# St. John's College Playing Fields, Cambridge

An Archaeological Evaluation



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#### **Non-Technical Summary**

An archaeological evaluation consisting of six trenches and one soakaway totalling 46.8m<sup>2</sup> was undertaken at St. John's College Playing Fields, Cambridge. The evaluation revealed a ditch and a number of gravel quarry pits, probably dating to the Early Roman period. No evidence of the St. John's College Racquets Court Anglo-Saxon cemetery or the early 13<sup>th</sup> century Franciscan and later Trinity College conduit known to be located in the general vicinity were present in the evaluation trenches. It is likely that the cemetery lies to the northwest of the proposed development area, while subsequent research indicates that the conduit lay in close proximity to the Bin Brook sewer trench in the middle of the site, and thus was not investigated.

#### Introduction

An archaeological evaluation was undertaken by the Cambridge Archaeological Unit (CAU) at St. John's College Playing Fields, Cambridge, (NGR TL 4422 5876) (Figure 1) between the 11<sup>th</sup> and 14<sup>th</sup> of November 2008, as part of the predetermination process for a proposed all-weather hockey pitch. The work was commissioned by Savills on behalf of St. John's College and was based upon a brief issued by Cambridgeshire Planning & Countryside Advice (CAPCA) (Gore 2008) and a method statement devised by the CAU (Dickens 2008).

#### Landscape and geology

The St. John's College Playing Fields site lies in the south-eastern quarter of the open grassed area used by the College, and a number of other organisations for sporting activities. The overall area is bounded by Queen's Road, Madingley Road, Grange Road and Burrell's Walk. Geologically, the site is situated upon the western edge of the former alluvial floodplain of the River Cam (British Geological Survey, sheet 188) and natural is composed of a mixture of 1<sup>st</sup> and 2<sup>nd</sup> terrace river terrace gravels and Gault Clay, which varied noticeably across the site. The present surface height ranges between 9.22m and 6.84m OD, sloping downwards to the south and east toward the River Cam.

#### Methodology

The topsoil and subsoil were removed by a mechanical excavator with a 1.8m wide toothless bucket. All archaeological features were then excavated by hand and recorded using the CAU modified version of the MoLAS system (Spence 1994); base plans were drawn at a scale of 1:50, whilst sections were drawn at a scale of 1:10. The photographic archive consists of a series of digital images. Context numbers are indicated within the text by square brackets (e.g. **[001]**), and feature numbers are denoted by the prefix F. (e.g. **F.3**).

Six 25m long trenches were excavated; additionally a soakaway trench measuring 1.0m by 1.8m in extent was also opened, giving a total coverage of  $46.8m^2$  (Figure 2). The initial trench plan was adjusted somewhat, to avoid services and to minimise damage to the active football pitch.

Although environmental sampling was undertaken, it was decided that none of the samples should be processed. Visual inspection indicated that charred remains were sparse in all contexts and no features likely to preserve waterlogged remains were encountered. The topsoil and subsoil were scanned using bucket sampling at the end of each trench, the only material recovered by this process was a small quantity of 18<sup>th</sup> to 20<sup>th</sup> century pottery. Additionally, Glazed Red Earthenware of 16<sup>th</sup> or 17<sup>th</sup> century date was observed in the topsoil during more informal scanning of the deposits.

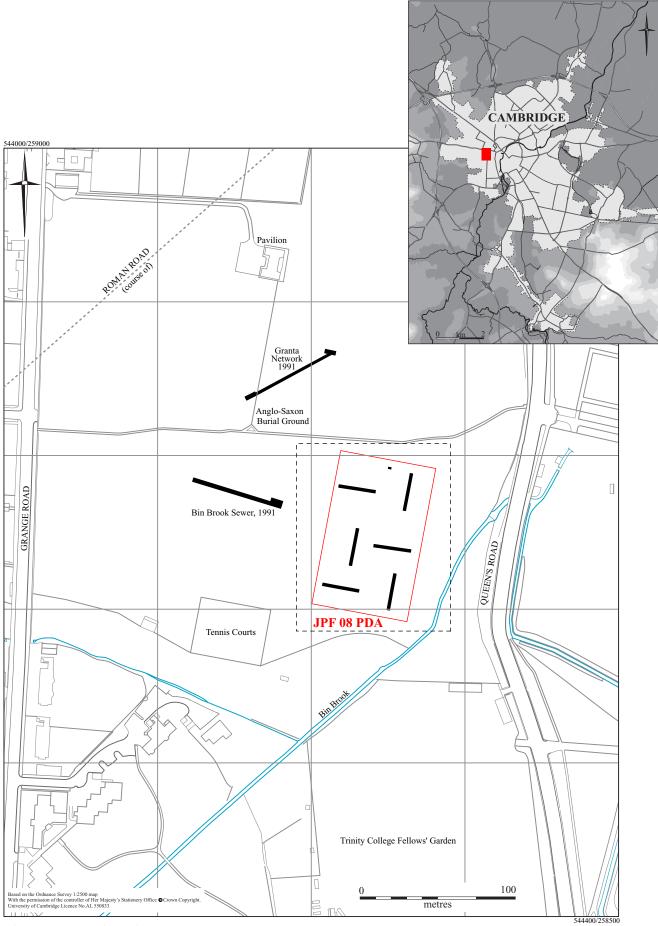


Figure 1. Location plan.

