



HLF/IFA Workplace Learning Bursary funded training placement

In Geophysical Survey With Archaeological Services Durham University

Training Plan

Introduction

This document sets out the background to the placement, its desired outcomes and the skills it offers set against the National Occupational Standards in Archaeological Practice.

This placement is primarily concerned with acquiring the range of skills required to carry out archaeological geophysical survey. The Trainee will develop their technical skills in planning, carrying out and reporting on a range of geophysical survey techniques. They will also learn the skills of project scoping and planning and report writing required in a commercial archaeological context.

Depending on their academic background and career development aspirations, the trainee will develop specific skill sets enabling them in future to assist with and carry out:

- Resistivity survey
- Magnetometry survey
- Ground Penetrating Radar survey
- Basic surveying;
- Providing advice on geophysical survey
- Report writing

This will develop the individual's practical, analytical, research and interpretative skills associated with many jobs in the heritage sector. Given the type of work undertaken by Archaeological Services the individual would acquire skills working with a range of commercial, curatorial and academic clients.

They will also learn a far wider set of skills which would prove useful in a very broad range of future heritage professions. This would include business skills such as report writing, understanding various different disciplines and team work. The individual would also learn skills in the more general project management sphere within a professional context.

Supporting staff

The trainee will work under the line management of our Senior Archaeologist, who will arrange the post-holders training and work programme and will plan regular meetings with the individual to assess the placement, training goals and specific skills. The trainee will work alongside our Project Archaeologist, who has extensive experience in geophysical survey work.

Mentoring will also be provided by our Director of Research, Archaeological Services and a Lecturer in Archaeology in the Dept. of Archaeology, who will be able to provide specialist



advice on the field archaeology of Northern England. The trainee will also be provided with peers both within the Archaeological Services organisation. Where necessary additional advice and oversight will be provided by our Director of Archaeological Services.

The trainee will be based in the Archaeological Services offices in the Department of Archaeology, Durham University, but will be expected to travel with Britain and abroad when required for the job.

Outcomes

At the end of the 12 month bursary the trainee will be able to:

1. Plan and carry out magnetometry, resistivity and Ground Penetrating Radar Surveys.
2. Carry out the necessary post-fieldwork analysis and interpretation
3. Report writing
4. Liaise and advise clients, consultants and local government curators.

Activities

Proposed learning goals	National Occupational Standards (NOSs) to be met	Learning activities and tasks	Who will support the bursary holder with this goal?
1. Geophysical survey	AC2 1, 2.2 AC 3.1, 3.2, 3.3	Setting up survey grids using a range of survey equipment Setting up and carrying out resistivity, magnetometry and Ground Penetrating Radar surveys Interpreting client briefs Care and management of survey equipment.	Senior Archaeologist and Project Archaeologist
2. Analysis and interpretation	AC 2.3 AD1.1, 1.2	Downloading geophysical data Use of appropriate software Preparing and processing geophysical data Understanding and recognising archaeological, natural and modern features in survey data,	Senior Archaeologist, Project Archaeologist and Director of Research

3. Report writing	AC1.4 AC3.3 AD 1.3	Creating colour-coded geophysical and archaeological interpretation plans Writing reports for clients	Director of Archaeological Services and Senior Archaeologist
4. Liaising with clients, consultants, landowners and curators	AB1.1, 1.2, 1.3 AB 2.1, 2.2 AB3.1, 3.2	Attending meetings with Senior Archaeologist Assisting with communications with clients and landowners	Director of Archaeological Services, Senior Archaeologist and Director of Research

Training Elements and Allocated Timings

The post will be one year in length, over a period of 227 working days made up as follows: 260 working days less, 25 days holidays, 8 bank holidays.

Training is grouped under the main elements with reference to the Learning Goals (LG) listed in the table above.

1. Introduction and Familiarisation 7 days

A full staff induction will take place on commencement of work by the successful candidate. This will include an introduction to Archaeological Services (including fire safety and health and safety at work), administrative housekeeping and staff introductions. This will also provide an opportunity for the trainee to discuss their own aspirations for the placement and review the training plan with Line Manager and Training Supervisor.

The Training Supervisor will discuss the various professional standards and guidance documents and overarching Policy framework within which we typically work. This will include the National Planning Policy Framework, IfA standards and guidance, English Heritage guidance and wider environmental legislation within which we work.

2. LG1: Geophysical survey 80 days

This will make up a substantial part of the Trainee's placement, particularly early on in the role. The trainee will be introduced to the range of geophysical survey and surveying equipment used by Archaeological Services. The trainee will be introduced to their use through assisting on a range of fieldwork assignments. They will be shown how to set up survey grid, and how to set up and use the geophysical survey equipment, deal with any technical problems. They will also learn how to download data on site for verification, initial processing and storage.



The Supervisor and Mentors will talk the trainee through how these activities are undertaken, provide previous examples of work and reports, and generally closely monitor the tasks undertaken, providing feedback to the Trainee.

3. **LG 2: Analysis and interpretation** 60 days

This activity will be very much part of the overall role and day to day work. The Supervisor and Mentors will introduce to the Trainee the concepts behind analysing and interpreting geophysical data.

The trainee will become familiar with the range of software, including Geoplot, used to process and interpret geophysical data to the appropriate professional standards (IFA; EH). They will learn to recognise natural/geological, archaeological and modern anomalies. They will be able learn to interpret and discuss these features and identify and highlight areas of particular archaeological significance as well as flag up modern services and highlight any possible hazards. They will acquire a wider understanding of the field archaeology of the UK, particularly the North of England and an understanding of how it may be reflected in geophysical survey data.

4. **LG3: Report Writing** 40 days

Once the trainee has become familiar with the process of acquiring and interpreting geophysical data they will learn how to write client reports and other documentation such as briefs and method statements. They will become familiar with providing technical reports and wider interpretative overviews for a range of commercial and other clients. They will learn to use the relevant report templates, but also be able to produce quality written reports for other needs, including popular and academic publications. This will involve learning how to produce a range of colour and b/w plots and interpretative plans and where necessary liaising with the Archaeological Services drawing office to produce other supporting graphic material

5. **LG4: Liaising with stakeholders** 40 days

All commercial archaeological work requires liaising with a range of other stakeholders. The trainee will accompany the Senior Archaeologist on site meetings where appropriate and gain an understanding of the range of individuals and groups involved in the commissioning, carrying out and reporting on commercial, community and academic fieldwork. They will gain a familiarity of the professional context within which they work and the needs and requirements of all those involved in the archaeological process, including local government curators, commercial clients, archaeological consultants, landowners and their representatives, professional bodies and community groups.