

Archaeological Excavations Across the Serpentine Path, Rothley Lake, Wallington



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McCord Centre Report 2014.5



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Front piece: Excavating a part of the serpentine path.

INTRODUCTION

In 2012 an archaeological survey took place on the northern banks of Rothley Lake (figures 1 and 2; Aldred 2013) that focused on the survey of a serpentine path attributed – at least the design of – to Lancelot ‘Capability’ Brown. Alongside the training of three students in archaeological survey techniques, a quick investigation of 18th century landscape design proposals linked to Rothley Lake implemented on-the-ground was made. There were several landscape designers that have made design proposals within the Wallington estate. Significantly, amongst the surveyors who suggested plans for Rothley was the landscape designer Lancelot ‘Capability’ Brown (Trevelyan 1994). However, it is probable that Brown’s plan were not *fully* implemented, but were rather used as a guide alongside other designers; the extent of Brown’s designs – and others – has yet to be fully assessed and will form the basis for another research project.

The question that was addressed by this project was focused on the results from the archaeological survey in 2013 which identified, and surveyed, a serpentine path. In developing the project, the previous archaeological and woodland surveys in the Rothley Lake area (Debois 2011) were used which identified several features of interest. This project report describes the context, the methods and results of a small excavation across the serpentine path in the wooded area around Rothley Lake. The small-scale excavation took place on the 14th and 15th September, 2013.

The objectives of the excavation were:

1. To assess the type of construction and dimensions of the serpentine path;
2. To excavate a trench across the serpentine path;
3. And recover any material that could be used for dating, or record any features that might indicate when the path was built and how it was constructed.

The project was able to go ahead because of the hard work of others, especially Maria Duggan, Niels Dabaut and National Trust volunteer Margaret Shearing. Paul Hewitt, Countryside Manager at the National Trust’s Wallington, and the former National Trust North-east archaeologist Harry Beamish.

What follows below is a short outline of Rothley Lake’s history; a summary of the methods used for the excavation; and the results.



Figure 1. The location map of Rothley Lake and the survey area (Base map OS 1:10560 2008-2011).