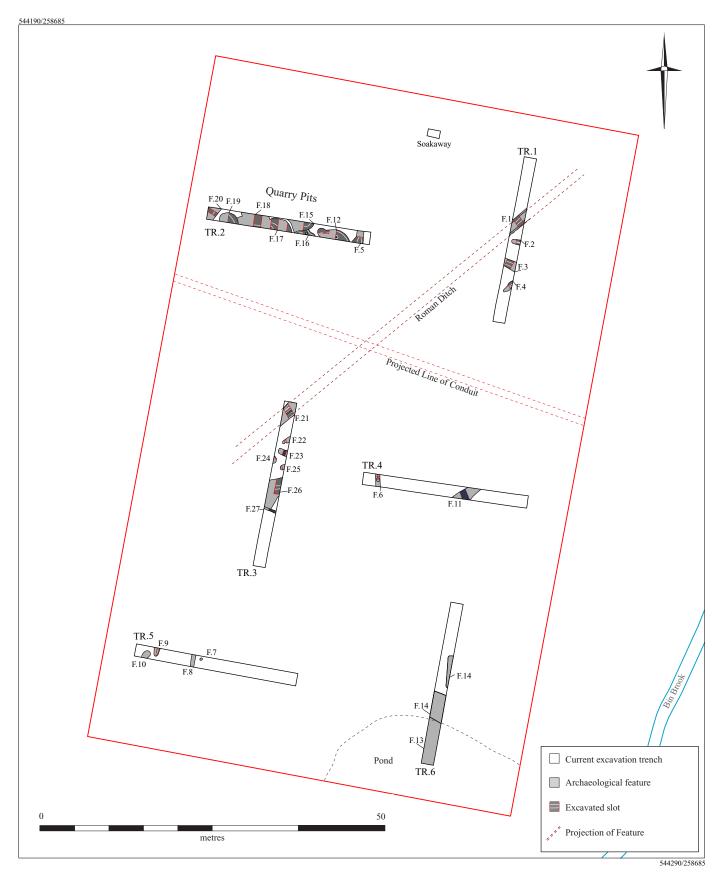


Figure 2. Trench plan.

#### Archaeological Background

The evaluation area lies in close proximity to two significant archaeological entities, the St. John's College Racquets Court Anglo-Saxon cemetery and the early 13<sup>th</sup> century Franciscan and later Trinity College water conduit; these are discussed in detail below. A Roman road aligned southwest to northeast runs through the north-western corner of the playing fields some distance away and a number of stray finds of Prehistoric, Roman and Medieval material have been made in the vicinity.

Two archaeological 'observations' or watching briefs took place nearby in 1991, during work on the Bin Brook Sewer (Evans 1991a) and the Granta Network (Evans 1991b). Both these watching briefs were relatively hurried observations of narrow exposures. The Bin Brook Sewer trench revealed a series of Post-Medieval gravel quarry pits, which contained some residual Prehistoric material and a ditch that is probably of Post-Medieval or Modern date, although the only finds recovered from it were residual Prehistoric material. Unstratified Roman, Medieval and Post-Medieval material was also recovered. The Granta Network trench revealed two possibly Roman ditches, possible remains of medieval ridge and furrow and a sub-rectangular feature with Post-Medieval pottery, which could be the remains of an Anglo-Saxon inhumation grave excavated in the 19<sup>th</sup> century. A single sherd of Prehistoric pottery was recovered, along with a small assemblage of Roman pottery and a single unstratified fragment of a human cranium.

#### Results

#### Trench 1

The current ground surface in Trench 1 lies at between 8.60 and 8.37m O.D. The topsoil is c.0.25m thick; the subsoil is c.0.2m thick and the underlying natural is at c.8.15 to 7.9m O.D. and consists of river terrace gravels. Four 'features' were identified in Trench 1, although two of these are probably natural in origin: of the remainder one (**F.1**) is a Roman ditch and the other is a gully of unknown date (**F.3**).

**F.1** was a northwest to southeast aligned ditch with a 'U'-shaped profile. It is 1.75m wide and 0.51m deep (cut **[003]**); the base of the ditch lay at 7.60m O.D. It had a primary fill **[002]** of greyish brown gravel and sand (*c*.80%) with a silty clay matrix and a secondary fill **[001]** of sticky mid greyish brown clay with occasional sand and gravel. The secondary fill **[001]** contained a single sherd of decorated Samian and 18 sherds from a Roman grey coarseware jar (<**001**> total weight 102g).

**F.2** is a west-west to east aligned feature of unknown shape, it could be a shallow pit but is more likely to be natural in origin and relate to the roots of a bush or small tree. The feature has a 'U'-shaped profile and is 0.77m wide, 1.25m+ long and 0.22m deep (cut [005]). It is filled with greyish brown sand and gravel with occasional silty clay [004]. This feature produced no dating evidence.

**F.3** is a west-northwest to east-southeast aligned gully with a 'U'-shaped profile that is 1.2m wide and 0.20m deep (cut **[007]**). It is filled with a light to mid brown sandy silty clay with occasional gravel **[006]**. This feature produced no dating evidence.

**F.4** is a southwest to northeast aligned irregularly shaped feature that could be a shallow pit, but is more likely to be natural in origin and relate to the roots of a bush or small tree. The feature has a 'U'-shaped profile and is 1.00m wide, 1.4m+ long and 0.21m deep (cut [009]). It is filled with greyish brown sand and gravel with occasional silty clay [008]. This feature produced no dating evidence.

#### Trench 2

The current ground surface in Trench 2 lies at between 9.22 and 8.85m O.D. The topsoil is c.0.3m thick; the subsoil is c.0.2m thick and the underlying natural is at c.8.7 to 8.35m O.D. and consists of river terrace gravels. Eight 'features' were identified in Trench 1, although one of these is probably natural in origin and another is of Modern date. The remaining six features (F.12 and F.15 and F.17 to F.20) all appear to be gravel quarry pits, representing a single phase of activity dating to the Early Roman period or later.

**F.5** is a north to south aligned gully with a rather irregular 'U'-shaped profile, which has clearly been effected by recent tree roots. It is 1.5m wide and 0.48m deep with a concave base (cut **[015]**). The basal fill was a mid bluish grey sandy clay **[016]**, above this was a dark grey sandy silt containing a high proportion of gravel **[014]** and the final fill was a dark grey sandy silt **[013]**. The uppermost fill **[013]** contained 19<sup>th</sup> or 20<sup>th</sup> century material including pottery (<**002**> 32g), iron and tile. This gully may relate to a boundary depicted on the 1902 Ordnance Survey plan (Figure 2).

