Archaeological Survey on the Banks of Rothley Lake, Wallington

The serpentine path

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McCord Centre Report 2013.1

Newcastle University

McCord Centre for Historic and Cultural Landscape

Project Name and Reference Number:	Archaeological survey on the banks of Rothley Lake, Wallington: The serpentine path
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Origination Date:	August 2013
Revisers:	
Date of Last Revision:	
Version:	
Summary of Changes:	

McCord Centre Report 2013.1

Front piece: *Surveying the area with a Total Station.*

INTRODUCTION

Archaeological survey took place on the northern banks of Rothley Lake (figure 1) over two days in September, 2012. A plan was formulated in consultation with the National Trust to carry out a survey as a part of the fieldwork component of one of the department's courses – ARA2098 Understanding Historic Landscapes – lead by Dr Sam Turner. While student assistance was sought – and there were a few takers - the project also featured research, the results of which will be continued in a follow-up survey (and possible excavation) in September, 2013.

Alongside the training of three students in archaeological survey techniques, it was also decided to examine the extent to which the 18th century landscape design proposals linked to Rothley Lake were actually implemented on-the-ground. From previous archaeological and woodland surveys across the area under investigation (Debois 2011), several features of interest were identified. Furthermore, several landscape designers have suggested proposals within the Wallington estate, not least around the Rothley Lake area. 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 question that remains to be answered is which features from which plans were implemented. Archaeological survey can help elucidate an answer to this question. This report has started that process and is presenting the results of an initial investigation.

The objectives of the survey being reported were:

1. To assess and survey the remains on-the-ground and produce an accurate plan of the area surveyed – employing a technical survey and a tape-measured survey;

2. Assess the material remains with known plans associated with Rothley Lake;

3. Outline a brief landscape history of the area surveyed and contextual information associated with the wider landscape.

The project was able to go ahead because of the hard work of others, especially the three students and another supervisor. Those who carried out the survey work did so with light hearts in cold and wet conditions. Furthermore, much of the historical information about Rothley, and the archaeological features contained within it, were drawn from already existing work; those at the National Trust, which included historical analysis of source materials, and those commissioned by the National Trust who conducted a walk over and historical survey of the area under investigation.

