

The New Birdwood Building, Peterhouse, Cambridge

An Archaeological Investigation



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Summary

Work initially started at Peterhouse, Cambridge on the 21st of March 2012 with the archaeological monitoring of a pipe trench and soakaway in the vicinity of Gisborne Court (Area 1). This revealed the existence of a series of layers into which a few pits had been dug, the earliest of which dated to the 16th-17th centuries.

This was later followed by an evaluation trench, which was machine excavated between the 25th June and the 4th July 2012 within the area of Fen Court (Area 2). This revealed an archaeological sequence that consisted principally of 18th century dumps of material deposited to raise the ground level. Evidence was also present for the demolition of at least one building during this period. Besides the build-up of made ground at least two periods of pit digging were present, the earliest potentially medieval in date.

Introduction

Archaeological investigations were conducted by the Cambridge Archaeological Unit (CAU) in the area of the proposed new Birdwood Building at Peterhouse, Cambridge. This initially comprised of a programme of archaeological monitoring on the 21st of March 2012 (Area 1), which involved the observation of two interventions; firstly a short linear service trench running through Gisborne Court and secondly a soakaway located to the southeast of Gisborne Court. Within the Birdwood Building Proposed Development Area (PDA) a machine excavated trench was investigated in the grassed area of Fen Court, located to the east of the present Birdwood Building (Area 2; figures 1 and 2). This work was carried out between the 25th of June and the 4th of July 2012. The project followed the specifications issued by the CAU (Dickens 2011) and was monitored by Dan M^cConnell, development and control archaeologist at Cambridgeshire's Historic Environment Team (CHET). The work was commissioned by Bidwells on behalf of Peterhouse in advance of the college redeveloping the current Birdwood Building to create new student facilities.

Topography and Geology

Peterhouse is located to the south-west of the historic city centre of Cambridge and to the east of the River Cam. The proposed development area is located in the northwest corner of Peterhouse, to the west of Gisborne Court (see Figure 1). It covers an approximate area of 830m² and is centred on TL 44780 57930. The site lies on 1st terrace river gravels (British Geological Survey). The height of the ground surface varies between *c.* 8.0m and 9.5m OD.

Historical and Archaeological Background

A detailed history of Peterhouse can be found in the desktop assessment written for the project (Appleby and Dickens 2004), a brief summary is presented here.

Peterhouse was established on its current site in 1284, with the acquisition of property and land from the Friars of the Sack. The existing western boundary wall of the college, often referred to as the ancient wall, was originally constructed in stone in 1501-2. This replaced an earlier wooden structure referred to as 'le Newwall', constructed in 1411-12 (Willis and Clarke 1886, vol. 1, 10). This wall forms the western limit of the PDA and enclosed this area of land within the college grounds. The wall would have separated the western extent of the college from the 'common pasture' of Coe Fen. It is thought that the wall would have been constructed along the line of an earlier boundary, potentially a ditch, which would have marked the extent of crofts in existence prior to the foundation of the college (Hall and Lovatt 1989, 8-9).

Historical data referring to land use during the medieval period refers to land between Trumpington Street and the River Cam as a mixture of marsh and pasture, which was mainly divided into furlongs, which were occasionally liable to flooding due to their proximity to the river. By studying the historic and cartographic evidence that covers the area of the PDA it becomes apparent that this area of land functioned as croftland,

which was potentially cultivated, so may therefore preserve residual traces of middens, manuring and agricultural material. Despite this area being enclosed within the college grounds during the early 15th century, it appears to have largely remained either in cultivation or as a grassed area with a few trees. The area was possibly subdivided into two smaller areas by means of a fence during the 17th century as depicted on Loggan's map of 1688. Little development appears to have occurred within the PDA until the 19th century.

A change in land use within the college appears to be related to the construction of Gisborne Court between 1825-6. This episode of building was made possible by a gift of money to the college by Francis Gisborne in 1817 (Pugh 1959, 338). Gisborne Court forms the eastern limit of the PDA. The cartographic and historic evidence, revealed earlier buildings in existence within the area of Gisborne Court during the late 17th and 18th centuries. Cartographic evidence, in the form of Baker's map (1824), Rowe's map (1858) and the first edition OS map (1888), show the PDA as being occupied by a courtyard with at least two buildings (one roughly oriented east-west and the other north-south) with a potentially covered walkway. The cartographic evidence suggests that the grassy area of the present Fen Court may contain the remains of buildings. The historical data refers to the existence of stables within this vicinity before the construction of Fen Court (Pugh 1959, 339).

This 19th century use of the PDA by the college seems to remain in place until the construction of Fen Court during the 1930's and early 1940's. The establishment of Fen Court saw the erection of the current Birdwood and Fen Court Buildings, along with the creation of a grassed courtyard area between them.

In 2004 a series of geotechnical test pits and boreholes were observed by CAU staff in and around the PDA (Swaysland 2005). These revealed deep foundations and a possible relieving arch not connected with the modern arrangement of buildings, so may therefore represent the remains of earlier buildings, perhaps the stables recorded prior to 1940 (Dickens 2011, 1). In 2005 two machine excavated test pits were monitored and recorded by CAU staff, these revealed a sequence of Post-Medieval made ground layers (Swaysland 2005). Other work carried out by the CAU within the college grounds but outside the PDA involved the observations in 1999 of a lift shaft within the kitchens located in the west range of old court, which revealed the existence of an earlier building with associated floors that was later sealed by a sequence of pit digging which was sealed by the building of old court in the 1450's (Hall 1999, 4). An investigation in the music room in 2010 revealed a medieval agricultural soil that had been sealed by a later building (Cessford 2010).

Methodology

The first intervention to be observed in Area 1 was a linear pipe trench, which measured 24m long by *c.* 1.4m wide. This was excavated with the use of a 3 tonne 360° mechanical excavator. While some spoil was initially heaped along the north-eastern trench edge, the remainder of the spoil was taken off site using a 1 tonne dumper truck. The machine was fitted with a 1.0m wide toothless bucket and initially excavated the pipe trench to a depth of *c.* 0.50m. Then a *c.* 0.50m wide toothless bucket was placed on the machine and the north-eastern side of the trench excavated

to a lower depth of *c.* 1.40m. The pipe trench ran in a northwest – southeast direction towards the southwestern boundary of Gisborne Court. This was located to the south-east of the New Birdwood Building PDA (see Figure1).

The soakaway located to the southeast of Gisborne Court measured *c.* 2.0m by *c.* 2.0m in extent and was 1.6 - 2.1m deep. This was machine excavated, with some spoil being heaped on the north-eastern side of the test pit and some being transported away by dumper truck.

Due to the restricted nature of access into Area 2 it was only possible to use a 3 tonne, 360 ° ‘mini’ digger. Previous work in this area in 2004 and 2005 (Swaysland 2005) had indicated the trench would need to be stepped due to the anticipated depth of deposits down onto natural gravels. The digger was fitted with a 1.2m wide toothless bucket. A 1 tonne dumper truck was used to remove spoil from the area. Topsoil was transported via dumper to another area of the college for later use. All other spoil was dumped between the western limit of excavation and the Fen Court building, immediately in front of the college boundary wall. From here spoil was loaded onto a grab lorry parked on Granta Place, outside the college.

