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Walled Gardens at Berkeley Castle, Gloucestershire

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Introduction

An evaluation programme was undertaken at the Victorian walled garden complex within the grounds of Berkeley castle, Gloucestershire in February 2003. The gardens are situated on the north side of the castle grounds, to the rear of Canonbury Street.

The plan of the town of Berkeley developed after the construction of the castle in the late 11th century. The main street of the medieval town was High Street, to the west of the castle and St Mary's church (Fig. 1). The church, which perhaps occupies the site of a Saxon Minster, is set in the castle's outer defences and was rebuilt in the 13th and 14th centuries. A series of medieval burgage plots lined both sides of High Street from its junction with Canonbury Street southwards towards Berkeley Pill. Many buildings in High Street are older than those along the line of Canonbury Street and its continuation in Salter Street. The width of Salter Street and the date of its buildings suggest that the town's commercial centre shifted from High Street to Salter Street and Canonbury Street during the 17th or 18th century, when the town became a prosperous trading centre. Salter Street was probably used as a market place and a number of buildings along Canonbury Street, now dwellings, were once shops.

Geology and Topography

The Soil Survey of England and Wales (1983) identifies the soil association around Berkeley castle as a FLADBURY 1 813b, consisting of stoneless clayey soils, some of which are calcareous and affected by groundwater. The topography of the immediate area is undulating. Berkeley castle and the eastern end of the town stand on an east-facing crest, the castle overlooking water meadows some 15–17 m below. Berkeley Pill, which probably fed the moat, runs south of the castle towards the river Severn. A small unnamed tributary flows through the water meadows into Berkeley Pill.

The Evaluation

The evaluation programme followed a planning application to develop the central area of the walled gardens (centred on OS Nat. Grid ST 36801990). Four maps were consulted to identify significant features or structures and thus determine the location of the evaluation trenches. The two walled gardens had been created by 1840 but the tithe map and apportionment of that time revealed little information, the larger garden (998) being referred to simply as 'garden' and the smaller garden (168), to the north alongside Canonbury Street, as 'yard and buildings attached to garden'.

A series of Ordnance Survey maps published in 1880–5, 1902 and 1921–2 each at a scale of 1:2,500, recorded a number of structures, in particular several greenhouses. In 1880 (Fig. 2) the smaller garden contained two adjacent greenhouses oriented north–south. One of those

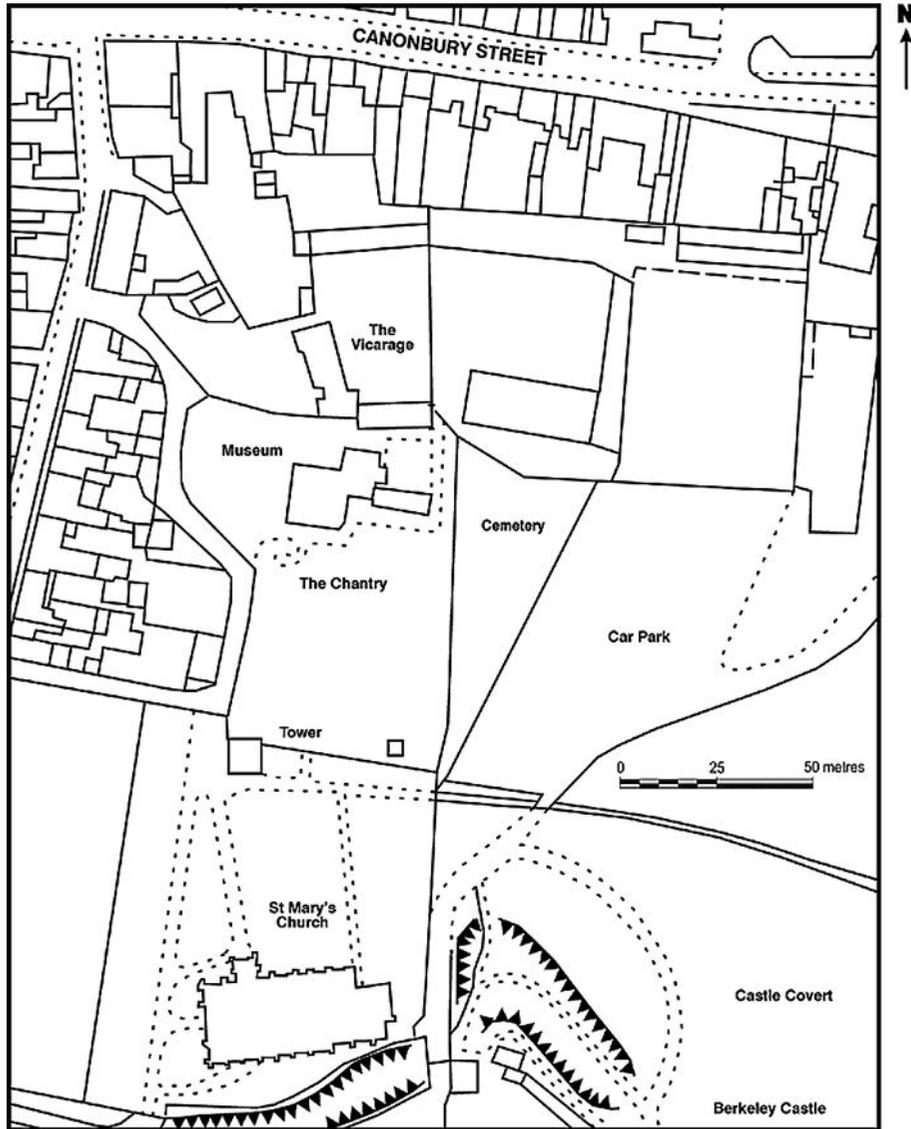
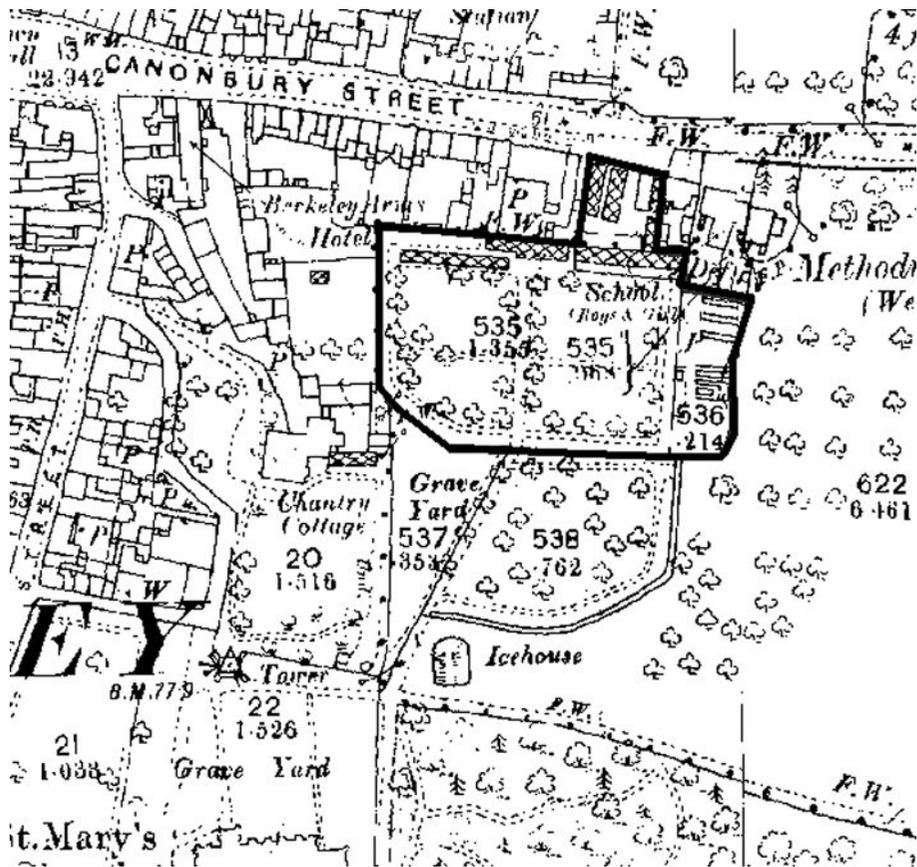


