	4	Mature Adult	Male	Buccal exostosis (rare)
2	055			Middle Adult	Male	Schmorls nodes
3	056			Mature Adult	Female	Slight OA
4	046	F.10	1	Mature Adult	Male	OA, osteomyelitis and numerous fractures on left side of body. Also autopsied (craniotomy)
5	053			Mature Adult	Female	Severe OA, DISH
6	039	F.11	2	Middle Adult	Female	Periostitis?
7	042	F.12	3	Adult	Female	
8	051			Older Middle Adult	(male)	Shmorls nodes, osteoarthritis in shoulders, possible abscess (right anterior inferior iliac spine)
9	097	F.14	-	Mature Adult	Male?	

Table 4. Summary of excavated Phase 3 burials, all of which date to 1833-55

After *c*. 1600 the provision of intramural brick-lined burial vaults of a similar design to the present examples became almost ubiquitous, particularly in urban churches (Gilchrist and Morris 1996, 119; Gilchrist 2003, 402). Across England four main types of intramural burial vault have been identified. These consist of: large dynastic vaults, which were typically located beneath aisles or in side chapels; family vaults, which were usually brick-lined graves with a barrelled roof; single-width brick-lined graves capped by a ledger stone identifying the occupant(s); and extensive private and parochial vaults, which often contained a large number of individuals (Litten 1991, 211-12). Many of these vault-types were also constructed in extramural churchyards, albeit to a lesser extent and often beginning at a slightly later date. Because of the space they occupied and the cost of their construction, they comprised the most expensive venue for interment in a parochial context; with extramural vaults often commanding a higher fee than intramural examples (Litten 2002, 86). In this instance, *Vaults 1-4* represent single width brick-lined graves with barrel-vaulted roofs – the most common type – although an example of a larger extramural family vault was also identified at the site (*Vault 12*, discussed further below).

The addition of the vaults appears to have been an intentional part of the design for the area. Although they were not all constructed at the same time, the space they occupied was respected by the footprint of the earth-fast graves situated immediately to the east and, given the acute pressures on cemetery space during this period, these probably began to be inserted as soon as the vestry was constructed (Figure 11). It is possible that the vaults were constructed on a piecemeal basis as and when requested, but it is more likely that they were built speculatively prior to their requirement and could thus be made available at relatively short notice. Although not contemporaneous, their construction most probably occurred over a period of *c*. 1-5 years. *Vault 3* was the earliest, followed by *Vault 2* and finally *Vaults 1* and *4*.

Vault 1, **F.10** (Figure 15) – incorporating information supplied by Jenna Dittmar

The southernmost vault of the four, which measured 2.10m by 0.84m internally, contained two individuals. The first, *Burial 5*, comprised a *c*. 65-year-old female. She was interred within a triple-shelled single-break coffin – a common, though relatively expensive, coffin-type in which a sealed lead shell was sandwiched between inner and outer wooden carcasses (Litten 2002, 104-08) – and a barrel-vaulted brick roof was then constructed, sealing the vault. Some time later, the vault was reopened and *Burial 4* – a *c*. 65-year-old male – introduced. He was also interred within a triple-shelled single-break coffin (together, these represent the only excavated examples of triple-shelled coffins encountered during the investigation). A new barrel-vaulted roof was then constructed. Despite being located at the southern end of the row, *Vault 1* was actually one of the last to be constructed; being either the third or fourth in the sequence.

The outer shell of *Burial 5*'s coffin was covered in fabric, most probably velvet, that was held in place by a series of upholstery pins. While the timber itself was too degraded to analyse, it was almost certainly Elm (Litten 2002, 90). Although Oak became popular in coffin construction from the second quarter of 19th century onwards, this material was typically left exposed and not fabric covered. *Burial 5* herself demonstrated a number of significant pathologies. Firstly, she suffered from very severe osteoarthritis in all of her major joints and in her spine. She was also osteoporotic and suffered from degenerative changes in the spine as well as DISH (Diffuse idiopathic skeletal hyperostosis). Some hair was present. Unusually, she had been interred wearing jewellery. This included a simple gold wedding ring measuring 22mm in diameter with an indecipherable hallmark as well as a pair of hooped earrings measuring 12.5mm in diameter (Figure 16.1-4). Such items are very rare in sepulchral contexts.

At Christ Church, Spitalfields, London (1729-1867), for example, three gold wedding rings were recovered from a total of 968 burials; in addition, a single pair of earrings was present (Reeve and Adams 1993, 89). At St Martins-in-the-Bullring, Birmingham (18th-19th century) three gold wedding rings were recovered from 505 burials (Bevan 2006, 179) while at St Peter's Church, Barton-upon-Humber (Phase A, 1700-1855) a single gold wedding ring was recovered from 427 burials (Rodwell 2007, 28). Based upon this pattern it has been stated that: "The scarity of wedding rings found in burial contexts suggests that wedding bands were retained by family of the deceased as mementoes or heirlooms rather than being routinely consigned to the grave with the corpse. The few occasions were a wedding ring is present represent a conscious decision to inter the ring with the body or perhaps, in a few instances, the inability to remove the ring" (Cherryson *et al.* 2012, 35). In this particular instance, the presence of earrings alongside the wedding ring strongly indicates that the jewellery was consciously retained upon the corpse.

Figure 15. Photographs of Vault 1 interments, showing: left, Burial 4; centre, Burial 5; right, pre-vault pits F.03, F.04 and F.05 (north is to the right in each image)

Figure 16. Finds from Vault 1 and Vault 3, including: 1, left earring from Burial 5; 2, right earring from Burial 5; 3, wedding ring from Burial 5; 4, close up of hallmark on ring; 5, bone hair grip from Burial 7

Burial 4 was interred within a coffin that was almost identical to that of *Burial 5*. Furthermore, this individual also demonstrated a number of significant pathologies. Firstly, at some point in his adult life he had fractured several bones on the left side of his body (including the humerus, ulna, radius and clavicle). All of these bones were well-healed and no difference in the timing of the fractures was identified. It is therefore possible that they could all have been broken during a single traumatic event. Later in his life, this individual developed osteoarthritis in his joints as well as in his spine while, at the time of his death, he suffered from osteomyelitis (an infection of the medullary cavity) in his left humerus. Finally, and perhaps most interestingly, after his death his body was autopsied via the conduction of a craniotomy. No other evidence of anatomization was identified.

Although *Burial 4* was unaccompanied, a half penny trade token of *c*. 1787-1800 was found resting on the upper surface of his coffin's lead shell. Unfortunately, due to corrosion from its contact with the lead, the token is illegible. It is likely that it originally lay upon the outer skin of the wooden coffin, prior to its disintegration. Coins have previously been identified lying on the lids of post-medieval coffins (*e.g.* Cameron 2006, 15) and also within the fills of graves; in this context, it has been suggested that they may represent grave-side offerings (Cherryson *et al.* 2012, 73). Although rendered largely obsolete by the issue of an official copper coinage between 1797 and 1807, some trade tokens remained in circulation until the mid-19th century.

Name	Age	Date of burial	Address	Occupation
Chapman, Mary Chapman, Thomas	69 61	February 25, 1835 July 10, 1835	White Hart Yard	- -
Abbs, Mellicent Abbs, William	71 75	March 9, 1835 January 13, 1845	Sidney Street	- Tailor and Draper
Gilbert, Elizabeth Gilbert, John	60 65	March 9, 1836 March 1, 1839	Brunswick Place	- Stonemason
Ingle, Elizabeth Ingle, William Warner	84 94	June 13, 1844 July 22, 1845	Hills Road	- Currier
Billage, Esther Billage, John	79 76	February 22, 1846 February 28, 1847	King Street	- Boot and shoemaker
Brooks, Sarah Brooks, John	70 87	February 8, 1849 June 29, 1852	King Street	- -
Smith, Mary Smith, James William	86 76	November 3, 1853 February 6, 1854	Sidney Street	- Tailor

Table 5. Potential occupants of *Vault 1*, based upon entries in the parish burial register of the relevant age, sex and order of decease (data on occupations derived from Pigot's Directory of Cambridgeshire 1823-24, 1830-31 and 1840, Robson's Commercial Directory 1839 and Robson's Directory of Cambridgeshire 1840). The most likely individuals are highlighted in red

Based upon the information garnered from the osteological analysis of these individuals' remains, it is possible to narrow down a list of potential occupants of *Vault 1* using the entries in the parish burial register. Usefully, by the early 19th century Holy Trinity parish maintained one of the most comprehensive burial registers in Cambridge, in which not only names and dates of burial were recorded but also the individual's age at death as well as their address. Based upon factors such as age, sex and order of decease there are seven instances of people with matching surnames who were recorded in the register between 1833 and 1855 (Table 5).

However, because the initial interment is very likely to have taken place within the first five years or so of the vestry's construction (in 1833/4), this list can be narrowed further to three principal candidates. Of these three, the most closely corresponding are Elizabeth and John Gilbert, who died in 1836 and 1839 respectively.

Contemporary directories record that John Gilbert was a stonemason; a profession in which he could quite feasibly have acquired the injuries identified in *Burial 4*. He was also relatively prosperous. The Gilberts' address – Brunswick Place, which is still extant but has since been renamed – comprises a cluster of Late Georgian terraced houses that were built on Maids Causeway during the first three decades of the 19th century. At the time of the Gilberts' residence, these were newly-built houses 'of some dignity' (RCHM(E) 1959, no. 267); houses for Georgian Cambridge's prosperous upper middle class. This would certainly accord with the occupants of *Vault 1*, who – being interred in lead-lined coffins within a brick-built vault – were able to afford some of the most expensive sepulchral rites then available in a parochial context. Consequently, whilst certainty is perforce impossible in the absence of legible depositum plates or a specific documentary reference, there is nevertheless a reasonably strong likelihood that the Gilberts comprise the occupants of *Vault 1*.

Vault 2, **F.11** (Figure 17)

Vault 2 was the second vault to be constructed, directly abutting its predecessor (*Vault 3*). It measured internally 2.16m by 0.98m in extent and contained a single interment. This individual, *Burial 6*, comprised a female of *c*. 33 years-of-age. Her single-shelled single-break coffin had been laid directly upon the vault's brick floor. The vault was then sealed, with remnants of the timber former that was used to construct its barrel-vaulted roof still present inside (Figure 14). Notably, this was the only vault of the four to contain a single inhumation.

Burial 6 was interred within a relatively ornate fabric-covered coffin (as determined by the presence of upholstery pins) that would originally have appeared visually similar to those encountered in *Vault 1*, albeit without the expensive inner lead shell. The individual herself had periosteal bone growth on her right tibia, indicating a possible injury or infection.

Name	Age	Date of burial	Address	Occupation
See, Mary Ann	37	March 14, 1834	York Street	-
Palmer, Mary	46	November 21, 1834	Cambridge Place, Hills Road	-
Batten, Charlotte	46	March 30, 1835	Brunswick Place	-
Stow, Maria Margret	29	July 22, 1835	Maid's Causeway	-
Creeke, Mary	30	September 29, 1835	Sussex Street	-
Bunting, Sarah	47	October 11, 1835	King Street	-
Simpson, Mary Ann	46	February 7, 1836	Hobson Street	-
Seawell, Sophia	41	February 9, 1836	East Road	Wife of hosier

Table 6. Potential occupants of *Vault 2*, based upon entries in the parish burial register (data on occupations as Table 5). The most likely individuals are highlighted in red

Figure 17. Photographs of the Vault 2 interment, Burial 6; top, as first uncovered (note the remnants of the original timber former); bottom, as cleaned for recording with coffin handles present

Figure 18. Photographs of Vault 3 interments, showing; top, Burial 7 (note the bed of charcoal upon which this individual lay, plus coffin handles); bottom, Burial 8 (north is to the top of each image)

Based upon the osteologically-determined age of *Burial 6*, allied with the *Vault 2*'s early position in the stratigraphic sequence, its occupant most probably comprised either Maria Margret Stow or Mary Creeke (Table 6). Unfortunately, no additional information is available to further refine this identification.

Vault 3, **F.12** (Figure 18)

This was the earliest of the four vaults and is thus most likely to have been constructed between *c*. 1833 and 1835. It was the only example to have double-skin walls on all four sides; *Vaults 2* and *4*, which abutted it to the south and north respectively, required only single-skin walls where they adjoined the earlier structure. Internally, it measured 2.22m by 0.66m in extent. *Vault 3* contained two individuals, both of whom were interred within single-shelled single-break coffins. The first, *Burial 8*, was a male *c*. 37 years-of-age. The vault was closed after his interment and subsequently reopened to allow the addition of *Burial 7*, a female? mature adult (46 years plus in age). It is likely that this second event occurred relatively soon after the first, because *Burial 8* was covered by a layer of redeposited cemetery soil (**[043]**) topped by a layer of charcoal (**[045]**) prior to *Burial 7*'s introduction; charcoal was commonly used to combat noxious odours, such as those produced by a partially decomposed corpse. Unfortunately, the charcoal also had a deleterious effect upon the survival of *Burial 7*'s remains, which were relatively poorly preserved (Figure 18).

> Both individuals in this vault were interred within coffins very similar to that of *Burial 6*. *Burial 8*, the primary male interment, demonstrated evidence of osteoarthritis. *Burial 7*, meanwhile, is harder to interpret. Osteological analysis could not provide a definite determination of sex due to deterioration of remains following long-term contact with alkaline charcoal. An artefact was present that my help to clarify the issue, however. Associated with *Burial 7*'s skull was the decayed remnant of a bone hair grip (Figure 16.5). The form of this item, which was used to pin back long hair in a bun, is consistent with a female gender. Ongoing aDNA analysis may well help to clarify this issue.

Name	Age	Date of burial	Address	Occupation
Ingle, John	46	November 29, 1833	Market Street	Attorney and County Coroner
Bullingham, Benjamin	38	August 18, 1834	King Street	-
Hawkes, James	47	May 2, 1835	King Street	-
Robinson, Joseph	38	April 8, 1835	King Street	Tailor

Table 7. Potential occupants of *Vault 3*, based upon entries in the parish burial register (data on occupations as Table 5). The most likely individuals are highlighted in red. Note that this table only includes the primary, male interment: no instance of a corresponding female with a matching surname was identified

Based upon the osteologically-determined age of *Burial 8*, allied with the position of *Vault 3* as the earliest in the stratigraphic sequence, this individual most probably comprised either Benjamin Bullingham or Joseph Robinson, a tailor (Table 7). The identity of *Burial 7* is less clear, however. This is because in no instance was a male of the right age and date succeeded

by a female (or indeed a second male) with the same surname within the subsequent twenty years. By itself, of course, this fact does not preclude the identification of *Burial 8*'s identity being correct. There are a number of possible scenarios in which individuals of differing surnames could have been interred together; were the female to have been widowed, for instance, then the male may have comprised her sibling or even potentially her son. It is possible that further historical research could clarify this issue.