**F.12** is a gravel quarry pit, it is probably roughly oval in shape and is *c*.4.5m long by 1.5m+ wide and 0.60m deep with steep slightly concave sides and an irregular base (cut **[031]=[037]**). The primary fill **[030]=[036]** consists of loose redeposited gravel with a small quantity of silty clay, above this is a soft dark greyish brown sandy silt containing a small quantity of gravel **[029]=[035]**. This feature produced no dating evidence.

**F.15** is a gravel quarry pit; it is probably roughly oval or circular in shape and is *c*.5.0m long by 1.4m+ wide and 0.45m deep, with steep slightly concave sides and an irregular base (cut **[040]**). The primary fill **[039]=[044]** consists of loose redeposited gravel with a small quantity of silty clay that in patches is darker and more silty. Above this is a soft dark greyish brown sandy silt containing a small quantity of gravel **[038]**. This feature produced no dating evidence.

**F.16** is probably a natural feature, it is roughly oval with slightly concave sides and an irregular base and is 1.3m+ by 0.9m+ in extent and 0.14m deep (cut **[043]**). It is filled with gravel (*c*.80%) and mid to dark brownish grey sandy silt **[042]**. This feature produced no dating evidence.

**F.17** is a gravel quarry pit; it is probably roughly oval or circular in shape and is 3.5m+ long by 1.7m+ wide and 0.50m deep with steep slightly concave sides and an irregular base (cut **[047]**). The primary fill **[046]** consists of loose redeposited gravel with a small quantity of silty clay that is in patches darker and more silty, above this is a soft dark greyish brown sandy silt containing a small quantity of gravel **[045]**. The uppermost fill **[045]** contained a single sherd of Late Iron Age or Early Roman coarseware (<**003**> 36g).

**F.18** is a gravel quarry pit; it is probably roughly oval or circular in shape and is *c*.4.0m long by 1.8m+ wide and 0.50m deep with steep slightly concave sides and an irregular base (cut **[050]**). The primary fill **[049]** consists of loose redeposited gravel with a small quantity of silty clay that is in patches darker and more silty, above this is a soft dark greyish brown sandy silt containing a small quantity of gravel **[048]**. The uppermost fill **[048]** contained two sherds of Early Roman coarseware (**<004>** 14g), plus a single waste flake from flint working, which is probably Mesolithic or Early Neolithic in date (**<005>** 2g).

**F.19** is a gravel quarry pit; it is probably circular in shape and is 2.7m long by 1.5m+ wide and 0.54m deep with steep slightly concave sides and an irregular base (cut **[053]**). The primary fill **[052]** consists of loose redeposited gravel with a small quantity of silty clay that is in patches darker and more silty, above this is a soft dark greyish brown sandy silt containing a small quantity of gravel **[051]**. This feature produced no dating evidence.

**F.20** is probably a gravel quarry pit; it shape is unknown and is 1.8m<sup>+</sup> by 1.5m<sup>+</sup> in extent and 0.45m deep with steep slightly concave sides and an irregular base (cut **[056]**). The primary fill **[055]** consists of loose redeposited gravel with a small quantity of silty clay that is in patches darker and more silty, above this is a soft dark greyish brown sandy silt containing a small quantity of gravel **[054]**. This feature produced no dating evidence.

#### Trench 3

The current ground surface in Trench 3 lies at between 8.64 and 8.44m O.D. The topsoil is c.0.35m thick; the subsoil is c.0.15m thick and the underlying natural is at c.8.15 to 7.95m O.D. and consists of river terrace gravels. Seven 'features' were identified in Trench 1, although four of these are probably natural in origin. One of the features (**F.21**) is a Roman ditch (Figure 3), and there is also a gravel quarry pit (**F.26**) and a gully (**F.27**) of unknown date.

**F.21** was a northwest to southeast aligned ditch with a 'U'-shaped profile and is 1.87m wide and 0.42m deep with a distinct ridge in the base indicating that it had probably been recut at least once (cut **[059]**). The base of the ditch lay at between 7.83 and 7.74m O.D. It had a primary fill **[058]** of mottled pale to mid brown sand and a secondary fill **[057]** of dark brown sandy clay with occasional gravel. The uppermost fill **[057]** contained two fragments of animal bone, but no datable material.

**F.22** is probably a natural feature related to the disturbance from the roots of a small tree or bush, although it could conceivably be an ephemeral gravel quarry pit. It is irregularly shaped and aligned roughly southwest to northeast, it is  $1.1m+\log by 0.7m$  wide and  $0.13m \operatorname{deep}(\operatorname{cut}[061])$  and is filled with dark brown sandy silt and pea grit [060]. This feature produced no dating evidence.

**F.23** is probably a natural feature related to the disturbance from the roots of a small tree or bush, although it could conceivably be an ephemeral gravel quarry pit. It is probably sub-oval in shape and is 1.35m+ long by 0.88m wide and 0.15m deep (cut **[063]**). The feature is filled with dark brown sandy clay with occasional gravel **[062]**. This feature produced no dating evidence.

**F.24** is probably a natural feature related to the disturbance from the roots of a small tree or bush, although it could conceivably be an ephemeral gravel quarry pit. It is probably circular or oval in shape with concave sides and a rounded base and is 1.2m by 0.42m+ in extent and 0.13m deep (cut **[066]**). It is filled with a basal fill of dark brown sand and pea grit **[065]** and an upper fill of mid to dark brown sandy clay **[064]**. This feature produced no dating evidence.

**F.25** is probably a natural feature related to the disturbance from the roots of a small tree or bush, although it could conceivably be an ephemeral gravel quarry pit. It is probably oval in plan with an irregular base and is 0.85m+ by 0.80m in extent and 0.16m deep (cut [068]). The feature is filled with a dark brown sandy clay with occasional gravel [067]. This feature produced no dating evidence.

**F.26** is a gravel quarry pit; it is of unknown shape although it appears rather irregular with concave sides and a rather irregular flattish base and is 4.4m by 1.8m+ in extent and 0.26m deep. The basal fill is a mid orangish brown coarse sand **[070]** and the upper fill is **[069]**, a dark brown sandy clay with frequent gravel. This feature produced no dating evidence.

