



HLF/IFA Workplace Learning Bursary funded training placement

In Environmental Post-Excavation Analysis

With Northlight Heritage Dickson Laboratory for Bio-Archaeology

Training Plan

Introduction

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

The placement will meet the IfA training priority identified as 'specialist skills in ecofact research/analysis and palaeoenvironmental research/analysis' in their assessment of sector skills (Profiling the Profession, IfA 2007/8). The placement holder will acquire concrete skills in these areas by learning from highly trained and recognised experts in the fields of ecofact and palaeoenvironmental analysis.

The placement holder will learn to manage samples, ecofacts, artefacts and data in accordance with best practice by working on a variety of projects undertaken by Northlight Heritage Dickson Laboratory for Bio-Archaeology for the parent organisation York Archaeological Trust. As well as learning to identify and record different categories of material, the placement holder will gain a broader understanding of how the results of analysis feed into wider interpretations of archaeological sites and landscapes. He or she will be able to elect to receive more detailed training in either archaeobotany, aspects of zooarchaeology or anthropology, depending on previous experience. In addition, they will also have the opportunity to work on a personal project relating to the specialist focus of their choice, undertaking both the analytical work and interpretative reporting on results obtained. The skills and perspectives acquired should provide the placement holder with a solid grounding in palaeoenvironmental analysis and research: a basis upon which he or she can build to work towards becoming a specialist in a recognised environmental discipline.

Over the year, the placement holder will acquire the following key skills:

- Gain knowledge and experience in many aspects of post-excavation work, including flotation, sorting and finds handling.
- Gain basic understanding of the principles and methodologies of botanical analyses, including wood, charcoal, plant macrofossil analysis and pollen.
- Achieve a basic understanding of the principles behind animal and human bone analysis, mollusc identification and soils analysis.
- Gain experience in recording and working with data.
- Appreciate how these branches of environmental science will add significantly to the results obtained from excavation.



- Be able to contribute towards a preliminary report on post-excavation analysis that includes recommendations for further work.
- Be able to make informed decisions about specialist career paths they might consider following, based upon some experience in each of the main environmental specialist areas.

Supporting staff

The trainee will work under the line management and supervision of the Dickson Laboratory's director and will receive supervision and assistance from other specialist staff including Northlight Heritage's finds officer and sample processing technician, animal bones specialists and York Archaeological Trust's anthropologist, and soil scientist and malacologist; who is developing a specialist career at Northlight, will act as the trainee's peer support. Additional mentoring will be provided by community archaeologist.

The trainee will be given the opportunity to visit other offices within the York Archaeological Trust and gain experience of environmental fieldwork, accompanied by either highly experienced field staff or directly supervisory staff.

In addition to the IfA, the trainee would also be encouraged to join the Association for Environmental Archaeology (AEA). Although not contributing a formal part of the training programme, this would enable the trainee to meet other environmental specialists and attend the annual conference/regional meetings which would provide additional knowledge and information.

Outcomes

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

1. Process all categories of environmental samples to point of submission for specialist analysis
2. Prepare all classifications of finds resulting from sample processing for both short and longer term storage and conservation
3. Produce interim sample processing reports including manipulation of data sets and description/interpretation of samples
4. Understand how to obtain salient information from excavation reports that will aid in the interpretation of environmental remains recovered from samples.
5. Appreciate how the principles of habitat succession, sediment accumulation and environmental change are applied to ecofactual material from samples to help understand environmental conditions, diet, economy, subsistence and implied wealth

6. Understand the basic principles of identification of charcoal, seeds, shells, animal and human bone, with more detailed study on one of these aspects
7. Undertake detailed analysis of finds of one environmental specialist classification using low and high power binocular microscopy
8. Write or have input to post excavation reports for submission to clients and for publication
9. Search library sources and use reference collections correctly
10. Make informed decision regarding avenues for further specialist study

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. Learn to provide descriptions of items; identify and classify items; learn to assess and describe potential significance of items as archaeological resource.	AE3	Classifying and sorting components of sieved samples according to material; assessing potential significance of material in terms of information about the past.	Finds officer and sample processing technician And Soil scientist and malacologist
2. Learn methods for classifying and compiling data on material remains of past communities; be able to maintain data and records on these material remains.	AF3	Identifying wood, charcoal, plant macrofossils, bone and potential for pollen in samples; recording identifications on spreadsheets; managing digital data according to standards for best practice.	Dickson Lab Director, Soil scientist and malacologist and Animal bone specialist
3. Learn to interpret customers' requests for information on material remains of past communities; learn to access data sources and compile data on these remains; learn to collate and present data to meet customers' requirements.	AF4	Assessing post-excavation potential of environmental assemblages within parameters of post-excavation research designs; identifying materials and collating data to form interpretations of past environment; writing preliminary reports on results of analysis.	Dickson Lab Director and Soil scientist and malacologist
4. Learn to identify the appropriate environment in which to maintain and protect items; control the environment to preserve and protect items.	AC6	Packaging and storing environmental and artefactual material in appropriate conditions according to best practice.	Finds officer and sample processing technician
5. Learn to identify handling requirements of items; learn to pack items for transportation to new locations; monitor their transportation and installation in new location.	AC7	Assessing condition and fragility of material; packing materials for storage and transportation; accompanying materials to new locations for storage or analysis.	Finds officer and sample processing technician