Fig. 1. Location map showing the eastern side of Berkeley.

greenhouses survives. The pitch of the roof of the western building was clearly visible on the southern elevation of the wall separating the garden from Canonbury Street. Within the larger walled garden three long greenhouses oriented east–west stood on its north side and lines of trees followed the inner perimeter of the surrounding wall. Outside the garden, to the east, a series of greenhouses oriented roughly east–west has been replaced by an open timber pavilion and landscaped lawns. In the same area, facing Canonbury Street and extending 300 m to the east, was an area of formal parkland. It should be noted that the present gatehouse off Canonbury Street

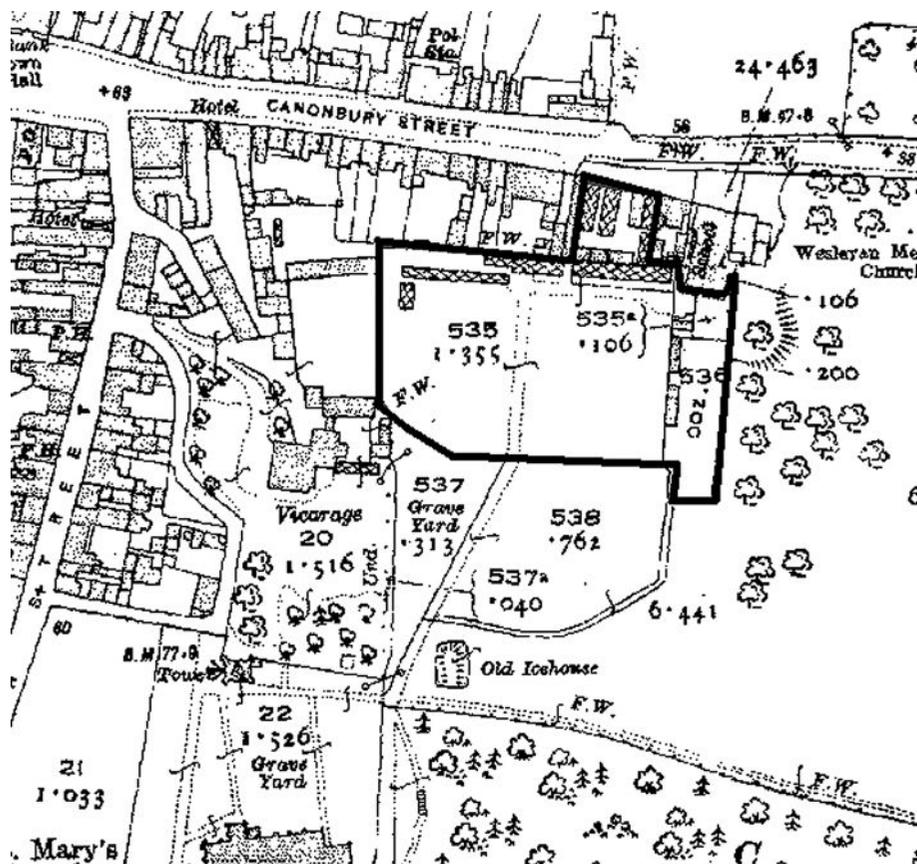


Figs. 2 Changes in the gardens between 1880 (Fig. 2: above) and 1921–2 (Fig. 3: next page) as shown on Ordnance Survey maps.

was constructed some time after 1921–2 (Fig. 3). To the north and east of the walled gardens were a school and a Wesleyan Methodist chapel, buildings that now form a hotel. South of the larger walled garden was the graveyard of St Mary's church.

