



St Chad's Well Stowe Lichfield Staffordshire

Archaeological Evaluation Report



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St Chad's Foundation Trust

St Chad's Well, Stowe, Lichfield, Staffordshire

SK 1215 1021

ARCHAEOLOGICAL EVALUATION REPORT**CONTENTS**

Summary	1
1 Introduction	1
1.1 Location and scope of work	1
1.2 Geology and topography	1
1.3 Archaeological and historical background	1
1.4 Acknowledgements	3
2 Evaluation Aims	3
3 Evaluation Methodology	3
3.1 Scope of fieldwork	3
3.2 Fieldwork methods and recording	3
3.3 Finds	3
3.4 Palaeo-environmental evidence	4
4 Results: General.....	4
4.1 Presentation of results.....	4
4.2 Ground conditions	4
4.3 Distribution of archaeological deposits	4
5 Results: Descriptions	4
5.1 Description of deposits	4
6 Finds	6
6.2 Post-Roman pottery	6
6.3 Ceramic building material	6
6.4 Clay tobacco pipes.....	6
6.5 Other finds	7
7 Ecofacts	7
7.1 Animal bone	7
7.2 Palaeo-environmental remains	7
8 Discussion and Interpretation	7
8.1 Reliability of field investigation	7
8.2 Historical accounts	8
8.3 Interpretation	9
8.4 General Overview.....	12
8.5 Recommendations and mitigation	12
Appendix 1 Archaeological Context Inventory.....	13
Appendix 2 Pottery	14
Appendix 3 Ceramic Building Material	15
Appendix 4 Clay Tobacco Pipes	16
Appendix 5 Bibliography	17
Appendix 6 Summary of Site Details.....	18

LIST OF FIGURES

- Fig. 1 Site location
- Fig. 2 Trench location plan
- Fig. 3 Trench 4; plan
- Fig. 4 Trench 4; sections
- Fig. 5 Trench 6; plan and section
- Fig. 6 Deposit model

LIST OF PLATES

- Plate 1 1923 Elevation of St Chad's Well
- Plate 2 1923 Plan of St Chad's Well
- Plate 3 Account of Survey of St Chad's Well, 1923 (a)
- Plate 4 Account of Survey of St Chad's Well, 1923 (b)

SUMMARY

In July 2006, Oxford Archaeology (OA) carried out a field evaluation on land adjacent to Well Cottage, Stowe, Lichfield (SK 1215 1021). The work was carried out on behalf of St Chad's Foundation Trust, in advance of the proposed construction of a new visitor centre. The site is thought to have close associations with the 7th century Mercian bishop St Chad, and is the site of a holy spring. The first documentary source for a well on the site is from the 16th century. The early 19th century saw the construction of a new brick lined well shaft and an octagonal well house, the latter probably on the site of an earlier structure. Well cottage and a new well house were constructed in the mid-20th century.

The evaluation revealed evidence for a stone wall, possibly around the site of the spring, which was overlain by the foundations of the 19th-century octagonal well house. Part of the brick lined well shaft was revealed to the south. Evidence for landscaping associated with the 20th-century structures was revealed within the trenches.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 In July 2006, Oxford Archaeology (OA) carried out a field evaluation at St Chad's Well, Stowe, Lichfield, Staffordshire (SK 1215 1021) on behalf of St Chads Foundation Trust. The work was commissioned in advance of the proposed construction of a new visitor centre to the west of St Chad's Church, on the site of the existing Well Cottage. The evaluation comprised ten trenches, the locations of which were partially informed by the results of a geophysical survey.

1.2 Geology and topography

1.2.1 The site lies to the north of St Chad's Road and west of St Chad's Church and is bounded to the north and west by a cemetery. The geology comprises sands and gravels and/or Keuper Marl (Mercia Mudstone). The site is 0.1 ha in area and lies at c 80 m OD.

1.3 Archaeological and historical background

1.3.1 The following information is summarised from an archaeological desk-based assessment of the site (Ferris 2003) and a press release by the Diocese of Lichfield (DoL 2006).

1.3.2 In the 7th century, the Stowe area was a raised piece of ground amidst marshland; such sites were often the focus for early religious activity. The name Stowe means 'holy place' and there may have been a spring or well here that was already considered as sacred in pre-Christian times.

- 1.3.3 St Chad, according to Bede's Ecclesiastical History (AD 731), became the fifth bishop of the Kingdom of Mercia in 669, but was the first bishop to establish a formal seat for his see at Lichfield.
- 1.3.4 Bede states that 'Chad had his episcopal see in the place called Lichfield, in which he also died and was buried, and where the see of the succeeding bishops of that province still continues. He had built himself a habitation not far from the church, wherein he was wont to pray and read with seven or eight of the brethren, as often as he had any spare time from the labour and ministry of the word.'
- 1.3.5 His body was buried in St Mary's Church, and later transferred to St Peter's, but his 'habitation' has been generally thought to have been at Stowe. Recent work by Dr Warwick Rodwell at Lichfield Cathedral, not far from Stowe, revealed the remains of two churches thought to be St Peter's and St Mary's. Consequently, it is possible that his habitation was on a site nearer to the Cathedral.
- 1.3.6 St Peter's Church, the shrine, and a number of high-status later burials around the shrine were discovered during an excavation in the nave of the Cathedral. The remains of St Mary's Church was discovered in the 1990s during a major programme to replace broken limestone flooring flags. It was not until the remains of St Peter's Church were found that it was possible to identify the remains found in the 1990s as St Mary's Church, the church where Chad worshipped and preached (DoL 2006).
- 1.3.7 St Chad's church is first recorded in 1190. The church is much altered since then, but traces of the 12th-century round-headed windows can still be seen on the south wall. In 1311 a ruined chantry priest's house was recorded in the grounds, and an anchorite's house was recorded in the churchyard in the 16th century.
- 1.3.8 St Chad's Well was recorded by John Leland in the 16th Century as 'a spring of pure water.....where St Chad was wont to stand naked in the water and pray.' The well was open until the 1830s when an octagonal well house was constructed. The well was moved in the 1940s when the current Well Cottage was built.
- 1.3.9 The Domesday Book of 1086 records three mills in existence in the area, two serving the estate and one the manor. Stowe Mill is recorded in the VCH as being in use from the 14th century to 1856.
- 1.3.10 The only archaeological evidence within the area comprises over 100 sherds of medieval pottery derived from the backfill of a pit, found on St Chad's Road. A causeway across the brook to the well was recorded in 1850, in deep excavations in the churchyard.
- 1.3.11 A geophysical survey (Stratascan 2003) identified vaguely rectangular areas of high resistance, a possible trackway and possible ditches and walls, perhaps representing cottages to the west of the church.

1.4 Acknowledgements

- 1.4.1 Thanks are extended to Dr Iain Ferris and Martin Tomlinson for their assistance during the project, and in particular to Dr Mike Preston for his help in the day to day running of the project.
- 1.4.2 Thanks are also extended to the people of Stowe for gladly sharing their local knowledge, a special mention goes to Judith and Derek Love for supplying a copy of the 1923 St Chad's Church Well Survey (see Section 8).

2 EVALUATION AIMS

- 2.1.1 General aims were to establish the presence/absence of any archaeological remains within the investigation area and to determine the extent, condition, nature, character, quality and date of any archaeological remains that may affect further need for mitigation during the construction process for the new visitor centre.
- 2.1.2 To establish the ecofactual and environmental potential of any archaeological deposits and features and to make available the results of the investigation.
- 2.1.3 Specifically the evaluation aimed to investigate the anomalies revealed in the geophysical survey, and investigate the original location of St Chad's Well.

3 EVALUATION METHODOLOGY

3.1 Scope of fieldwork

- 3.1.1 The evaluation consisted of ten trenches, varying in size from 1 m sq. to 4 m long and 2 m wide (see Fig. 2). The overburden was removed by a mini digger fitted with a toothless ditching/grading bucket, under close archaeological supervision.

3.2 Fieldwork methods and recording

- 3.2.1 The trenches were cleaned by hand and the revealed features were sampled to determine their extent and nature, and to retrieve finds and environmental samples. All archaeological features were planned and, where excavated, their sections drawn at scales of 1:20. All features were photographed using colour slide and black-and-white-print film. Recording followed procedures laid down in the OAU Fieldwork Manual (OA, 1992).

3.3 Finds

- 3.3.1 Finds were recovered by hand during the course of the excavation and bagged by context. Finds of special interest were given a unique small find number.

3.4 Palaeo-environmental evidence

- 3.4.1 One deposit suitable for environmental sampling was encountered (context 201). A bulk sample of 40 l was taken and retained.

4 RESULTS: GENERAL

4.1 Presentation of results

- 4.1.1 As the majority of the trenches did not contain archaeological features, only Trenches 4 and 6 are the subject of detailed trench descriptions in Section 5. Details of deposits in the remaining trenches are presented in the context inventory in Appendix 1.