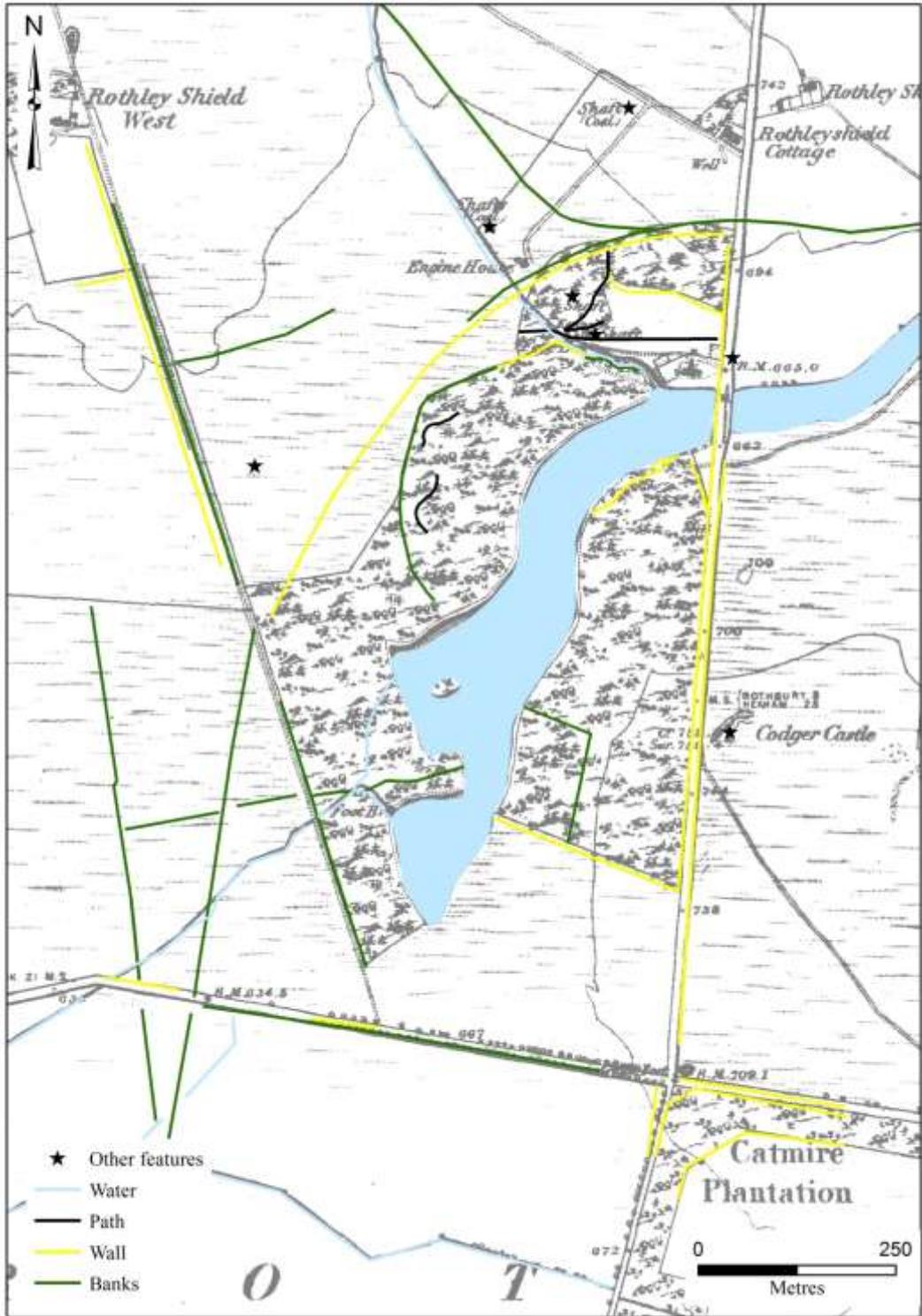


Figure 2. A distribution of archaeological features derived from several different surveys collated in the Debois survey (2011, Appendix G, Plan 5 & Character Area 31, p. 201) (Base map OS 10,560 1st Edition 1866).

ROTHLEY LAKE

Rothley Lake is one of the Wallington estate's key wildlife assets and potentially a key visitor attraction for the future. Although the lake is divided into two co-joined parts (High and Low Lakes) only the High Lake is owned by the National Trust (hereafter called Rothley Lake).

Rothley Lake is situated between the small hamlets and farms of Rothley East Shield and Rothley West Shield on the Wallington Estate's far eastern boundary. Rothley Lake was an integral part of 18th century to 20th century designed landscape, and although some distance from the main house, it was used as a pastoral and wild retreat for the estate's land owners – although it became largely left after it was designed in the 18th century, besides some woodland management. From the ground alone, but also using historical sources and old maps, several phases to the landscape development of Rothley Lake can be recognised.

The earliest phase was located around the lake, which was used as an upland pasture area since the medieval period. There is also a background of mining (see Other features on figure 2). However, the significant event and the phase that significantly transformed the landscape occurred in the 18th century when the area was re-designed. This included the construction of a new lake along the path of a small stream, and strategically planted wooded areas. The area where the lake is located today was embanked with a small dam which was constructed across the lower bridging point of the in order to control the flow of water. The next phase was the introduction of the railway. A rail track was built *circa* 1866 on the western edge of the wood. At various points since the 18th century, changes in the configuration of the field boundaries has occurred, and these are traced consecutively between 1728 to the modern day on the maps that have been examined for this project. The combination of the landscape's history (as cultural modified) and its natural state form a unity that is today managed by the National Trust.

Within the area of Rothley Lake's landscape they are several important cultural and natural heritage assets. The cultural assets include the serpentine path, remnants of banks that formed enclosures that date at least to the early post medieval period, paths and tracks, bridges and reinforced stone culverts that lie across some of the ditches that cut across the area. The site has been designated as a Local Wildlife Site by the Northumberland Wildlife Trust and contains five priority biodiversity habitats and at least two priority biodiversity species: otter and red squirrel.

Rothley Lake is dominated by its large central lake and wetlands which in turn is surrounded on all sides by woodland. Much of the woodland was planted in the last 150 years, and contains a mixture of conifer plantation, birch carr, semi natural broadleaved woodland and regenerating woodland. However, some of the wood was an integral part of the 18th century designed landscape. In amongst the blocks of woodland are areas of regenerating heather moorland, scrub and wet grassland and swamp communities.

