A Jaw of the Ichthyosaurus communis from the lias, Lyme Regis.
Drawn with colour prepared from the fossil Sepia cotemporary with the Ichthyosaurus.

Half the natural size

Oxford University Museum of Natural History Digital Preservation Policy

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Approved by OUMNH Senior Leadership Team
Date for review May 2028

May 2023

Oxford University Museum of Natural History Digital Preservation Policy

Version: 1.0
Last Amendment: 22/05/2023
Policy Owner/Sponsor: Paul Smith (Director)
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Approved By: Senior Leadership Team
Date Approved: 30/05/2023
Next Review: May 2028
Availability: Internal

Table of Contents

Our Vision

Using the museum's collections to advance, communicate and share the sciences of the natural environment with diverse global audiences, by triggering, nurturing and sustaining a lifelong interest in the natural world.

1. Summary

1.1. Oxford University Museum of Natural History ('the Museum') has a commitment to the long-term preservation of its natural science collections in order to use them "to advance, communicate and share the sciences of the natural environment with diverse global audiences." The Museum intends to ensure the long-term preservation of its digital collections in the same way we ensure the preservation of our physical collections.

1.2. The Museum is in the early stages of thinking about preservation of its digital collections. The purpose of this policy is to provide a statement on the way that the Museum will start to approach digital preservation. Key to implementing the policy will be the collaborative work and joint effort of the wider Oxford GLAM group (Garden, Libraries and Museums).

2. Related policies

2.1. This policy should be read in conjunction with the Museum's Collection Development Policy, Documentation Policy, Access Policy, Information Security Policy, Care and Conservation Policy and the GLAM Intellectual Property Rights Policy.

3. Target Audience

3.1. The policy applies to Museum staff and volunteers who collect, create or manage digital assets of long-term value as part of their role responsibilities. These roles include (but are not limited to) collections management staff, research staff, and staff working in public engagement, events and outreach.

3.2. It also applies to other University departments and external vendors who create and/or manage digital assets on behalf of the Museum.

3.3. The policy is also of interest to collection donors, funding bodies, researchers, and users of Museum's digital collections.

4. Mandate and task

4.1. As a globally leading science museum, the Museum of Natural History will attain and maintain a position at the forefront of best practice in storage, conservation, documentation, public display and access, both physical and digital.

4.2. The Museum recognizes that the purpose of preservation is to ensure that collections are fit for use when required by a user and retained for use by future generations. Through preserving its unique collections the Museum supports the University of Oxford's vision of the advancement of learning by teaching and research.

5. Policy Statement

5.1. Scope

5.1.1. What is covered by the policy:

The digital preservation policy applies to the Museum's digital collection, defined as all the digital assets and their associated metadata held for the purpose of long-term preservation by or on behalf of the Museum. The selection of assets for long term preservation is specified in institutional retention schedules. The scope of the assets which are digitally preserved may develop over time in line with Museum's priorities.

Digital assets currently covered by the policy include, but are not limited to:
- Master files of digital surrogates created from items and specimens in the Museum's collections:
  - Photographs and scans
  - Digital 3D models (including surfaces, meshes and 3D renders of objects or parts thereof)
  - Moving images and sound
- Born-digital material in the Museum's collections.
- Records and photographs created as part of conservation work as well as environmental, integrated pest management and scientific data relating to conservation work.
- Collections management records and data where selected for long-term or permanent retention.
- Research data selected for permanent retention and prepared for long-term preservation (only where another appropriate home has not been identified).
- Web archives.
- Selected records created by the Museum as part of its regular business activities which are no longer in active use. Such records may be chosen for preservation in the Museum's archive due to their historic, cultural and/or legal significance. These include, but are not limited to:
  - Content from exhibitions.
  - Reports on exhibitions.
  - Promotional materials relating to exhibitions
  - Promotional materials relating to events
  - Records relating to the Museum building and history
  - Other records relating to the running of the Museum

5.1.2. The digital preservation policy does not cover:

- Administrative records of the Museum in active use which are governed by the University of Oxford's standard IT backup policies.
- The records created in the day-to-day running of any of the Museum's sections.
- The personal and research records of current staff, unless prepared for permanent retention.
- Derivative digital files ("access copies") which can be recreated from a higher quality source file.
- Digital assets which the Museum has no legal rights to preserve.
- Materials for which other services and agencies have assumed preservation responsibility.