Based on the cartographic evidence the buildings and structures recorded in the walled gardens in 1880 were standing in 1902. By the latter date a number of changes had taken place within the larger garden and the area to the east. In the garden there were formal paths around the perimeter and across the area, dividing it into quadrants, and on the north side, in addition to the three linear greenhouses, a small greenhouse stood close to the western wall. To the east the greenhouses outside the garden had been replaced by a narrow pavilion that abutted the eastern side of the garden wall. By 1922 the formal paths within the larger walled garden had been replaced by a single north–south route bisecting the garden and there may have been some landscaping in the area to the east. The landscape feature, a large bank, was not recorded on the earlier maps. By 1922 a number of trees in the park had been felled.

Ten trenches and one test pit were strategically located within areas likely to be impacted by the development (Fig. 4). Although trench size varied, their depths were roughly similar – complying with the terms set out within the archaeological brief. Only Trench 2b exceeded to



Figs. 3. Changes in the gardens between 1880 (Fig. 2: previous page) and 1921–2 (Fig. 3: above) as shown on Ordnance Survey maps.

1.2 m below existing ground level. Old Red Sandstone derived soils were encountered in all trenches (b-horizon soils). A dark brown, organic-rich garden topsoil formed the upper context of all excavated areas [10YR3/3], probably the result of seasonal composting. In the smaller walled garden Trench 1a measured 12.0×1.5 m and Trench 1b measured 4×1 m. A small sondage was excavated in both trenches. In the larger walled garden Trenches 2a and 2b were separated by a balk that formed a pathway to one of the standing greenhouses. Trench 2a measured $8.2 \times 1.5 \times 1.2$ m and Trench 2b 13.0×1.5 m. Trench 3, located within the central lawn area, measured 22.0×1.5 m. Trench 4 was located parallel to the western wall and measured 23.0×1.5 m. Trench 5, located along the line of the southern wall, measured 20.0×1.5 m. Trench 6 ran along the eastern wall and measured 24.0×1.5 m. This trench revealed a series of 18th- and 19th-century formal garden features that appeared to extend beyond the foundations of the wall. Trenches 7 and 8, measuring 24.0×1.5 and 22.0×1.5 m respectively, were located outside the walled gardens, on an east-facing ridge, close to the entrance and driveway to the castle car park.

The smaller walled garden extends northwards, between building nos. 30 and 32 Canonbury Street. It is more than probably that the area was at one time occupied by one or more dwellings. The foundations of a building were uncovered within Test Pit 1 (see below).

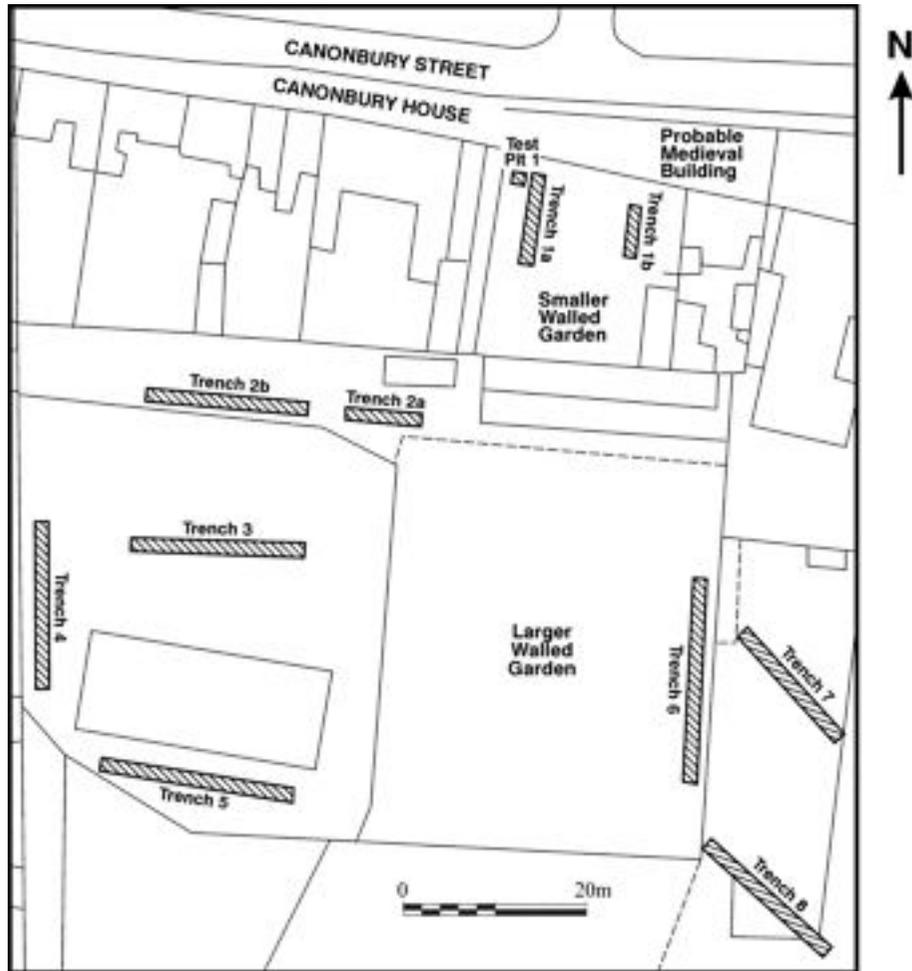


Fig. 4. Location of the trenching.

