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From Processing to Public Service: The Digital Humanities Center at the American Academy in Rome

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From Processing to Public Service: The Digital Humanities Center at the American Academy in Rome

Abstract

Digital Humanities Center (DHC) is the new infrastructure which will serve to streamline the Academy's cataloging system and will make publically available the Academy's archival resources through a single, online interface by way of the Academy's website. Intent of this project is to unify different types of materials and collections.

The DHC will contain thousands of descriptions (metadata) of archival objects and digital objects (photographs and digitized texts), it will soon be a resource for scholars and other interested individuals, accessible from virtually anywhere. In the presentation it will be briefly explained the workflow: inventory, cataloguing, digitization and uploading of visual resources.

Keywords

American Academy in Rome, Digital Humanities Center Project, library, institutional archive, photographic archive, archaeological archive, ArchivesSpace, Drupal, Islandora, Fedora, Amazon S3

Author Bio & Acknowledgements

Lavinia Ciuffa currently serves as Acting Curator of the Photographic Archive at the American Academy in Rome. She has been working in the Photographic Archive since its creation in 1996. During these years, her responsibilities have changed several times. Initially hired to work on the conservation of the collection, Lavinia continues to use her conservation skills to setup guidelines for preservation projects, but her main responsibility has become the managing of staff working on the cataloging and digitization of the collections.

Lavinia Ciuffa has been a member of the VRA since 2007 and has contributed to the VRA International Chapter since 2014.

From Processing to Public Service: The Digital Humanities Center at the American Academy in Rome

The American Academy in Rome (AAR) is one of the leading American overseas centers for independent study and advanced research in the Arts and Humanities located on the Janiculum Hill in Rome with offices in New York City. For over one hundred years, the Academy has offered support, time and an inspiring environment to some of America's most gifted artists and scholars. The Academy was established in 1894 by Charles Follen McKim as the American School of Architecture. It remains a private Institution supported by gifts from individuals, foundations, corporations and universities. Each year, through an international juried competition, the Academy offers up to thirty Rome Prize Fellowships in several disciplines. At the Academy, fellows, artists, qualified scholars and external researchers have the opportunity to deepen their creative or research interests, specifically in several disciplines: Architecture, Design, Historic Preservation, Landscape Architecture, Literature, Musical Composition, Visual Arts and Ancient to Modern Italian Studies.

The cultural and artistic support the Academy offers is enhanced through the rich resources that the institution has developed since its foundation, including: the library, institutional archive, the photographic archive, and the archaeological archive. Digital technology provides the opportunity to unify these disparate resources, but comes with many challenges. The Academy has defined a specific project, which aims to identify, document and catalog multi-format collections which are preserved in a variety of departments at the Rome and New York location.

Resources

The Library

The Arthur & Janet C. Ross Library contains 164,000 volumes in the fields of classical studies and the history of Italian art and architecture (chiefly Medieval and Renaissance) with strong collections in ancient Mediterranean art and archaeology, classical literature, ancient topography (including the history of the city of Rome), and related fields, such as epigraphy, numismatics, and papyrology. There is a rare book collection made up of chiefly 16th-18th century imprints in classics, classical archaeology, Italian art and architecture, including sizeable collections of Roman guidebooks and early art treatises.

The Academy is a founding member of the Unione Romana Biblioteche Internazionali Specializzate (URBiS) and contributes to its online catalog available at <http://www.urbis-libnet.org/>. The Library is further part of <http://www.worldcat.org/> and the Digital Library for International Research. Two of its Medieval manuscripts are part of the Digital Scriptorium.

The Institutional Archive

The institutional archive is housed both in New York and in Rome. The archive located in Rome consists of photographs dating back to the first half of the 20th century that are related to the history of the institution, such as: special events, memories and exhibitions (see: <http://aarome.org/research/library/institutional-archive>). This Archive also contains photographs of the works (architectural drawings, paintings and sculptures) created by fellows and visiting students.

The institutional archive located in New York was established in 1992. Since 1965, AAR has collaborated with the Smithsonian's Archive of American Art (AAA), completing four deposits of materials, with items ranging in date from 1855 to 2004. Records from 1855 through 2012 have been microfilmed and are available to the public via AAA at: <https://www.aaa.si.edu/collections/american-academy-rome-record>.