Management of the site over the last ten years has been restricted mainly to forestry operations within the conifer plantations. A number of these conifer blocks have been clear felled with natural generation allowed to take place. The large block of broadleaved woodland on the lakes eastern side is probably the most significant on the whole estate. Here management has been very limited with trees being left where they have fallen and natural regeneration being the key conservation tool. Recent felling work has created has cleared a path through the younger woodland, along the south-eastern stretch of the lake with the mind to link up with the various paths that weave their way through the wood.

A HISTORY

Compared to other parts of Wallington, there is only a small amount of history known about Rothley prior to the 1770s. There are a number of features that can be roughly dated before main landscaping phase in the 18th century, features such as earth banks, ditches, sheep folds, as well as mining features (see figure 2).

As indicated above, until the 1730s the area was mainly unenclosed open land, divided between Greenleighton and Rothley (Debois 2011: 194-5). Map evidence (estate maps dating to 1728, 1742 and 1769, with ordnance survey maps) show that up to 1866 much of the open area was gradually enclosed; and that this was characterised by regular, straight boundaries. The present-day appearance surrounding Rothley partly reflects the pre-18th century landscape although it is now enclosed and there is evidence for drainage channels. There is some evidence for sheep grazing also, with a number of sheep folds located at the edges of the enclosed land – though these were gradually incorporated into the improved land. The size of the fields shows some fluctuations. There is a gradual process of enclosing the land into smaller and smaller land parcels from 1728 till 1777, when there is boundary removal. This was presumably related to the designed landscape becoming more dominant in this area, where it was important to maintain vistas and particular kinds of access to the area. There are large fields again by 1866 (1st edition OS), but in 1925 the enclosures were much smaller, culminating in a highly fragmented landscape; compare the enclosure process from 1728 to 2008/2011.

The land around Rothley and its gradual fragmentation into smaller units was aided by the introduction of the railway in 1866; after the 1st edition but before the 1st revision (both dated to 1866). The railway caused a fault line in the landscape around Rothely Lake, subdividing the area. This left a permanent and resilient boundary feature with which to offset other boundaries. Furthermore, several roads and tracks, as well as an old tramway, have been used in a similar way. While pointing towards several pivotal events in Rothely's landscape history, the present-day arrangement is derived from a palimpsest of activities that have been shaped by the topographic layout, whether this was natural in its state, or made through the landscape designs and periods of improvement, including the railway

track. The landscape within the immediate area of Rothley Lake on the other hand is largely derived from several 18th century designed landscape schemes, and from more recent afforestation (in the last 150 years), rather than enclosure, communications or other features.

The basis for Rothley Lake is a designed landscape (e.g. M.1751a, b, P.1769a, and M.1777). All of these designs have a common feature: transforming a subtle depression or valley dip in the landscape by embanking and flooding the area and forming two co-joined lakes.

The Rothely Lake landscape designs were implemented and paid for by Sir Walter Blackett, and were a part of landscaping schemes specific to Wallington. As has been suggested, it is possible that the schemes were associated with designs produced by Lancelot 'Capability' Brown. These included designs for the Low Lake which included several ornamental features such as paths and lodges, as well as tree planting. It is likely, given the discrepancy between Brown's designs and what is actually seen on the ground and from recent cartographic maps and other research (e.g. former National Trust archaeologist Harry Beamish and the Debois survey [2011]), that several other landscape designers who were working at Wallington between c. 1735 to 1770, and that these designers used and modified Brown's plans. For example, the serpentine path on the designs attributed to Brown is located on the northern banks of the Low Lake. However, the field survey indicates that a serpentine path lies on the northern banks of the High Lake. These other landscape designers include Daniel Garret, James Paine and William Newton. In all likelihood it was probably another, Thomas Wright, who probably implemented aspects of Brown's plans.

Many elements of the 18th century landscaping scheme still survive; see figure 2. Notably the two lakes, water management features, and parts of a serpentine path that runs along the northern part of the High Lake. The latter feature was the focus for the survey work in 2012, and the small-scale excavation being reported here. In addition, there are a number of veteran trees of beech and Scots pine which probably date from the original planting scheme in the 18th century. These were probably used to enhance the atmosphere of 'wilderness'. If this is the case, the planting of these trees dates between 1742 to 1777, possibly in advance of the construction of other features.