Trench 1a

Trench 1a, within the smaller walled garden, was located close to Canonbury Street over the site of the westernmost Victorian greenhouse oriented north–south (Fig. 5). Four contexts were recorded. The foundation and base of the greenhouse with a series of brick walls (laid in the stretcher bond style) were uncovered. At the northern end of the trench a small square sondage measuring $0.75 \times 0.75\text{m}$ was excavated. Underneath the foundation material within this sondage was a small assemblage of medieval and Post-medieval pottery. The pottery was recovered from a deposit at a similar depth to pottery found within Test Pit 1.



Fig. 5. Trench 1a, oriented N-S, looking north.

Trench 1b

Trench 1b was placed east of Trench 1a and close to Canonbury Street. Fourteen contexts were identified (Fig. 6). Underlying the topsoil deposit [10YR3/3] (001), and extending across the trench, was a levelling deposit (002), possibly resulting from demolition of the greenhouses. The deposit consisted of tightly compacted, orange to red coarse rubble infill measuring 0.05 m in thickness and containing small red brick fragments. Underneath was a moderately compacted grey to brown coarse sandy soil (003) [10YR5/3] that was 0.05 m thick and contained frequent limestone fragments. It probably formed the sub-base of a recent pathway between Canonbury Street and the garden. It overlay other recent sub-base material comprising a tightly compacted, dark grey coarse sandy lens containing occasional red-brick and limestone fragments (004).

Underlying context (004) was a tightly compacted brown to red coarse sandy soil (005) [5Y4/4] sealing features [012] and [014]. The deposit contained moderate quantities of angular stone fragments (aggregate) and measured 0.10 m in thickness. It was interpreted as a probable path sub-base, of late 19th/early 20th-century date, as was (007), a tightly compacted brown to red coarse sandy deposit [7.5YR5/6] with frequent limestone fragments located within the northern section of the trench underneath (005). This deposit, 0.15 m in thickness, was cut by [012] and [014] and overlay a sondage measuring 1 × 1 m.

Within the sondage, and extending across this section of the trench, was a tightly compacted grey to brown clayey sand deposit (009) [7.5YR5/2] with frequent quantities of wall plaster. The

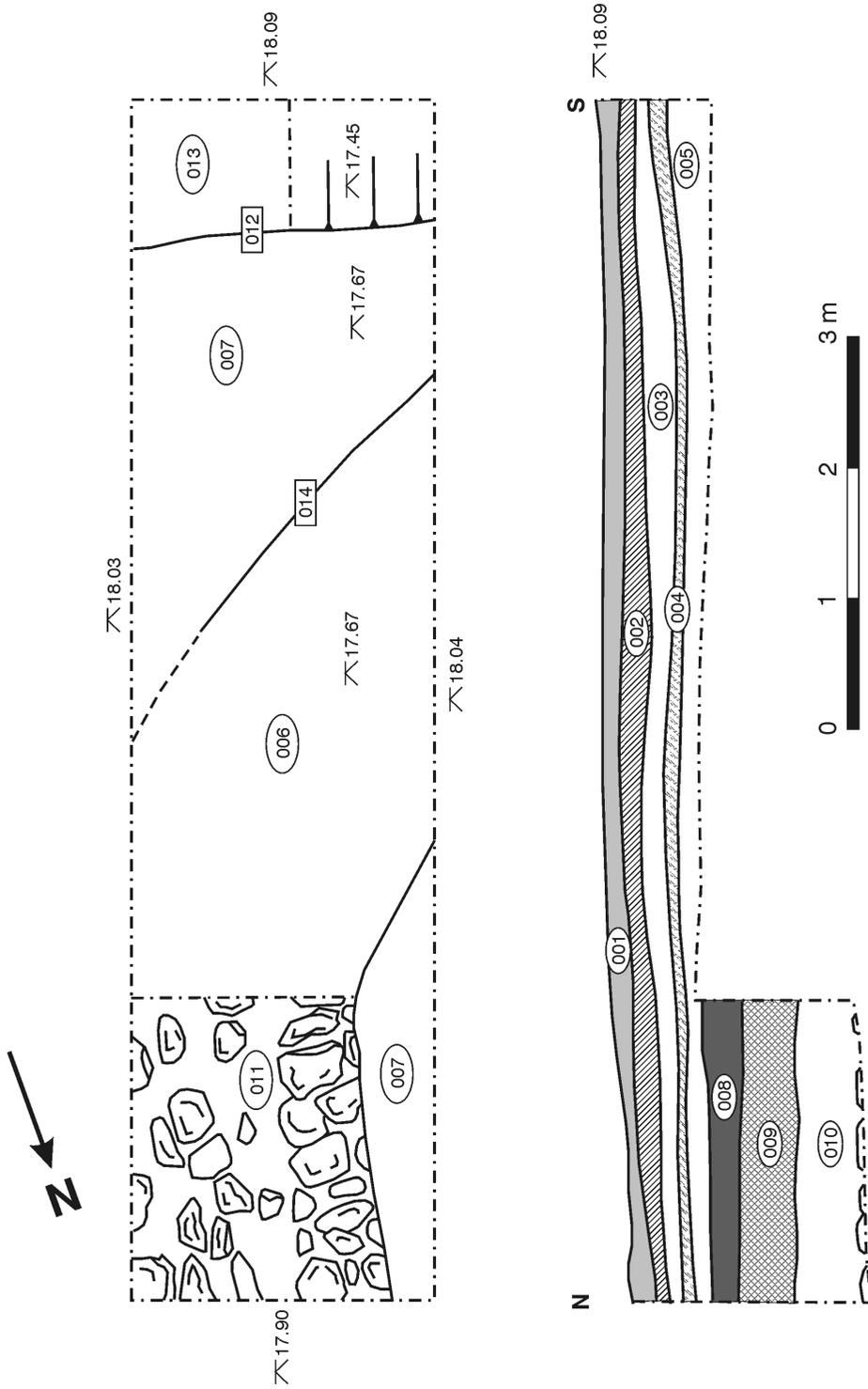


Fig. 6. Plan and section of Trench 1b.