Vault 4, **F.13** (Figure 19)

The northernmost vault was also one of the last to be constructed; stratigraphically, it was either the third or fourth in the sequence. Internally, it measured 2.14m by 0.75m in extent. *Vault 4* contained three individuals. The first, *Burial 3*, comprised a female *c*. 63 years-of-age. She was interred in a single-break coffin with relatively ornate furniture (Figure 27); a pattern that closely mirrors that encountered in *Vaults 2* and *3* and is consistent with the expense of purchasing a brick-built vault. The second individual, however – *Burial 2*, a male *c*. 39 years-of-age – was interred within a simple rectangular plank-built coffin with the plainest handle-type of the period; a pattern that is typically associated with a cheaper funeral rite (Litten 2002, 89-90). The third and final individual – *Burial 1*, a male *c*. 52 years-of-age – was also interred within a simple rectangular coffin. Unusually, this latter example had not been stacked directly on top of the first two but was instead supported by timber battens inserted into the vault's walls (Figure 8). A relatively sizable quantity of disarticulated human remains was then placed on top of *Burial 1*'s coffin before the barrel vault above was rebuilt for the final time.

In terms of funeral rite, *Burial 3* was largely indistinguishable from the interments in the adjacent vaults; an expensive, fabric-covered single-break coffin deposited within a brick-lined shaft. But the two subsequent interments eschewed this pattern. *Burials 1* and *2* were instead interred within plain, utilitarian coffins; the only such examples to be identified during the investigation. Since the purchase of the vault itself would have occurred as part of the funerary costs of the initial interment, with a much smaller charge for additional burials, it is possible that this shift marked a change in circumstances for the individuals involved. The charnel that was included alongside *Burial 1*, most probably as means of convenient disposal, represented a minimum of five individuals (based on skull count).

Name	Age	Date of burial	Address	Occupation
Chapman, Mary Chapman, Thomas Chapman, William	69 61 55	February 25, 1835 July 10, 1835 January 21, 1848	White Hart Yard, King Street	- - Carpenter
Starmer, Alice Starmer,James Starmer, Richard	65 30 80	December 8, 1835 July 2, 1840 January 18, 1847	Market Street	- Proprietor of the Black Bear Inn, Market Street
White, Mary Ann White, James White, John	49 41 70	June 19, 1836 March 22, 1840 November 4, 1842	Sidney Street King Street King Street	- Baker Shoemaker?

Table 8. Potential occupants of *Vault 4*, based upon entries in the parish burial register of the relevant sex, age and order of decease (data on occupations as Table 5). The most likely individuals are highlighted in red

Figure 19. Photographs of Vault 4 interments, showing: top, Burial 1; middle, Burial 2 (with skull of lower interment also visible); bottom, Burial 3. North is to the top of each image

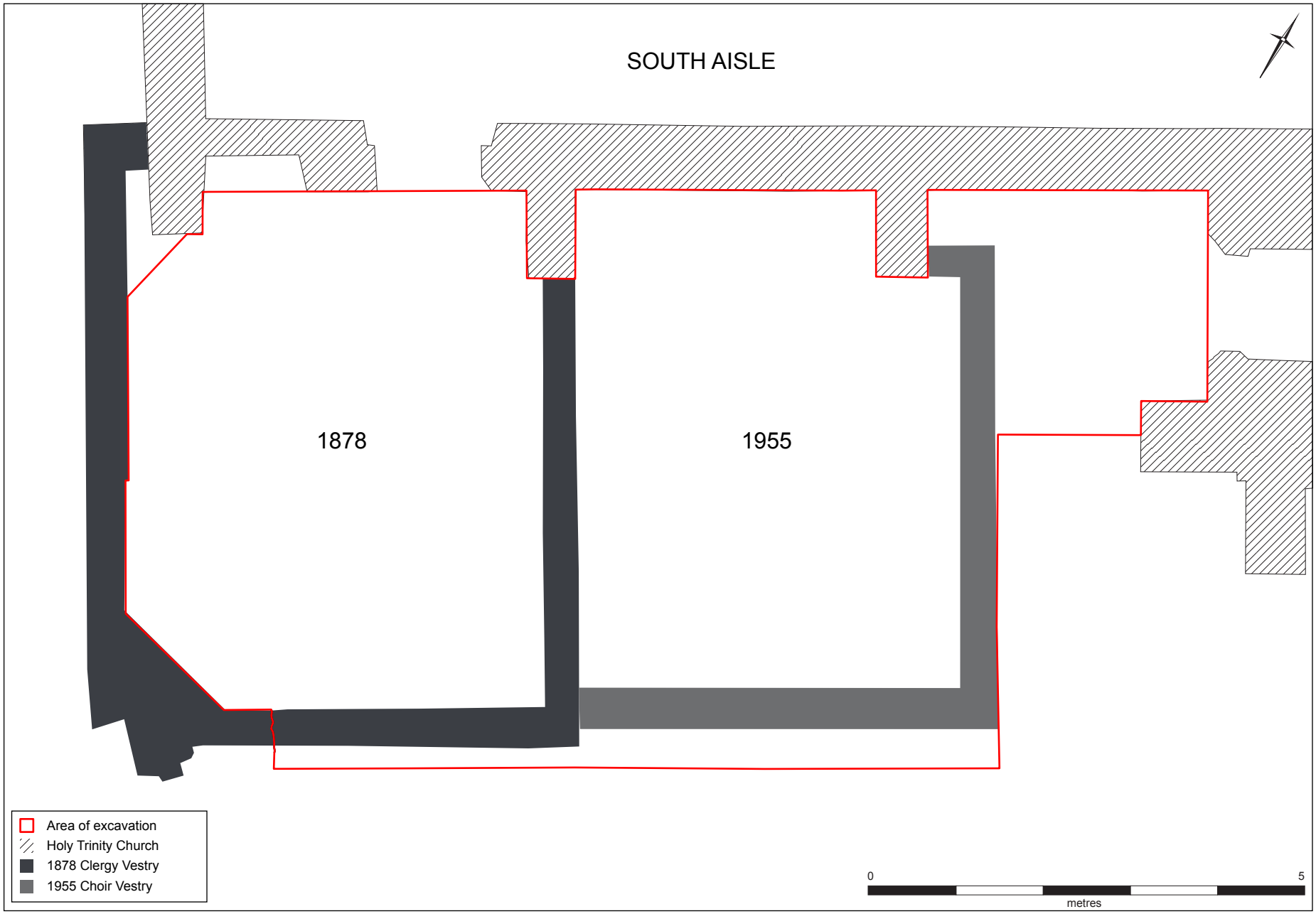


Figure 20. Plan of Phase 4 features, showing the expansions of the vestry in 1878 and 1955

The most likely occupants of this vault are members of the Starmer family (Table 8). In 1835, when Alice Starmer died at 65 years-of-age, her husband Richard was proprietor of the Black Bear Inn on Market Street (Pigot's Directory of Cambridge 1830-31). This establishment, which had begun operating under this name prior to 1773, was then one of the largest inns in the town. Richard Starmer remained proprietor of the inn until 1839, when he was 72 years-of-age. By 1840, however – when James Starmer died – the publican was one Sarah Sparrow (Robson's Commercial Directory 1840). It is possible that this change in the family's circumstances contributed to the marked change in funerary rite that occurred at this time. The Starmers certainly seems to have fallen on hard times, as at the time of his decease Richard's address was given as Wray's Almshouses on King Street. Founded in 1634, these almshouses were established to provide for four widows and four widowers under the will of Thomas Wray (Cam 1959, 147).

It should be noted that while the osteologically-determined ages of *Burials 3* and *2* accord very closely with those of Alice and James Starmer, that of *Burial 1* (at *c*. 52 years-of-age) is significantly younger Richard Starmer's documented 80 years. One possible reason for this dichotomy is the poor condition of this individual's remains, which were less than 50% complete. A significant contributor to the deterioration of this skeleton appears to have been the unusual positioning of *Burial 1*, suspended on timber battens partway down the vault structure (an arrangement reconstructed in Figure 8). Most notably, the thoracic spine and pelvis were absent, suggesting that partial collapse of the coffin may have exacerbated decomposition in the middle of the body (where the majority of organs are located).

Earth-fast burials

A minimum of thirteen 19th-century earth-fast graves were identified, all of which appear to post-date the construction of the vestry (Figure 11). One example still retained the fragmented basal remnant of a sandstone monument, of which no decorative details survived. Whilst all of the burials extended below the limit of excavation, one example – *Burial 9* (**F.14**) – was located in close proximity to the footing of an arch that extended over a public footpath situated immediately to the south of the site. Due to the danger of subsidence, and thus potential collapse, it was determined that *Burial 9* should be removed and concrete underpinning introduced. For health and safety reasons, a mechanical suction device was used to extract the loose backfill of the grave extending beneath the unstable footing. Bone fragments that were extracted by the device were pulverised by this process, although a small assemblage of disarticulated remains was recovered by hand by the workmen responsible for the excavation. The depth of this grave, at 1.78m+, demonstrates the extent of truncation caused by this horizon of intensive 19th-century sepulchral activity.

Phase 4 (1878-2016)

Following the closure of the churchyard to additional burials in 1855, the principal development within the area of excavation consisted of the gradual expansion of the vestry (Figure 20). Beginning in 1878, the Phase 3 structure was demolished and a new enlarged building

constructed (**F.16**). The footprint of this expanded vestry subsumed *Vaults 1-4*. The replacement building was two storeys tall, with a steeply pitched roof and a chimney located in its southwest corner (see Figure 12). The round-arched entrance to the preceding version of the structure was blocked up at this time, access instead being gained via the original doorway in the south aisle. This iteration of the vestry remained in use until the mid-20th century; in 1955, it was expanded once again. At this time a new room for the use of the choir was appended to existing structure, thereby doubling its footprint (**F.15**). The building remained in use in this form until the commencement of the present investigation in 2016, when it was demolished.

II) INTERNAL MONITORING

Alongside the principal excavation discussed above, an associated monitoring programme was also conducted during works undertaken inside the church itself. Here, a total of 76.2sqm was investigated; this included an area within the south transept measuring 56.8sqm (Figure 21) and an area at the south end of Henry Martyn Hall measuring 19.5sqm (Figure 24).

South Transept

Works were conducted in the south transept as part of the installation of a new kitchen (see Figure 2 for location). A number of archaeological features were identified during the course of this work, including three brick-built burial vaults (*Vaults 6-8*), two *in situ* memorial slabs or ledger stones, part of an articulated earth-fast burial (*Burial 17*) and the footing of what may have been the original medieval south aisle (**F.29**) (Figure 21).

The earliest feature to be encountered comprised wall footing **F.29**. This was composed of squared clunch blocks retaining a rough clunch rubble core, all of which was bonded with coarse yellow sandy lime mortar. It measured 0.75m+ long by 0.48m+ wide and survived to a height of 8.06m AOD. Given its location, allied with the nature of its constituent materials, this footing most probably represents a remnant of the original south aisle, predating the construction of the transepts in the 15th century. A second, albeit less likely, possibility is that it represents part of a preceding structure such as a chantry chapel that was demolished to make way for the transept's construction (Roffey 2007). Immediately adjacent to **F.29**, *Burial 17* (**F.28**) was identified; an adult of undetermined sex. Only the feet and lower legs of this individual were exposed (lying at 7.85m AOD). They had been interred within a timber coffin in an earth-fast grave. Due to the limited depth of the works, the remains were not disturbed but preserved *in situ* and were not therefore subject to osteological analysis. *Burial 17* was most probably 18th or early 19th century in date.

In addition to the above, three brick-built burial vaults were identified (*Vaults 6-8*; Figure 21). Although intramural as opposed to extramural in nature, all three vaults were near-identical in both form and construction to *Vaults 1-4* previously discussed above. None of the vaults were affected by the works and they were therefore preserved *in situ*, undisturbed. Overlying *Vault 6*, however, was a memorial slab identifying the names of the vault's occupants; Elizabeth and Richard Mee (Figure 22). A second memorial slab was also present a short distance to the north (Maria and William Jackson; Figure 22); although in this instance no element of the underlying vault was exposed. Both slabs lay within the horizon of disturbance caused by the development (at 8.54m AOD). Consequently, they were recorded in detail prior to being moved to positions of greater safety elsewhere in the church.

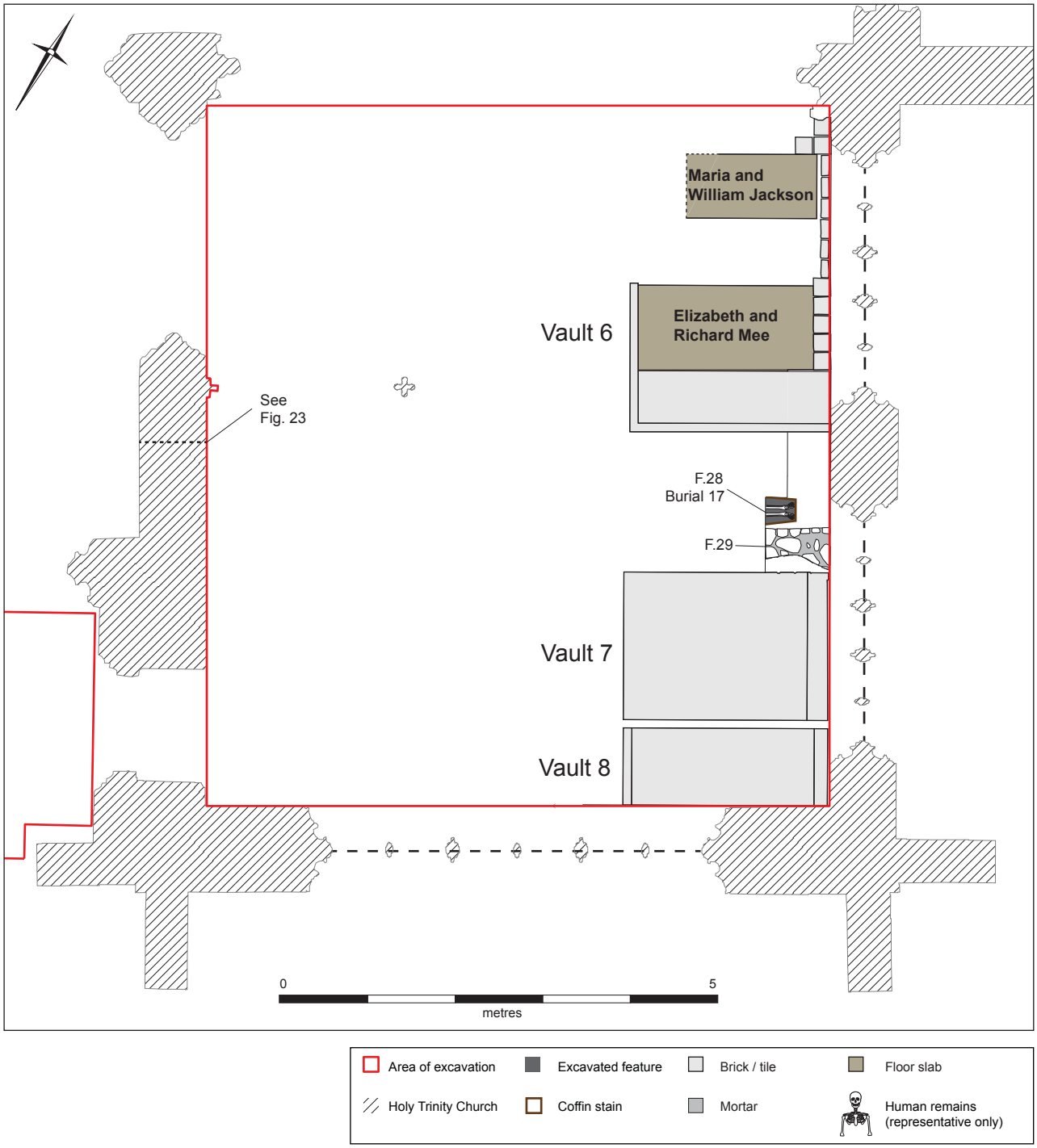
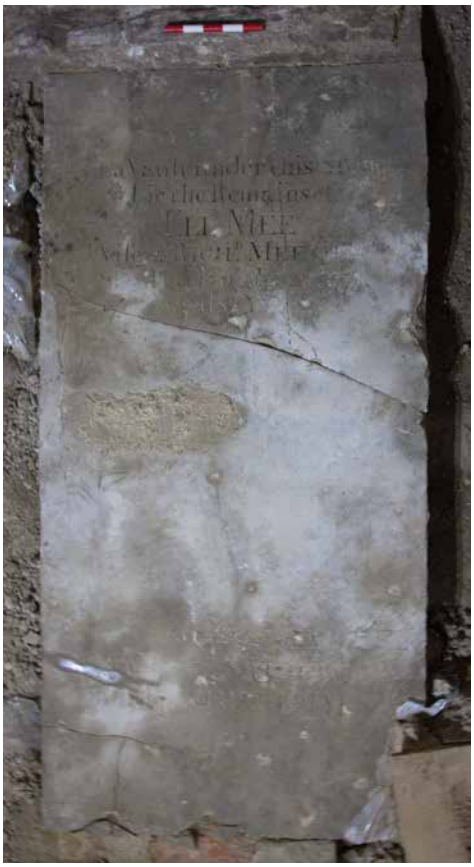