The original plan for Area 2 was for a *c.* 14m long and *c.* 7m wide area of Fen Court being lowered to a depth of 1.3m, from where a narrower trench, located in the middle of the 7m width would be excavated 1m lower with the possibility of there being another machined step below this. After an initial topsoil strip, however, the machine revealed the top of two walls (see **F.111** below). It was subsequently decided that these walls would provide a more stable trench edge, so the internal space created by them become the southern and eastern limits of excavation for the upper step. The western limit was determined by the presence of a manhole and an active drain. The northern limit was determined by the machine needing to create an access ramp to be able to leave the area upon completion of the excavation. This northern limit revealed the southern edge of Test Pit A, excavated in 2005 (see Figure 1).

The first step was excavated to an average depth of *c.* 1.3m and measured *c.* 8.0m by *c.* 5.15m. The lower step measured *c.* 5.65m by *c.* 2.65m to a depth of *c.* 1.0m and was located at least 1.0m in from all the edges of the upper step. As natural gravel was revealed at the bottom of this second step, machine excavation stopped and all features were then hand excavated.

Features revealed were recorded using the CAU-modified version of the MoLAS system (Spence 1994). Base plans were drawn at a scale of 1:50 and sections at either 1:10 or 1:20. Throughout the following text context numbers are indicated by square brackets (e.g. **[001]**) and feature numbers by the prefix F (e.g. **F.01**). All work was carried out in strict accordance with statutory health and safety legislation and within the recommendations of FAME (Allen and Holt 2010).

Results

Area 1

Areas of disturbance were evident within the pipe trench, these related to the presence of existing services (see Figure 3). Despite these disturbances there appeared to at least one layer [006] of material present into which some possible pits had been cut **F.01**.

Layer [006] which measured *c.* 2.5m+ (north-east - south-west) and was *c.* 0.7m deep consisted of a disturbed mid to dark grey silt with frequent gravels and occasional to rare charcoal fleck inclusions.

Cutting this was feature **F.01** which measured 5.88m+ (north-east – south-west) and was *c.* 1.0m+ deep. The cut, [018], was not fully revealed in section but appeared to have steeply sloping to near vertical sides. Its initial fill was [004] which consisted of brownish grey sandy silts. This was overlain by fill [005], which consisted of loose sand and gravels. This was overlain by fill [003], which consisted of orange brown sands and gravels. This was overlain by fill [002], a brownish grey sandy silt with frequent gravel inclusions. This was overlain by upper fill [001], which consisted of black organic rich silts. It is possible that feature **F.01** might be up to three inter-cutting pits, the extent seen within the confines of the pipe trench made this impossible to determine. Fill [002] contained 16th - 17th century pottery.

Overlain by modern services was feature **F.02** which measured 4.16m wide (north-east – south-west) and was 0.42m+ deep. The exact function of this feature is uncertain, but it was probably a pit. Its cut, [019], had steeply sloping sides, its base was not revealed during excavation. It contained at least one fill [009] which consisted of a mid to dark grey sandy silt.

The apparent natural gravels in the pipe trench were seen at a variable depth along the length of the trench, at the highest about 0.80m deep - 8.74m OD. It may be that the natural genuinely occurs at that height, however evidence from nearby, specifically Geotechnical Test Pit 6, observed in 2004, recorded natural at a depth of *c.* 1.50m (*c.* 8.10m OD). This was only a few metres west of the south-western end of the pipe trench and, taken with the depth of natural in the soakaway (see below) tends to suggest that the underlying natural around Gisborne Court lies at about 8.00 - 8.10m OD and the patches observed at a higher level are redeposited in deeper features.

The soakaway, south of Gisborne Court, contained a series of layers [010] and [011], into which there were some cut features, potentially two pits, **F.03** and **F.05**. **F.03** appeared fairly large and was presumably a rubbish pit. The following descriptions are based on the north-east and south-west sections of the test pit. Starting with the south-west section (see Figure 4):

Underlying the topsoil [010] which consisted of a dark grey silt and varied in depth from 0.25m to 0.45m was layer [011], a mid to dark yellowish grey silt. This overlay layer [012], which consisted of a mid to dark grey silt.

Underlying layer [012] was a probable pit **F.03**, which measured 0.94m+ and was 0.37m deep. Its cut [020] had sloping sides and a relatively flat base. The only surviving fill [013] consisted of a mid yellowish grey sandy silt. **F.03** appeared to overly probable layers [014] and [015].

Layer [014] consisted of a mixed grey silt with frequent gravel inclusions. Overlain by layer [015] which consisted of a mid orange brown silt. Both [014] and [015] may represent fills within a cut feature **F.05**, this was impossible to determine from the section. [014] contained frequent shell inclusions suggestive of a deliberate dump of material, presumably college kitchen waste.

A slightly different sequence was present within the north-eastern section of the soakaway (see Figure 4). Immediately below the topsoil [010] appeared potential layer [016] which appears to be broadly contemporary with layers [011] and [012] seen in the opposite section. Beneath layer [016] was probable pit F.4.

Layer [016] consisted of mid to dark grey brown loamy silts, 0.7m deep.

Potential pit F.04 measured 1.36m+ (north-west – south-east) and 0.7m+ deep. Its cut [021] had concave sides, its base was not revealed in section. The only surviving fill [017] consisted of quite organic dark grey silts.

The natural gravels were reached at a depth of 1.5m in this test pit resulting in a similar height to the predicted natural gravels within the vicinity of the pipe trench, *c.* 8.0m OD.

Area 2

The earliest deposit to be identified comprised a layer of subsoil [173] / [163], which may be a riverine alluvium. The subsoil was overlain by two distinct layers, [162] then [161]. These potentially relate to ground-raising activity. A very small range of material culture was recovered from these layers, fragments of ceramic building material (CBM) suggests a possible 13th century date.

Subsoil [173] / [163] a moderate deposit of mottled mid orange and pale golden brown, coarse grained sand with frequent small angular stone inclusions *c.* 5.7m+ long by *c.* 2.65m+ wide with an average depth of *c.* 0.23m. This was overlain by layer [162] a very firm deposit of dark grey, silty clay with rare to occasional clay mottles and frequent small angular stone inclusions, with an average depth of 0.21m. Overlying this was layer [161] a firm, dark blue grey clay with occasional small angular stones and rare inclusions of CBM fragments with an average depth of 0.24m.

A series of pits were then dug in the area. The earliest pit appears to be F.108, which is then truncated by F.109 (see Figures 2 & 5). Potentially contemporary with F.109 is pit F.106 (see Figure 6). Pit F.103 is also likely to have been cut from this horizon, but has been largely truncated by a later feature. F.107, a post hole, which was only identified once the machine excavation had finished, may also belong with this period of pitting activity. The density and inter-cutting nature of this pit horizon has obscured the exact relationship of the pits with layers [162] and [161]. As pit F.108 has been dated to the 13th - 15th centuries, it seems likely that some build up of material presumably in the form of layers [162] and or [161] occurred before pit F.109 was dug as this has been dated to the 18th century. It is also likely that pit F.106 and post hole F.107 also belong to the 18th century, unfortunately it was not possible to date pit F.103.

