

Online Training Conference

DIGITAL DIRECTIONS

Fundamentals of Creating and
Managing Digital Collections

PRESENTED BY NEDCC

Session 9: Managing Digital Collections For Access

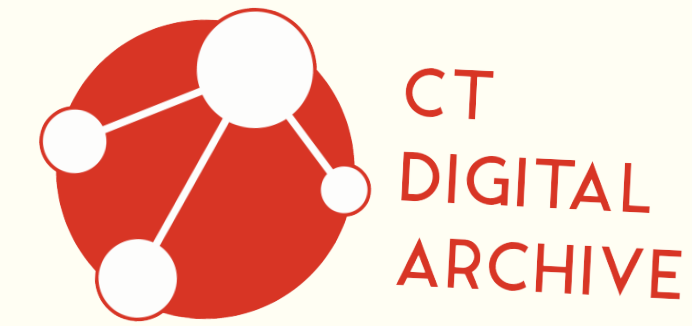
Greg Colati, Director
Connecticut Digital Archive
<https://ctdigitalarchive.org>
gcolati@gmail.com





What I Used to Do Every Day





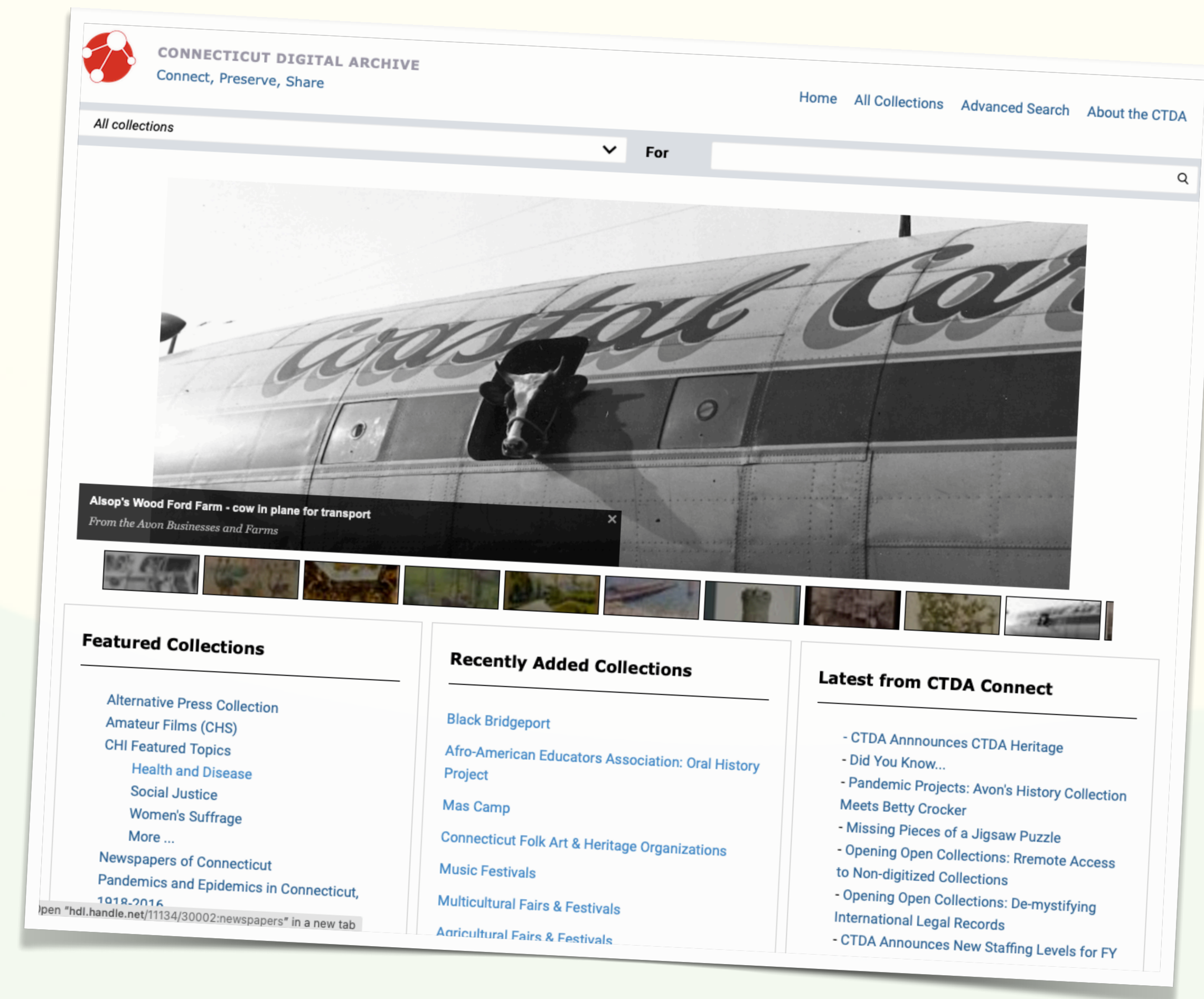
What I Do Every Day Now

Connecticut Digital Archive, a state-wide preservation repository service for libraries, museums, galleries, archives, historical societies, and memory institutions based in Connecticut.

What we do: preservation, management, access, delivery, aggregation, OAI-PMH provision, consulting and training

For:
70+ participating institutions--the smallest is all volunteer, the largest is an R1 Research Library

With:
3+ million digital resources





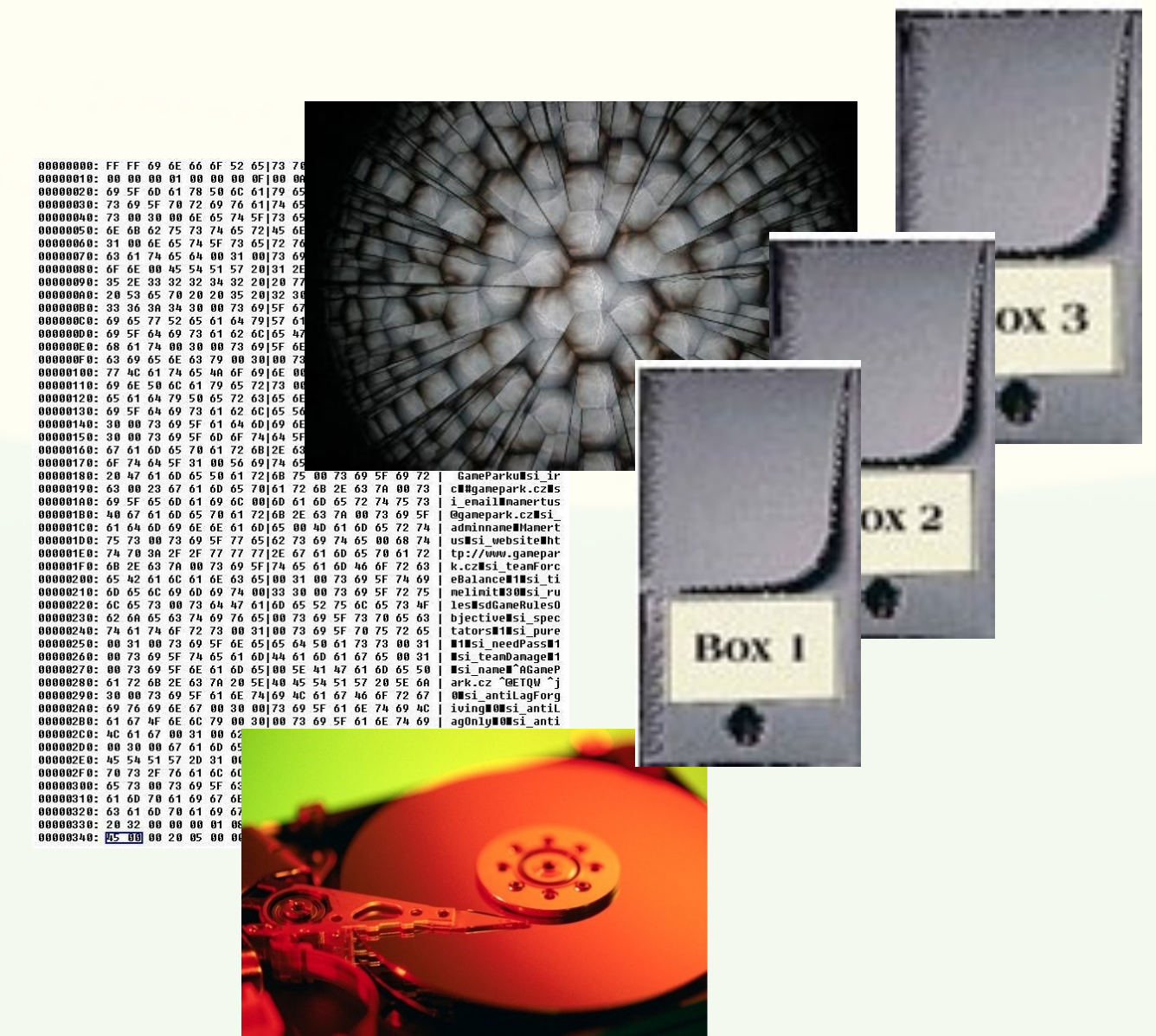
What We Know ...

