

Waterloo Uncovered 2016 Field Season

Project Design

Introduction

In July 2016, Hougoumont will once again provide the focus for a programme of field investigation, including excavation and metal detecting survey. Work will continue in some of the areas already subject to investigation in 2015, while new locations will also be explored in an effort to more fully understand the nature of the activities related to the battle of 1815 through the medium of archaeology. However, as already demonstrated these investigations are also likely to shed light on both earlier and later aspects of the farm and the lands associated with it.

This document is intended to outline the programme of works planned for the first two weeks of July, 2016, for further information on the background to the project, the results of previous work and the rationale behind Waterloo Uncovered, the project website should be consulted at:

<http://www.waterloouncovered.com/>. Perhaps the most pertinent of these other documents is the report on the various investigations carried out in 2015, which has provided the foundation for a good deal of the fieldwork proposed here.

This project design has resulted from several meetings and discussions between various members of the Waterloo Uncovered team, including field directors Professor Tony Pollard of the University of Glasgow and Dominique Basquet of WPS, which is the local government department responsible for cultural heritage body and a partner in the project.

Summary of tasks for 2016 (see Fig. 1)

Continuation of work commenced in 2015

- 1.) Metal detecting the Killing Zone.
- 2.) Metal detecting inside the walls of the garden.
- 3.) Investigating the base of the garden wall at various locations.
- 4.) Investigating the sunken way.
- 5.) To further explore the possible boundary running north to south across the Great Orchard.
- 6.) Check for presence of buried artefact horizon in Great Orchard.

New elements of fieldwork for 2016

- 1.) Examine the area of the carpark outside the south gate, where contemporary drawings suggest the presence of a mass grave (highest priority).
- 2.) Investigate through limited excavation the areas of the kitchen gardens to the west of the complex.
- 3.) Test for the presence of building remains within the courtyard, primarily along the north wall to the east of the north gate and the wall running to the south along the east side of the courtyard.
- 4.) Examine the site of the possible backfilled pond to the north of the north gate (lowest priority).



Fig. 1. Main areas to be investigated in 2016: Killing Zone – white, Walled Garden – purple, Kitchen Gardens – yellow, Great Orchard – Green (main block to right),

Programme of works

Areas previously investigated

1.) Metal Detecting the Killing Zone

An initial metal detector sweep of the 30 metre strip to the south of the walled garden, and known as the killing zone due to high number of French troops killed there, resulted in the recovery of only 2 musket balls. However, when a 5 metre wide transect, running north to south across the area, was stripped by machine to a depth of around 30 cm, a greater number of projectiles were recovered when the exposed horizon was swept with detectors. These included both French and Allied musket shot, fired by attackers and defenders. Balls recovered from the base of the wall demonstrated high levels of impact and at least one had brick dust embedded within it.

It was clear from this limited exercise, instigated in order to investigate a linear geophysical anomaly that proved to be a rough track running down the centre of the zone, that although musket shot had been recovered from the upper 30cm of topsoil - by detectorists operating illegally over past years – lead artefacts below the depth of detector effectiveness remained in-situ.

Given that the south wall of the garden is recorded as being a key point of attack for French forces advancing from the south, either through the wood to the west or the open fields to the east, it would be of great value to understand more fully how this attack developed and whether it broke evenly against the entire length of the wall or was concentrated in limited areas. In order to accomplish this, further areas of the Killing Zone will be stripped of topsoil and the exposed soil horizon scanned with metal detectors. Ideally, the entire area will be machine stripped, but given the constraints of a two week field season, this might not be possible, in which case a representative sample of areas will be investigated.

2.) Metal detecting inside the walled garden

In a repeat of the stripping exercise carried out in the Killing Zone, the exposure of buried horizons against the inside of the south wall and eastern walls of the garden resulted in the recovery of further musket shot. At first these were thought to be musket balls dropped close to the walls by defenders or French shot fired over the wall by attackers who managed to ascend it. However, as work continued further into the garden it became apparent that this scatter represented a fire fight inside the garden, with bullets from both sides demonstrating evidence for being fired and impacting at fairly close range. This was an exciting discovery as there was no written evidence for a French incursion into this part of the garden (see 2015 report).