Figure 21. Plan of features encountered during archaeological monitoring of the south transept



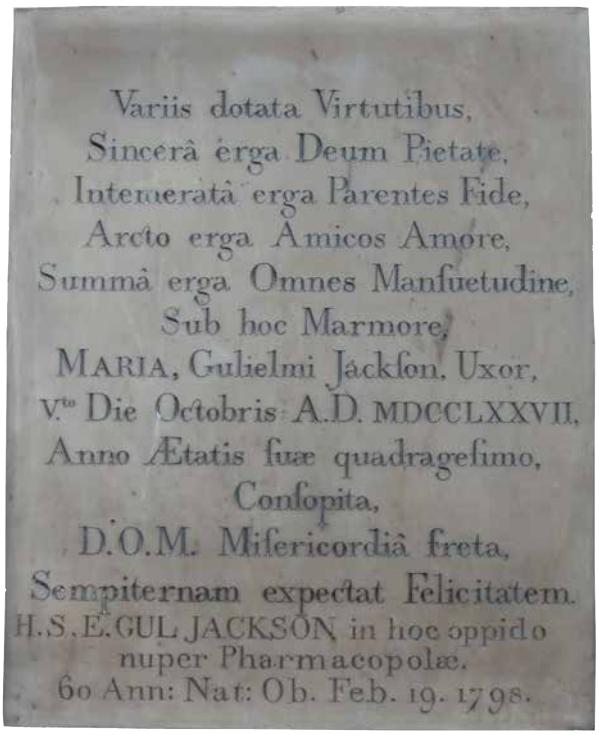


Figure 22. Sepulchral monuments encountered in the south transept, showing: top, those of Elizabeth and Richard Mee; bottom, those of Maria and William Jackson

In addition to the memorial slabs, wall plaques were also identified within the south transept that pertained to the individuals named on the ledger stones. Below are transcribed what could discerned from the fragmentary memorial slab (left), along with a translation of the wall plaque (right), of Maria Jackson and her husband William:

MARIA JAC… *MDCCL…*	*Endowed with various virtues: sincere faith towards God, piety towards parents and loyalty to close friends, with the utmost love towards all humanity* *Under this marble* *MARIA, Wife of William Jackson* *Lulled to sleep October 1777 in the fortieth year of her age* *To the greatest and best God, in whose mercy* *Everlasting happiness awaits* *Here also is buried WILLIAM JACKSON* *Lately pharmacist in this town* *Aged 60 years. Died Feb. 19. 1798*

Transcribed below are the memorial slab (left) and wall plaque (right) of Elizabeth Mee and her husband Richard:

In a Vault under this Stone *Lie the remains of* *ELIZ. MEE* *Wife of RICHD. MEE GENT.* *She died Jan. 22nd 1778* *Aged 82 Years* *RICHARD MEE* *Died Dec. 28th 1791* *Aged 83 Years*	*In a Vault near this place* *Lie the remains of* *ELIZABETH MEE,* *43 Years the Wife of RICHD. MEE gent.* *and Daughter of SIR JOHN JACOB BART.* *Of Weſt-Wratten in this County.* *She was excelled by none* *In all the Moral and Chriſtian Virtues.* *This monument is erected* *By her ſurviving Huſband* *To perpetuate the Memory of* *So good a Woman* *Who died Jan. ye 22nd 1778 Aged 82 Years* *ALLSO* *The above RICHD. MEE* *who died* *Decemr. 28. 1791,* *Aged 83 Years*

An interesting architectural detail was also noted during the investigation conducted within the south transept. When the southwest wall of the structure, which subdivided the transept from the south aisle to the west, was stripped back to expose its original fabric it became apparent that an earlier opening had been infilled (Figure 23).

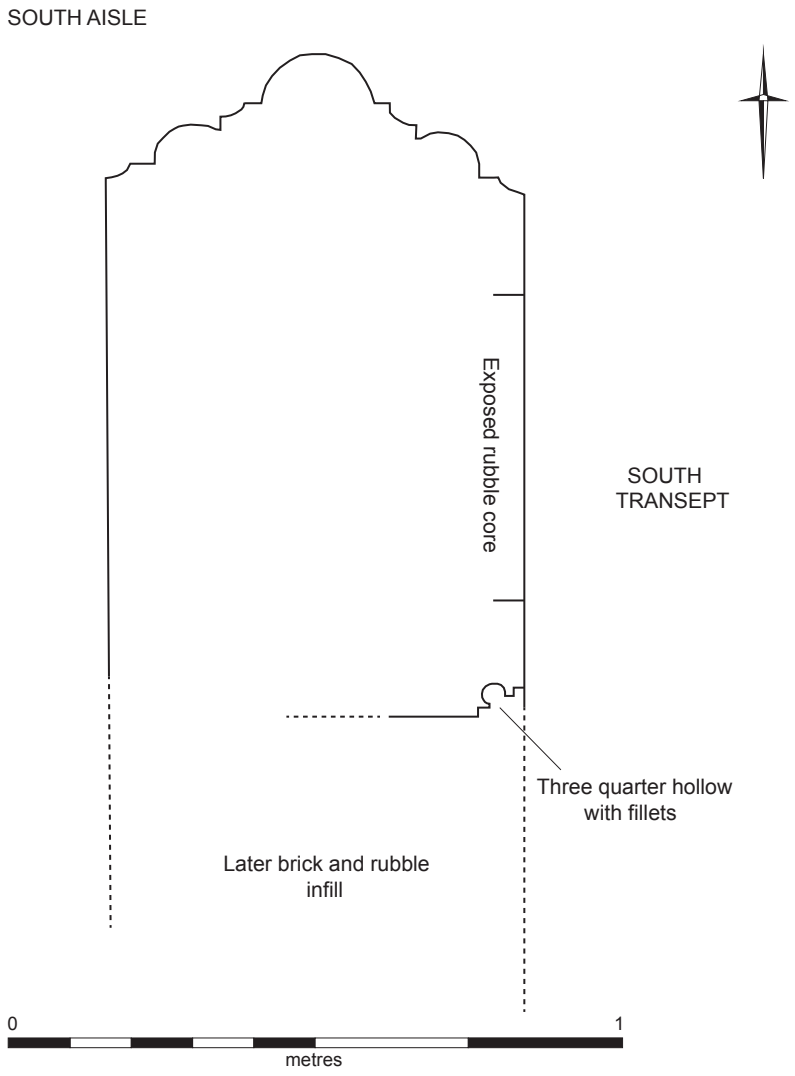


Figure 23. Architectural details encountered in the south transept, showing: left, the elevation of the west wall of the south transept; right, a detail of the moulding that lies buried partway along its length

Figure 24. Plan of features encountered within the interior of Henry Martyn Hall, with: top right, a view of brick footing F.30 (facing south); bottom right, a view of Vault 5 that lies beneath the west wall of the south aisle (facing east)

In the 15th century it appears that the transept arch formed part of a pier with an opening to the south. Based upon the minimal exposure afforded by the present investigation, it is unclear whether this opening formed a second arch leading into the south aisle or part of a large doorway. The moulding, a three-quarter hollow with fillets, is consistent with a Late Medieval date. The south aisle was subsequently rebuilt in the 16th century, at which time the feature appears to have been modified and/or infilled. Additional alterations then occurred during the 17th and 18th centuries, when a series of galleries were constructed, further obscuring the transept's original design.

Finally, it should be noted that when a new doorway was inserted into the transept at first floor level – in order to facilitate access to the newly-constructed visitor's entrance and administrative space – a portion of an early 12th-century graveslab was recovered from the rubble used to construct the core of the transept wall (Figure 28). Whilst clearly *ex situ*, the presence of this graveslab is significant since it predates any extant architectural element in the church and strongly suggests that an earlier iteration of the building had been established at the site by *c.* 1100 AD (see further the moulded stone assessment report, below).

Henry Martyn Hall

A second area of archaeological monitoring was conducted within a former toilet block situated immediately to the south of Henry Martyn Hall (Figure 2). Here, after the preceding floors, make-up material and modern services were removed, two features were revealed (Figure 24). The first of these consisted of a brick-built burial vault (*Vault 5*) that had been inserted beneath the west wall of the church's south aisle. The second consisted of a substantial brick-built wall footing (**F.30**) that may have been incorporated into the west wall of the Phase 3 vestry.

Vault 5 was constructed from unfrogged yellow bricks of early 19th-century date; it is thus likely to have been broadly contemporary with nearby *Vaults 1-4*. Its position directly underlying a 16th century wall is highly unusual, but it appears to have been inserted in this location opportunistically during an episode of underpinning; it is possible that the pressures upon sepulchral space, and need for additional vaults, were particularly acute at the time of its insertion. The vault was not disturbed but preserved *in situ*. Adjacent brick footing **F.30** was constructed from handmade red bricks bonded with pale grey lime mortar. It is most probably late 17th–18th-century in date and appears to have originated as part of a non-ecclesiastical building, constructed immediately to the west of the church. It predates the Phase 3 vestry of 1833/34 and may have been demolished to allow the erection of this structure. Alternatively, it is possible that the wall remained upstanding and was incorporated into the west side of the vestry itself. No further evidence pertaining to the original structure or the later vestry survived due to the presence of numerous modern services, which had truncated the remainder of the area below the final level of excavation.

III) EXTERNAL MONITORING

Externally, an area totalling 61.2sqm was investigated. This included monitoring conducted during the construction of a crane base (36sqm) and installation of a service trench (23.6sqm) as well as eighteen postholes (each measuring 0.3m square). Alongside the recovery of a significant quantity of disarticulated human remains, the principal discoveries comprised the identification of five additional extramural burial vaults (*Vaults 9-13*, Figure 2).

Figure 25. Photographs of Vault 12, showing: top, the exterior of the vault as first encountered (facing east); bottom; the interior of the vault before infilling (facing east)

Figure 26. Photograph of the interments within Vault 12 (left), with close-up details of the lead coffin (top right) and rosary (bottom right)

Within both the crane base and service trench (which were excavated to a depth of 0.65m and 1.15m respectively) a homogenous dark brown clay silt cemetery soil was encountered in which no clear grave cuts could be distinguished. A substantial quantity of disarticulated human bone was present, however, testifying to the degree of disturbance caused by intensive 19th-century burial activity.

Vaults 9, *10*, *11* and *13* were only partially uncovered and, where possible, left undisturbed. Two of the four – *Vaults 10* and *12* – lay outside the immediate area of works but were uncovered during machine levelling of the area and were therefore included in the record. All four were of a similar size, and constructed from identical materials to, *Vaults 1-4* above. *Vaults 9-11* appeared to be complete and intact, but *Vault 13* had previously been disturbed. Its roof had been removed and the interior infilled with soil. Hand excavation to the required depth did not encounter any trace of an occupant and the service was therefore safely installed without needing to be diverted. *Vault 12* was markedly different to the others.

Vault 12

This was the largest and most complete extramural vault encountered during the project. Internally, it measured 3.88m by 2.22m by 1.40m high. Its walls were composed of a double skin of red handmade bricks bonded with off-white lime mortar set in English Bond; materials that indicate a 17th or more likely 18th-century date for the structure. Notably, this vault was the only one amongst the thirteen investigated examples to have been designed for repeated reuse. An opening was left at its western end that could be unsealed and then subsequently rebricked whenever an additional interment was added (Figure 25). At some point in the vault's history its barrel-vaulted roof had been substantially rebuilt, although this appears to have been a structural repair as opposed to part of the burial process. A minimum of eight individuals were present inside, the coffins of whom had been stacked two deep (Figures 25 and 26). These burials almost certainly represent several generations of the same family. Because of the size and completeness of *Vault 12*, it was selected as the most suitable venue for the reinterment of the substantial human remains assemblage that was recovered from the site (see further the methodology section and Figure 4).

The vault was not entered prior to its being backfilled with a stable packing material, but two holes were drilled into its roof in order to allow a photographic survey to be conducted (Figures 25 and 26). The results of this survey reveal that the four earliest *in situ* interments all comprised adults who were aligned west-east. A pile of charnel situated in the northeast corner of the vault indicates that that at least one earlier individual may have been disturbed to make way for their introduction. A second horizon of burials then overlay the first. To the north, the second horizon included the lead remnant of a triple-shelled coffin, which was again aligned west-east. The three final burials, however – at least two of whom were children – were aligned north-south; an arrangement that may have been adopted to conserve space for future additions. A variety of coffin furniture is visible in the photographs, including fine coffin lace as well as upholstery pins (both indicating the use of fabric coverings) as well as ornate iron handles and depositum plates. One other notable item that can be identified consists of a string of blue glass or faience beads (Figure 26). Their composition, allied with their location below the pelvis of one of the lower horizon individuals (perhaps even held in their hand), suggests that this is not an item of jewellery. Instead, it is much more likely to comprise a rosary.

Rosaries comprised an important element in medieval devotional practice but are rarely encountered in sepulchral contexts of this date (Gilchrist and Sloane 2005, 93). Following the Reformation, Catholicism was outlawed. Rosaries then became a covert, easily concealed symbol of the proscribed faith; yet despite this, examples are nevertheless occasionally encountered archaeologically (as in the wreck of the *Mary Rose*, for instance). By the 18th-19th century, however, rosaries, prayer beads and crucifixes were more common accompaniments to Catholic burials. In the Jesuit cemetery at Manresa House, London, for example, which was in use from 1867 to 1962, around one third of the burials were accompanied by either a rosary or a crucifix (Melikian 2004, 12). The inclusion of a rosary in an Anglican burial in the late 18th or early 19th century is extremely unusual. It might perhaps represent an expression of individual faith by someone who was nevertheless interred in the family's Anglican vault. Alternatively, it may have comprised a treasured heirloom, or been added to the coffin by a friend or relative.