Other things we know:

- Preservation is the ***preservation of access***
- ***Metadata AND Management***—is the bridge that connects preservation and access.

Managing digital collections is the **same**
as managing physical collections **except**
when it is **different**

Often in a **GOOD** way





Take Aways

Preservation is the preservation of access

Doing something is better than doing nothing

Find your level of comfort and investment

Management decisions affect access opportunities

Separate content from tools

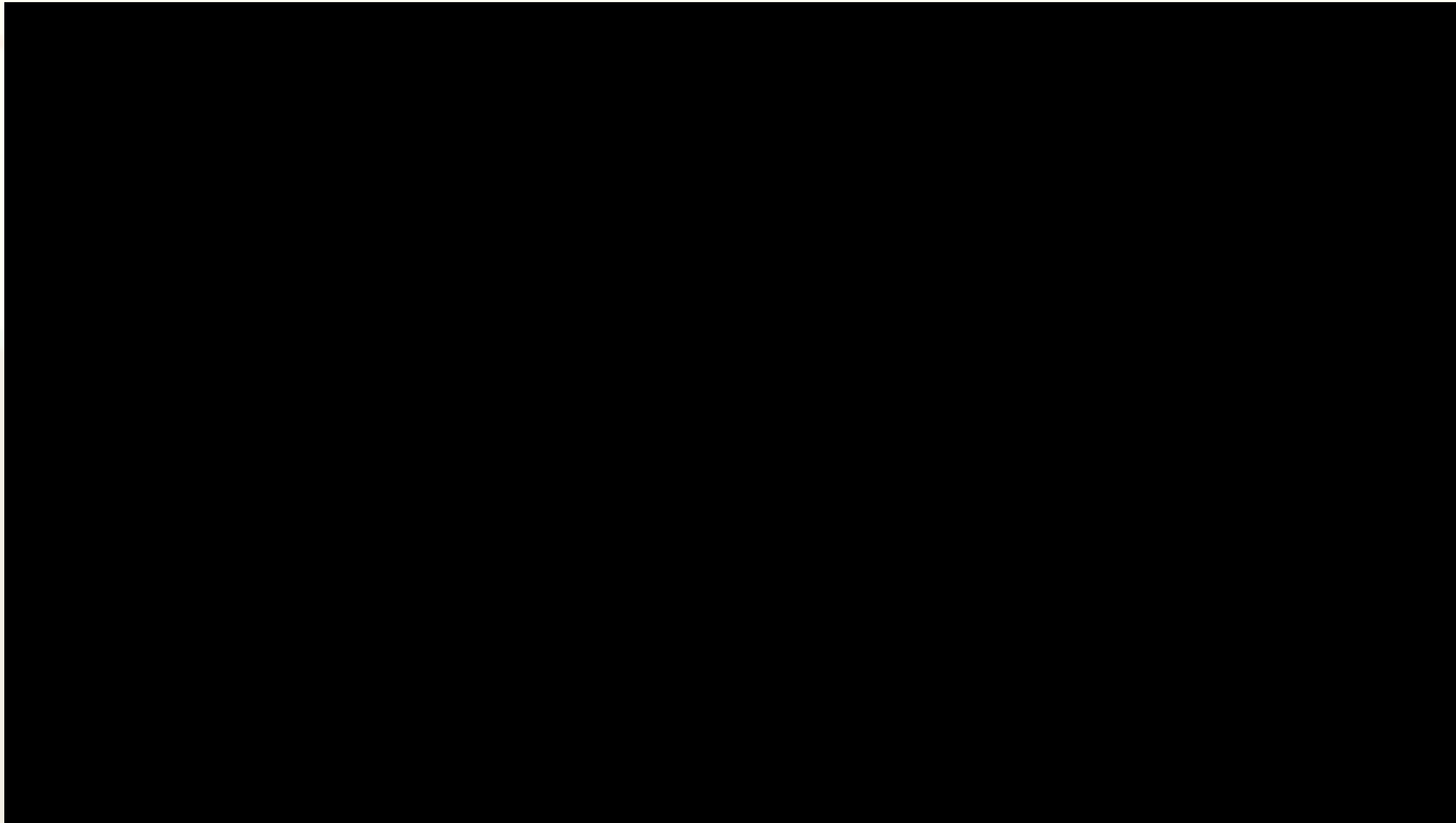
Make connections possible

Bus leaving Hartford for the March on Washington, 1963
Hartford Public Library





The Perceived Promise of Digital Collections Access





The Reality of Digital Access





From Reality to Promise.

Preparing content and creating relationships using tools, formats, and metadata...





