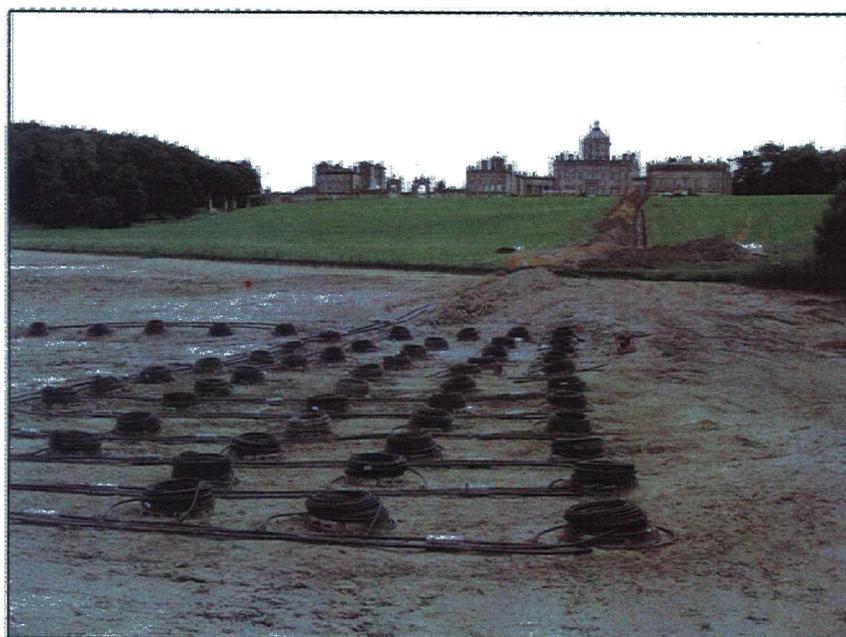


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SNY	12855
ENY	4698
CNY	8569
Parish	3059
Rec'd	01/09/2009

**CASTLE HOWARD, MALTON,
NORTH YORKSHIRE:
AN ARCHAEOLOGICAL WATCHING BRIEF**



**CS Archaeology
August 2009**

Rec'd 01/09/2009

09/00434/FUL
3059 parish
C8569

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S12855

On behalf of: Mr S Howard
Castle Howard
Malton
North Yorkshire

National Grid Reference (NGR): SE 712 701

Report Number: 040

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1. SUMMARY

- 1.1 An archaeological watching brief was required to record potential archaeological deposits associated with excavation of a ground source heating system which involves the excavation of a pipe trench from Castle Howard's North Lake (Dairy Pond) to the House's north elevation.
- 1.2 This report has been written in response to a condition placed on planning consent (App. No. 09/00434/FUL).
- 1.3 The archaeological watching brief has recorded:
- a revetment wall, c. 1700 part of the Vanbrugh's original design with subsequent levelling and dumping deposits;
 - a carved limestone Cascade in the North Lake (Dairy Pond);
 - a subterranean pump house and
 - a continual sequence of geological lake sediments.
- 1.4 Residual Medieval pottery was recovered from unstratified deposits. No Post-Medieval or earlier features were revealed during the excavation works.

2. INTRODUCTION

- 2.1 Castle Howard lies 7kms west of Malton, North Yorkshire and 5kms north of the A64 between York and Malton (**Figure 1**). The site lies within Castle Howards' Grade 1 Registered Park and Garden. The excavation consists of a narrow pipe trench across the north lawn, linking the North Lake (Dairy Pond) to the House. The north lawn is situated on a north northwest facing slope from the 74 to 58m contour lines.
- 2.2 The archaeological watching brief took place over 5 days from the 6th to the 10th July 2009 in response to a condition attached to planning consent, from Ryedale District Council (App. No. 09/00434/FUL).