F.108 comprised a potentially circular shaped pit, which measured *c.* 0.40m+ by 0.31m+ in extent and 0.24m+ deep. Its cut [154] had steeply sloping sides and a relatively flat base. It contained a single fill [153], which consisted of a moderately to firm mid to dark grey silty clay with occasional blue grey clay mottles and frequent small angular stone inclusions. F.108 contained pottery dating to the 13th - 15th centuries. The exact function of this pit is unknown, only a very shallow scoop of gravel could have been extracted from the base of this pit, so it might have originally been dug to function as a refuse disposal pit.

F.109 comprised a potentially square or rectangular shaped pit, which measured 1.60m+ by 1.15m in extent and 0.15m+ deep. Its cut [156] was barely visible but appeared to have a flat base. This contained a single fill [155], which consisted of a loose to moderate mid to dark

greyish brown silty clay with occasional orange brown sandy mottles along with occasional to frequent small angular stone inclusions. This contained 18th century pottery including one glazed red earthenware vessel with a complete profile. The exact function of this pit is uncertain but it may have been dug for refuse disposal purposes.

F.103 comprised a circular pit, which measured 1.63m+ by 1.40m+ in extent and 0.44m deep. Its cut **[131]** had concave sides with a relatively flat base. Its initial fill **[130]** consisted of a firm dark greyish black ashy basal layer with frequent pea grit and angular stone inclusions. This was overlain by fill **[129]**, which consisted of a loose pale yellowish brown very sandy silt with frequent medium to large flints and gravels. This was overlain by upper fill **[128]**, which consisted of a moderate to firm mid brown very sandy clay with occasional to frequent small angular stone inclusions. Unfortunately no dating evidence was recovered from this feature and its function is unknown.

F.106 comprised a potentially circular pit, which measured 5.0m+ by 2.27m+ in extent and 1.56m deep. Its cut **[150]** had near vertical sides with a concave lower break of slope which lead to a relatively flat base. The initial basal fill **[149]** consisted of a moderate mid to dark brownish grey sandy silt with rare to occasional small angular stone inclusions. This was overlain by fill **[148]** a thin band of mid golden brown sandy gravels. Overlain by fill **[147]**, which consisted of a moderate to firm mid brownish grey silty clay with occasional lenses of mid blue grey clay and frequent small angular stone inclusions. This in turn was overlain by fill **[146]**, a moderate mid brown sandy silt with frequent small angular stone inclusions. Overlain by fill **[145]**, a firm mid to dark blue grey clay with rare angular stone inclusions. Overlain by fill **[144]**, which consisted of a moderately firm, dark grey silty clay with frequent small angular and sub-angular stone inclusions. This was overlain by fill **[143]**, which consisted of a soft to moderate pale to mid golden brown sand with frequent pea grit inclusions. Overlying this was fill **[142]** which consisted of a soft pale brown medium grained sand with frequent gravels. Overlain by fill **[141]**, which consisted of a soft to moderate deposit of orange brown coarse-grained sand with occasional mid brown silt mottles and occasional gravel inclusions. This was overlain by fill **[140]**, which consisted of a soft to moderate deposit of mottled orange brown coarse grained sand with mid brown silt and frequent gravel inclusions. This was overlain by fill **[139]** a firm mid brownish grey silty clay with rare to occasional small angular stone inclusions. This was overlain by fill **[138]** which consisted of a very firm deposit of mid brownish grey silty clay with occasional blue grey clay mottles and rare to occasional sand and gravel patches. This was overlain by fill **[137]**, which consisted of a moderate mottled mid and pale golden brown coarse grained sand. This was overlain by upper fill **[136]**, which consisted of a firm slightly mottled mid grey and brown sandy silt with frequent small angular stones and occasional medium sub-rounded stone inclusions. This contained a pottery shred dating to the 10th - 12th centuries and another sherd dating to the 13th - 15th centuries, these pottery shreds are likely to represent residual material. No other dating material was recovered. Pit **F.106** is the only feature within Area 2 that may have originally functioned as a gravel quarry. No other features within this area penetrate deep enough into the natural to extract any useful quantity of gravel.

Upon the excavation of Test Pit A within Fen Court in 2005 it was thought that the archaeological remains observed in section could be assigned as being an accumulation of post-medieval layers mainly dating from the 17th and 18th centuries (Swaysland 2005, 8). The recent phase of work within Area 2, which abutted the south-western limit of this earlier test pit, has helped to put it into a wider context. Although a series of Post-Medieval layers do exist, it is now evident that the lower part of Test Pit A is actually within a feature, pit **F.106**. The material culture found within Test Pit A dated its sequence of layers to the Post-Medieval period with its lower layer, which can now be seen as a fill within **F.106** having a 16th-17th century date. This information could help to date pit **F.106** as originating in the 16th century.

Post hole **F.107** comprised an oval post hole, which measured 0.56m by 0.40m in extent and 0.23m+ deep. Its cut **[152]** had slightly concave sides with a relatively flat base. This contained a single fill **[151]** of moderate semi-friable mid orange brown sandy silt with frequent small

angular stones and occasional tile fragments. The material culture recovered from this probable post hole produced an 18th century date.

The above series of pits appeared to be proceeded by a sequence of layers within the area. The initial layer [168] may have been an accrual of material, probably with some up-cast from the digging of the above mentioned pits. The overlying layers, especially layer [166] which contained occasional CBM fragments are suggestive of deliberate dumps of material to potentially raise the ground level within this area of the college. The upper layer [164] in this sequence might just represent an old garden soil. At some time during this period more pits were dug in the area. This includes pits **F.104** and **F.105**, which may be a single feature. The function of this feature(s) is unknown.

Initial layer [168] / [160] consisted of a moderate mid to dark brownish grey sandy silt with occasional to frequent small angular gravel inclusions. This was overlain by layer [167] a moderate to firm mid brownish grey slightly silty clay with off-white clay mottles and occasional small angular stone inclusions. This contained two sherds of pottery dating to the 16th - 17th centuries. This was overlain by layer [166] a moderate dark grey to black ashy silt with occasional to frequent small angular and sub-angular stones inclusions along with occasional tile and oyster shell fragments. This was overlain by layer [165] a moderate to firm mid to pale brown sandy silt with occasional small angular stone inclusions. This was then overlain by layer [164] a moderate to firm mid brown sandy clay with occasional small angular and sub-angular stone inclusions.

Pit **F.104** is of unknown shape but measured 0.30m+ and was 0.40m+ deep. Its cut [133] hardly survives within the area of excavation, the only visible edge, which may be the base, has a slightly concave appearance. Initial fill [132] consisted of a moderately firm mid brownish grey sandy silt with rare to occasional pale brown sand mottles with occasional to frequent small angular and sub-angular stone inclusions. This was potentially overlain by fill [119], a firm mid brownish grey silty clay with occasional small angular stone inclusions. No dating material was recovered.