Inverting the Pyramid

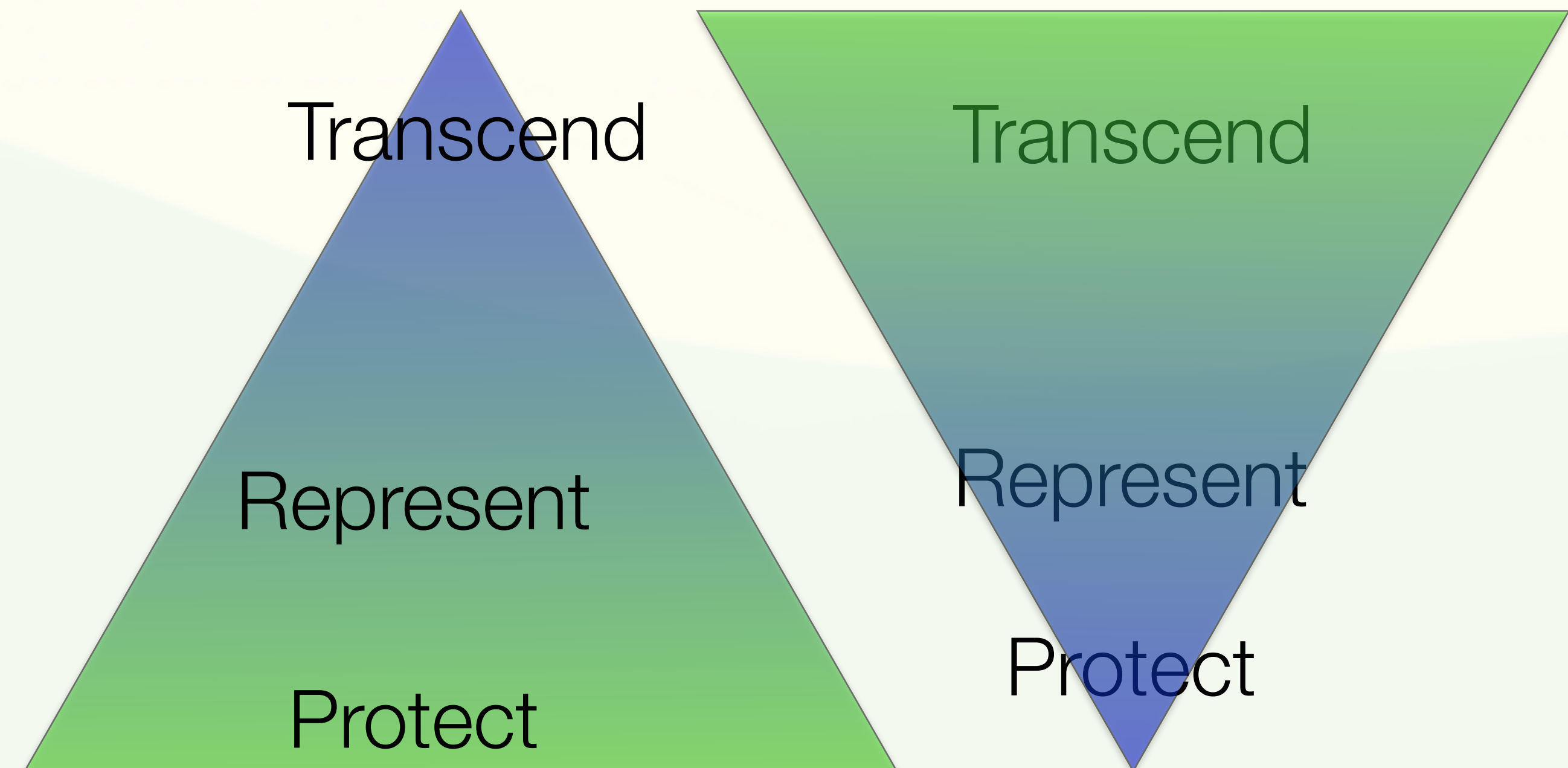
Protect original from handling

Represent, present a reasonable facsimile

Transcend use by making new uses possible

Last Century

Today

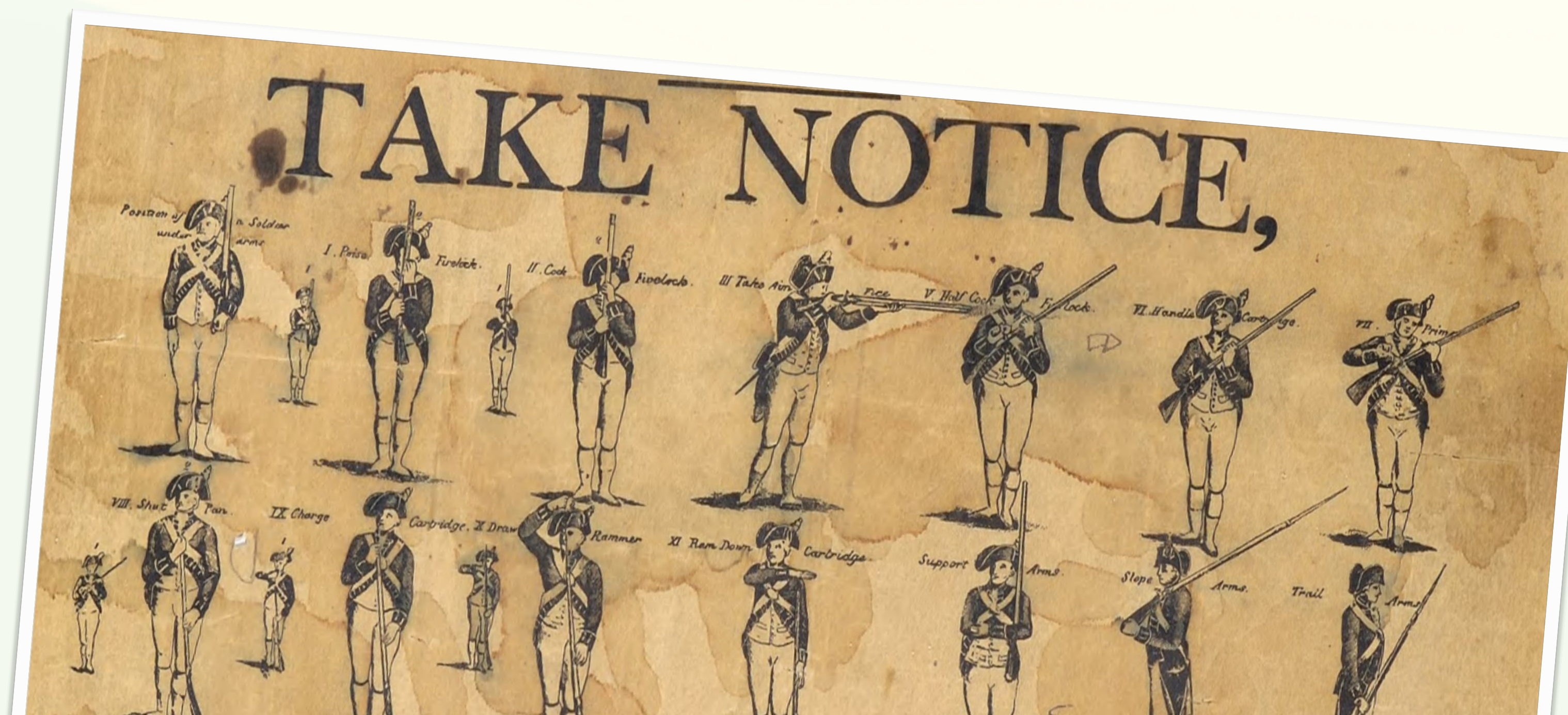




The Revolution in Attitudes About Resources

A non-scientific observation:

- **Analog is non-existent:** If it isn't online, I don't want it—or I want you to put it online
- **Unconnected is invisible:** If I don't find it from an aggregator, I won't find it at all
- **Collections are data:** I want things I can manipulate myself
- **Storytelling is visualization:** I want to use things in “apps” or “mashups”





The Changing Nature Archival Scarcity

This...



...becomes this —>

Analog: Uniqueness with *scarcity*

Digital: Uniqueness with *ubiquity*

How does this change our relationship with our collections and our users?





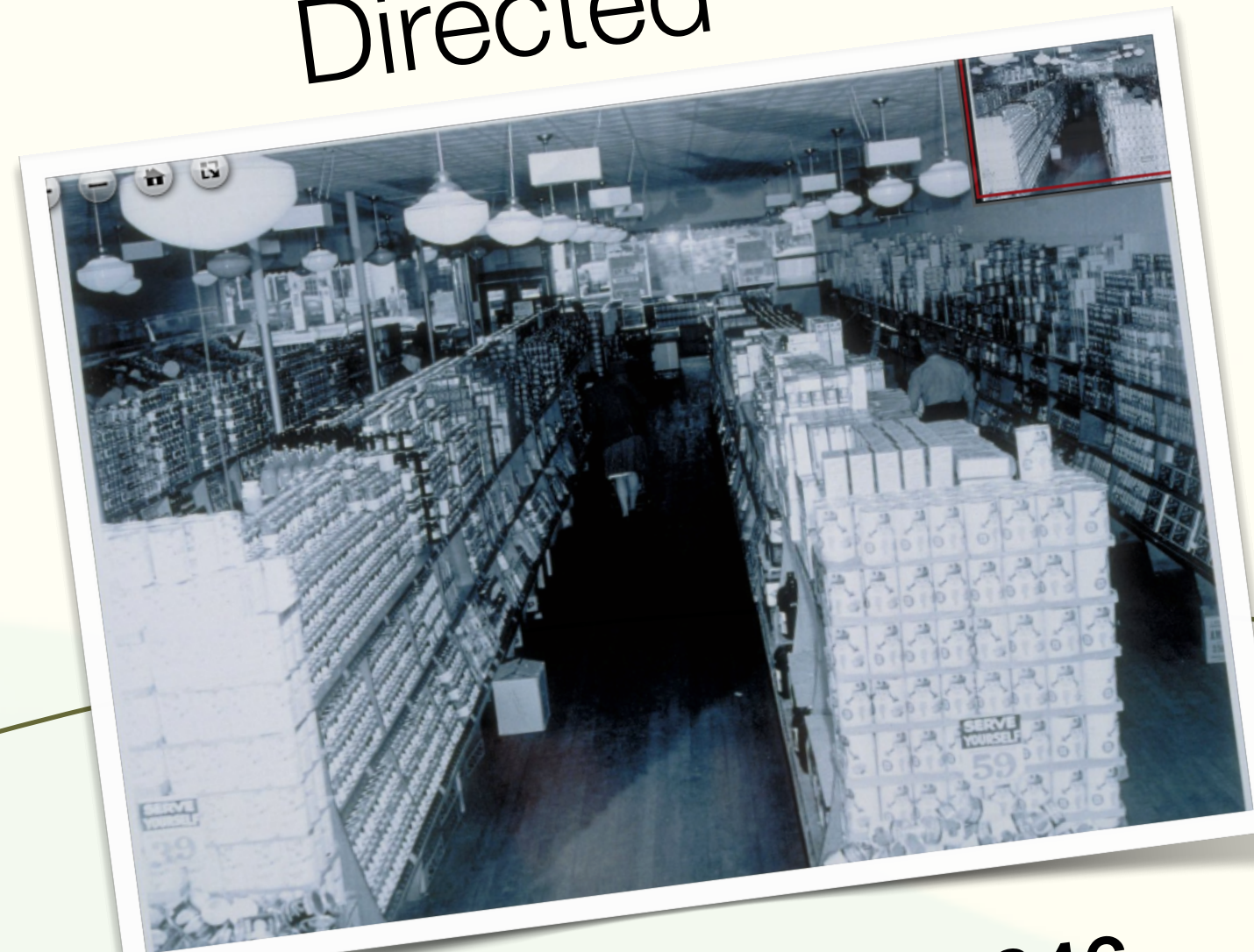
Archival Access Follows the Arc of Grocery Shopping?

