

October 2022



## **Duckworth Laboratory Department of Archaeology**

### **Terms and Conditions**

The study, scan, sample and/or photography of material in the Duckworth Laboratory is subject to the terms and conditions specified in this document.

### **SECTION A – Research Visits**

#### ***Access***

**Applications for access to study, scan and/or photograph material in the Duckworth Laboratory are generally processed weekly with the exception of August and September when the collections are shut. Applicants will normally be informed of the outcome of their application within four weeks.**

**Applications to carry out destructive sampling of material in the Duckworth Laboratory are accepted on: 30 January, 31 May, 31 October. Applicants will be informed of the time frame involved in considering their application within four weeks after the deadline.**

Access to the Duckworth Collections is at the discretion of the Director of the Duckworth and by appointment only. This may take into account the current and proposed work of members of the Department of Archaeology, and the overall research strategy of the Duckworth Laboratory.

Permission to study material in the Duckworth Collections is given for a specific project and for a specific period of time to undergraduate and graduate students and established researchers. Students are required to provide a letter of reference from their supervisors.

Due to the number of research visits requested, visits are subject to availability and scheduling. A limit may be placed on the duration of visits and the number of remains, archive records or books that may be viewed.

#### ***Data***

A copy of **all** data obtained from all materials studied, including measurements (2D and 3D), images, 3D surface and CT-scans, should be submitted to the Duckworth Laboratory within 12 weeks of attendance. A copy of all theses and publications that use data collected from the Duckworth Laboratory must be deposited in the Laboratory's Archives.

All data submitted to the Laboratory should be accompanied by an appropriate electronic file with the relevant metadata (information on numerical data collected with full name of

measurements taken, method for 3D surface data collection employed, equipment specification, software used for 3D rendering, list of specimens, size of files, etc.). 3D surface scans,  $\mu$ CT scans and other images should be submitted individually labelled in an **external storage device** (a flash drive or hard disk depending on file size) which is to be retained by the Laboratory as the original source.

All data and/or images collected on material held by the Duckworth Laboratory will be made accessible to other researchers on request after a period of 3-5 years (unless otherwise negotiated) from collection depending on the study, or after publication of the intended study (dissertation, article, book, etc.) if the latter precedes the 3-year embargo.

**Further use of Duckworth material will not be granted until all relevant data are received by the Laboratory.**

### ***Acknowledgments***

The Duckworth Laboratory, University of Cambridge, must be acknowledged in any research that includes data and/or images obtained from material in its collections. All theses and publications that include data collected from the Duckworth Laboratory must reference the collection, and/or include the following acknowledgement: *"I/we thank the Duckworth Laboratory, University of Cambridge, for permission to study material within its collections."*

All subsequent publications that feature Duckworth data/collections must be sent by the researcher to the Collections Manager so it may be added to our archive. If the collections are deemed sensitive by the Collection Manager, then permission to publish must be acquired first by the Director.

### ***Reproductions***

Reproductions of materials in the collections, including by photography, filming, imaging for 3D modelling or printing may be permitted for non-commercial research only upon application, subject to copyright legislation and other restrictions defined by the Duckworth Laboratory. Permission to use reproductions of any materials in the collections of the Duckworth Laboratory for publication/social media may be granted after consideration of all relevant information, including copyright for materials from the Duckworth Archives, and agreement upon the appropriate form of acknowledgement.

### **Practical considerations**

#### ***Before arrival***

There are no provisions for working on weekends or bank holidays. Access to the collection of primates, including hominin, scientific reproductions is subject to its availability and may be limited during teaching terms.

Visitors are expected to have all the equipment necessary to implement their data collection protocol. The Duckworth Laboratory can provide osteometric boards and a mandibulometer if needed. In exceptional cases, visitors may borrow callipers, 3D digitisers or 3D scanners from the Duckworth or the Palaeoanthropology Laboratories upon request and previous agreement.

The Duckworth Laboratory is unable to provide accommodation for visitors, who are expected to make their own arrangements. Details of accommodation and other aspects of visiting Cambridge are available from - <https://www.visitcambridge.org/accommodation>

### ***While working in the Duckworth***

All research visitors to the Duckworth must read and sign a **Risk Assessment** form prior to the beginning of work. Visitors must comply with all emergency procedures, including the evacuation of the building in the event of a fire, or for fire drills. All visitors must work within the regulations and Guidelines of the University of Cambridge Health and Safety policy. For more information regarding Health and Safety at the University of Cambridge - <https://www.safety.admin.cam.ac.uk/>

Visitors are issued with access cards on arrival each day and should return these to either the Administrator or the Collections Manager.

