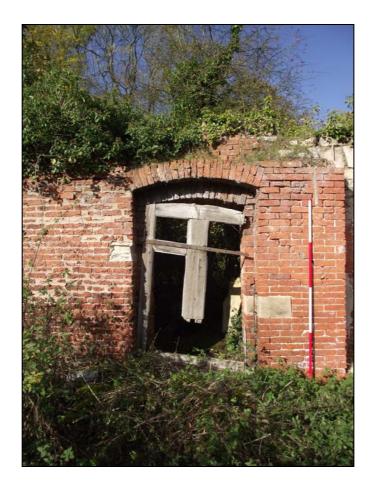
THE WALLED GARDEN, OWSTON HALL HOTEL, DONCASTER, SOUTH YORKSHIRE: AN ARCHAEOLOGICAL BUILDING RECORD



On behalf of Mr P J Edwards

CS Archaeology
December 2011

On behalf of: Mr P J Edwards

Owston Hall Hotel

Owston, Doncaster DN6 9JF

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CONTENTS

1	SUMMARY	
2	INTRODUCTION	5
3	AIMS AND OBJECTIVES	5
4	METHODOLOGY	5
5	GEOLOGY AND TOPOGRAPHY	
-	5.1 Geology	
	5.2 Topography and Drainage	
6	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	6
7	MAP REGRESSION ANALYSIS	12
8	BUILDING RECORD	14
9	CONCLUSION	20
10) SIGNIFICANCE AND POTENTIAL	20
11	PROPOSED ARCHAEOLOGICAL MITIGATION	21
12	2 REFERENCES	22
	12.1 Bibliographic References	
	12.2 Cartographic References	22
	12.3 Internet Sources	22
13	3 ACKNOWLEDGEMENTS	

FIGURES

- 1. Location Map
- 2. Location Map of the PDA
- 3. Historic Maps 1802-1932
- 4. Interpretive Overlay of the 1893 Ordnance Survey Map
- 5. Extant Garden Features c.2011
- 6. Plans and Elevations of Buildings 2-3
- 7. The Southeast Wall
- 8. The Northeast and Southwest Walls
- 9. The Northwest Wall, NW Elevation
- 10. Schematic Cross Sections through the Northwest Wall
- 11. Interpretation of the Northwest Wall, via the NW Elevation
- 12. The Northwest Wall, SE Elevation
- 13. Photographic Positions

PLATES with photographic positions in italics, Plate Nos. form a continual sequence for archive purposes

- 1, 1: general view of the external SW corner
- 2, 2: detail of the cross section through the wall breach at the southern end of the SW wall
- 3, 4: detail of an exposed section of the external SW wall
- **4**, 95: general view of the NE wall, SW elevation
- **5**, 133 detail of the furnace duct [19]
- **6**, 14: detail of the twin furnace twin ducts [33]
- 7 a row of furnace sheds behind the heated fruit wall at Weston Park Staffordshire (Campbell 2011, 25
- **8** the heated fruit wall at Tatton Park without furnace sheds, which used bonfires at the base of the wall (Campbell 2011, 25)
- 9,77: detail of the part eroded heating duct within the NW wall, (SE Elevation)
- 10, 70: detail of the exposed heating duct to the NW wall, SE elevation
- 11,128: detail of the narrow facing brick with bridging brick beneath
- **12**, 73: detail of the exposed heating duct above the twin furnace duct [33]
- 13, 10: oblique view of building 1
- 14, 12: view of the northwest wall, northwest elevation with the blocked arched alcoves [35]

- 15, 48: detail of the arched alcoves [18]
- 16, 25: 'Internal' view of building 2, The Fernery
- 17, 26: 'Internal' view of building 2, The Fernery
 18, 32 detail of the cellar/basement with suspended flagstone floor, building 3
 19, 31: view of the well [6] and cistern [7], building 3
- 20, 120: view of the stone cistern [7] (with ivy removed)
- 21, 121: detail of the cistern's [7] iron dovetail tie and rebated joint to the sandstone sides
- 22, 123: detail of the tie-beam and post, from the Northeast (0.2m scale)
- 23, 47: view into the cistern [17], building 3
- 24, 142: view of the quoined corner of the northeast wall with the bothy's (building 3) limestone wall abutting,
- 25, 109: general view of the semi-extant detached green house (Blg 4)
- 26, 110: detail of the greenhouse roof
- 27, 85: oblique view of the NW wall (central section), SE elevation
- 28, 132: set of stone steps within the footprint of the former glasshouse (Orangery?)
- 29, 29: view of the doorway [3] which now accesses building 2 The Fernery30, 55: detail of the doorway [1] of the NW elevation of the principal outer garden wall

APPENDICES

- 1: Project Design
- 2: Designated Heritage Assets
- 3: Archive Inventory

FEATURES

- side doorway internally hinged with internal latch and the door in situ.
- 2. south doorway internally hinged part of the door still in situ.
- 3. recessed arched doorway through the northwest wall (1 of 2)
- recessed doorway (collapsed arch) through the northwest wall (2 of 2)
- 6. stone lined well (1.7m diam.)
- 7. stone water cistern (1.86 m x 1.3m)
- 8. medieval arch
- 9. ornate archway
- 10. breached furnace opening
- 11. brick section of walling probably containing an original heating duct.
- 12. recess to the inner wall
- 13. vertical brick heating duct
- 14. long iron bar bolted to the wall
- 15. arched through opening (probably for a vine)
- 16. remains of an inserted window?
- 17. large brick lined water cistern, a later insertion
- 18. pair of arched alcoves
- 19. arched furnace opening (with exposed flue)
- 20. plinth
- 21. pair of arched alcoves
- 22. pair of arched furnace openings (blocked)
- 23. brick flue with no visible furnace opening
- 24. arched alcove
- 25. remains of an inserted window?
- 26. millstone fragment incorporated into the wall
- 27. joists holes for the roof trusses
- 28. arched furnace opening (blocked)
- 29. brick plinth (inserted)

- closely spaced inserted joist holes from a floor (2 rows)
- 31. position of probable furnace
- 32. pair of arched alcoves
- 33. pair of arched furnace openings (blocked) with large flagstone base in front
- 34. roof scar
- 35. pair of arched alcoves
- 36. plinth
- 37. pair of arched alcoves
- 38. limestone steps
- 39. brick glass house footings
- 40. water trough
- 41. stone step for the glass house entrance
- 42. brick raised bed along the foot of the northwest wall
- 43. extant fig tree
- 44. window (1.03 wide)
- 45 bothy doorway with splayed plastered reveals (door jambs) and an in situ wooden lintel (1.29m wide)
- 46. bothy window with splayed plastered reveals (1.4m wide)
- 47. bothy window (1.74m wide)
- 48. bothy doorway?
- 49. bothy window?
- 50. bothy doorway (1.7m wide) opposing doorway [4]
- 51 bothy window with splayed reveals (1m wide)
- 52. bothy window with splayed reveals (1.17m wide)
- 53. bothy doorway (1.25m wide)
- 54. bothy window with splayed reveals and in situ wooden lintel (1m wide)

1 SUMMARY

- The walled garden at Owston Hall was built during the late 18th century (c 1770s) prior to the new hall which was built by Henry Cooke and formed a large extension to the old hall. During the 19th century the garden was developed and matured to comprise of hundreds of fruit trees including vines, oranges and apricots. This would not only have provided produce for the house but the surplus sold to contribute to the income.
- The design of Owston Hall's walled garden was ambitious and comprises of brick and limestone walls enclosing a rectangular area of about 0.65 hectares (1.6 acres). The northwest wall was a heated fruit wall with evidence for regularly spaced furnaces across the northwest elevation. The furnaces supplied heated air through a series of horizontal and inclined flues, ensuring that the southeast facing wall was free from frosts, thereby maximising fruit production.
- Victorian additions to the walled garden included a large lean-to glasshouse and orangery along the central section of the northwest wall's southeast elevation. The Late Victorian period represents the height of the walled garden's development. The garden had the benefit of established fruit trees and over a hundred years of horticultural knowledge and infrastructure investment by the Cooke family.
- Regarding further archaeological mitigation, a watching brief during preliminary site works is recommended to provide further information on this horticultural monument.

2 INTRODUCTION

- 2.1 This report has been commissioned by Mr P J Edwards of Owston Hall Hotel to support a future planning application to redevelop the walled garden.
- The Walled Garden is a designated heritage asset (Listed Buildings UID No. 334967), that dates to the later 19th century. Owston 'new' Hall was built shortly afterwards and was depicted in historic map of 1802.
- 2.3 The Walled Garden occupies a rectangular plot of land approximately 0.6422 hectares (1.587 acres) in extent and is centred on (NGR) SE 5482 1123 (**Figures 1 and 2**).
- The Walled Garden lies to the northwest of Owston Hall which is situated close to the shrunken medieval settlement (Hey 1979, 127). Owston lies 8.3 kms north northwest of Doncaster, just west of the A19. Owston is a historic parish and former manor which currently lies within the Doncaster Metropolitan District.

3 AIMS AND OBJECTIVES

3.1 To identify and objectively record by means of photographs and annotated measured drawings any significant evidence for the original and subsequent forms and functions of the north wall of the walled garden with its associated structures. Additional information will also be researched to provide a more general contextual record of the walled garden as a whole. Once completed, the record will be placed in the public domain. The archive will be deposited with Doncaster Archives and a copy of the report with South Yorkshire Archaeology's Historic Environment Record and Doncaster Metropolitan District Council.

4 METHODOLOGY

This has been carried out according to a project design approved by Doncaster Borough Council (Ms R Codling) in May 2011 (Appendix 3).

5 GEOLOGY AND TOPOGRAPHY

5.1 Geology

- 5.1.1 The underlying geology of Owston comprises of Permian dolmitic limestone (BGS 2008), generally known as the Lower Magnesian Limestone in the geological formation of the 'Limestone Ridge'.
- 5.1.2 Stone quarries are still evident around Marr village and can be seen on the historic maps, northeast of the Garden Plantation and entitled 'Garden Quarry Limestone'.
- 5.1.3 During the medieval period the local limestone was sought after for its quality and during the 14th century the village of Hampole, to the northwest Owston, supplied limestone for Westminster Abbey (Hey 1979, 103) and many local houses and churches.

5.2 Topography and Drainage

Owston is situated on a low promontory of relatively high ground that peaks at Windmill Hill (22m AOD). Historically this promontory of well-drained ground was represented by a series of agricultural town fields each with narrow strips in contrast to the surrounding low lying wastes and commons. The walled garden is situated on a slight southeast slope across the 15m AOD contour line.

6 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 6.1 The walled garden at Owston Hall formed one element of the former Owston Hall Estate, which was set within a landscape of parklands, plantations, pleasure grounds all representing part of a designed landscape which provided a variety of exclusive experiences.
- 6.2 Owston Hall is a designated heritage asset (a grade II* Listed Building UID No. 334966: Appendix 2) and dates to at least the early 18th century. It was extended in 1794-5 by William Lindley for Bryan Cooke and featured an 18th century stable block.
- 6.3 The present layout of Owston Hall, was achieved by two successive owners, Bryan Cooke and his son Phillip Davies-Cooke, between 1783 and 1852. The economic foundations were established by Bryan Cooke's mother who carefully controlled the estate's finances. Owston Hall was to be reorganised in the 'English Style', which involved informal landscape and garden designs. This style originated in England during the 1730s, but its heyday was between 1750 and 1845. Bryan Cooke engaged Humphry Repton to redesign the landscape around the New Hall and the laying out of the grounds to complement it. However Cooke appears to have adapted Repton's proposals rather than follow them closely and extended the old hall, southeast of the walled garden, close to his newly constructed stables (Goodchild 2003, 18-19).
- 6.4 The walled garden is situated 175m northwest of the hall and is also a designated heritage asset (a grade II Listed Building No. 334967). The walled garden dates to the late 18th century and is of: 'Red brick with stone copings. Rectangular enclosure approximately 100 metres x 60 metres with wall 3-4 metres in height; southern side

lower. No ornate openings; panelled doors to centre of south side and at southern end of east side, other doorways in north side, formerly leading into greenhouse ranges (demolished). Double-doored vehicle entrance inserted at north-west corner where part of the north face of the wall is of rubble limestone. Copings of southern side tilt inwards and sweep up at ends to taller side walls coped by thinner slabs of stone. Shown on 1792 plan of Owston drawn by Humphrey Repton'. (Appendix 2: Internet Source 1).

- 6.5 The walled garden was discretely situated away from the medieval old hall, probably so as to not spoil the view from the hall which high walls would affect. As a working kitchen garden it was designed solely to provide for the hall's needs and would have been the preserve of the gardeners, almost on an industrial scale. Kitchen gardens needed fertile, well-drained soils and the walled structure ensured a micro-climate which was designed to prolong and enhance the growth and cropping of fruit and vegetables. Requirements included a plentiful supply of water, a sunny aspect with protection from gales, frosts, fogs and damp. The walls would also have been screened by a belt of trees (Campbell 2006, 7).
- The Walled Garden Design adopted the rectangular layout which was customary across northern Europe in the eighteen century. The rectangular walled gardens utilised longer southeast facing walls to maximize growing conditions especially for fruit trees. A rectangular design was employed at Owston where which was c.1 km long by c. 0.6 km wide. The emphasis was on the southeast facing walls which enjoyed maximum levels of sunshine. The garden's internal arrangement was based on 6 regular plots with surrounding pathways, which we see depicted in Colbeck's Plan of 1802 (Figure 3).
- 6.7 The use of brick in the walled garden at Owston was extensive and different types were employed throughout the walled garden. The side (NE and SW) walls were of solid brick construction and feature a continual angled course of fine grained sandstone copings which shed water externally. The use of brick throughout the southwest, southeast and northeast walls is significant and testimony to the considerable construction costs. Only the northwest wall (northwest elevation) partially used local limestone. Usually walls were only faced in expensive brick, suggesting that the walled garden predated the brick tax of 1784. The use of so many bricks at Owston is a reflection of the wealth invested by the Cooke family during that later 18th century. The southeast wall is slightly unusual in that it is 0.7m thick and incorporates an unheated void which extends along the entire southeast elevation. The purpose of an unheated void was probably to facilitate the storage of heat thereby extending the range and quantity of fruiting trees against the southeast elevation of the southeast wall. On top of the wall, to bridge its width, an imbricate arrangement of sandstone copings was devised which sheds rainfall internally.
- 6.8 The grounds at Owston were the subject of an historic analysis and assessment (Goodchild 2003) which has provided a wider context of the walled garden within its wider estate context.
- 6.9 From the mason's accounts it is revealed that 'Thomas Knowles was paid £7/8/- for work done at the *Peach House*. In the accounts for the *Gardens and Plantations* in 1812 a nurseryman was paid as was 'Becks and Allan seedsmen', 'Telford for plants' Oxley and Scholey nurserymen, and Oxley and Scholey for seeds and plants.

Information of the general monthly wages paid to five gardeners is noted in the general account book 1810-1811. Under the heading Garden Accounts George Bradley (snr) was the highest paid at £2/4/3, then his son George Bradley (jnr) with £1/4/-Further down the pecking order was Bridges Butler and Mary Shackelton who were paid 8 shillings and Thomas Moorhouse with other occasional workers making a total monthly wage bill of £4.

6.10 The garden account books held at Doncaster Archives have illuminated some aspects of Owston Hall's Kitchen Garden. In 1863 there were four gardeners, Higgins, Fletcher, Hodgson and Telford and they were paid £4/16/10 respectively for the months work. Other expenses for the garden are also referred to and note the supply of coal and even the sweeping of the garden flues (Table 1).

