



Digging Darrow

Project Design for a Community Excavation



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Digging Darrow

Project Design

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Purpose of document

This document has been prepared as a Project Design for the Digging Darrow Project Team, DigVentures' global crowdfunding community and Darrow School. The purpose of this document is to provide an outline of planned fieldwork, aims and objectives of the work, and methodology to be employed. This ambitious community-based project provides an opportunity to explore and interpret the long history of settlement in the area. DigVentures accepts no responsibility or liability for any use that is made of this document other than by Darrow School for the purposes for which it was originally commissioned and prepared. DigVentures has no liability regarding the use of this report except to Darrow School.

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Project summary

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Executive Summary

This document is submitted in support of a research project at Mount Lebanon Shaker Village, carried out by DigVentures. The first season of fieldwork, undertaken in July 2017, investigated the Centre Family Wash House. This Updated Project Design supports a second season of fieldwork focusing on the Centre Family Print Shop, entailing an extended programme of remote sensing, field walking, 3D photogrammetry survey and targeted trenching. The approach to this work is evidenced through the following MoRPHE / PRINCE2 compliant document, outlining key archaeological research questions, roles, procedures, stages and outputs.

The overarching aim of this fieldwork is to provide baseline information to contribute to the future management, research and presentation of the site, creating multiple educational and participatory learning experiences for community participants. This will be achieved through a community-based archaeological research project designed to understand:

- the extent and significance of the surviving archaeological remains
- the nature, date and survival of archaeology relating to Centre Family of Mount Lebanon Shaker Village
- the potential of the archaeology to contribute to the history of shaker communities and of Mount Lebanon Shaker village

This Project Design provides an outline of methodology and planned intervention to complete:

Targeted excavation A ground based earthwork survey will be completed of the features identified within LIDAR data of the Centre Family unit of Mount Lebanon Shaker Village, aiming to characterise the nature, phasing and preservation of the extant remains.

Targeted excavation One trench is proposed for 2018 over the Centre Family printing house aiming to characterise the structure, recover potential dating evidence relating to its different phases of use and to assess the palaeoenvironmental conditions of the village.

Public engagement The project is supported by a comprehensive learning, engagement and activity plan. An innovative digital recording system will be used to enable volunteers to record and publish on smartphones or tablets in the field; specifically developed learning materials will be used to deliver schools sessions, with a dedicated project website, underpinned by a digital and audience building strategy, aiming to triple the engagement and participation numbers outlined in the project brief. In addition to the DigVentures crowdfunding community, the project will be working specifically with Darrow School Students, and ex-service personnel the AVAR (American Veterans Archaeological Recovery).



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1 INTRODUCTION

1.1 Project summary

- 1.1.1 This document provides a Project Design for delivery of a community-based archaeological investigation of the Centre Family Unit of Mount Lebanon Shaker Village (hereafter 'the Site'). Its purpose is to define how DigVentures intends to deliver this phase of the project, and outlines how research aims and participation targets will be met. All DigVentures projects are managed according to the Historic England MoRPHE project model (Management of Archaeological Research Projects in the Historic Environment) – itself based on a PRINCE2 public sector project delivery framework.
- 1.1.2 The Project Design is presented in two parts; *Part 1: Description of the project* provides the project context, including a brief summary of proposed methodology, key sources and activities required to support the delivery of the proposal's outcomes. *Part 2: Resources and programming* identifies responsibilities of individual project staff members and outlines the tasks and programme.
- 1.1.3 The overarching aim of fieldwork is to provide baseline information to contribute to the future management, research and presentation of the site, creating multiple educational and participatory learning experiences for community participants. This will be achieved through a community-based archaeological research project designed to understand:
- the extent and significance of the surviving archaeological remains
 - the nature, date and survival of archaeology relating to Centre Family of Mount Lebanon Shaker Village
 - the potential of the archaeology to contribute to the history of shaker communities and of Mount Lebanon Shaker village
 - Make recommendations, analysis and publication.
- 1.1.4 In addition to the archaeological research objectives, the development stage of the community project aims to raise awareness to the site and its story, engaging actively with the public throughout. This will be achieved through the involvement of community participants in the archaeological investigations and a public activity program running alongside. Data collected will be co-produced by community participants and published live to the project microsite using DigVentures unique Digital Dig Team recording system. The project microsite (<https://digventures.com/jane-pit>) will house project information, an events program, research reports and a curated timeline of social media outputs.

Part 1: Description of the project

2 BACKGROUND

2.1 Introduction

- 2.1.1 Mount Lebanon Shaker Village, named after the mountain whose west side it is positioned upon (42.4566° N, 73.3817° W Zip Code: 12125), served as the home of those that ran and organized the shaker faith and so acted as the movement's centre throughout the 18th and 19th century. The term shaker is that commonly used for the religious organisation 'The United Society of Believers in Christ's Second Appearing' and derives from the term Shaking Quakers, itself a description relating to the frequent dancing during worship. The Shakers were a Christian sect founded in the 18th century (c. 1747) which is often described as beginning in North West England although it has also been suggested its roots are based in France (Anderson, 1950, p. 113). The utopian beliefs of The United Society of Believers in Christ's Second Appearing' principally revolved around the concepts of Dualism, Communalism, Celibacy, the ability to receive divine revelations from the spirit of God expressed physically as trembling and fainting during religious revivals and the attainment of salvation through work and right conduct.
- 2.1.2 This sect spread to Northern America in 1774, following their persecution in Britain, with the immigration of Ann Lee (the group's leader) and at least eight followers from Liverpool. Once established in North America the shaker movement expanded to other shaker villages, including Groveland, Watervliet, Hancock, and Tyringham, with Mount Lebanon Shaker Village forming one of the primary centres. The peak of this movement is placed in the mid-19th century at which point their total adherents numbered at least 6000 members (Anderson, 1950, p. 114). After this time their numbers declined such that by the 1950s only a few communities remained with less than 60 members (*ibid*).
- 2.1.3 Mount Lebanon Shaker Village is said to have been established with the construction of the first meeting house in 1785 and reached its peak during the mid-19th century at which point it housed over 600 members of the shaker community (Figure 1). This Village primarily consisted of five core settlements units, each representing a communal family (North, Church, Centre, Second and South) placed along the 'Shaker Village Road' that runs North to South through the village. Each of these units was made up of a Dwelling House, barns, workshops and other specialised work areas. The village also had further buildings beyond these such as those placed just off this road North East of the North Family residence. These too were used by centralized groups (The East Family and the Upper and Lower Canaan Families,) known as 'Winter Shakers', who represented those people who were interested in experiencing shaker life but not yet ready to commit fully to the community.