4.2 Ground conditions

- 4.2.1 Given the known springs in the area and the proximity of Stowe Pool, it was anticipated that the water table would be encountered at a relatively shallow depth. However, although a number of the trenches were in excess of 2 m deep, no ground water was encountered during the evaluation. This is likely to be the result of a number of factors which are discussed in greater detail below (see Section 8).

4.3 Distribution of archaeological deposits

- 4.3.1 The deposits overlying the natural geology appear, to some extent, to reflect former land use suggested by the map regression in the desk based assessment. The deposits comprised sandy silts and clays forming garden soils and dumped deposits that were observed throughout the site.

5 RESULTS: DESCRIPTIONS

5.1 Description of deposits

Trench Four (Figs 3 and 4)

- 5.1.1 Trench 4 was aligned W-E and comprised two off-set trenches measuring 1.8 m by 2 m and 1.2 m by 2 m. The natural geology was encountered at *c* 74.07 m OD (1.7 m below ground) and comprised mid orange brown sand (417). It was overlain by a grey brown silt sand (410), with limestone inclusions, that may have represented the remnants of a cultivation or garden soil. Clay pipe dating to the 17th century was recovered.
- 5.1.2 The possible soil (410) was cut by the foundation trench (415) for a sandstone wall (413); the wall was aligned W-E and measured 0.6 m wide. The wall comprised a single course of rough loosely bonded sandstone blocks. Soil 410 was overlain by a possible buried topsoil (409) that was cut by a wall robber trench (411) over the line of wall 413. A possible N-S aligned wall robber trench (408) was seen at the eastern end of wall 413. The trenches were 0.6 m wide and filled with stone rich sandy silts (412 and 407), 19th-century pottery and clay pipe fragments were recovered.

- 5.1.3 The robber trench fills (412 and 407) were cut by the foundations for a possible well structure (414) but the full extent of the structure was beyond the limits of the trench. The well was constructed of angular off white bricks, possibly reused coping bricks, approximately four courses high, each course constructed from either headers or stretchers. Similar bricks were seen in the overlying rubble that had traces of a reddish brown sandy mortar. The top of the structure had been disturbed and the bricks were overlain by layers of rubbly silt and sand (404-406) that contained 19th-century pottery and several curved and angular bricks, possibly from the above ground well structure.
- 5.1.4 The demolition material was overlain by modern hardcore (402-403) for the base of a path, and topsoil (401).

Trench Six (Fig. 5)

- 5.1.5 Trench 6 was aligned N-S and measured 2.8 m by 1.2 m. It was excavated to a maximum depth of 2 m below ground (74.25 m OD) where a buried garden soil (600) and topsoil (601) were revealed. The deposits were cut by the construction trench for a circular brick shaft. The base of the shaft was constructed from three courses of 19th-century bricks and was over 1 m wide (603). The base had been disturbed and remodelled re-using the bricks from 603 (604) and a downpipe added. Over 604 lay 8 courses of 20th-century bricks and a stone collar (605), which were capped by three courses of bricks and a stone slab (606).
- 5.1.6 The upper part of the structure (605) was abutted by dumps of rubble, tarmac, silts and sands (602) that contained 19th-century pottery and glass. The deposits were probably infilling a construction cut and were overlain by the modern turf.

Trenches 1-3, 7-8 and 10 (Fig. 6)

- 5.1.7 Natural sand was encountered to the south of the site at 2.15 m below ground (74.5 m OD) and to the north of the site at 1.4 m below ground (73.85 m OD). In Trench 2 it was overlain by a blueish grey waterlogged clay (201), possibly infilling a hollow. In Trench 3 there was a suggestion of a N-S aligned feature in the base of the trench but health and safety implications meant any excavation was impractical. Above the clay, and natural in the other trenches, was a layer of greyish brown sandy silt measuring between 0.3 and 0.5 m thick. This was probably a buried cultivation or garden soil, and contained 17th-18th-century pottery. It was overlain by a darker sandy loam that was up to 0.5 m thick and was probably a buried topsoil. Pottery dating to the 19th century was recovered. The topsoil was overlain by dumps of silty sand and rubble, which were c 0.3 m deep to the north and 0.8 m deep to the south. In Trench 10 approximately 1 m of brick rubble was encountered below a lens of tarmac. The rubble dumps were overlain by the existing garden soil and turf (Fig. 6).

Trench Nine (Fig. 2)

- 5.1.8 Trench 9 was located to the east of Well Cottage and measured 1 m by 1m. It was excavated to a depth of 0.5 m where a service encased in concrete was encountered.

6 FINDS

6.1.1 Summaries of the finds reports are presented below. The full reports for pottery, ceramic building material and clay tobacco pipes can be found as Appendices 2 - 4.

6.2 Post-Roman pottery

6.2.1 The assemblage comprises a total of 75 sherds of pottery weighing 2153g. This came from a total of five contexts.

6.2.2 The assemblage almost wholly comprises 19th-century domestic wares with some late 18th- to early 19th-century wares also present and one or two earlier post-medieval sherds. In most instances the sherds were large and fresh and were recovered from either buried soils or construction backfills.

6.3 Ceramic building material

6.3.1 Four non-standard bricks were recovered from demolition deposits above a probable well (406). Three were complete and one partial. All were made in the same pale yellow clay fabric. Two types of brick were present, curved and complex polygonal, the bricks are typical of 19th century types.

6.3.2 The curved bricks possibly formed part of the well structure, the other type of brick was possibly used in the upper part of the well house structure forming some sort of decorative architectural feature. However, similar bricks were seen within the foundations of the well and they may have originated elsewhere.

6.3.3 Five fragments of post-medieval roofing and floor tiles were recovered from buried soil deposits and the backfilling of the spring shaft. One fragment, from the spring shaft, may have formed part of a wall tile and was stamped with HA....., CANNO....., 18.

6.4 Clay tobacco pipes

6.4.1 A total of 8 pieces of clay pipe weighing 42g were recovered from 4 contexts. The assemblage comprises a mixture of 19th-century and 17th-century material recovered from buried soil deposits. Three 17th-century pipe bowls are present; one complete and two almost complete. Two of these, including the complete bowl, are from a possible buried soil (410). The earlier of these is of some interest. This has a small bowl form of around 1610-1630, or thereabouts, it also has an eccentric and possibly defective bore and has been overfired or burnt - characteristics that may indicate a possible kiln waster. None of the pipes bears a maker's mark.

6.5 Other finds

6.5.1 A composite bottle stopper was recovered from the construction backfill (407) of well 414. It was marked CB Davenports Limited

- 6.5.2 Eight modern glass fragments were recovered from a buried topsoil (404) and a complete 19th/20th century beer bottle was recovered from the backfilling (602) of spring shaft 605. The bottle was marked Mounsdon and Sons, Wine and Spirit Merchants, Lichfield.
- 6.5.3 Context 404 also produced three fragments of a lead window came and a copper lock cover. An unidentified iron object was recovered from 407.
- 6.5.4 A piece of slag was recovered from 404.

7 ECOFACTS

7.1 Animal bone

- 7.1.1 A total of 5 fragments of animal bone were recovered from the buried soils and the backfilling of spring shaft 605. Table 1 below gives quantifications for each context and species ID. The large mammal rib from context 404 had been used to smear green paint.

Table 1: Animal bone by context

Context	No of Objects	Weight (g)	Material	Species
104	1	31	Animal Bone	Large mammal (Vertebra)
300	1	97	Animal Bone	
404	1	57	Animal Bone	Large mammal (Rib)
502	1	27	Animal Bone	Sheep/Goat (Tibia)
602	1	12	Animal Bone	Sheep/Goat (Radius)

7.2 Palaeo-environmental remains

- 7.2.1 A single bulk sample was taken from context 201, a probable waterlogged deposit that contained no dating material. Following advice from Dr Rebecca Nicholson (Oxford Archaeology's Head of Environmental Archaeology) the sample was not processed but retained so that it could be assessed as part of any further work, if reliable dating was recovered.

8 DISCUSSION AND INTERPRETATION

8.1 Reliability of field investigation

- 8.1.1 Whilst the characterisation of the horizontal stratigraphy was necessarily tentative given the limited dimensions of the trenches, a significant amount of cartographic and documentary evidence survives which is invaluable in interpreting the structural remains recorded in Trenches 4 and 6.
- 8.1.2 The primary aim of the evaluation was to investigate the results of the geophysical survey. The survey appeared to identify concentrations of brick rubble or the remains of modern paths. No archaeological features were located on the site of a geophysical anomaly.

- 8.1.3 The well structures that were revealed within the excavations were not shown on the survey, presumably because they were obscured by demolition rubble / levelling deposits.