Table 1: Garde	en expenses 1807-68 (DD/DC/E11/24)	pounds/shillings/pence
22/4/1807	22/4/1807 'gauze for fruit trees'	
5/9/1807	'garden pots'	£5/16/7
7/11/1863	'To Myers Briggs coals to Hall and Garden'	£10/1/10
24/2/1864	'18 carts of coal from Doncaster'	£-/8/1
7/4/1865	'To Emley for sweeping garden flues'	£-/7/-
7/4/1865	'carriage of manure, lime and coal'	£1/12/-
1/5/1865	'three tons of coal'	£1/13/10
6/3/1868	'To Emley for sweeping garden flues'	£-/8/7/4-

Table 2: Garde	n profits 1963-9 (DD/DC/E11/24))	pounds/shillings/pence
13/8/1863	'fruit sold to Mr Webber'	£10/2/-
11/1/1869	'garden produce sold'	£3/2/9
17/7/1869	'garden produce sold'	£5/4/6
6/8/1869	'garden produce sold'	£2/4/6
10/12/1869	'garden produce sold'	£9/12/2

By 1882 a yearly expenditure on the garden came in at £307, with the principle expense being wages (Table 3).

Table 3: Garden Expenses 1882 (DD/	DC/E7/11))	pounds/shillings/pence
Wages		£198/18/-
Coal		£35/-/-
Manure		£20/-/-
Seed		£20/-/-
Peat etc		£5/-/-
Garden pots		£5/-/-
Tobacco water		£2/-/-
Pea, Rods and steaks		£4/-/-
pots		£2/-/-
Garden mats		£2/8/-
Total		£307

6.10 In 1883 the entire walled garden was valued. This valuation provides not only a detailed break down of which plants were grown but where they were grown, i.e. next to a particular wall and in a particular house/green house. Documentary and cartographic sources consulted during this building record did not record precise building locations, however the 1883 valuation goes some way to bridging this knowledge gap.

6.11 Within the Walled Kitchen Garden the inventory notes seven buildings: The Stove House, Vinery No.1, Vinery No.2, Orangery, Fernery, Peach House, and a Conservatory though this may have been positioned north of the walled garden. Plants growing in the Kitchen Garden were listed and provide insights into the former appearance and nature of production.

	e 4: Contents of Garden Buildings (DD/DC/E7/12) House, with a total of 438 plants inc:		
6	Abutilons		
1	Thpantes Floichanda growing on roof etcand also lists 'that plants not in the best condition		
•	have the appearance of having suffered from a chill in consequence of insufficient heat		
Viner	/ No. 1 total of 48 plants inc:		
1	Large vine covering the house Black Hambro ready for work in good health'		
1	Olegnder		
46	Geraniums		
	, No. 2 total of 390 plants inc:		
1	Large black Hambro covering house dressed ready for work or forcing		
1	Lapazeria rosea		
370	Geraniums		
18	Store pots (for) geraniums		
Orang	gery total of 588 plants inc:		
5	Large orange trees in fine health full of fruit		
1	Large Lime walled in		
1	Orange tree in tub		
1	Orange smaller in pot		
1	Myrtle leaved orange in pot		
1	Camellia semi double		
1	Large Agapanthus		
5	Smaller (Agapanthus)		
1	Imantophyllum minaturn		
44	Cyclamen		
7	Large vines etc		
In Co	nservatory total of 285 plants inc:		
	Including Camillias and Oranges		
Ferne	ry total of 153 plants		
	The whole of the plants planted out in the rock work consisting of Fleris Tuermilla etc		
Peacl	House total of 114 plants inc:		
80	Cinarias		
2	Rhododendrons		
	NB no fire in the house plants suffering		
1	Fine Peach planted out Royal George covering half the house cleaned ready for starting		
Frame	es total of 2961 plants inc:		
	Chrysanthemums and hydrangeas etc		

	Outside Plants within the Hardy Fernery, South Border West Wall, North wall and behind the North			
•	Walls against the bothys and sheds covered with climbing plants. Border leading to the Garden Plant			
	fully stocked with herbaceous plants			
	n Garden - on the right side of the orangery			
4	Large apricots perfect trees			
1	Small (apricot)			
12	Yards of Figs against the wall border facing south wall partially cropped with onion seeds			
	n Garden - on west wall			
6	Larger old dwarf trained pear trees all pruned in good condition			
1	Fanned green gauge fruit trees all reaching up to the top of the wall			
Kitcher	n Garden - border in front			
	Clear and partially planted with pink Williams and wall flowers			
Kitcher	n Garden - against the north wall			
11	Dwarf trained plums			
16	Currents			
2	Large morello cherries			
1	Small (morello cherry)			
1	Large morello cherry fruit tree			
Kitcher	n Garden - Border facing south			
8	Lavender trees			
9	Batches of Lily of the Valley 3 yards wide by 4 yards			
Kitcher	n Garden - East Wall			
4	Dwarf trained plums			
3	Currents			
1	Golden drop plum			
1	Fine trained pear			
4	Dwarf trained Plums			
Kitcher	n Garden – Border facing the east wall			
1	Bed of mint 5 by 3 yards			
2	Rows of roses			
36	Sage and Marjoram			
Kitcher	Garden – South Border, left hand side of the vineries			
1	Dwarf trained pear			
3	Dwarf trained peaches young trees			
2	older dwarf trained peaches in good condition			
2	Older dwarf trained nectarines both rather neglected			
2	Old dwarf trained nectarines both rather neglected			
Kitcher	Garden – Border in front of the south wall planted with spring cabbage remainder of garden			
croppe	ed brussels sprouts, savoys etc			
7	Rows of celery leeks and spinach and spring broccoli			
	Asparagus bed 23 x 21 yards in fine condition			
12	Bush pears			
50	Apple and plums			
	Gooseberries, currents, strawberries 22 x 14 yards, strawberries 22 x 12 yards recently planted,			
	all paths in capital order and the whole planted with box edging 2 years ago without any			
	breaks or gaps. Walk from the south door [2] to the House planted on both sides with			
	herbaceous and bulbous plants			
	n Garden – Vineyard against the south and west walls			
8	Large dwarf trained pears and apricots in good condition			

3	Figs		
2	Dwarf trained pears		
2	Dwarf trained plum fine		
1	Dwarf trained apricots fine trees		
•	n Garden – southeast wall		
1	Dwarf trained cherry		
1	Dwarf trained plum		
Kitcher	Citchen Garden – border facing south west wall, planted wholly withviolets		
156	Raspberry stools		
67	Rhubarb stools strong		
54	Artichokes Jerusalem 3 years		
160	Currents		
144	Gooseberries		
50	Small currents		
	Paths all clean and free from weeds the whole planted with box edging without a break 1 year		
	planted a verge 2' wide has been kept cur to all the grass on the lower walks leading to the		
vineyard. All the walks from the Elm walk to the Park fence have been kept ma			
	good condition		
East Wo	all outside		
1	Large dwarf trained plum		
1	Large cherry and magnificent example pruned and in good order		
1	Dwarf trained plum 18 yards long and in good condition		
1	Dwarf Pear		
1	Dwarf trained cherry a perfect tree		
1	Large dwarf trained union pear		
	Large dwarf trained union pear in good condition		
Border	in front of East Wall full of herbaceous plants planted with box edging		

6.12 Locations noted within Table 5, are ambiguous but possible locations have been suggested on the overlay of the 1893 Ordnance Survey Map (**Figure 4**).

7 MAP REGRESSION ANALYSIS

- 7.1 This review of historic maps shows the developed of the garden during the late 18th to early 20th centuries, and its eventual decline.
- 7.2 Flintoff's map of the Owston estate of 1768 (DD/DC/H1/3/4) depicted the historic hall (north of the present building). The gardens were positioned to the south of the (old) hall together with a large rectangular area, part of which was called the 'Paddock Garden', but there is no depiction of the walled garden.
- 7.3 The first depiction of Owston Hall's walled garden is in a pre 1788 plan of the hall grounds, and in a sketch plan of the new house and grounds. The pre 1788 plan of the hall grounds depicts a rectangular enclosure set in the midst of a triangular plot of land fringed by mature trees with isolated 'parkland' trees between the wooded fringe and the rectangular enclosure. The 1788 sketch plan of the estate (Goodchild 2003, map 5) labels the rectangular enclosure the 'New Garden' and enables a pre-1888 to be attached to the walled garden. There is no further detail of the garden, such as its original internal layout or any details of the associated buildings. This second plan is attributed to Humphry Repton, the famous landscape gardener, was commissioned to redesign a new hall and grounds for Bryan Cooke. Repton was renowned for his naturalistic, picturesque or landscape style and he visited Owston in 1792. By 1792 Repton himself refers to the rectangular enclosure as the 'Kitchen Garden' but fails to depict any more detail.
- 7.4 Colbeck's 1802 plan (**Figure 3**) of the hall and estate depicts some internal detail. The kitchen garden features a formal external pathway/trackway right round the outer wall. Behind the northwest wall are a series of three bothys/sheds. A further western extension to the longer bothy is penciled in, as is a rectangular building within the grounds close to the centre of the northwest wall. The long bothy extends from the eastern end of the northwest wall to just over half its entire length. There are then two further buildings. The westernmost bothy appears to correlate with the present Building 1 (see below). The internal kitchen garden is divided into six plots.
- 7.5 The map of c1827 (DD/DC/H1/3/22) is undated but based on research; Goodchilde (20003) has suggested a date of between 1827 and 1833. Lacking internal detail the plan shows the three ranges of bothys to the rear of the northwest wall. There is a small break dividing the longer ranges, a gap which correlates to doorway [4]. In addition two buildings are depicted within the triangular enclosures north of the bothys. The walled garden is labeled 'Kitchen Garden' and a pathway circumvents the walled garden. To the southeast is an area of irregular hatching which is thought to denote an extensive rockery.
- 7.6 Alexander's map of 1842 depicts a further detached building in front of the eastern section of the northwest wall which was about half the length of the bothy behind the northwest wall. The internal grid layout remains the same.
- 7.7 The Ordnance Survey Map of 1854 lacks further detail but does depict a building inside the walled garden towards the northwest wall, as well as a number of mature trees. This building correlates with the c 1893 glass house. By the end of the 19th century, the 25" Ordnance Survey Maps provide much more detailed information. North of the walled garden a 'Garden Quarry Limestone' is depicted.

- 7.8 The 25" 1893 map (Figures 3 & 4) depicts significant developments in the layout of the garden. Accesses remain as per the original layout. Towards the western corner of the southwest wall the path layout appears to evidence a further original doorway. Apart from the cartographic evidence the presence of this additional doorway cannot be confirmed since today the particular section of wall has been breached/enlarged for vehicular access. The southern doorway [2] now leads onto the historic internal perimeter path and onto a 'new' central pathway. Historically access north from doorway [2] would have dog-legged across the 6 plot layout. The historical internal plot layout was changed by the introduction of a central path. The three historical plots to the southeastern half of the walled garden were amalgamated into two, effectively changing the garden from a six plot to an eight plot layout because of the subdivision by the central pathway. The central pathway now leads past a glass house, tentatively interpreted by the author as a Peach House, and on towards a large glass house which has 'L' shaped plan, widening out at the east end, and abutting the northwest wall. An additional glass house has been built outside and north of doorway [4], which is southwest facing, and glasshouse appears to abutt an east-west wall.
- 7.9 By 1932 the walled garden had witnessed a number of additions and modifications. The detached glass house now has an extension to the southeast elevation and an adjacent (original) pathway has been removed creating a 5 plot layout. Outside the walled garden, near to the glass house, a further glasshouse has been built abutting the garden plantation wall. The bothys to the rear of the northwest wall are depicted with a reduced width; the reason for this is unknown.
- 5.10 Subsequent 20th century maps depict no new buildings and little changes. By the 1960s there is no internal layout. By 1980 there is still no change but two buildings close to the northwest wall are still depicted as extant. Today only one of these buildings is still partially extant and this marks the decline of Owston Hall's walled garden.

8 BUILDING RECORD

This records the buildings through a series of photographs and feature descriptions. The original functions of each feature have been evidenced and interpreted by the author and are denoted in italics. Plate numbers are associated with photographic position numbers, which are in italics, which are cross referenced throughout the archive.

- 8.1.1 Owston's walled garden has been neglected in recent years leading to localised sections of collapsed wall. Internally nothing visibly remains of the actual garden layout, and some clearing and trackways have been historically prepared. The overall condition of the walls is relatively good and these generally retain their original copings stones. However the northwest 'hot' wall has not survived so well. It has been severely affected by removal of the copings and associated roof structures, resulting in large collapsed sections, particularly to the central section. This damage has allowed a detailed record to be made of the internal features such as the flues, which has led to an increased understanding of the original function and subsequent adaptations of the garden.
- 8.1.2 The walled garden at Owston comprises of 4 walls: the northwest, the northeast, southeast and southwest. The northwest wall was built from a combination of brick and rubble limestone with sandstone copings. The remaining three walls were all built from brick with sandstone copings throughout. The northwest wall is an intricate and complicated piece of Georgian engineering. It served not only as a heated fruit wall but it had a series of furnace houses/bothys appended to its northwest elevation.
- 8.1.3 The working areas such as the wall furnaces, bothys or back sheds (workshops, tool potting rooms) were positioned behind the principal northwest wall. It was via doorways [3 & 4] that produce was transferred to the hall's kitchen and storerooms. Sometimes the trackway from the kitchen garden to the hall was carefully concealed because gardeners, like domestic servants were ordered to keep out of sight. A possible 5th entrance is suggested via cartographic sources (**Figure 3**), to be in the southwest wall, towards the western corner. This location cannot be confirmed due to the removal of this section of wall by the 'Double-doored vehicle entrance inserted at north-west corner' (Appendix 2).
- 8.1.4 Today the Southwest Wall (Figure 8) is relatively plain, lacks any original openings and is partially covered in ivy. There are 2 modern breaches in the wall, which are located towards the southern and western corners. The southern breach (Plate 1, 1) allows a useful view of the wall's construction (Plate 2, 2). Just over 3m high x 0.4m wide the wall was predominantly built of lime mortar bonded brick with a brick core. Some limestone was used in the lower core. The wall uses a garden bond construction (Plate 3, 4) with header courses at variable height and the through bricks merely butt together. The capstone is of ashlared sandstone which sheds water externally.
- 8.1.5 The Northwest Wall (Figures 9 & 12) is the tallest of the garden walls up to 4.4m x 0.8m wide. It was built in three distinct sections. The eastern and western sections survive to their original heights. The eastern and western sections (Plate 4, 95) boast a three tier heating system consisting of horizontal ducts with end gaps to allow heat to move to the next level.