**F.27** is a west-northwest to east-southeast aligned gully, it is linear in plan and is 1.8m<sup>+</sup> long, 0.28m wide and 0.13m deep with a 'U'-shaped profile (cut **[073]**). The sole fill is a dark brown to black silt **[072]**. This feature produced no dating evidence.

#### Trench 4

The current ground surface in Trench 4 lies at between 8.50 and 7.64m O.D. The topsoil is c.0.25m thick; the subsoil is c.0.20m thick and the underlying natural lies at c.8.05 to 7.2m O.D. and consists of a mixture of river terrace gravels and Gault clay, with the clay increasing towards the east. Two 'features' were identified in Trench 4, although one of these is probably natural in origin and the other is of Modern date.

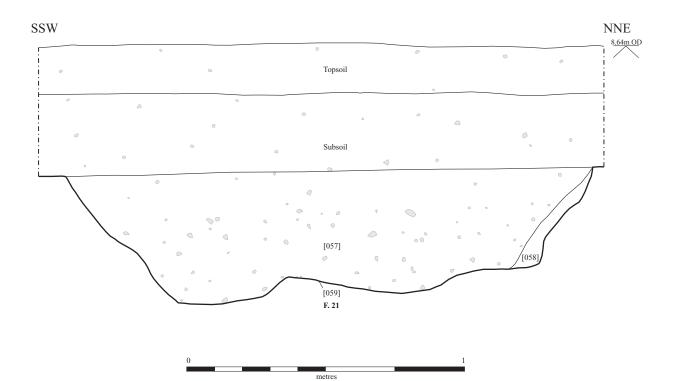




Figure 3. Section and photograph of ditch F. 21.

**F.6** is a north-south aligned hedge line of relatively recent date. It consisted of a steep side 'V'-shaped cut with a rounded base **[019]**, filled with a mid brown sandy silty clay with occasional gravel **[018]** plus the remains of decayed roots and dark humic topsoil **[017]**. This feature produced no dating evidence.

**F.11** is a roughly southwest to northeast aligned linear and appears to be geological in origin rather than man-made. It is probably a glacial feature of some kind, perhaps an ice wedge (a crack in the ground formed by a narrow or thin piece of ice probably due to thermal contraction). The fill **[027]** consisted of bands of gravel and clay and the edges and base of the feature were unclear (cut **[028]**). This feature produced no dating evidence.

#### Trench 5

The current ground surface in Trench 5 lies at between 8.52 and 8.16m O.D. The topsoil is c.0.25m thick; the subsoil is c.0.25m thick and the underlying natural lies at c.8.0 to 7.65m O.D. and consists of river terrace gravels and Gault clay, with the clay increasing towards the east. Four 'features' were identified in Trench 5, although two of these are probably natural in origin and the other two are of Modern date..

**F.7** is a posthole, judging by the nature of its fill it is probably of relatively recent 19<sup>th</sup> or 20<sup>th</sup> century origin. It consists of a circular cut **[021]** with vertical sides and a rounded base that is 0.35m in diameter and 0.15m deep. The posthole is filled with a dark brown silty clay with occasional gravel **[020]**.

**F.8** is a north to south aligned land drain containing a circular ceramic drain [022] of  $19^{th}$  or  $20^{th}$  century date.

**F.9** is probably a natural feature related to the disturbance from the roots of a small tree or bush, although it could conceivably be an ephemeral gravel quarry pit. The feature is oval in shape 1.25m+ by 0.70m in extent and 0.20m deep (cut **[024]**). It is filled with mid greyish brown silty clay with occasional gravel **[023]**. This feature produced no dating evidence.

**F.10** is probably a natural feature related to the disturbance from the roots of a small tree or bush, although it could conceivably be an ephemeral gravel quarry pit. The feature is 1.5m+ by 0.9m in extent (cut [026]) and filled with mid greyish brown silty clay with occasional gravel [025]. This feature produced no dating evidence.

#### Trench 6

The current ground surface in Trench 1 lies at between 7.62 and 6.84m O.D. The topsoil is c.0.35m thick; the subsoil is c.0.15m thick and the underlying natural lies at c.7.1 to 6.35m O.D. and consists of river terrace gravels and Gault clay, with the clay increasing towards the south. Two 'features' were identified in Trench 6, although both are Modern and one is 'natural' in origin.

**F.13** is a large circular pond probably 20 to 25m in diameter and 0.5 to 0.8m deep (cut **[033]**, fill **[032]**). This feature was probably created in the early 20<sup>th</sup> century and appears to have been backfilled in the 1950's or 1960's according to the 'folklore' of the current ground staff whose predecessors were aware of it. This feature produced no dating evidence.

**F.14** (cut/fill **[034]**) is the roots of several large trees planted at the side of pond **F.13**. There appears to have been a deliberately planted ring of trees around pond **F.13**, three of which still survive. This feature produced no dating evidence.

#### Soakaway

In addition to the six trenches an additional soakaway trench measuring 1.8m by 1.0m in extent was machine excavated to a depth of 1.5m, to test how rapidly water would drain away. The current ground surface in the soakaway pit lies at 8.75m O.D. The topsoil is c.0.25m thick; the subsoil is c.0.15m thick and the underlying natural at c.8.35m O.D. consists of river terrace gravels. No archaeological features were present.