8.2 Historical accounts

General

- 8.2.1 OA was not aware of the following accounts prior to the evaluation. The information was kindly supplied by the local residents of Stowe. James Rawson's account of the construction of the octagonal well house was supplied by Stephen Smith and Mike Preston and Judith and Derek Love supplied a copy of the 1923 St Chad's Church Well Survey.

Octagonal well house, 1833

- 8.2.2 An account written in 1864 by James Rawson, found in The Gentleman's Magazine Library (Gomme and Milne, 1889), details a survey of the site prior to the construction of the octagonal well house and new shaft.

"Whatever the well might have been originally, it had, by the year 1833, degenerated into a most undignified puddle, more than six feet deep . . .

....from two men of far-advanced age, in the year 1833, I learned that the supply of clear water around the well had become much lessened by the drainage of the lower meadows during the latter part of the eighteenth century, At all events, by the date first named here, the well-basin had become filled up with mud and filth; and on top of this impurity a stone had been placed was described by the sight-showers as the identical stone on which St Chad used to kneel and pray!

For my own part, hoping by means of a public subscription to procure a new supply of water for the site of this ancient baptistry . . . I endeavoured to exclude the surface water of the old marsh land from the well, because of this surface water being loaded with ochre: and, as a feeder for the well, a supply of clear water was carefully obtained from the rock at a moderate distance, for close to the well a running sand became an impediment to the work. Over the well an octagonal building was erected with a saxon-headed doorway, and a stone roof surmounted by a plain Latin cross ."

- 8.2.3 Photographs of the octagonal well house show a two line inscription over the doorway. The top line reading 'CEEP' and the lower line 'DCLXIX'. As the latter translates as 669 (the year of St Chad's consecration as Bishop of Mercia) it is assumed that the former is a Latin acronym concerning St Chad.
- 8.2.4 A further survey was carried out in May 1923 by Thomas Moseley, then Churchwarden (Parish Book, 1923 - Plates 1-4). By this date "... the water in the Well had shown signs of failing and for the past two years it had failed altogether [consequently] ... it was decided to ascertain how the well was fed ... [as] ... no living person knew where the water came from."

- 8.2.5 Mr Moseley, having identified that the brick shaft was the origin of the water supply for the octagonal well house, concluded that the brick shaft was located over the site of the spring which “ *In St Chad's time ... overflowed and the rivulet ran to the site of St Chad's Well where it widened out into a small pool or basin and thence into the stream.* ” This is in contradiction to the earlier account by Rawson which stated that the octagonal well house was built over the site of the spring and that the brick lined shaft was newly dug in 1833.

1923, St Chad's Church Well Survey

- 8.2.6 The 1923 survey also provides further evidence for the construction method of the new shaft in 1833. From Mr Moseley's drawing, it seems clear that a 6” iron pipe was installed within the newly excavated and brick lined well which was then infilled with clay. As the clay was removed in 1923, the capstone now seals a void some 4.2 m deep. It would also seem from these drawings that the octagonal chamber housed a relatively shallow reservoir which was fed by the ‘new’ shaft.
- 8.2.7 Despite this confusion, Mr Moseley established that the water table had dropped to such a level that it was now some 20” below the outlet pipe from the new shaft to the octagonal well house. This he attributed to “ *.. the pumping operations of the Conduit Lands Trustees and South Staffordshire Waterworks Co.* ” and as a solution “ *... In June 1923 a stone slab was placed over the shaft to the spring and a pump installed which was connected to the lead inlet pipe and so pumped water into St Chad's Well.* ”
- 8.2.8 It is also potentially significant that Mr Moseley suggests that “ *The whole of the site is to-day from three to four feet higher than two centuries ago as is shown by the soil which is what is known as 'made soil'* ”. This is discussed in greater detail when considering the origin of the deposits encountered during the evaluation (see Section 8.3).

8.3 Interpretation

Stratigraphy

- 8.3.1 Although the origin of a number of the deposits encountered during the evaluation is uncertain, their similarity and the consistency of the deposits across the site allows for a tentative interpretation to be suggested.
- 8.3.2 The silty sand deposits overlying the natural geology in all the trenches was fairly consistent in composition. It did vary in thickness, perhaps reflecting an irregular interface with the underlying sand. The few finds, dated to the 17th or 18th century, suggest that the deposit represents a garden soil which may relate to the parterres or bordered plots shown on John Snape's Plan of the City and Close of Lichfield (1781).
- 8.3.3 This deposit was consistently overlain by a c 0.2 - 0.5 m thick layer of mid-dark grey clayey silt which probably represents a buried topsoil / ground surface; it was dated to the 19th century. In Trench 6, the top of this deposit (601) roughly coincided with the top of the original brickwork of the brick lined well shaft, and it seems likely that the

majority of the overlying made ground originated during the construction of the 1833 structures and accounts for the 'made soil' referred to by Mr Moseley (this is not the case in Trench 6 due to the subsequent re-modelling of the top of the brick shaft). The made ground across much of the site appears to comprise re-deposited topsoil, garden soil and sand, and may originate from the original excavation of the brick lined shaft.

- 8.3.4 The variations in the composition of the made ground comprise concentrations of brick rubble which may be associated with the demolition of Littleworth Cottages and/or the construction of the existing Well Cottage. Additionally, the made ground overlying the buried topsoil and structure 414 in Trench 4 is likely to originate from the demolition of the octagonal well house in the 1940s.

Pre 19th century structural remains

- 8.3.5 The extent and date of the remaining *in-situ* elements of the robbed out wall footing in Trench 4 (413) were uncertain. The robber cut (411) certainly truncated the buried soils (409 and 410), and it may be that the robbing is contemporary with the construction of the structure to the north (414). The latter is likely to represent the northern extent of the octagonal well house (see below), which Rawson's account would suggest was constructed on the site of the dried up spring. This may suggest that the robbed out wall forms part of an earlier well structure - perhaps even that drawn by Stukeley in 1736 - although the evidence for this is circumstantial and based purely on the proximity of the two structures.

19th century structural remains

Octagonal Well House

- 8.3.6 The description of the spring site from 1833, together with the detailed plan and notes from 1923 and contemporary photographs and drawings of the site, strongly suggest that structure 414 in Trench 4 represents the northern extent of the octagonal well chamber constructed in 1833. This appears to have been constructed on the site of the earlier spring and stone well recorded in the 16th and 18th centuries.
- 8.3.7 The structure was well coursed, although no mortar was apparent, and the unusual form of the bricks suggested that they had been re-used from elsewhere, as they did not appear to have any obvious function in the context in which they were revealed. Contemporary drawings and photographs of the octagonal well house suggest a well faced exterior to the structure not reflected in the masonry within Trench 4, and it is possible that this represents part of the exterior of the sunken part of the structure which would not have been visible from the outside.
- 8.3.8 It is possible that the base of the well was constructed from bricks used elsewhere on the site. Some of the bricks in the demolition deposits were slightly curved and may originally have been voussoirs from an arch or doorway. However, the bricks are 19th century in date and may have formed part of the upper well structure. What is curious is that the foundations are constructed from re-used angular bricks of the same construction type as the curved bricks. It is possible that all the bricks were reclaimed,

and the angular bricks were for coping or waste from a nearby kiln. We know that Robert Bird, a brickmaker, was living in Stowe Street in 1466 (L.J.R.O.) and it is likely that there was a kiln nearby.

- 8.3.9 The relationship between structure 414 and the buried soils (410 and 409) was uncertain, although it is likely that the soils are contemporary with an earlier well structure shown on the 1781 plan, and therefore pre-date the octagonal well house.

Brick Lined Feeder Shaft

- 8.3.10 The brick structure revealed in Trench 6 must represent the 'new feeder for the well' described by Rawson and labelled 'Spring Shaft' on the 1923 plan. The construction materials of the well shaft reflect the descriptions given in the accounts of 1833 and 1923. The upper 9 brick courses were built off a stone 'collar' which had been placed over the upper brick course of the earlier structure. These comprised relatively modern brick and were overlain by a capstone, presumably that described by Mr Moseley.
- 8.3.11 Although there was some suggestion that the more recent brickwork originated from the 1947 re-development of the site, it seems more likely that these courses were laid during the 1923 re-modelling. Mr Moseley suggests that the well was capped in 1923 and as the ground level was considerably higher than the top of the well (see Plate 2), this would have necessitated the heightening of the shaft in order to cap it.
- 8.3.12 There were two probable iron pipes within the brick lined shaft. One of these (Pipe 1) fed into the upper courses of the earlier structure, and the other (Pipe 2) into the more modern brickwork. It was unclear to which phase of construction these pipes belonged. It is possible that Pipe 2 is the original 19th century 6" pipe which has been cut off and incorporated into the additional brick course - this would imply that Pipe 1 is associated with the installation of the pump in 1923, which may account for the difference in the bond of the upper four courses of the 19th century well.
- 8.3.13 Alternatively, Pipe 2 may represent the pump installation, whereas Pipe 1 may be the original pipe. However, Pipe 1 fed into the earlier brickwork to the south of the brick shaft and the 1923 drawing suggests that the original pipework comprised a vertical pipe and an outlet to the north of the shaft. As such it would seem that the former scenario is more likely.