- 8.1.6 There are two original arched doorways [3 & 4] through the northwest wall. Doorway [3] is recessed into the southeast elevation (**Plate 29, 29**) and retains its doors. The door is in a poor state and is probably not original. It consists of a paneled top and horizontal planks to the lower door. The door has an elaborate iron latch, and strap hinges are secured to the wall just above original ashlared sandstone blocks. Because of the hinge position it is concluded that this door, and by default all the extant doors ([1-3] were replaced probably during the 19th century. Doorway [4] was a mirror of doorway [3] but today only retains its jambs and sandstone blocks.
- 8.1.7 The ducts were heated via a series of regularly spaced single (e.g. [19], Plate 5, 133) and double furnace ducts [33], (e.g. Plate 6, 14) a long the base of the northwest elevation. These narrow (width 0.25m x 0.75m high) furnace ducts are brick built and particularly evident in the limestone back wall and have round headed arches. Some of these furnace ducts (e.g. [19], Plate 5) have heat affected surrounding stones. These openings would have represented the locations of a series of furnaces to the northwest elevation, which would have heated the entire wall in sections typically about 12m in length. Three furnace openings were identified in the east and west sections [18, 22, 10 & 33] while the central section consisted of 4 furnace ducts [11, 233, 28, & 31] which were only partially extant but were evident via the inclined brick ducts and would benefit by future archaeological work. The furnaces were all probably roofed similar to the heated fruit wall at Weston Park, Staffordshire (Plate 7) unlike the exposed arrangement at Tatton Park (Plate 8). Plans of the bothys in the historic maps at Owston appear to depict a combination of single furnace sheds and combined/amalgamated sheds and bothys.
- 8.1.8 The ducts were partially visible from the southeast elevation. The lower ducts in particular had suffered from collapse of the outer bricks (**Plate 10**, 70). These outer bricks were manufactured at half the normal width (0.07m²x 0.26m: **Plate 11**, 128) and were designed to maximize the internal heating ducts. The ducts were 0.32m wide (**Plate 12**, 73) and were 'bridged' by large (0.07 x 0.24 x 0.44) through bricks. Duct height varied for each tier, with the bottom tier measuring c 1.32m high (**Figure 10**).
- 8.1.9 Information from examining the breaches and internal ducts of the heated fruit wall has allowed for a probable interpretation of the original heating system (**Figure 11**). The system fell out of use during the remodeling and reconfiguration of the glass houses and bothys during the later 19th century.
- 8.1.10 Construction of the three sections of the northwest wall appears to be contemporary, as the lime mortar and bricks are very similar suggesting that the brick walls of the east and west sections are contemporary with the central limestone section (**Plate 9**). The use of rubble limestone to the central section only seems original if a glass house was originally planned, and no evidence for a glass house to the centre of the northwest wall can be found until the late 19th century. If the central wall section is original and the author thinks it is, it may have been originally designed as a narrow vinery and was not able to be depicted on the early historic maps.
- 8.1.11 The central section has a 0.42m wide wall and was built predominantly from rubble limestone with bricks to the 4 four furnace flues. Across the southeast elevation of this central wall there is evidence for in situ lime plaster, which would have been

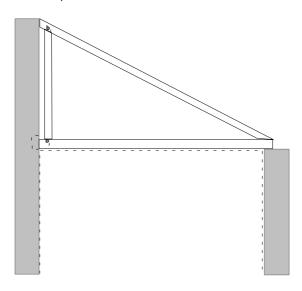
protected by a glass house. However the only glass house to be built against this wall was constructed between 1854 and 1893. Therefore it is probable that the central section of the wall and associated rear bothy (building 3) were remodelled or entirely rebuilt as the Stove House. The Glass House/Orangery? Covered the central section of the southeast elevation and was built during the Victorian Period (Figure 3). One unusual feature is a narrow square headed opening [10] positioned in the lower northwest wall (central section). Vines are traditionally planted externally and are directed into a glass house, so feature [10] could represent the original location of a vinery. As noted above, the 4 original furnace openings to the central section of the northwest wall contain brick flues positioned at intervals of between 8 and 10m. This shows that the central section of the wall was also heated via diagonal ducts contained within the 0.42m wide wall. All of the heating ducts probably exited via the top of the hot northwest wall. The exact arrangement is no longer evident and is obscured by overgrowth. No chimney stacks are evident but they may have had the appearance of a similar example to Tatton Park's heated fruit wall in Cheshire (**Plate 9**).

- 8.1.12 The back sheds are in a very poor condition. The roofs were historically removed and this has led to severe deterioration of the walls. There are three distinct buildings to the northwest elevation of the NW wall. Building 1 is particularly significant as it is probably the earliest and forms an important original feature of the walled garden's layout.
- 8.1.13 Building 1 is rectangular in plan (internal length is 3m x width 2.5m) and represents the only example of a furnace shed. That this shed survives at all might be attributed to its distant position, at the western end of the wall, and is distant from the later construction and possible rebuilding of the sheds (Buildings 2 & 3). The internal features of Building 1s are largely obscured by fallen masonry. Its solid 0.4m wide walls enclose a furnace duct [10] (Plate 13, 10) to the southeast wall (the western section of the heated fruit wall). There is evidence of a doorway in the eastern elevation which was 0.9m wide and an investigation confirmed it originally featured brick door jambs, similar to the main northwest wall. Further excavation work internally is recommended provide potential information on the actual furnace used. NB Furnace duct [33] (Plate 6) features a large flagstone foundation stone. Between buildings 1 and 2 are a vertical pair of arched alcoves [35] (Plate 14, 12). The purpose of these and all the other alcoves to the northwest elevation of the northwest wall is unknown. They may have accessed the heating ducts for cleaning purposes. One arched alcove [32] in Building 2 remained unblocked but there was no access to the ducts behind. Alcoves [48] were fully exposed and apart from adhering internal plaster there were no other clues to their function (Plate 15, 48). Another theory is that they relate to the original range of bothys, evidence for a floor was found at the western end of building 3 so their may have been a first attic for storage throughout the building, in which case the arrangement of alcoves would be logical but not conclusive.
- 8.1.14 Building 2 The Fernery, (length 11.7m x width 3.47 3.52m) represents the remains of a lean-to building that abutts the northwest elevation of the northwest wall. In situ cast iron heating pipes evidences that the room was originally heated. Evidence for the roof was provided by a cement roof scar [34] and iron bolts into the southeast wall (Figure 9) which secured the inserted support beam for the pitched glass roof. The only original entrance to the building was via the original arched doorway [3] from the garden, and shows how access to the building was restricted. Internally

there is a single long room. Through the room is a bank of undulating moss covered stone, unusual because no collapse to the walls above has occurred. There is evidence that the room was heated; cast iron pipe work runs along the northwest wall and there are a series of prominent upright stones and a also a metal water cistern. A vertical building line between buildings 2 and 3 indicates that building 2 was built after the west end of building 2. It seems likely that this was the Fernery which dates to the later 19th century, and was not an original garden building but one which utilised the original doorway [4].

- 8.1.15 Building 3 The Stove House/Bothy represents a very long bothy/shed which extends across the central and eastern sections of the northwest wall. Like building 2 The Fernery the room was shows evidence for an emanating heating system in the form of cast iron heating pipes. The overall condition is poor, due to a rapidly deteriorating fabric; localised wall collapse, roof removal and vegetation growth. The external wall was recorded and is denoted on the elevation drawing which records 4 doorways [45, 48, 50, 53] and a series of windows [44, 46, 47, 49, 51, 52 & 54] suggesting that the building was divided into at least 4 rooms. A number of internal features were revealed and will be described as a 'walk through' for the building from west to east.
- 8.1.16 The western end of building 3 was two storied; this is evidenced in the southwest wall, with in situ timbers and a flagstone floor at first floor level (Figure 6). The southeast wall featured two rows of joist holes, some with in situ truncated joists, the upper row of which corresponds to the flagstone floor. The purpose of the lower row is unknown but may represent an earlier floor. Both sets of joist holes appear to have been inserted into the earlier northwest wall and were actually inserted into the brick wall flue [31] presumably after the furnace was decommissioned. The floor becomes very uneven around flue [11] from the collapsed limestone wall, but a large pit/depression indicates that there was a cellar/basement. The depth of the celler/basement could not be determined but at present ground level there was evidence of an in situ suspended flagstone floor (Plate 18, 32) Cast iron heating pipes were also installed, and were found exiting the cellar in at least three different directions. NB The pipes along the foot of the southwest wall ran above a brick plinth [29] and were supported by 'figure of 8' bracket to the wall. In conclusion, the western end of building 3, appears to have functioned as the Stove House and the cellar/basement would have housed a boiler. To date no details of the boiler are known and this area is of particular significance and future archaeological interest.
- 8.1.17 Next to the cellar/basement is a circular stone lined well [6] with a pronounced substantial sandstone kerb (**Plate 19**, 31). The well has a diameter of 1.7m and was partially situated beneath the adjacent stone cistern [7] (**Plate 20**, 120). The position of such a permanent source of water would have been vital to the success of the walled garden and probably formed an original feature of the late 18th century garden. With the introduction of the stove house building 3 was remodelled and the substantial kerb stones next to the cellar/basement area appear to be associated with the remodeling. At the western end of the central section evidence of the roof timbers survive though not in situ. There is a line of slots inserted into the limestone wall with battens in-between. The battens probably evidence an underdrawn ceiling and patches of lime plaster still adhere to the walls below this level, but no other evidence for ceilings survives. The roof consisted of a tie-beam the width of the building, a vertical post next to the southeast wall and a diagonal principal rafter

(**Plate 22**, 123). The roof covering could not be established but broken clay pantiles were evident in the collapsed walls.



cross section of the bothy roof (eastern section)

- 8.1.10 The remaining eastern section of Building 3 would also have been roofed, as evidenced by the continuation of beam holes across the middle of the southeast wall (NW Wall, NW Elevation Figure 9). Sections of plaster were also recorded as was a plinth [20] to the lower southeast wall, which mirrored plinth [36]. Plinth [36] extended across the western section. The plinths are both in-line with the base of the furnace ducts, and served only as a wide foundation base for the walled garden's high northwest wall (the heated fruit wall). Furnace duct [19] remains unblocked with its angled flue directing hot air into the wall (Plate 5). There were no clues as to the exact nature of the furnace or associated fittings and fixtures; it is therefore suspected that the original furnaces were free standing and an inlet pipe may have served to connect the furnace with the furnace duct.
- 8.1.11 At the eastern end of the long bothy (Building 3) a brick cistern [17] was inserted by the construction of a substantial limestone cross wall. The cistern's inner walls are a single brick thickness and date to the early 20th/or later 19th century, and are cement bonded (**Plate 23**, 47). The end wall of the bothy abutts the quoined main wall (**Plate 24**, 142).
- 8.1.12 Building 4 (4.8 x 8.9m) is just extant though in a dilapidated condition (**Plate 25**, 109). This rectangular building features a gabled glass roof with a high northwest side wall and a low southeast wall. Internal ventilators mechanism is still visible supported by ornate cast iron brackets (**Plate 26**, 110). At the western corner of the building is a external concrete base which appears to have for a water but (no longer extant). A building has been in
- 8.1.13 Building 5, represents the former Victorian Glass House/Orangery. Now largely overgrown little remains of this building apart form a few discrete features (**Plate 27**, 85). Sections of the outer wall were noted, which revealed a doorway at the eastern corner. Close to the doorway was a set of limestone steps [38] (**Plate 28**,

- 132), which would have been positioned within the glass house. Closer to the northwest wall a worn stone step [41] was found which may pre-date the doorway. An 'external' stone trough [40] was also found which was similar to the cistern [7] inside Building 3. Along the foot of the northwest wall a raised bed was evident [42]. A more detailed survey of this building is recommended following removal of vegetation/overburden.
- 8.1.14 The Southeast Wall of the walled garden (Figure 7) features a single central doorway. The door still retains some wood that confirm it was panelled with horizontal battens. Seen internally its strap hinges are, like doorway [3], positioned above the sandstone blocks to the door jambs. Originally the doorway was arched but the wall above has been rebuilt with a timber lintel.
- 8.1.15 The Northeast Wall of the walled garden (**Figure 8**) features a single doorway [1] towards the eastern corner. This doorway retains its door (**Plate 30**, 55) and like the southwest wall it was built of brick using a 'garden bond' of variable depth. The sandstone capstones shed rainfall out of the garden (to the east).

9 CONCUSIONS

- 9.1 The walled 'kitchen' garden at Owston retains an array of original features which has allowed a secure interpretation of the original heating system, with constructional details of wall types employed in the construction.
- 9.2 Relative cartographic dating of the walled garden provides a date between 1768 and 1788, and bearing in mind the introduction of the hearth tax in 1784 Owston Hall' walled garden probably dates to between 1768 and 1784.
- 9.3 The available documentary evidence, though only partial, bears testimony to horticultural economy within the estate and illustrates the varieties and quantity of plants grown within and without the walled garden.
- 9.4 Surviving buildings (**Figure 5**) include:
 - o an original (c1790) Frnace House (Building 1);
 - o a Stove House (Building 3) with an internal well and water cistern. The building was remodelled to accommodate a cast iron heating system;
 - o a detached Glass House (Building 4) and;
 - o traces of the large Victorian Glass House (Building 5).

10. SIGNIFICANCE AND POTENTIAL

- 10.1 The significance of Owston hall is that unlike other examples dilapidation has allowed a remarkably clear record of the buildings, in particular the heated fruit wall. This bears testimony to the horticultural demands placed on builders, brick makers and hailers at the end of the 18th century. The potential of the site lies in further details of the original furnaces (Building 1), and layout details of the stove house (Building 3) and Victorian Glass House (Building 5).
- 10.2 A summary of the information has been collated into Table 1 (below). Building significance has been based upon their designated status as well as date, surviving extent and architectural/archaeological detail.

Table 6: Building Chronology			
Building	Building Type	Date of construction	Significance
-	Walled Garden	1768-1784	Regional
1-	Furnace House	1768-1784	Regional
2	Fernery	1854 – 1883	Regional
3	Stove House/Bothy	1768-1784, 1854 – 1883	Regional
4	Green House	1854 – 1883	Regional
5 –	Glass House (Site of)	1854 – 1883	Regional

11 PROPOSED ARCHAEOLOGICAL MITIGATION

- 11.1 There are potential impacts to the designated heritage asset. But at this stage these impacts have not been assessed in any detail.
- Because it is so unusual to witness the redevelopment of a walled garden further general archaeological mitigation is recommended. This will take the form of a limited and intermittent watching brief during redevelopment works targeting Buildings 1, 3, & 5 and if the southeast wall is breached a record of the wall's cross section.
- 11.3 This work will be designed to further record features not visible during this building record.

12 REFERENCES

12.1 Bibliographic References

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1799, Account Book (Owston Hall) (DA Reference DD/DC/E11)

1807, Account Book (Owston Hall) (DA Reference DD/DC/E12)

1810-11, General Account Book (Owston Hall) (DA Reference DD/DC/E11/13)

1882, List of Garden Expenses (DA Reference DD/DC/E7/11)

1883, Inventory and Valuation of Stove House, Greenhouse & Bedding Plants under glass at Owston Park Gardens near Doncaster (DA Reference DD/DC/E7/12)

12.2 Cartographic References

DA - Doncaster Archives, DD/DC -Davies- Cooke Collection

1768 Flintoff Plan (DA Reference DD/DC/H1/3/4)

1788 (Pre) Plan of the estate (DA Reference DD/DC/E4/1/5)

1788 Sketch Map (Goodchilde 2003, Map 5)

1842 Alexanders map (DA Ref. DD/DC/E4/1/10)

1851 1st Edition, 6 inch Ordnance Survey map

1893 1st Edition 25 inch Ordnance Survey map

1893 2nd Edition 6 inch Ordnance Survey map

1907 2nd Edition 25 inch Ordnance Survey map

1932 3rd Edition 25 inch Ordnance Survey map

1955 1:10 000 Ordnance Survey map

1966 1:10 000 Ordnance Survey map

1955 1:10 000 Ordnance Survey map

1980 1:10 000 Ordnance Survey map

2008 The British Geological Survey, England and Wales, sheet 87

2011 The Ordnance Survey digital (vector) map

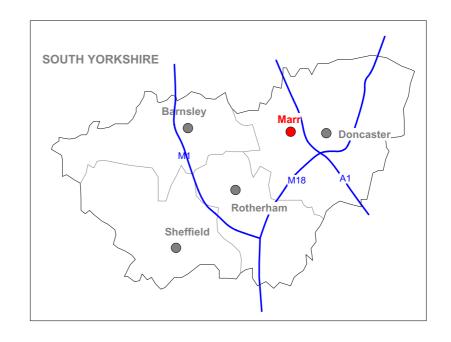
12.3 Internet Sources

- 1. http://lbonline.english-heritage.org.
- 2. http://www.magic.gov.uk
- 3. http://www.nationalarchives.gov.uk/a2a
- 4. http://www.old-maps.co.uk

13 ACKNOWLEDGEMENTS

Many thanks go to Mr P Edwards for commissioning this report and to Ms R Codling for initiating this archaeological record and for her comments on the project design report.