Pit **F.105** is of unknown shape as it disappears into the limit of excavation and is truncated by a later feature. It measured 0.64m+ and was 0.47m+ deep. Its cut [135] presumably had concave sides, the base was not visible within the excavation area. It contained a single fill [134] which consisted of a moderate mid golden brown medium grained sand with frequent small gravel inclusions. No dating material was recovered.

The preceding sequence was truncated by pit **F.102**, it is probable that pit **F.110** also truncates this sequence of layers.

Pit **F.102** comprised a probable circular shaped pit, which measured 2.60m+ by 1.45m+ in extent and 1.12m deep. Its cut [127] had steeply sloping to near vertical sides and a slightly concave base. Initial fill [126] consisted of a firm mid brownish grey sandy silt with occasional pale golden brown sandy mottles. This appears to represent a slump of natural material along the south-western edge of the pit. Overlying this was fill [125], which consisted of a moderate mid golden brown, medium grained sand with pale brown silty mottles along with occasional inclusions of small angular stones. This was overlain by fill [124], which consisted of a moderate to firm mid to dark brownish grey silty clay with occasional to frequent pea grit and small angular stone inclusions. Overlain by fill [123] a moderate to firm mid to dark brownish grey sandy silty clay with frequent pea grit and small angular stone inclusions. This was overlain by fill [122] a moderate to firm deposit of mid golden brown sand and gravels with occasional mid to dark grey silt mottles. Overlying this is fill [121] a moderate mid to dark grey silt with frequent small angular and sub-angular stone inclusions with rare to occasional tile fragments. This was overlain by fill [120] a moderate pale to mid brown slightly sandy silt with occasional small angular stones and frequent tile fragments. This was overlain by fill [118] / [116], which consisted of a moderate to firm pale to mid grey clay with occasional mottles of off-white clay along with occasional small angular stone inclusions. This was overlain by fill [117] a moderately firm deposit of pale grey silty clay with frequent clunch rubble inclusions. This was

overlain by fill [115], which consisted of frequent red brick fragments with a little mid greyish brown silty clay inclusions/mottles. The upper most fill was [114], which consisted of a moderate mid greyish brown silty clay with frequent small sub-angular and angular stone inclusions. This feature has been dated to the late 17th – early 18th century and appears to have functioned as a rubbish pit.

Pit **F.110** comprised a potentially circular pit, which measured *c.* 1.0m+ by 0.70m+ in extent and 0.20m+ deep. Its cut [172] had steeply sloping to slightly concave sides and appears to have a relatively flat base. Its initial fill [171] consisted of a moderately loose mid to pale golden brown coarse sand with frequent small angular gravels and occasional to frequent CBM fragments. This was overlain by upper fill [170] a moderately friable dark grey to black ashy silt with frequent small angular stone inclusions and rare CBM fragments with a potential 18th century date. The exact size and function of this pit is uncertain, as it was located towards the north-eastern limit of excavation and mainly observed in section. The original function of this pit may have been for refuse disposal.

Next layers [109], [108] and [107] were deposited. These layers appear to be deliberate dumps of material resulting in raising the ground level, presumably in preparation of having a levelled area of lawn within this part of the college.

Layer [109] consisted of a moderately firm dark brownish grey sandy silt with frequent small angular stone inclusions along with occasional to sometimes frequent CBM fragments. This was overlain by layer [108] a moderate semi-friable pale golden brown coarse sand with frequent small gravel inclusions. This was overlain by layer [107] which consisted of a firm mid brownish grey sandy silt with frequent small angular and sub-angular stone inclusions along with frequent CBM fragments.

It is probable that building **F.111** was constructed at this point. Later disturbance by manhole **F.101** has removed evidence of the relationship between this building and the above sequence of layers. Although the walls of **F.111** remained intact during the excavation so no brick samples could be obtained, the appearance of the bricks and sandy mortar used within its construction suggest an 18th century date. It is probable that layers [106], [105] and [104] are related to the construction of building **F.111**. These layers may represent the levelling/raising of the ground within the internal area of the building to create a levelled area in readiness for a floor surface. These layers may well have abutted wall [158], this relationship has been removed by the later man hole **F.101**.

Building **F.111** consisted of the remains of two walls, forming a right angle. They measured 9.0m+ (north-east – south-west) by 5.50m+ (north-west – south-east) and were at least 0.84m deep. Its cut was unclear due to later disturbance by manhole **F.101**. However, the external appearance of the walls suggests that they were trench built. Wall [158] (see Figure 6) measured 5.50m+ long by 0.35m wide and was 0.84m+ deep. This consisted of mainly red bricks with a few reddish yellow bricks, which on average measured 210mm by 160mm by 50mm. They were bonded together by a firm pale yellowish grey sandy mortar with occasional to frequent pea grit inclusions. At a depth of *c.* 0.35m, footings start to appear increasing the width of the wall by at least 0.07m. Below this depth the mortar increasingly oozes out from in between the bricks and increasingly covers the bricks. Some of the footings for this wall were not brick but instead consisted of rough clunch block rubble with some brick fragments and pale brown sandy mortar. Wall [158] is truncated by at least one later drain. The north-east – south-west aligned wall [174] was 9.0m+ long by 0.50m wide and 0.86m+ deep. This consisted of the same type of brick and mortar as wall [158] but with a slightly rougher external appearance about it, the mortar being very untidy. The untidy appearance of the faces of these two walls suggests that they are footings.

Manhole **F.101** consisted of a presumable rectangular brick built structure which was not fully exposed within the area of excavation. It measured 1.36m (north-east – south-west) and was 1.06m+ deep. Its cut [112] had vertical sides, its base was not revealed during excavation. Initial

fill [111] consisted of a moderate mid to dark brownish grey silty clay with frequent small angular and sub-angular stone inclusions along with occasional CBM fragments. Masonry [110] consisted of yellow bricks which measured 220mm by 110mm by 70mm. This appeared to butt up against wall [158], which presumably partly functioned as one side of the manhole and was chopped into to allow the drain to flow through it.

Layer [106] consisted of moderate dark brown sandy silt with frequent inclusions of tile fragments. This was overlain by layer [105] a moderate dark brown sandy silt with frequent pea grit and small angular stone inclusions. This in turn was overlain by layer [104] a firm compacted mid to dark golden brown sand with frequent pea grit inclusions.

The demolition of building **F.111** is potentially represented by layer [103], which overlies the wall footings.

Layer [103] consisted of a firm deposit of mid to dark brownish grey sandy silt with frequent mottles of mid to dark golden brown sand along with frequent inclusions of very small angular stones and pea grit.

Finally modern topsoil was established in this area, this is represented by a patchy sandy layer [102] which is overlain by layer [101].

Layer [102] consisted of a moderately friable deposit of pale golden brown sand and gravels. This layer may represent disturbance to the topsoil by the laying of modern services. This was overlain by the upper most layer [101] a moderate to firm mid greyish brown sandy silt with frequent small angular and sub-angular stone inclusions along with occasional medium angular stones and frequent root activity.

Two numbers were assigned to finds recovered from the machine excavation of the upper and lower steps.