8.4 General Overview

- 8.4.1 Although no artefactual evidence was recovered to suggest any activity earlier than the 17th century, the survival of buried soils which are cut by early 19th century structures suggests that little truncation has occurred on the site and that earlier features may survive. However, with the exception of the possible feature in Trench 3 and the potentially earlier well structure in Trench 4, no evidence was revealed to support this; it is possible that the site is on the periphery of any suggested 7th century foundation on the site of the current Church.

- 8.4.2 The water table appears to have been drastically affected by water management schemes from the 18th century onwards. Drainage of the meadows to the north in the 18th century; the pumping operations referred to by Mr Moseley and the more recent culverting of the leat to the east have all affected the water level and necessitated re-modelling of the well site, culminating with the construction of the existing structure in 1947.
- 8.4.3 The construction of the octagonal well house on the site of the dried up spring - and a new 4 m+ deep brick shaft - attests to the continued significance of the spring site, as do the efforts of Mr Moseley to clear the brick shaft of its clay backfill and pump water to the well house.

8.5 Recommendations and mitigation

- 8.5.1 The proposed pilgrim centre is located to the south of the site, and will not impact on the remains of the octagonal well, seen within Trench 4. However, St Chad's Foundation Trust may wish to make a feature of the octagonal well, in which case the site of the well should be fully excavated. Further excavation may shed further light on the function of the stone wall that predated the construction of the octagonal wall, and may also identify any earlier deposits.
- 8.5.2 The brick spring shaft also lies outside the site of the proposed pilgrim centre, within the site of the proposed terrace. However, it is possible that the upper part of the shaft may be impacted on by the foundations of the building, or by any service trenches. St Chad's Foundation Trust may also wish to make a feature of the shaft. The upper portion of the shaft dates from 1923 and it may be necessary to further record the structure before it is removed.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

Trench	Context	Type	Thickness (m)	Finds	Date	Comments	
1	101	Layer	0.1			Topsoil	
	102	Layer	0.1			Subsoil	
	103	Layer	0.3			Buried topsoil	
	104	Layer	0.25	CBM/Clay pipe/bone	19th	Buried topsoil	
	105	Layer	0.31			Buried garden soil	
	106	Layer	0.26			Buried garden soil	
	107	Layer				Natural	
2	200	Layer				Natural	
	201	Layer	0.5			Fill of hollow?	
	202	Fill	0.6	pot/CBM	19th	Buried garden soil	
3	203	Layer	0.5			Buried topsoil	
	300	Layer		bone		Natural	
	301	Layer	0.5			Buried garden soil	
	302	Layer	0.45			Buried topsoil	
	303	Layer	0.4			Topsoil	
	4	401	Layer	0.25			Topsoil
		402	Layer	0.2			Hardcore
403		Layer	0.8			Hardcore	
404		Layer	0.28	pot/clay pipe/bone/glass/metal/slag	19th	Demolition	
405		Layer	0.16			Demolition	
406		Layer	0.35	CBM	19th	Demolition	
407		Fill	0.25	pot/clay pipe/composite/metal	19th	Fill of wall robber trench	
408		Cut	0.25			Wall robber trench	
409		Layer	0.21			Buried topsoil	
410		Layer	0.25	clay pipe	17th	Buried garden soil	
411		Cut	0.41			Wall robber trench	
412		Fill	0.41			Fill of wall robber trench	
413		Masonry	0.22			Wall	
414		Masonry				Well	
5	415	Cut				Construction cut	
	416	Cut				Construction cut	
	417	Layer	0.17			Natural	
	418	Layer	0.21			Hardcore	
	500	Layer				Natural	
	501	Layer				Natural	
	502	Layer	0.5	pot/CBM/bone	17-18th	Buried garden soil	
	503	Layer	0.4			Buried topsoil	
	504	Layer	0.4			Levelling	
	505	Layer	0.1			Hardcore	
6	506	Layer	0.1			Hardcore	
	507	Layer	0.25			Topsoil	
	600	Layer	>0.25			Buried garden soil	
	601	Layer	0.35			Buried topsoil	
	602	Layer	1.2	pot/CBM/bone/glass	19th	Fill of construction	

Trench	Context	Type	Thickness (m)	Finds	Date	Comments
						cut
	603	Masonry	>0.25			Spring shaft
	604	Masonry	0.4			Spring shaft
	605	Masonry	0.95			Spring shaft
	606	Masonry	0.3			Spring shaft
	607	Group No.				Spring shaft
7	700	Layer				Natural
	701	Layer	0.4			Buried garden soil
	702	Layer	0.2			Buried topsoil
	703	Layer	1			levelling/topsoil
8	800	Layer				Natural
	801	Layer	0.35			Buried garden soil
	802	Layer	0.5			Buried topsoil
	803	Layer	0.9			levelling/topsoil
9	900	other	0.47			service
10	1000	Layer				Natural
	1001	Layer	0.35			Buried garden soil
	1002	Layer	0.3			Buried topsoil
	1003	Layer	1.5			levelling/path

APPENDIX 2 POTTERY

By John Cotter

Introduction and Methodology

The assemblage comprises a total of 75 sherds of pottery weighing 2153g. This came from a total of 5 contexts (See table A1.1).

All the pottery was examined and spot-dated. For each context the total pottery sherd count and weight were recorded on an Excel spreadsheet, followed by the context spot-date which is the date-bracket during which the latest pottery types in the context are estimated to have been produced or were in general circulation. Comments on the presence of datable types were also recorded, usually with mention of vessel form (jugs, bowls etc.) and any other attributes worthy of note (eg. decoration etc.).

Table A1.1 Pottery by context

Context	Spot-date	Sherds	Weight	Comments
202	c1825-1850/75	10	134	1x blue transfer-printed Staffs whiteware (LPM14). Rest mostly c1780-1830 incl Creamware & Midlands black glazed dish/bowl rims. 1x poss 16/17C Midlands purple-type bs (though could be 18C?)
404	c1850-1900	55	1681	2x blue transfer-printed Staffs white & several brown transfer-printed incl tureen lid. Yellowware. Bone china teacups, saucers, egg cup. Black glazed teapot spout. Staffs-type white cylindrical preserve jars & corduroy stoneware preserve jar. Bristol glazed cream stoneware jars
407	c1825-1850/75	7	114	English porcelain gilded plate profile. Staffs white blue transfer-printed plate. Brown-glazed jug handles. Banded Staffs sugarbowl
502	17-18C?	1	43	Midlands blackware detached jug handle (lustrous black-glazed coarse redware). Widest poss date Late 16C - early 19C. Worn
602	c1780-1850?	2	181	Late Nottingham stoneware jar lid (profile) with complex rouletted dec. Base frag from brown salt-glazed ?cylindrical jar (prob Midlands)
TOTAL		75	2153	

Date and Nature of the Assemblage

The assemblage almost wholly comprises 19th-century domestic wares with some late 18th to early 19th-century wares also present and one or two earlier post-medieval sherds. In most instances the sherds were large and fresh and were recovered from either a buried garden soil or top soil.

The bulk of the assemblage consists of mass-produced Staffordshire-type refined earthenwares, predominantly whitewares ('willow pattern' etc.) of 19th-century date. These often had transfer-printed decoration, predominantly blue and brown. The range of vessel forms, predominantly tablewares, and the character of the decoration present in combination with other datable wares suggests a dating emphasis in the mid or second half of the 19th century. Other common late 18th and 19th century mass-produced wares are detailed in Table A1.1. These include a small amount of Creamware (mainly *c.* 1780-1830), Yellowwares, English porcelain, bone china and modern English stonewares. Brown salt-glazed Midlands and Nottingham stonewares are also present and black and brown glazed 'teapot' wares.

Rarer, pre-industrial, pottery types include a 17th- or 18th-century jug handle in Midlands black-glazed red earthenware (context 502), although this is rather worn and may be residual. There is also a possible sherd of late medieval/early post-medieval 'Midlands purple ware' which is unusually coarse compared to the rest of the assemblage - however this is residual in a 19th-century context (202).

APPENDIX 3 CERAMIC BUILDING MATERIAL

By Cynthia Poole

Four non-standard bricks were found in context 406. Three were complete and one partial. All were made in the same pale yellow clay fabric. Two types of brick were present.

One type is slightly curved measuring 201 mm to 245 mm long by 120 mm to 125 mm wide by *c* 78 mm thick. The bricks were well formed with smooth surfaces and even sharp arrises. It is unclear whether the convex surface was the original exposed face or one of the other surfaces.

The second type was a complex polygonal shape with maximum dimensions of 260 by 275 by 58 mm and the second (partial) brick though of identical shape had slightly different dimensions implying a slightly smaller size, but a greater thickness of 76 mm. These are clearly specially made architectural bricks.