FIGURES





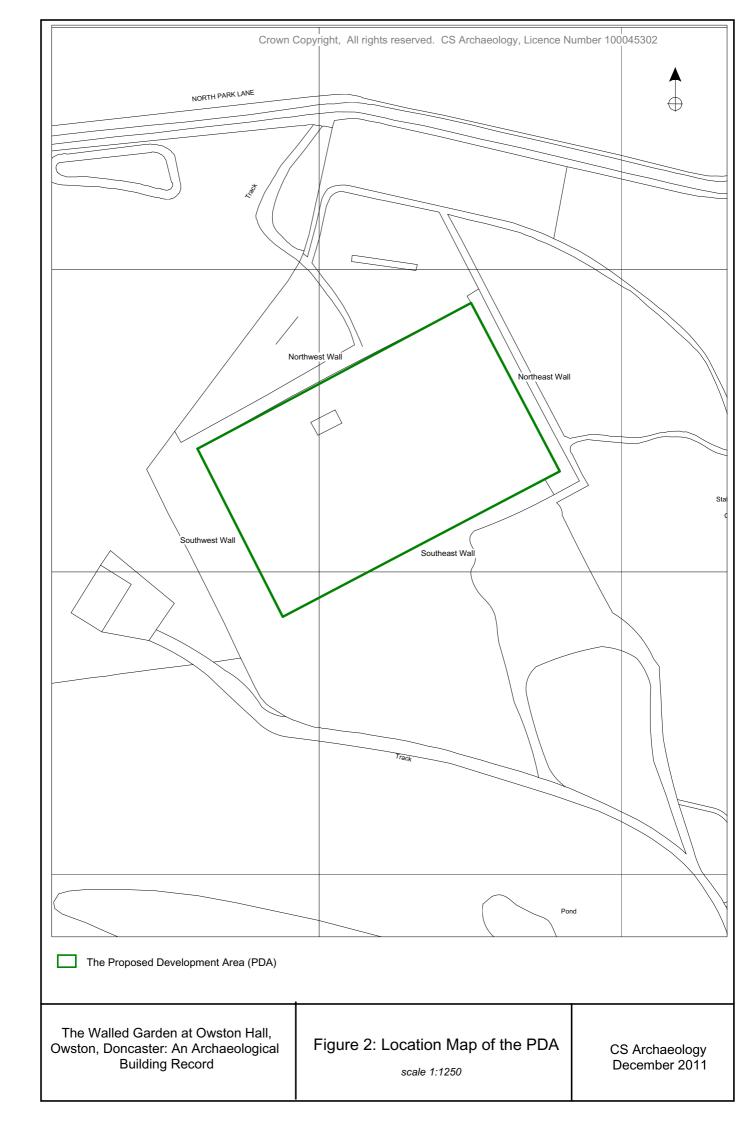


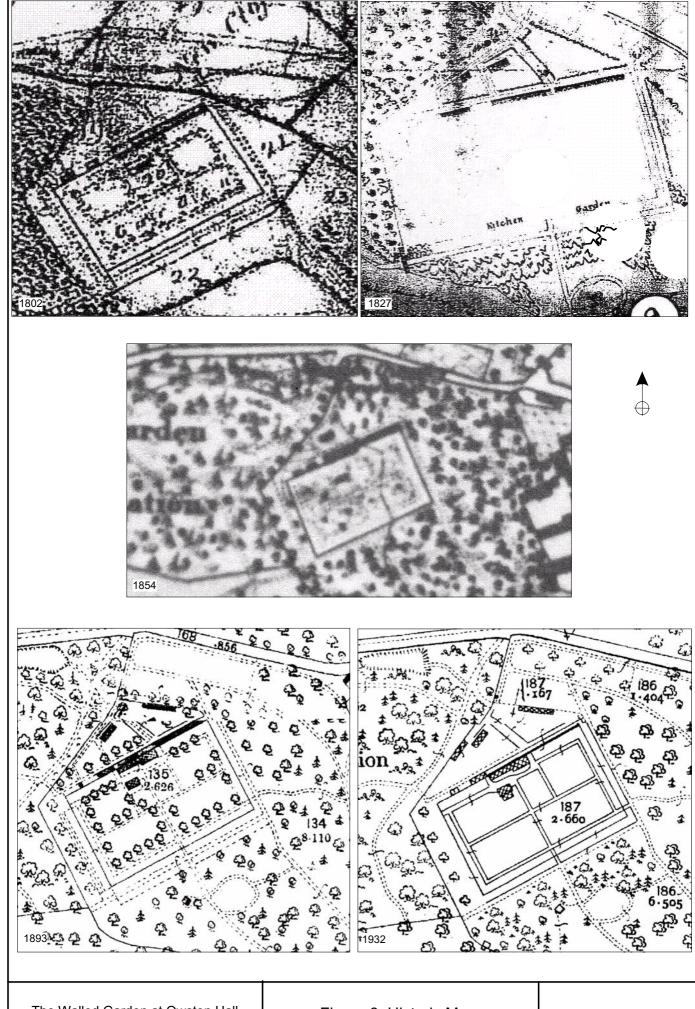
see Figure 2

The Walled Garden at Owston Hall, Owston, Doncaster: An Archaeological Building Record

Figure 1: Location Map

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The Walled Garden at Owston Hall, Owston, Doncaster: An Archaeological Building Record

Figure 3: Historic Maps 1802-1932

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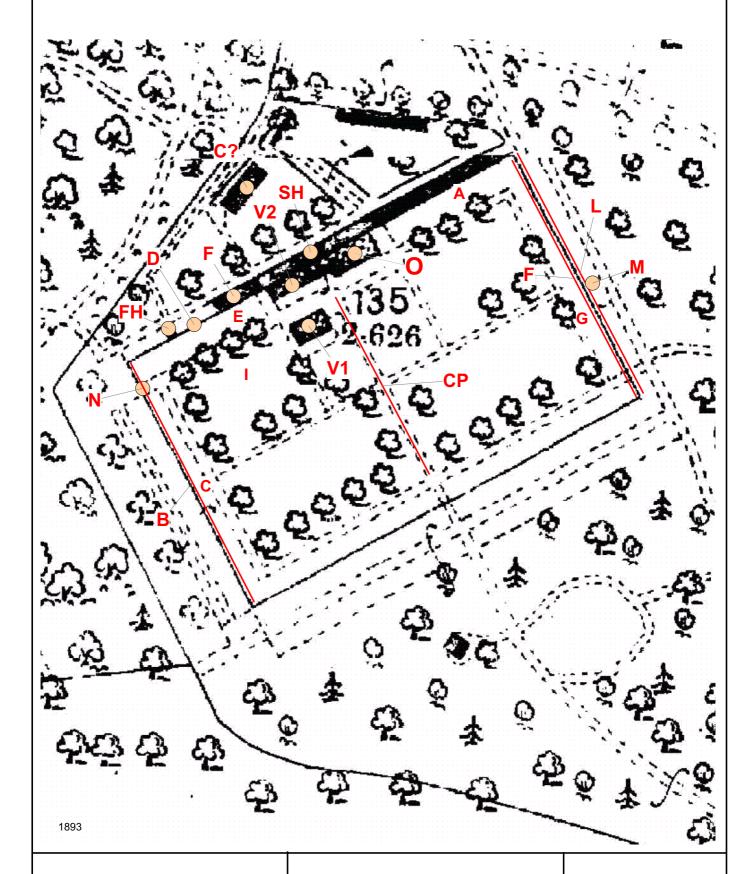
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Key to possible locations

Stove House?- SH Fernery - F Orangery?- O Furnace House - FH Vinery No 1 & No.2? - V Conservatory ?- C

right side of orangery - A On West Wall - B Border in Front - C Against the north wall - D Border facing south? - E East Wall - F Border facing the east wall? - G South Boreder - H Vineyard - I Southeast wall - J Border facing the southwest wall - K East wall outside - L Border in front of east wall - M Probable entrance - N, now enlarged central pathway - CP



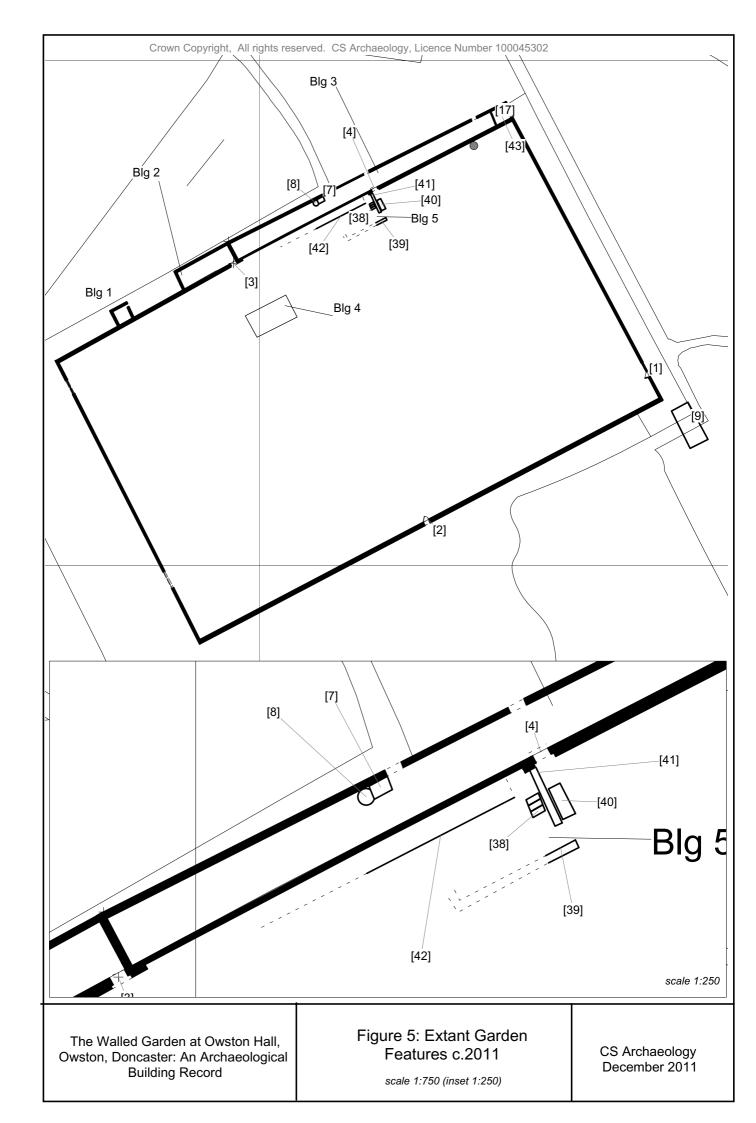


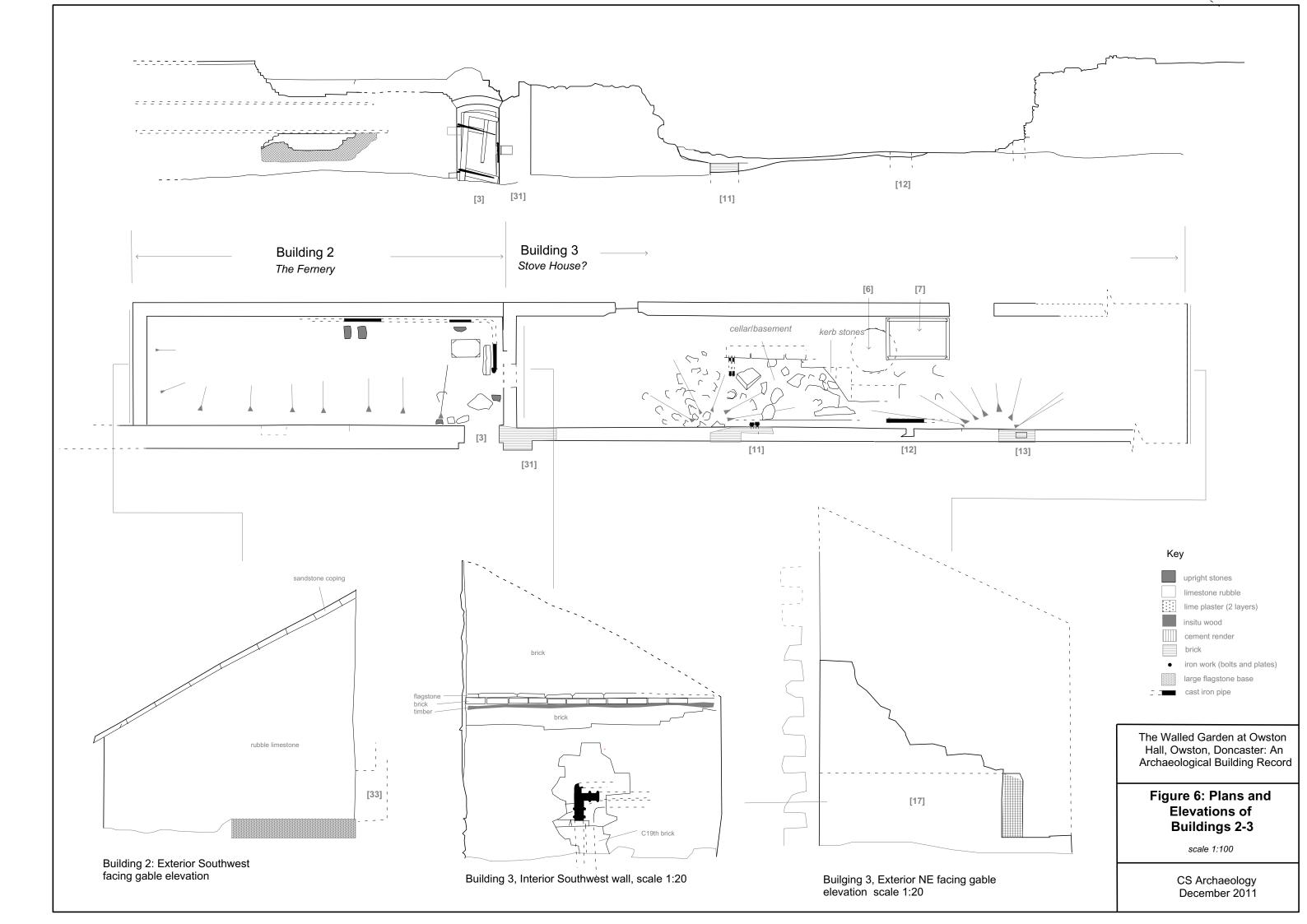
The Walled Garden at Owston Hall, Owston, Doncaster: An Archaeological Building Record