6. Learn to identify accommodation requirements of items; learn to organise facilities to accommodate them.	AG2	Assessing storage needs for archaeological material; organising their storage and maintaining records of stored materials.	Finds officer and sample processing technician
7. Learn to operate safely and follow health and safety and security procedures in the workplace; be able to respond to emergencies and assist in the security of the workplace.	AJ10	Completing risk assessments; compiling safety plans; receiving training in our health and safety procedures.	Dickson Lab Director And Community Archaeologist
8. Learn methods for classifying and compiling data on material remains of past communities; be able to maintain data and records on these material remains.	AF3	Identifying animal and human bone in samples; recording identifications on spreadsheets; managing digital data according to standards for best practice.	Anthropologist and Animal bone specialist

Training Elements and Allocated Timings

The post will be one year in length, over a period of 214 working days made up as follows: 260 working days less, 25 days holidays, 10 bank holidays, and 11 other days (to allow for sickness and additional YAT group closure days).

Training is grouped under the main elements indicated below with reference to the Learning Goals listed in the table above.

1. Introduction and Familiarisation 5 days

Staff Induction

A full staff induction will take place on commencement of work by the successful candidate. This will include an introduction to the company's systems (including fire safety and health and safety at work), administrative housekeeping, staff introductions, talks on company culture and expectations. 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.

Professional standards and guidance familiarisation

The training Supervisor will talk the trainee through the various professional standards and guidance documents of relevance to environmental archaeology, archaeological finds in general and the analysis of archaeological materials.

Classification of Materials

Practical introduction to processing of samples and other finds from excavation to site archive stage with training from finds officer

2. Sample processing 60 days



Working with the finds processing team on a variety of sites and spread across the year, the trainee will undertake and gain experience in processing samples and other finds in order to develop understanding of the types and range of archaeological objects and materials, and their different requirements in terms of treatment and conservation needs. This will equip the placement holder to deal with the range of finds encountered in soil samples from various sites.

3. Familiarisation with paper source materials 20 days

The Dickson Laboratory houses an extensive library of reference articles on a wide variety of topics and has recently accepted additional material. The trainee will spend time familiarising him or herself with the collection, in particularly in grouping sources together by area of interest. Reading the abstracts of papers to enable classification is an excellent way to appreciate the wide application of environmental archaeology and to acquire salient information about the different aspects involved.

4. Awareness training in different specialist areas 55 days

Over the course of the year training will be provided in the preliminary identification and assessment analysis of different aspects of environmental archaeology, including wood and charcoal, seeds and other macrofossils, pollen, animal and possibly fish bone, human bone, shells and soils. Following initial training, the trainee will undertake self-study in each aspect of work, utilising the well established and renowned Dickson reference collections and helping to classify the shell and animal bone collections. The period of time spent on each aspect of the work will depend in part on the trainee's previous experience and desired career path. Training and supervision will be provided by the relevant specialists for each area of expertise and the placement holder will spend time at Glasgow University within both the Hunterian Museum of Human Anatomy and the Glasgow University Zoological Museum under the guidance of museum staff.

5. Personal project(s) and reporting training 55 days

The placement holder will have the opportunity to undertake one or more short term projects from processing stage through analysis and liaison with site director to final reporting. As far as possible the project(s) chosen will reflect the trainee's individual experience and preferences. Project work will be undertaken alone, although with the relevant specialist staff on hand to assist as required. During the project(s) the placement holder will have frequent short meetings with their Line Manager and relevant specialists to discuss progress.

Training will be provided to enable the placement holder to prepare specialist environmental reports. This will include introduction to Northlight Heritage in-house reporting conventions and writing guides with reference to structure, layout, content, accuracy, conventions, style and tone and through the review of best practice reports. Draft reports will be prepared on the assemblages recorded during the placement which will be reviewed with the placement holder and feedback provided. The process of drafting and review will continue until a report of satisfactory standard is achieved.



6. Fieldwork

12 days

The placement holder will have the opportunity to visit excavations undertaken by the entire York Archaeological Trust group and assist with sampling strategies and sample collection in the field. Northlight Heritage has a strong community focus and the placement holder will have the opportunity to work with community teams doing fieldwork and possibly experience sample processing in the field. They will explain methodologies and results to visitors on site open days and will acquire additional fieldwork experience.

Throughout the placement the trainee will be provided with ongoing training and mentoring support. This will take the form of dealing with the identification of problematic materials, and checking and discussing records as the work progresses.

7. Meetings and conferences

7 days

The placement holder will be encouraged to attend meetings and lectures related to environmental archaeological practice within the local area and to attend events hosted by York Arch Trust in relation to the work of the four branches (Northlight, ArchHeritage, Trent & Peak and YAT). The placement holder will be encouraged to present at one of these events in relation to their experience and results of their project. They will also be encouraged to participate in relevant events hosted by the Association for Environmental Archaeology and to attend the annual IfA conference.