5.2. Principles

5.2.1. Sustainability

5.2.1.1.   The Museum collaborates with the wider GLAM group based within the University of Oxford to share knowledge and develop sustainable approaches to digital preservation which can be supported over time.

5.2.1.2.   Where appropriate, the Museum will adopt joint standards, platforms, and approaches with the rest of GLAM.

5.2.1.3.   The Museum recognizes that digital assets require management beyond the lifespan of the technical infrastructure and systems currently used to manage them. The Museum therefore strives to adopt systems which offer reliable and tested exit strategies for digital assets.

5.2.2. Collecting and managing

5.2.2.1.   The Museum aims to consolidate where it stores and manages digital assets. The Museum documents where assets are stored to enable their retrieval and preservation.

5.2.2.2.   The Museum aims to implement an appropriate system to manage its digital assets including those that are identified as needing long-term preservation.

5.2.2.3.   The Museum aims to document which of the digital assets it holds are of long-term value and to identify appropriate storage solutions based on legal or technical requirements.

5.2.2.4.   The Museum enacts methods for ensuring that digital assets are not inadvertently accessed, deleted, or changed by non-authorized staff. See Museum Information Security Policy.

5.2.2.5. Where the Museum is able to influence the creation of digital assets (such as during digitization of physical collections), it aims to store widely supported and documented file formats.

5.2.2.6. The Museum will respect intellectual property and other rights when seeking to preserve digital materials in its collections.

5.2.3. Metadata

5.2.3.1. The Museum will implement institution-wide standards for file names and collection identifiers which support the identification and management of assets.

5.2.4. Storage

5.2.4.1. The Museum works closely with the Gardens and Museums IT team to implement storage infrastructure which is geographically and technically diverse.

5.2.4.2. Storage solutions which are put in place for digital preservation must also be secure in line with the Museum's Information Security Policy.

5.2.5. Auditing and monitoring

5.2.5.1. The Museum will work with the Gardens and Museums IT team, vendor system suppliers, and the wider GLAM to implement auditing and reporting functionalities for the systems which manage its digital collections.

5.2.5.2. The Museum recognizes that following consistent standards is crucial to managing digital assets over time. The Museum will work to implement regular quality assurance monitoring of digital assets and to ensure staff compliance with its standards for managing digital collections; such as file format policies, metadata standards, and file naming procedures.

5.2.6. Staff skills and training

5.2.6.1. The Museum will ensure that staff have a general awareness of digital preservation

5.2.6.2. The Museum will ensure that those staff directly responsible for digital preservation are supported in developing the skills required for their role requirements.

5.2.6.3. The Museum is committed to updating procedural and workflow documentation to support staff in applying standards and using software applications required for managing digital assets.

6. Roles and Responsibilities

6.1. Responsibilities

Senior Leadership Team	The Museum's Senior Leadership Team is responsible for ensuring that digital preservation policy and strategy is effectively lead and communicated across the Museum.
GLAM Digital Strategy Implementation Programme Board member	The member(s) of staff who sit on the GLAM Digital Strategy Implementation Programme Board are responsible for liaising with colleagues across GLAM and the Gardens and Museums IT team to compare and develop digital preservation standards and approaches.
Garden and Museums' IT	The Garden and Museums IT team are responsible for managing the underlying infrastructure and administering any external cloud storage which hosts the Museum's assets. The Garden and Museums IT team are responsible for communicating to the Museum's Senior Management Team any relevant issues and risks to the infrastructure as they arise.
The Museum staff	Museum staff are responsible for: • Adhering to the Museums standards and procedures when creating new digital assets or adding content to the CMS system • Seeking out professional development opportunities in order to meet the demands of their job roles
Vendors and contractors (CMS/ Cloud storage/DAMS)	External vendors who manage digital assets on behalf of the Museum are responsible for: • Adhering to any standards for managing assets which have been previously agreed with the Museum • Providing any reports that support digital preservation activities which have been previously agreed with the Museum
External digitization providers and photographers	External vendors or contractors creating new digitized assets on behalf of the Museum are responsible for following any standards as agreed with the Museum
Collection donors	Donors of digital collections are made aware of how digital assets transferred to the custody of the Museum are managed and preserved. Donors who provide digital material to the Museum endeavour to deliver the highest-possible quality of digital material that is available or can be created.