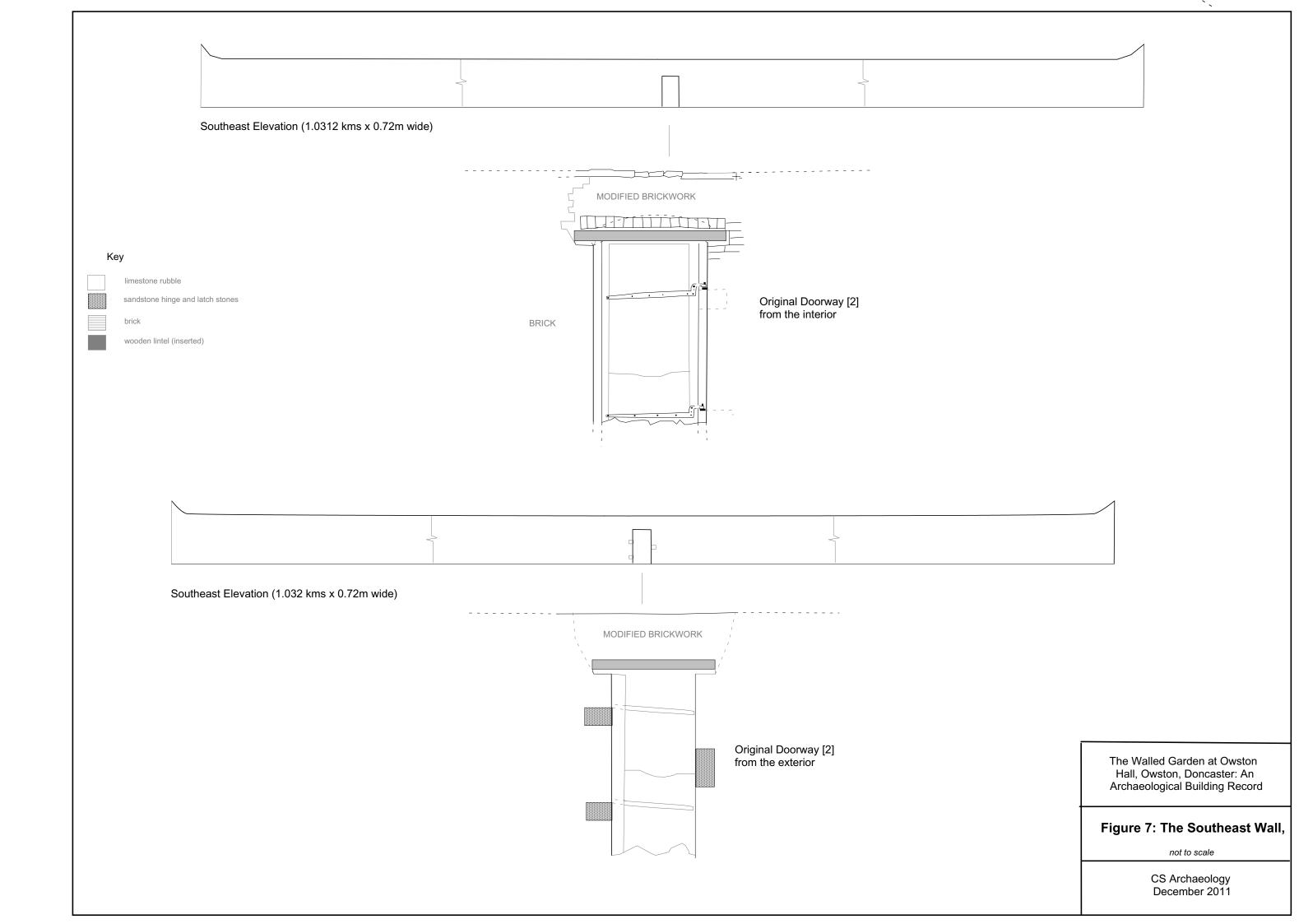
Figure 4: Interpretive Overlay of the 1893 Ordnance Survey Map

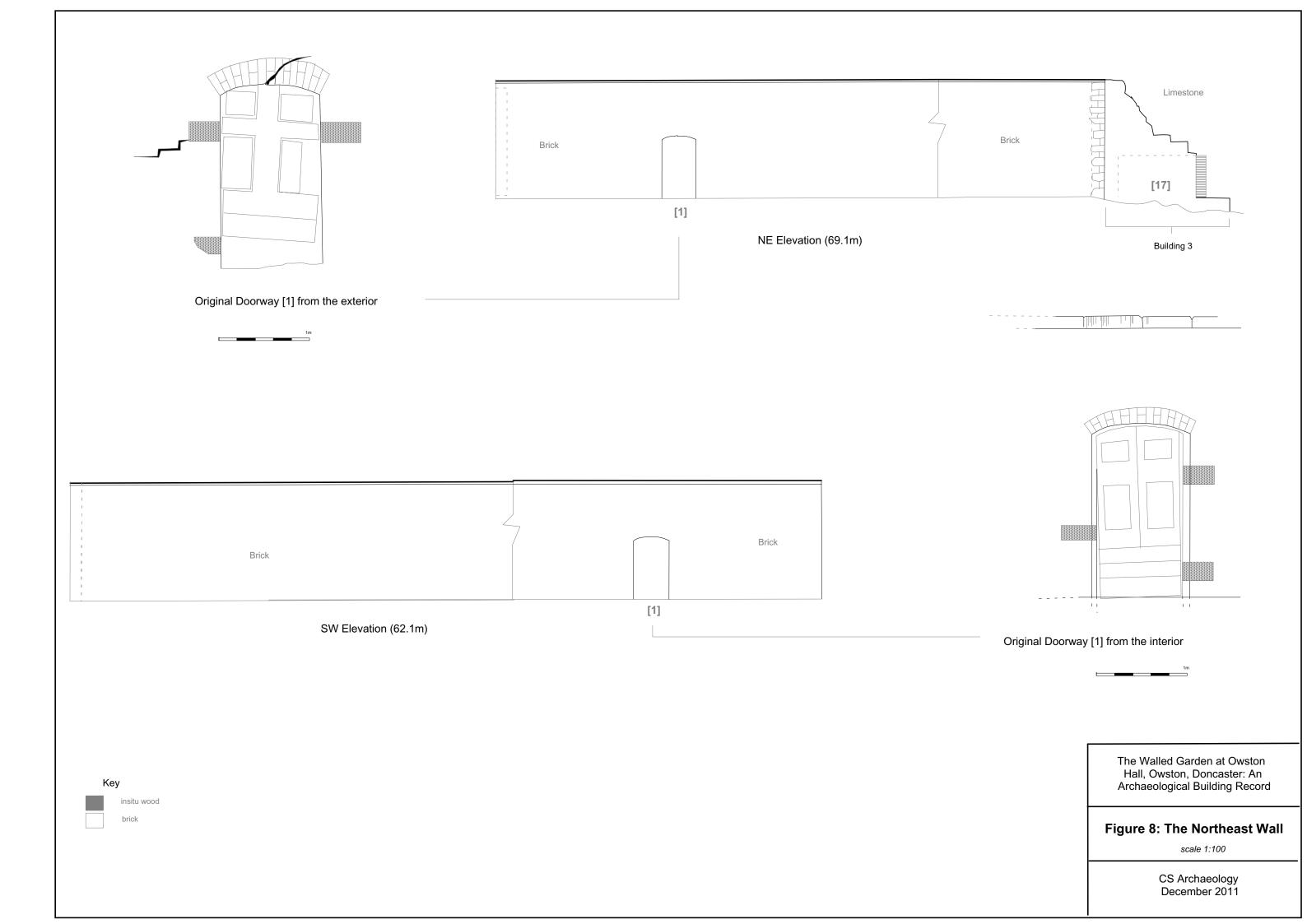
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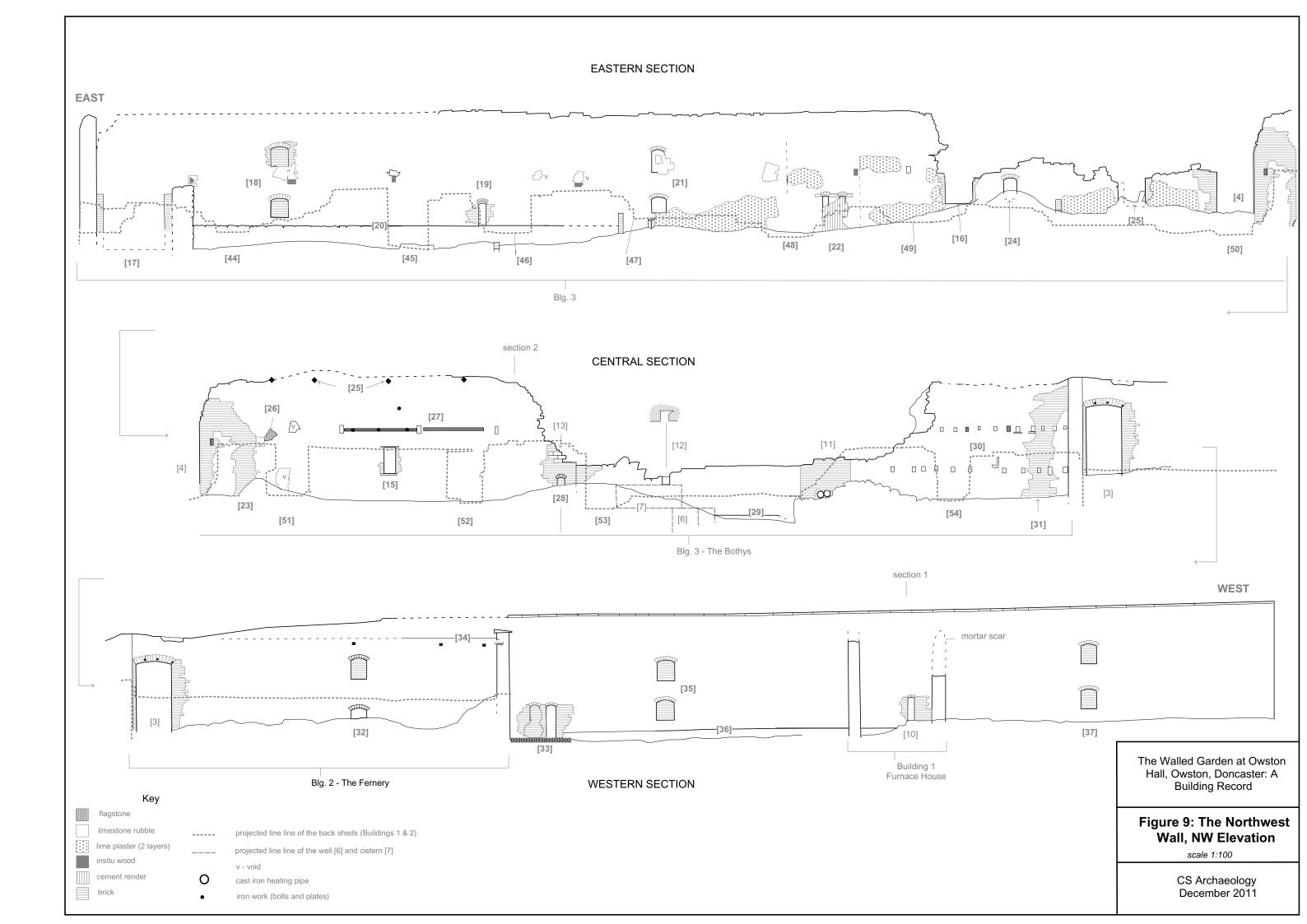