Skeletal remains are vulnerable to damage during handling. Visitors are expected to be careful and do nothing that might damage the material. All accidental damage is to be reported to the Collections Manager immediately. No material should be removed from the Laboratory without the previously granted permission of the Director of the Duckworth Laboratory.

The remains should be packed exactly as found (or as advised by the Collections Manager), with all the labels on one side of the bag and the bone(s) clearly visible on the other. Please ask for assistance if any material is difficult to handle or advice on packing is needed.

Visitors are kindly requested not to remove remains from the collections that they do not have previous permission to examine. If you have questions, please ask the Collections Manager.

Visitors are kindly requested not to mark or write on any of the remains in the collections.

Smoking, eating, drinking, and the chewing of gum is not permitted anywhere in study areas.

### **SECTION B – Consultation of the Duckworth Laboratory Archives**

Researchers may not work within the Duckworth Archive room; materials from the Archives sought for consultation will be made available by the Collections Manager, and visitors will be given a desk to carry out their study within the premises.

Information on the papers that form the Laboratory's Archives can be found at [ArchiveSearch](#) the University of Cambridge's networked access to catalogues of archives and manuscript collections, of which the Duckworth Laboratory is one of the repositories.

Photocopying of archive records and books may be permitted and requests should be made to the Collections Manager. Copyright permission for images not owned by the Department will need to be sought out by the researcher, not Duckworth staff.

### **SECTION C – Collection of 2D measurements and/or 3D landmarks data and images**

Morphological and anatomical data may be collected from the Laboratory's collections of human and non-human primate osteological remains, as well as the collection of fossil hominid and hominin scientific reproductions. These data may be in the form of observations, linear measurements, 3D landmarks, 3D surface scans, CT scans, and photographs. Due to the number of visitors, permission to surface scan material from the collections may be subject to space constraints. Applications that require medical-grade CT scanning,  $\mu$ CT scanning, laser surface scanning and general photogrammetry must be discussed with the Collections Manager during the application process.

## SECTION D – Destructive Sampling of material in the Duckworth

### Laboratory

#### *Prior to sampling*

#### **Applications for destructive sampling must include:**

- The type and amount of material needed (e.g., sternal rib end sample, 0.5 g). Excessive destruction will not be permitted, and applicants are expected to keep the number of potential samples to an absolute minimum. Applicants may be invited to consider non-invasive alternatives.
- Information on the funding available for the full analysis of any samples collected.
- A timeframe for the completion of all analyses and the date by which the Laboratory will be informed of the results obtained.
- Information regarding the location and storage method of the sample(s) collected. If the material is to be analysed in a laboratory external to the applicant's affiliated institution, its contact details must also be provided.

#### **Applications for destructive sampling of material(s) from the Duckworth Collections should:**

- justify the need for the sample on scientific grounds, and should include a statement of the predicted role and/or impact of the sample obtained from the Duckworth collections on the outcome of the study being undertaken.
- be based on research designs drawn up in such a way as to make best use of any samples taken.
- Permission for the destruction of material is only to be given if:
  - radiocarbon dating also obtains isotopic information;
  - ancient DNA extraction aims at whole genome sequencing (rather than genotyping);
  - 3. include the provision for actual or virtual replicas of the material to be destroyed: · All materials to be sampled should be photographed before and after sampling. Photographs must be of sufficient detail to discern the area which has been sampled. A copy of each photograph, properly labelled, should be given to the Duckworth Laboratory by the end of the sampling visit.
  - A  $\mu$ CT-scan of all remains to be sampled for ancient DNA and/or other analyses that require large amounts of bone, or that involve the destruction of dental crowns and roots, must be obtained prior to the sampling taking place. This is done in the Paleoanthropology Laboratory in the Department of Archaeology at a date suitable to the Duckworth Collections Manager, and at the cost of the researcher.

When drawing up the research design, applicants should consider the time and costs they will incur from bench fees, photography,  $\mu$ CT scanning, printing, as well as postage/transport of returned samples.

Decisions to grant permission to carry out destructive sampling of materials from the Duckworth collections are made on a case by case basis, and may involve the commission of experts' views.

The number of individuals to be sampled for which permission is given may be restricted, and/or a pilot study on a small number of samples from the collections requested prior to granting permission for a more substantial project.