On the basis of the above further areas inside the walled garden will be machine stripped with the specific aim of exposing a buried surface around 30 cm below the surface, which will then be subject to metal detector survey. Some of these areas may coincide with those on the other side of the wall, in the Killing Zone, in order to test whether there is a correspondence of areas of fighting on both sides in these areas (i.e. did areas of heavy fighting on the south side correspond to incursions over the wall, which resulted in fighting inside the garden).

3.) Investigation of wall footings

Exposure of sections of the base of the southern garden wall in 2015 resulted in the identification of a destruction deposit, consisting of brick rubble, into which the present wall had been erected. Limited investigation of these deposits suggested the collapse or demolition of the original wall and the construction of a replacement wall, at least in those limited areas investigated. In order to further understand the character and extent of this destruction and rebuilding other areas of wall footing will be investigated on both sides – in some cases these areas will correspond to those stripped for metal detector survey.

4.) Investigating the sunken way

The sunken way is one of the most dramatic features of Hougoumont surviving from the battle (as outlined above the status of the garden wall is not fully understood). In 2015, two sections were excavated across the sunken way, which survives as a wide ditch in places nearly two metres deep. To the east, excavation revealed that the original floor of the sunken way sat at least one metre below the present ground surface (the implication being that this was a much more dramatic feature in 1815 than it is now). A much longer trench towards

the western limit of the still visible feature revealed extensive disturbance caused by construction works related to the construction of the nearby highway – with considerable deposits of redeposited material.



Fig. 2. Sunken Way from the east

In order to more fully understand the nature of the sunken way - including the limits of its survival to the west, its full depth and its relationship to related contemporary ground surfaces, particularly along its southern lip – further excavation will take place. At a minimum, one further section would be excavated, somewhere between the two previous trenches. However, should time permit other areas will also be investigated.

This work will be accompanied by further metal detecting scanning, which in 2015 resulted in the recovery of Brown Bess musket balls and iron shell fragments from the southern flank of the sunken way.

5.) Explore possible boundary in Great Orchard

Geophysical survey in the area of the Great Orchard - now a large field to the east of the walled garden – revealed a narrow, linear feature running north to south across the field, around halfway along its east-west axis. At points to the north and south of this line associated anomalies suggested the presence of posts or plinths related to what might have been a wall. Despite the stripping of an area in the vicinity of this anomaly in 2015 it is still not well understood. It is therefore proposed that further investigation is carried out in order to establish the character and date of this feature - does it for instance represent and otherwise unrecorded boundary to the orchard?

6.) Check for presence of buried artefact bearing horizon in Great Orchard

As noted above the Killing Zone and the garden were found to contain battle related artefacts, mainly musket balls, at a depth of around 30 cm, which appears to be beyond the reach of most detectors, which have cleared most artefacts from the soil layer above this depth. It was postulated at the time that areas away from the cover of the farm buildings, out in the open fields, would have been less attractive the detectorists working illegally and would therefore contain greater concentrations of artefacts. This proved to be the case, and the area of the Great Orchard was a good example, where surface detecting recovered large numbers of artefacts (which included quantities of re-enactor material).

It will be important to establish whether the Great Orchard also includes artefacts at a greater depth than that at which objects detected from the surface were recovered. In order to do this, topsoil will be removed from the surface in limited areas (but only after these areas have once again been swept from the surface) and the exposed horizon will be detected. It is rare that such an opportunity for subsurface detection occurs during an archaeological project and the results obtained here might have a serious impact on our understanding not only of the archaeology of the wider battlefield, but of other historic battlefields across Europe, where agricultural practices based on ploughing might have mixed artefacts widely throughout the vertical horizon.

There has for instance, been an assumption that a surface metal detector surface in advance of destructive development is adequate to recover most of the artefacts left by a battle. There are however already doubts about this as detectorists can return to the same fields year after year and continue to find metal objects but very little real analysis of the processes involved has taken place. This is just one area where the Waterloo Uncovered project has the potential to have a real impact on the wider field of battlefield archaeology.