material, probably renovation (or demolition) deposits associated with a building that once occupied this part of the site, measured 0.15 m in thickness. Underlying context (009), and within the upper section of the sondage, was a tightly compacted, dark brown coarse sandy deposit (010) [10YR3/2] with occasional charcoal flecking and several galena glazed sherds of a late medieval Laverstock-type pottery (see Appendix). This deposit may have been an occupation layer associated with later use (011), a surface of roughly-hewn limestone blocks underlying (010) and within the base of the sondage. This surface extended into all sondage sections and may represent a rear courtyard associated with a building fronting Canonbury Street.

Located within the southern section of the trench and cut into context (007) was a linear cut oriented east–west [012]. The cut, possibly associated with Post-medieval garden drainage, was 0.45 m wide and 0.22 m deep. The length was unknown. Filling the cut was a moderately compacted, dark brown coarse clayey sand (013) [10YR4/4] with occasional charcoal flecking. The fill was sealed by (005). Within the central-northern section of the trench was a curvilinear cut oriented NE–SW [014]. This feature cut (007) and was 1.10 m wide and *c.*0.20 m deep. The fill of this feature, which was associated with Post-medieval garden activity, consisted of a tightly compacted, dark brown coarse clayey sand (006) [10YR4/3] with frequent charcoal flecking and occasional moulded plaster fragments. Also found was a cartwheel penny dating to 1797 and occasional glazed 19th-century ‘willow-pattern’ sherds (see Appendix).

Trench 2a

Trench 2a was located within the larger walled garden parallel to its northern wall. Three contexts were recorded, all relating to natural accumulated deposition. No significant archaeology was recorded.

Trench 2b

Trench 2b, further to the west, was located over the line of a Victorian greenhouse that stood, *c.*20 m long, parallel to the northern wall. Eight contexts were identified, many of them relating to the demolished greenhouse structure. The first was the garden earth (201) [10YR3/3]. Underlying this and extending along the trench were the remains of a red brick wall (202) oriented east–west. The wall was constructed in the English garden bond style and measured 0.6 m in height.

Within the eastern section of the trench and abutting wall (202) was a tightly compacted tile and brick rubble deposit (203) forming part of a demolition deposit associated with the greenhouse. It measured 1.0 × 1.5 × 1.6 m. Associated with wall (202) and extending across the north–south section of the trench were the brick foundations of the greenhouse (204). The base consisted of a single course and there appeared to be no construction cut associated with this structure. Underlying context (204) was a series of natural deposits which consisted of a tightly compacted orange to red clay (205) [7.5YR5/6] with occasional sandstone fragments.

In the central section of the trench, and oriented north–south, was the construction cut (206) for a 19th-century cast iron heating pipe forming the heating system for the greenhouse. This pipe would have fed into the central section of the greenhouse. The cut was filled by (207) and overlay a housing of unfrogged brick (208). Context (207), a moderately compacted grey to brown silty sand [2.5YR4/2], contained occasional mortar flecking and filled context (208). The piping and housing lay 1.8 m below existing ground level.



Fig. 7. Trench 4 running parallel with the western garden wall, looking south.

Trench 3

Trench 3, placed on the central lawn in the western half of the larger garden, recorded five contexts. There was no significant archaeology.

Trench 4

Trench 4 was dug parallel to the western wall of the larger garden (Fig. 7). A total of 13 contexts were recorded. Underlying the garden earth (401) was a Post-medieval accumulated garden soil with evidence of building activity (402) [10YR3/3].

The northern part of the trench revealed several features. Firstly, a linear cut [403] within natural deposits was oriented north–south. The cut, probably of 19th/20th-century date and related in some way to a formal garden bed, measured 4.00×0.40 m and extended into the south-facing section. Secondly, the cut [405] of a linear sandstone-lined and possibly ornamental garden feature (406) extended into the west-facing section. The cut, within natural deposits, measured 1.00×0.10 m and was oriented NW–SE. Oriented north–south and extending into the central balk was another linear cut [407]. This feature, a probable flower bed, measured $c.3.0 \times 0.6$ m and lay 0.40 m below existing ground level within natural deposits.

Within the central section of the trench was a probable late 19th- or early 20th-century drain housing (410) comprising mortared unfrogged red brick and measuring 0.45×0.45 m. The feature was cut into natural deposits.

In the southern area of the trench, and oriented north–south, was a linear cut [411] measuring 4.90×0.40 m. This feature was cut into natural deposits and formed part of a 20th-century drainage soakaway system that extended to the north-facing section.