Finds number [113] which relates to material machine excavated from the upper 1.3m deep step contained pottery largely dating from the 18th century with a shred from the 19th century. Tobacco pipe present dates from the late 17th to the early 18th centuries. Finds number [157] which relates to machine excavated material recovered from a depth of 1.3m - 2.3m and contained pottery dating to the late 18th century (1780–1810) along with tobacco pipe dating from the mid to late 18th century (1730–80).

Discussion

Archaeological investigations have demonstrated that archaeological remains survive beneath the existing development within the PDA, especially within the area of Fen Court.

Area 1

Cartographic and historic evidence suggest the existence of a series of buildings within the area of Gisborne Court, which would have required demolition to make way for the construction of the court (see figures in Appleby and Dickens 2004). There was no evidence of any old wall footings within the pipe trench that would have been suggestive of demolition, neither was there any real evidence of levelling or make up deposits in preparation for the construction of Gisborne Court in 1825-6. Although the pipe trench extended across the width of Gisborne Court, it must be remembered that this was a narrow trench that on average reached a depth only *c.* 0.55m below the topsoil in an area heavily truncated by existing services. The sheer

number of disturbances by previous services could have removed large areas of archaeological remains that may have originally been present.

Additionally no evidence of the pre-Gisborne Court buildings appeared to be present within the area of the soakaway. The soakaway itself seems to present evidence for a series of layers, some of which may be deliberate dumps of waste material along with the deliberate cutting of some features, which are probably rubbish pits.

Area 2

Although Area 2 has an archaeological sequence that is *c.* 3.0m deep this is largely Post-Medieval in date. Dating evidence from the small finds assemblage recovered from Area 2 suggests that this part of the college saw relatively little activity, except for occasional pit digging until the 18th century, when a series of deliberate dumps of material were introduced in an apparent attempt to raise the ground level. Besides this a few potentially earlier post-medieval pits were dug beneath these layers with some potential medieval pit activity occurring near the original sub-soil horizon.

The natural beneath the area of development is at a markedly lower height than that to the east through Gisborne Court and the older parts of the college that front onto Trumpington Street, with Area 2 revealing a generally flat area of natural gravels at an average height of 7.66m OD. The indication is that there have been episodes of deliberate dumping of material into this area to raise the ground level. Two main questions arise: why is the level of natural so much lower and why was the ground level subsequently raised?

Addressing the level difference first: There is some evidence of medieval gravel extraction pits located in the area to the south of the PDA, within the grounds of the Fitzwilliam Museum. These were subsequently infilled and sealed by a 13th century building (Whittaker 2002, 15-16) It is possible, therefore, that gravel quarrying may have occurred within the vicinity of the PDA, accounting for the lower height of natural. The only potential evidence for possible gravel quarrying from within Area 2 is pit **F.106**. As this feature was only partly revealed during work undertaken in both 2005 and 2012, the exact extent and scale of any possible gravel extraction it might relate to remains uncertain. All other features present within Area 2 are tidy in appearance with neat edges and do not proceed a great depth into the natural gravels so are therefore unlikely to present gravel quarrying. Putting human activity to one side, however, it seems rather more likely that the difference in height of the gravel relates to a natural slope off the gravel terrace and down into the river plain to the southwest. The topographic evidence from 2005 (Swaysland 2005: 10) indicates that the height of the ground surface continues to decrease further away from the college towards the river with a measurement of 7.11m OD 20m southwest of the college wall suggesting a gentle slope down into the alluvial area of the river Cam.

The earliest deposit revealed in Area 2 potentially belongs to the medieval period. The evidence for this comes from one pit, which was dated from a very small finds assemblage. This early feature has a 13th to 15th century date range, so is therefore likely to represent medieval activity occurring at the rear of the college grounds. As the first college boundary wall in the PDA was not constructed until 1411-12, it is possible that this activity might not be related to the college but instead to earlier land

use, prior to the college owning this area of land. As other later features in this area are dug deeper it would appear very likely that the later post-medieval activity has, at least in places, subsequently removed evidence from earlier time periods.

A likely explanation of the main archaeological sequence seen in Area 2 appears to be that the college used this area for the large scale dumping of material, which resulted in a deliberate rising of the ground level. Included in this material appears to be deliberate dumps of probable demolition waste. This may be the result of new building developments within other areas of the college, for example Gisborne Court, which would have seen the demolition of old buildings in preparation for the new court. The layers also contained some small-scale disposal of domestic refuse; this was evidenced by oyster shells and animal bones which probably represent waste from the college kitchen. Whilst it is possible that the PDA may represent an area of Peterhouse that was simply regarded as a convenient place for refuse disposal, it seems that the surface level height change (almost 1.50m between the college side and Granta Place sides of the “Ancient Wall”) is better accounted for by a deliberate attempt to create a flat area at the rear of the college suitable for building on. Much of the material recovered is later in date, but as it comes from features cut through and existing sequence it is difficult to pinpoint when the build-up process begins.

Further investigative work will be carried out within Area 2, throughout the course of the redevelopment of the New Birdwood Building. This work may provide further insight into college land use within the area and the dating of the start of the build-up sequence.

Acknowledgements

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Appendix

Material Culture

A small assemblage of material culture was recovered during the recent investigations at Peterhouse. This group which includes pottery, glass, clay tobacco pipe, worked bone and animal bone has been subdivided by material type and is discussed in detail below.

Pottery (Richard Newman)

A small pottery assemblage – consisting of 79 sherds, weighing 1.58kg – was recovered from Area 2. Within this group, material representing four separate periods was identified (Table 1).

Period	Fabric	Count	Weight (g)	MSW (g)
<i>Saxo-Norman</i>	St Neots-type Ware	1	18	18
<i>Medieval</i>	Coarsewares	5	61	12.2
<i>Post-Medieval</i>	Glazed Red Earthenware	25	911	36.4
	Frechen Stoneware	4	137	34.2
	Broad Street Bichrome	1	15	15
	Tin Glazed Earthenware	8	181	22.6
<i>Modern</i>	Dry Red-bodied Stoneware	1	25	25
	English Utilitarian Stoneware	1	10	10
	Lead-Glazed Earthenware	2	13	6.5
	Chinese Export Porcelain	3	6	2
	Staffordshire White Salt-glazed Stoneware	10	34	3.4
	Staffordshire-type Slipware	1	8	8
	Westerwald Stoneware	3	35	11.6
	Creamware	8	55	6.9
	Pearlware	1	9	9
	Coarsware Plantpot	4	63	15.8
	Refined White Earthenware	1	4	4
		79	1585	20

Table 1: Pottery assemblage from Area 2 by fabric.