Highly Mediated



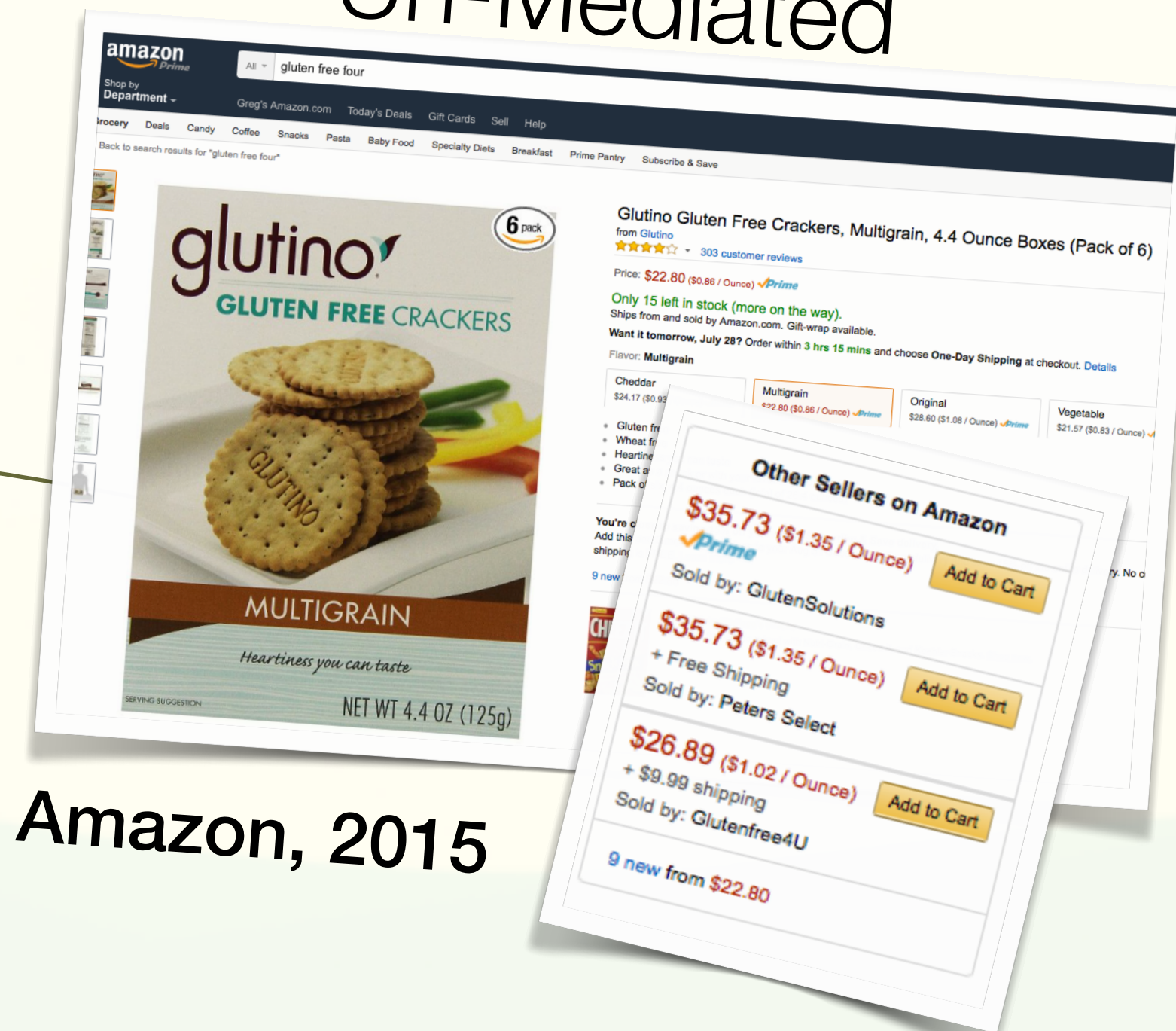
Grocery store, Hartford, 1920

Directed



“Self Service”, 1946

Un-Mediated



Amazon, 2015



Questions to Ask

Big Questions:

What is our mission? ...our purpose?

Small(er) Questions:

What are you trying to manage?

Who is going to access your content?

Where are they going to access it?

How are they going to use it?





Four “-itys” of Preservation and Access

Two “-itys” of Access

- Interoperability
- Reusability



Recycling Telephones, SNET, 1948

Two “-itys” of Preservation

- Sustainability
- Reliability (*Authenticity*)



Preservation Center, UConn, 1943

Special Characteristics of Digital Collections ...

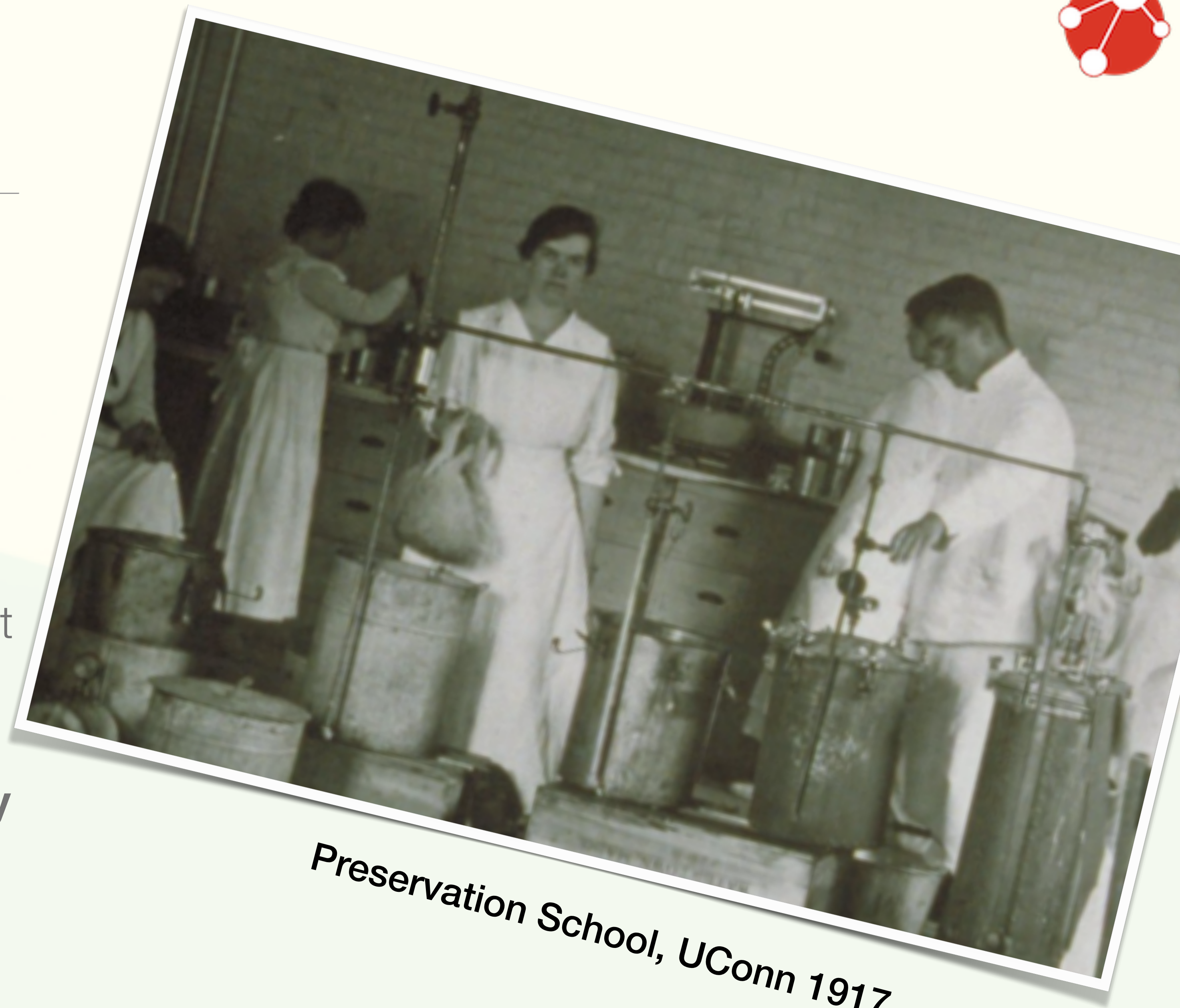


They have **no inherent form!**

They are **fragile** ...

... require some type of **item-level control** at least for management, if not for access ...

... require an **intervening technology** at every stage.



Preservation School, UConn 1917

Special Characteristics of Digital Collections ...

It is possible to automate many processing, description, and arrangement tasks ...

...often can tell you more about themselves than analog content...

...can exist in multiple places at once...

... can be accessed by multiple users at the same time!



I am a:
photographic print
8 x 10



I am a:
.jpg file
Created October 8, 2017
2:54:40 PM
Weymouth, MA
Apple iPhone 6 back camera
2048 x 1536
1.3MB
ISO 32, 4mm, ev0 f 2.2 1/250 sec





Management Requires Tools

Translate functional needs into application services

Software applications are a tool, not a “solution

Don't be afraid of “manual automation”

Separate your content from your tools: It is the first step toward interoperability



Connecticut State Library



A Simple Tool That Makes Working with Digital Content Easier:

CTDA Copy of NHCountyCourtOtherCases

☆

File

Edit

View

Insert

Format

Data

Tools

Extensions

Help

Last edit was seconds ago

100%

\$

%

.0

.00

123

Default (Ari...