Further detection of the Great Orchard might also recover more pieces of canister shot. Ten of these were recovered during the 2015 season, each of them providing evidence for cannon fire being directed into the orchard. A study of the scatter represented by these few objects suggests that more than one cannon shot is represented (multiple lead balls – in reality musket balls packed into a tin – are fired with every shot). The recovery of more examples would hopefully allow for a more accurate impression of how many shots are represented and from which direction they were fired. This artillery fire may relate to the actions of a French gun operating from the southern boundary of the orchard, the location of which has been a subject of debate among historians (see project design 2015, page ??). The shot recovered does appear to be French, as the musket balls, which form tell-tale facets when packed together and then launched from the muzzle of the gun, do appear to be closer to French musket balls in size rather the larger British/allied Brown Bess balls.

Areas not investigated in 2016

2.) Area of carpark outside the South Gate

Without doubt the most notable new area to be investigated in 2016 is the carpark outside the south gate. The area adjacent to the chestnut trees known to have been standing at the time of the battle, though only one of them is still alive, is covered with made ground and hard standing, including cement and tarmac. This area is scheduled for improvement works

instigated by the local authority, not least in an effort to save the surviving tree by removing the hard standing from the area occupied by its roots.



Fig. 5 Burial of dead outside south gate



Fig. 6. Preparing to burn the dead outside south gate

These ground works are complicated by the probable presence of mass grave beneath the area of the carpark. The earliest evidence for this grave comes in the form of a drawing made not long after the battle which shows the burial of stripped bodies in a shallow pit occupying the open area to the south of the south gate. A further drawing, which is presumed to be later, shows the same place, but this time bodies are being heaped on a pyre of branches

prior to being cremated. This second image may relate to an attempt cremate bodies washed from shallow graves in the weeks and months following the battle and initial clean up.

A further suggestion of disturbance of this ground came about when the carpark was scanned by a Ground Penetrating Radar during a survey of the site carried out by Tim Sutherland of York University. Although the resulting anomalies are less than clear, probably due to variations in the nature of the made ground, they might well indicate activity related to the disposal of the dead.

The discovery of graves is always a possibility during the archaeological investigation of battlefield and Waterloo Uncovered has always been conscious of the sensitivities related to encounters with burials, encompassing as they do respect for the dead, disturbance of remains and emotional responses from those living today. Although any one of the geophysical anomalies thus far examined might have represented a grave of some sort, none have yet proven to be such. If graves were encountered project policy would be to assess the extent and condition of these features while causing as little disturbance as possible, in the hope that the grave sites could be marked with a suitable monument and also preserved from future disturbances.

Given the ongoing programme of investigations at Hougoumont, and the requirement for improvement works in the area of the car park, Waterloo Uncovered has been instructed by the local government authority to carry out an evaluation at this location as part of the 2016 field season. This task will therefore be regarded as a priority over the forthcoming two weeks of fieldwork, with the team expanded to accommodate experts in the evaluation of mass graves and the analysis of human remains.

The aim of this exercise will be to remove enough of the hardstanding and made ground beneath it to establish whether or not a grave pit exists as a feature cut into the original ground surface. It is of course possible that the pit and its contents were scoured out at some time in the past, perhaps when this area was covered with hard standing. With this in mind, it should be noted that a trench cut into the eastern face of the terrace, during the evaluation phase of the project in April 2015, uncovered chunks of concrete and other material which suggested extensive and deep remodelling of this area. In addition, the drawings of the burials taking place and the, presumably later, burning of bodies suggests a shallow pit from which the dead might have been washed by rain.

A mechanical excavator equipped with a hydraulic pick will be used to break out the hardstanding, working from the edge to the interior, with care being taken not to disturb any archaeological horizons sealed beneath. With removal of the concrete and tarmac hand digging will remove whatever overburden is exposed, with the aim of uncovering remains of any old ground surface, into which the grave was presumably cut.

If a grave pit is identified then careful cleaning will ensure that its limits and shape are clarified, with fills marking it out from the natural soils into which it has been cut. Human remains might be visible at this stage, prior to any downward excavation into the fill. If this is

the case then the upper most layer of remains will be thoroughly cleaned in order to gain an insight into the number and nature of burials. It is possible of course that any human remains will be highly mixed and perhaps even consist of both inhumations and the remains of cremation/partial cremation.

Should the upper surface of a grave pit be exposed and its extent established - or as near to as possible within the time constraints of the project – an attempt will be made to estimate its depth, which would make it possible to gauge the number of individuals represented, depending of course on the ratio of inhumations to cremations. This will be achieved by excavating down through the deposit, but in an area which causes the least disturbance to the remains. The precise nature of the archaeological intervention will obviously depend in the nature of the deposits and so key decisions as the best way to proceed will need to be made as events unfold. It might be that the best way to establish the depth of the deposit will be to dig down from the side of the pit, thus exposing fill deposits without actually disturbing them.

It is not envisaged at this stage that any human remains be removed from the pit beyond the end of the investigation and the ethos throughout will be to cause as little disturbance to any grave deposits as possible. The site will be reinstated in accordance with instructions from the local authority and a decision then made on how to proceed after the submission of an evaluation report.

2.) Investigate the areas of the kitchen gardens to the west of the complex

The ground drops away in the field adjacent to the track that runs along the western side of the complex (this leads to the carpark now outside the southern gate and gives way to tracks running across the fields to the south). On the 1777 map of the complex this area is shown to be occupied by rectangular garden plots, presumably used to produce vegetables for the farm kitchen. This area is known to have witnessed heavy fighting thanks in part to the memoirs of Private Clay of the 3rd Foot Guards, who describes shooting at French troops across the gardens as he retreated back to the north gate (see 2015 Project Design, page 12). Clay was on the higher ground in front of the wall, which was struck by musket balls, while the French were on the other side of the gardens, to the east, protected by what he described as a fence.



Fig. 3. Kitchen gardens to west

This area was metal detected in 2015 and a number of interesting objects recovered, including musket shot and a badge in the form of a bugle, which appears to be French. However, given the sloping nature of this ground it is likely that some degree of soil movement might have taken place and therefore material may survive at some depth (metal detecting elsewhere on site has identified metal objects lying at 30 cm and deeper below the present ground surface and these were generally level areas).

In order to understand the nature of soils in an area of slope and also to test the possibility of remains relating the kitchen gardens surviving it is proposed to place at least one machine cut trench in this area, with metal detecting used to scan soils at various depths as the stripping takes place.

An insight into the nature of these soils will provide valuable information when it comes to understanding the wider landscape of the battle, much of which is sloping and where soil creep might well have smoothed out gulleys and hollows which although not today visible might have represented vital elements of military terrain in 1815. Should remains related the gardens, in the form of boundaries or beds, be discerned within this area this once again will provide a valuable insight into the nature of the site as it appeared in 1815 and perhaps enhance the experience of visitors keen to explore the battlefield.

3.) Test for presence of building remains in the courtyard

As a result of the battle many of the buildings inside the courtyard, which included the house, the chapel, dovecote, barns and stables etc. were damaged by fire, with some of them, including the house being totally destroyed. Artistic portrayals of Hougoumont, made in the years following the battle, show that damaged buildings were demolished, with the result that the yard became a much less densely occupied enclosure, with only buildings along the eastern and southern walls surviving – with the exception of the chapel, which like these other buildings still stands today.

Excavation inside the courtyard prior to the arrival of Waterloo Uncovered in 2015, has exposed elements of wall foundations related to the house. However, no attempt has thus far been made to examine areas further to the north in order to check for the range of buildings which appears from maps to have stood against the inside of the north wall, to the east of the gate (see Figs. 3 and 4). This area is now covered by grass overlying what appears to be made ground resulting from recent building works associated with the renovation of the farm.

In order to check for buried remains relating to buildings destroyed in 1815 a limited programme of trial excavation will take place in this area, with excavation through upper horizons possibly assisted through the use of a mechanical excavator.

Should buried remains be encountered it is hoped that it will be possible to trace the extent of the buildings they represent and then to mark them out on the current ground surface so that visitors can more fully appreciate the character of the place as it appeared at the time of the battle.

4.) Examine site of back-filled pond

The post battle map by Craan suggests a pond to the north of the north gate, however this does not appear on the 1777 map. The present terrain suggests wet ground in the area to the north of the north gate, an observation backed up by the nature of the soils excavated in order to recover objects located by metal detector. This location does not however appear to correspond to the feature shown on the Craan map (Fig. 4), which is closer to the gate.