The earliest material recovered from this trench – which comprised a single sherd of St Neots-type ware – occurred as residual material within pit **F.106**. A slightly larger group of medieval coarsewares, including those of both brown and grey fabrics, was also present (five sherds, weighing 61g). This indicates that a low level of medieval activity most probably occurred in the vicinity. The remainder of the assemblage, however – with the exception of a single sherd of 16th/17th bichromatic glazed red earthenware that was most probably manufactured at Broad Street, Ely – was 18th to 19th century in date. Notable elements within this group included a substantially complete Glazed Red Earthenware handled jar (21 sherds, weighing 686g, from **F.109**) and a body sherd derived from a dry red bodied stoneware teapot (weighing 25g, from layer **[157]**), both of which are 18th century in date. Also present was a pearlware plate rim with blue shell edge decoration and a hand-painted letter ‘P...’, which most probably represents the start of the word ‘PETERHOUSE’. This dates to *c.* 1780-1810, and was again recovered from layer **[157]**. The remainder of the assemblage – which included Frechen Stoneware, Westerwald Stoneware, Tin-Glazed Earthenware, English Utilitarian Stoneware, Lead-Glazed Earthenware, Chinese Export Porcelain, Staffordshire White Salt-Glazed Stoneware, Staffordshire-type Slipware, Creamware, Coarsware Plantpot and Refined White Earthenware – is of limited interest.

A very small pottery assemblage was recovered from the pipe trench within Area 1. Fill **[02]**, **F.1** contained 2 shreds of Glazed Red Earthen Ware dating from the 16th – 17th centuries, a 17th century shred of Stoneware and a residual shred of Thetford Ware dating to the 10th century (Cessford pers. com).

Glass (Richard Newman)

A small glass assemblage, consisting of four shards weighing 859g, was recovered from Area 2. Firstly, from finds group **[113]** the base of an 18th century or later black glass utility bottle was recovered. Secondly, from finds group **[157]**, the bases of three further bottles of indeterminate form were recovered; these date from the 17th century or later. None of the material is of particular interest.

Clay Tobacco Pipe (Craig Cessford)

A relatively small assemblage was recovered from Area 2, bowls were categorised using the Oswald general typology (Oswald 1975, 37–41). The presence of clay tobacco pipe in a context is indicative of a date of 1580+. Based upon bowl typology the group is broadly late 17th–late 18th century on the basis of the bowl forms, the absence of earlier material is unsurprising given the nature of the investigations, as late 16th-mid 17th century pipes are relatively rare. The absence of any 19th century material is however noteworthy.

[113] 7 stem fragments, 1 heel, 1 bowl fragment, *c.* 1660-1710, total weight 37g.

[124] **F.102** type 9 bowl, *c.* 1690-1710, weighing 19g.

[125] **F.102** 1 stem fragment, weighing 7g.

[155] **F.109** 5 stem fragments, 1 type 10 bowl *c.* 1700-40, total weight 52g.

[157] 4 stem fragments, 3 type 12 bowls *c.* 1730-80, 1 probably type 12 bowl with an 8 rayed sunburst design on base of heel, total weight 73g.

Worked Bone (Richard Newman)

A single worked bone fragment was recovered from layer **[113]**. This consisted of a portion of a simple, undecorated doubled-sided comb. It has few remaining teeth, and weighs 2g. The item is machine-cut, and most probably dates from the 19th century (see further MacGregor 1985).

Faunal Remains

Faunal remains recovered from the pipe trench within Area 1, represent two discrete dumps of animal bone, these were located high up within the archaeological sequence and probably represent college kitchen waste.

A very small assemblage of animal bone was recovered from four of the features located within Area 2. The total of 14 fragments of bone, weighing 286g were in relatively good condition with no visible signs of butchery. Further study of the faunal remains will be carried out at a later date.