2.2 Location, topography and geology

- 2.2.1 Mount Lebanon Shaker village is placed on the west side of Mount Lebanon (42.4566° N, 73.3817° W Zip code 12125) from which it derives its name and is located between the Berkshire Hills and Taconic Mountains close to the border between Massachusetts and New York (Figure 1). The targets for investigation within this village are placed on land now owned by Darrow School and the entire village was listed as a National Historic Landmark in 1965. A portion of the Shaker village still remains as extant structures, the majority of archaeological remains now only survive as shallow above ground earthworks or not at all.
- 2.2.2 The shaker village primarily consisted of five core settlements units, each representing a communal family (North, Church, Centre, Second and South) placed along the 'Shaker Village Road' that runs North to South through the village. Each of these units was made up of a Dwelling House, barns, workshops and other specialised work areas. The village also had further buildings beyond these such as those placed just off this road North East of the North Family residence. These too were used by centralized groups (The East Family and the Upper and Lower Canaan Families,) known as 'Winter Shakers', who represented those people who were interested in experiencing shaker life but not yet ready to commit fully to the community. The majority of the settlement would have originally been surrounded with cultivated fields, orchards, personal reservoirs and mixed woodland. To the east of the 'Shaker Village Road' are the remains of the 'Shaker Swamp'.
- 2.2.3 Mount Lebanon shaker village began as agricultural community such that during the 19th century the natural vegetation had been altered to meet European agricultural practices. While the Village and its surrounding grounds were originally communally owned by the village's occupants, as the settlement population declined, parcels of its land began to be sold following which the use of The Site's environs has changed. Since this time, some land has been allowed to go unused such that succession species (suman, raspberry and goldenrod) have colonized old agricultural fields while other areas are still cultivated or used for pasture. Much of the land is now covered by forest, made up of sugar maple, yellow birch, beech and hemlock with other maples, ash mountain laurel, plum, pine, yew, basswood and elm (Kuchler 1964).
- 2.2.4 The siting of the village is variable, it being placed on the side of Mount Lebanon, although much of the village is placed on sloping land which can reach at least as steep as 25%. While drainage across this village is generally good there are pockets of poorly drained areas, most notably Shaker Swamp, and when heavy rainfall occurs there is the potential for flooding. It is unsurprising then that there is evidence for shaker water management. This includes millponds and a stream which carries the outflow from the former Mill Pond and stream used by the North Family Shakers.
- 2.2.5 The soils in the area are primarily silty loams. For example, the north family site is placed on Georgia and Stockbridge silty loams (Stull 2002, 4), which are well draining soils that can effective for farming and stock rearing when the slope of the land is not too great. The underlying bedrock of the village is Stockbridge Formation marble, with a thrust fault of Austerlitz Phyllite quartzite immediately adjacent to the east (NYSM 1970).

2.3 Archaeology at Mount Lebanon Shaker Village

- 2.3.1 Prior to the 'Digging Darrow' project, seven surveys have been conducted within Mount Lebanon Shaker village all within the last four decades. The earliest of these investigations were conducted by Wiegand between 1986 and 2000. The first of these investigations focused solely on the North Family site and reporting on the structure and archaeological potential of the area (Wiegand 1986). This involved a walkover survey the North Family complex, excavations of two test pits south of the 'Brethren's Workshop', six test pits in the North Family Dump, two trenches excavated by the Blacksmith shop, clearance of undergrowth followed by surface finds collection from the Grist and Saw Mill and finally remote survey using a metal detector between the standing structures. Notably no responses detected in this latter manner were excavated, such that this material likely remains in place. Finds recovered from the excavations were typically linked to architectural debris, such as nails, brick fragments, window glass and ceramics, or domestic refuse, all of which dated to the late 19th and mid-20th century.
- 2.3.2 Wiegand's later investigations (1996, 1998, 2000) were conducted in response to the Darrow School Wastewater System. These consisted of a Stage 1 Cultural Resource (1996), A Stage II Intensive Archaeological Survey (1998) and then a further Stage I Archaeological Reconnaissance (2000). These investigated the Church and Centre Family sites using metal detecting combined with sub-surface excavation. During the Stage 1 Cultural Resource Survey Archaeologists excavated trenches in the driveway, revealing deposits of rubble fill dating from the 1875 fire and from previous and subsequent building and demolition episodes (Wiegand, et al. 1996:37).
- 2.3.3 The 2000 Stage 1 Archaeological Reconnaissance investigated the proposed corridor for a water improvement system, which traversed the dirt lane opposite Cherry. This included the excavation of 26 tests pits placed initially at the standing barn and then continuing up the hill to the east. These identified a modest sheet Midden deposit along the road near the standing Shaker structures and recovered more than 300 cultural artefacts including Shaker pipe fragments, ceramics, and structural materials. Wiegand (2000:17–18) recommended monitoring for segments nearest the former medicine shop.
- 2.3.4 Three further investigations were carried out by Hartgen Archaeological associates Inc. These included a broad Phase 1A sensitivity assessment study for the North Family Locus, a Phase IB survey for the foundation restoration of the North Family Washhouse and a Phase 1 archaeological investigation for the proposed drainage improvement projects for Darrow School, which occurred mainly around the Church and Second Family loci. The Phase 1A sensitivity assessment (Hartgen 2002) comprised a Historic Map Review and Site Visit. While these focused solely on the North Family unit certain observations made in this report are relevant to the project. For example, additional structures were identified that were not depicted on any of the available maps of the village (Stull 2002, 10), confirming similar work at Union Village (Aument and Sewell 2009, 145-154). This suggests that early historic maps of the settlement are primarily conceptual instead of representative, and that previous excavations on the site have

identified landscape and building uses which were not documented (Wiegand 1986, 26).

- 2.3.5 Following this sensitivity assessment, a Phase IB survey comprising exaction of areas that were to be affected by stabilization works (Hartgen 2004a, 2004b). This involved the excavation of 74 test pits, 11 test bores and a further trench across the affected areas (representing approximately 3100 square meters). These found intact sheet midden deposits and builder's trenches in addition to debris similar to that to the Wiegand investigations. This intervention is notable in finding evidence for unrecorded structures including a wooden shed attached to the side of the barn and a concrete pad representing the floor of some now demolished out buildings, none of which were recorded on maps identified in the previous survey.
- 2.3.6 More recently a final Phase 1 archaeological Investigation was carried out by Hartgen in areas across the village focussed on the Church and Second Families. This comprised a historic map review followed by field reconnaissance of 75 shovel test pits. The majority of these intrusive excavations returned only sheet midden material and little evidence for structures mapped within the mapping review, although in one shovel test, a stone and mortar foundation ascribed to a late 19th century structure associated with the tannery or gardens was found at a depth of about 55 cm (21.7 in).
- 2.3.7 A final CRM Report has been produced for Mount Lebanon Shaker Village by Stony Creek Archaeology, in response to planned improvements to Darrow School's campus. This combined reviews of historical maps with walkover survey, a literature review of the site and the excavation of 48 shovel test pits that revealed similarly historic material to previous surveys.
- 2.3.8 No further excavations of Mount Lebanon Shaker Village have been identified, however, the settlement has been the subject of several non-invasive research projects. These include a study of the graffiti found on the walls of the Brethren's Workshop (North Family), a review of the shaker land use of the area around Mount Lebanon through studying documented sources and field observation and a Historic Landscape Survey of the North Family Unit.

2.4 2017 Fieldwork

- 2.4.1 Initial fieldwork for the 'Digging Darrow' project, including remote sensing and excavation, was undertaken between 30th of May and 11th of June 2017. Remote sensing primarily comprised the collation of Lidar data and historic mapping for The Site and its environs. Numerous extant remains are visible within the former dataset, not all of which correlate to features detailed on historic maps of the village. Further non-invasive survey of The Site was limited to a trial of the theodolite App as part of an early ground survey of The Site's environs. This proved successful in identifying surviving ground surface remains, their location in relation to the LIDAR survey data and their potential use.
- 2.4.2 One structure, identified as a wash house for the Centre Family, was excavated using a single trench within which three slots were dug. This successfully identified several architectural features of the building including its limestone walls and a plinth for an internal hearth. Six phases of activity of this feature have been identified. These



include: the wash house's construction; occupation; abandonment; subsequent deposition of rubbish within the house's hollow during the 20th century and a final phase of more recent activity.