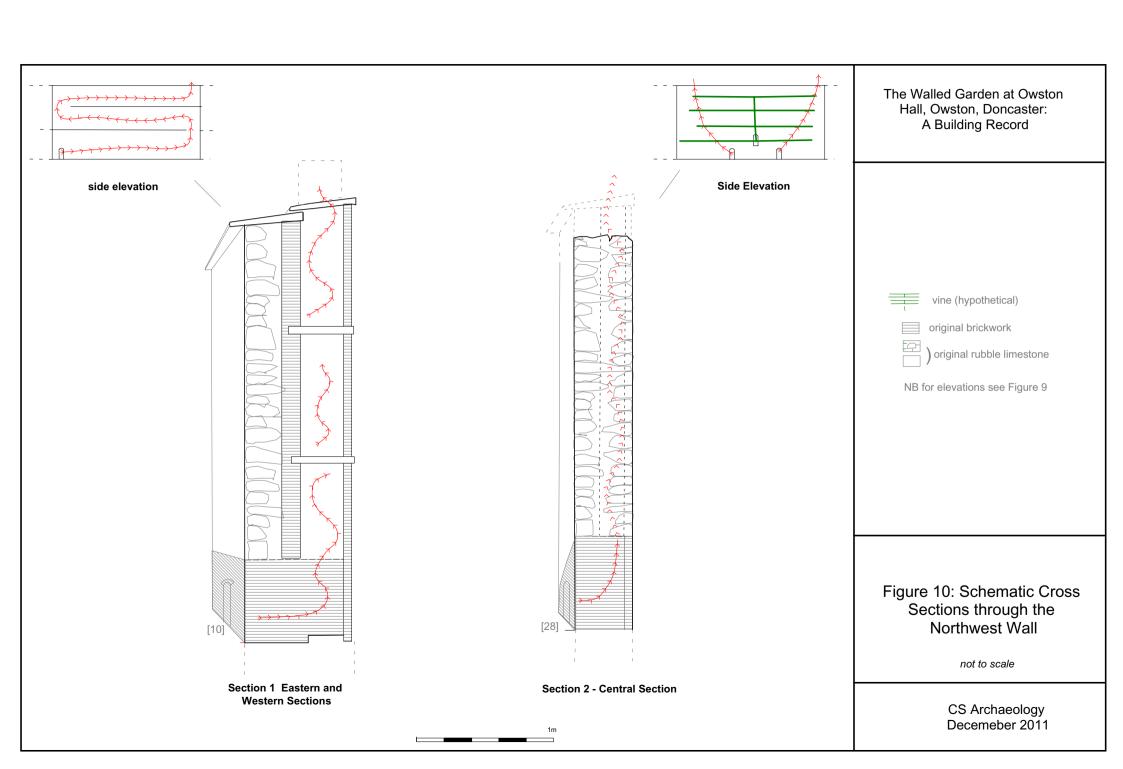


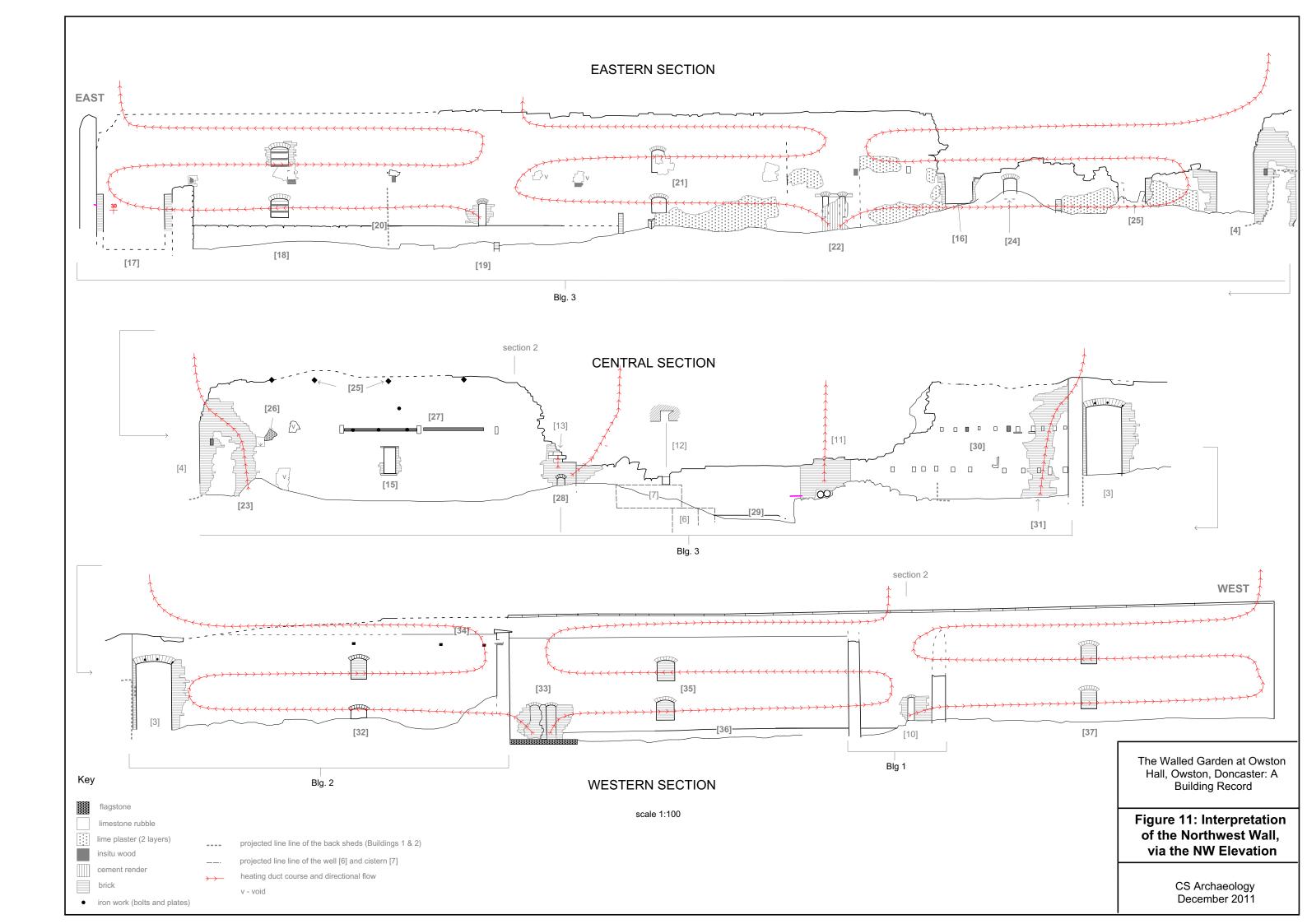


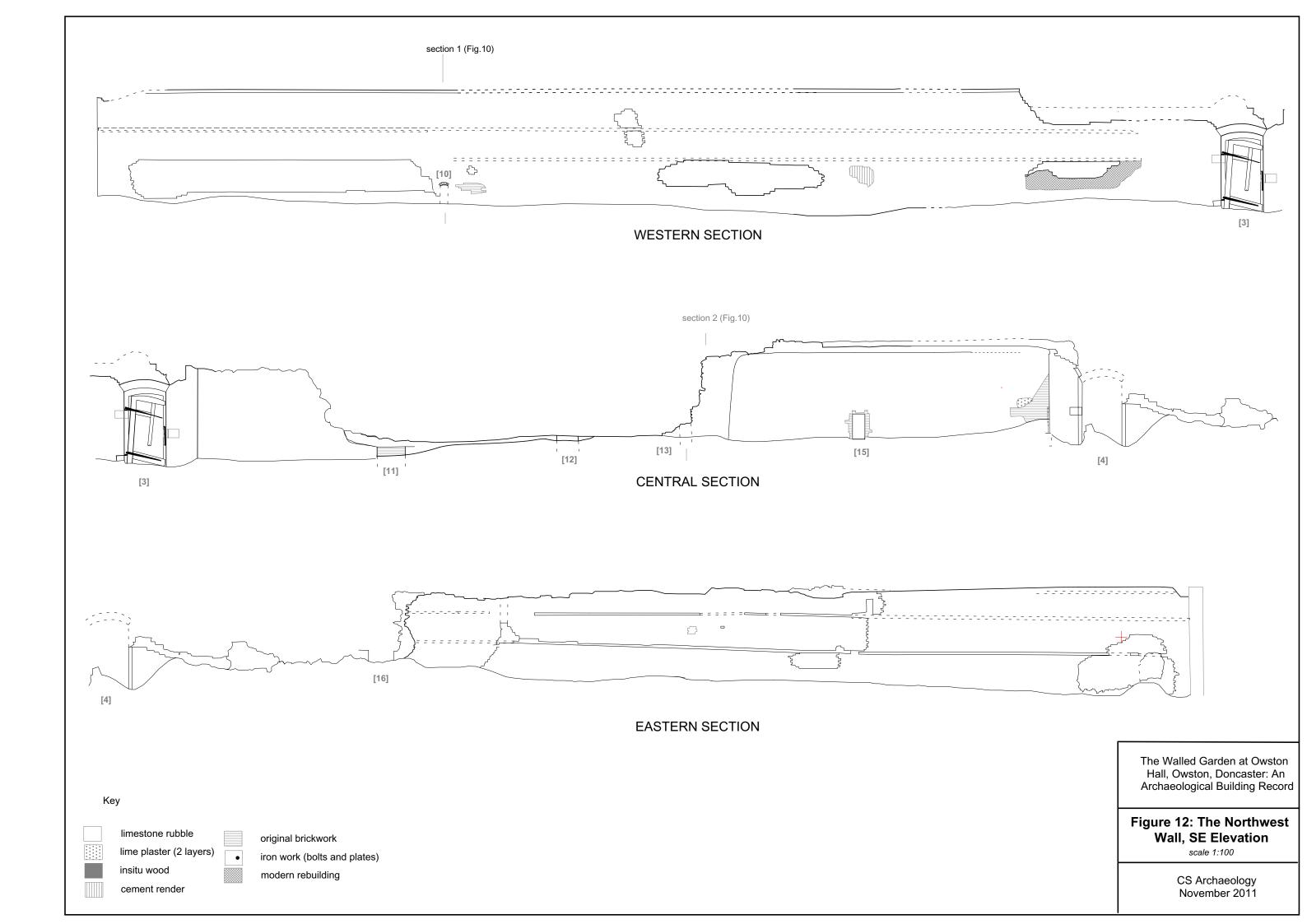


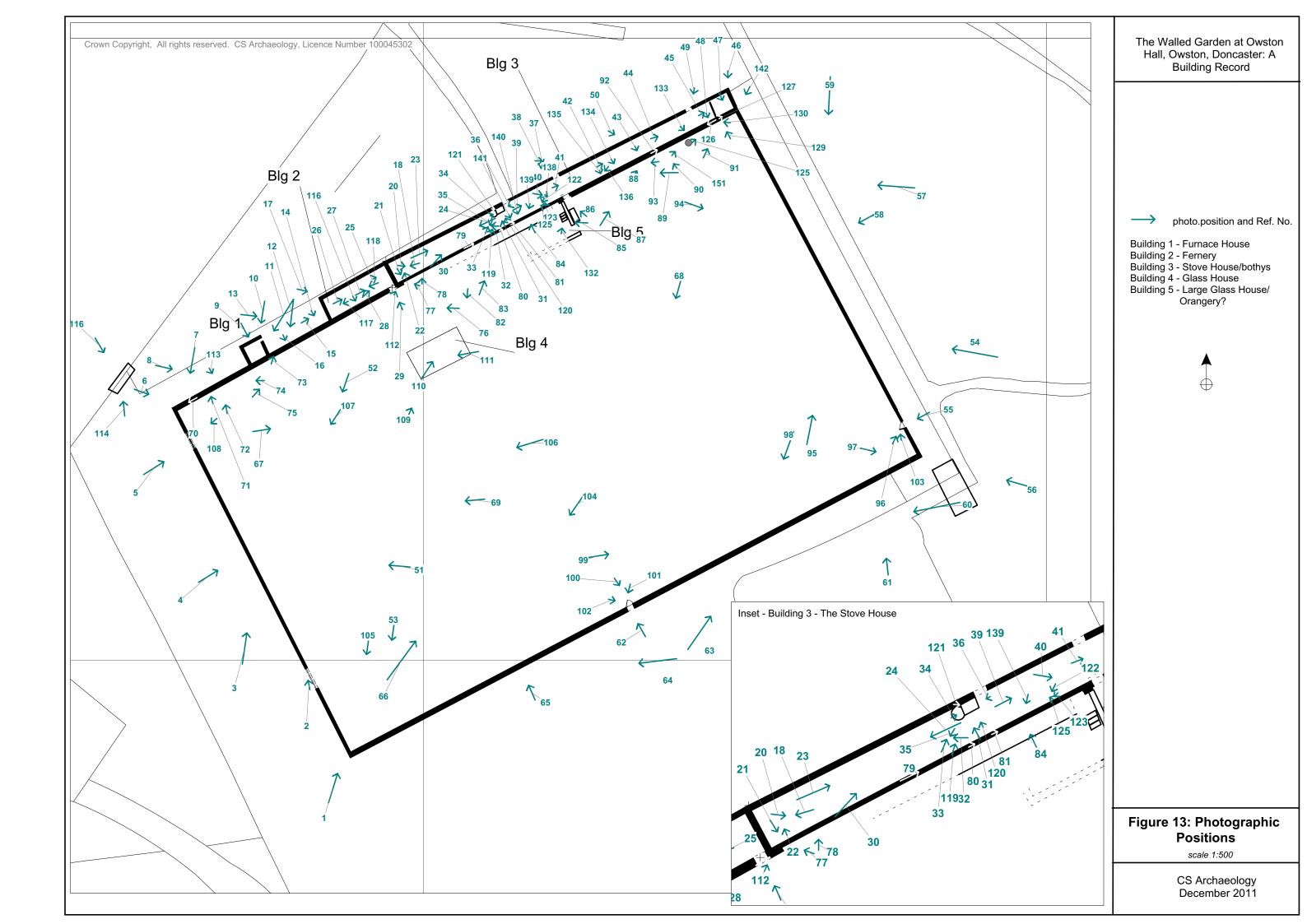
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PLATES



Plate 1, 1: General view of the external SW corner, from the south



Plate 2, 2: detail of the cross section through the wall breach at the southern end of the SW wall, from the south southeast



Plate 3, 4: detail of an exposed section of the external SW wall, from the west southwest



Plate 4, 95: general view of the NE wall, SW elevation, from the southwest



Plate 5, 133 detail of the furnace duct [19], from the northwest



Plate 6, 14: detail of the twin furnace twin ducts [33], from the northwest



Plate 7: a row of furnace sheds behind the heated fruit wall at Weston Park Staffordshire (Campbell 2011, 25



Plate 8: the heated fruit wall at Tatton Park without furnace sheds, which used bonfires at the base of the wall (Campbell 2011, 25)



Plate 9, 77: detail of the part eroded heating duct within the NW wall, (SE Elevation), from the east



Plate 10, 70: detail of the exposed heating duct to the NW wall, SE elevation, from the northeast



Plate 11, 128: Detail of the narrow facing brick with bridging brick beneath



Plate 12, 73: Detail of the exposed heating duct above the twin furnace duct [33] (NB Plate 6)



Plate 13, 10: Oblique view of building 1, from the northeast



Plate 14, 12: View of the northwest wall, northwest elevation with the blocked arched alcoves [35], from the north



Plate 15, 48: Detail of the arched alcoves [18], from the north



Plate 16, 25: 'Internal' view of building 2, *The Fernery*, from the northeast



Plate 17, 26: 'Internal' view of building 2, *The Fernery*, from the southwest



Plate 18, 32 detail of the cellar/basement with suspended flagstone floor, building 3, from the east



Plate 19, 31: view of the well [6] and cistern [7], building 3, from the southeast



Plate 20, 120: View of the stone cistern [7] (with ivy removed), from the southeast



Plate 21, 121: detail of the cistern's [7] iron dovetail tie and rebated joint to the sandstone sides, from the west (0.2m scale)



Plate 22, 123: detail of the tie-beam and post, from the Northeast (0.2m scale), from the northeast



Plate 23, 47: View into the cistern [17], building 3, from the northwest



Plate 24, 142: View of the quoined corner of the northeast wall with the bothy's (building 3) limestone wall abutting, from the northeast



Plate 25, 109: general view of the semi-extant detached green house (Blg 4), from the southwest



Plate 27, 85: oblique view of the NW wall (central section), SE elevation, from the east

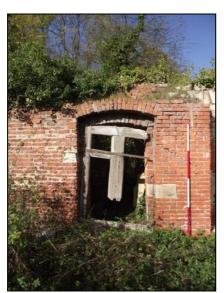


Plate 29, 29: view of the doorway [3] which now accesses building 2 – The Fernery, from the southeast



Plate 26, 110: detail of the greenhouse roof, from the southwest



Plate 28, 132: Set of stone steps within the footprint of the former glasshouse (Orangery?), from the west



Plate 30, 55: detail of the doorway [1] of the NW elevation of the principal outer garden wall, from the northeast

APPENDICES

PROJECT DESIGN FOR AN ARCHAEOLOGICAL BUILDING RECORD OF THE WALLED GARDEN AT OWSTON HALL, OWSTON, SOUTH YORKSHIRE

CS Archaeology January 2011

0 SUMMARY

- 0.1 This Project Design (PD) is in response to conditions Placed on planning consent by Doncaster Metropolitan Borough Council (App. No. 08/00805/FUL, Cond. 5 & 08/00806/LBC, Cond. 5) associated with the proposed redevelopment of the historic walled garden at Owston Hall, Owston, South Yorkshire.
- This design involves a general drawn and photographic record together with an historic appraisal, which will provide a more general contextual record of the walled garden as a whole. The results will provide a permanent record of this historic structure and its associated structures (bothies) prior to the site's redevelopment.

INTRODUCTION

1.1 Details

1

- 1.1.1 Site name: The Walled Garden, Owston Hall, Owston, South Yorkshire
- 1.1.2 Location: Owston, South Yorkshire
- 1.1.3 Grid reference: SE 5482 1123 (centre)
- 1.1.4 Total area: c.0.7ha

1.2 Archaeological Background

- 1.2.1 Owston Church is Norman in origin and incorporates herringbone masonry similar in style to Marr church. Owston during the medieval period represented a relatively rich parish with fifty freeholders in 1343. By the 18th century the parish had largely been amalgamated by the lord of the manor with just three surviving freeholders.
- 1.2.2 Owston Hall is a grade II* Listed Building (No. 334966) and now designated heritage asset) dates to at least the early 18th century and was extended 1794-5, and featured an 18th Century stable block.
- 1.2.3 The hall's garden is situated 175m northwest of the hall and is also a designated heritage asset (a grade II Listed Building No. 334967). The walled garden dates to the late 18th century and is of:

'Red brick with stone copings. Rectangular enclosure approximately 100 metres x 60 metres with wall 3-4 metres in height; southern side lower. No ornate openings; panelled doors to centre of south side and at southern end of east side, other doorways in north side, formerly leading into greenhouse ranges (demolished). Double-doored vehicle entrance inserted at north-west corner where part of the north face of the wall is of rubble limestone. Copings of southern side tilt inwards and sweep up at ends to taller side walls coped by thinner slabs of stone. Shown on 1792 plan of Owston drawn by Humphrey Repton'. (English Heritage Building Description 2011).

1.3 Planning Background

- 1.3.1 This Project Design represents a summary of the broad archaeological requirements to mitigate the impact of the renovation work on the walled garden. This is in accordance with local plan policies and the National Planning Statement 5 (PPS5).
- 1.3.2 Doncaster Metropolitan Borough Council is the Local Planning Authority, and may be advised by South Yorkshire Archaeology Service (SYAS) at Sheffield.
- 1.3.3 A previous planning application involved the walled garden becoming a caravan park with two permanent buildings. The development was never carried out but earthworks associated with this application can still be seen within the internal former garden area.

2 OBJECTIVES

2.1 To identify and objectively record by means of photographs and annotated measured drawings any significant evidence for the original and subsequent forms and functions of the north wall of the walled garden with its associated structures. Additional information will also be researched to provide a more general contextual record of the walled garden as a whole. Once completed, the record will be placed in the public domain. The archive will be deposited with Doncaster Archives and a copy of the report with South Yorkshire Archaeology's Historic Environment Record and Doncaster Metropolitan District Council.

3 METHODOLOGY

3.1 Documentary research

- 3.1.1 A review of readily available primary and secondary sources will provide background information for the building record.
- 3.1.2 This assessment is based on the following information:
 - site visit with a detailed examination of the wall and its associated structures;
 - visit to Doncaster Archives and Local History Library;
 - published and unpublished documentary sources.