MATERIAL CULTURE AND HUMAN REMAINS

A relatively small finds assemblage – consisting of 162 items, weighing 4.8kg – was recovered during the course of the project; although it should be noted that this total excludes both the human remains and moulded stone assemblages as these were not removed from the site but studied *in situ* prior to reburial. Yet even when these factors are taken into account, the amount of material recovered remains modest relative to the scale of the investigation. This dearth is almost certainly a consequence of the particular history of the site, which was ecclesiastical as opposed to domestic in focus. Accordingly, a lower quantity of refuse is likely to have been generated and/or deposited at this site than might otherwise be anticipated at contemporary locations elsewhere in the town.

Despite the limited size of the assemblage, a relatively broad range of material-types was encountered. Examples include metalwork, pottery, clay tobacco pipe, moulded stone and human remains, all of which are reported upon in depth below. In addition, however, there were also a small number of material-types recovered from 19th and 20th-century contexts that were represented by only very low quantities of material which are insufficient to merit a detailed assessment. Examples that fall into this category include: seven fragments of animal bone, weighing 46g; four fragments of glass, weighing 23g; two fragments of metalworking slag, weighing 80g; and a fragment of roof tile, weighing 16g.

Metalwork (Martin Allen, Justin Wiles and Richard Newman)

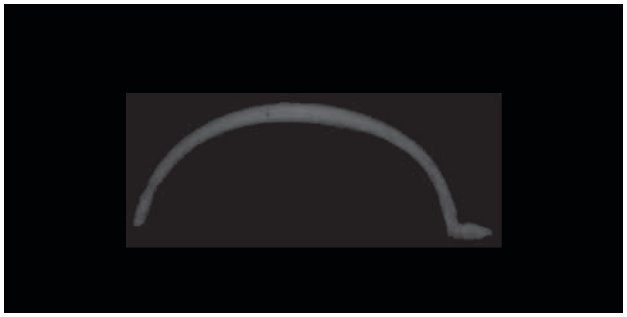
A total of 51 metalwork items weighing 1.75kg were retained from the site. This group includes a single copper alloy item, weighing 8g; the remainder of the material is composed of ironwork. The copper-alloy item, which was examined by Martin Allen, comprised:

> **<17>** Copper alloy halfpenny token(?) It is 18th century in date (1787−1800?), measures 28mm in diameter and weighs 7.98g. Unfortunately, due to prolonged contact with the lead shell of coffin **[048]**, its surface has become eroded and it is thus illegible.

Privately-produced copper alloy tokens were issued in large quantities in the 1790s, but their circulation was greatly reduced by the issue of official copper coins between 1797 and 1807. Some of these tokens may nevertheless have remained in circulation until the mid-19th century. This particular example appears to have represented a grave-side offering associated with the interment of *Burial 4* in *c*. 1839.

Aside from eight nail fragments, weighing 44g, the retained ironwork assemblage solely consisted of coffin handles. One example of the latter was retained from each discreet coffin that was identified (the majority of which, being single-break in form, had eight handles). The retained handles have been x-rayed and the resultant images are illustrated in Figure 27.

> A variety of designs of coffin handle are represented within the assemblage, some of which bore inlaid brass decoration (*e.g.* Figure 27 D and E). Whilst presented in stratigraphic order in Figure 27, the majority of variation present is not temporal in origin; the group dates to a discrete period between *c*. 1830 and 1850. Instead, it represents the wide choice of coffin furniture that was available at this date, with varying designs intended for different socio-economic groups and/or genders (Litten 2002, 100-115). Additional iron coffin furniture – including depositum plates (recording the name of the deceased) and upholstery pins (used to affix an outer fabric covering), as well as thin escutcheon plates associated with many of the handles – was also present in many instances but proved too fragmentary to be recovered.



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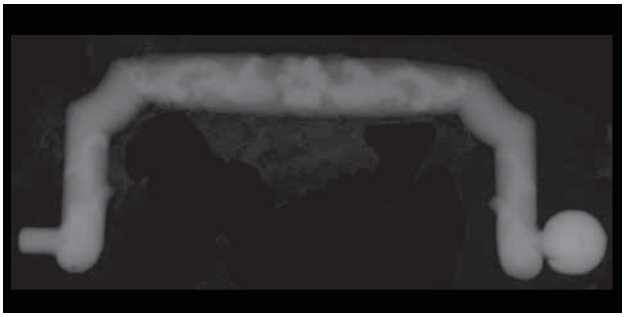

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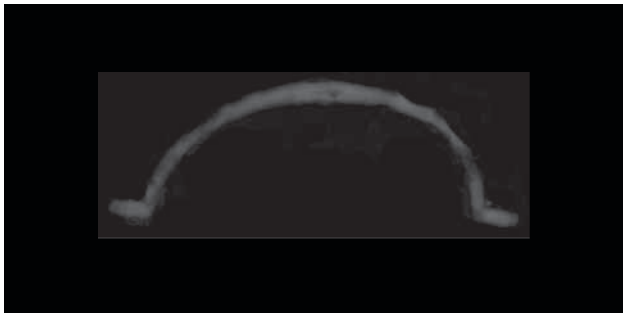

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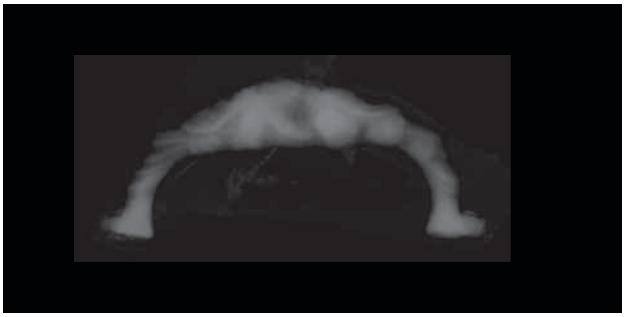

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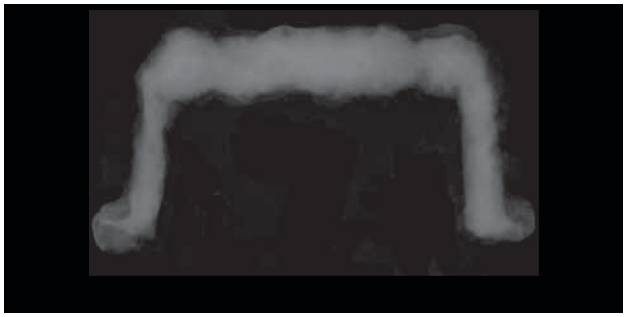

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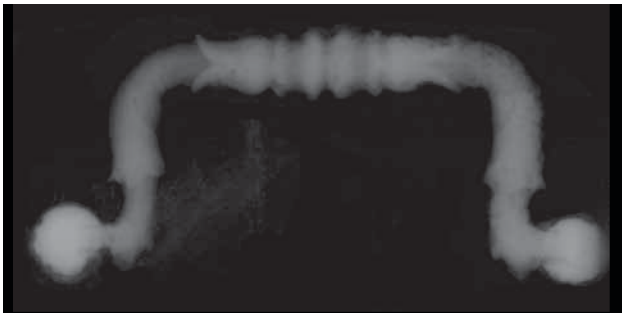

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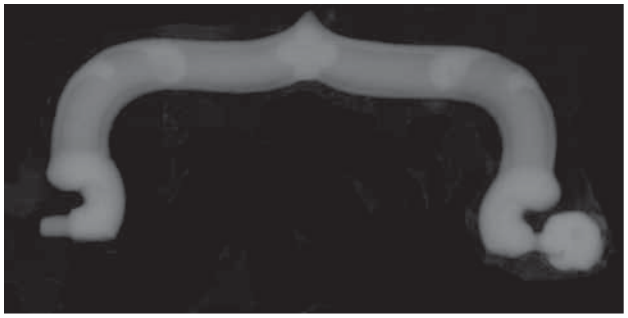
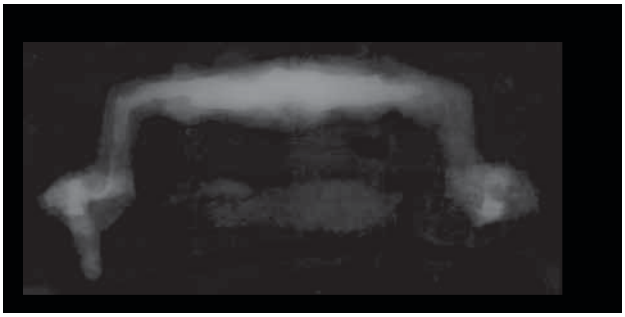


D.



H.

Figure 27. X-rays of retained coffin handles, presented in stratigraphic order from latest to earliest: A, Burial 1; B, Burial 2; C, Burial 3; D, Burial 4; E, Burial 5; F, Burial 6; G, Burial 7; H, charnel pit F.01

Pottery (David Hall, Craig Cessford and Richard Newman)

A small ceramic assemblage, consisting of 79 sherds weighing 2308g, was recovered from the site. As Table 9 shows, despite the limited size of the group a relatively broad range of material was present, spanning the 12th to 19th centuries in date. Furthermore, the assemblage's composition is highly consistent with that of other assemblages recovered from nearby sites in central Cambridge (in particular that of the largest such excavation, which was undertaken at Grand Arcade; Cessford and Dickens forthcoming).

Period	Fabric	Date	Count	Weight (g)
Saxo-Norman	St Neots-type	10th-12th century	1	6
Medieval	Grey coarseware	13th-15th century	5	78
	Grimston ware	15th century	1	8
	Medieval Ely ware	14th-15th century	4	40
Post-Medieval	Ely fine ware	16th century	1	2
	Frechen stoneware	16th-17th century	2	56
	Glazed red earthenware	16th-19th century	2	64
	Grey sandy coarseware	16th-17th century	7	60
	Manganese-mottled ware	Late 17th century	1	36
	Plain grey	16th century	1	26
	Plain red	16th century	1	8
	Raeren stoneware	16th-17th century	1	10
	Staffordshire-type slipware	1650-1780	3	212
Modern	Creamware	1760-1830	3	24
	English Utilitarian stoneware	19th century	1	346
	Late unglazed red earthenware	18th-19th century	3	32
	Mocha	1780-1850	2	40
	Notts/Derby stoneware	18th-early 19th century	2	8
	Refined white earthenware	1805+	37	1250
	Staffordshire-type white salt-glazed stoneware	1720-1790	1	2
		Total	**79**	**2308**

Table 9. Breakdown of pottery assemblage by fabric type

When broken down by date, Modern material can be identified as the most prevalent component of the Holy Trinity assemblage (representing 62.0% by count and 73.7% by weight), followed by post-medieval material (24.0% by count, 20.5% by weight), whereas medieval (12.7% by count, 5.6% by weight) and Saxo-Norman sherds (1.3% by count, 0.2% by weight) were much less common. This result reflects both the individual circumstances of the investigation – since the deepest, medieval and Saxo-Norman layers lay in almost all instances below the limit of excavation – and the particular history of the site, as within the area of investigation the most intensive period of the cemetery's use occurred during the early to mid-19th century, with the cemetery finally closing in 1855.

The largest group, which comprised 51 sherds weighing 1776g, was recovered from the upper portion of cemetery soil **[049]** that had been sealed beneath the mid-20th century vestry. Whilst this group included a number of residual fragments of earlier date, it primarily consisted of the remnants of four 19th-century vessels. Alongside a complete English Utilitarian stoneware blacking bottle

(weighing 346g) were substantial proportions of a large blue transfer-printed water jug manufactured by J Heath and Co in Lombardy pattern (11 sherds, weighing 632g; dating to 1828-41) and a second water jug by an unknown maker with sponged blue painted decoration (22 sherds weighing 372g). A near complete wide mouthed marmalade jar of similar date was also recovered (weighing 208g). Given both the context of their recovery and the degree of their completeness, it is likely that these vessels were introduced to the site during the final decades of the active use of the cemetery, when they may have been used to hold flowers or other graveside commemorations.

Clay tobacco pipe (Richard Newman)

A total of eleven clay tobacco pipe fragments, weighing 38g, were recovered from the upper portion of cemetery soil **[049]**. In general, the presence of clay tobacco pipe fragments in a context indicates a date between the late 16th to early 20th centuries (*c.* 1580-1910). Bowls can often be closely dated via comparison to Oswald's simplified general typology (1975). In this particular instance, however, only stem fragments were present and no precise date can be determined.

Moulded stone (Mark Samuel, with David Stocker and Paul Everson)

With a single exception, discussed separately at the end of this report, the architectural fragments reported upon here derive from a single wall foundation **[082] F.02**, which formed the east wall of a small vestry appended to the south aisle of Holy Trinity Church in 1833. Only a small part of this foundation was removed, but the remainder was seen to be made entirely from architectural fragments, including pieces of tracery. The architectural fragments showed no evidence of post-demolition adaptation or recutting. They were obscured by a soft chalky mortar which had to be removed in some cases to allow the nature of the architectural fragments to be understood. Because the fragments were returned directly to the ground, no form of labeling was carried out; however, reference numbers were assumed for recording purposes.

Methodologies

Each item was individually inspected from all angles and its 'importance' rated on a scale of 1-4 using a recording sheet developed for this purpose. Items rated 3-4 were given a 'substitute archive' (comprehensive record). Items rated 1-2 were only recorded on the collective recording sheet. Items rated 0 were discarded without further record. The moulding profile allows the relationship between individual items to be determined. Non-identical mouldings may derive from the same building campaign. There are several other means whereby architectural fragments can be related (see below). Tool marks are more easily recognized than described, but various attempts have been made to classify them (Samuel 2001, 153-4). Finishing techniques, even when not associated with mouldings, can be illustrative of date (see below).

Petrology

The building stone could be only generally described but the group seemed fairly typical of Late Medieval Cambridge. Seven of the ten examined stone were probably Oolites (other than the *Ketton* series). Two occurrences of clunch were seen, and this incidence was probably considerably higher in the undisturbed part of the foundation. It is probable that the 'non-Ketton' oolites derive from the Barnack area of Lincolnshire, but no clear occurrence of Barnack rag was apparent. A single use of Ketton stone was seen in a post-medieval ?tomb plinth **<9>**; this stone seems to have undergone a revival in post-medieval Cambridge, being employed throughout a high-status tomb on Newmarket Road (Samuel *in prep*.).