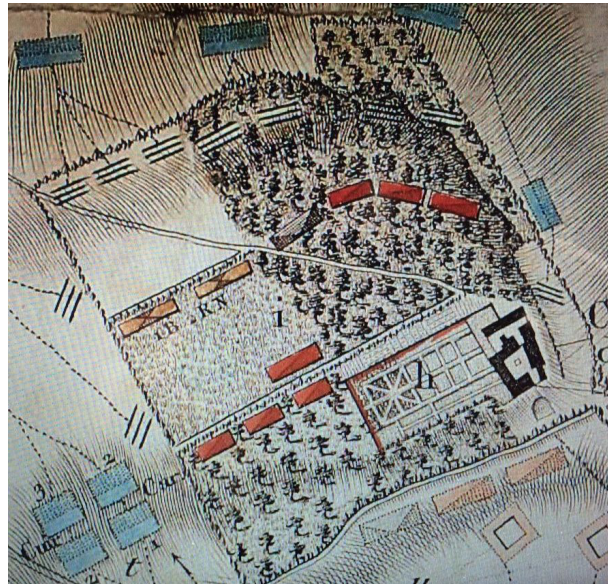


Fig. 4 Craan Map 1815. Pond to north of north gate

Machine excavation will be used in an attempt to demonstrate the presence or absence of a pond, which might have limited troop movements, particularly those of the French, during the battle, and provided a receptacle for cleared battle debris after the conflict. Should waterlogged deposits be identified these might also provide evidence for environmental conditions, through pollen etc. in addition to the benefits that such deposits might have with regard to organic preservation.

On the negative side this feature may be nothing more than ground disturbed during the construction of the highway, as evidenced by the trench placed across the western end of the sunken way and other trenches previously opened in this vicinity.

Team Composition

There will be a mix of experienced archaeologists and veterans with limited or no experience. The latter group will be receiving training in archaeological field techniques through their active participation in the project over the first two weeks of July, 2016. Day to day management of the work will be undertaken by Project Directors Tony Pollard (University of Glasgow) and Dominique Bosquet (SPW), who will work closely in this with senior archaeologists Stu Eve and Cornelius Barton (both L-P Archaeology), the latter of whom will be in overall control of site recording. Training will be overseen by Project Supervisors Emily Glass and James Early.

Numbers at present indicate that there will be five teams operating, each consisting of around 3-5 veterans supervised by at least one experienced archaeologist. These teams will be allocated individual tasks based on the research design presented above. An exception to experienced/inexperienced make-up of teams will be the possible grave site, where it is imperative that the work is carried out by those with experience of mass graves and human remains. However, there are tasks which might be appropriate for those with less experience, but these will only be identified as work progresses (the possible grave site is still very much an unknown quantity, hence the need for this evaluation).

Field methods and Recording

The techniques of investigation deployed and the standards of recording adopted will be in keeping with those detailed in the 2015 project design.

Site mapping and artefact location will be executed to the highest definition thanks to differential GPS operated by a team from L-P Archaeology led by Mike Johnson assisted by Scott Hawkes.

Metal Detecting will be carried out by a small team of experienced detectorists led by Garry Craig, the team operating under the direct supervision of the project's directors and senior archaeologists. The location of all finds will be recorded by differential GPS with individual finds numbers allocated at the point of recovery/recording. All finds will then be presented to the finds team for processing and further recording, including photography. This team will be led by lead finds officer Hillary Harrison, with the team including Masters students from the Centre for Battlefield Archaeology, who have been engaged in the post-excavation analysis of the assemblages from 2015. During this process information about the artefacts will be fed into the ARC system, which provides an on-line searchable database and as such permits public access to the material.

In order to minimise the amount of analysis and report writing post field season, every effort will be made to complete trench reports while the team is deployed in the field. This will obviously place some pressure on time and increase the need for efficient site management but the benefits are likely to outweigh any difficulties. One distinct advantage to this on-site reporting will be the ability for supervisors and volunteers to discuss the archaeology while it is still exposed rather than relying on context sheets and field drawings as is usually the case. Likewise, with finds, the intention is to complete as much analysis in addition to recording as possible (measuring and weighing of musket balls etc.) before they are packaged and taken away from site. For this reason the size of the finds team has been increased to include students already familiar with the material, particularly musket balls and buttons.