2.5 2018 Fieldwork proposals

- 2.5.1 Mount Lebanon Shaker Village represents the extremely rare opportunity to investigate the complete history of the most significant Shaker settlement. Interest into this community provides a huge opportunity to involve community members in meaningful archaeological research, creating a resource for the enjoyment of the local area. The field-based activities outlined in this document have been designed to build an audience, provide learning and new skills. The archaeological investigation will provide an intense phase of field-based research focusing on three key areas: a detailed ground survey of the Centre Family Unit of the Village; targeted excavation of the Centre Family's printing house and a historical review of the site as depicted in historic mapping.

3 PROJECT AIMS AND OBJECTIVES

3.1 Project model

- 3.1.1 The overarching aim of the archaeological research is to define and characterise the physical extent of the Centre Family unit within Mount Lebanon Shaker Village through a program of non-intrusive survey and intrusive excavation, obtaining baseline data that will facilitate its future management, presentation and enjoyment. Four interrelated research themes have been identified which aim to evaluate both the survival and significance of archaeology relating to Mount Lebanon Shaker Village and the contribution that archaeological evidence could provide to a broader understanding of the Shaker life. Framed as a series of specific questions, these will provide a framework for the methods, stages, products and tasks. The project model is framed as overarching aims and key questions/objectives that provide a framework for the methods, stages, products and tasks.

3.2 Aim 1: Define and establish the physical extent and character of the Centre Family unit within Mount Lebanon Shaker Village with a programme of remote sensing and metric survey.

- 3.2.1 This aim will build on previous work undertaken and provide additional non-intrusive remote sensing. It will entail collation of existing Lidar data available for the area around Mount Lebanon Shaker Village. This will provide a 3D model of the topography of the village from which anomalies will be identified. By doing so the project aims to define and establish its precise physical extent and the condition of any surviving structures. This will be used to support plans for further interventions, including excavation and ground survey. It will also enable us to address the following questions:
- Q1: What are the topographic and anomalies visible within the Centre Family unit of Mount Lebanon Shaker Village, and is this evidence for anthropogenic activity? If so what activity do these represent?
 - Q2: Can we identify any phasing in these topographic anomalies?



- Q3: Can the layout of the village and any associated subsurface archaeology be determined by remote survey?
- Q4: To what extent do the features identified through remote survey reflect/agree with historic plans and maps of Mount Lebanon Shaker Village?
- Q5: What economic, theological and practical considerations are reflected in the layout and form of the Centre Family Unit?

3.3 Aim 2: Understand the chronological development of the Centre Family unit within Mount Lebanon Shaker Village refining its chronology, phasing and character through targeted excavation.

3.3.1 In the light of the evidence base collated for Aim 1, this aim will be addressed with a programme of targeted trenches designed to 'ground truth' the results of remote sensing and metric survey. The purpose will be to identify and investigate any archaeological features encountered, and obtain appropriate samples for archaeological, artefactual and palaeoenvironmental assessment.

- Q5: Can we corroborate chronological phasing for the Site, including the presence of earlier and later features and structures, as defined in Aim 1?
- Q6: What are the typical and atypical features of the structures and did this influence the functions and activities that took place?
- Q8. To what extent do the archaeological remains at Mount Lebanon Shaker Village survive, and what is the potential of these buildings to inform a greater understanding of everyday life in the Village?
- Q7: What is the landscape setting and character of Mount Lebanon Shaker Village, and how did this shape its design and development?

3.4 Aim 3: Understand the site's archaeological and palaeoenvironmental conditions.

3.4.1 This aim will be achieved with an assessment of the samples and artefacts as defined and recovered in Aim 2, using appropriate palaeoenvironmental and archaeological techniques to establish preservation and significance.

- Q9: What is the current state of the archaeological and palaeoenvironmental material across the site?
- Q10: How well do deposits and artefacts survive, and how deeply are they buried?
- Q11: Can the palaeoenvironmental data recovered from sampling in the trenches inform us about seasonal farming regimes, specialised food processing or industrial activities that may have taken place at the site?
- Q12: What is the range and spatial patterning of artefacts recovered from the village, and can this inform our understanding of the seasonal use of the landscape and utilisation of wider resources?
- Q13: Can we increase our understanding of the buildings and environment at Mount Lebanon Shaker Village and its wider environs?

- Q14: Can we identify the nature, scale and purpose of tasks carried out within the Centre family compound

3.5 Aim 4: Making recommendations, analysis and publication.

3.5.1 This aim will require all data from Aims 1-3 to be collated, with an integrated analysis of the archaeological and palaeoenvironmental resource at Mount Lebanon Shaker Village making recommendations to conserve, enhance and interpret the heritage significance of the site.

- Q15: What can an integrated synthesis of the results of this work with previous studies of contemporary regional sites tell us about the Site and its setting?
- Q16: What further research can be undertaken at the Site to further contribute to the story of Mount Lebanon Shaker Village?
- Q17: What recommendations can be made to protect, conserve and enhance Mount Lebanon Shaker Village in the light of the issues and opportunities

4 PUBLIC ENGAGEMENT AND PARTICIPATION

4.1.1 DigVentures specialises in delivering participatory archaeological projects in collaboration with communities, researching and recording the past to professional standards. On the basis of the project brief, the desired outcomes for public engagement and participation in this stage of the project have been articulated below.

4.2 Aim 5 - Creating opportunities for people and communities

4.2.1 This aim runs throughout the whole programme, from the initial project set up through to dissemination and beyond. The project will offer a range of opportunities for local community members, school children and visitors to the area to get involved and learn more about Shaker archaeology. Working closely with American Veterans Archaeological Recovery (AVAR) the project will provide opportunities for veterans transitioning back into civilian life. Participation will also be extended to Darrow School students, with opportunities including excavation, finds processing, photogrammetry and guided tours. Volunteers will be invited to join the excavations and will be trained in archaeological skills, co-producing the archaeological archive using DigVentures unique Digital Dig Team software. Results will be recorded directly onto the project microsite, providing live updates of both technical data and social media. Through these means the project will:

- train a minimum of 50 community volunteers in excavation and post excavation tasks, 15 of which will be ex-service personnel transitioning back into civilian life.
- engage 50+ school children with our education sessions
- produce and provide a digital archive and exhibition resource for the project website



5 COMMUNICATIONS

5.1 Project team

- 5.1.1 The following section details specific staff responsibilities, drawing on terminology devised by Historic England for the MoRPHE project management framework. The overarching project is funded by the DigVentures Crowdfunding community and National Geographic. Project Assurance will be undertaken by the Project Executive (Lisa Westcott Wilkins, DigVentures) who will monitor compliance against the deliverables detailed in this document and will act as the primary contact point for the project, and ensure that stakeholders and clients are regularly updated as to progress.
- 5.1.2 The project team have all worked closely together over a number of research projects, including Leiston Abbey (2013-2016), Lindisfarne (a joint project with the University of Durham, 2016) and Barrowed Time (community investigation of a Bronze Age hoard site, 2016). There will be four core DigVentures archaeological staff on site throughout the fieldwork, supported by two community archaeology field staff. Brendon Wilkins (Projects Director) will undertake day-to-day management of the project, with Chris Casswell (Head of Fieldwork) directing fieldwork. Maiya Pina-Dacier (Head of Community) and Lisa Westcott Wilkins (Managing Director) will liaise with and coordinate volunteer and visitors to the site. Core staff will remain consistent and retained throughout the post-excavation phase of the project. All core staff are employed in line with ClfA guidelines, and are practicing field archaeologists at ACIfA level or above. Senior project staff are all Members of ClfA in good standing.
- 5.1.3 The Expert team is drawn from various university departments and laboratories with a considerable range of experience in the undertaking and delivery of similar research projects. The Academic Advisory Board provides an extra layer of expertise to help advise as the project progresses.