**Preferred hierarchy of materials to be sampled according to type of analysis:**

Definition of a sample	Any form of material taken from skeletal/mummified remains for the purpose of analysis.
C14 dating	Least morphologically informative bone – e.g. rib, followed by diaphyseal fragments. Destruction of teeth for radiocarbon dating will only be considered in exceptional circumstances depending on the state of completion of the skeleton.
aDNA	Petrous bone; if not available, a tooth. Requests for sampling for aDNA will take into consideration the presence or absence of the antimere element.
Isotopes	Rib, femur, tooth (w/multiple tissue sampling); if necessary, morphologically non-informative bone

**During sampling**

Once permission for sampling particular remains has been granted, the decision as to what element(s) from an individual may be sampled will be made by staff of the Duckworth Laboratory.

The Duckworth reserves the right to insist that all sampling should take place within the premises, however, sampling in external labs will be considered; for any sampling applications, the Collections Manager will determine the remains to be sampled based on preservation and the integrity of the collections and then book the use of the appropriate laboratory facilities if necessary. Sampling of petrous bones for aDNA extraction should be carried out using a flexible Dremmel tip to minimise damage. Dental calculus will be removed by the Collections Manager prior to destructive analysis (if not part of the original application) and held in the Duckworth Collections Calculus BioBank.

**After sampling**

Samples of remains in the Duckworth collections, or DNA extracted from these samples, cannot be transferred to a third party **without express written permission from the Director of the Duckworth Laboratory**. If this is breached, researchers will not have access to the collections in the future.

Samples of materials in the Duckworth collections should be used only for the purposes stated in the application. This may not be amended nor may the material be used for other purposes without permission from the Director of the Duckworth Laboratory.

Any extant material **must** be returned to the Duckworth Laboratory upon completion of the study.

Results obtained from all analyses that involve destructive sampling (radiocarbon, isotopic analysis, protein analysis, ancient DNA extraction, etc.), as well as any additional data/information should be submitted to the Duckworth Laboratory on an **external memory device** as soon as is reasonably practicable.

These results are expected in the following stages:

- a. *Upon completion of lab work*: confirmation of protocols implemented for analysis; confirmation of successful results, and proportion of sample used;

- b. *Upon completion of analysis:* confirmation of results, to be retained by the Laboratory under embargo until publication of the same;
- c. *Upon publication of results:* A link to the radiocarbon information (if online, or relevant publication) for inclusion in the Laboratory's Archives.

**Applications for destructive sampling may be refused if the individual or material requested:**

- *Is part of an ongoing study internal or external to the Department of Archaeology at Cambridge;*
- *is considered too sensitive for sampling;*
- *is considered too extensive to warrant destruction in the course of one study; · is rare or unique in date, provenance or burial context;*
- *is very poorly preserved or few skeletal elements are present;*
- *has previously been sampled in house, or by external researchers, including C14 dating; · if the ethical considerations are thought to outweigh the value of any results generated; · if the applicant has not returned samples from a previous project conducted using remains from the Duckworth collections;*
- *if previous studies have not been published, or a copy of the results and a summary report have not been deposited with the Duckworth Laboratory;*
- *the proposal is not considered clear and does not explicitly state sampling requirements and methods. Destructive testing will not be permitted if the technique is not sufficiently well known to consistently produce satisfactory results, or the remains are known to be unsuitable for sampling.*

Destructive sampling will not normally be considered for neonatal or pathological elements.

**SECTION E Researcher Agreement**

Collections Research Agreement	Signature
I have read and agree to the Terms and Conditions.	
I have read and agree to the Department of Archaeology's Ethics Guidelines.	
I have read and agree to adhere to the Destructive Sampling Procedure (Section D).	
I agree to not provide samples from the Duckworth to a third-party without express written consent from the Director of the Duckworth Laboratory.	
I agree to gain permission from the Duckworth Laboratory to use images from the collections in any form of publication including, but not limited to, online publications and social media.	
I agree to acknowledge the Duckworth Laboratory, University of Cambridge, must be acknowledged in any research that includes data and/or images obtained from material in its collections.	
Staff Signature:	Date:

**SECTION F Staff follow-up**

<b>INTERNAL USE ONLY</b>	<b>EXIT PROTOCOL AND FOLLOW UP</b>
Was research completed? Y N	Have the required documents been sent to the DW? <ul style="list-style-type: none"><li>○ Images</li><li>○ CT Scans</li><li>○ Published Material</li><li>○ Archival Material</li></ul> If not, has the researcher been contacted?
Have samples and/or residues been returned to the DW? Y N If not, has the researcher been contacted?	Will access be considered in the future? Reason:
Signed:	Position: