Heritage Science Archives: Exposing the Hidden

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Heritage Science Archives Initiative (HSAI)
https://www.iccrom.org/projects/heritage-samples-archives-initiative

• The Heritage Science Archives Initiative (HSAI) grew out of a recognition that there are many heritage material sample collections that comprise samples that have collected from heritage objects and sites, as well as extensive reference materials that replicate the types of materials found in Archives, Libraries Museums and Galleries.

• These materials allow us to undertake destructive and predictive testing on non-collection items so we can better understand and preserve collections.

• Many of these collections are not recognized as highly valuable, have not been well catalogued, and often are at risk of loss.

• Several heritage colleagues recognized these challenges and through the launching of this initiative by ICCROM started to develop the scope and needs for creating baseline requirements.

• There are five HSAI working groups to develop the structure with a low barrier to entry to encourage these archives to be preserved, and also to standardize requirements for sharing.
Many cultural heritage institutions around the world, including ICCROM, hold material samples archives comprising samples collected from heritage objects and sites, reference materials and replicas. These historic resources are non-renewable and have huge potential for future research and didactic purposes, but they are often little known, and their value under recognized. In addition, they pose very particular challenges concerning their physical safeguarding, access and use. As a result, they are critically threatened.

Recognizing these challenges, the Heritage Samples Archives Initiative (HSAI) was launched by ICCROM in September 2020 to promote the long-term survival and use of these collections. To date, more than 20 institutions have joined ICCROM as partners in the initiative.

Aims

The HSAI aims to improve the recognition, preservation, management, access and use of heritage samples archives, pursuing the following objectives:

- Raise awareness of the value and importance of sample archives.
- Develop good practices, policies, procedures, tools, and methodologies (e.g. through guidance
Why these Heritage Archives Need to be Preserved

• Allows us to prioritize risk to collections
  • Traditional (e.g. corrosive media)
  • Modern (e.g. sound format, fugitive media)
  • New at-risk areas (e.g. fugitive media, 21\textsuperscript{st} century materials, sound recordings, unstable glass)
  • Potentially preserve the only “remaining” part of an item

• Enables Non-Invasive Characterizing of Materials
  • Degradation mechanisms
  • Tracking change due to environment / treatments

• Heritage reference sample collection sharing

• Heritage archives data infrastructure – sharing the data: Data fusion, data mining, storage, access
Center for Heritage Analytical Reference Materials (CHARM)
Recreating Historic Recipes - Cindy Connelly Ryan
The Forbes Pigment Collection

- Originally assembled by the late Edward Waldo Forbes, former Director of the Fogg Art Museum at Harvard University (1909-1945)
- Partial collection at LC
The Jakes Collection
The Barrow Collection

- 1000 books dating from 1507-1899
- Accumulated and tested by William J. Barrow labs for tear resistance, pH, fiber length and type, and sizing between 1963 - 1967
- Donated to the LOC in the 1970s and until recently, stored unhoused on the ground floor of the Madison Building
CHARM Current Inventory

Books:
- **Barrow** – 959 volumes printed c. 1500-1900
- **NCSP** – 102 addition volumes printed c. 1852-1948

Papers
- **Reference** – ~90 individual paper types along with uncataloged historical sample booklets from manufacturers ranging in age ordered from 1970s to present including historically relevant handmade papers
- **TAPPI Fibers** – 73 additional fiber samples of specific Tree species

Papyrus
- 20 samples in 4 available colors

Parchment
- 4 skin types (sheep, calf, goat, deer), total of ~25 samples

Colorants
- **Reference dry material** – ~550 different colorant samples ranging from those available pre-1800 to modern synthetics and dyes
- **Reference paint-outs** – 1055 individual cards (211 colorants mixed and painted out, 5 replicates)
- **Forbes** – 491 additional reference samples’ vials
- **Verdigris/Malachite and Historical Green and Yellow aging study** – 417 project samples

Textile:
- **Jakes Reference Textile collection** – 840 samples donated by Kathryn Jakes OSU

Conservation reference materials:
- ~48 repair materials (adhesive tapes, writing material) used and donated by CD and purchased to supplement based off need

Modern Artists’ Materials
- 170 Materials (writing media, brushes, paints, papers) used and donated by modern artists (started with cartoonist Herblock’s personal collection)

Reference housing materials from Quality Assurance research
- 850+ samples of materials (corrugated and 4-6 ply boards, card, polyester, paper) from manufacturers ordered and internally tested by PRTD to be used by LC for storage

Sound Recording
- **Thornton Record Collection** – 342 records donated by a collector
- **Wax cylinder recordings** – 49 reference samples donated by a collector
- **CDs** – 131 reference samples
- **Audio Material**:
  - Open reel – 520
  - Cassette tapes – 100
- **Video Materials**: (VHS/Betamax: 60, DV: 100, Umatic: 40, Analog: 20, 8mm: 10)

Storage Media
- **Floppy discs** – 62 samples

Microfilm collection
- 24 reference samples donated by the LCs Reformatting Division.