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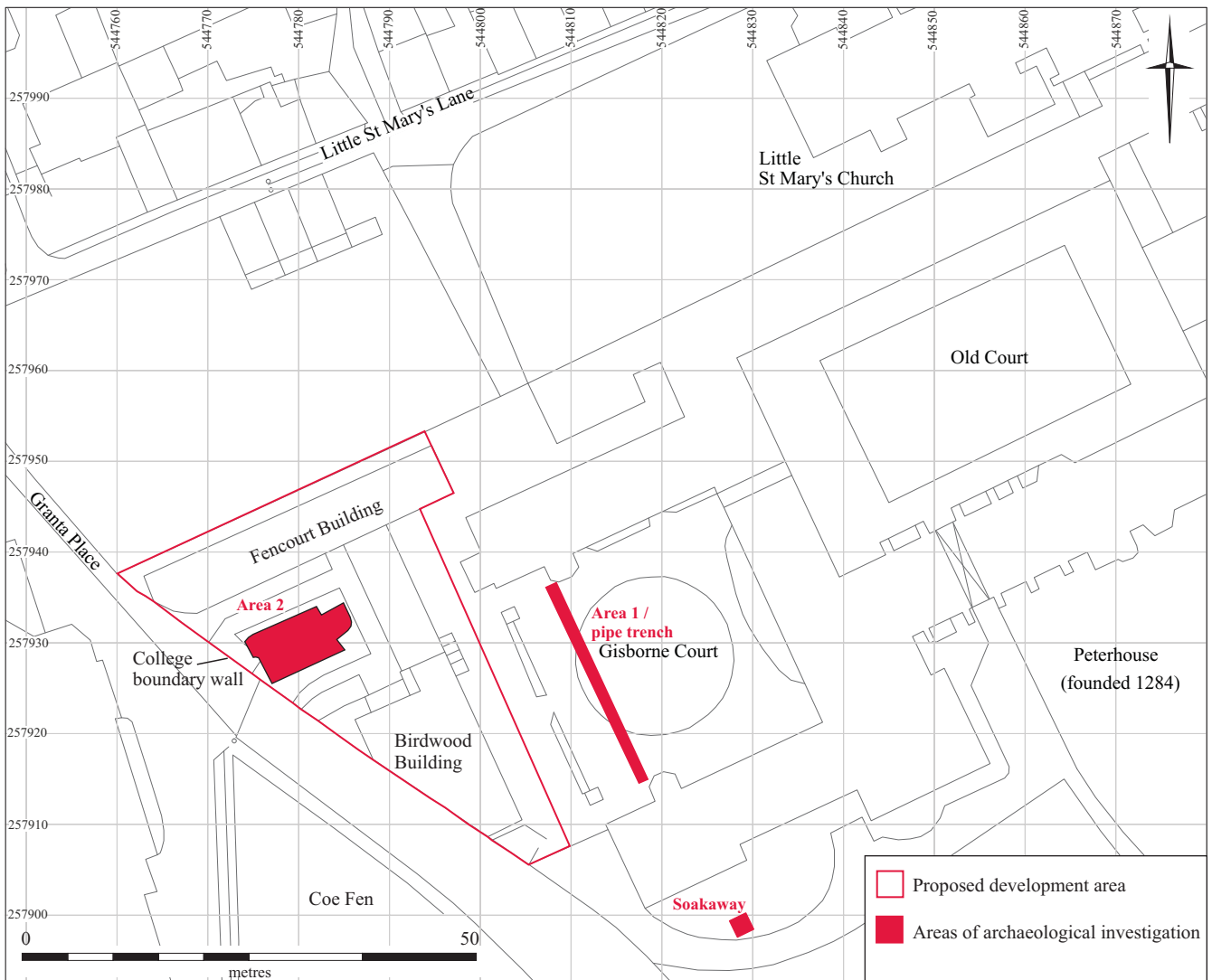
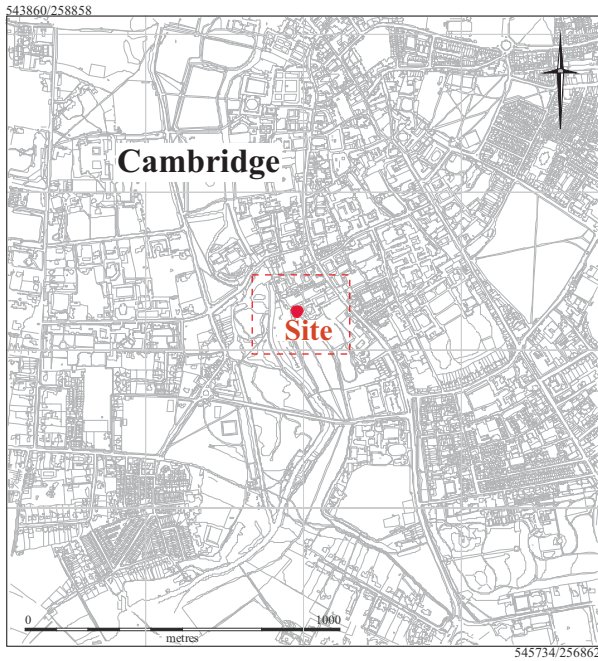
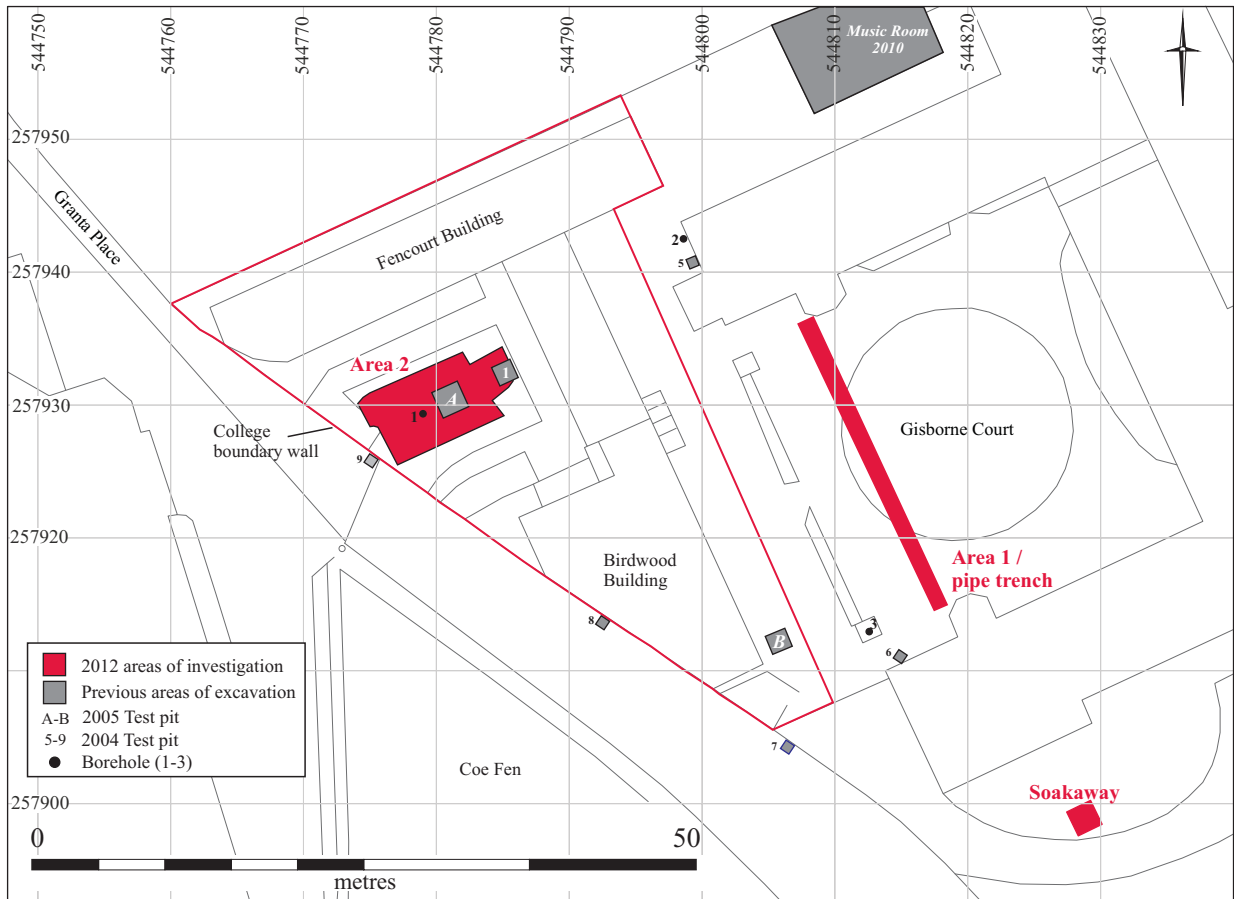
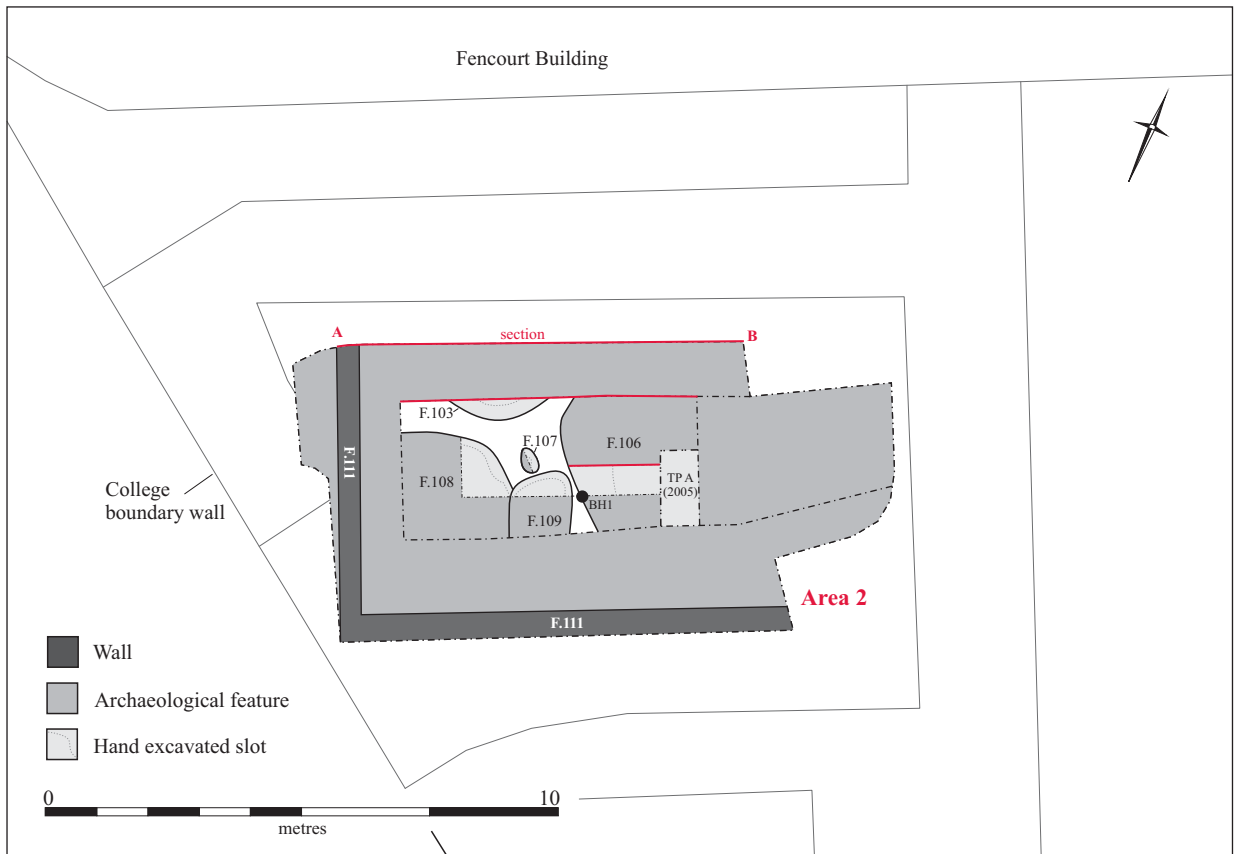