Figure 28. Elements of the moulded stone assemblage, including: left, early 12th-century ‘omega-type’ Romanesque grave cover; right, 17th/18th-century gravestone, with the initials M ◊ B repeated twice

Architectural features apparent

A variety of factors militated against easy recognition of the fragments, but several functionalities could be identified. The very small sample and its entirely random nature mean that caution is needed in interpreting these results. Described in chronological order, the following could be defined (* = substitute archive):

- *The earliest and most interesting moulding **<4>** is a door jamb. The peculiar moulding and tooling marks indicate a date *c*. 1180-1240.
- An ambiguous moulding **<2>** incorporates a scroll moulding and bead (*c*. 1240-1320).
- *A radiussed casement moulding **<5>** (*c*. 1280-1340) may derive from the surround of a window arch.
- *Coping stone **<10>** deriving from a thin parapet (*c*. 1280-1340). This was severely weathered from long usage.
- *Window mullion **<7>** (*c*.1340 -1540). A common Perpendicular moulding usually associated with traceried windows.
- *A later medieval string course **<8>** (*c*. 1400 -1540) can be compared to examples in various surviving monuments in Cambridge (RCHM(E) 1959, 1 and 2 *passim*).

It is hardly surprising that the foundation also contains various post-medieval funerary equipment, including a *cyma* element deriving from an angle of a large ?tomb plinth **<9>** as well as a grave stone **<1>** (Figure 28) with an enigmatic inscription. It would be rash to date these with any precision but it is worth pointing out that both pieces had undergone severe weathering prior to their re-use in the vestry's footing.

Conclusions

All these fragments are likely to derive from the church. The current dating of this structure seems to be largely based on art-historical assumptions rather than any documentary evidence; it would be rash to make any judgments on the basis of this evidence (for the most part heavily restored). The date of 1189 is usually given for the building of the first stone church ('after a wooden church was burnt down'). The absence of any fragments of Romanesque appearance seems in agreement with the 'facts' as they stand, but we have to remember that this is an extremely small sample. The 'spread' of dates is what one might expect from a busy urban church in Cambridge, subjected to many alterations throughout its history. Most mouldings are well represented in extant Cambridge buildings (*i.e.* the string course). The building of the foundation certainly marks the destruction of one or more large traceried windows and much other medieval fabric besides. It can therefore be associated with the major rebuilding program of 1831-34. The severely weathered nature of several fragments, including an ?18C grave marker is in line with this probability. It illustrates that the vestry (**F.02**) overlay what had previously been part of a busy graveyard.

Romanesque gravecover (with David Stocker and Paul Everson)

During a later phase of monitoring post-dating the analysis of the excavated assemblage discussed above, a further worked stone fragment was identified within the rubble extracted from the first floor of the 15th-century south transept during the insertion of a new doorway into its west wall. This fragment comprised part of a Romanesque grave cover dating to *c*. 1100-1130 (Figure 28); thereby making it the first archaeological evidence of ecclesiastical activity pre-dating 1174 to be identified from the site.

The limestone gravecover was not complete. The recovered fragment, which measured 620mm+ by 415mm in extent and a maximum of 110mm thick, had been used most recently as hardcore within the core of the 15th century wall. Prior to this, it had been partially recut with a roll and fillet moulding along one edge; possibly to enable its temporary use as part of a jamb or decorative surround. Originally, however, it comprised part of a 'Barnack-type' gravecover belonging to a group that has been defined by Lawrence Butler according to its dominant 'omega' design (Butler 1964). Other examples of this type are known from Cambridgeshire, including a broadly similar example from St Benet's, Cambridge (Butler 1957, 93).

David Stocker and Paul Everson very kindly examined a photograph of the artefact and noted the following: "The earliest examples of this gravecover type are probably early- or mid-12th-century in date, whilst the latest are early 13th-century. These monuments are usually dated by reference to their cross-head and cross-foot types, which unfortunately are both missing here. The chevrons (very Romanesque features) in the angles of the 'omega' feature are unusual, and rather interesting as they probably tie this monument into those groups of early Romanesque gravecovers that are decorated with nothing but chevrons, and which may have originated in the later 11th century". In light of its rarity, as well as its importance in elucidating the early history of Holy Trinity – as it predates any extant architectural remains at the site – it is recommended that this artefact be carefully preserved and potentially even put on display in the church.

Human remains (Benjamin Neil)

Twenty individuals were assessed on site over a period of five days between 6th and 13th December 2016. Fifteen of the individuals came from discrete inhumation contexts, and all but one were associated with coffin structures. A minimum number of five individuals were recorded from **F.14**.

Sex estimation was accomplished using a multifactoral process of identifying the dimorphic dimensions of the os coxae and the skull (where available) using methods outlined by Buikstra *et al.* (1994), Bruzek (2002), Phenice (1969), Scheuer (2002), Singh and Potturi (1978), and White *et al.* (2012). Each individual will be assigned according to the following:

Term	Read as	Meaning
Female	Female	Analyst has full confidence in the determination of sex for the remains
Male	Male	
(female)	Probably Female	Analyst does not have full confidence in the determination, but feels the remains are probably the stated sex.
(male)	Probably Male	
Female?	Possibly female	Analyst does not have confidence in the determination, but feels the available evidence hints at the stated sex.
Male?	Possibly male	
Indet.	Sex indeterminate	The remains have been analysed, but are lacking sufficient diagnostic morphology for a determination of sex

Age at death estimation was preferably based on data sets derived from British populations using methods based on changes in the pubic symphysis (Brooks and Suchey 1990) auricular surface (Buckberry and Chamberlain 2002) and the acetabulum (Calce 2012). The degree of ectocranial suture closure (Meindl and Lovejoy 1985) was also recorded in supplementation. Where applicable, the degree of dental development and epiphyseal union was used to estimate age and recorded following criteria outlined by Ubelaker (1999) and Buikstra *et al.* (1994) respectively. Assessment of prenatal through to young adult development was based on methods and data outlined by Scheuer and Black (2000) and Schaefer *et al.* (2009). Where multiple methodologies for one individual were

used, the estimations were calculated as a geometric mean (central tendency). Isolated fragmented bone will often have ambiguous or unobtainable morphological information thus age is indeterminate; however, where these fragments exhibited developmental, degenerative and dimensional characteristics that were clearly not neonate, infant or juvenile, the inference was adult. Each individual was assigned according to the following:

Neonate	Infant	Juvenile	Sub-adult	Adult	Young adult	Young Middle adult	Old Middle Adult	Mature adult
<6months	0-4 years	5-12 years	13-18 years	18+ years	18-25 years	26-35 years	36-45 years	46+ years

Stature was estimated using data compiled by Trotter (1970) with a primary preference for the femur and thereafter, the humerus. Any taphonomic and post mortem alteration was noted. Disarticulated fragmented bone was recorded according to zonation criteria set out by Knüsel and Outram (2004). The overall completeness of a skeleton was calculated according to the percentage of elements present, using data outlined by Rowbotham *et al.* (2017). This was estimated by the amount of material representing different areas of the body. A complete skeleton comprises of: Skull = 12% Torso = 36% Arms= 16% Legs = 36%.

Tables 10 and 11 summarise the assemblage dynamic in terms of age/sex and age/phase. The ratio over time is 3:1 adult to non-adult and 7:6 male to female. Tables 13 and 14 sum the data from sixteen inhumation contexts excavated from the south west corner of the site, adjacent to the church's southern transept. The following shorthand phrases will be used: AMTL (Ante-Mortem Tooth Loss), OA (Osteoarthritis) and DISH (Diffuse Idiopathic Skeletal Hyperostosis).

Sex	Infant	Juvenile	Sub Adult	18+ adult	Young Adult	Young Mid Adult	Old Mid Adult	Mature Adult
Male				1			1	2
Probable Male							1	1
Possible Male							1	
Female					1	1		1
Probable Female							1	2
Possible Female								
Indeterminate	3	1	1	2				
Total	**3**	**1**	**1**	**3**	**1**	**1**	**4**	**6**

Table 10. Age against sex

Century	Infant	Juvenile	Sub Adult	18+ adult	Young Adult	Young Mid Adult	Old Mid Adult	Mature Adult
Early 19th							1	4
1830s	1	1	1	1				1
Late 18th						1		1
17th-18th				1			2	
17th	2							
16th					1			
15th				1				

Table 11. Age against phase

Table 12 illustrates the central tendency for stature values within age categories containing data.

Sex	18+ adult	Middle Adult	Mature Adult
Male	176.60	165.37	181.82
Female	No data	161.55	161.58

Table 12. geometric mean values (in cm) for stature

Discussion and statement of potential

Permission to assess the skeletal assemblage was granted under faculty jurisdiction with the condition that the study was conducted on site with no treatment (i.e. they were not washed). The caveat of this assessment being that osteological observations were limited to these conditions. Care was taken to collect data for age, sex and stature, but observations of palaeopathological conditions were limited to salient traits. Any future work on this assemblage will be limited to the data and samples already collected due to the executed condition of reinternment under faculty law. All individuals were subject to a programme of sampling for aDNA and isotope work, undertaken by members of the 'After the Plague' project, Department of Archaeology, University of Cambridge.

Age and sex estimations

Osteological estimations of age and sex have the potential of being refined through the analysis of historical records and aDNA results; for example in the case of *Burial 7*.

Degenerative changes

Five individuals (*Burials 3, 4, 5, 8* and *11*) exhibit degenerative changes related to the aging process. Notably, *Burials 4* and *5* deserve analysis regarding the potential causal loop of these individuals' multiple ailments and the extent repetitive biomechanical stress had on exacerbating them. The individuals from *Burials 2, 4* and *8* exhibit Schmorl's nodes, which are not only relatable to spinal degeneration, but also strongly genetically determined.

Trauma

The mechanism of the three traumatic conditions seen in *Burial 4* needs analysis to determine their coincident potential, the directional forces involved and the implications regarding biomechanical function and subsequent quality of life. If coincident, that this individual bears the hallmarks of a healed clavicle fracture and a non-united humeral fracture (evidenced by infection and sclerosis) raises questions over whether they were in receipt of palliative medicine and care over the months after the incident. The healed rib fractures observed in the individuals from *Burials 7* and *11* do not require further analysis.

Pathology

The individual from *Burial 3* bears sclerotic bone over the facies anterior area of the left maxilla: analysis will determine whether this extended from the residual alveolar ridge in the region of the premolars thus suggesting healed periodontal infection. The right leg of *Burial 7* bears evidence of infection and deserves differential analysis. The skull of *Burial 12* requires analysis to determine and differentiate the taphonomic and pathological conditions of its skull; a hypervascularised thoracic vertebrae from this individual may suggest that they suffered with an infection such as tuberculosis. It is plausible that the perinatal infant (*Burial 14*) suffered Pre-natal Onset Infantile Cortical Hyperostosis, which is usually fatal.

Oral Health

There is evidence for oral pathology within this assemblage. Individuals from *Burials 4* and *16* both had single instances of maxillary caries. Two individuals (from *Burials 2* and *5*) were recorded with dental calculus, which has great potential in analysis if the samples taken by the 'After the Plague' project are saved. Bacterial DNA from this source can inform on disease and systemic health (for example, diabetes and atherosclerosis); microfossils within calculus can also directly inform on diet. The presence of foreign objects within dental calculus, such as thread fibres may inform on types of clothing material, for example. The two individuals with enamel hypoplasia (*Burials 2* and *6*) indicate developmental stress, but require no further osteological analysis.

Other anomalies

Burial 5 exhibits bilateral lipping over the lateral aspect of the iliac crests and analysis should be carried out to determine whether this relates to a mechanical response to the thoracic kyphosis observed in this individual. The thoracic and lumbar vertebral canal of *Burial 8* was constricted, increasing in expression caudally; apart from the schmorl's nodes between T8-T12, there is no evidence of osteoarthritis or trauma leading to a suggestion that the condition was primary (congenital) stenosis. Bilateral bone spicules in the toes of *Burial 11* possibly indicate gout.

Burial	Context	Feature	Condition	Age	Sex	Stature (cm)	Elements
9	097	F.14	Good	Mature Adult *c*. 63 y/o	(Male)	Indet.	Cranium only Complete alveolar AMTL
			Good	Adult	Indet.	Indet.	Mandibular fragment (zone 7) Left and right temporal fragments (zones 6 and 7) Frontal bone fragment (zones 1 and 2) Occipital fragment (zone 5) Right sphenoid fragment 4 un-sided parietal fragments 3 cervical vertebrae, 4 thoracic vertebrae Humeral diaphysis (zones 9, 10) Right ulna (zone E) left ulna (zones C and E) Right radius (zones 1, 2 and 5) Sacral fragment (zone 1 plateau) Right femur (Zone 6) Un-sided medial tibia condyle (zone 1) Un-sided tibia diaphysis (zone 10) Right talus
			Good	Sub adult	Indet.	Indet.	Un-sided femoral caput (zone 4)
			Good	Juvenile	Indet.	Indet.	Left humerus Un-sided parietal fragment
			Good	Neonate c. 3-6 months	Indet.	Indet.	Right femur

Table 13. Disarticulated remains from **F.14**, *Burial 9*

Burial	Context	Feature	Position	Condition	Age	Sex	Stature (cm)	Compl.	Pathology / Trauma / Notes	Taphonomy
1	052	F.13	Extended E-W Head towards west Supine Within wood coffin	Poor	Mature Adult c. 52 y/o	Male	186.70 +/- 4.05	46%	Significant maxillary AMTL Bilateral maxillary buccal exostoses, superior to (3) and (14)	Soft/friable bone
2	055		Extended E-W Head towards west Supine Within wood coffin	Good	Old Middle Adult c. 39 y/o	(Male)	161.85 +/- 3.27	95%	Slight-moderate supragingival calculus on lingual surface of mandibular incisors Enamel hypoplasia observed AMTL of (14) with complete alveolar resorption. Schmorls nodes on T6, T8, T11 and T12	CU stain left distal radius
3	056		Extended E-W Head towards west Supine Within wood coffin	Good	Mature Adult c. 63 y/o	Female	161.69 +/- 3.72	92%	Maxillary and mandibular AMTL with residual alveolar ridges The facies anterior of the left maxilla bears sclerotic bone in a dendritic and striated pattern, OA: pinpoint porosity and marginal lipping of all vertebral bodies, porosity coalescing in C6. Degeneration of the right acromioclavicular joint.	
4	046	F.10	Extended E-W Head towards west Supine Within Lead coffin	Moderate	Mature Adult c. 65 y/o	Male	177.08 +/- 3.27	90%	Sub gingival caries on (1) Trauma: non-united fracture of the left humeral surgical neck with associated chronic osteomyelitis; possible fracture and septic purstitis of the left ulna olecranon; oblique healed fracture of the left clavicle diaphysis. Cortical defect at the superior margin of the right humeral olecranon fossa exposing the trabecular structure. OA: Flowing spondylophytes (DISH) between T7-T8 and extensive spicule formations between T9-L5 bodies. Schmorls nodes between T10-T11. Epiarticular osteophytes extending from the right femoral fovea capitis margin. Left knee: moderate lipping around the femoral and tibial condyles with a globular spicule on the anterior margin of the medial tibial condyle and a superiorly pointing exostosis superior to the tibial tuberosity. Articular osteophyte on the right tibial medial maleous. Right lateral wedging of L5 (compression fracture and scoliosis?) Left sacroiliac fusion Autopsy: 7 fragments of parietal and occipital bone bear fine tooth saw marks: craniotomy	