Photographs
- 23 reference samples purchased through American Institute for Conservation, including historical print sample set, and analog and film print sample set.
Heritage Science Archives Initiative (HSAI) Working Groups

• More than 20 heritage institutions involved – from the US and international partners
• The five critical areas for the initiative include:
  • Values and significance
  • Cataloguing and archival management
  • Access and use
  • Connecting data across collections
  • Encouraging the recognition of value through research opportunities
Problem Statement:

- Creating a heritage archive structure that works for large and small institutions, and that has a low barrier to entry.
- We want to encourage these archives to be preserved, given that with current global crises, many of these “samples” are the only remnant of destroyed cultural materials (moveable or immovable).
- We want to standardize the requirements and minimal level metadata for sharing – across a range of heritage disciplines, and material types, in the heritage sample archives.
Research Method and Activities

• Encouraged partners to create a *Statement of Significance* to define the value of their collection

• In order to provide this structured and standardized cataloguing and archival management, we have focused on creating and providing guidelines and tools that establish the minimum baseline requirements for cataloguing and sample archives management

• Part of this approach includes establishing a hierarchy of mandatory and recommended fields, to allow levels of entry from participants with different backgrounds and knowledge

• Follow FAIR data principles (*Findable, Accessible, Interoperable, Reusable*)
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<tr>
<th>Selection</th>
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| Appraisal | Appraisal is the process of evaluating records to determine:  
- which are to be kept for specified periods  
- which will be destroyed  
- which are to be retained as archives  
| Disposal | A disposal process that results in the obliteration of records. The materials physically and officially transferred to a repository (an acquisition), including donation agreement (transfer of ownership). |

| Photographic documentation | Photographs created to provide facts for reference, especially when created to substantiate decisions, actions, or events. The process of organizing materials with respect to their provenance and original order, to protect their context and to achieve physical or intellectual control over the materials. The process of creating a set of data representing an archival resource or component thereof. Descriptions often detail physical characteristics, informational content, and functional purpose. The process of describing archival resources can include analyzing, organizing, and recording details about the formal elements of a record or collection of records, such as creator, title, dates, extent, contents, use limitations, to facilitate the work’s identification, management, and understanding. A number and short description used as an identifier (A tag, piece of paper, or other material with identifying information). |

| Re-arrangement | Required |

| Description (Including Statement of Significance) | Required |

| Overall Management: Collection, Selection, Archival processing, Access and Use, De-accession / Disposal | The administration, organization, supervision, and oversight of the conduct of a business or activity. Management focuses on the implementation of policy, rather than its development. |

| Archive management plan | A sequence of steps to administer and oversee records and its use in order to maximize its value. It should include self-evaluation, after which make a risk assessment and mitigation plan (planning tool). |

| Museums Association, Disposal Toolkit: https://www.museumassociation.org/campaigns/collections/disposal-toolkit/ |
| Joint Processing Guidelines at Harvard Library: https://projects.lq.harvard.edu/jointprocessingguidelines/accessing-archival-materials/ |
# Checklist

## Baseline Requirements for Samples Archives Management

### Living Sample Collections

#### Policies

1. Do you have a written sampling policy and/or procedure, or acquisition policy?
   - 1.1 If yes, please give details and/or provide a copy

#### Management

2. When collecting samples, do you take photographs (or other graphic documentation) of the samples and/or the areas from which they have been taken?
   - 2.1 If yes, please give details

3. When collecting samples, do you document this with a written description?
   - 3.1 If yes, do you have a sampling pro-forma and/or a system to catalogue the samples?
   - 3.2 If yes, please provide a copy of the sampling pro-forma and/or give details of the metadata collected

4. Do you keep records/data about the samples (laboratory analysis results, images, etc.) linked/associated to the samples through a description tool/catalogue in order to avoid dissociation of information and have intellectual control of them?

5. Do you number and label your samples

### Access

18.1 Do you maintain specific environmental conditions within the storage area?
   - 18.2 If yes, please specify

#### Preservation

19. Are the samples available to researchers?
   - 19.1 If yes, please describe the access and use conditions, or share your Access policy
   - 19.2 How do you manage intellectual property rights in regard to the samples?

20. Have you defined and implemented a preservation plan (which identifies specific needs and priorities for the care of the sample collection, as well as resources for its implementation)?
   - 20.1 If yes, please specify
   - 20.2 Have you undertaken a risk assessment for your collection?
   - 20.3 If yes, please specify
   - 20.4 If yes, have you defined a risk mitigation plan (e.g., for the prevention of threats, also outlining response and recovery efforts)?
   - 20.5 Do you have a Data management plan for the long-term preservation of digital data related to the samples?
   - 20.6 If yes, please specify

### Re-appraisal

21. Have you re-appraised the sample collection to decide whether to keep or permanently remove accessioned materials?
   - 21.1 If yes, have the samples been deaccessioned?
   - 21.2 If yes, please explain why (e.g., because the Archives have changed its collections policy), and how (deaccession process)

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Conclusions

• Effective value assessment and statements of significance assist with support to preserve these hidden heritage sample archives.

• Cataloging and archive management is critical to create effective metadata, a structured process, and also allow different levels of entry.

• Access and use is important to knowledge and use of the archives, without this use, its difficult to support preservation.

• Connecting data increases the value and reuse (FAIR data principles) and hence the sustainability of the archives.

• Research opportunities further support the preservation of the archives by raising awareness of the collections and the possible “rarity” aspect for destroyed cultural items.
“Custodians for future generations”

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