10

B

I

AB:AB

Identifier_local

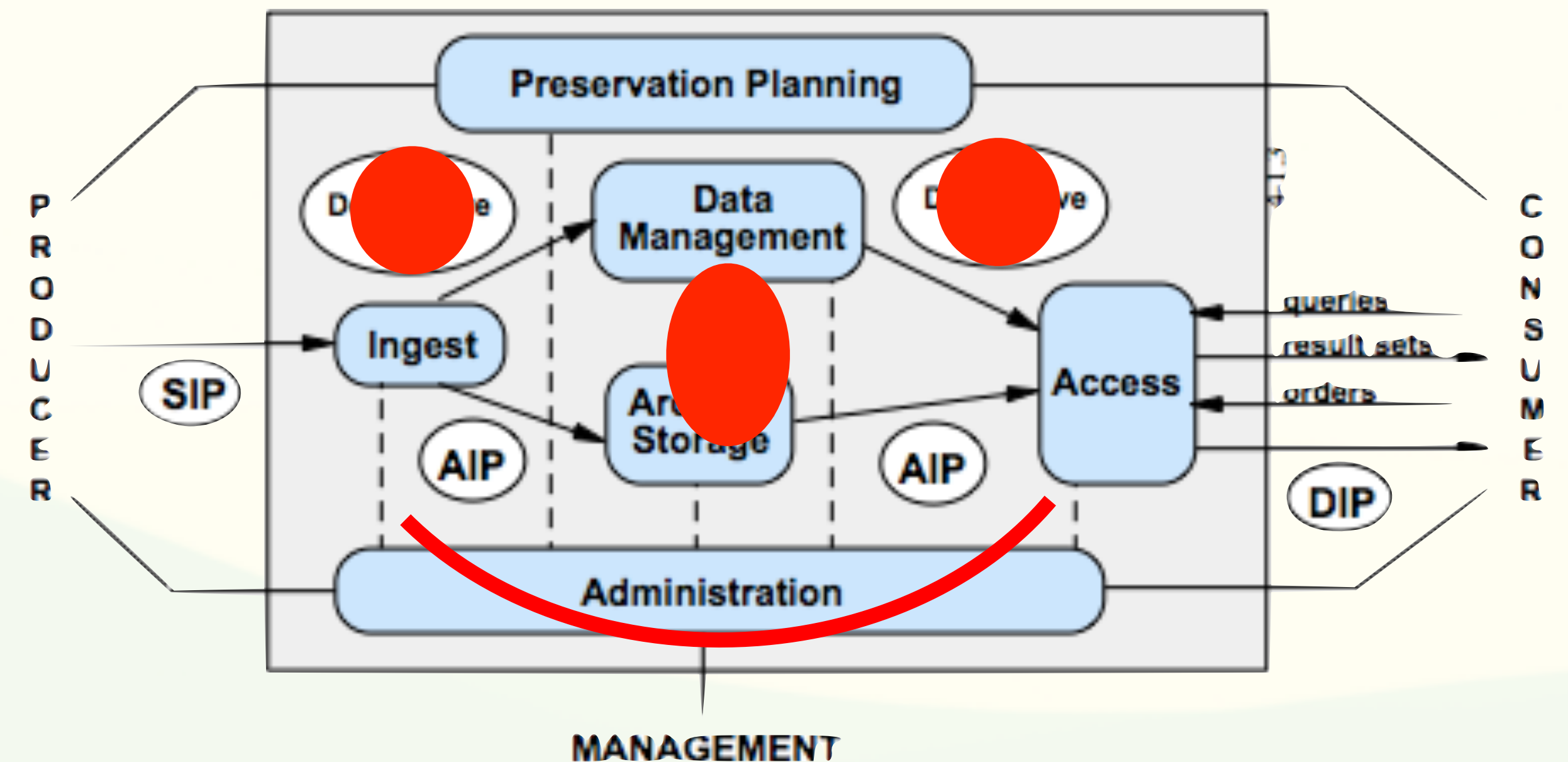
	A	D	H	I	L	M	N	O	P
1	binary_file	Title	Name_Personal	Name_Personal_authority	Name_Personal_role	Type_of_Resource	Genre	Genre_authority	Genre_authorityURI
2	sa_rg003NHCC1759_0093.tif	James Sperry vs Samuel Hotchkiss	Sperry, John Hotchkiss, Samuel	local local	Plaintiff Defendant	mixed material	judicial records	aat	http://vocab.getty.edu/page
3	sa_rg003NHCC1759_0094.tif	James Sperry vs Samuel Hotchkiss	Sperry, John Hotchkiss, Samuel	local local	Plaintiff Defendant	mixed material	judicial records	aat	http://vocab.getty.edu/page
4	sa_rg003NHCC1759_0095.tif	James Sperry vs Samuel Hotchkiss	Sperry, John Hotchkiss, Samuel	local local	Plaintiff Defendant	mixed material	judicial records	aat	http://vocab.getty.edu/page
5	sa_rg003NHCC1759_0096.tif	James Sperry vs Samuel Hotchkiss	Sperry, John Hotchkiss, Samuel	local local	Plaintiff Defendant	mixed material	judicial records	aat	http://vocab.getty.edu/page
6	sa_rg003NHCC1759_0097.tif	James Sperry vs Samuel Hotchkiss	Sperry, John Hotchkiss, Samuel	local local	Plaintiff Defendant	mixed material	judicial records	aat	http://vocab.getty.edu/page
7	sa_rg003NHCC1759_0098.tif	James Sperry vs Samuel Hotchkiss	Sperry, John Hotchkiss, Samuel	local local	Plaintiff Defendant	mixed material	judicial records	aat	http://vocab.getty.edu/page
8									

A spreadsheet???!! Are you serious? That’s not cool or shiny... but it works.



Information Objects: Packaging Data for Management and Use

A **set** of data elements (metadata of all types, primary content objects, associative information, system information) combined into a “**package**” that exists in an electronic environment, is **internally coherent** and can be **managed by applications and processes**.



(The obligatory OAIS slide)



An Information Package

ALL information about an object is contained in a set of digital files (or database relationships) and associated in a single unit

There can be any number of elements associated with a particular information package.

Much of this is managed by an application or system and is not seen by the repository manager

“Girl on the Beach” An OAIS “AIP”

MyMasterFile.tif

MyAccess file.jpg

Mythumbnailfile.jpg

Descriptive Metadata

Rights Metadata

Relationship Metadata

Premis information





Submission...

Submission begins as a master object
with (perhaps) a metadata record

“Girl on the Beach”
An OAIS “SIP”

MyMasterFile.tif



DescriptiveMetadata.xml



Ingest...

Typically a management system creates associated files and/or database relationships for later use in “DIPs” or for administrative purposes.

These may be stored separately in the system or generated on demand.

“Girl on the Beach” An OAIS “AIP”

MyMasterFile.tif

MyAccess file.jpg

Mythumbnailfile.jpg

Rights Metadata

Relationship Metadata

Descriptive Metadata

Premis

Technical Metadata





Dissemination...

When objects are delivered in an access system, only those parts that are needed are delivered.

“Girl on the Beach”
An OAIS "DIP"

MyAccess file.jpg



DescriptiveMetadata.xml



Management Decisions

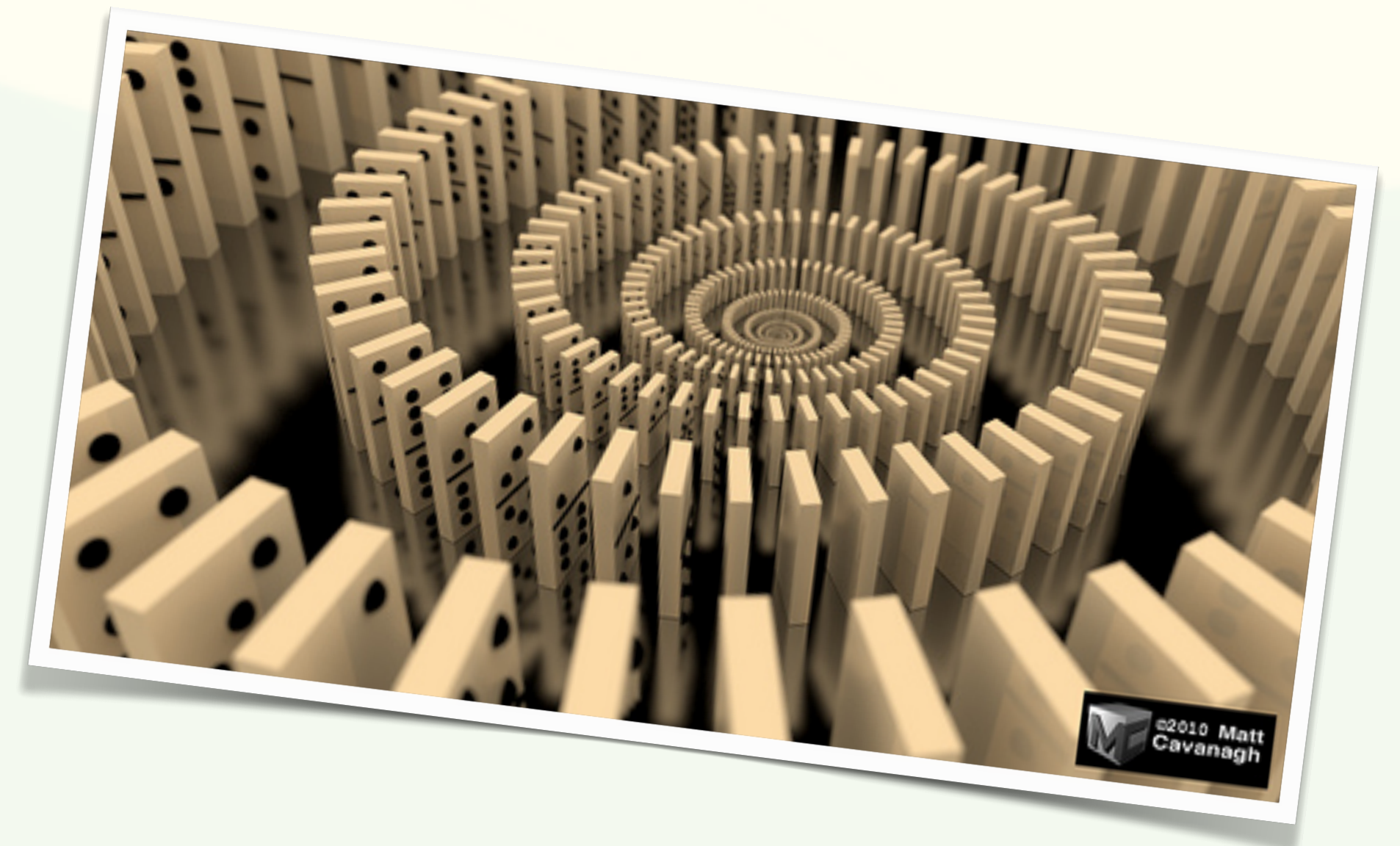
What is the smallest/largest information unit that we manage as an independent package?