Burial	Context	Feature	Position	Condition	Age	Sex	Stature (cm)	Compl.	Pathology / Trauma / Notes	Taphonomy
5	053		Extended E-W Head towards west Supine Within Lead coffin	Moderate-Good	Mature Adult c. 65 y/o	(Female)	159.32 +/- 3.72	98%	Considerable lingual calculus on left mandibular side OA: bilateral slight - moderate marginal lipping around the humeral heads, glenoid cavities, the radial heads and the trochlear notch of the ulnae: eburnation of the right ulna guiding ridge. Right sternoclavicular degeneration. Bilateral lipping of the femoral and tibial condyle margins with globular spicules; eburnation and cortical degeneration of the tibial plateaus and intercondylar tubercles. Associated eburnation and degeneration of the articular facets of the patellae, with a massive bridging osteophyte on the lateral margin of the right patella. Extended bony lipping of the coronoid processes of the ulnae. Flowing spondylophytes on right side (DISH) between T1-T4, T6-T8, T9-T11 thoracic kyphosis Bilateral lipping over the lateral aspect of the iliac crest.	
6	039	F.11	Extended E-W Head towards west Supine Within wood coffin	Good	Young Middle Adult c. 33 y/o	Female	161.55 +/- 3.72	89%	Enamel hypoplasia observed Cribra/cortical discontinuity around left femoral neck; cortical thinning around the right humeral neck Periosteal new bone over the medial surface of the right tibia	
7	042	F.12	Extended E-W Head towards west Supine Within wood coffin	Poor	Mature Adult	Female?	163.77 +/- 3.72	54%	Trauma: healed rib fracture: unsided Possible remnants of a wig to include a CU pin set in tar(?) over woven/matted straw coloured horse(?) hair adhered to the left parietal, just posterior to the coronal suture	Soft/friable bone
8	051		Extended E-W Head towards west Supine Within wood coffin	Good	Old Middle Adult c. 37 y/o	Male	172.56 +/- 3.27	95%	Large anteriorly directed enthesophyte on odontoid process for attachment of the apical ligament OA: Bilateral macroporosity of the acromioclavicular joints. Schmorls nodes T8-T12. Narrow verterbral foramen	
10	002	F.17	Extended E-W Head towards west Supine Within wood coffin	Good	Adult	Male	176.60 +/- 3.27	29%	Periosteal new bone over the left femoral shaft and the anteromedial surface of the left fibula; characterised by woven and striated bone	

Burial	Context	Feature	Position	Condition	Age	Sex	Stature (cm)	Compl.	Pathology / Trauma / Notes	Taphonomy
11	011 110	F.18 F.26	Extended E-W Head towards west Supine Within wood coffin	Moderate	Old Middle Adult c. 37 y/o	(Female)	Indet.	46%	Trauma: healed rib fracture, right side OA: lipping around the anterior articular surface of the odontoid process; slight marginal lipping between C5-C7 bodies, and between T2-T8 bodies, with increasing expression caudally. Macroporotic changes to the left sternoclavicular joint; marginal lipping around the right glenoid cavity; slight lipping around lateral facet of left patella with apparent cortical discontinuity Pathology: right femur: spiculated/sclerotic bone around the intertrochanteric crest and sclerotic bone over the popliteal surface; periosteal new bone over the proximal anteriomedial surface of both tibiae. Enlarged foramen for the posterior tibial artery insertion into the right talus with slightly sclerotic margins. Bilateral bony spicules on the distal foot phalanges: greater expression noted on the right.	CU stain on right side of frontal bone, near coronal suture and over the right suprameatal crest
12	036	F.19	Extended E-W Head towards west Supine Within wood coffin	Good	Old Middle Adult c. 40 y/o	Male?	161.93 +/- 4.05	70%	Pathology: Hypervascularisation noted on the body of a thoracic vertebrae (T9?) Porotic hyperostosis seen on the superior aspect of the left and right parietals and the posterior aspect of the frontal bone which appears to have obliterated the outer table centred on two possible lytic lesions near the bregma. A line of sclerotic bone plaque runs obliquely across the top of the skull.	Taphonomic alteration to superior aspect of calotte
13	016	F.20	E-W aligned Within wood coffin	Good	Infant	Indet.	Indet.	6%	None observed.	
14	020	F.21	E-W aligned Partial articulation Within wood coffin	Moderate	Perinatal infant 39.15 weeks	Indet.	Indet.	50%	Pathology: cortical porosity over the occipital bone; cortical hyperostosis of the temporal bones, the lingual and buccal tables of the right mandibular body and the posterior surface of the left ulna: prenatal (not Caffeys)	
15	029	F.22	Extended E-W Head towards west Supine	Good	Adult	Indet.	Indet.	6%	Periosteal new bone over medial surface of right tibia.	
16	024	F.23	E-W aligned Head towards west Supine Partial articulation	Good	Young Adult c. 24 y/o	Female	Indet.	24%	Deep mesial caries on (15)	

Table 14. Catalogue of inhumations

DISCUSSION

Whilst the limited depth and scale of the investigations precludes a detailed understanding of the earliest phases of activity at the site, a number of important results were nevertheless obtained. These pertain to both the medieval church and to some of the burials that were introduced within and around it during the post-medieval period.

The medieval church

The present Church of the Holy Trinity represents an amalgamation of multiple build phases, all of which post-date 1174, when an earlier iteration of the building was destroyed by fire (RCHM(E) II, 257). Although no details pertaining to the original building have survived, some indication of its character can be gained by examining the wider pattern of church foundation at this date. During the 10th and 11th centuries, for example, most churches were constructed of timber, only later being rebuilt in stone (Blair 2005, 407; Shapland 2015). Whilst this greatly reduced construction costs, it also rendered them particularly susceptible to fire (although it is unclear whether build-type was a factor in this instance). Furthermore, early churches such as these were founded through individual initiatives, such as the patronage of wealthy burgesses, rather than as the result of a centralised programme of ecclesiastical establishment (Blair 2005, 402). This is because they were established during a period of transition, from the Late Saxon minster system – which remained the official organisational church structure until the end of the 11th century – to the ubiquitous medieval pattern of multiple parishes that succeeded it.

Significantly, in East Anglia and across southeast England a significant 'boom' in church construction occurred during the 11th century (Blair 2005, 406), thereby laying the groundwork for the subsequent emergence of these parishes. Cambridge, moreover, has been cited in several sources as an example of this pattern of rapid church proliferation (*e.g.* Addyman and Biddle 1965, 94-6; Lobel 1975, 4; Haslam 1984, 21; Brooke 1985) and architectural/archaeological evidence of 11th century activity has been identified at several churches in the city. These include St Bene't's – the oldest extant building in Cambridge, constructed *c*. 1040-70 (Bradley and Pevsner 2014, 288; Newman 2017) – Little St Mary's and St Edward's – from which residual interlace grave-slabs were recovered (Taylor and Taylor 1965, 134; Dawson 1946, 3) – plus St Giles and St Peter's – both of which contain post-Conquest 11th-century architectural remnants (Taylor and Taylor 1965, 132-4; RCHM(E) 1959, 287-8). The recovery of a grave-slab dating to *c*. 1100-1130 during the present investigation at Holy Trinity indicates that this church could also very well have comprised a late 11th-century foundation.

Unlike the minster itself – which was almost certainly located on Castle Hill, probably beneath the later castle where a large cluster of 11th-century 'Fenland Group' grave-slabs were discovered in the early 19th century (Everson and Stocker 1999, 49) – Cambridge's privately-owned 11th-century churches were initially 'proprietary' in nature (*ecclesia propria*); that is, churches built on private ground by an individual who then retained a proprietary interest, such

as the right to nominate ecclesiastic personnel (advowson). Notably, two of the town's churches remained proprietary into the 13th century, without developing an associated parish. Both St Edmund's Chapel and St Lucy's Chapel were owned by wealthy families in the Trumpington suburb to the south of the town (Ellis and Salzman 1948a, 254-6; Ellis and Salzman 1948b, 290-1). Topographically, many 11th-century proprietary churches were set back from the principal street frontage, often to the rear of pre-existing properties (Biddle 1976, 340-2, 382-5, 453; Morris 1989, 171; Blair 2005, 403). This reflects their origin as an addition to, rather than a primary element of, the emerging pattern of 11th-century occupation.

Just such a topographic pattern can also be identified at Cambridge. St Bene't's, Little St Mary's, St Edward's, St Giles and St Peter's – all of which are either certain or probable 11th-century foundations – are set back some distance from the principal street frontage. Notably, the same is also true of Holy Trinity, albeit to a lesser extent (Figure 1). Furthermore, at the present site the identification of domestic pits pre-dating the commencement of sepulchral activity suggests that the topography may well have been reorganised when the replacement church was established. Prior to this event, therefore, it is possible that the original church was situated further to the west, at the rear of these plots; a location consistent with a potentially proprietary origin.

The post-medieval cemetery

Churchyard burial became a universal practice in East Anglia from the 10th century onwards (Blair 2005, 463-71). As a result, long-established parish churches such as Holy Trinity are typically surrounded by large numbers of burials (O'Brien and Roberts 1996; Rodwell 2012, 146-66). In addition, from the late 15th century onwards interments were also frequently introduced into churches' interiors (Peters 1996, 73-4). Consequently, multiple 'generations' of intercutting burials are often encountered at parochial sites; a generation in this context being defined as "the period of time taken to fill the space available before burying over it again" (Heighway and Bryant 1999, 195). Just such a pattern of intensive and long-lived sepulchral activity was identified at Holy Trinity. Due to the limited depth of the investigations, however, which were predominately restricted to the upper portion of the sequence, the bulk of the interments that were excavated archaeologically – comprising fifteen out of a total of seventeen articulated inhumations, or 88% – were post-medieval in date.

The archaeological study of post-medieval death and burial is a relatively new and rapidly expanding field. Whilst the initial focus predominately rested upon large-scale crypt clearances undertaken in major urban centres such as London, a wide range of sites, both large and small, urban and rural, have since been investigated. Significantly, the subject has also recently been the focus of a number of important syntheses and overviews (*e.g.* Cherryson *et al.* 2012; Boyle 2015; Renshaw and Powers 2016). Of the fifteen individuals of post-medieval date whose burials were investigated at the present site, seven had been interred in earth-fast graves during the 17th to early 19th centuries and a further eight within brick-built vaults in 1833-55. Notably,

the latter interments – which were well-preserved and subject to detailed analysis and sampling – took place during a period of significant transformation in sepulchral practice.

All across Britain, the long-standing system of parish burial grounds was being overwhelmed during this period by a rapidly rising population that placed increasing pressures upon urban space. Churchyard overcrowding precipitated a 'burial crisis', which was brought into sharp relief by the first cholera epidemic of 1831-2 (Walker 1839). The response was a series of Burial Acts, introduced between 1852 and 1857, which established a national system of public cemeteries independent of the parochial system. Cambridge, however, had adopted just such a system a decade earlier. The Cambridge General Cemetery (now Histon Road Cemetery) first opened in 1843. It comprised one of the first British cemeteries to be designed as a public utility, open to all regardless of denomination or parish (Gilman *et al.* 1997, 72), and formed an early and influential example of the grid-system layout (Louden 1843). In 1848 it was joined by a second public cemetery on Mill Road, which again was open to all inhabitants of the thirteen town-centre parishes. As a result of the municipal cemeteries' establishment, by the mid-1850s almost all of Cambridge's urban parishes – including Holy Trinity, in 1855 – had closed their churchyards.

The example of Holy Trinity provides an excellent illustration of the scale of Cambridge's mid-19th century 'burial crisis'. The parish's burial register records that 844 interments took place between 1834 and 1854. Although in practice from 1843 onwards a significant proportion of these individuals will have been interred at the town's newly-established municipal cemetery, it is the sheer volume of deaths that should be noted here. Because an average burial required *c.* 1.5 square metres of space, after only 20 years an area of around 1,266 square metres – which equates to more than 100% of the total space available in both the churchyard and church combined – would have been required to house this population had burial been restricted to the parochial cemetery alone. Such intensive usage, and the logistical and health-related issues this engendered, was clearly both highly impractical and thoroughly unsustainable.

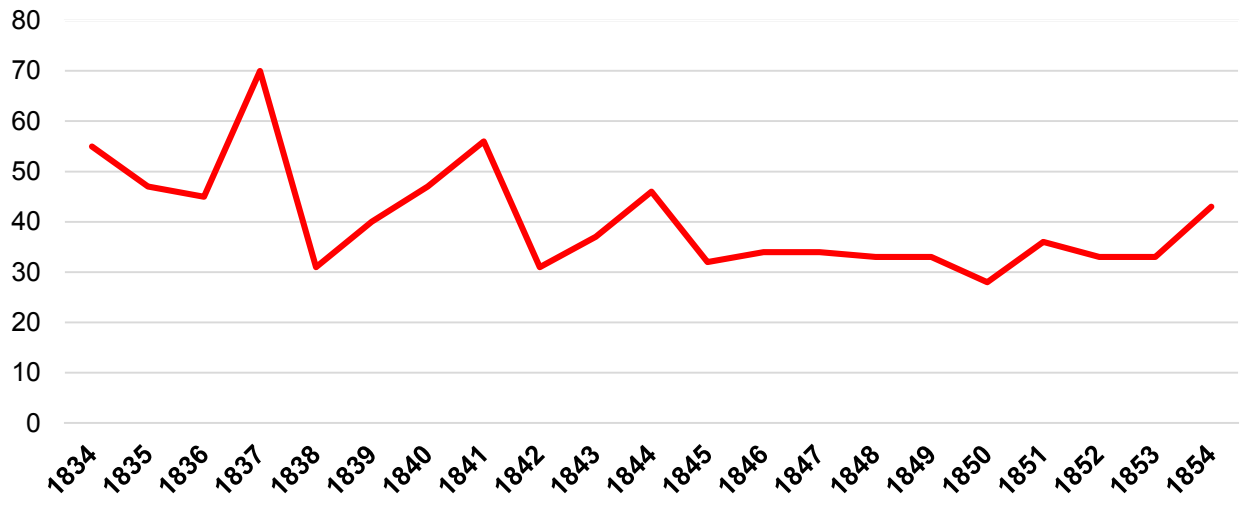


Chart 1. Number of burials per year in Holy Trinity parish, 1834-54 (n = 844)

Figure 29. View of Holy Trinity and its churchyard in the early 19th century, facing northeast, from Combe 1815

As Chart 1 demonstrates, the number of people dying in the parish per year during this period did not remain static. Instead, a pattern of marked peaks and troughs is apparent. This is indicative of waves of disease amongst the local population; a widespread occurrence in many urban contexts during the first half of the 19th century (Condrau and Worboys 2007). Typhus (spread via body lice), cholera and typhoid (spread through contaminated drinking water) and scarlet fever (spread through close contact) all comprised significant causes of death at this date (*cf*. Hardy 1988; Duncan *et. al* 1996; Hamlin 2009). Following the 1848 Public Health Act, a Local Board of Health for Cambridge was established. They reported that the conditions in the town "are so wretched as to be a disgrace to civilization; it is next to impossible for the inhabitants to be healthy, cleanly, moral, decent or modest" (Cooper 1853, 701). In town-centre parishes such as Holy Trinity, many poorer inhabitants had to go a quarter of a mile to obtain clean water while others paid a farthing a gallon for it (Cam 1959, 104).