#### Results

When the probably natural features and 19<sup>th</sup> or 20<sup>th</sup> century features of extremely limited significance are excluded the archaeological remains consist of two elements, a ditch and a series of gravel quarry pits. Ditch F.1/F.21 located in Trenches 1 and 3 (Figures 2 and 3) produced Roman pottery dating to the 2<sup>nd</sup> century AD, although this material only provides a terminus post-quem (t.p.q.) for the ditch it is aligned northwest to southeast and runs parallel to the Roman road which is c.120m to the northwest (Figure 4). The alignment of the ditch does not relate to the Medieval or later layout of the area, so a date in the Roman period appears likely. The general lack of material in the ditch indicates that it is located some distance from any settlements and it most probably relates to a system of ditched enclosures, possibly the same system as the two ditches revealed in the 1991 Granta Network trench. As such it makes a minor contribution to our understanding of the western hinterland of Roman Cambridge, which has been subject to a considerable number of archaeological investigations most notably at Vicar's Farm (Evans and Lucas forthcoming). The gravel quarry pits were concentrated in Trench 2 (F.12, F.15 and F.17 to F.20), with a single example in Trench 3 (F.26). The dating evidence although sparse consisted of Late Iron Age or Early Roman pottery, although again this only provides a t.p.q. as exemplified by the fact that the same features also contained a Mesolithic or Early Neolithic flint flake. Whilst an Early Roman date is plausible, relating to some form of activity within the enclosure defined by ditch F.1/F.21, a later date is also possible. The form of the quarry pits, the nature of their fills, their relative irregularity and the lack of late pottery suggest that they are probably not of Post-Medieval or Modern date, but could be Medieval.

Both the ditch and the quarry pits were relatively shallow, although the ditch was rather deeper (7.83 to 7.60m O.D.) than the pits (around 7.95m O.D. in Trench 2). This relative shallowness appears to be due to the relatively high water table in the area. The proximity to the former alluvial floodplain of the River Cam and the relatively thin river terrace gravels, which are typically 0.4 to 0.6m thick, mean that water typically began to enter features when they were cut only c.0.3 to 0.4m into the gravels. This limited the usefulness of the area for quarrying gravel and meant that any features that were intended to remain open for any time had to be relatively shallow. One possibility is that the ditch marked a boundary, not between wet and dry but between wet and wetter and effectively marked the edge of the useful land.

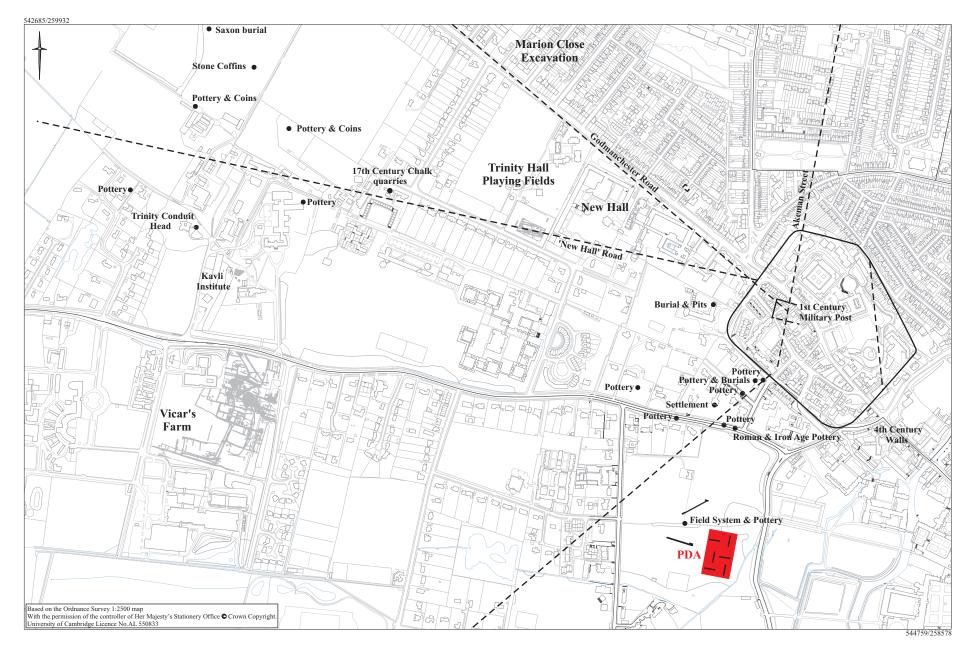


Figure 4. Archaeological investigations of Roman West Cambridge.

#### Discussion

The results, although not of any particular significance in their own right, do contribute to the growing body of evidence concerning the western hinterland of Roman Cambridge. As significant, if not more so, than the features encountered are the archaeological remains that were not present. No evidence of the St. John's College Racquets Court Anglo-Saxon cemetery or the early 13<sup>th</sup> century Franciscan and later Trinity College conduit were present in the evaluation trenches, although it appears that the conduit probably does run through the proposed development area.

#### St. John's College Racquets Court Anglo-Saxon cemetery

The St. John's College Racquets Court Anglo-Saxon cemetery was investigated in 1888; the site was initially discovered by workmen constructing a racquets court for St. John's College (Figure 5) and 'many hundred skeletons and urns were destroyed before investigation' (Fox 1923, 242), although there may be an element of hyperbole in this statement. The remainder of the site was then 'rescued' by Francis Jenkinson, a lecturer in Classics at Trinity College, and Baron Anatole von Hügel, curator of the University Museum of General and Local Archaeology. A short note on this was published in the *Proceedings of the Cambridge Antiquarian Society* Volume 6 (1884-1888) p.cxl:

'Baron A von Hügel and Mr Jenkinson exhibited some ornaments &c. from the Saxon cemetery recently found at the back of St. John's College. Over fifty skeletons had been examined; the specimens obtained, especially the brooches and the belt-plates, compared favourably with those yielded by other localities, though no such brooches as the large one from Haslingfield in Trinity College Library, had turned up. There were more pierced Roman coins than at Girton, and also more male skeletons with shields and spears; both which facts may point to a slightly earlier date. Otherwise, and especially in the apparent concurrence of inhumation and urn-burials, the two cemeteries were much alike. Some of the urns now found are very remarkable; they will be exhibited on another occasion.'