5.2 Project management

- 5.2.1 DigVentures operates a computer-assisted project management system. Projects are undertaken under the direction of the Project Director who is responsible for the successful completion of all aspects of the project. All work is monitored and checked whilst in progress on a regular basis, and the Project Director/Managing Director checks all reports and other documents before being issued. A series of guideline documents or manuals form the basis for all work.
- 5.2.2 The Projects Director, Brendon Wilkins, is a full member of the Institute for Archaeologists (MCIfA). DigVentures is an ClfA Registered Organisation (No. 102), and fully endorses the *Code of Conduct*, the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*, and the Standards and Guidance documents of the Institute for Archaeologists. All DigVentures staff are employed in line with the Institute's Codes and will usually be members of the Institute.

5.3 Communications

- 5.3.1 The Project Manager will produce Monthly Status Reports for the Project Executive and Project Team throughout this Execution Stage up to the review of the Assessment



Report/UPD. This will present an overview of progress, list tasks completed or part completed, including any on-going work and issues affecting progress. The Project Manager will also be responsible for ensuring that the project runs to schedule, keeping track of key resources (notably staff time) on the basis of weekly Work Records. The Project Team will have a project meeting at each milestone described to ensure that all major tasks are briefed/debriefed as necessary. Provision will be made for the project in 'Basecamp', which is a web-based project communication package used by DigVentures, enabling project participants to generate and record notes, tasks, milestones and other project-related communication.

5.4 Outreach and engagement

- 5.4.1 As a crowdfunded and crowdsourced archaeological organisation every aspect of the DigVentures approach is cognisant of a wider outreach agenda. Running alongside the Digging Darrow community excavation, DigVentures will include a dedicated educational programme of schools visits, training sessions and events programme designed to increase local awareness of the area's archaeology and heritage, and amplify this with a coordinated digital and social media strategy.
- 5.4.2 Engagement will be both on and offline, with a dedicated *Digital Dig Team* project website developed to engage a new local and global audience, inviting external communities (and those not usually engaged with archaeology) to take an active role in knowledge production. *Digital Dig Team* is a cloud-based, open-source software platform enabling participants to publish data directly from the field using any web-enabled device (such as a smartphone or tablet) into a live relational database. The implications of this new approach is the subject of research in its own right, as the born-digital archive enables geographically dispersed specialist teams to collaborate in real time during the data collection stage of field projects (Wilkins, PhD Research with Leicester School of Museum Studies).
- 5.4.3 All major social media channels will be used to amplifying daily blog content. A digital video specialist will be on site throughout the excavation, and broadcast quality footage will be uploaded to YouTube daily. The project will feature regular evening lectures open to the public where the day's findings will be discussed, followed by presentations by the wider specialist team in addition to the on-site specialist team. These will also be filmed and broadcast live, with the recorded archive made available on the project website.
- 5.4.4 The impact of this outreach work will be measured with a quantitative and qualitative evaluation of all participants to establish baseline audience awareness data and assist with future management strategies and promotion. This will be undertaken with a visitor survey conducted throughout the field season, targeting both excavation participants and casual visitors, and critically assessing the breadth, depth and diversity of engagement.

5.5 Dissemination and reporting

- 5.5.1 Rapid dissemination of the results to, and involvement of, stakeholders of the project is vital throughout. This will take place through multiple channels, addressing a



multitude of established and new audiences. Dissemination outlined below will all be undertaken during 2018, and will include, but not be limited to:

- Dedicated website with daily news updates on a blog and all major social media channels (Facebook, Twitter, Google+, Flickr and Instagram) amplified through third-party coverage by the networked blogging community.
- Dedicated digital archive of the excavation data.
- Wide circulation of the project assessment and the final report
- Site publication in an appropriate local/national journal commensurate with the final results.
- Wide circulation of Assessment and Final Report, Updated Project Design
- Final site publication in an appropriate local/national journal commensurate with the final results.

6 PROJECT REVIEW

6.1.1 The project will be continually reviewed by the Project Executive and Project Manager, with a formal review undertaken at the end of each Stage as follows:

Stage	Description	Review Point	Completion Date
Initiation	Consideration of Project Proposal	RV1 – Assemble Project Team and liaise with stakeholders	Completed 2017
Stage 1	Project Start-up, finalising Project Design and definition of scope	RV2 – Sign-off on MoRPHE Project Design, and liaison with stakeholders and landowners	Completed May 2018
Stage 2	Archaeological Fieldwork – Second Season	RV3 – assemble site archive and distribute pertinent data to specialists	Proposed May-June 2018
Stage 3	Assessment Report & Updated Project Design	RV4 – critically review findings, making recommendations for further work or closure	Proposed December 2018
Stage 4	Analysis & Publication (subject to change depending on Project Delivery Stage)	RV5 – final publication sign-off, and prepare archive for accession	Proposed December 2018
Closure			December 2019

Table 1: Project review stages

7 HEALTH AND SAFETY

7.1.1 DigVentures will undertake the works in accordance with Health and Safety requirements and a Health and Safety Plan. This document will take account of any



design information pertaining to above and below ground hazards. DigVentures will ensure that all work is carried out in accordance with its company Health and Safety Policy, to standards defined in *The Health and Safety at Work etc. Act 1974*, and *The Management of Health and Safety Regulations 1992*, and in accordance with the SCAUM (Standing Conference of Archaeological Unit Managers) health and safety manual *Health and Safety in Field Archaeology* (1996).

Part Two: Resources and Programming

9 PROJECT TEAM STRUCTURE

9.1 Team and responsibilities

- 9.1.1 DigVentures' Project Team is outlined in Table 4. A summary CV, setting out the skills and expertise of DigVentures core team members is set out in Appendix 1, with CVs for the wider specialist team available on request.

Name	Initials	Project Role	Key Responsibility
Lisa Westcott Wilkins	LWW	Project Executive	Overall project responsibility, budget responsibility and project assurance
Brendon Wilkins	BW	Projects Director	Archaeological co-direction (on and off-site), liaison with project team, partners and Stakeholders
Chris Casswell	CC	Head of Fieldwork	Archaeological co-direction (on and off-site), liaison with project team, partners and Stakeholders
Maiya Pina-Dacier	MPD	Head of Community	On-site field-work, and post-excavation assessment

Table 2: Team and responsibilities

10 METHODOLOGY

10.1 Introduction

- 10.1.1 The methods reflect the project Stages set out above (Section 6), and a task list, with allocation of staff time and team members in Section 11 below, along with a GANTT chart, setting out a provisional program. Detailed method statements relating the specific techniques or approaches included below can be found in Appendix 1 at the end of this document.