3.2 Written Record

3.2.1 CS Archaeology will carefully examine all parts of the structure prior to the commencement of the drawn and photographic record, in order to identify all features relevant to its original use. As part of this exercise, CS Archaeology will produce written observations (e.g. on phasing and building function) sufficient to permit the preparation of a report on the structure and its development. In particular the arrangement of internal flues will also be noted and recorded in the drawings, subject to health and safety considerations.

3.3 Drawn Record

- 3.3.1 The drawn record will established from scratch and will comprise of:
 - a full set of 8 elevations of the four walls (Plate 1);
 - all elevations of the associated structures;
 - cross sections of the walls and structures.
- 3.3.2 Drawings will be made at an appropriate floating scale, which maximises the drawing size for clarity.
- 3.3.3 Scope of the Record. All features of archaeological and architectural interest identified during the process of appraisal will be incorporated into, and clearly identified in, the final drawn record. Items of interest will include:
 - overall dimensions and structure;
 - exposed and hidden heating ducts and pipework (Plate 2);
 - associated features buildings, wells and troughs.

This list will not be treated as exhaustive. CS Archaeology will also identify and note:

 any significant changes in construction material – this is intended to include significant changes in stone/brick type and size;

- any blocked, altered or introduced openings;
- evidence for phasing, and for historical additions or alterations to the structures.
- 3.3.4 Dimensional accuracy will accord with the normal requirements of the English Heritage Architecture and Survey Branch (at 1:20, measurements will be accurate to at least 10mm; at 1:50, to at least 20mm; at 1:100, to at least 50mm). Major features such as changes in structural material may be indicated in outline. The recording of individual stones or stone courses is not required unless greater detail is needed in order to adequately represent a particular feature of interest.
- 3.3.5 Drawing method. The survey will be involve drawing the various structures from scratch. Architectural/archaeological detail will be added, drawings executed on site will be made either on polyester-based film (minimum thickness 150 microns) with polymer-bonded leads of an appropriate thickness and density, or on acid-free or rag paper. If finished drawings are generated by means of CAD or a similar proven graphics package, CS Archaeology will ensure that the software employed is sufficiently advanced to provide different line-weight (point-size); this feature will then be used to articulate the depth of the drawings. This will enable a well-modelled and clear drawing to be produced; ambiguous flat-line drawings will be avoided. Drawing conventions will conform to English Heritage guidelines as laid out in English Heritage 2006, Understanding Historic Buildings a guide to good recording practice.

3.4 Photographic Record

- 3.4.1 External photographs will be made of all elevations of each wall and associated structure, from vantage points as nearly parallel to the elevation being photographed as is possible within the constraints of the site. CS Archaeology will ensure that all visible elements of each elevation are recorded photographically; this may require photographs from a number of vantage points without the constraints of scaffolding. A general external photographic record will also be made which includes a number of oblique general views of the walls and associated buildings from all sides, showing them and the complex as a whole in their setting. In addition, a 35mm general colour-slide survey of the buildings will also be provided (using a variety of wide-angle, medium and long-distance lenses). While it is not necessary to duplicate every black-and-white shot, the colour record will be sufficiently comprehensive to provide a good picture of the form and general appearance of the complex and of the individual structures.
- 3.4.2 Internal photographs will be taken of the associated structures and well from a sufficient number of vantage points to adequately record the form, general appearance and manner of construction of each area. In areas which are wholly modern in appearance, character and materials, a single shot to record current appearance will be carried out.
- 3.4.3 Detailed photographs, In addition, detailed record shots will be made of all individual structures or elements. A Medium format camera will be used for a combination of detailed and wider panoramic views.
- 3.4.4 Equipment. general and detailed photographs will be taken with a 35mm camera using a tripod and a range of appropriate lenses. CS Archaeology has proven expertise in this type of work. Any detail photographs of structural elements will, if possible, be taken with a camera with perspective control. All photographs will contain a graduated photographic scale of appropriate dimensions.
- 3.4.5 Film stock. All record photographs will be black and white, using conventional silver-based film only, Delta 400 Pro. Digital photographs will also be taken and will be reproduced to illustrate the final report and to supplement the archive.

- 3.4.6 Printing, Record photographs will be printed at 6" x 4" on to proven archivally stable paper. Bracketed shots of identical viewpoints will be reproduced, but all viewpoints will be represented within the report.
- 3.4.7 Documentation, a photographic register detailing (as a minimum) location, direction and subject of shot will accompany the photographic record; a separate photographic register will be supplied for colour slides. The positions and direction of each photograph will be noted on a copy of the building plan, which will also be marked with a north pointer; separate plans will be annotated for each element of the walled garden.

3.5 Site Monitoring

3.5.1 Doncaster Metropolitan Borough Council will be responsible for monitoring the building record. A minimum of one week's notice of the start of the field work will be given by CS Archaeology to Doncaster Borough Council so that arrangements for monitoring can be made.

3.6 Health and Safety

3.6.1 CS Archaeology will operate with due regard to health and safety and a copy of the risk assessment will be sent for approval to the archaeological monitor (DMBC).

3.7 Post –Recording Work and Report Preparation

- 3.7.1 The preparation of the report will follow the guidelines published by the institute of Field Archaeology.
- 3.7.2 The report will include as a minimum:
 - non-technical summary;
 - introductory statement;
 - aims and purpose of the project;
 - methodology;
 - an objective summary statement of results;
 - conclusion;
 - supporting illustrations at appropriate scales tied into the Ordnance Datum;
 - illustrative plates of key/representative features;
 - supporting data tabulated or in appendices, including photographic registers;
 - index to the archive with confirmation of the archive transfer arrangements;
 - references:
 - a copy of the Oasis form;
 - a copy of this report (PD) as an appendix to the final report.
 - 3.7.3 Drawings, the report illustrations should include as a minimum: a location map at not less than 1:2500; a site plan at not less than 1:500; photographs used to illustrate all key points and a complete set of site drawings, at an appropriate scale, executed to publication standard. All historic maps copied during the map analysis stage should also be included within the report with the building(s) of interest clearly visible. The photographic record plan must also be included. In addition to those photographs used as illustrations, a complete set of all photographs, excluding duplications, are to be included in the digital copy of the report and referenced as necessary.
 - 3.7.4 Archive Deposition, arrangements are being made with Doncaster Archives. The archive will be deposited in accordance with their deposition and archiving standards. A Museum accession number has been applied for and will be used in the final report.

3.7.5 At the start of the project an Oasis online record will be initiated and key fields completed on details, location and creators forms. All parts of the Oasis online form will be completed for submission to the HER. This will include an uploaded.pdf version of the entire report (a paper copy will also be included with the archive).

3.8 Report Submission

- 3.8.1 Upon completion of the field work a full report will be produced and copies with CD Rom containing the text of the report and illustrations (including all photos and slides taken), scanned at 300 dpi, is to be provided with each copy of the printed report submitted to the client, the client's agent, Ms R Codling (DMBC) and Mr A Lines (SYAS). As a minimum, a summary or interim statement will be produced 6 weeks after completion of the fieldwork, and a full report within 3 months.
- 3.8.2 A summary report of an appropriate length, accompanied by illustrations, will be prepared and submitted in digital format (word/jpg >300dpi), for publication in Archaeology in South Yorkshire.

3.9 Publicity

- 3.9.1 Provision will be made for publicising the results of the work locally, and an OASIS form will be completed for the project.
- 3.9.2 CS Archaeology will either arrange for copyright on the deposited material to be assigned to the Doncaster Archives in perpetuity; this licence will allow the archive to reproduce material, including for use by third parties, with the copyright owner suitably acknowledged.
- 3.9.3 CS Archaeology is aware that this work may lead to further archaeological dissemination.

3.10 References

English Heritage 2006, Understanding Historic Buildings – a guide to good recording practice, 7.1.1ff

English Heritage 2011, Listed Building Description (http://lbonline.english-heritage.org.uk)

CS Archaeology

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PLATES



Plate 1: view of the south facing elevation of the north wall, with exposed heating ducts



Plate 2: detail of the associated cast iron pipework and well

Appendix 2: Designated Heritage Assets

Name: Kitchen Garden Wall

List Entry Number: 1314851, Location Kitchen Garden Wall Approximately 175 Metres To North West Of Owston Hall

Grade: || UID: 334967,

Details: OWSTON OWSTON VILLAGE SE 51 SW 10/103 Kitchen garden wall approximately 175 metres to north-west of Owston Hall II Kitchen garden wall. Late C18. For the Owston Hall estate. Red brick with stone copings. Rectangular enclosure approximately 100 metres x 60 metres with wall 3-4 metres in height; southern side lower. No ornate openings; panelled doors to centre of south side and at southern end of east side, other doorways in north side, formerly leading into greenhouse ranges (demolished). Double-doored vehicle entrance inserted at north-west corner where part of the north face of the wall is of rubble limestone. Copings of southern side tilt inwards and sweep up at ends to taller side walls coped by thinner slabs of stone. Shown on 1792 plan of Owston drawn by Humphrey Repton (photo-facsimile in NMR).

Name: Owston Hall List entry Number: 1286676

Location: Owston Hall Flats 1 To 5 and Including The Old Hall Grade: II* Date first listed: 05-Jun-1968

Details: OWSTON OWSTON VILLAGE SE 51 SW, SE 51 SE 10/102 Owston Hall: 5.6.68 Flats 1-5 and including The Old Hall (all formerly listed as Owston Hall) II* Country house now 6 dwellings and partly unoccupied. Early C18, extended 1794-5 by William Lindley for Brian Cooke. Ruled cement render, Westmorland slate roof. L-shaped house of 1794: 2 storeys with basements, 1:3:1-bay entrance front with 1:3:1-bay garden front on left return adjoined on left by a mid-late C19 conservatory built on a basement range; to rear, the L-shaped earlier C18 three-storey wing encloses a courtyard entered from archway to rear of right return with single-storey outbuildings set in a quadrant forming link from archway to the 1794 range. Entrance front: deep band above exposed basement walling. Centre, set slightly forward, approached by stone steps with large side pedestals; central doorway with glazed double doors and fanlight with radial bars flanked by side lights beneath decorated frieze and segmental pediment; flanking windows, set between giant Ionic pilasters, have sunken apron panels to large sashes with glazing bars; windows of outer bays similar. 1st floor: central sash with glazing bars has fan-shaped sill brackets and architrave, sashes to other bays have projecting sills only. Continuous eaves cornice and plain frieze to central 3-bay pediment. Hipped roof with stacks set to rear of ridge and to ridge of left return. Garden front: central curved projection with 6-pane sashes to basement and deep sill band to unequally-hung 15-pane sashes; outer bays have sashes as front but set in round-arched recesses; Ist-floor windows as front. Conservatory to left (by Messenger and Co. of Loughborough, Est. 1854) has possibly earlier yellow-brick plinth wall with band and sill band; polygonal central projection approached by nosed stone steps with wave-form iron balustrade; plain greenhouse glazing. Rear: (entrance front of earlier C18 wing, 'The Old Hall'): 5 bays; central doorway with sidelights beneath pedimented cornice. Sashes with glazing bars to ground and 1st floors; tripartite sash over door; 6-pane sashes to 2nd floor. On its left a curtain wall incorporates remains of C16/C17 windows, further round on left return is a basket archway into the courtyard. Interior: diamond-shaped paving to entrance hall; mahogany doorcases with garlanded friezes; plaster wall panels. Fluted Corinthian screen to stair hall, cantilevered stone staircase with wreathed handrail to wave-form iron balustrade; tripartite sash to stair window with pilasters and fanlight with radial glazing bars; landing arcading. Front-right room (dining room, now subdivided) has marble fireplace and arched recesses with drops of vines; deep frieze with baskets of fruit. The Library, oval and lit from curved bay on garden front, has 2 curved 6-panel doors with beading and roundels; glazed bookcases between with lozenge-shaped lights; ornate frieze. In rear wing (within earlier C18 range): another fine room (the old library) now subdivided but with crinoidal limestone fireplace and contemporary iron firebasket, cornice and coving. Basement retains a wooden pump with lead plaque dated 1832; furnaces nearby probably of same date.

Surviving drawings for the 1794-5 addition to Owston (Davies-Cooke Collection) bear the name Lindley and show alternative entrance doorways. Previous attribution to William Porden (e.g. Pevsner p.389) comes from an unexecuted design exhibited at the Royal Academy in 1797. Humphrey Repton's 1792/3 landscape scheme for Owston (photo-facsimile in NMR) shows a proposed site for a new house some way to the west for which drawings were prepared by Lindley in 1794; the plan outlines the L-shape of the 'old house' retained by Lindley in the final scheme. In 1827 a proposal to alter Owston in the Grecian style was submitted by P. F. Robinson to P. D. Cooke, this and an extension scheme by Woodland and Hurst were never executed.

Drawings and very detailed building records in the Davies-Cooke Collection, Doncaster Library Service Archives, King Edwards Road, Balby.

N. Pevsner, B.O.E., 1967 ed.

Appendix 3: The Archive Index

PHOTOGRAPHIC REGISTER A: 35mm Black and White Film (Ilford Delta 400 Professional). Duplicate digital photographs have been archived by photographic position number.

Photo.	Film/Frame			
Position	No.	Plate	Description	From
1	1/36	1	General view of the external SW corner	S
			Detail of the cross section through the wall breach at the southern	
2	1/35-33	2	end of the SW wall	SSE
3	1/32		General view of the external SW wall	SSW
4	1/31	3	Detail of an exposed section of the external SW wall	WSW
5	1/30-29		General view of breach in the SW wall (northern end)	WSW
6	1/28		General view of the external NW corner	W
7	1/27		General view of the external NW wall (western end)	NW
8	1/26		View of building 1 and the 'external' SW wall	NW
9	1/25-4		Detail of building 1 and the 'external' SW wall	NW
10	1/23-22	13	Oblique view of building 1	NE
11	1/21		View of the 'external' SW wall	NE
			View of the northwest wall, northwest elevation with the blocked	
12	1/20-19	14	arched alcoves [35]	N
13	1/18		General view of the exposed NW external wall	NW
14	1/17-16	6	Detail of the twin furnace twin ducts [33]	NW
15	1/15-14		View of the SW gable, building 2	SW
16	1/13		Detailed view of the blocked arched alcoves [34]	NW
17	1/12		General view of the NW wall of Building 2 (obscured)	W
18	1/11-10		View of the internal SW gable wall of building 3	NE
19	1/9		Detail of the breach to the SW wall, building 3	NE
20	1/8		View of the SE wall, building 3	WNW
	17.5		View of the SE wall, building 3 with inserted joist holes [30] and the	,,,,,,
21	1/7		inclined heating flue	NW
	1,7.		View of the bothy window [54] to the NW wall, Blg 3 with splayed	
22	1/6		reveals	SW
23	1/5		View of the inside of building 3 (SW end)	SW
24	1/4		View of the inside of building 3(SW end)	NE
25	1/3	16	'Internal' view of building 2, The Fernery	NE
26	1/2	17	'Internal' view of building 2 The Fernery	SW
27	1/1		View of the internal doorway [3] into building 2	W
28	2/36, 4/9-8		View of the breached NE gable wall, building 3	SW
	, ,		View of the doorway [3] which now accesses building 2 – The	
29	2/35	29	Fernery	SE
30	2/34		General view of the remains of building 3	SW
31	2/33	19	View of the well [6] and cistern [7], building 3	SE
-	, , , , ,		Detail of the cellar/basement with suspended flagstone floor,	
32	2/32	18	building 3	SE
		_	View of the corbelled sandstone surround to the well [6], building 2,	-
33	2/31		section 2	SW
34	2/30& 28		View down the well, building 2, section 2	SW
35	2/29		View along the SE wall, building 2, section 2	NE
36	2/27		View of the cistern (ivy covered) building 2, section 2	NE