Although the St. John's College Racquets Court Anglo-Saxon cemetery has never been properly published there is a considerable quantity of surviving material associated with it. At least some of the skeletons survive in the Duckworth Collection, which is held by the Duckworth Laboratory, and the grave goods associated with these remains and other material from the site are held by the Museum of Archaeology and Anthropology, who also have the urns that held the cremations although it appears that the human remains from these were discarded soon after discovery. Some documentary material survives in a number of University archives; this includes Jenkinson's diaries which are held by the University Library Department of Manuscripts and University Archives (MSS.Add.7406-7446). Preliminary research has been undertaken on these by Dr Sam Lucy of the CAU, this indicates that the material is of a similar nature to the Anglo-Saxon cemetery close to the entrance to Girton College investigated by Jenkinson in 1881 and by von Hügel in 1886. Jenkinson and von Hügel never published the site; however, it did prove possible to subsequently produce a relatively successful monograph (Hollingworth and O'Reilly 1925; see also Rogerson 2007).



Figure 5. Ordnance Survey 1902 1:500 plan surveyed in 1901, showing the St. John's College racquet court.

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The Girton College site included 75 to 80 inhumations and about 150 cremations with a wide range of grave goods in an area of extensive Roman buildings with associated burials of Roman date (Hollingworth and O'Reilly 1925) and is therefore similar in scale to the St. John's College Racquets Court Anglo-Saxon cemetery. Jenkinson recorded the material principally in his notebooks; he described and drew the structure and contents of each inhumation, the size and condition of the skeletons and its position in relation to other inhumations and cremations (Hollingworth and O'Reilly 1925, 1; Rogerson 2007). This work contains a 'wealth of information' and shows Jenkinson to have been a 'painstaking and patient scholar' (Rogerson 2007, 26). Jenkinson intended to publish the results of his Girton investigation and began to draw up an overall plan of the site, but never completed the work (Hollingworth and O'Reilly 1925, 1). This suggests that enough material probably survives to undertake some analysis of the St. John's College Racquets Court Anglo-Saxon cemetery, although it is uncertain to what extent the skeletal and artifactual material can be linked to the surviving records and there is likely to be relatively little information on the cremations.

Preliminary analysis by Dr Lucy indicates that the cemetery was initially located on the site of the St. John's College Racquets Court, but that it principally extended westwards and northwards from there. The location of the racquets court can be determined from the Ordnance Survey map surveyed in 1901 (Figure 5). The racquets court itself is not particularly large, *c*.20m by 25m in extent, although there are also associated structures including what was probably the Groundskeeper's House constructed at around the same time. Slightly later Walker (1912; see also Duckworth 1912) reported the discovery of an Anglo-Saxon inhumation and two cremations plus some Roman burials during the building of Saxmeadham, No. 71 Grange Road, a short distance to the west. Potentially this may be part of the same cemetery as the St. John's College Racquets Court Anglo-Saxon cemetery, as none of the subsequent archaeological investigations have been located in the area between the two discoveries. If they are the same cemetery then it would be extremely extensive. Walker does not refer to the St. John's College Racquets Court Anglo-Saxon cemetery in any way in his report.

After 1888 the St. John's College Racquets Court Anglo-Saxon cemetery slumbered for some three decades until the arrival of Sir Cyril Fox (1882–1967), who as part of his thesis published in 1923 as *The Archaeology of the Cambridge Region* spoke to Jenkinson but apparently not to von Hügel at some point in *c*.1920-22. By this time Jenkinson was in his late sixties and it is unclear how reliable his memories of discoveries of over three decades earlier were and he may already have been in poor health. It is unclear why Fox did not speak to von Hügel, who was still curator of the museum. Fox's description of the cemetery forms the primary source upon which all subsequent descriptions of the site have been based.

'An important cemetery, mainly on the site of the racquets courts in St John's College cricket field, adjacent to the Roman Akeman Street and to the knoll on which the Roman town was situated, was excavated in 1888. It was a mixed inhumation and cremation cemetery, the two rites being apparently concurrent. Though many hundred skeletons and urns were destroyed before investigation, no less than 100 cinerary urns and other vessels and 30 skeletons, together with a representative range of associated objects were secured for the Cambridge Museum. Unfortunately, no

detailed record of the cemetery was published. Examination of the unsorted pottery from the site in the Cambridge Museum reveals much fragmentary coarse Roman ware, and several Roman brooches and many Roman coins pierced for suspension are in the collection. Of the relation between Roman and Saxon here little is known; but the condition of the earlier material suggests that Roman rubbish strewed the field selected as a burial-ground by the newcomers. One Roman harp-shaped brooch is known to have been found with two annular (Anglo-Saxon) brooches on a woman's skeleton ... and all Roman brooches found on the site were probably buried in Anglo-Saxon graves.

The unusual length of time during which the cemetery was in use is attested by the objects discovered which seem to range in date from about mid-V to early VII.

The earliest objects, two cruciform fibulae, the long snouts of which resemble examples met with in Mecklenburg and Hanover ... cannot have been buried much later than 450 A.D., and tend to show that the Roman town or its immediate neighbourhood was occupied by the first settlers to reach the district. The cruciform fibulae ... may be a few decades .later, and were doubtless brought in from the Baltic. One of the latest objects, a rectangular buckle chape of bronze gilt, inlaid with glass or garnets, which are for the most part missing, ... another, a bronze buckle with triangular chape inlaid with silver.

The more characteristic finds from the cemetery included cruciform, ... squareheaded, "small long," and annular fibulae; and wrist-clasps. The latter were common, occurring in cinerary urns as well as on inhumed bodies. There were no bronze girdle-hangers, but iron keys ... occurred. Saucer brooches were absent also, but two applied brooches probably of mid-VI, and two of VII date with naturalistic decoration, were met with... A fine set of five bronze-gilt belt-plates with zoomorphic decoration, in the Cambridge Museum, dating in VI, deserve special mention. The range of form and decoration of the cinerary urns from the site is unusually wide. There were no swords.'