10.2 Stage 1 - Project Start-Up and Design

- 10.2.1 A Project Design (this document) has been prepared (Review Point 2).

10.3 Stage 2 - Archaeological Fieldwork

- 10.3.1 Stage 2 fieldwork (scheduled from 30th of May and 11th of June 2017 and then 22nd May – 3rd June 2018) will comprise the first fieldwork stage required to meet Aims 1 and 2 (see Section 4 above), and will entail a combination of 3D photogrammetry,



ground survey, historical research and targeted trenching. It will aim to answer the following research questions:

- Q1: What are the topographic and anomalies visible within the Centre Family unit of Mount Lebanon Shaker Village, and is this evidence for anthropogenic activity? If so what activity do these represent?
- Q2: Can we identify any phasing in these topographic anomalies?
- Q3: Can the layout of the village and any associated subsurface archaeology be determined by remote survey?
- Q4: To what extent do the features identified through remote survey reflect/agree with historic plans and maps of Mount Lebanon Shaker Village?
- Q5: What economic, theological and practical considerations are reflected in the layout and form of the Centre Family Unit?
- Can we corroborate chronological phasing for The Site, including the presence of earlier and later features and structures, as defined in Aim 1?
- Q7: What are the typical and atypical features of the structures and did this influence the functions and activities that took place?
- Q8. To what extent do the archaeological remains at Mount Lebanon Shaker Village survive, and what is the potential of these buildings to inform a greater understanding of everyday life in the Village?
- Q9: What is the landscape setting and character of Mount Lebanon Shaker Village, and how did this shape its design and development?

10.3.2 Specific archaeological intervention will include two evaluation trenches and non-invasive ground survey of the Centre Family Unit. The two trenches will measure 5m x 6m one will be placed over the Centre Family Wash house and another placed over the Centre Family Printing House.

10.4 Stage 3 – Assessment Report & Updated Project Design

10.4.1 This Stage will address Aim 3, culminating in Review Point 4, and focusing on answering the following research questions:

- Q10: What is the current state of the archaeological and palaeoenvironmental material across the site?
- Q11: How well do deposits and artefacts survive, and how deeply are they buried?
- Q12: Can the palaeoenvironmental data recovered from sampling in the trenches inform us about seasonal farming regimes, specialised food processing or industrial activities that may have taken place at the site?
- Q13: What is the range and spatial patterning of artefacts recovered from the village, and can this inform our understanding of the seasonal use of the landscape and utilisation of wider resources?
- Q14: Can we increase our understanding of the buildings and environment at Mount Lebanon Shaker Village and its wider environs?

- Q15: Can we identify the nature, scale and purpose of tasks carried out within the Centre family compound

10.5 Stage 4 – Analysis and Publication

10.5.1 Addressing Aim 4, this is the main reporting and recommendation stage of the project, culminating in Review Point 5 and focusing on the following research questions

- Q16: What can an integrated synthesis of the results of this work with previous studies of contemporary regional sites tell us about the Site and its setting?
- Q17: What further research can be undertaken at the Site to further contribute to the story of Mount Lebanon Shaker Village?
- Q18: What recommendations can be made to protect, conserve and enhance Mount Lebanon Shaker Village in the light of the issues and opportunities

11 STAGES, PRODUCTS AND TASKS

11.1 Methodological Linkages

11.1.1 Following an assessment of the scope of works (as detailed in Section 7 of the Project Brief), it is anticipated that the project will be undertaken in four stages. These are set out in the table below and are set against the project aims and questions that will be met at each stage, the products that will be produced and the tasks undertaken.

Stage	Description	Project Aims/ Questions	Products	Task & ID Number
Stage 1	Project Start-up and Design	Aim 1-4 Q1-18	1. Permissions (land owner) 2. Finalised PD & Risk Log 3. Educational Plan & Information Pack 4. Digital Communication Plan 5. Risk Assessment & Health and Safety Plan	1. Consult with wider project team and stakeholders to define milestones and delivery timetable. 2. Core Archaeology Team Meeting. 3. Design project database. 4. RV2 – Sign off on MoRPHE
Stage 2	Archaeological Fieldwork	Aim 1 Q1-5	6. Field Archive 7. Survey Archive	8. Site Preparation



Stage	Description	Project Aims/ Questions	Products	Task & ID Number
		Aim 2 Q6-9	8. 3D Survey Archive	9. Fieldwork (remote sensing, survey & excavation) 10. RV2 - 5 – assemble site archive & distribute to specialists
Stage 3	Assessment Report & Updated Project Design	Aim 3 Q10-15	9. Stratigraphic & Assessment Report	13. Specialist finds and palaeoenvironmental assessments 14. Integrated assessment report 15. RV8 – recommendations for further work
Stage 4	Analysis and Publication	Aim 1-4 Q1-18	10. Final report 11. Publication 12. Completed and accessioned archive	18. Specialist analysis 19. Finalise report and publication 20. Prepare data and archive for deposition 21. RV9 – final sign-off 22. Closure

11.2 Task list by person days and team member

11.2.1 DigVentures projects are managed according to the English Heritage MoRPHE project model (Management of Archaeological Research Projects in the Historic Environment) based on a PRINCE2 framework.

Task ID Number	Aims	Task Description	Performed by:	Person Days	Start (no later than)
Stage 1: Project start-up and design					
1	1	Consult with wider project team and stakeholders to define milestones and delivery timetable	BW, LWW, MPD, CC	1	January 2017
2	1	Core Team Meeting	BW, LWW, MPD, CC	0.25	January 2018
3	1	Design project database	BW	0.5	January 2017
4	1	RV2 – Sign Off on MoRPHE	Project Team	0.25	January 2017
Stage 2: Fieldwork					
5	1 & 2	Site Preparation	BW, LWW, MPD, CC	2	May 2018
6	1 & 2	Fieldwork (remote sensing & excavation)	BW, LWW, MPD, CC	13	May-June 2018
7	1 & 2	RV3 – assemble site archive & distribute to specialists	Project Team	5	June 2018
Stage 3: Assessment and recommendations					
8	3	Specialist finds and palaeoenvironmental assessments	Expert Team	3	August 2018
9	3	Integrated Report	CC & Project Team	5	November 2018
10	4	RV4 – recommendations for further work	Project Team	1	November 2018
Stage 4: Analysis and publication (where no further execution stage is undertaken)					
11	4	Specialist analysis	BW, CC, MF & Project Team	1	October 2018
12	4	Finalise report and publication	CC, MF	1	November 2018
13	4	Prepare data and archive for deposition.	CC, JU	0.5	December 2018
14	4	RV5 – final sign-off	Project Team	0.5	December 2018
15	4	Closure	Project Team		January 2019

Table 3: Project Task List

12 OWNERSHIP

12.1.1 The Copyright on all reports submitted will reside with DigVentures and Darrow School, although a third party in-perpetuity licence will automatically be given for reproduction of all products for educational purposes. The original copyright holder will retain copyright in pre-existing data.