What management decisions have we made about the primary content file and its metadata?

What are the implications of these decisions?



Lumpers vs. Splitters





Information Objects: a Case Study



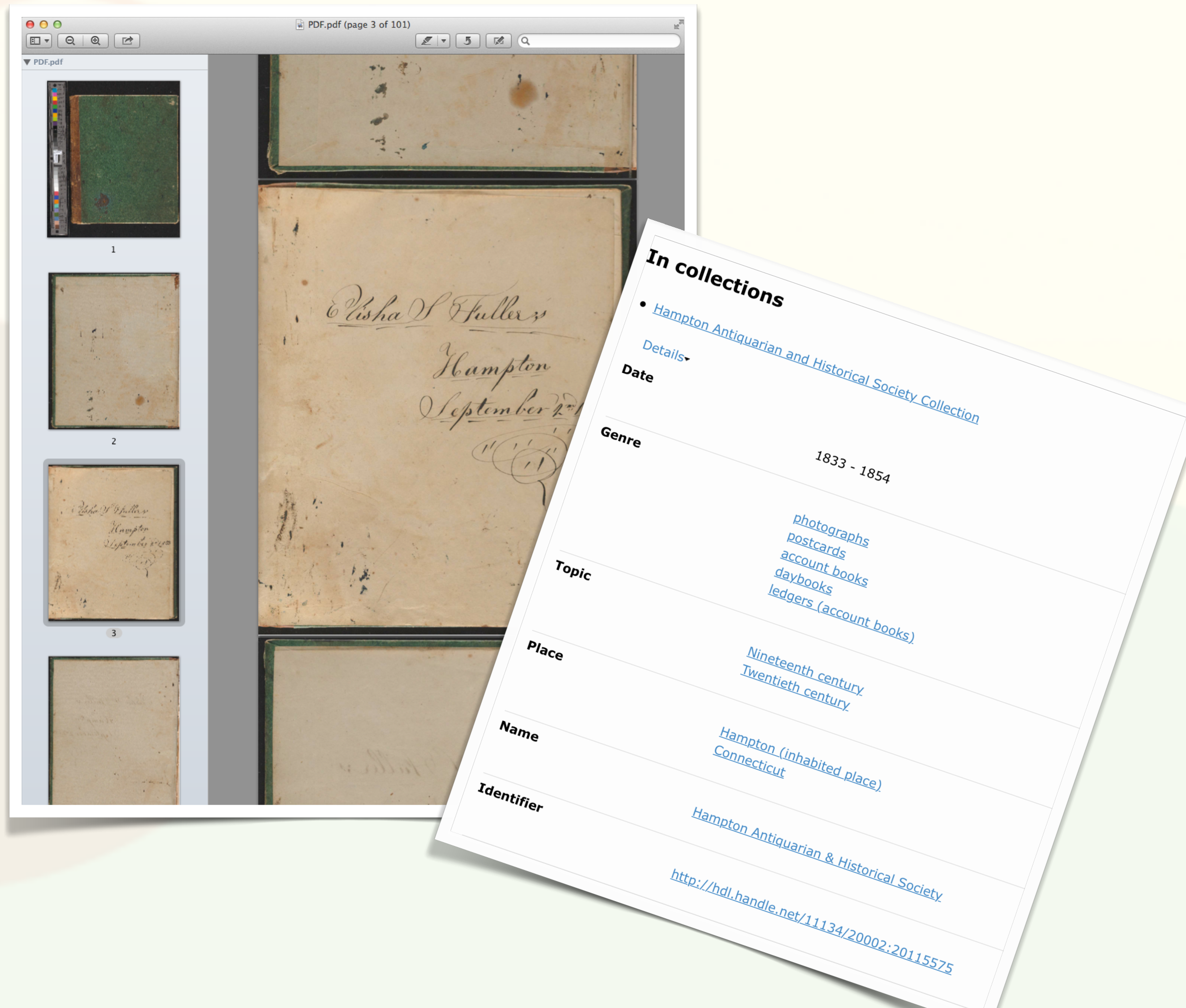
Elisha Fuller's Account
Book, 1833

Handwritten

101 pages, the last 20 are
blank.



A Simple Object



Elisha Fuller's Account Book as a PDF file.

The "DIP" includes a pdf and descriptive metadata.



Individual Objects

A set of pages as a “collection”
of digital objects

Home > Digital Collections > Hampton Antiquarian and Historical Society Collection

Fuller, Elisha Account book

View Pages PREMIS

Grid view List view

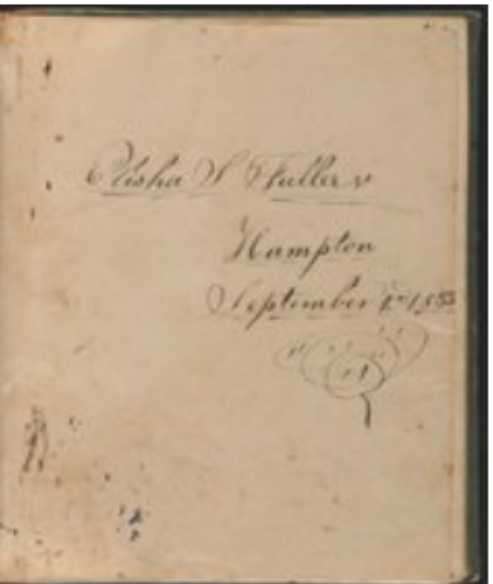
1 2 3 4 5 6 7 8 9 10 next > last »



uconn_asc_1984-0010_box01_folder06_001



uconn_asc_1984-0010_box01_folder06_002



uconn_asc_1984-0010_box01_folder06_003



uconn_asc_1984-0010_box01_folder06_004



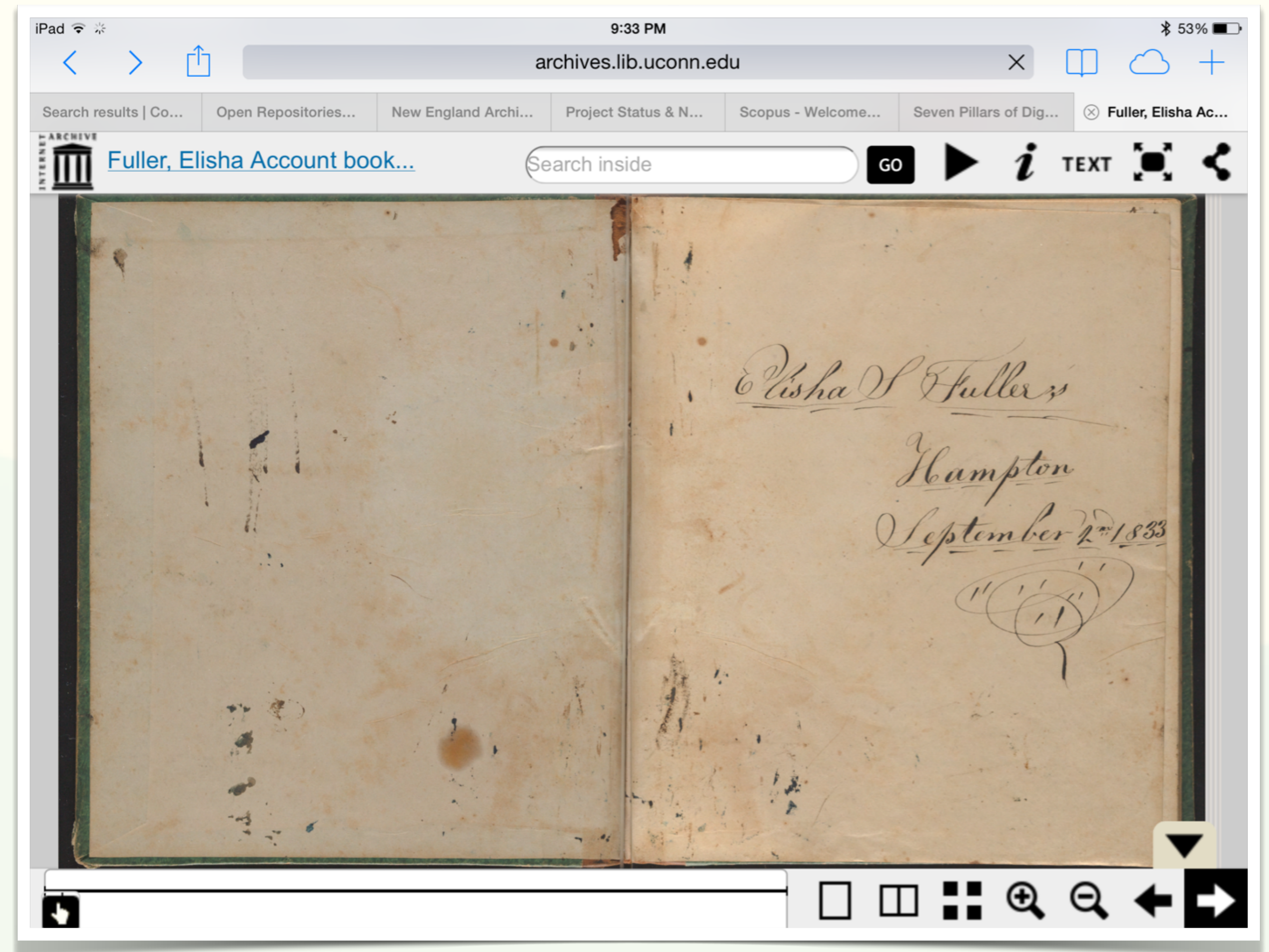
Complex Object

Pages assembled by a software application (a tool) and ordered by relationship metadata

There are 102 "DIPs" (101 pages and 1 "top level" DIP.