The curved bricks possibly formed part of the well structure. It may be possible to estimate the overall diameter such bricks would make if used in a circular structure and whether this would be compatible with the size of the well. The other type of brick was possibly used in the upper part of the well house structure forming some sort of decorative architectural feature. The apparent differences in size may have been necessary as a result of the octagonal shape of the structure. The bricks are typical of 19th century types.

Five fragments of post-medieval roofing and floor tiles were recovered from buried soil deposits and the backfilling of the spring shaft. One fragment (602), from the spring shaft, may have formed part of a wall tile and was stamped with HA....., CANNO....., 18.

Table A3.1 Incidence of tile by context

Context	No of Objects	Weight (g)	Material
104	1	90	Roof tile
202	1	322	Floor tile
502	2	15	Roof tile
602	1	54	Wall tile

APPENDIX 4 CLAY TOBACCO PIPES

By John Cotter

Introduction and Methodology

A total of 8 pieces of clay pipe weighing 42g was recovered from 4 contexts. These were spot-dated and recorded (see Table A4.1).

Description

The assemblage comprises a mixture of 19th-century and 17th-century material recovered from buried soil deposits, although three stem fragments could possibly be of late 18th- or 19th-century date. Three 17th-century pipe bowls are present; one complete and two almost complete. Two of these, including the complete bowl, are from a possible buried soil (410). The earlier of these is of some interest. This has a small bowl form of around 1610-1630, or thereabouts, it also has an eccentric and possibly defective bore and has been overfired or burnt - characteristics that may indicate a possible kiln waster. None of the pipes bears a maker's mark.

Table A4.1 Clay tobacco pipes by context

Context	Spot-date	Stem	Bowl	Mouth	Tot sherds	Tot Wt	Comments
104	19C	0	2	0	2	13	Vestige 19C fluted bowl attached to longer stem. 1x almost complete bowl c1660-1680 or slightly earlier, prominent large circular heel, bore diam 2mm
404	L18-19C	1	0	0	1	2	Narrow stem, bore c1.75mm
407	L18-19C	2	0	0	2	5	Narrow stems, bore c1.75mm
410	c1630-1660	1	2	0	3	22	1x almost complete bowl c1630-1660, but slightly worn, circular heel with scored diagonal line, stem bore c2.5mm. Joining complete bowl & stem (fresh break) prob c1610-1630 with small bulbous bowl & broad fairly prominent circular heel, stem bore c2mm but v eccentric & poss defective; whole thing overfired and either burnt or possibly a kiln waster?
TOTAL		4	4	0	8	42	

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APPENDIX 6 SUMMARY OF SITE DETAILS

Site name: St Chad's Well, Stowe, Lichfield, Staffordshire

Site code: STSTCW06

Grid reference: SK 1215 1021

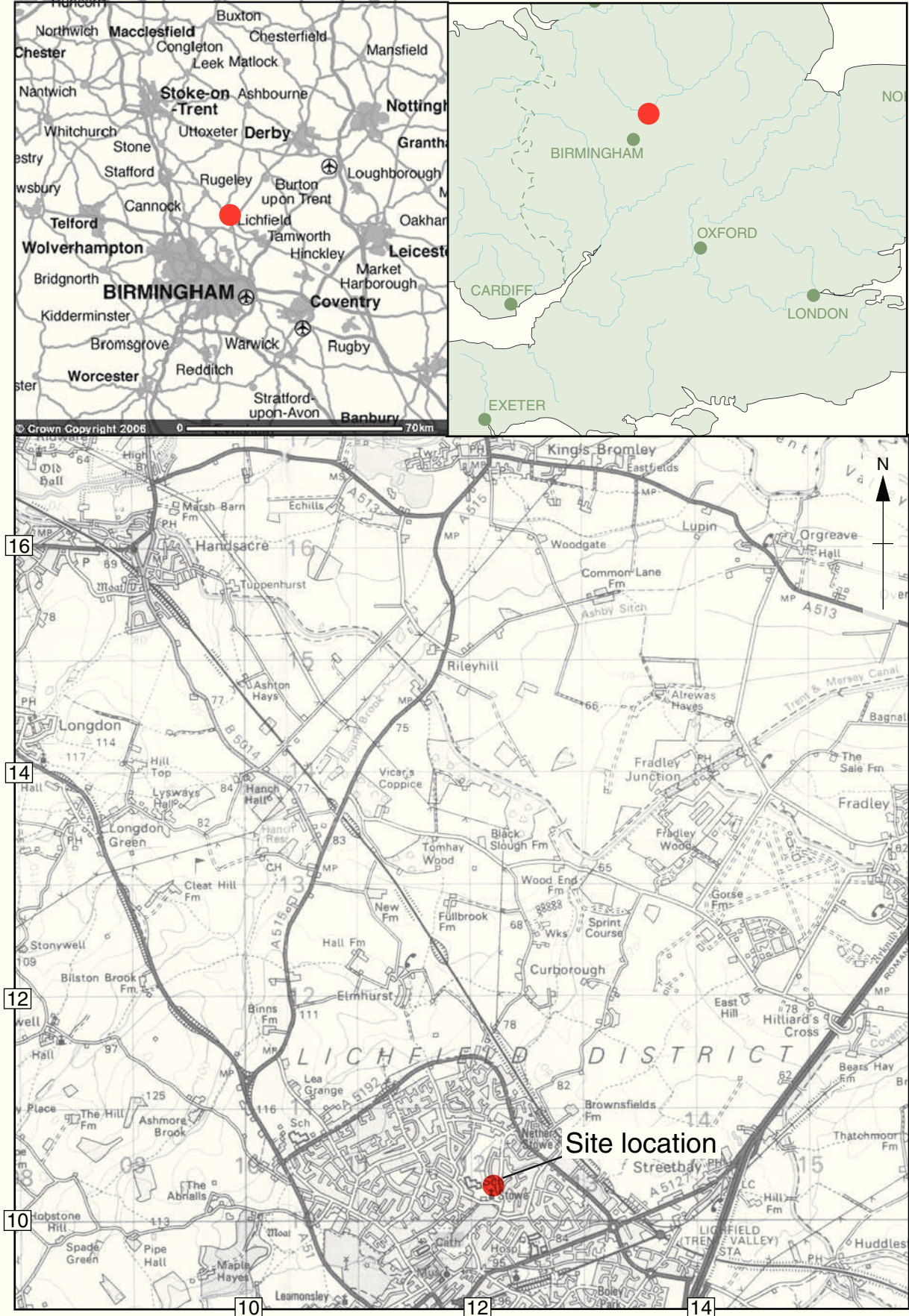
Type of evaluation: Ten 2-4 m long trenches within the grounds of a church.

Date and duration of project: 10th - 20th July 2006

Area of site: 0.1 ha

Summary of results: The footings of an undated well chamber that was superseded by an early 19th-century well chamber - St Chad's Well. A similarly dated brick shaft over a spring was also revealed.

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with The Potteries Museum and Art Gallery in due course.