13 RISK LOG

Risk number	1	2	3	4
Description	Inclement weather - prolonged periods of rain	Exceptional weather (drying exposed archaeology)	Absence of core team member	Absence of specialist team member
Probability	Medium	Medium-low	Low	Low
Impact	Delay programme of work	Slow progress	Delay programme of work	Delay programme of work
Countermeasures	Provision of site hut, and planned indoor archiving tasks with flexible programme	Provision of water bowser + spray	Reallocate responsibilities or appointment of alternative	Reallocate responsibilities or appointment of alternative
Estimated time/cost	3 Days	None	Minimal if done by adjustment	Minimal if done by adjustment
Owner	BW/CC	BW/CC	BW/CC	BW/CC
Risk number	5	6	7	
Description	Equipment theft/breakages	Serious site injury	Contamination of soil	
Probability	Medium-High	Medium	Medium	
Impact	Delay programme of work	Delay programme of work	Delay / Cancellation of work programme	
Countermeasures	Removal of finds material and digital equipment from site Provision of 24hr	Detailed H&S Risk Assessment + daily safety briefing	Environmental survey of the site, with comprehensive analysis of presence of soils contaminant	

	security personnel and fencing		and/or mine gas
Estimated time/cost	3 days	3 days	3 days – cancellation
Owner	BW/CC	BW/CC	BW/CC

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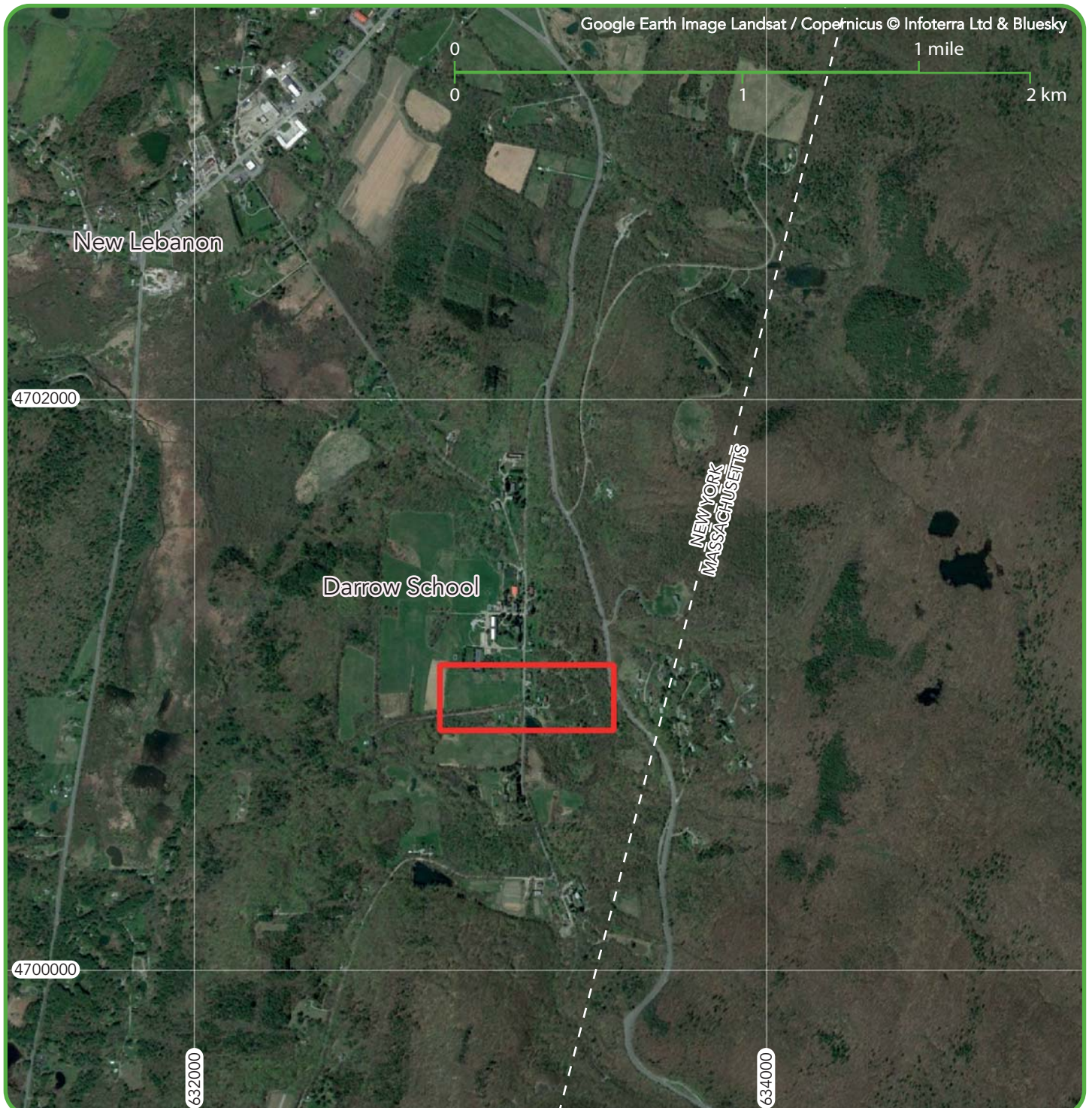
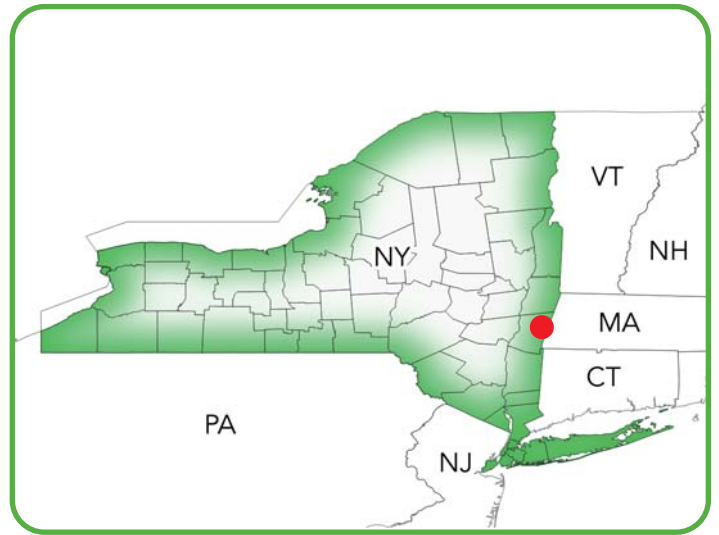