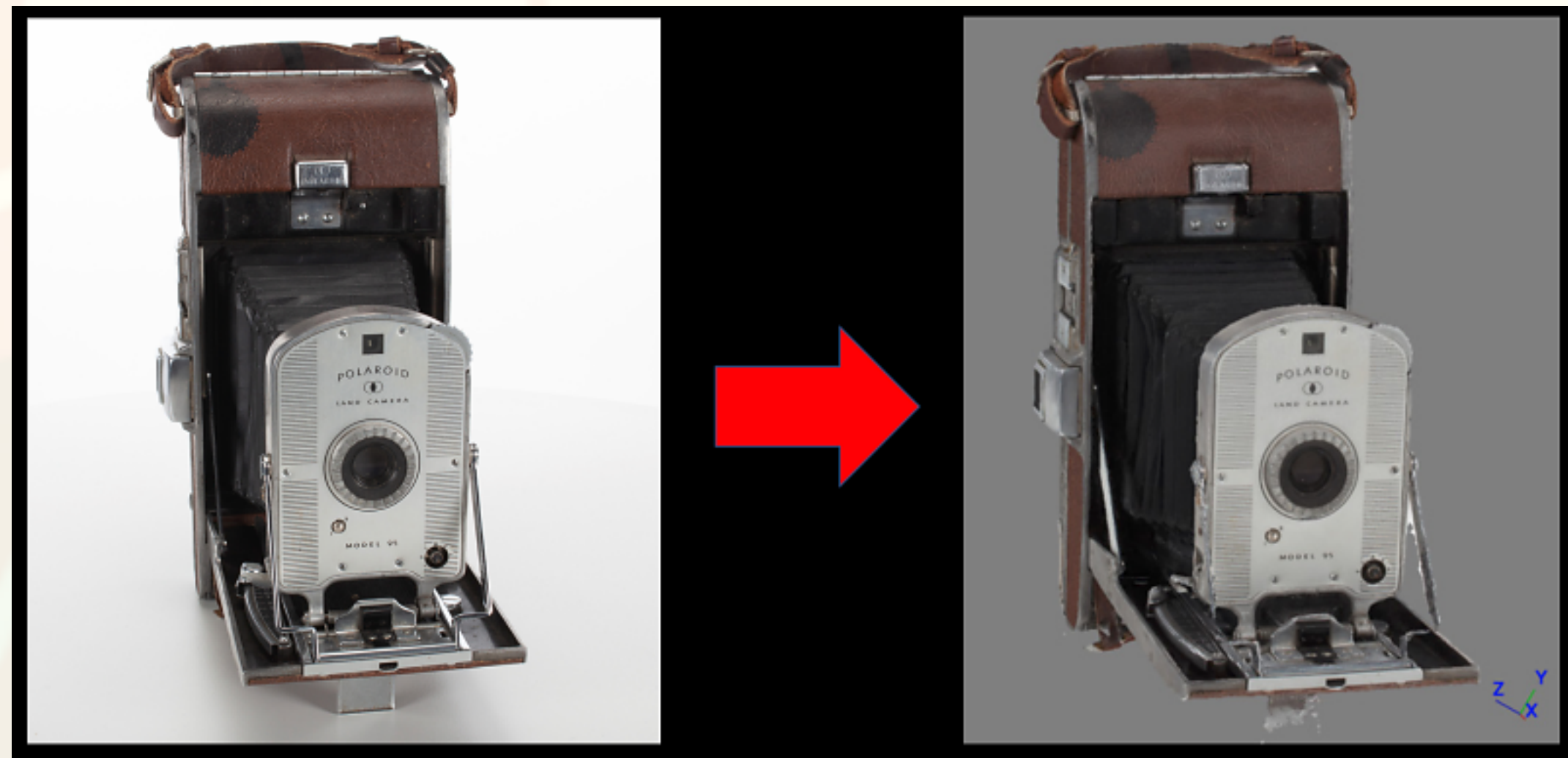
The top level DIP includes descriptive and technical metadata only.

The page-level DIPs include an access derivative and relationship metadata.





Information Objects: Another Case Study: Photogrammetry

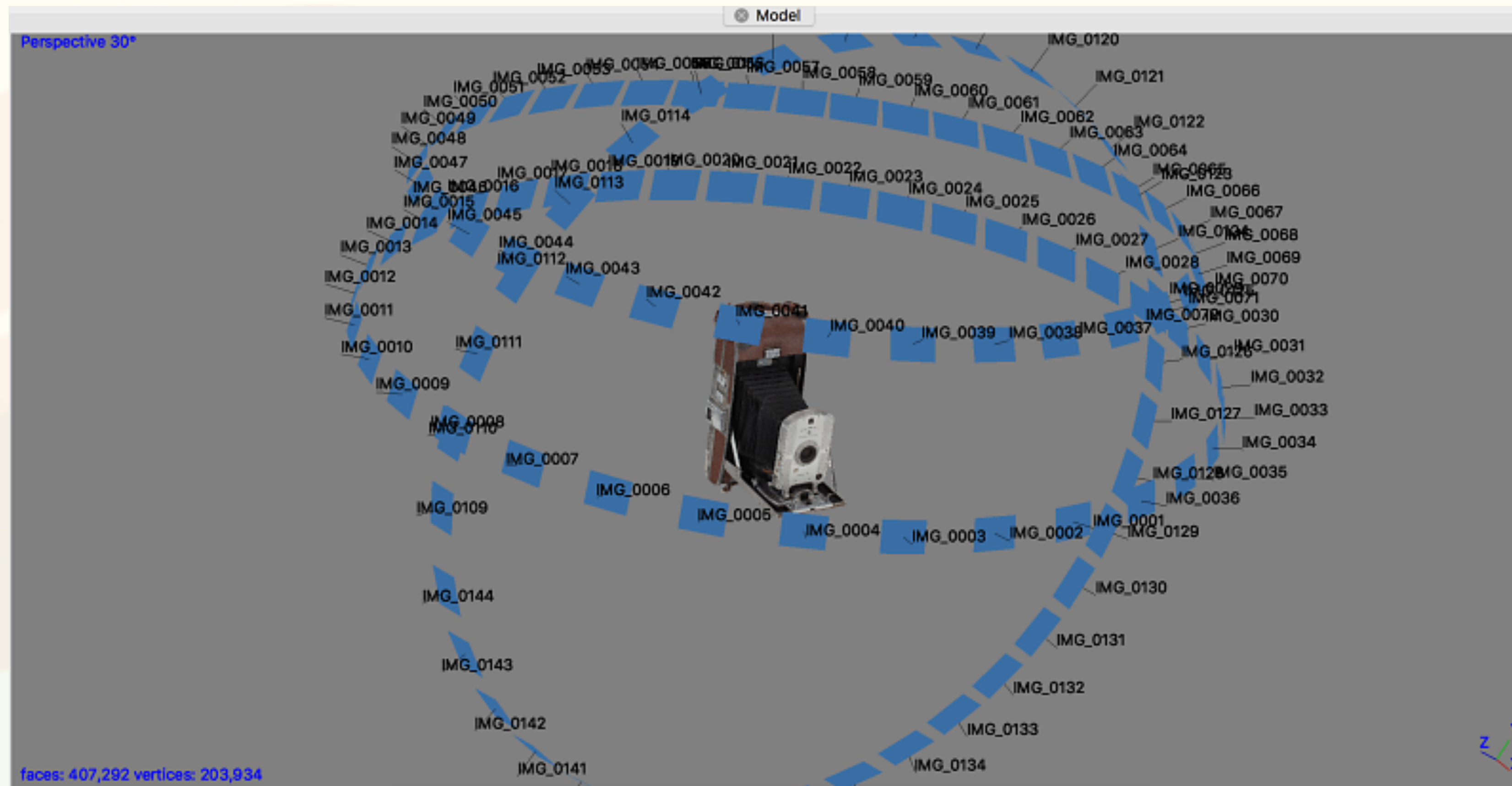


The Polaroid Camera

Bennett, Michael J., “Automating Image Capture for Photogrammetry: Initial Tests” (2018). Tundra Graphics
tundragraphics.com/blog/2018/08/automating-3d-capture/



Information Objects: Another Case Study: Photogrammetry



Hundreds of 2D images are stitched together along 3 axes to create a 3D model



Information Objects: Another Case Study: Photogrammetry



The resulting 3D model allows new ways of manipulation and examination

What do we save?