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Figure 1: Site location

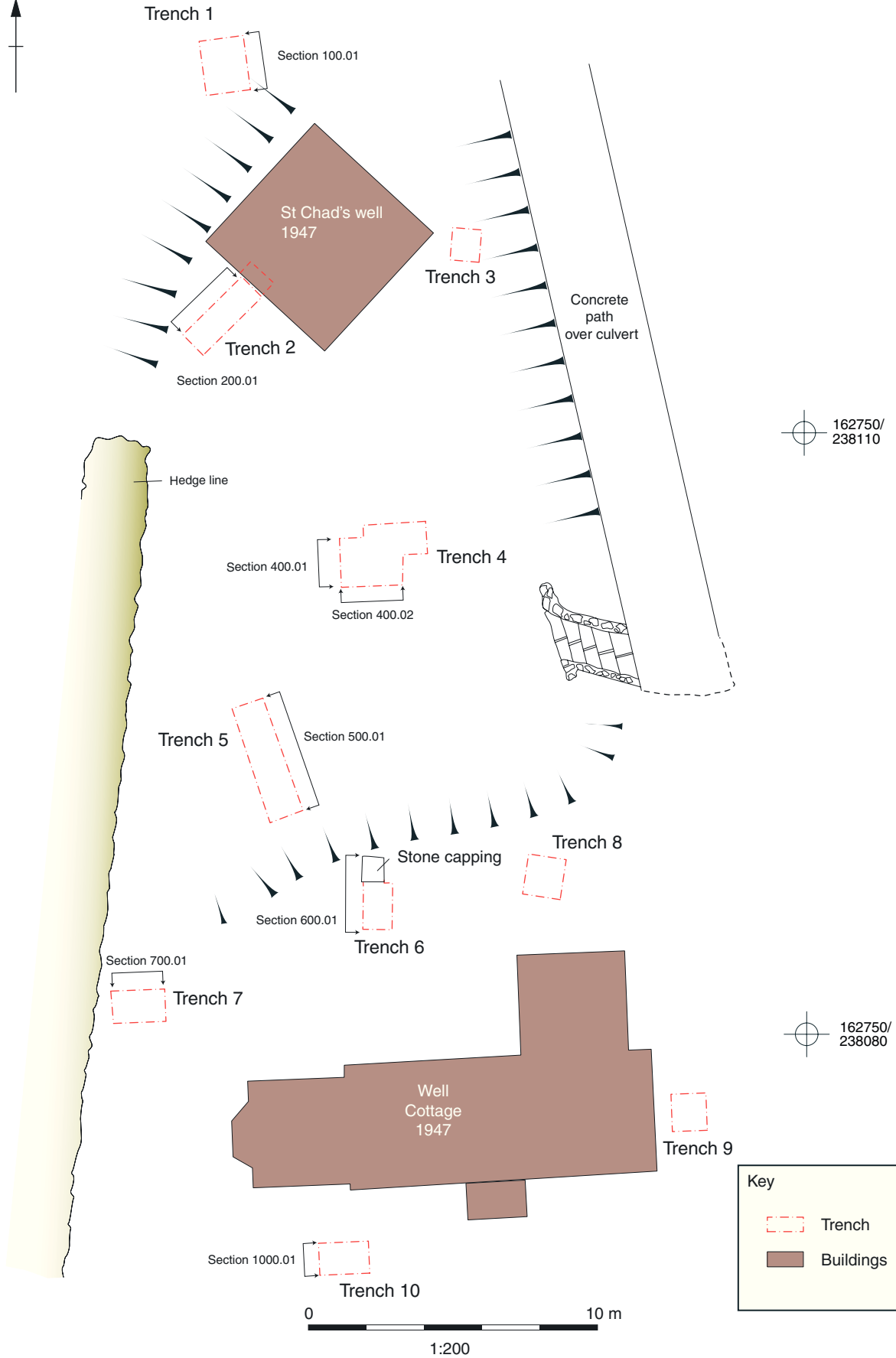


Figure 2: Trench location plan

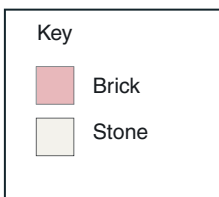
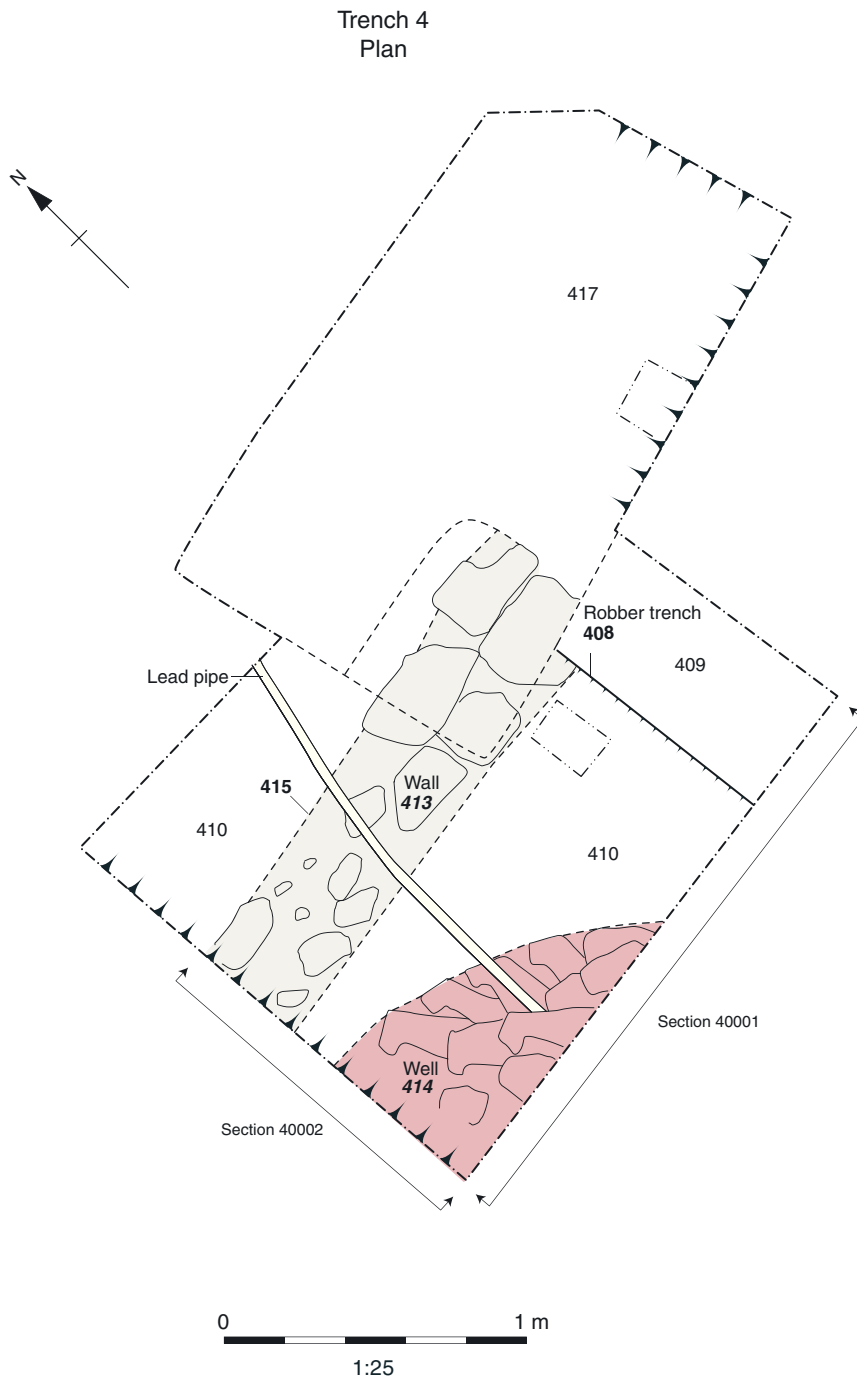


Figure 3: Trench 4; plan

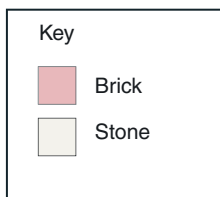
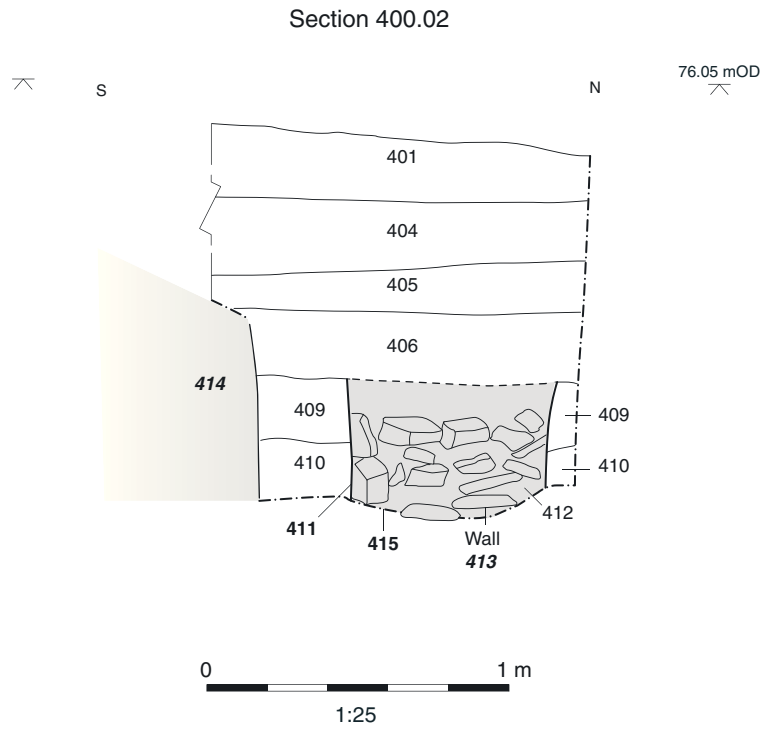
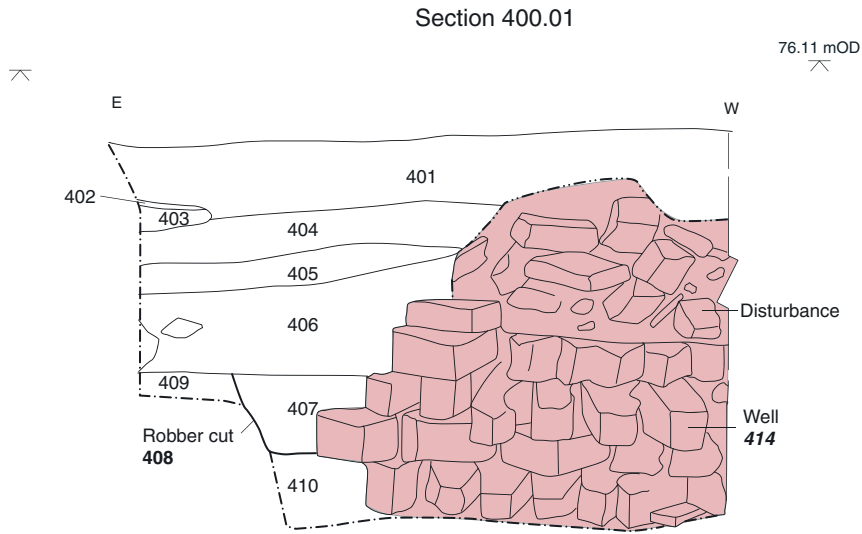


Figure 4: Trench 4; sections

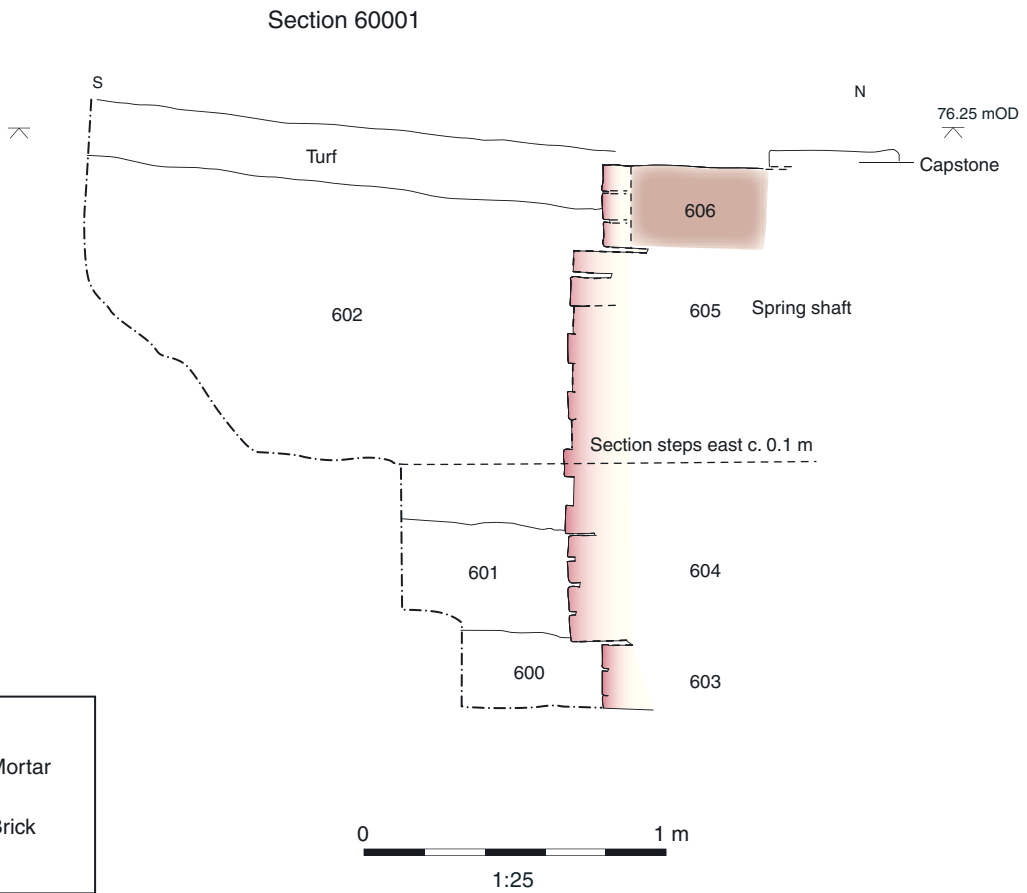
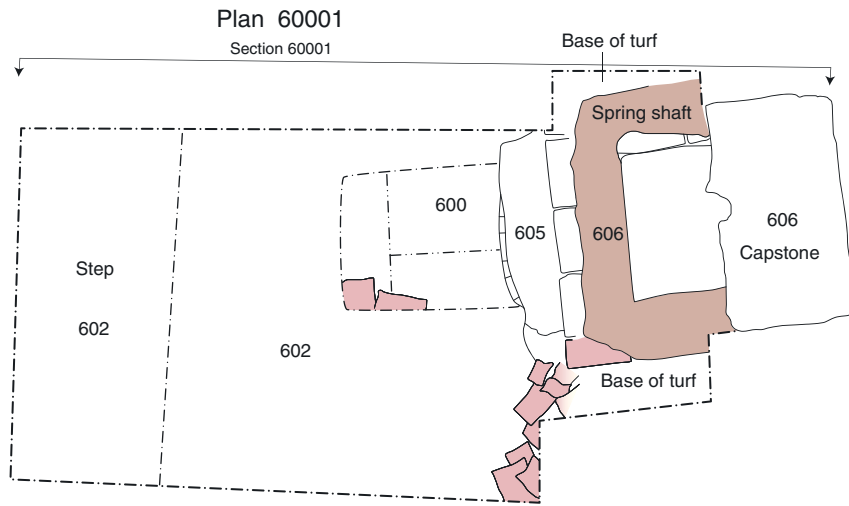
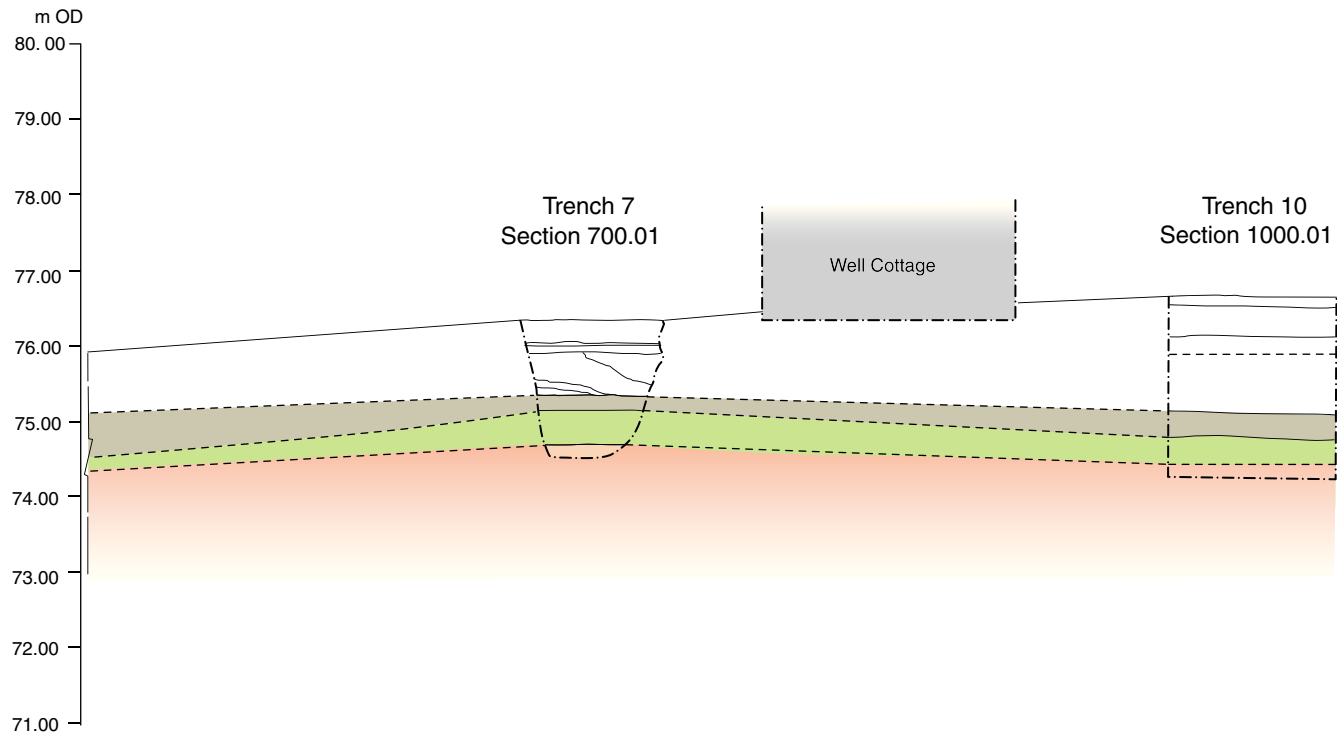
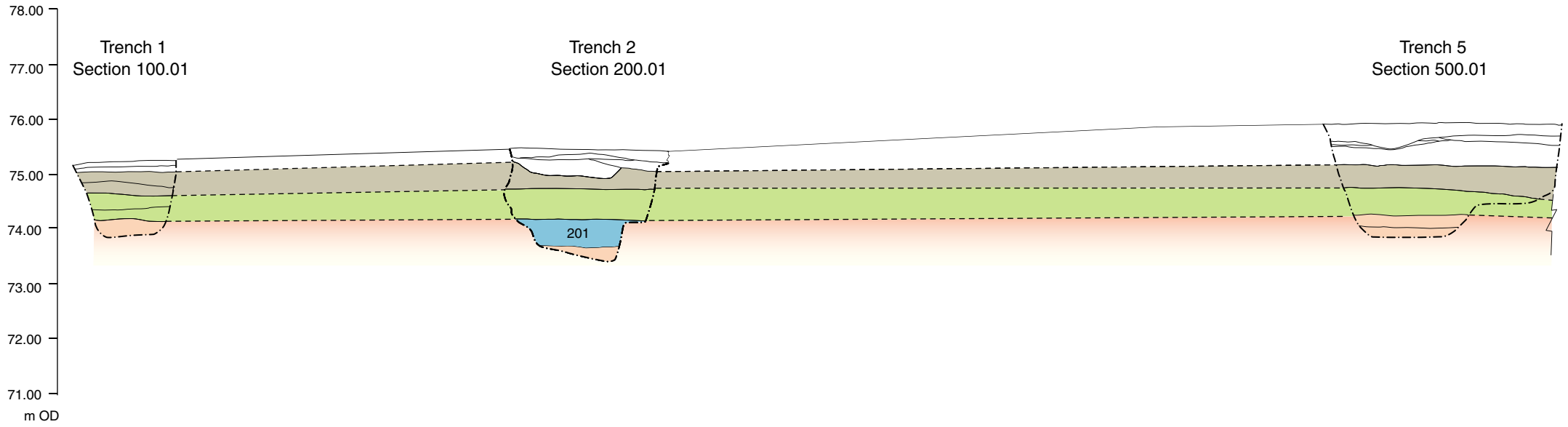