The estate was gifted to the National Trust in 1941 by Sir Charles Trevelyan. However, management did not formerly pass over to the Trust until 1958 following Sir Charles's death. Around the mid-1950s, a large area of the original open pasture was forested. This compromised the original 18th century design, as well as the character of the pre-18th century landscape which is shown as open ground on the M.1777 map.

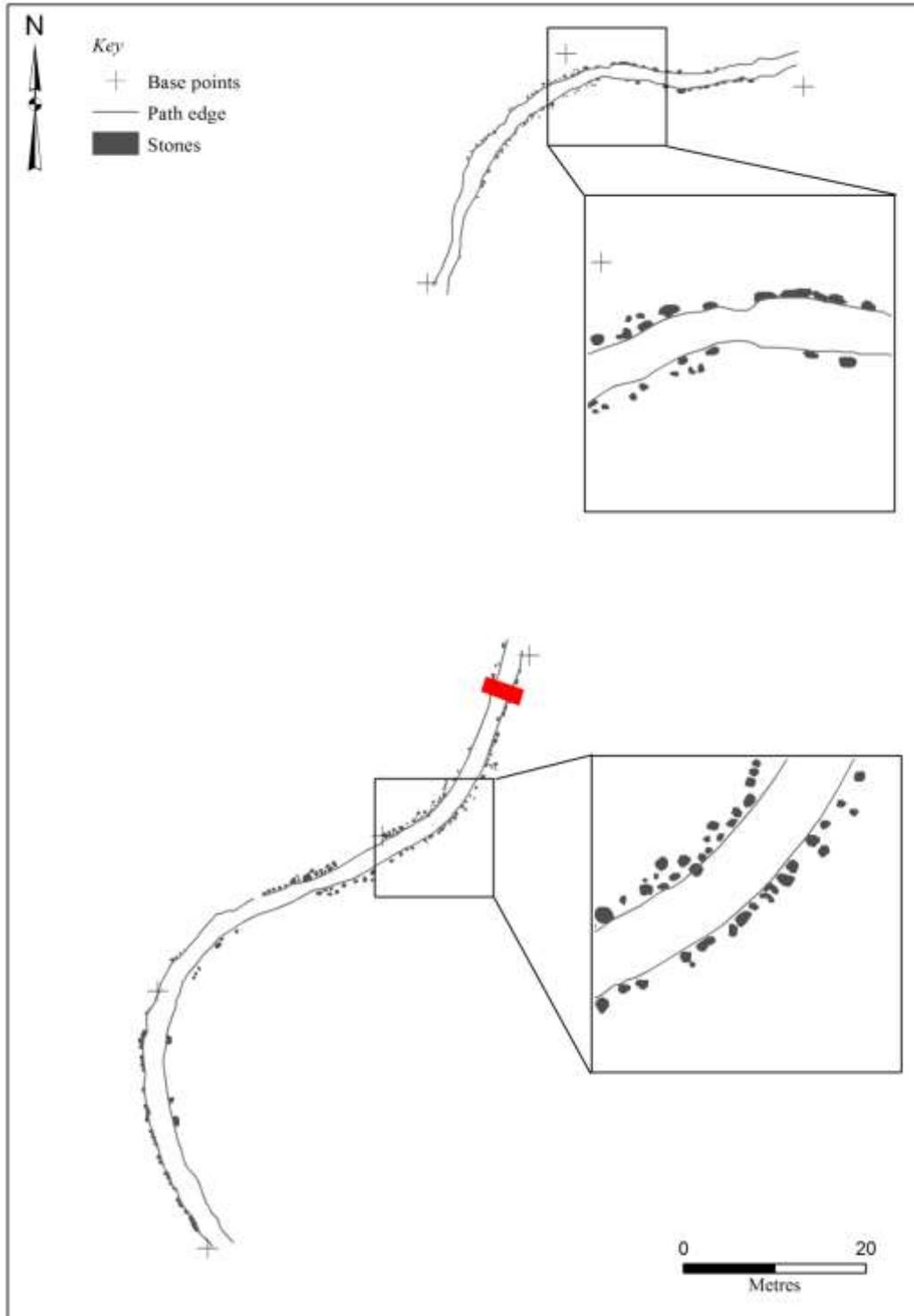


Figure 3. Digitised tape-measured survey of the Serpentine path drawn scale of 1:100 (red is the location of the trench excavated in 2013).