Figure 1 - Digging Darrow: Site location

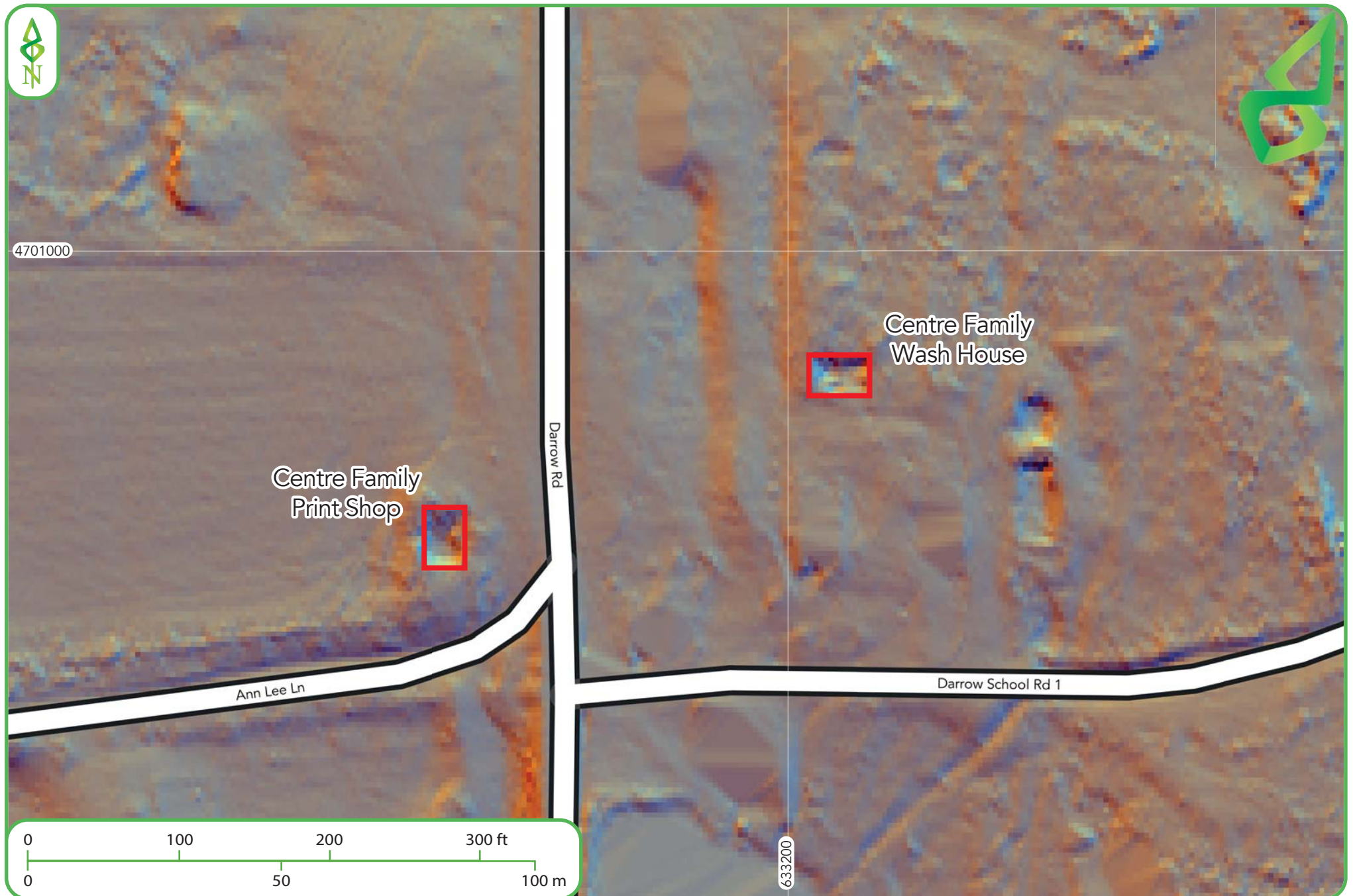


Figure 2 - Digging Darrow: Location of trenches

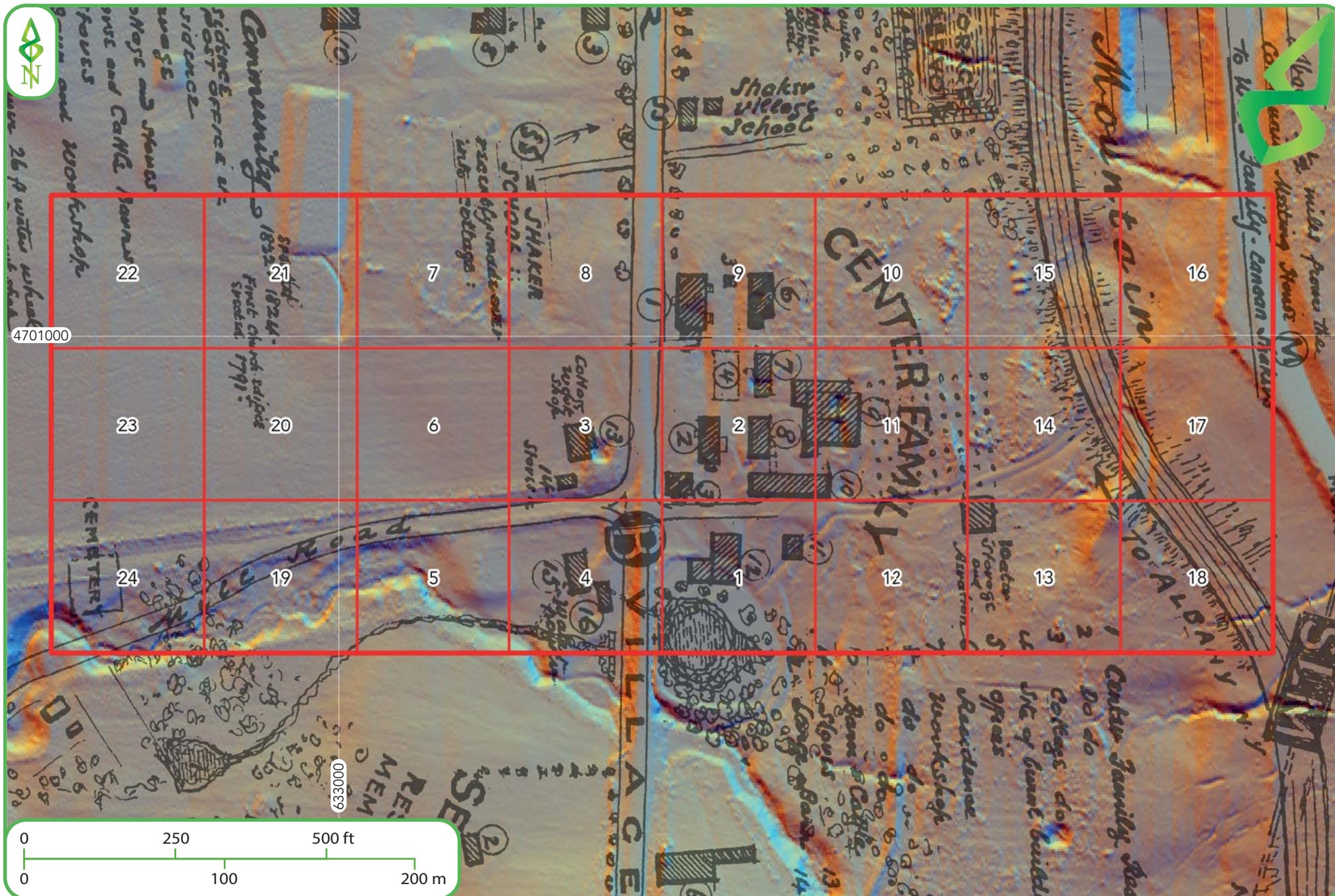


Figure 3 - Digging Darrow: Location of grid to be subject of ground survey

Appendices

15 APPENDIX 1 METHOD STATEMENTS

The methods for the proposed project will involve a combination of Lidar survey, GIS modelling, archaeological excavation, sampling, palaeoenvironmental sampling and assessment. The methods are linked directly to the project aims and objectives (see Table 1) and detailed below.