This situation was relieved somewhat in 1855 when a piped fresh-water supply was obtained from Cherry Hinton by the newly-established Cambridge University and Town Water Company (Bushell 1938, 94). Previously, however, the principal public water source in Holy Trinity parish had comprised a water-pump located in the churchyard itself; this is depicted in use in a print of 1815 (Figure 29). Maintained by the parish as a public service – a widespread practice across the town at this date, the contemporary parish pump at St Benet's, for example, still remains *in situ* (Newman 2017, 21-22) – the pump was fed by a well sunk on the edge of the cemetery. The risk of contamination arising from the well's proximity to the intensively used burial ground is readily apparent and may well have contributed to the inhabitants' high mortality rate.

The wider context of post-medieval burial practice in Cambridge

Holy Trinity is not the first parish church in Cambridge at which archaeological excavations have been undertaken, although it does represent the only example from which detailed osteological information pertaining to Cambridge's post-medieval population has been recovered. In summary, previous investigations have included:

St Bene't's	A small trench was excavated to the north of the chancel in 1988 (Malim 1988). Three articulated post-medieval inhumations were encountered, as well as an intact early 19th-century brick-built burial vault, but none of the remains were disturbed.
St Andrew the Great	Two brick-built vaults of late 18th- or early 19th-century date were identified a short distance to the north of the church in a test pit excavated in 1992 (Gdaniec 1992). They were not investigated. Two undisturbed earth-fast inhumations of probable 19th-century date were also encountered here. Within the church itself, four 18th/early 19th-century brick-built vaults were also encountered within a trench excavated across the centre of the nave and part of the north aisle. One of these vaults was partially investigated; it contained two individuals in wooden

coffins, but the remains were not lifted (Miller 1992, 18-19). Charnel deposits were also encountered in association with several vaults. A collection of coffin furniture was retained from the site.

St Peter's — During the construction of an access ramp at Kettle's Yard Gallery, twenty-five burials associated with the adjacent cemetery of St Peter's were encountered (Evans 1994). Although undated, numerous coffin nails and copper-alloy fittings were recovered, indicating that the majority of the interments are likely to be post-medieval in origin. The remains were reburied without analysis.

St Michael's — An 18th-century charnel pit and a disturbed inhumation of similar date were identified within a small trench excavated in 2000 (Hall 2000, 4-5). None of the remains were retained.

St Clement's — A minimum of three 18th-century burials were encountered in close proximity to St Clement's Vicarage in 2011, but none were lifted (Newman 2011). Aligned north-south instead of east-west, these interments lay outside the boundary of the medieval churchyard. It is therefore possible that they represent burials of the 'profane', such as suicides or criminals, who were sometimes distinguished by being accorded different burial rites (Cherryson *et al.* 2011, 118-30). St Clement's church was significantly updated and expanded during the early 18th century, however, and it is possible that the associated cemetery was temporarily expanded at this time before contracting again soon after (Newman 2011, 9-10).

All Saints in the Jewry — The arched roofs of six 19th-century brick-built vaults were exposed beneath the pavement of All Saints Passage. Although multiple coffins were observed to lie within them, none of the vaults were entered and the interments were preserved *in situ* (Cessford 2012, 92).

St Mary the Great — Two brick-built vaults and an earth-fast burial were encountered within a small trench located in the northeast corner of the north aisle (Dickens 2014, 2-4); all of the remains were left *in situ*. The earth-fast burial and one of the vaults had previously been disturbed by service works, but the remaining vault was intact. It measured internally 2.7m by 1.22m and 1.30 deep and contained two relatively well-preserved coffins lying side by side. One of these was triple-shelled and the other of fabric-covered wood. Notably, the latter bore a painted iron coffin plate upon which the date 178… could be discerned.

It should be noted that parochial cemeteries, whilst much the most common venue for interments in Cambridge between the 16th to mid-19th centuries, were by no means the only sites at which contemporary burial activity took place. Smaller numbers of individuals were also interred within collegiate chapels, which widely supplanted parish churches during the early post-medieval period as purpose-built venues for worship in many colleges, as well as in non-conformist burial grounds and, from the late 18th century onwards, a newly-established hospital

cemetery. In addition, during a period of crisis in the 17th century a number of pest-houses were established in the town; burials associated with one of these houses were encountered on Midsummer Common in 1952 but not recorded in detail (Williamson 1957).

More intensive investigations have been conducted at two non-parochial post-medieval sepulchral sites in Cambridge. The first of these is Addenbrooke's Hospital, which was first established on Trumpington Street in 1766. From 1772 until the early 19th century all of the patients who died in the hospital were buried in the institution's grounds (Rook *et al*. 1991, 49-50) and several of these interments have been encountered archaeologically. Firstly, during the construction of additional nurses' accommodation in the late 19th century the remains of a minimum of 19 individuals were encountered (Kempson 1897). Although few details of the discovery were recorded, the group included several women. The second find occurred in 1994, when service repair works conducted in the same area encountered five further interments (Welsh 1994). Associated coffin fittings and clay tobacco pipe fragments – allied with the substantial depth of the burials – indicate that these interments were late 18th or early 19th century in date. Finally, during the recent demolition of the former nurse's accommodation blocks a further skull and associated vertebrae were recovered (Wood and Newman 2016).

The second site is non-conformist in nature. In 2014 a trench measuring 12m by 6m was excavated to the rear of the former Providence Calvanistic Baptist Chapel on Norfolk Street (Rees 2014). This chapel opened in 1833 but closed in 1837. A total of thirteen individuals were encountered in its cemetery, distributed across eleven graves, and detailed osteological analysis of the remains was undertaken. Only one adult was present, while many of the children demonstrated pathological evidence of poor nutrition. Two brick-lined shaft graves were identified, while the earth-fast burials contained a variety of coffin fittings and shroud pins. These burials are very closely comparable in date to those from the excavated vaults at Holy Trinity and form the closest locally-excavated parallel to this site.

Autopsy and anatomy in post-medieval Cambridge

A final point of interest concerning the post-medieval burials at the site pertains to the surgical procedure that was conducted upon *Burial 4* in Vault 1. Saw marks were observed upon this individual's skull that are indicative of a craniotomy, a procedure performed to remove the top of the calvarium so that the brain could be examined. Craniotomies were routinely practiced as part of a post-mortem examination of the body during this period, typically either as part of an autopsy or a more generalized human dissection. As the main function of an autopsy was to establish the cause of death, such investigations were usually restricted to parts of the body whose failure was terminal; dissections, in contrast, were undertaken for educative purposes and involved a more widespread examination of the corpse (see further Dittmar and Mitchell 2015a). Due to the lack of surgical tool marks on the remainder of this individual's skeleton, it is likely that the craniotomy was performed as part of an autopsy rather than a dissection. This distinction is important because:

> "Although post-mortem autopsies were sometimes carried out on the bodies of the middle and upper classes, they were mostly performed by the family doctor as an extension of the care given during the patient's last illness; they were not anonymous demonstration dissections carried out to benefit student's education. The bodies of the wealthy were not exposed to the hands and eyes of strangers" (Tarlow 2011, 97).

The osteological evidence thus accords with the archaeological evidence, which indicates that *Burial 4* – interred within a triple-shelled coffin inside a brick-built vault – was a relatively wealthy individual. Whilst his autopsy is thus most likely to have been conducted by a private physician, with the express permission of the family, a second scenario is possible. This is because at Addenbrooke's Hospital:

> "in January 1767, at the instigation of Charles Collignon [Professor of Anatomy], the Governor ordered, 'that in any doubtful case the Physicians and Surgeons shall have the power to open the body of any person dying in the Infirmary without asking any Person leave'. It was unusual for such authority to carry out post mortem examination to be granted, and the regular performance of such examinations was exceptional until a century later. It has not been possible to discover to what extent autopsies were in fact carried out" (Rook *et al.* 1991, 49).

It is therefore possible, albeit unlikely, that this individual was a patient at the hospital whose body was subsequently returned to his family for burial. Although in this instance it appears that an autopsy as opposed to a dissection was conducted, it is known historically that both procedures were undertaken at Cambridge during the post-medieval period. Whilst the present site has produced the only archaeologically-recovered evidence for either practice from the city to date, it is notable that at Oxford – which has seen both larger-scale and more widespread archaeological investigation than Cambridge, but at which highly comparable activities were undertaken during this period – has produced relatively extensive archaeological evidence of both procedures (Boston and Webb 2012).

At Cambridge, the practice of anatomical dissection has had a long history (see Macalister 1891; Rolleston 1932; Pratt 1981; Fairfax Fozzard 1983; Ellis 1993). Formal medical degrees were instituted at the University in *c.* 1460 and by 1549 the study of anatomy was a requirement for students (Pratt 1981, 7). From 1562 the Regius Professor of Physic was required to undertake one public dissection a year, and from 1565 two dissections were undertaken annually at Gonville Hall (a pattern that was also replicated at other colleges). In 1707 Britain's first dedicated professor of anatomy was appointed at Cambridge (Rolleston 1932, 50) and the University's first School of Anatomy opened in 1716. It occupied a building in Queens Lane that had first been built in 1638 as a stagehouse for the performance of plays (Pratt 1981, 11). By 1815 a circular anatomy theatre along with adjoining dissecting and specimen rooms had been established (Figure 30).

Figure 30. University of Cambridge anatomy theatre (left, from Combe 1815) and the churchyard of Holy Sepulchre with several mortsafes visible (top right, also from Combe 1815) along with an extant example of a mortsafe from Holystone, Northumberland (bottom right)

The impact on the town of the increasing number of students studying anatomy was significant. By the early 18th century, the number of corpses being exhumed from local cemeteries for dissection became a cause for concern:

> "The practice of digging up human bodies in the Church-Yards of this town and the neighbouring villages, and carrying them into Colleges to be dissected, which became more common than usual about this time [1724], although to the no small offence of all serious people, was now provided against, having been heretofore omitted" (Masters 1753, 196).

A further University Ordinance prohibiting the practice of body-snatching was passed in 1731, but this appears to have had only limited effect (Macalister 1891, 20). In 1768, for example, a scandal ensued when it emerged that the corpse of the author Laurence Sterne had been snatched from a London cemetery and subsequently purchased for dissection at Cambridge (Dittmar and Mitchell 2015b). The practice also continued into the early 19th century. A print of 1815 depicting recent burials in the cemetery of the Church of the Holy Sepulchre (Figure 30) demonstrates the use of mortsafes; iron cages inserted over the body immediately after interment to prevent grave-robbing (Tarlow 2011, 96). Although predominately known from Scotland, the remnants of a mortsafe have been excavated from a cemetery near Birmingham (Craddock-Bennett 2013) and their use in England, particularly in locations where anatomists were active, was probably more common than previously recognised. The pictorial evidence from Holy Sepulchre, where multiple mortsafes were depicted, suggests that their use in Cambridge may have been relatively widespread at this date. Typically, such cages were removed a few weeks after the burial – the body by then no longer being suitable for anatomisation – thus leading to their underrepresentation in archaeological contexts.

CONCLUSION

Alongside a small amount of information pertaining to the medieval church – including most notably the recovery of an early 12th-century 'omega-type' gravecover, which predates any extant architectural element in the present church – the work undertaken at Holy Trinity has also provided a valuable opportunity to produce the first detailed case-study of post-medieval burials from a parochial churchyard in Cambridge. Although small, the excavated sample is nevertheless significant; it provides important regional context as well as having the potential to contribute to an ongoing national debate. Previously, it has been observed that "we cannot expect that developers and planners will recognise the importance of post-medieval burial grounds if we cannot provide engaging, interpretive, historically-informed bodies of work which combine rigorous analysis and adventurous interpretation around them" (Tarlow 2015, 11). Due to the undertaking of detailed osteological analysis, allied with ongoing scientific testing and the scope for more detailed historical research – which together would allow the construction of detailed 'osteobiographies' of the excavated individuals – the present site has the potential to form the basis of just such a case-study. It is therefore recommended that these results be published accordingly.

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APPENDIX 1: FEATURE CONCORDANCE TABLE

Feature Number	Type	Context	Type	Description	Form	Dimensions (metres)			Finds
						L	W	D	
01	Charnel pit	009	Fill	Dark brownish grey clay with brown sandy clay patches; 214 kg of human bone recovered	Rectangular	2.12	1.40+	0.40	18th-century pottery, plus residual medieval pot
		010	Cut	Vertical sides and flat base; staining indicates that it was originally revetted with timber					
02	Wall footing	081	Fill	Mid brown clay silt	A rectangular building, only partially present within the trench	5.66+ by 2.30+	0.52	1.62+ max	Reused moulded stone
		082	Wall	Average of nine courses of flat-laid, re-used blocks. Eleven courses in corner, where buttressed. Clunch, limestone and sandstone blocks used, very rare CBM					
		083	Cut	Vertical sides and flat base					
03	Pit	065	Fill	Mid to dark brown clay silt	Sub-oval	1.14+	0.37+	0.30+	
		066	Fill	Mid-orangey brown sandy silt					
		067	Cut	Concave sides and concave base, oriented E-W					
04	Pit	068	Fill	Mid-brown mixed clay silt	Sub-oval	0.64+	0.36+	0.21+	
		069	Cut	Concave sides and concave base, oriented E-W					
05	Pit	079	Fill	Mid-orangey brown sandy silt	Sub-oval	0.60+	0.20+	0.16+	
		080	Cut	Concave sides and concave base, oriented E-W					
06	Pit	070	Fill	Mid to dark brown clay silt	Sub-oval?	0.50+	0.28+	0.18+	
		071	Cut	Concave sides and concave base, oriented E-W					
07	Pit	063 & 72	Fill	Mid to dark brown clay silt	Sub-oval	0.50+	0.42+	0.30+	12th-century pottery
		064 & 73	Cut	Concave sides and concave base, oriented E-W					
08	Pit	074	Fill	Mid to dark brown clay silt	Sub-oval	0.50+	0.38+	0.26+	
		075	Cut	Concave sides and concave base, oriented E-W					
09	Pit	076	Fill	Mid to pale grey silty clay	Sub-oval	1.22+	0.68+	0.34+	
		077	Fill	Mid greenish grey silty clay					
		078	Cut	Concave sides and a relatively flat base, oriented E-W					