THE SERPENTINE PATH

The serpentine path was surveyed in 2012 but only its visible extent, defined by two parallel lines of stones that marked the edge of the path and were seen on the ground surface. It is likely that further parts of the path will be revealed if clearance occurs across the site – an activity saved for a later date.

SURVEY METHODS

The field methods are based on those outlined in the section on Non-intrusive survey in Banning's *Archaeological Survey* (2002: 39-41), and a measured survey component using 1) Total Station - *technical* survey - and 2) a *tape-measured* survey, drawn to scale (1:100) by hand. In doing both surveys it was intended to provide a quick overview of the work that needed to be carried out, so as to target specific features for more detailed assessment that provided the focus for the research.

AIMS

1. Instruct basic survey skills to students associated with observation on the ground and recording of features (sketch-mapping, earthwork surveys, technical survey);
2. Survey visible remains of the serpentine path relating to the 18th century landscaping of Rothley Lake;
3. Relate the field survey to other survey work and the research conducted by the team.
- 4.

WORK STAGES

1. Documentary assessment

Assess the scope and potential of the study area by examining existing sources of information (OS maps, aerial photographs, HER data, historical surveys, estate maps).
Objective: to formulate the context for field work.

2. Initial reconnaissance of the area

To ascertain specific areas of work, resources at Wallington (e.g. estate maps) and methods/techniques to be used by walking over the ground.

3. Field survey

Initial walk over, identifying features, beginning to construct a landscape history from the ground-up. Measurement of the serpentine path – carried out in 5 different segments by

marking out a series of grid posts (at 30m stretches) that were then surveyed in by the Total Station producing an internally correct spatial reference. Each segment was tape-measured by hand, recording the details of the path, its extent and stone revetting.

4. Assessment

Total Station, tapes, drawings on permatrace, photographic record, written record collation, checked and digitised.

5. Post-survey work and reporting

There is a recursive relationship with different sources of information, the aim of which was to document the spatial extent of the surveyed features (via GIS), and identify the state of preservation of those features, make an interpretation (including date, function), as well as identifying key action points needed for improving access by the public (to enhance heritage character).



Figure 4. Pre-survey photograph of the serpentine path, showing the stones along its edge.

RESULTS OF THE SURVEY

The field survey took place across 2 days in September 2012. This produced two plans: a technical survey plan of the area, which associated the serpentine path with other features; and a detailed tape-measured plan at 1:100 (figure 4). A total of 200 m was surveyed of the

serpentine path, of which 150 m was tape-measured and drawn at a scale of 1:100 (figure 5). The serpentine path was approximately 1.8m wide, and was partially sunken – up to 0.4m deep.

A problem that was encountered during the survey was the autumnal leaf cover. Unfortunately, the leaves covered the entire survey area and as such made it difficult to find features such as building or tent platforms that were indicated as possibly existing on design plans. This also made assessment of preservation difficult to judge, although some features were better preserved than others.

The technical survey was used to identify features for more detailed survey or to identify possible features that could be investigated at a later date. This included the survey of ditches, banks and fence lines in the immediate area, close to the serpentine path, so to provide a spatial reference for future work and to provide context for the tape-measured survey.

The tape-measured survey defined the edge of the path and the visible stones that were present along its edges. Excavation along the edges should reveal a more defined edge than could be identified on the surface alone, but the preservation in some places along the path was good. The accurate definition of the path could then be correlated with the design plans, as well as previous archaeological surveys.

Between different sources that showed the serpentine path there was some discrepancy, as one would expect. The historical plans of the designs showed few details that were identified during the survey. For example, the sinuous nature of the constructed path was not as exaggerated on the design plans (M.1751a and M.1751b). The Debois survey (2001), which was based on an earlier survey carried out by Harry Beamish (possibly in 1991) was probably based on hand drawn notes that were made during a walk over survey. The serpentine path was positioned incorrectly with respect to other features.