Synthesis and Data integration	Findings Assessment	Environmental Assessment	Sampling	Archaeological Excavation	Photogrammetry	Lidar Collation	Key Questions and Objectives
						✓	Q1
						✓	Q2
						✓	Q3
		✓				✓	Q4
	✓	✓		✓		✓	Q5
			✓	✓			Q6
		✓	✓	✓	✓		Q7
	✓	✓	✓	✓	✓		Q8
	✓	✓	✓	✓			Q9
	✓	✓	✓				Q10
	✓	✓	✓				Q11
		✓	✓				Q12
	✓		✓				Q13
	✓	✓	✓				Q14
	✓	✓	✓				Q15
✓							Q16
✓							Q17
✓							Q18

Table 3: Linking methods with objectives

Photogrammetry survey

Photogrammetry survey will utilize Agisoft PhotoScan 3D Modelling software to detect the feature points of the structure, and match these in different images to create a point cloud. The camera positions will be calculated automatically by the software and a dense reconstruction or geometric model will be built to create a DSM. The resulting model can then be. The resulting DSM can be manipulated for viewing from any angle using a variety of artificial light and shading techniques to highlight certain features, or overlaid or draped with the original photographs for true colour representation.

Images will be captured perpendicular to the structure using telescopic mounted cameras, to deliver optimum results requiring little or no rectification. All images are taken with a 16 megapixel Nikon D7000 digital camera (unless other cameras are specified) with a variety of standard and other lenses and are captured in RAW format for later processing into high resolution JPG and TIF files, and downloaded directly on to the hard disk of the laptop.

Archaeological excavation

Trench	Dimensions	Target	Description
2	10m x 6m	Wash house	10m x 6m trench within the Centre Family wash house targeting the central area to the eastern side of the wall. This will establish the survival of features relating to the function of the feature and the depth of archaeological deposits in this area.
2	3 x 3m	Printing House	10m x 6m trench within the Centre Family printing house targeting the central area to the eastern side of the wall. This will establish the survival of features relating to the function of the feature and the depth of archaeological deposits in this area.

All foliage covering standing features will be removed by hand and then photographed. All trenches will then be cleaned by hand, planned and photographed prior to any further excavation. A representative section, not less than 1m in width, of the entire deposit sequence encountered will be recorded. If complex stratigraphy and/ or significant remains (e.g. structural remains, artefact scatters, remains clearly of a funerary nature etc.) are encountered, these may only be excavated to the minimum requirement in order to satisfy the project objective, to avoid compromising the integrity of remains that may be either (a) preserved in situ, or (b) excavated in detail during any next phase of research excavation. Interventions will focus on feature intersections in order to establish relative chronologies, and 'clean' sections to maximise retrieval of stratigraphically secure dating evidence and environmental samples.

Full written, drawn and photographic records will be made of each trench and test pit, even where no archaeological remains are identified. A plan at an appropriate scale (1:50 or 1:100)

will be prepared, showing the areas investigated and their relation to more permanent topographical features, and the location of contexts observed and recorded in the course of the investigation. Plans, sections and elevations of archaeological features and deposits will be drawn as necessary at an appropriate scale (normally 1:20, or 1:10 for complex features). Drawings will be made in pencil on permanent drafting film.

Each trench or test pit, will be recorded using a Digital format created for Digital Dig Team, following the DigVentures single context recording system. Digital photography will be used for all photography of significant features, finds, deposits and general site working. The photographic record will illustrate both the detail and the general context of the principal features and finds excavated, and the Site as a whole.

Backfilling and reinstatement

Where turf is removed it will be stacked away from the trench edge, maintaining their integrity by ensuring that the turves are placed in a correct position (turf side up) and are watered frequently and monitored daily. Topsoil and subsoil will be removed and retained separately for reinstatement. Trenches will be backfilled immediately following excavation with subsoil followed by topsoil. The site will be visibly similar in appearance to its condition pre-excavation; there shall be no visible mounds of excavated soil around the site and turf shall be replaced and watered in.

Palaeoenvironmental sampling

All deposits with good palaeoenvironmental potential will be sampled; bulk samples shall be taken from the section as appropriate, under advisement from the project specialist. Context specific samples will be taken by the most appropriate means (kubiena tins, contiguous columns, incremental block, bulk etc.) for multi-disciplinary analysis. All aspects of the collection, selection, processing, assessment and reporting on the environmental archaeology component of the evaluation shall be undertaken in accordance with the principles set out in *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2011) and with reference to the *Association for Environmental Archaeology's Working Paper No. 2, Environmental Archaeology and Archaeological Evaluations* (1995).

Zooarchaeology

If large deposits of bone or marine shell are encountered advice of the project Zooarchaeologist will be sought as regards further sampling. If large deposits of bone or marine shell are encountered the project Zooarchaeologist advice will be sought as regards further sampling. If articulated groups of bones are encountered they will be surveyed, recorded in situ, (including digital photography and planning), and then excavated to retain the group's integrity. Bones from each articulated limb will be bagged separately. If inhumations or cremation burials are encountered and excavated the surrounding soil will be sampled to retrieve any loose teeth or bone fragments.

All hand collected animal bones and bones from processed samples will be assessed, following English Heritage Environmental Archaeology guidelines (2002). If warranted by the size of the recovered assemblage, it will be assessed using two different quantification methods to determine the most suitable for full analysis, taking into account methods used in comparative assemblages. The assessment will not distinguish between certain taxonomic groups, for

example equids (horse and donkey); full speciation should be carried out as part of any recommended analysis, using a vertebrate comparative collection. In addition to quantification of domestic species and occurrence of wild species, the assessment will consider the number of articulated bone groups, and the prevalence of aging, sexing and osteometric data available for full analysis, following standard published conventions. The assessment report will comment on the potential of the assemblage, particularly in the context of the excavation's research questions and current understanding of comparative assemblages. It will also provide recommendations for any necessary future analysis.

Finds

Finds will be treated in accordance with the relevant guidance given in the *Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Evaluation* (2008), excepting where statements made below supersede them. All artefacts will be retained from excavated contexts, except features or deposits undoubtedly of modern date. In these circumstances sufficient artefacts will only be retained to elucidate the date and function of the feature or deposit. All artefacts from the evaluation works will, as a minimum, be washed, marked, counted, weighed and identified.

Conservation

Artefacts will be recovered as a matter of routine during the excavation. When retrieved from the ground finds will be kept in a finds tray or appropriate bags in accordance with *First Aid for Finds* (Walker 1990). Where necessary, a conservator may be required to recover fragile finds from the ground depending upon circumstances. Wet-packed material, including glass, bone and leather will be stabilised and consolidated to ensure their long-term preservation. All finds will be stored in optimum conditions in accordance with *First Aid for Finds and Guidelines for the Preparation of Excavation Archives for Long-Term Storage* (Walker, 1990). The conservation assessment report will include statements on condition, stability and potential for further investigation (with conservation costs) for all material groups. The conservation report will be included in the updated project design prepared for the analysis stage of the project.

Scientific dating

Where uncontaminated deposits are recorded which are able to inform understanding of the research aims (in particular, relating to the construction of the banks and ditches), appropriate samples will be taken. Radiocarbon dating will be appropriate for clarifying and linking aspects of archaeological and environmental chronologies, and a strategy for this will be agreed following discussion with HE Science Advisor and the relevant specialists.

Synthesis and data integration

The results of the project will be integrated and synthesised with those from the previous investigations and other relevant work within the region and further afield (see Section 1 and 2 above). This will include a literature review of other pertinent sites.