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 3.1 The earliest phase of the present extant house consists of the Main House with its Great Hall, the East Wing and the East Court and these were begun c.1700 and completed 1714. This early phase of construction was designed by Sir John Vanbrugh, with Nicholas Hawksmoor initially acting as Clerk of Works (Pevsner 2001, 107) under the patronage of Charles, 3rd Earl of Carlisle.
- 3.2 Pevsner notes that by 1709-12 the Great Hall with its great dome was being internally decorated. The western part of the Kitchen Wing had been built by 1706, the brewhouse, laundry, etc by 1710-11 and the two gateways by 1716. Pevsner also notes that in *Vitruvius Britannicus*, vol. I (Figure 3: c.1715) the engraved design features two gatehouses, one to the Kitchen Court and one to the Stable Court. This arrangement was completed by a “wonderfully crazy” principal gatehouse into the *cour d’honneur* (Pevsner 2001, 112).
- 3.3 After this initial period of construction, design attention turned to the grounds. By 1737 the total cost of the project came in at £78,250 with the house itself costing just under half of the total (£35,000). The West Wing was built between 1753-1759 by Sir Thomas Robinson for Henry, 4th Earl of Carlisle. The building was constructed from limestone ashlar and rubble, lead and Westmorland slate roofs all in the Baroque style except for Palladian West Wing.
- 3.4 Castle Howard is a nationally important Grade 1 Listed: House, Park and Garden. Within the grounds are a further 21 Listed Buildings. Of these, ten are of national importance (Grade 1 and Grade II*) and eleven are of regional importance (Grade II). The concentration of so many Listed Buildings, serves to emphasise the importance of the House but also of the wider estate.
- 3.5 A selection of these buildings, listed chronologically are:
- The Walled Garden c. 1705;
 - Victoria Gate (between the walled garden and the later stables 1705;
 - The Carrmire Gate, after 1726;
 - Temple of the Four Winds 1714-6;
 - The Pyramid Gate 1719;
 - Pretty Wood and associated Pyramids c.1727;
 - The Mausoleum 1742;
 - The Stewards House (The Dairy) probably mid C18th;
 - South Lake including the Cascade to the Temple Hole 1735;
 - Exclamation Gate 1770;
 - The Stables 1781;
 - The North Lake 1798-1800.

4. AIMS AND OBJECTIVES

- 4.1 The aim of the watching brief is to identify and record the presence/absence, extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits which are disturbed or exposed as a result of ground works in the area of interest.
- 4.2 This work will mitigate the destruction of buried archaeological remains through 'preservation by record'.

5. METHODOLOGY

- 5.1 This has been carried out in accordance with a Written Scheme of Investigation (WSI) issued by CS Archaeology (7/2009: Appendix 1).
- 5.2 In addition to the WSI all exposed surfaces and spoil were surveyed for metal and examined for pottery and worked stone.
- 5.3 A detailed plan and sections were made of **Site 1**, *The Revetment Wall*, and its associated deposits (**Figures 6, 4 and 5**). **Sites 2 & 3**, *The Cascade*, and *Pump House* were recorded by informal measurements and photographs.
- 5.4 A Geological Palaeo-channel (Figure 2: **Plate 5**) was also recorded as were stratigraphic sections of the pipe trench (**Figure 7: Plate 12**). These sections were recorded at 30m intervals along the entire length of the pipe trench (Appendix 3).
- 5.5 Written records of the contexts were made on *pro-forma* recording cards summarised in Appendix 2A. A photographic record was made of all deposits in Black and White print using a 35mm single lens reflex camera. Colour digital images were taken in order to illustrate the report. All photographs have been included as part of the site archive (Appendix 2B and 2C).
- 5.6 Datum levels were provided via spot heights from the Ordnance Survey digital site plans (2009), and were transferred to Site 1, by a dumpy level.
- 5.7 The metal detecting was undertaken after de-turfing on all exposed trench surfaces and resultant spoil heaps. Apart from a series of coins (from 1990) representing the staging of outdoor events, no significant artefacts were recovered.
- 5.8 The site archive will be deposited with the Castle Howard Archive.
- 5.9 This report contains a pottery assessment which has confirmed activity on the site from the late 15th century.
- 5.10 Ms L Hawkins of North Yorkshire County Council was kept fully informed of the progress of the works and the initial results.

6. RESULTS

6.1 The watching brief identified three sites of archaeological significance:

- **Site 1**, a section of *Revetment Wall* was revealed during the excavation of the pipe trench;
- **Site 2**, a carved limestone *Cascade* was revealed between a feeder pond and the Dairy Pond;
- **Site 3**, a subterranean pump house, situated to the north of **Site 2**, the *Cascade*.