Figure 5: Trench 6; plan and section



Key

- Waterlogged
- Buried topsoil
- Buried garden soil
- Natural



Scale 1:100 @ A4

Figure 6: Deposit model

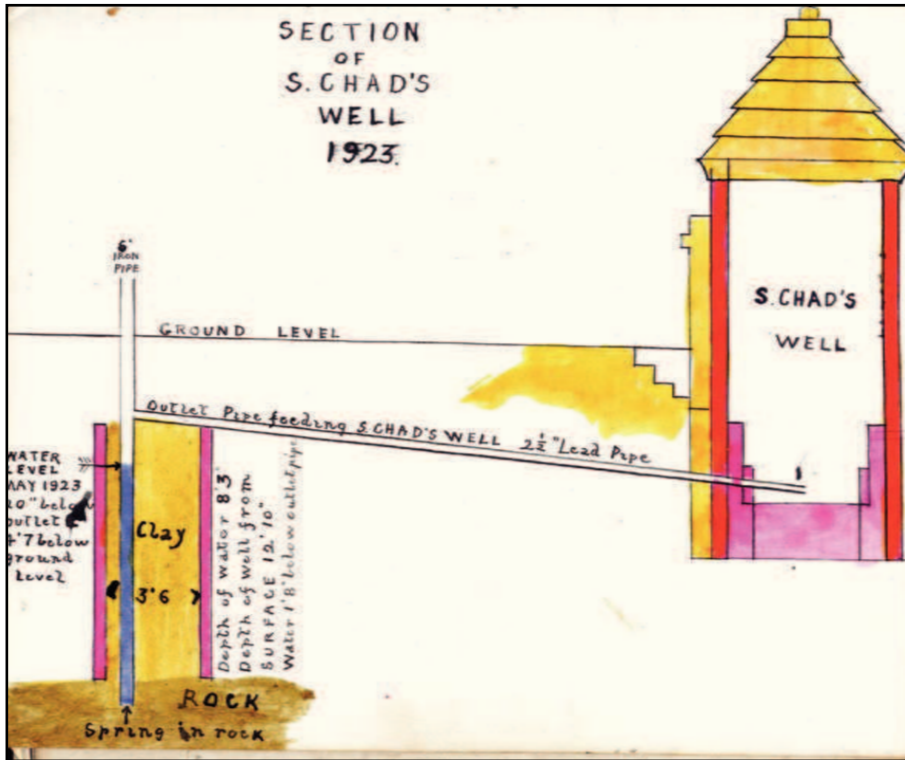


Plate 1: 1923 Elevation of St Chad's well

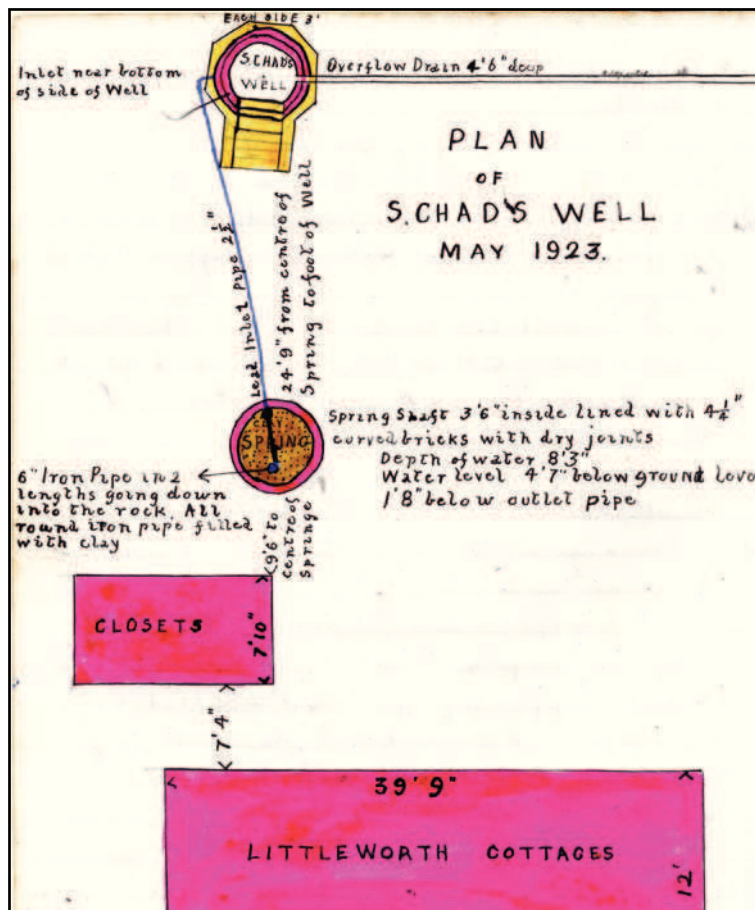


Plate 2: 1923 Plan of St Chad's Well

Saint Chad's Well. May 1923

For some years the water in the Well had shown signs of failing & for the past two years it had failed altogether. It was decided to ascertain how the well was fed

It is believed that about 80 years ago Chancellor Law built the present building & piped in the spring but no living person knew where the water came from & it was popularly believed that the water came from a spring in the little brick building two fields away to the West.

In May 1923 Mr. Ernest David March a sidesman assisted by Mr. Thomas Moseley, the Peoples Warden, Mr. Alfred Smith, the clerk & sexton, & Mr. March Junr, undertook the exploration in the evenings. They took out the iron pipe which projected about a yard above the ground over the spring as it was not known what it was. The clay was removed & it was found that it was a shaft lined with unjointed curved bricks & that in the rock at the bottom was a small fissure out of which the water came. The water was pumped out & the well descended. The well rapidly filled again. Several times it was pumped dry & the bottom carefully examined. The distance from the centre of the shaft to the front of St Chad's Well is 24 feet 9 inches.

In several times the water rose up the birch iron pipe & ran along the lead pipe & discharged into the bottom

Plate 3: Account of Survey of St Chad's Well, 1923 (a)

of St Chad's Well, the water rose to the overflow pipe & discharged in the stream.

Owing to the pumping operations of the Conduitt Lands Trustees & the South Staffordshire Waterworks Co. the water level of Lichfield has been considerably reduced & the water level of the spring will not ~~rise~~ rise as high as the lead inlet pipe

In St Chad's time the spring overflowed & the rivulet ran to the site of St Chad's Well where it widened out into a small pool or basin & thence into the stream. In this small pool or basin he baptized his converts. The water he would use for drinking purposes. The whole of the site is to-day from three to four feet higher than two centuries ago, as is shown by the soil which is what is known as "made soil"

In June 1923 a stone slab was placed over the shaft to the spring & a pump installed which was connected with the lead inlet pipe & so pumped water into St Chad's Well.

The plan and section drawn on the succeeding pages show the spring & Well as they were found to exist in May 1923 before the alteration

Thomas Moseley
Churchwarden

Plate 4: Account of Survey of St Chad's Well, 1923 (b)



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