An enigmatic proposition associated with the tent indicated on one of the design plans (M.1751a and M.1751b), and alluded to on others, has often been discussed in previous surveys. The question of location often involves determining whether the structure was a tent or something more permanent, and in using the trees as indicators for possibly positions. It is clear that the path and the space for a structure are related and that an accurate survey may help to elucidate the location. For example, between the two sections of the path that was surveyed there was an area heavily over grown with a different kind of foliage than the surrounding woodland. This may have been an area of disturbed ground. Alternatively, the structure or tent location may have been further to the north beyond the upper section of the surveyed path. Along this stretch the path was hard to find underneath the leaf cover, and there was no stone present along its edges.

The survey was successfully carried out, under training conditions, and achieved objective 1. To some extent objectives 2 and 3 were also completed though further research is necessary. The survey has advanced our understanding of the serpentine path and the relationships between design and implementing design on the ground.

Further research is needed to determine what management should be implemented to enhance the character of the serpentine path. Information on the materials (stone revetted edge), and the form of surface on the base of the serpentine path need to be identified.



Figure 5. Excavation of the trench across the serpentine path.

EXCAVATION METHODS

Excavation methods used single context planning and recording system but in an adapted form (MOLAS 1994). Contexts formed the main unit of recording and excavation was stratigraphic i.e. layers were removed and recorded in sequence within the excavation areas.

A trench measuring 2m in width across the serpentine path was excavated by hand, and its extent was determined by the full extent of archaeology c. 4m.

All contexts were recorded at 1:20, and the south-west facing section was recorded at 1:20.



Figure 6. South-west facing section and excavation trench across serpentine path (looking north-east).

EXCAVATION RESULTS

The excavation revealed a parallel stone bank that formed a revetment for a serpentine path. From the excavation it was possible to work out the sequence of construction events.

The path was first cut into the natural [003], and probably while it was being used (seen by our own observations of [001]) it then filled with water, and had problems draining. At which point, a drain was constructed or a path was hollowed through to the base of the path, and then the path was abandoned.

Alternatively, the path was slightly cut into the natural [003], and the walls were built [004 and 005] with a drain in the middle [003]. The path was used – hence the hollowed appearance [006] but was abandoned and the path filled into with organic debris and water.

In stratigraphic sequence (first to last context, rather than excavated sequence which is last to first context):

[003] A slight cut into the natural defined the base of the path. The width of the lower edge of the stone revetment [004] and [005] was 1.7m and the upper width 2m, and the total depth was 0.7m (including the cut/hollowed feature [006]).

[008] A slight ditch was identified after removing the stones [004] on the north-west side of the trench. The ditch was not well defined, and it is possible that it was a natural hollow from a former tree or bush plant. However, the stone revetment was located over the ditch, and it is possible with further excavation that this feature will be understood. It is possible also that rather than being a natural feature this was the initial feature that was used to define the edge of the path and create a drainage channel.

[004] and [005] stone revetment on each side of the path. [004] and [005] were c. 1.6m wide and 0.58m tall, constructed as a mounded linear pile of stones, with straight edges on the inside of the path. Consisted of two to three layers of stones, with large stones on the inside edge and base – although they could also be underpinned by smaller stones (see below). The two features acted as retaining walls, forming a distinctive path. The outer edges were ‘fitted’ into clayey sand and into the edges of the natural subsoil.

[002] Infilling deposit. Light brownish grey sandy clay, compacted, with occasional sand stone clusters. Thickness varies between 0.05m to 0.14m, and 1.45m wide, infilling and confined by the width of the path. The orientation and inclination of the deposit suggests that the path was being used while it was infilling with material, suggested by the compaction.

[001] Infilling deposit. Greyish brown, sandy silt, friable but also compact in places, with occasional to frequent large stones (which included stones that have collapsed inwards from the stone revetment of the path). Thickness of the layer varied from 0.12m to 0.2m, and with considerable root damage and bioturbation.

[006] A possible cut or an eroded channel through the centre of the path. Well defined along the entire length of the excavation area c. 0.4m wide with a depth of c.0.3m. Possibly a feature formed by an attempt to drain the path after the build-up of organic matter that created a water logged environment.

[007] Organic infilling deposit, across the path, consisting of two bands: a light (upper) and dark (lower) band. Varies in thickness but up to 0.15m thick, and 1.45m across the inside of the path (as defined by the stone revetments).