(Fox 1923, 242-43)

The evidence of this evaluation, plus the 1991 Bin Brook Sewer trench, indicates that the cemetery did not extend any distance to the southeast. The 1991 Granta Network trench occupied part of the footprint of the racquets court, however the only evidence that it produced that might relate to the cemetery were a feature that could be a grave excavated in the 19<sup>th</sup> century and an unstratified piece of human cranium. It must be remembered that this was based on a relatively hurried observations of narrow exposures; nonetheless it seems unlikely that this was all that remained of a major Anglo-Saxon cemetery in this location. It was noted that '*Along the southwestern third/half of the trench the upper section was more disturbed and there were localized dumps of building material and refuse*'. It seems likely that this represents the remains of the racquets court.

Based upon various antiquarian discoveries, and more recent developer funded archaeological investigations, there appears to be at least four and probably more discrete clusters of burials on the west side of the river Cam, plus associated settlements (Dodwell *et al* 2004). The St. John's College Racquets Court Anglo-

Saxon cemetery and that at Girton appear to be larger than the others, are more longlived spanning the 5<sup>th</sup> to early 7<sup>th</sup> centuries and are of mixed rite with both cremations and inhumations whereas the others are purely inhumation. It appears that these were relatively large cemeteries, perhaps serving quite extensive areas, but that in the early 7<sup>th</sup> century the pattern changed to a larger number of more dispersed smaller cemeteries, perhaps serving individual communities.

### The early 13<sup>th</sup> century Franciscan and later Trinity College conduit

The conduit was built in 1327 for the Franciscans or Grey Friars, who occupied the site that later became Sidney Sussex College. The conduit is first mentioned in an inquisition held at Babraham on the 22<sup>nd</sup> of October 1434 (Willis and Clark 1886, 427-30 and 678-80). It ran from Bradrusshe, now Trinity Conduit Head, located in a wood off the Madingley Road and the construction of the conduit involved the purchase of a two feet wide strip of land (0.6m) through the land of 17 landowners for a distance of 1467 tailor's ells (virgas cissoris). An ell is a unit of measurement, approximating the distance from the length of the arm from the shoulder to the wrist. Several different national forms existed, with different lengths, in England, this was usually 45 in (c.1.14m) although the exact length was never defined in English law and it was mainly linked to the tailoring business. The amount of land purchased for the conduit was therefore around 5501ft 3in long (c.1677m), not including common grounds, high streets, the Kings Highways and the banks of the river. Later, on the 5<sup>th</sup> of May 1439, letters patent were issued setting forth the results of the inquiry and on the 31<sup>st</sup> of May 1441 there were further letters patent pardoning the transgressions of King's Hall in obtaining water from the conduit without leave and giving them possession of the conduit where it ran through their property. The land purchased for the initial construction of the conduit belonged to:

St. John's Hospital	100 ells	<i>c</i> .114.3m.
Barnwell Priory	12 ells	<i>c</i> .13.72m.
Thomas Morys	250 ells	<i>c</i> .285.75m.
William Lavenham	300 ells	<i>c</i> .342.9m.
Geoffrey Seman	500 ells	<i>c</i> .571.5m.
Hugh Pyttok	8 ells	<i>c</i> .9.14m.
Abbess of Waterbeach	8 ells	<i>c</i> .9.14m.
Prior of Huntingdon	8 ells	<i>c</i> .9.14m.
Robert Brigham	12 ells	<i>c</i> .13.72m.
Thomas Balls	8 ells	<i>c</i> .9.14m.
Stephen Morys	8 ells	<i>c</i> .9.14m.
John Pyttok	8 ells	<i>c</i> .9.14m.
William Lolleworth	6 ells	<i>c</i> .6,86m.
William Bekeswell	8 ells	<i>c</i> .9.14m.
William Marbithorp	10 ells	<i>c</i> .11.43m.
William Redwood	9 ells	<i>c</i> .10.29m.
Richard Tableter	200 ells	<i>c</i> .228.6m.

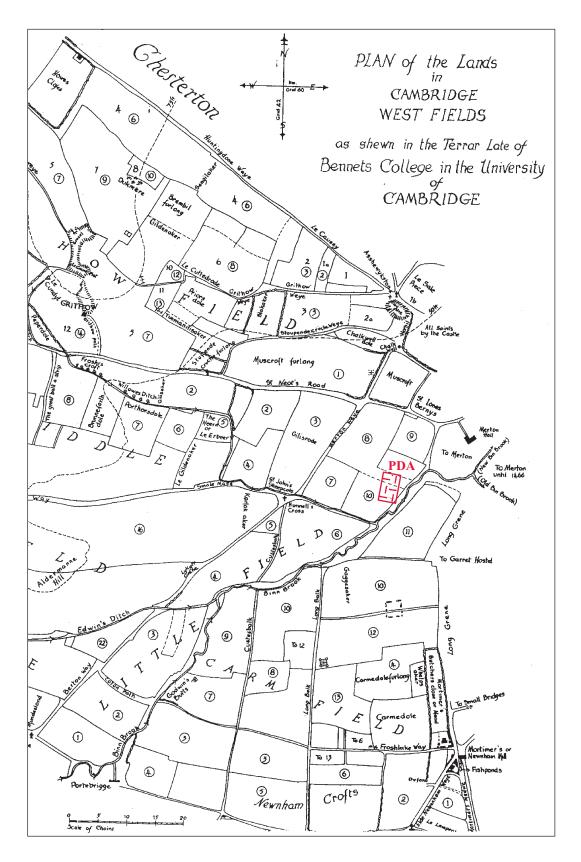


Figure 6. The West Fields of Cambridge as reconstructed from the c.1360 Corpus terrier. (From Hall and Ravensdale 1976)



Figure 7. 1842 survey of the route of the Franciscan and later Trinity College conduit, by John Edlin. Courtesy of The Master and Fellows of Trinity College Cambridge, taken by Les Goodey (Cambridge University Library).