6.2 A pipe trench (1.5m wide x c. 1.2m deep) linked the Dairy Pond to the House's north elevation (**Figure 2**). Unstratified pottery from the south end of the pipe trench close to the house revealed 16th to early 17th century abraded pottery (**Appendix 2**). Because the pottery was abraded it suggests agricultural use of the land before the house was constructed.

6.3 **Site 1, The *Revetment Wall***. Before the wall was encountered the trench was cutting into a number of increasingly varied deposits, characterised by dumped building debitage (e.g. **Figure 6: Plate 6**). The excavator then touched upon a substantial linear stone feature, which was aligned at right angles to the pipe trench. The made ground to the north was removed by mechanical excavator but the wall was hand excavated.

6.4 This revealed three faces of a well constructed wall, which was dog-legged in plan (**Figure 5: Plates 7 and 8**). This dog legged shape was thought to represent an antae, or corner 'pilaster' that provided structural strength. The pipe trench to the south of **Site 2** was removed revealing an extant wall up to 1m in height. A section was then hand excavated through the wall's foundation trench [116] the wall face increased in height to 1.4m. The revetment wall (**Site 1**) was constructed in limestone ashlar, bonded with very strong lime mortar. Its front northern face (**Figure 4: Plates 10 and 11**) was well defined, there was no inner or southern face to the wall just a ragged margin of the faced stone and a 2m wide limestone rubble context [114]. The wall continued into the western baulk and beneath the north lawn, uninterrupted. Loose fill to the eastern baulk, showed that the wall did not continue beyond about 0.3m, suggesting that the wall had been destroyed.

6.5 The interpretation of the revetment wall was aided by an engraving in *Vitruvius Britanicus* vol.1 of Castle Howard's north elevation (**Figure 3**). Here the section of revetment wall can be positively correlated to an antae with a right angled extension of the north terrace which accommodated the now demolished principal gatehouse with its notable corner obelisks. As the Castle's West Wing was never completed it is not known just how much of this design was built. This watching brief has revealed a diagnostic section of the *cour d'honneur's* revetment wall proving that the courtyard had indeed been constructed to the north of the planned Baroque West Wing, and was not merely a proposed design by Vanbrugh.

- 6.6 The date when the *cour d'honneur* was demolished is presently unknown. However examination of the deposits abutting the revetment wall (Figure 6) indicates that a substantial levelling deposit [107] was made up of re-deposited red bricks. These bricks are very similar to those used in the Walled Garden (Plate 23). The bricks were coarsely ground clamp bricks. These probably originated from a section of the Walled Garden was extended to the west (pers. comm. Mr C Ridgeway) and demolished walling reused to level the north lawn immediately north of the revetment wall (Site 1).
- 6.7 In turn, these levelling deposits [104-7] were truncated by a pit or trenches [103 and possibly 118] into which an array of masonry working debitage (limestone [110 and 114]) characterised by both reused and constructional architectural fragments (Appendix 2F). One masonry fragment within [114] retained a pencilled construction line and others featured adhering lime mortar. Clearly the occurrence in the archaeological record of these deposits relates to an episode of demolition and construction. A possible candidate for this phase would be the construction of the Palladian West Wing during the 1750s.
- 6.8 If the above hypothesis is correct, it provides a relatively tight time-line for Site 1. This began with the same revetment wall's construction c.1715, and the demolition and landscaping of the of the revetment wall, sometime after 1715 and probably in association with the extension of the Walled Garden (date unknown). The last phase was the large scale dumping of building/demolition debitage during construction of the West Wing by William Robinson in the 1750s.
- 6.9 The installation of Castle Howard's new heat exchange system required over 7kms of pipework to be positioned, in coiled stacks, in the western end of the Dairy Pond. As part of this operation the Dairy Pond and a small feeder pond, west of the Dairy Pond, was also cleared of vegetation. This revealed Site 2, the North Cascade (Plates 13 and 14) which linked the two ponds. The North Cascade formed the central section of a substantial dam, with an eastern low revetment wall and a more substantial dam wall to the west. The dam may have featured a road/trackway to the Stewards House (Dairy). It contained a clay core, this was partially excavated south of the dam wall during its restoration (following a near collapse of the dam after draining the feeder pond). The cascade was probably constructed straight onto the dam's clay core, which provides a stable foundation providing the clay remains saturated.
- 6.10 The dam served to provide a head of water for the cascade and probably may also have served as a footpath or trackway. It was designed to supply a single sheet of water into the Dairy Pond from the dam, a drop of c.5.4m over a distance of 5.2m. The Cascade was built from regular limestone blocks. The water flow was 'animated' by the use of irregular stones, carved in relief from the limestone blocks (Plate 15). Some of the carved stones were hollowed and this would have forced water vertically into the air emulating a mountain 'gill' or stream. The width of the central section of carved stones is 0.95m. The curbed sides of the