No artefacts were found.

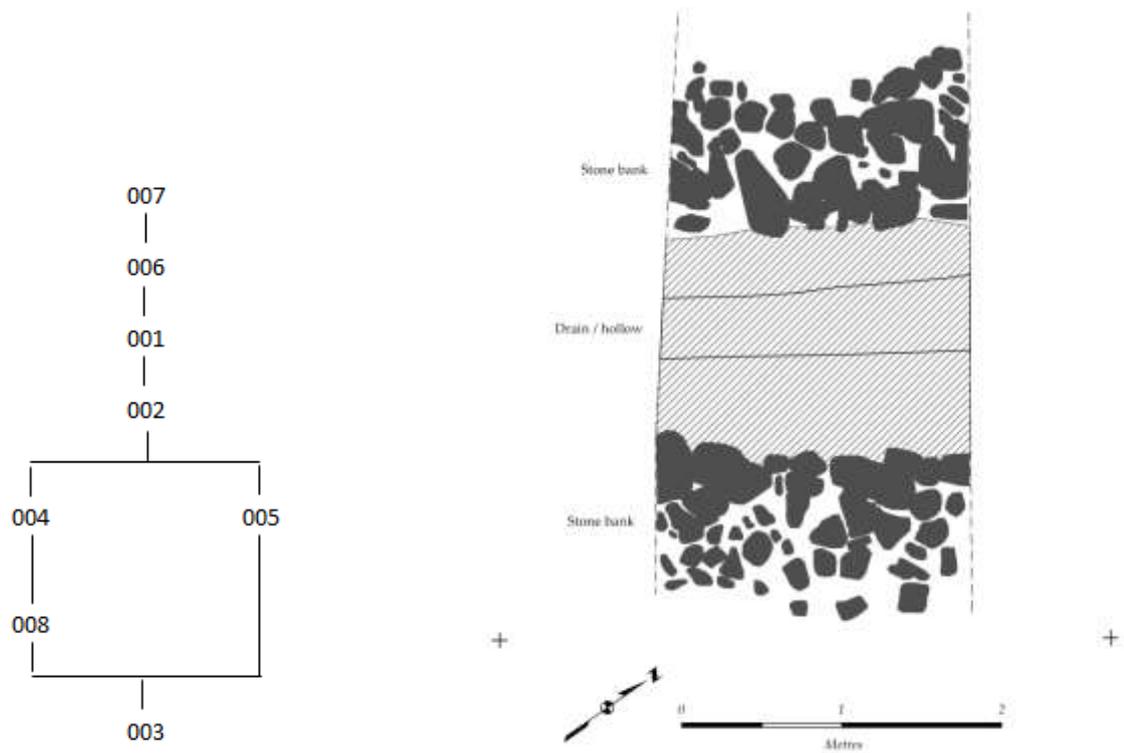


Figure 7. Stratigraphic matrix for excavation (left); excavation plan drawn at 1:20 scale (right).



Figure 8. Detail of the stone revetment, incorporating large and small stones into the construction [004] (looking north).

Although no finds were found during the excavation, it is fairly certain that the path was constructed in the 18th century – specifically during or after the area was redesigned

between 1742 to 1777. It is possible that the trees and the path were laid out as one design, and that this was implemented as such because the path weaves its way through its surroundings. Testing this could be followed up by dating trees and excavating more of the path so as to find dateable objects – if possible. Complete excavation of the stone wall / path revetment may also help; the two walls were left largely untouched in this trench so that the path could be restored as a part of a restoration plan. However, even small scale excavation of the stone walls may be helpful as they were built by – what we assume – to be labourers under the direction of the designer or the site foreman. Thus, it is possible that objects may have fallen or thrown away that remain under the wall.

Further work is needed to define the full extent of the path at its north and south ends, and scrub clearance is needed in the central part – just north of the trench excavated in 2013. The area that was surveyed was clearly defined by the remnants of the stone walls on the surface. Even a small scale and quick removal of organic matter on the surface may help to re-define the full extent of the path. In addition, it would be useful to excavate more trenches across the path so as to assess the design and construction for (in)consistencies. At present, the trench that was excavated in 2013 lies approximately in the middle of the path; future excavations at either end of the path may reveal differences in construction and abandonment (or not, as the case might be).

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