Trench 5

Trench 5 was placed on the south side of the larger garden along its boundary. Ten contexts were recorded. The first was the garden topsoil (501) [10YR3/3]. Underlying it was a loosely compacted, yellowish-brown gravel levelling deposit (502) which directly overlaid a black plastic DPM membrane (503). These contexts formed part of the landscaping of the recently constructed Butterfly House. Underlying (503) was a moderately compacted, mid brown silty sand (504) with occasional quantities of charcoal and mortar flecking. It and the higher deposits appeared to have been re-deposited during recent landscaping activity. Underlying (504) was a Post-medieval garden sub-soil, a tightly compacted red to orange clay soil (505) measuring 0.30 m in thickness and containing occasional charcoal and mortar flecking.

In the eastern part of the trench and extending into the north-facing section was the terminus of a probable garden bed [506]. It measured 0.7 m in length and was cut into natural deposits. In the central part and extending into the north and south sections was a linear drainage cut [508] oriented NE–SW. It measured 0.5 m in width and 0.25 m in depth. Within the cut was a bone assemblage that included cattle [*Bos taurus* dom.] and sheep [*Ovis aries*] bone (509) (Fig. 8). The assemblage consisted mainly of long bone and rib fragments and formed a bone (land) drain. The drain cut into natural deposits which consisted of a tightly compacted orange clay (510).

Trench 6

Trench 6 was placed on the eastern side of the larger garden and parallel to the boundary wall. A total of 16 contexts were recorded. Underlying the garden topsoil (601) [10YR3/3] was a Post-medieval sub-soil (602) consisting of a moderately compacted red to brown silty clay with occasional Post-medieval ceramic building material (CBM) fragments.

In the centre of the trench, and extending into the east- and west-facing sections, was a 19th-century linear drainage cut [603] with accompanying 4" ceramic drain pipe. The cut was 0.4 m in width and it ran from the central area of the garden through a garden entrance. The garden lies on a slope that falls roughly from west to east with a drop of 2.3 m. Within [603] was a moderately compacted red to brown silty clay fill (604) with occasional CBM (mainly unfrosted brick) fragments.

In the northern part of the trench, and extending into the west-facing section at a depth of 0.88 m below existing ground level, was a late 18th- or early 19th-century semi-circular cut [605]. The feature, which probably continued beyond the eastern section to form a circle, was 4.0 m in diameter and was cut into the natural deposits (616). It formed the foundation of a garden feature that was part of a formal garden plan with features [607], [608] and [609] in symmetry. Constructed of slate fragments, [605] probably predates the walled garden (Fig. 9), a suggestion based on the depth of the feature in relation to the hypothetical depth of the wall foundations. Within [605], and underlying the slate surface, was a moderately compacted, mid brown clayey soil (606) with occasional charcoal and mortar flecking.

Semi-circular feature [607] in the northern part of the trench overlay natural deposits (616) and extended beyond the west-facing section. It comprised a series of laid grey slate that appeared to have been deliberately cut and shaped. An identical feature was identified within the southern part of the trench. Overlying (616), it extended into the west-facing section and comprised laid grey

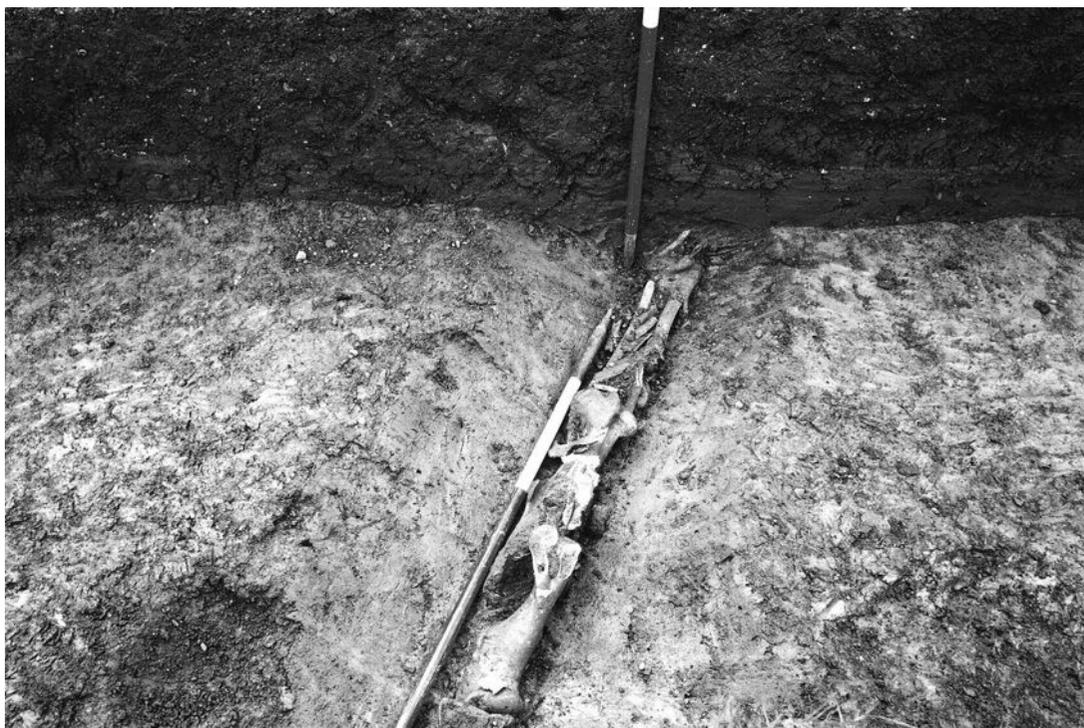


Fig. 8. Bone drain located within the central section of Trench 5, looking south.

slate that appeared to have been deliberately cut and shaped. The central part of the trench revealed remnants of another circular formal garden feature [608] extending into the west-facing section and comprising approximately six fragments of grey slate. These presumably circular features probably form part of 18th- or 19th-century formal gardens that predated the creation of the walled gardens. Williamson (1993; 1995; 1999) has suggested that rudimentary features such as those revealed in Trench 6 are not uncommon during that period. At that time it became fashionable to create series of inorganic features symmetrically placed in order to break up a vista and provide formal views that established a contradiction between culture and nature. A similar concept is evident at the same time – but on a much larger scale – in the formal and informal layout of parkland. Other formal garden features may exist to the west of this trench.