The physical collection, housed within the New York offices, contains historical documentation that includes records of executives and officers, operational documentation from the Academy departments and publications, photographs, newspaper clippings, ephemera and architectural drawings.

The Photographic Archive

The photographic archive contains over 80,000 thousands images. Many of the images have artifactual value for the history of photography, as well as the usual documentary value for study and research on specific subjects, from archaeology, art history, architecture and art to landscape architecture and gardens. Some of the collections have a special historical significance because the images record excavations and monuments from the early years of modern archaeology. The photograph collections of the American Academy have been acquired over the years mainly through donations. They represent an exceptional record of the activity of considerable personalities, master photographers as well as scholars, active from the second

half of the 19th century (such as John Henry Parker), to the beginning of the 20th century (such as Esther Van Deman, Blake, Askew, Warsher, Laidlaw, etc.), and more recently (Georgina Masson, Barbara Bini, etc.). For more information about these collections, see: <http://aarome.org/research/photo-archive/about>.

In recent years the Academy has accepted new gifts, such as the Detweiler collection (Archaeological sites in the Middle East), the Vermeule collection (Greek and Roman antiquities), the Aronson collection (aerial views of Rome), the Knauer collection (monumental sites in the Mediterranean area and in Northern Europe), the McCann collection (Cosa port excavations and excavations at Pyrgi and Populonia), and the Ludwig collection (Renaissance marble tomb reliefs). In addition to its own collections, the American Academy also houses the Fototeca Unione founded by Ernest Nash in 1957, which is a growing collection focusing on the architecture and topography of the Roman world (circa 30.000 photographs).

The Archaeological Archive

The archaeological archive contains unique collections pertaining to the Academy's excavations, principally at Cosa in Tuscany and the Regia in the Roman Forum. The Academy in Rome also maintains a rich and eclectic collection of about 9,000 archaeological artifacts available for study. For more information about the archaeological collections, see: <http://www.aarome.org/research/resources/archaeological-study-collection>.

The Digital Humanities Center Project

The American Academy in Rome needed to provide a publicly discoverable Web interface for the Academy digital collections. In addition to the Academy's collection being stored in various locations, there was the additional challenge of these extensive resources existing in multiple formats. This has led to the development of a unique instrument which serves to unify resources through a single, cross-referential, on-line interface by way of the Academy's website. Although this author is not an IT expert, the following will briefly demonstrate how the project developed with the goal to unify resources. The Kress Foundation generously funded the development of the project, named the Digital Humanities Center (DHC).

The DHC has been built using three interdependent Web applications, interacting with one another over one or more service applications programming interfaces (APIs).

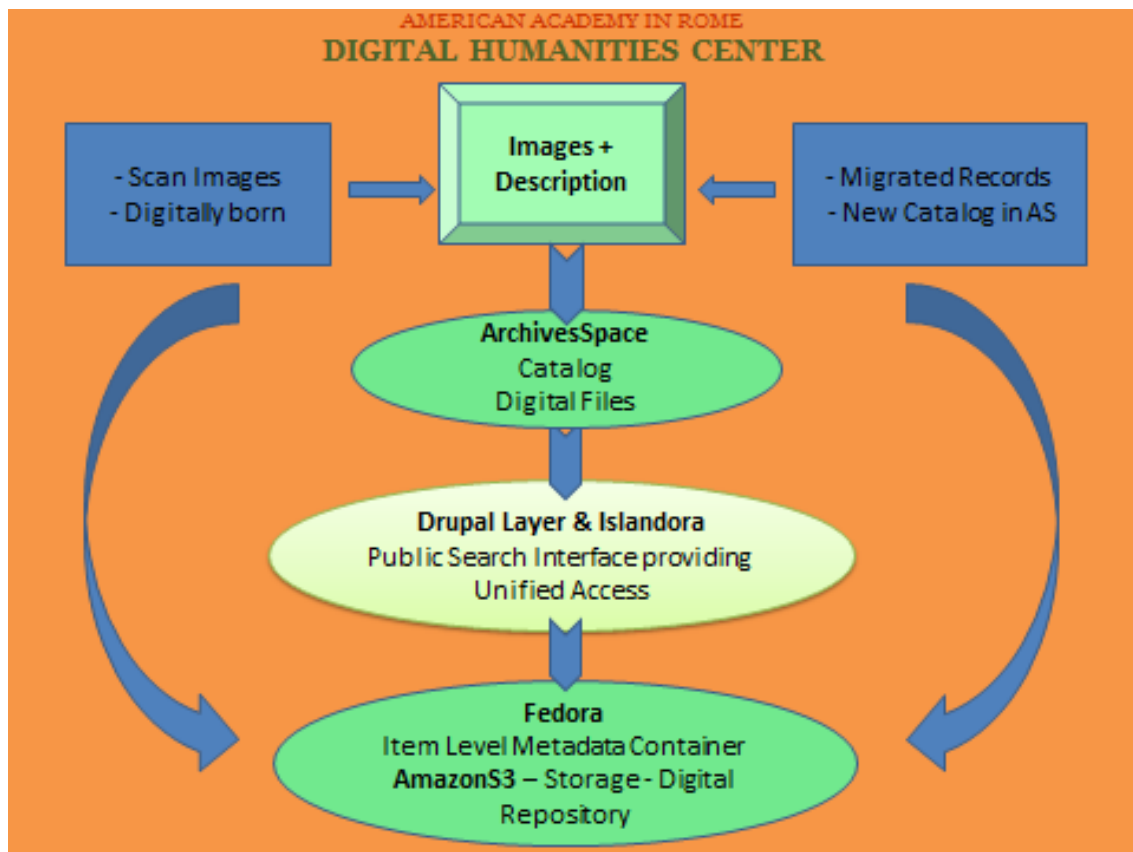


Figure 1. American Academy in Rome Digital Humanities Center Systems Diagram

Web Applications

There are three main components to the DHC system. The first is ArchivesSpace, which is an open source archival records management Web application. It provides the cataloging tools and stores the

descriptive metadata for the Academy's archival collections. So, it functions as the central catalog for all the archival collections. The second layer includes Drupal & Islandora, which are open source Web applications too, allowing for the browsing of all archival collections. So, materials cataloged in ArchivesSpace are exported in JSON and ingested (converting via Catmandu) into Islandora, which is a customized Drupal distribution and a software framework designed to help institutions manage and improve the discovery of their digital assets. The third component is Fedora, which is the central repository for all the digital assets (files like JPGs and PDFs). The Fedora Commons instance contains item-level Dublin Core metadata and references to assets externally hosted in the Amazon Simple Storage Service (S3).

The Procedure

The following outlines the step-by-step procedures used to bring the Academy's digital assets together.

- 1) Migrate the Academy's existing archival records (previously cataloged) from the legacy systems, which were KOHA, FileMakerPro, Excel and Dims (all metadata has been exported into ArchivesSpace).
- 2) New cataloging is accomplished directly in ArchivesSpace.
- 3) The creation of new visual resources is accomplished by scanning analog resources (which occurs when items are not born digital).
- 4) All images (both newly digitized and born digital) are stored in Amazon S3.
- 5) The visual resources are linked to the corresponding description/record in ArchivesSpace.
- 6) Finally, the materials are released on the DHC.

Phase 1 and 6 (the first and last actions above) are operations handled by our IT consultant (more information below).

Introduction to ArchivesSpace

ArchivesSpace is an open source archive record management Web application. In 2013, the Academy chose ArchivesSpace because it merges much of the structure and functionality of Archivists' Toolkit and Archon, and substantially improves on their stability and workflow (these two products are no longer being developed). It also supports the migration of data from both systems.

ArchivesSpace strategically counts on the development of the North American, and increasingly international, archival community. Funding is administered through Lyrasis and it is supported by contributions from member organizations. Development activities are conducted by the ArchivesSpace Program Team. The Development Prioritization Subteam is composed of members of the ArchivesSpace User and Technical Advisory Councils. Member organizations also have a voice in guiding development and providing feedback through issue queues and the Lyrasis-administered listerv.

It is important to note that ArchivesSpace is optimized for managing metadata records, but does not support the direct management of content files. The assumption is that the files will be stored and managed in a network or Web-accessible location, such as a file server or a digital asset management system that is capable of managing the files.

With the migration of Academy data, the catalog follows Dublin Core standards and the content is generally derived from MARCXML data fields. By using ArchivesSpace to manage digital object metadata, you can conveniently and efficiently manage descriptions of your archival holdings within a single system. You can then publish the accessions or resource records through the ArchivesSpace public interface.

Example of Record Structure:

- ❖ **Repository** = Photographic Archive
- ❖ **Collection Level** = Single Collection Name
- ❖ **Specific Resource** = Sub-Group (Photographs, Notes, Drawings...)
- ❖ **The Description of the Archival Object** = Caption or Title
- ❖ **Item** = Corresponding to the Holding – Call Number
- ❖ **Digital Object** = Image

The fields that the Academy staff usually complete are the following.

Title Statement (245ah) - Joins and delimits each instance of MARCXML data fields 001 and 245ah.

Dates (260c) - Which can be single, inclusive, and bulk.

Extents (300ac) - Refers to the physical description of the archival item (dimensions, physical object information such as black and white photograph, lantern slide, etc.).

Linked Agents (100, 600, 700) - The Linked Agents form can be used to associate a Linked Agent, that is the creator of the collection or item. This can be the institution or person related to the image, the creator of the collection, the photographer, the author of a published book, etc.

Subjects (6XX) - Subjects describe the principal themes, topical contents. Many subjects have been migrated and may be accessed by selecting "Add Subject" and typing the first few letters of the desired term. New subjects can also be created. We are importing the Library of Congress Names Authority Files (LCNAF) through the ArchivesSpace plugin. But, catalogers are also considering the LC Subject Headings and the Getty Controlled Vocabularies, such as the Art and Architecture Thesaurus.

General Notes (tag=500) - In ArchivesSpace, the Notes fields contains myriad information about the Archival Object from the source of the acquisition to the arrangement to the biographical, bibliographical, custodial and related materials.

Figure 2. Sample Cataloging in ArchivesSpace:

http://trajan.aarome.org:9080/resources/174/edit#tree::archival_object_172483

After having filled the fields with content, there are the following additional steps:

- 1) attach the item to the archival object, which entails inserting the call number, and
- 2) associate the related digital object, which is the path of the image file. This happens in a specific URI field (Uniform Resource Identifier or Web address), where you enter the link to the digital objects (both JPEGs and TIFFs) stored in the Amazon storage.

The Digital Images

Regarding the technical issues associated with the procedure for images that have not been not born digital, the following outlines the standards and processes. Only images selected for their historical or institutional value that the Academy wants to preserve for the indefinite future are digitized, cataloged in ArchivesSpace, and added to the Fedora Repository.

Images are digitized in-house from their negatives, when they exist, otherwise from the positives. The standards used are as follows: 1) from negatives, uncompressed TIFF, 24bit, RGB Color (“1200 dpi”), or 2) from positives, uncompressed TIFF, 24bit, RGB Color (“800 dpi”). For online presentations, the TIFFs are converted to compressed JPGs and resized to a spatial resolution of 75 dpi. Digitizing is outsourced depending on the size and condition of the originals.



Figure 3. Negative of the Hellenistic Boxer in the Museo Nazionale Romano

The Photo Archive staff use flatbed scanners, but are currently exploring the possibilities of direct shot photography. This change would allow more control as the light shot is slightly faster than the light passing through the scanner. Although this could be a great advantage, the final decision is dependent on the budget. The flatbed scanner will continue to be used for glass negatives and lantern slides.

The digital objects are saved in three places: 1) on the Academy server, 2) on external hard drives and 3) stored in the Amazon S3 and Amazon Glacier buckets. Amazon S3 provides infrastructure to store data and is designed for the durability of 99.999999999% of objects.

In order to interact with digital objects stored in Amazon, we need to download and configure an S3 free open source client, a specific tool for managing resources, which is Cyberduck.

Conclusion

From this process of moving different platforms into one and using interdependent Web applications, interacting with one another, the Academy’s Digital Humanities Center now serves as the institutional repository and has resulted in a dynamic Web presence, see: <http://dhc.aarome.org/about>.

The Web-based system architecture of the Digital Humanities Center is designed, built, and managed by our Web developer and technology consultant, Jason Loeffler. His company is called Minor Science—| Application Development & Metadata Strategy, located in Brooklyn, New York (jason@minorscience.com).

In the DHC, there are currently circa 36,000 photographic images available from the collections of the Photographic Archive and the Archaeological Study Collection (see examples below). Additional collections will be added as time and resources permit. The project is in progress as we are still testing the possibilities and limits of our resources and the advantages of our choices.

At the present time it is hoped that the Digital Humanities Center will help researchers and scholars obtain better access to the Academy’s rich collections. The goal is to support, not only the extended American Academy in Rome community, but also humanities scholars and artists in a range of disciplines related to the Academy’s mission.

HOME

ARCHAEOLOGICAL STUDY COLLECTION

ARCHAEOLOGICAL ARCHIVE

INSTITUTIONAL ARCHIVE

PHOTO ARCHIVE

◀ BACK TO SEARCH RESULTS

◀ PREVIOUS | NEXT ▶

PHOTO ARCHIVE / SWAIN COLLECTION, 1910 - 1940

[Campagna Romana: Anio Novus near Gallicano, a man is sitting on the wall of the bridge (Italy)]



SWAIN.303.11

DATES

1910-1930 ce

PHYSICAL DETAILS

photographic print ; b/w :

DIMENSIONS

8 x 11 cm.

RELATED NAMES

Swain, George Robert

SUBJECTS

Bridges -- Gallicano nel Lazio -- Italy

Aqueducts -- Rome -- Italy

CALL NUMBERS

Swain.303.11

On verso: "Near East Research University of Mich., U.S.A.

PHOTOGRAPH BY G.R. SWAIN". No. 303.11"

Negative missing

About the DHC

Usage and Copyright
Privacy Policy
Staff Login



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Figure 4. Sample of Single Record and Image in the Digital Humanities Center:
<http://dhc.aarome.org/collections/swain/item/172496>

Subjects

- Aniene River (Italy) 13
 - Aniene River Valley -- Italy -- Antiquities 6
 - Aniene River Valley -- Italy -- Antiquities 21
 - Anio Novus (Italy) 14
 - Aqua Alexandrina (Italy) 4
 - Aqua Claudia 2
 - Aqua Claudia (Italy) 1
 - Aqua Claudia (Rome, Italy) 3
 - Aqua Claudia -- Lazio 3
 - Aqua Iulia (Italy) 1
 - Aqua Marcia (Italy) 3
 - Aqua Marcia (Rome) 1
 - Aqua Marcia -- Lazio 3
 - Aqua Tepula (Italy) 1
 - Aqueducts 1
 - Aqueducts -- Campagna di Roma -- Italy 20
 - Aqueducts -- Campagna Romana -- Italy 22
 - Aqueducts -- Empigione Valley -- Italy 6
 - Aqueducts -- Italy 15
 - Aqueducts -- Italy -- Campagna di Roma 20
 - Aqueducts -- Italy -- Rome 3
 - Aqueducts -- Roman 15
 - Aqueducts -- Rome -- Italy 8
 - Aqueducts -- Tivoli Region 14
 - Bridges -- Gallicano nel Lazio -- Italy 7
 - Bridges -- Italy -- Campagna di Roma 16
 - Bridges 3
 - Campagna di Roma -- Lazio -- Antiquities, Roman
 - Excavations (Archaeology) 4
 - Excavations (Archaeology) -- Italy 3
- Show more

Repository

- Photo Archive 163

Related Name

- Hadrian, Emperor of Rome, 76-138 1
- Swain, George Robert 159
- Van Deman, Esther Boise 1

Collection

- Swain Collection, 1910 - 1940 163

Images

- Has digitized images 136

Viewing 1 - 20 of 163 archival objects

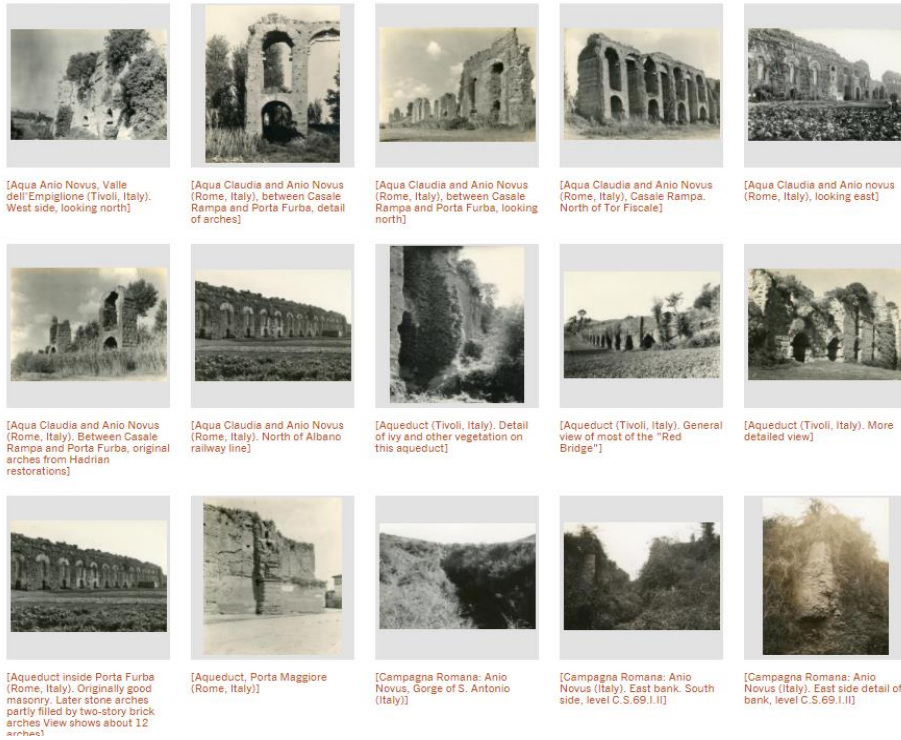


Figure 5. Sample of Digital Humanities Center Collection Page: <http://dhc.arome.org/collections/swain>

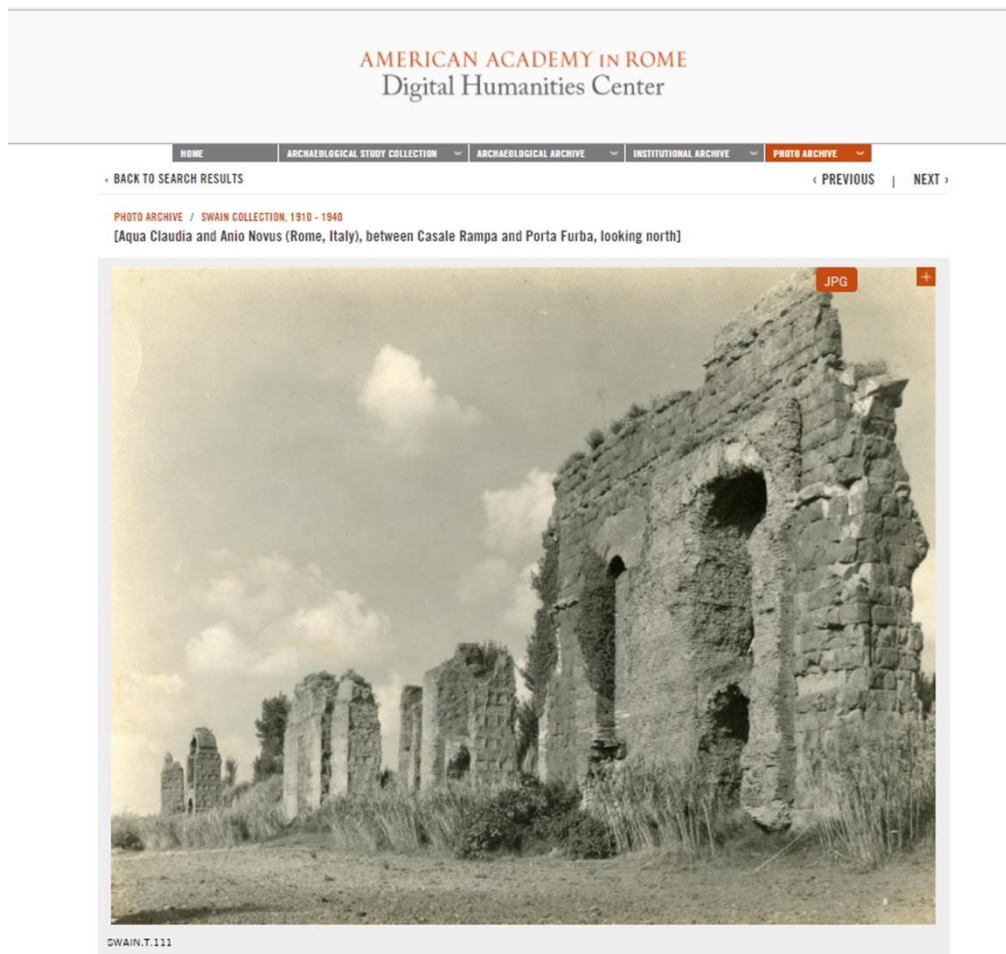


Figure 6. Sample Digital Humanities Center Record