Feature Number	Type	Context	Type	Description	Form	Dimensions (metres)			Finds
						L	W	D	
10 (*Vault 1*)	Inhumation (*Burial 4*)	046	Skeleton	Extended and supine, oriented E-W	Rectangular (vault)	2.36	0.99	1.66+	Gold ring and earrings, late18th/early 19th-century trade token
		047	Coffin	Remains of outer wooden coffin (part of triple-shelled design)					
		048	Coffin	Inner wooden coffin, containing inhumation 047, which had been sealed with soldered lead sheets					
	Inhumation (*Burial 5*)	053	Skeleton	Extended and supine, oriented E-W. Ring and earrings present					
		054	Coffin	Triple-shelled coffin. Inner coffin composed of timber without furniture. This was encased in a central core of soldered lead sheets. The final outer shell consisted of an ornate timber coffin with eight handles and traces of external fabric (velvet?)					
	Vault	084	Wall	Brick-built, with single skin walls in English bond composed of unfrogged pinkish yellow bricks (220x110x50mm) bonded with hard off-white lime mortar					
		085	Cut	Vertical sides and flat base, oriented E-W					
11 (*Vault 2*)	Inhumation (*Burial 6*)	039	Skeleton	Extended and supine, oriented E-W	Rectangular (vault)	2.52	1.28	1.78+	
		062	Coffin	Remains of a wooden coffin primarily a stain defined by the remnants of the coffin furniture					
	Vault	086	Wall	Brick-built, composed of unfrogged pinkish yellow bricks (220x110x50mm) bonded with hard off-white lime mortar. S, E and W walls are double skin English bond; N wall is single skin. Flat-laid brick floor					
		087	Cut	Vertical sides and flat base, oriented E-W					
12 (*Vault 3*)	Inhumation (*Burial 7*)	042	Skeleton	Extended and supine, oriented E-W. Animal bone hair grip present behind skull	Rectangular (vault)	2.66	1.13	1.97+	Bone hair grip
		044	Coffin	Wooden coffin, mostly rotted away. Finely decorated with detailed handles, unreadable front plate, metal studs for holding a covering					
		043	Fill	Fill of the coffin. Mostly deteriorated coffin wood, fabric, rusted metal plates, mortar and possible graveyard soil					

Feature Number	Type	Context	Type	Description	Form	Dimensions (metres)			Finds
						L	W	D	
12 (*Vault 3*)	Infill	045	Fill	Brownish black friable charcoal introduced beneath coffin [044]	Rectangular (vault)	2.66	1.13	1.97+	
	Inhumation (*Burial 8*)	050	Coffin	Dark blackish brown stain					
		051	Skeleton	Extended and supine, oriented E-W					
	Vault	088	Wall	Rebuilt barrel-vaulted roof: composed of pinkish yellow unfrogged bricks bonded with yellow sandy lime mortar					
		089	Wall	Original build: English-bonded double skin walls on all four sides. Pinkish yellow unfrogged bricks (220x110x55mm) bonded with yellow sandy mortar. Flat-laid brick floor made from identical materials					
		090	Cut	Trench-built with vertical sides, flat base, E-W alignment					
13 (*Vault 4*)	Inhumation (*Burial 1*)	052	Skeleton	Extended and supine, oriented E-W; in poor condition	Rectangular (vault)	2.34	0.94	1.98+	
		057	Coffin	Dark blackish brown stain					
	Inhumation (*Burial 2*)	055	Skeleton	Extended and supine, oriented E-W					
		058	Coffin	Dark blackish brown stain with some fibrous material remaining					
	Inhumation (*Burial 3*)	056	Skeleton	Extended and supine, oriented E-W					
		059	Coffin	Dark blackish brown stain with some fibrous material remaining					
	Infill	060	Fill	Mid grey silt; redeposited cemetery soil.					
	Charnel deposit	061		A mixture of skulls and long bones, deposited above coffin [057]					
	Vault	091	Wall	Rebuilt of vault roof and upper portion of walls. Poorly constructed with much oozed mortar. Pinkish yellow unfrogged bricks.					
		092	Wall	Single skin pinkish yellow unfrogged bricks (220x110x60mm) bonded with yellow sandy mortar					
		093	Cut	Vertical sides, flat base and E-W alignment					
		094	Fill	Redeposited cemetery soil; over vault					

Feature Number	Type	Context	Type	Description	Form	Dimensions (metres)			Finds
						L	W	D	
14	Inhumation (*Burial 9*)	096	Fill	Fine, loosely compacted mid brown grey clay silt with gravel inclusions	Rectangular	2.27	0.72	1.78+	
		097	Skeleton	Excavated by principal contractor under emergency circumstances and only partially recovered					
		098	Cut	Near vertical sides, relatively flat base, aligned E-W					
15	Building	101	Wall	LBC frogged bricks (220x110x65mm) bonded with Portland cement. Sat on a thick, trench-poured concrete footing	Sub-square	5.32	4.88	1.0+	
		103	Fill	Redeposited cemetery soil used as backfill					
		102	Cut	Vertical sides, flat base					
16	Building	007	Layer	Mid to pale grey mortar	Sub-square	5.90	4.72	0.96+	
		008	Layer	Dense off-white concrete					
		099	Wall	Composed of pinkish yellow unfrogged bricks (220x110x60mm) bonded with yellow sandy mortar					
		100	Cut	Vertical sides, relatively flat base.					
17	Inhumation (*Burial 10*)	002	Skeleton	Extended and supine, oriented E-W; truncated	Sub-rectangular	0.80+	0.45-0.50	0.20+	
		003	Fill	Loose dark grey clay with some pale yellow sand patches					
		004	Coffin	Dark blackish brown stain with some fibrous material remaining					
		005	Fill	Compact dark grey clay with yellow patches and sand pockets					
		006	Cut	Vertical sides, NW-SE alignment					
18	Inhumation (*Burial 11*)	011	Skeleton	Extended and supine, oriented E-W; truncated	Rectangular	0.70+	0.45	0.10+	
		012	Coffin	Dark blackish brown stain					
		013	Cut	Vertical sides, NW-SE alignment					
		014	Fill	Dark brownish grey silty clay					
19	Inhumation (*Burial 12*)	036	Skeleton	Extended and supine, oriented E-W; truncated	Sub-rectangular	0.50+	0.40	0.15+	
		037	Fill	Dark greyish brown silty clay					
		038	Coffin	Dark blackish brown stain					
		040	Cut	Vertical sides, flat base, NW-SE alignment					

Feature Number	Type	Context	Type	Description	Form	Dimensions (metres)			Finds
						L	W	D	
20	Inhumation (*Burial 13*)	016	Skeleton	Extended and supine, oriented E-W; heavily truncated	Sub-rectangular	0.37+	0.16+	0.70+	
		017	Fill	Friable mid-grey silt with gravel inclusions					
		018	Coffin	Dark blackish brown stain					
		019	Cut	Flat base, E-W alignment. Cut not clearly discernible due to homogeneity of cemetery soil					
21	Inhumation (*Burial 14*)	020	Skeleton	Extended and supine, oriented E-W; truncated	Sub-rectangular	0.40+	0.19+	0.70+	
		021	Fill	Friable mid-grey silt with gravel inclusions					
		022	Coffin	Dark blackish brown stain with some fibrous material remaining					
		023	Cut	Flat base, E-W alignment. Cut not clearly discernible due to homogeneity of cemetery soil					
22	Inhumation (*Burial 15*)	027	Fill	Friable mid-greyish brown silty gravel	Rectangular	0.30+	0.30+	0.25+	
		028	Cut	Steep sides, flat base, E-W alignment					
		029	Skeleton	Extended and supine, oriented E-W; truncated					
23	Inhumation (*Burial 16*)	024	Skeleton	Extended and supine, oriented E-W; truncated	Sub-rectangular	1.0+	0.50+	0.25+	
		025	Fill	Dark grey silt with gravel inclusions					
		026	Cut	Flat base, E-W alignment. Cut not clearly discernible due to homogeneity of cemetery soil					
24	Church	104	Wall	Stone-built foundation for south aisle of church. Composed of reused (frequently moulded) clunch blocks bonded with off-white lime mortar	Linear	12.50+	1.12+	1.20+	
		107	Cut	Construction trench for south aisle					
25	Church	105	Wall	Stone-built foundation for south transept of church. Composed of reused (frequently moulded) clunch blocks bonded with off-white lime mortar	Linear	5.14+	1.32+	1.20+	
		108	Cut	Construction trench for south transept wall					
26	Inhumation (*Burial 11*)	109	Fill	Mid-grey silty sandy cemetery soil	Sub-rectangular	0.45+	0.31	0.62+	Medieval pottery
		110	Skeleton	Extended and supine, oriented E-W. Green staining on skull: possibly residue of hair pin/accessory					
		111	Coffin	Dark blackish brown stain with some fibrous material remaining					

Feature Number	Type	Context	Type	Description	Form	Dimensions (metres)			Finds
						L	W	D	
26	Inhumation (*Burial 11*)	112	Cut	Steep to vertical sides, relatively flat base, E-W alignment	Sub-rectangular	0.45+	0.31	0.62+	
27	Layer	095	Layer	Redeposited cemetery soil overlying vaults 1-3	Sub-rectangular	3.44+	2.60+	0.26+	
28	Inhumation (*Burial 17*)	114	Skeleton	Extended and supine, oriented E-W. Only lower legs and feet exposed	Sub-rectangular	0.38+	0.32+	0.79+	
29	Foundation	115	Wall	Clunch-built wall remnant, bonded with coarse yellow sandy mortar	Linear	0.72+	0.48+	0.36+	
30	Foundation	116	Wall	Handmade red brick wall bonded with pale grey lime mortar	Linear	3.38+	0.46	0.62+	

APPENDIX 2: FACULTY RECORDS

The following table lists the faculty records surviving in relation to Holy Trinity Church, Cambridge (County Records Office: P/22/6/1 through to P/22/6/23; University of Cambridge Library Ely Diocesan Records EDR 3/1). It should be noted that certain known events – such as the construction of a new vestry in 1833 – are not represented amongst these documents.

Year	Event
1615	Faculty for erecting the gallery in Trinity Church
1727	New pew [EDR D3/1, f.12]; intimation [EDR D3/1a/16]
1806	Two galleries and staircase [EDR D3/2, p.18, EDR D2/71, fo.33]
1855	Official order to close the churchyard to further burials
1878	Drawing of a stone figure of a mitred abbot found in the North Transept when the gallery was removed and Faculty for certain alterations to the church was prepared, including the rebuilding of the east end of the chancel in stone
1878	Reseating, new vestry, new organ gallery (Arthur W. Blomfield) - *plans*
1887	Citation and faculty to exchange part of the churchyard to be used for widening Market Street for a piece of ground belonging to the corporation lately known as Macintosh's and adjoining the vestry. Faculty for alterations to Holy Trinity Church
1887	New east wall and window, to take Jubilee stained glass (C. L. Luck, architect) - *plan*
1905	Remove old font, new font and panelling, stained glass window W end (Rattee and Kett for font; F. R. Leach and Sons for window) - *drawings*
1906	Stained glass, W end over font, in mem. Mary E. E. Moule, eldest daughter of the Bishop of Durham (Leach and Son, Cambridge) – *drawings* Also to remove the board inscribed with the Apostles Creed and the Ten Commandments to the Parish Mission Hall, Trinity Place
1907	Carved wood reredos, E end (Bodley and Hare, architects; Rattee and Kett, carvers) - *plan*
1909	Copy of Agreement between the Vicar and Churchwardens of Holy Trinity and the National Telephone Co. for an underground cable to be laid under the passageway
1910	Stained glass, N. chancel, in mem. John Barton former vicar (Heaton, Butler and Payne, London, artists)
1915	Stained glass, N aisle 2nd from porch, in mem. Caroline Edwards; lavatory for vestry, cycle shelter (Anning Bell, Glasgow, artist; Sindall, builders, Cambridge) - *plan*
1917	Heating plan for Holy Trinity Church by Robert Dent
1922	Octagonal war memorial erected in churchyard (Rattee and Kett)
1923	Notice to the Vicar and Churchwardens of Holy Trinity under the 'Public Health Act 1875' of a compulsory purchase to be made of part of Holy Trinity churchyard for the purposes of street widening.
1925	Taking part of churchyard for widening Sidney Street and Market Street - *plans*
1927	Memorial tablet in chancel, in mem. Revd. Charles Procter, late vicar (confirmatory)
1929	New chancel roof (Bodley and Hare)
1951	Electric lighting improvements (John C. Hammond)
1955	Removal and sale of bells, one to be retained with new fittings (Gillett and Johnson)
1955	New choir vestry, as extension of clergy vestry (Hughes and Bicknell) - *plans*
1957	Organ rebuilding (J.W Walker and Sons)
1959	Alteration of door at W end of N aisle, remove two pews from N aisle (J. Francis Hookham) - *plans*
1993	Licence to Marks and Spencer regarding use of footpath from Sidney Street

APPENDIX 3: OASIS FORM

OASIS ID: cambridg3-318823	
Project details	
Project name	Holy Trinity Church, Cambridge
Short description of the project	An archaeological excavation and associated monitoring programme was conducted at Holy Trinity Church, Cambridge, between October 2016 and September 2017. The earliest features to be encountered were medieval in date. Along with an early 12th-century gravecover, a series of contemporary pits were identified; their presence suggests that the earliest iteration of the church, predating the present standing building, may have been situated further to the west. In addition, three phases of 19th to 20th-century vestry structure were investigated and a total of seventeen articulated burials encountered. Of these seventeen, eight had been interred within early 19th-century brick-built burial vaults. One of the latter individuals had been autopsied, while another was interred with jewellery.
Project dates	Start: 07-10-2016 End: 01-09-2017
Previous/future work	Yes / Not known
Any associated project reference codes	ECB 4419 - HER event no.
Any associated project reference codes	HTC16 - Sitecode
Type of project	Recording project
Site status	Listed Building
Current Land use	Other 4 - Churchyard
Monument type	BURIALS Medieval
Monument type	BURIALS Post Medieval
Monument type	PITS Medieval
Monument type	FOUNDATIONS Post Medieval
Significant Finds	GOLD RING Post Medieval
Significant Finds	GOLD EARRINGS Post Medieval
Significant Finds	GRAVECOVER Medieval
Investigation type	"Part Excavation","Watching Brief"
Project location	
Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Holy Trinity Church, Cambridge
Postcode	CB2 3NZ
Study area	207 Square metres
Site coordinates	TL 4498 5852 52.205383090883 0.121904256141 52 12 19 N 000 07 18 E Point
Height OD / Depth	Min: 6.88m Max: 7.2m
Project creators	
Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body

Project director/manager	Alison Dickens
Project supervisor	Richard Newman
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Holy Trinity Church, Cambridge
Project archives	
Physical Archive recipient	Cambridgeshire County Archaeology Store
Physical Archive ID	HTC 16
Physical Contents	"Animal Bones","Ceramics","Glass"
Digital Archive recipient	Cambridgeshire County Archaeology Store
Digital Archive ID	HTC 16
Digital Contents	"Survey"
Digital Media available	"Images raster / digital photography","Spreadsheets","Text"
Paper Archive recipient	Cambridgeshire County Archaeology Store
Paper Archive ID	HTC 16
Paper Contents	"Stratigraphic"
Paper Media available	"Context sheet","Plan","Section"
Project bibliography	
Publication type	Grey literature (unpublished document/manuscript)
Title	Holy Trinity Church, Cambridge: Archaeological Excavation and Monitoring, 2016-2017
Author(s)/Editor(s)	Newman, R.
Other bibliographic details	Cambridge Archaeological Unit Report No. 1400
Date	2018
Issuer or publisher	Cambridge Archaeological Unit
Place of issue or publication	Cambridge
Description	An A4 wire-bound document with a plastic laminate cover. It is 94 pages long and has thirty illustrations. Also a PDF document of the same
Entered by	Richard Newman (rn276@cam.ac.uk)
Entered on	24 May 2018