l	I	1	Detail of the part eroded heating duct within the NW wall, (SE	
76	3/21	+	General view towards the eastern end of the NW wall, SE elevation	E
75	3/22	1	Oblique view of the eastern end of the NW wall, SE elevation	SW
74	3/23	1	Oblique view of the eastern end of the NW wall, SE elevation	ENE
73	3/24	12	furnace duct [33]	SW
			Detail of the exposed heating duct above the blocked arched	
72	3/25		View of the wall with the upper internal heating ducts exposed	SE
71	3/27-26		Detail of the breached arched opening [10] through the NW wall	SE
70	3/28	10	Detail of the exposed heating duct to the NW wall, SE elevation	NE
69	3/29		General view of the walled garden	SE
68	3/30		General view of the walled garden	NE
67	3/31		General view of the walled garden	W
66	3/32		General view of the walled garden	SW
65	3/33		Detail view of the brickwork of the SE wall	SE
64	3/34		General view along the SE elevation of the principal outer garden wall	E
63	3/35		General view along the SE elevation of the principal outer garden wall	SW
02	3/30		View of the original garden doorway [2] with modified lintel)E
61	2/1 3/36		principal outer garden wall View of the original garden doonway [2] with modified lintel	SE SE
41	2/1		View of the SE elevation, towards the eastern corner, of the	S
60	2/2		garden wall	E
,,	0.70		General oblique view of the SE elevation of the principal outer	_
59	2/3		garden wall	N
			General oblique view of the NW elevation of the principal outer	
58	2/4		Detail of the brickwork to the NW wall	NE
57	2/5	1	General view of the NW elevation of the principal outer garden wall	SE
56	2/6		pleasure grounds, SE of the walled garden	SE
			View of the adjacent ornate archway [9] a former entrance to the	
55	2/8-7		garden wall	NE
'			Detail of the doorway [1] of the NW elevation of the principal outer	
54	2/9		General view of the NW elevation of the principal outer garden wall	SE
53	2/10		walls	N
	_, , ,		General view of the southern corner of the principal inner garden	1
52	2/12		General view of the NW elevation of the principal inner garden wall	W
51	2/13		General view of the SW wall, NE elevation	E
50	2/13		8 471	W
47	Z/ 14	+	View of the single storey NW elevation of Building with windows [46	IN
49	2/14		View of the single storey NW elevation of Building 3 with doorway [44]	N
48	2/15	15	Detail of the arched alcoves [18]	N
47	2/16	23	View into the cistern [17], building 3	NW
46	2/17		View of the northern corner, building 4	N
45	2/18	-	View of the gable wall, building 4	SW
44	2/19		General view of Building 3's SE wall	WSW
43	2/20		Detail of the arched alcoves [21]	NW
42	2/21		General view into Building 4, with the garden to the right	SW
41	2/22		General view into Building 4, with the garden to the right	SW
40	2/23		General view of the inclined flue adjacent to the brick doorway [4]	W
39	2/24		General 'internal' view of building 2, section 3	NE
38	2/25		General view of building 2, section 3	NW
37	2/26		General view of building 2, section 3	NNE

	1			1
			View of the exposed limestone wall with evidence of regularly	
78	3/19-18		divided bays/boxes (central section of the NW wall SE elevation)	SW
79	3/17		General view of the collapsed NW wall	SW
			Detail of a recessed wall feature [13], in the NW wall, NW elevation	
80	3/16		from above	-
81	3/15		Detail of an exposed blocked brick duct [14] in the NW wall	SW
82	3/14		General view of the relict green house (Blg. 4)	NE SV4
83	3/13-12		View of the NW wall (eastern section), SE elevation	SW
84	3/11	07	Detail of vine opening [15], NW wall (central section), SE elevation	SE
85	3/10, 5/1	27	Oblique view of the NW wall (central section), SE elevation	E
0.4	3/9		View of the eastern doorway [4] through the NW wall (eastern section), SE elevation	SE
86	3/8		'	SSW
87	3/6		View of the eastern end of the NW wall	22.44
88	3/7		View of the exposed ducts along the eastern end of the NW wall, SE elevation	SW
- 00	3//		View of the exposed ducts along the eastern end of the NW wall, SE	344
89	3/6		elevation	E
90	3/5		Detail of the brickwork to the NW wall, SE elevation (eastern end)	SE
-,-	5,5		View of the NW wall, SE elevation (eastern end) with surviving fig	J.
91	3/4		tree	S
92	3/3, 5/19		Detail of the heating ducts, NW wall SE elevation	SW
, =	,,,,,,,		View of the heating ducts to the NW wall, SE elevation (eastern	
93	3/2		end)	Е
94	3/1		General view of the NE wall, SW elevation	NW
95	4/36	4	General view of the NE wall, SW elevation	SW
96	4/35-4		Detail of doorway [1] ('internal' view)	SSW
97	4/33		View of the 'internal' eastern corner	WNW
98	4/32		General view of the SE wall, NW elevation	NNE
-	7/02			1111
99	4/31		General view of the SE wall, NW elevation	W
	1		General view of the SE wall, NW elevation View of doorway [2] (SE wall, NW elevation)	
99	4/31			W
99 100	4/31 4/30		View of doorway [2] (SE wall, NW elevation)	W NNW
99 100 101	4/31 4/30 4/29		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation)	W NNW NNE
99 100 101 102	4/31 4/30 4/29 4/28		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation)	W NNW NNE NW
99 100 101 102 103	4/31 4/30 4/29 4/28 4/27		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation)	W NNW NNE NW SSW
99 100 101 102 103 104	4/31 4/30 4/29 4/28 4/27 4/26		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner	W NNW NNE NW SSW NE
99 100 101 102 103 104 105	4/31 4/30 4/29 4/28 4/27 4/26 4/25		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner	W NNW NNE NW SSW NE NE
99 100 101 102 103 104 105	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation	W NNW NNE NW SSW NE NE NE
99 100 101 102 103 104 105 106 107	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23	25	View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4)	W NNW NNE NW SSW NE NE NE NE
99 100 101 102 103 104 105 106 107 108	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22	25 26	View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall	W NNW NNE NW SSW NE NE NE NE NE NE NE NE NE
99 100 101 102 103 104 105 106 107 108 109	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse	W NNW NNE NW SSW NE NE NE NE SSW NE
99 100 101 102 103 104 105 106 107 108 109 110 111 112	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the doorway [3] and rebated brick and stonework	W NNW NNE NW SSW NE NE NE SE NE NE NE SW SW SW E SW
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the greenhouse Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation	W NNW NNE NW SSW NE NE NE SW SSW E SW NE NE NE NO NE
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/15-14		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8]	W NNW NNE NW SSW NE NE NE NE SW SW SW SW E SW
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/13-12		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8] The medieval arch [8]	W NNW NNE NW SSW NE NE NE NE SW SW SW E SW NW SW NE
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/13-12 4/11		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the greenhouse Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8] Revealed openings to the SE wall, Building 2	W NNW NNE NW SSW NE NE NE NE SW SW SW E SW NW SW S NE
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/15-14 4/13-12 4/11		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the greenhouse Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8] Revealed openings to the SE wall, Building 2 View of the SW gable wall, Building 2	W NNW NNE NW SSW NE NE NE NE SW SW E SW SW E SW NW S NE
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/15-14 4/13-12 4/11 4/10 4/7		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the greenhouse Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8] Revealed openings to the SE wall, Building 2 View of the SW gable wall, Building 2	W NNW NNE NW SSW NE NE NE NE NE NE SW SW E SW SW E SW NW S NE SW
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/15-14 4/13-12 4/11 4/10 4/7 4/6	26	View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the greenhouse Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8] Revealed openings to the SE wall, Building 2 View of the Upright stones at the NE end of Building 2 View of the well [6] and stone cistern [7]	W NNW NNE NW SSW NE NE NE NE SW SW SW E SW SW SW SW SSW NW SSW SSW
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/15-14 4/13-12 4/11 4/10 4/7		View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the greenhouse Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8] Revealed openings to the SE wall, Building 2 View of the SW gable wall, Building 2 View of the well [6] and stone cistern [7] View of the stone cistern [7] (with ivy removed)	W NNW NNE NW SSW NE NE NE NE SW SW E SW SW E SW NW S NE SW SW SW E SW
99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118	4/31 4/30 4/29 4/28 4/27 4/26 4/25 4/24 4/23 4/22 4/21 4/20 4/19 4/18 4/16-15 4/15-14 4/13-12 4/11 4/10 4/7 4/6	26	View of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [2] (SE wall, NW elevation) Detail of doorway [1] (NE wall, SW elevation) View of the 'internal' western corner Detailed view of the 'internal' eastern corner General view of the SW wall, NE elevation General view of the SW wall, NE elevation View of the inserted opening to the SW wall General view of the semi-extant detached green house (Blg 4) Detail of the greenhouse roof Detail of the greenhouse Detail of the doorway [3] and rebated brick and stonework Revealed blocked arched openings to the NW wall, NW elevation The medieval arch [8] Revealed openings to the SE wall, Building 2 View of the Upright stones at the NE end of Building 2 View of the well [6] and stone cistern [7]	W NNW NNE NW SSW NE NE NE NE SW SW E SW SW E SW SW SSW NE SW SSW SSW

122	4/3		Detail of a collapsed roof timber	NW
123	4/2	22	Detail of the roof's tie-beam and post	NE
124	4/1		Detail of the roof strut	SE
125	5/27		Detail of one of the long bridging brick (type 2)	-
126	5/26-25		View along the heating duct	SW
127	5/24		View of the upper 'roof' of the heating duct	NE
128	5/23	11	Detail of the narrow facing brick with bridging brick beneath	-
			View of the exposed heating ducts to the western section of the	
129	5/22		NW wall	NW
130	5/21		Detail of the exposed heating ducts	WNW
131	5/20		Detail of the sandstone capstones	N
			Set of stone steps within the footprint of the former glasshouse	
132	5/18	28	(Orangery?)	W
133	5/17-15	5	Detail of the furnace duct [19]	NW
134	5/14		Detail of the twin furnace ducts [22]	N
135	5/13		Detail of the opening (window)[16]	N
136	5/12		Detail of one of an inserted brick feature	NE
137	5/11		Detail of the associated plaster work of inserted brick feature	NW
138	5/10-9		View of the brick furnace duct [23]	NW
139	5/8		Detail of the square headed opening [10]	N
140	5/7-6		View of the furnace duct [28] with duct [13] above	NW
141	5/4		Detailed view of a section of the northwest wall	NW
			View of the quoined corner of the northeast wall with the bothy's	
			New of the qualified content of the northeast wall with the boilty's	

PHOTOGRAPHIC REGISTER B: 35mm Colour Slide, (Sensia 400)

Photo. Position	Description	From
1	General view of the external SW corner	S
2	Detail of the cross section through the wall breach at the southern end of the SW wall	SSE
3	General view of the external SW wall (obscured)	SSW
4	Detail of an exposed section of the external SW wall	WSW
5	General view of breach in the SW wall (northern end)	WSW
6	General view of the external NW corner	W
7	General view of the external NW wall (western end)	NW
8	View of building 1 and the 'external' SW wall	NW
9	Detail of building 1 and the 'external' SW wall	NW
10	Oblique view of building 1	N
11	View of the 'external' SW wall	NE
12	View of the 'external' SW wall with the blocked opening [A & B]	N
13	General view of the exposed NW external wall	NW
14	Detail of the twin inlet ducts [32]	NW
15	View of the SW gable, building 2	SW
16	Detailed view of the blocked arched alcoves [34]	NW
18	View of the internal SW gable wall of building 3	NE
19	Detail of the breach to the SW wall, building 3	NE
20	View of the SE wall, building 3	WNW
21	View of the SE wall, building 3 with inserted joist holes [30] and the inclined heating flue	NW
22	View of the window to the NW wall, Blg 3 with splayed reveals	SW
23	View of the inside of building 3 (SW end)	SW
24	View of the inside of building 3(SW end)	NE
25	'Internal' view of building 2	NE
27	View of the internal doorway into building 2	W
28	View of the NE gable wall, building 2	SW
29	View of the external doorway [3] into building 2	SE
30	General view of the remains of building 3 building 2, section 2	SW
31	View of the well and cistern (ivy covered) building 2, section 2	S
32	Detail of the suspended flagstone floor, building 2, section 2	SE
33	View of the corbelled sandstone surround to the well [6], building 2, section 2	SW
34	View down the well, building 2, section 2	SW
35	View along the SE wall, building 2, section 2	NE
36	View of the cistern (ivy covered) building 2, section 2	NE
37	General view of building 2, section 3	NNE
38	General view of building 2, section 3	NW
40	General view of the inclined flue adjacent to the brick doorway [4]	W
41	General view into Building 4, with the garden to the right	SW
42	General view into Building 4, with the garden to the right	SW
43	Detail of the arched alcoves [21]	NW
44	General view of Building 4's SE wall	WSW
45	View of the gable wall, building 4	SW
46	View of the northern corner, building 5	N
47	View into the cistern [17], building 5	NW
48	rise in a second fir housing o	1 1 1 1 1
	Detail of the grobed alcoves [18]	N
	Detail of the arched alcoves [18] View of the single storey NW elevation of Building 5	N N
49	Detail of the arched alcoves [18] View of the single storey NW elevation of Building 5 View of the single storey NW elevation of Building 5	N N W

Photo. Position	Description	From
52	General view of the NW elevation of the principal inner garden wall	W
53	General view of the southern corner of the principal inner garden walls	N
54	General view of the NW elevation of the principal outer garden wall	SE
55	Detail of the original garden doorway [1] of the NW elevation of the principal outer garden wall	NE
56	View of the adjacent ornate archway [9], SE of the walled garden	SE
57	General view of the NW elevation of the principal outer garden wall	SE
58	Detail of the brickwork to the NW wall	NE
59	General oblique view of the NW elevation of the principal outer garden wall	N
61	View of the SE elevation, towards the eastern corner, of the principal outer garden wall	S
62	View of the original garden doorway [2] with modified lintel	SE
63	General view along the SE elevation of the principal outer garden wall	SW
64	General view along the SE elevation of the principal outer garden wall	E
65	Detail view of the brickwork of the SE wall	SE
66	General view of the walled garden	SW
67	General view of the walled garden	W
68	General view of the walled garden	NE
71	Detail of the breached arched opening [10] through the NW wall	SE
72	View of the wall with the upper internal heating ducts exposed	SE
73	Detail of the exposed heating duct above the blocked arched duct [14]	SW
74	Oblique view of the eastern end of the NW wall, SE elevation	ENE
75	Oblique view of the eastern end of the NW wall, SE elevation	SW
76	General view towards the eastern end of the NW wall, SE elevation	Е

PHOTOGRAPHIC REGISTER C: Medium Format, (Ilford Delta Professional 400)

Photo. Position	Film/Frame No.	Plate	Description	From
72	6/5		View of the wall with the upper internal heating ducts exposed	SE
74	6/2-3		Oblique view of the eastern end of the NW wall, SE elevation	ENE
75	6/4		Oblique view of the eastern end of the NW wall, SE elevation	SW
87	6/11		View of the eastern end of the NW wall	SSW
96	6/7-8		Detail of doorway [1] ('internal' view)	SSW
97	6/9-10		View of the 'internal' eastern corner	WNW
99	6/12		General view of the SE wall, NW elevation	W
100	6/14		View of doorway [2] (SE wall, NW elevation)	NNW
105	6/15-16		Detailed view of the 'internal' western corner	NE
-	6/17		Further view of the ducts to the NW Wall (eastern section)	S