A number of conduits of Medieval date have been studied, most notably the Great Conduit in London (Bowlt 2003; Lewis 2005; Rowsome 1995), but also other examples such as Lichfield (Gould 1976) and Bristol (Lea-Jones 2005). Issues relating to water are a fruitful theme for medieval urban history (*cf.* Keene 2001). The Franciscan Conduit is unique in Cambridge, no other religious or secular institution created similar water supply structures and as far as is known the rest of the town's water was supplied by wells. The Franciscans in Cambridge appear to have been particularly concerned with water supply as this conduit replaced a stone lined channel that brought water from the Barnwell area.

Several decades after the construction of the conduit a document known as the Corpus Terrier (or *Terrarium Cantabrigiae*) was drawn up recording the tithes due from the west fields of Cambridge (Figure 6). The document was compiled *c*.1360 and appears to have been a 'working copy' extracted from the more extensive Barnwell Tithe Books, but which now comprises the earliest known extant record of this information (Hall and Ravensdale 1976, 7). Certain elements described in the Corpus Terrier broadly correspond to the route of the conduit and the evaluation area lies within Little Field in parts of the field owned by the Hospital of St. John (Area 8 on Figure 6) and Corpus Christi College (Area 10 on Figure 6) (Hall and Ravensdale 1976, 71 and 123-27). After the Dissolution the Franciscan conduit passed into the hands of Trinity College, which was founded in 1546 by King Henry VIII on the site of Michaelhouse, King's Hall and several other hostels. Although Trinity College made substantial modifications to the conduit to the east of the River Cam in the later 16<sup>th</sup> and 17<sup>th</sup> centuries, it appears that the conduit to the west of the river was left largely undisturbed.

In the early 19<sup>th</sup> century the West Fields of Cambridge were enclosed and began to develop rapidly (Guillebaud 2005, 2006). In the late 1830's Mr John Ayres, a publican of Cambridge who owned land through which the conduit passed, used it for 'digging brick earth' and 'unwittingly and undesignedly cut into and damaged part of the said pipe'. Ayres had to acknowledge the rights of the College with regard to the conduit, agree to not damage it again and pay compensation of £2. Soon afterwards, in 1842, the College commissioned a detailed survey of the route of the conduit by John Edlin of Cambridge (Figure 7), presumably to try to prevent further damage. This plan shows the Conduit Head building, the network at the springs above it and the route from Conduit Head to Trinity College, including around ten cesspools along its length. The route heads south-southeast from Conduit Head until it crosses Madingley Road, it then runs directly east-southeast to the northwest corner of Trinity Quarter before crossing the river and running through Nevile's Court into Great Court. This would appear to represent the original 14<sup>th</sup> century route of the conduit until it crossed the River Cam, at which point it would have diverged. This map was only uncovered by research after the fieldwork was completed and indicates that the conduit runs between Trenches 1-2 to the north Trenches 3-6 to the south. This area is indicated on service maps as occupied by the Bin Brook sewer trench, which is why no trenches were located here.

Parts of the conduit to the east of the River Cam were investigated twice in the 1990's; in 1990 at Trinity College Library Bookstore (Cessford in prep) and in 1997 in the basement rooms of Trinity College Masters Lodge (Alexander 1998). The conduit lay in a steep sided cut 0.8m wide and 1.1m deep, the circular lead pipe had a

diameter of 60mm and was constructed from lead sheet 2 to 4mm thick with a seam where the lead has been joined together on the upper side. In places it rested upon substantial Alder blocks and the cut was backfilled with relatively clean clay that appears to have been deliberately puddled, presumably to help support the pipe and minimise any leakage.

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## Appendix 1: OASIS form

OASIS ID: cambridg3-61083		
Project details		
-	Ot Jahrda Callega Dissing Fields Constridue	
Project name	St. John's College Playing Fields, Cambridge	
Short description of the project	An archaeological evaluation consisting of six trenches and one soakaway totalling 46.8m2 was undertaken at St. John's College Playing Fields, Cambridge. The evaluation revealed a ditch and a number of gravel quarry pits, probably dating to the Early Roman period. No evidence of the St. John's College Racquets Court Anglo-Saxon cemetery or the early 13th century Franciscan and later Trinity College conduit known to be located in the general vicinity were present in the evaluation trenches. It is likely that the cemetery lies to the northwest of the proposed development area, while subsequent research indicates that the conduit probably does run through the proposed development area.	
Project dates	Start: 11-11-2008 End: 14-11-2008	
Previous/future work	Not known / Not known	
Any associated project reference codes	ECB 3063 - HER event no.	
Any associated project reference codes	JPF 08 - Sitecode	
Type of project	Field evaluation	
Site status	None	
Current Land use	Other 14 - Recreational usage	
Monument type	DITCH Roman	
Significant Finds	POTTERY Roman	
Methods & & techniques	'Targeted Trenches'	
Development type	hockey pitch	
Prompt	Direction from Local Planning Authority - PPG16	
Position in the planning process	Pre-application	
Project location		
Country	England	
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE St. John's College Playing Fields	
Postcode	CB3 9AA	
Study area	110.00 Square metres	
Site coordinates	TL 4422 5876 52.2077394838 0.110891444736 52 12 27 N 000 06 39 E Point	
Height OD / Depth	Min: 6.35m Max: 8.70m	
Project creators		
Name of Organisation	Cambridge Archaeological Unit	

Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	•
Project director/manager	Alison Dickens
Project supervisor	Craig Cessford
Type of sponsor/funding body	Developer
Name of sponsor/funding body	St. John's College
Project archives	
Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	JPF 08
Physical Contents	'Ceramics','Worked stone/lithics'
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	JPF 08
Digital Contents	'Stratigraphic'
Digital Media available	'Text'
Paper Archive recipient	Cambridge Archaeological Unit
Paper Archive ID	JPF 08
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Plan','Section'
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	St. John's College Playing Fields, Cambridge: An Archaeological Evaluation
Author(s)/Editor(s)	Cessford, C
Other bibliographic details	CAU Report 893
Date	2009
Issuer or publisher	Cambridge Archaeological Unit
Place of issue or publication	Cambridge
Description	A4 wire bound with plastic laminate front,
Entered by	Craig Cessford (cc250@cam.ac.uk)
Entered on	22 July 2009