6.2. Implementation of the policy:
- The Senior Leadership Team is responsible for implementing the policy. They are also responsible for nominating a member or members of staff to review the policy by the stated review date.

6.3. Oversight of the policy:
- The Director of the Museum is responsible for overseeing the policy.

6.4. Review of the policy:
- The Collections Digital Lead and Digital Archivist are jointly responsible for review and update of the Digital Preservation policy by the stipulated review date.

7. Related Legislation and Policy

7.1. Relevant legislation
The Museum operates within the wider UK legal framework. This legislation includes:
- Data Protection Act (2018 c12)
- Copyright, Design and Patent Act (1988 c48), and amendments to this Act
- The Intellectual Property (Amendment etc.) (EU Exit) Regulations 2020
- Freedom of Information Act (2000 c36)

7.2. Related museum and university policies/strategies/guidelines
- Access Policy
- Care and Conservation Policy
- Collections Development Policy
- Collections Documentation Policy
- Information Security Policy
- GLAM Intellectual Property Rights Policy
- GLAM Digital Preservation Strategy 2018-2021

8. Definitions

Term	*Explanation of term*
Born digital	Digital assets which are not intended to have an analogue equivalent. This differentiates 'born digital' assets from digitized assets, as it has not been created from an analogue source. An example of a digitized assets is as a photograph of a manuscript. An example of a 'born digital' asset is a Word document (docx) file.
CMS	A Collections Management System (CMS), sometimes called a Collections Information System, is software used by the collections staff. Collections Management Systems (CMSs) allow the user to organise, control, and manage collections. A CMS stores information such as object locations, provenance, curatorial information, conservation reports, and exhibition histories.

DAMS	A Digital Asset Management System (DAMS) organizes digital media such as images, videos and documents. A DAMS secures files, manages copyrights and handles permissions.
Digital surrogate	A digital reproduction of a material object or a record on any analog medium.
Digitize	The process of creating a digital facsimile of an analogue item – such as a book, manuscripts or video cassette.
GLAM	The Gardens, Libraries and Museums (GLAM) comprise the four University museums (the Ashmolean, the History of Science Museum, the Museum of Natural History, and the Pitt Rivers), the Bodleian Libraries, and the Botanic Garden & Harcourt Arboretum.
Long term preservation	Long term preservation is the act of maintaining correct and independently understandable information over the long term. Long term is defined as a period long enough to raise concern about the effect of changing technologies, including support for new media and data formats, and of changing user needs
Master files	A master file is an image, document file, digital recording or another digital asset preserved as the "original" for the purpose of archival storage, reuse and re-expression
Metadata	Metadata is a set of information required to enable assets to be discovered, managed and used by both humans and automated systems
Permanent retention	The act of selecting a record to become part of the permanent archival collection(s)
Preservation activities	A set of activities undertaken by OUMNH to ensure that digital objects remain unchanged (unless a change has been authorized by staff and recorded). Where technically possible and economically feasible, activities may involve ensuring that digital objects are accessible in modern computing environments
Promotional materials	Content issued on behalf of OUMNH to promote its activities or collections.
Records	Documentation created and maintained by institutions and individuals as evidence of their functions and activities.

9. Approval

The policy was approved by Senior Leadership Team on the 30th May 2023.

10.Policy Implementation

The Policy is being implemented as of the 30th May 2023. The policy is next due to be reviewed in May 2028.

11. History

11.1.   Prepared By

The policy was prepared by Matthew Barton [Digital Archivist] and Sarah Joomun [Digital Collections Manager] as part of the GLAM digital preservation strategy (2018-2021)

11.2.   Document History and Version Control

Version	Date Approved	Approved By	Brief Description
Version 1.0	30/05/2023	Senior Leadership Team	First version of the digital preservation policy

11. History