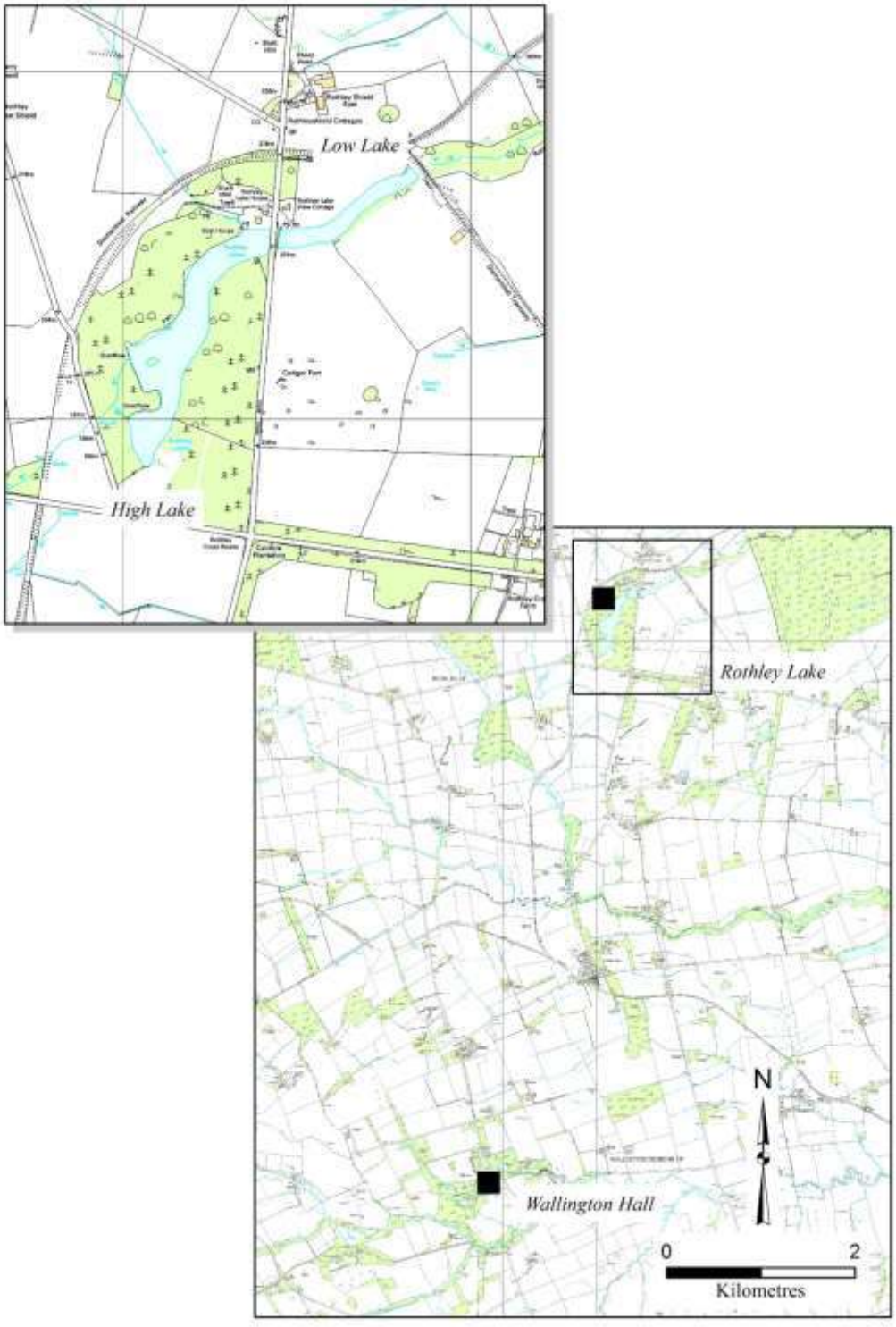

Figure 1. The location map of Rothley Lake and the survey area (Base map OS 1:10560 2008-2011).

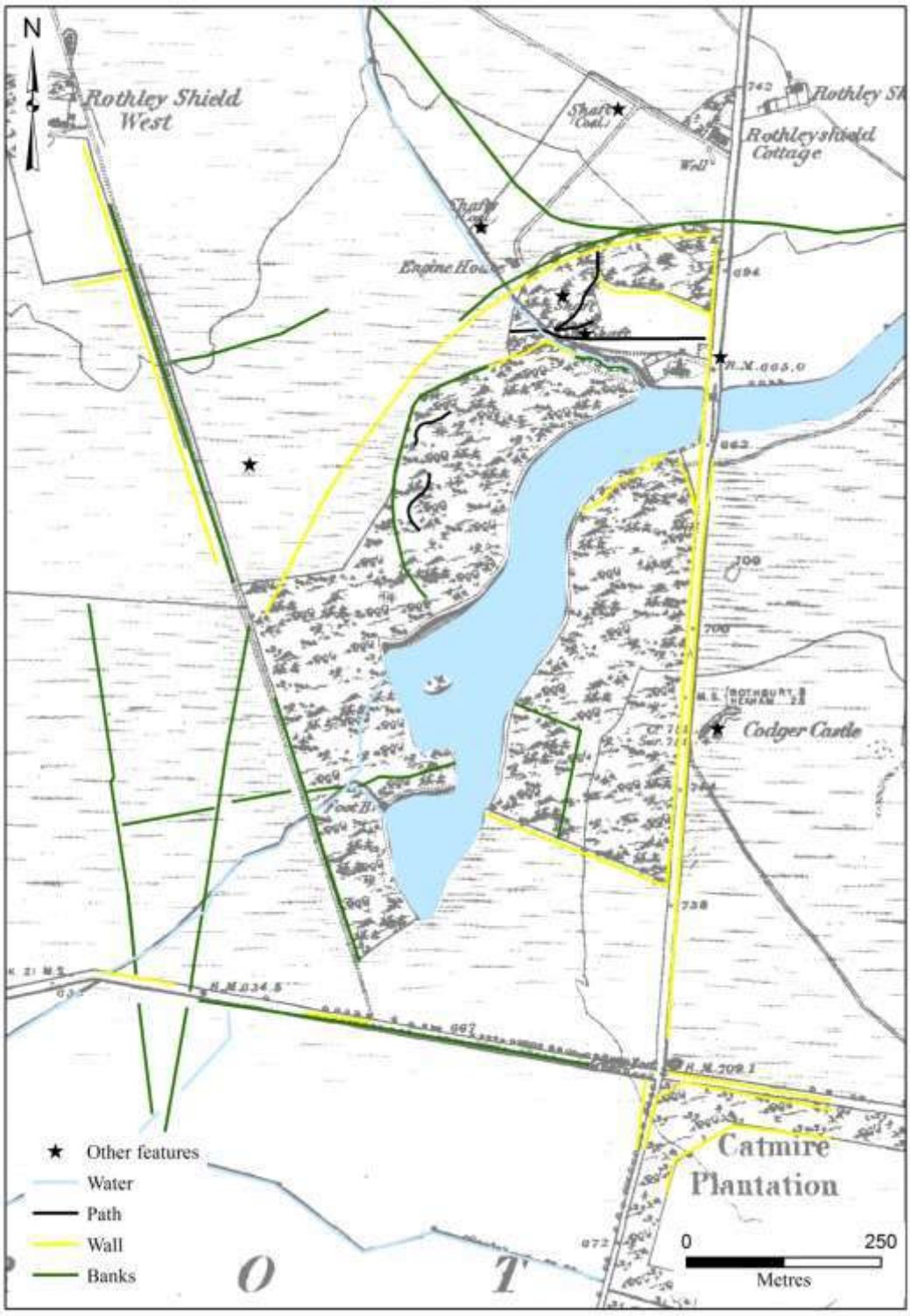

Figure 2. A distribution of archaeological features derived from several different surveys collated in the Debois survey (2011, Appendix G, Plan 5 & Character Area 31, p. 201) (Base map OS 10,560 1st Edition 1866).

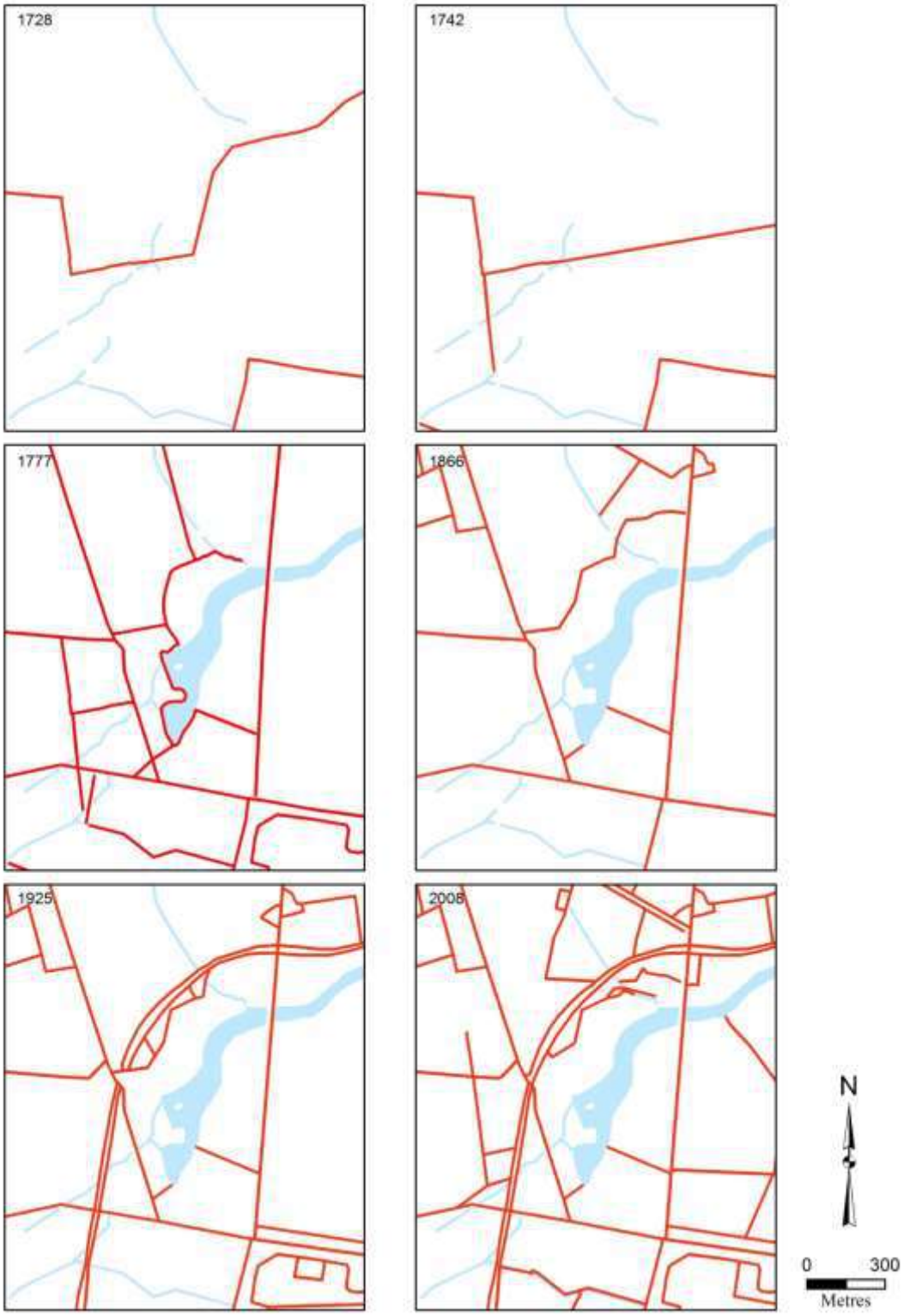

Figure 3. Boundary changes between 1728 to 2008. A tendency towards increased fragmentation of land units.

Due reference and acknowledgement is given in this report although the full texts were not consulted.

What follows below is a short outline of Rothley Lake's history; a demonstration of landscape change around Rothley Lake; a summary of the methods used for the survey; and the results.

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 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 and 20th century designed landscape. There are several phases to the development of the landscape, but radical departure from the 18th century designed landscape occurred with the construction of the railway track; lain down *circa* 1866. The combination of the landscape's natural state and the culturally made one, have formed a unity that is today managed by the National Trust. Contained within Rothley Lake's landscape are several important heritage assets.

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 of otter and red squirrel. In addition to its wildlife value the site is also highly significant historically.

The site is naturally 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.

A HISTORY

There is relatively little history known about Rothley prior to the 1770s, although there are a number of features that can be roughly dated to have been in use before the landscaping, such as earth banks, ditches, sheep folds, as well as mining features (see figure 2).

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, characterised by regular, straight boundaries. The present-day appearance of Rothley still reflects this pre-18th century development when former open land was enclosed. 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 (figure 3).

The land around Rothley and its gradual increase in 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, sub-dividing 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 development, the present-day arrangement is derived from a palimpsest of activities, that have consider 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 the 18th century designed landscape schemes, and from more recent forestation (in te last 150 years), rather than enclosure, communications or

other features. The basis for Rothley Lake is a designed landscape, the form of which has been derived from several landscape designs (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 can be associated with designs produced by Lancelot 'Capability' Brown. These included designs for two lakes that were co-joined (Rothley High Lake and Rothely Low Lake), and 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. Harry Beamish and Debois survey), that several other landscape designers who were working at Wallington between c. 1735 to 1770 used and modified Brown's plans. These other landscape designers include Daniel Garret, James Paine and William Newton. In all likelihood it was probably another, Thomas Wright, who implemented the plans, constructing the many of the features that are visible today.

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 site survive. The latter feature was the focus for the survey work 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. These were probably used to enhance the atmosphere of 'wilderness', and the planting dates between 1742 to 1777 – possibly in advance the laying down 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.

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.

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. Technical survey using a Total Station.

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.

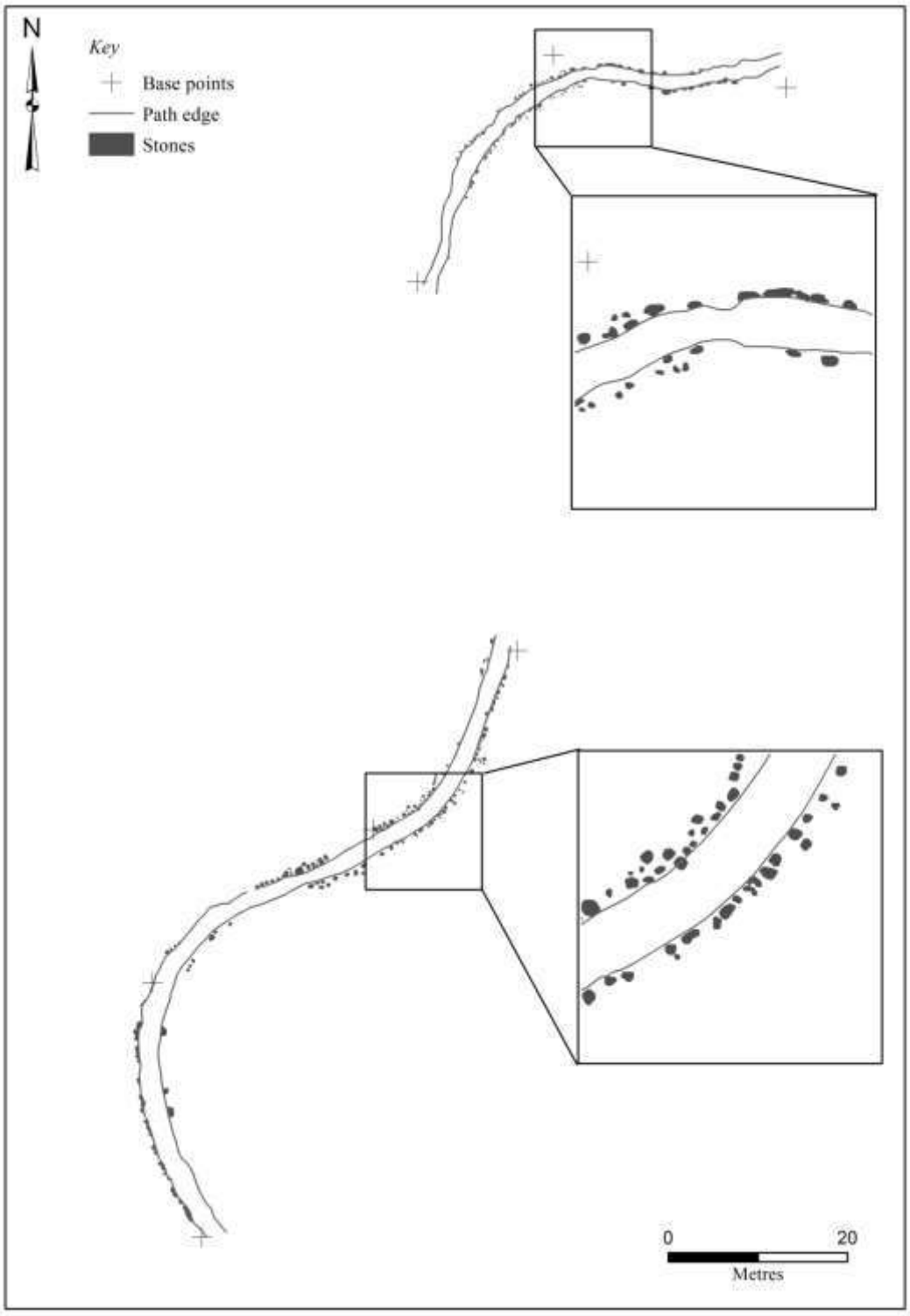

Figure 5. Digitised tape-measured survey at 1:100 of the Serpentine path.

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.

Figure 6. Pre-survey photograph of the serpentine path, showing the stones along its edge.

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. Further research, perhaps at a different time of year, may help to solve this conundrum.

DISCUSSION

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.

REFERENCES

Banning, E. B. 2002 *Archaeological survey*. New York: Kluwer Academic Press.

Debois Survey 2011 *Wallington Hall. Management Plan*. Debois Landscape Survey Group.

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