Figure 1. Location Plan



A



B

Figure 2. A. Previous archaeological investigations
 B. Plan of Area 2



Figure 3. Area 1, pipe trench, looking south-east, taken during early stages of excavation



A. Southwest facing section of soakaway



B. Northeast facing section of soakaway

Figure 4.

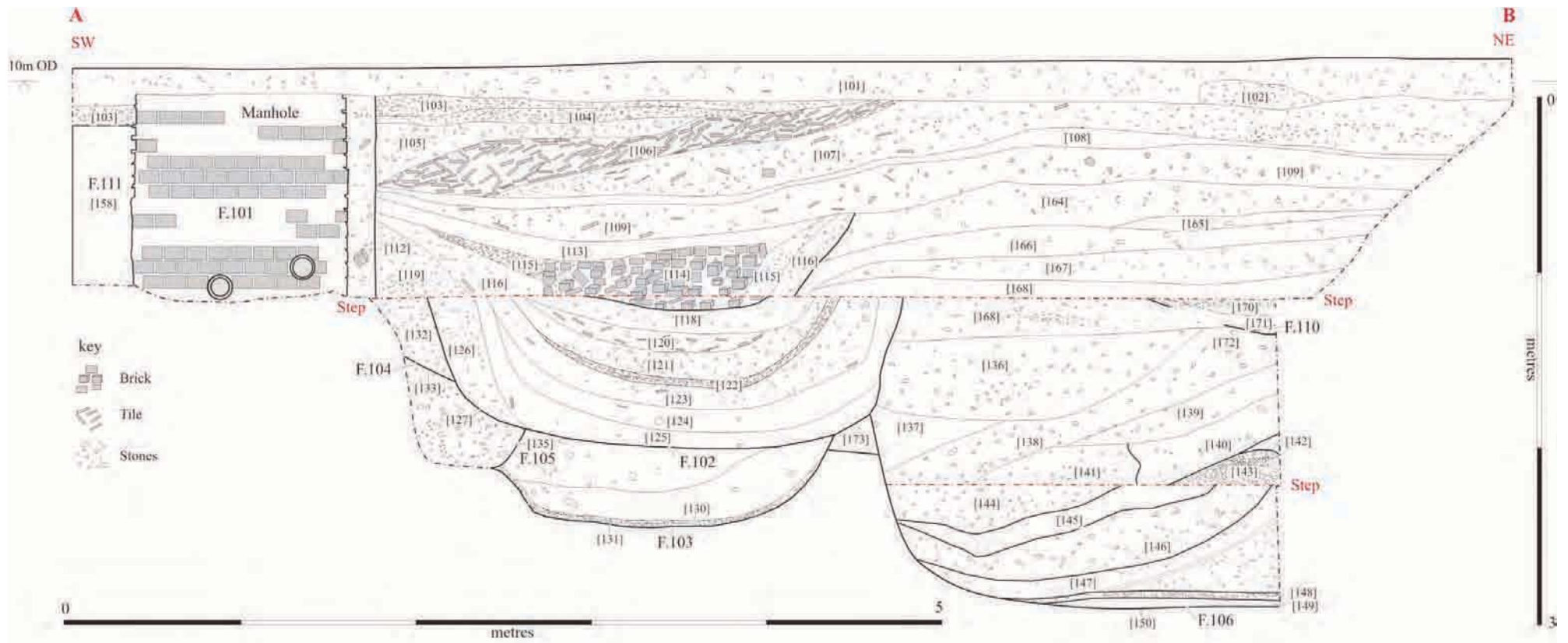


Figure 5. Area 2, Southeast facing section



A. Pit F.106



B. Wall [158] F.111

Figure 6. Area 2 photographs

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OASIS ID: cambridg3-132330

Project details

Project name	The New Birdwood Building, Peterhouse, Cambridge
Short description of the project	Work initially started at Peterhouse, Cambridge on the 21st of March 2012 with the archaeological monitoring of a pipe trench and soakaway in the vicinity of Gisbourne Court (Area 1). This revealed the existence of a series of layers into which a few pits had been dug, the earliest of which dated to the 16th-17th centuries. This was later followed by an evaluation trench, which was machine excavated between the 25th June and the 4th July 2012 within the area of Fen Court (Area 2). This revealed an archaeological sequence that consisted principally of 18th century dumps of material deposited to raise the ground level. Evidence was also present for the demolition of at least one building during this period. Besides the build-up of made ground at least two periods of pit digging were present, the earliest potentially medieval in date.
Project dates	Start: 21-03-2012 End: 04-07-2012
Previous/future work	Yes / Yes
Any associated project reference codes	PTH12 - Sitecode
Any associated project reference codes	ECB3800 - HER event no.
Type of project	Recording project
Site status	None
Current Land use	Residential 2 - Institutional and communal accommodation
Monument type	PITS Post Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	TOBACCO PIPE Post Medieval
Significant Finds	FAUNAL REMAINS Uncertain
Significant Finds	WORKED BONE Modern

Project location

Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Peterhouse
Postcode	CB2 1RD
Study area	830.00 Square metres
Site coordinates	TL 447 579 52 0 52 11 59 N 000 07 03 E Point
Height OD / Depth	Min: 8.00m Max: 9.50m

Project creators

Name of Organisation	Cambridge Archaeological Unit
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Project brief originator	Local Planning Authority (with/without advice from County/District Archaeologist)
Project design originator	Alison Dickens
Project director/manager	Alison Dickens
Project supervisor	Emma Rees
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Peterhouse

Project archives

Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	PTH12
Physical Contents	"Animal Bones","Ceramics","Glass","Worked bone","other"
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	PTH12
Digital Media available	"Database","Images raster / digital photography","Spreadsheets","Text"
Paper Archive recipient	Cambridge Archaeological Unit
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Paper Media available	"Context sheet","Drawing","Matrices","Photograph","Plan","Section"

Project bibliography 1

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