Cascade are concave, again of carved limestone which takes the total width of the Cascade to 1.65m.

- 6.11 The southern Cascade to Temple Hole Basin dates to c.1735, and the Dairy Pond or North Lake dates to the late 18th century (Pevsner 2001). This is borne out by the differences in style between the two Cascades. The north Cascade is not as grand a design as the southern Cascade and does not boast finials and raised parapets.
- 6.12 Unfortunately no trace of any superstructure survives on the dam. The dam wall comprises of large limestone blocks weakly bonded in lime mortar (Plate 16). The exposed section of wall was 8m long and 0.61m wide. There were four notable features carved into the dam wall. The first was the spillway which measures 1.15m at its mouth 0.77m deep. Below the temporary flagstone cover the spillway features rounded sides which act to reduce the spillway's aperture, thereby increasing the water velocity across the causeway before it spread out across the *Cascade* (Plates 17 & 17a). A flagstone currently covers the spillway and an 8 inch diam. pipe has been inserted to carry water over the causeway. The causeway's original surface is no longer extant but represents an area of future research. The second carved feature in the dam wall was a recessed square hole (0.3m²), which accessed the bottom of the dam wall where the dam's drain hole was located. There are also more irregular rebates cut into the upper surface but it is not known what purpose these served, unless it was the location of a temporary pump (Plate 18). The dam's drain was the dam's fourth feature (Plate 19). The original grate was absent but after a non original grate had been removed the rebate of the original grate was evident as was the drain which still served to drain the feeder lake into the Dairy Pond. The drain consisted of a hollowed out log, presumably of oak with an 8" (20.3cms) plug hole positioned at the top of the west end. The wood plug was still in situ and featured a hand forged looped iron handle (Plate 20).
- 6.13 **Site 3**, the subterranean pump house? was unfortunately flooded and it was beyond the remit of the estate works department to allow a more detailed examination of the site. The site had been blocked off by the capping of its staircase by a brick manifold, using regular well ground red bricks (0.06m x 0.22m x 0.11m) with a covering flagstone (Plate 21). There was a stone staircase with a tread height of 0.22m and the flight was set at a steep 45° incline. The walls were of well coursed limestone (0.23m blocks) with herringbone tooling. There was a brick vaulted ceiling (Plate 22). The date is unknown but it is likely that it post-dates Site 2 and the construction of the North Lake (Dairy Pond). It possibly served as a pump house supplying water at pressure to the house and grounds. Further details of potential fixtures and fittings would be served by the pumping out the chamber.

7. CONCLUSIONS

- 7.1 The results from **Site 1** suggest a sequence of construction, demolition and dumping that spans the early 18th century. The watching brief has confirmed Vanbrugh's original revetment wall to the *cour d'honneur* (c1700-1715). The watching brief has also confirmed that after the revetments wall's construction the area was subject to further major episodes of activity. These included the revetment wall's part demolition. The raising of the ground surface by levelling deposits including bricks possibly from the walled garden. Its subsequent use as a land fill site during a substantial renovation and/or construction strongly suggests activity associated with the construction of the Palladian West Wing during the 1750s.
- 7.2 **Site 2**, the *North Cascade* provides an effective counterpoint, in terms of style and finish to the earlier Baroque styled *Southern Cascade*. The dam of which the Cascade forms the central part was built to access the Stewards House (Dairy) northwest of the house and may also have formed an element within an informal footpath, part of a Georgian garden landscape.
- 7.3 **Site 3**, the former subterranean pump house represented an unexpected find. The contents of which remain to be discovered.

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9. ACKNOWLEDGEMENTS

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FIGURES