A linear feature [610], oriented north–south within the southern area of the trench, probably represented a rose bed measuring $5.50 \times 0.30 \times 0.08$ m. It was located around 0.60 m below the existing ground level and was therefore later than features [606], [607], [608] and [609]. The fill of the bed consisted of a loosely compacted, black charcoal ashy deposit (611).

Parallel with context [610] was another formal rose bed [612]. This feature measured $5.50 \times 0.30 \times 0.08$ m and lay around 0.60 m below the existing ground level. It was therefore later than [607], [608] and [609]. The fill consisted of a loosely compacted, black charcoal ashy deposit (613) that was the same as context (611).

Oriented east–west across the centre of the trench was a linear Post-medieval drainage cut [614] measuring 0.5 m in width. It extended into both east- and west-facing sections. Within the cut



Fig. 9. Part of a semicircular feature in Trench 6 probably predating the mid 19th-century walled garden looking south.

was a loosely compacted, lightly brown silty clay fill (615) with occasional 19th-century pottery, charcoal and mortar flecking. Also recovered was a clay pipe stem dating to the mid to late 19th century.

Extending across the base of the trench was a natural deposit (616) consisting of tightly compacted, red clay with occasional charcoal and mortar flecking. These inclusions are possibly the result of interface contamination or worm action.

Trench 7

Trench 7 was east of the larger walled garden, on a landscaped crest overlooking parkland (formally river meadow) and the approach to Berkeley castle. Within this trench three contexts were recorded. No significant archaeology was detected.

Trench 8

Trench 8 was also located immediately east of the larger walled garden in an area where up to six greenhouses stood in 1880. A total of 20 contexts were recorded. While many of them represented 20th-century landscape deposits and drains and associated construction cuts, the lower stratigraphy revealed a number of features and structures associated with the greenhouses. In north-western end of the trench, and extending into the north-facing section, were the lower courses of a mortared structure (813) of unfroged brick.

Test Pit 1

Following consultation with Gloucestershire County Council Archaeological Service it was decided to excavate further within the vicinity of Trench 1a. As the results from the trench were inconclusive a test pit (Fig. 10) was located to the west of it in order to clarify the extent of medieval activity in the area of the garden fronting Canonbury Street. The lower deposits revealed there within a sondage in Trench 1b had appeared to date to the medieval period.

Five contexts were recorded within the test pit. The top soil (0001) [10YR3/3] contained occasional 19th-century unfroged brick, charcoal and late Post-medieval pottery. Underlying context (0001) was an accumulated Post-medieval garden soil (0002). It was a moderately compacted, dark red to brown silty clayey soil and it contained moderate quantities of charcoal and mortar. Also found within the deposit were occasional CBM fragments and a single sherd of medieval Laverstock ware.

Underlying context (0002) was the possible return of a wall belonging to a medieval building (0003). This sandstone structure, extending into the northern and western sections of the pit, measured 0.46 × 0.40 m and stood 0.80 m in height. Underlying (0002) and abutting (0003) was an accumulated medieval soil. The deposit was a brown to orange sandy soil containing frequent charcoal and mortar flecking. Three medieval galena glazed Laverstock-type sherds were recovered from it.

Extending from the eastern, northern and southern sections of the pit was a mortared sandstone wall (0004) oriented north–south. The wall, possibly the lower courses of a medieval building, may be associated with wall return (0003). It was abutted by context (0004).

Conclusion

The walled gardens of Berkeley castle lying south of Canonbury Street were in existence by 1840. The walls are constructed of red brick. In the smaller garden, wedged between buildings along the Canonbury Street frontage, one of the trenches and the test pit revealed foundations of medieval buildings which fronted the street. Associated with these structures was a finds assemblage including medieval glazed pottery.

Trenches within the larger garden, to the south, revealed evidence of a formal garden layout and the foundations of a 19th-century greenhouse together with the remains of an under-floor heating system. Uncovered in Trench 4 were a series of deposits and structures relating to late

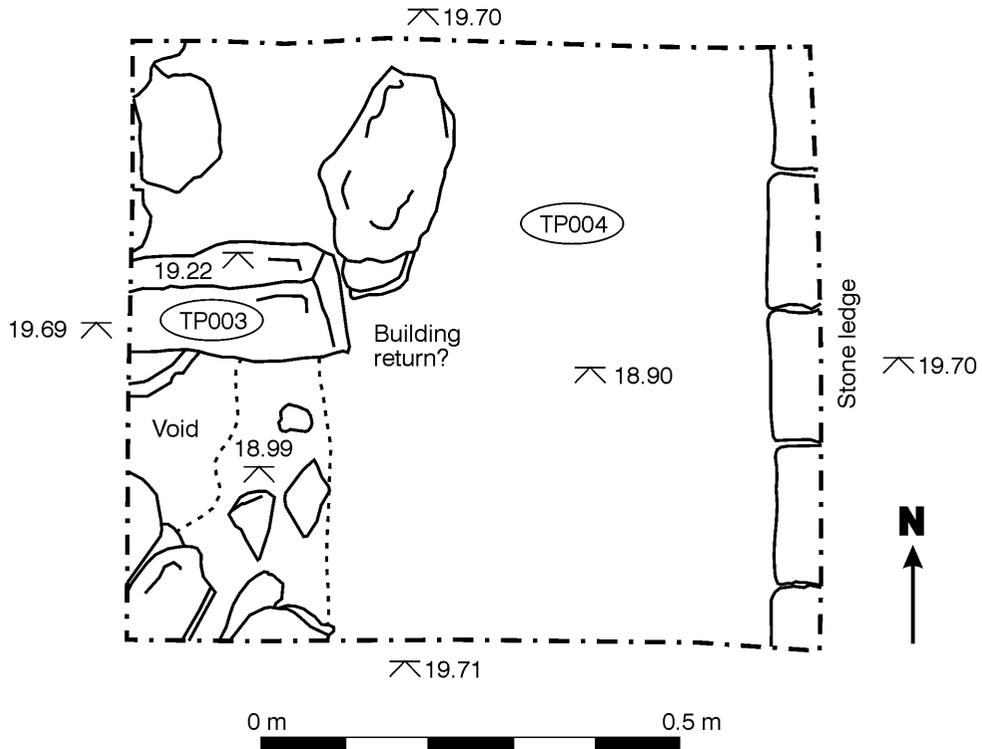


Fig. 10. Plan of Test Pit 1.

19th century/early 20th-century drainage. In the same trench were the base sections of a stone garden ornament, residual in context. Unusually, in Trench 5 was a bone-lined garden drain. This feature, oriented north–south, consisted of a series of domesticated animal bones, including those of cattle and pig.

On the eastern side of the garden a number of formal garden features identified in Trench 6 possibly predate the 19th-century walled garden. Running through the centre of the trench was a drainage system contemporary with the walled garden and apparently aligned so that the pipe ran beneath a door opening within the eastern wall. Either side of the drain were two large semicircular features constructed of slate. Their arrangement was symmetrical and they evidently extended beyond the line of the garden's eastern wall. They may date to the late 18th or early 19th century.

APPENDIX

Summary of finds

The finds value from the evaluation can be described as poor. Not surprisingly, the majority of the finds recovered from the larger walled garden was of 19th- and 20th-century date. Finds from

the smaller garden, located along the frontage of Canonbury Street, revealed – along with medieval features and structures – a small assemblage of medieval pottery.

The pottery was analysed using $\times 20$ magnification. The assemblage was then split into a fabric type series based on colour, firing technique, production method (wheel-thrown or handmade), glazing or lack of it and inclusions and placed in context order. Sherds were then quantified by weight and number within each fabric series and totalled.

Trenches 1a and 1b and Test Pit 1, all in the smaller walled garden, revealed a continuous assemblage of finds dating from the 15th to the 20th centuries. According to McCarthy and Brooks (1988, 358), medieval pottery in the area derives from a number of sources, including north Wiltshire. For later wares, McCarthy and Brooks suggest Chepstow as a likely source (*ibid.* 474).

The finds from Trench 1a included nine pottery sherds weighing 228 g. Four sherds possessed rims which probably form the upper sections of four individual beakers. The central section of an unglazed handle was probably much later in date than the other sherds. Several sherds showed evidence of short bonfire kiln firing. Also recovered was one piece of the apex section of a galena glazed roof ridge tile. The thin-section analysis of it shows that a coarse gritty clay was used. Inclusions included calcareous limestone fragments (see Vince 1984). A rim section of an 18th- or 19th-century salt-glazed jar or beaker was also found. Its presence is probably a result of site contamination or upper stratigraphic disturbance. Recovered from the upper section of context (006) were two sherds of Staffordshire-type Brown and Yellow ware – 18th or early 19th century in date – and a dark olive green glazed rim of Varwood type – 17th or 18th century in date.

Finds from Trench 1b were from context (011) and included eight sherds of pottery weighing 137 g. Among them was one rim. Pottery types, all wheel-thrown, can be described as coarse galena green glazed wares. The thin-section analysis from these sherds shows a coarse gritty fabric, several showing short (bonfire) firing times.

Recovered from context (0003) in Test Pit 1 was the central section of a sandstone roof tile with nail hole and weighing 271 g. This, along with the glazed ridge tile from Trench 1a, suggests that the remains of a building, possibly a medieval dwelling, lies beneath the trenching along the Canonbury Street frontage.

In the larger garden three ceramic finds were uncovered in context (602) in Trench 6. The assemblage weighed 63 g and included a clay pipe stem and the base of a medieval jar or pitcher. The base was glazed on both sides.

The finds from Trench 7 consist mainly of Post-medieval ceramics and weigh a total of 732 g. Ceramics included mainly domestic kitchen salt-glazed and slip wares. One notable find was a clay pipe bowl dating to the late 17th or early 18th century (based on Jackson and Price 1974). The bowl is lightly decorated and is stamped with an unrecognisable maker's mark. The find is residual in context (703).

Finds from Trench 8 included eighteen ceramic sherds weighing 1,641 g. The majority of sherds date from the 19th and 20th centuries and include mainly coarse red slip wares and ceramic tile. Within this assemblage, however, were seven sherds that are much earlier and represent a series of bowls and jugs/pitchers. These sherds were residual in context and weighed 313 g. Included are three sherds of dark green galena glazed ware which date to the 16th or early 17th century; two sherds form parts of two bases and one Varwood-type sherd is a section of a rim. Another base, from a bowl probably dating to the late 17th or early 19th century, has an external green glaze with a light yellow glaze overlying a white slip.

Unstratified finds consisted of three sherds weighing 34 g. All three derived from the same vessel, an 18th-century blue and white bowl possibly of Dutch origin.

Acknowledgements

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