- The final file in its proprietary format
- The hundreds of 2D scans
- The “metadata” files that instruct the software program to generate the final file
- The display software you need to interact with the final file
- A “representation” of the experience of interacting with the object



Where Does Metadata Fit?

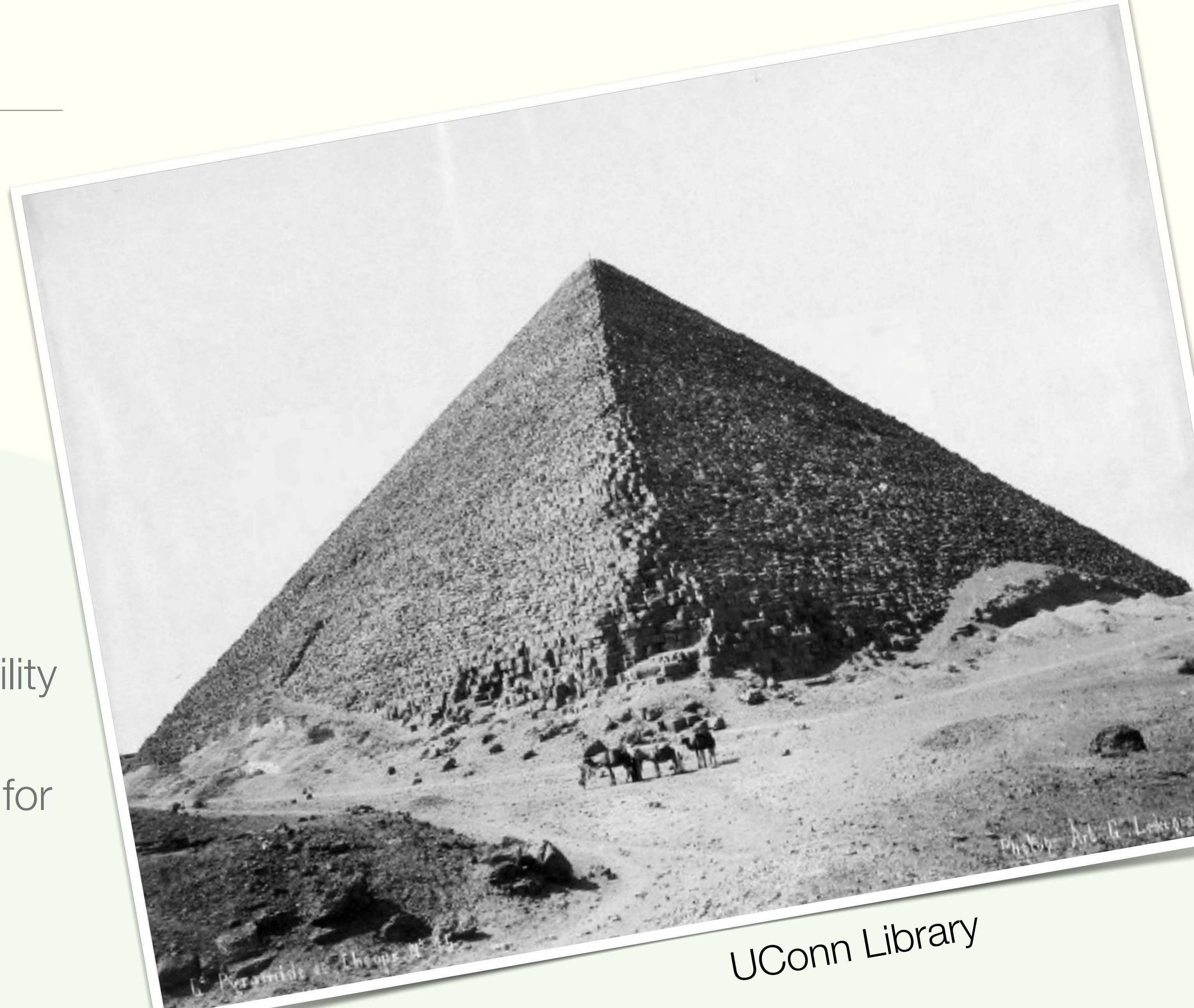
Metadata maintenance is perpetual...

To respond to changing intellectual and cultural attitudes

To adjust to new technical environments

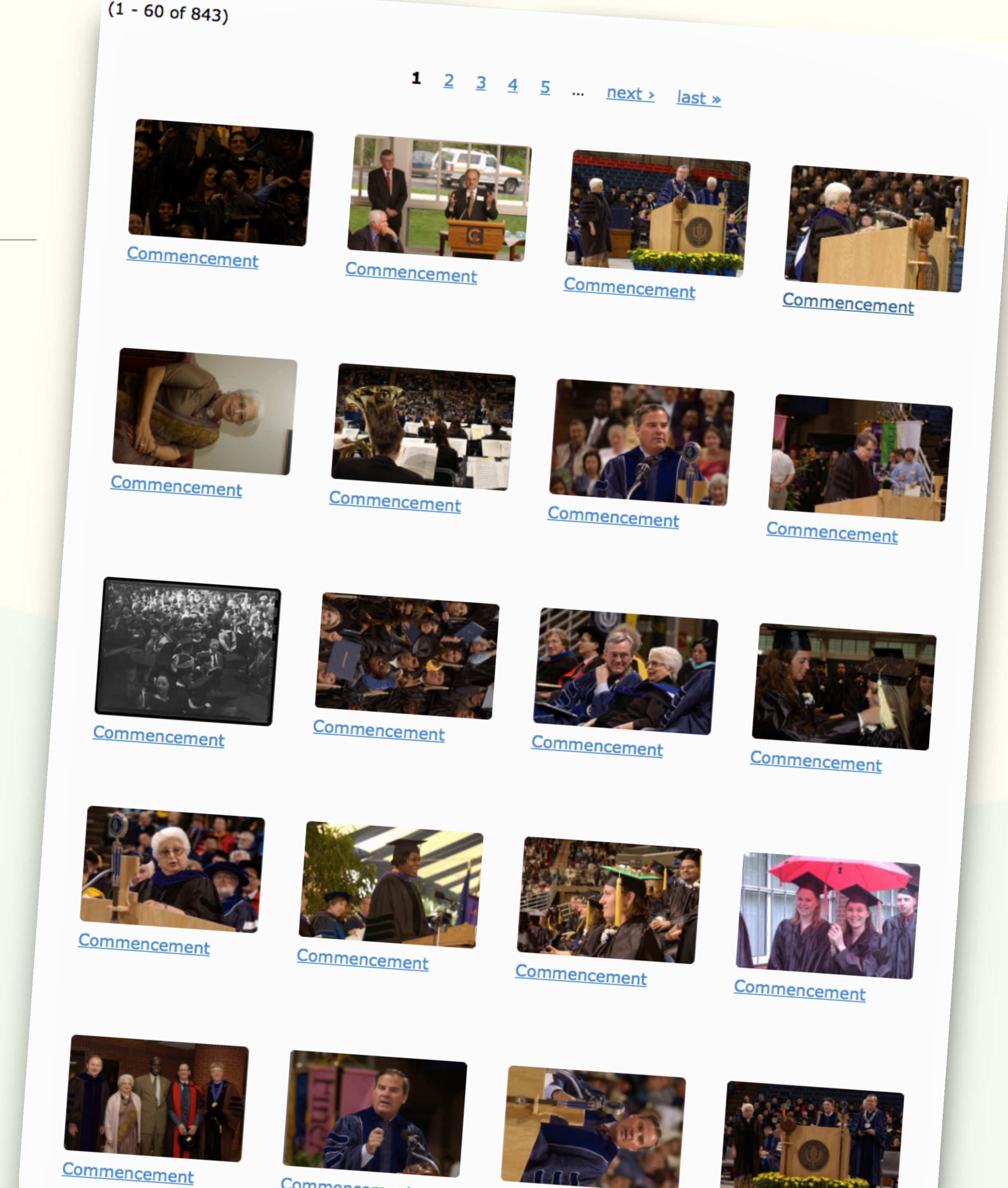
To add functionality and interoperability

All metadata is local/All metadata is for sharing



Is There a Value...

... in minimal description?



Collections Advice, Last Century



1. Describe: FIRST
2. Digitize: SECOND
3. Deliver: NEXT
4. Preserve: I have GOLD CDs!



Title
1

Type (Only Used for Alternative or Uniform Titles)
No Type Needed - Title Proper

Use this to select for alternative or uniform titles

Initial Article (Optional)

Title *
Over Three Shoulders, Weaving

Subtitle (Optional)

Add

Creator or Contributor

Adding Name)

Used (Optional)

Controlled Vocabulary (Optional)
s/names/n97852224

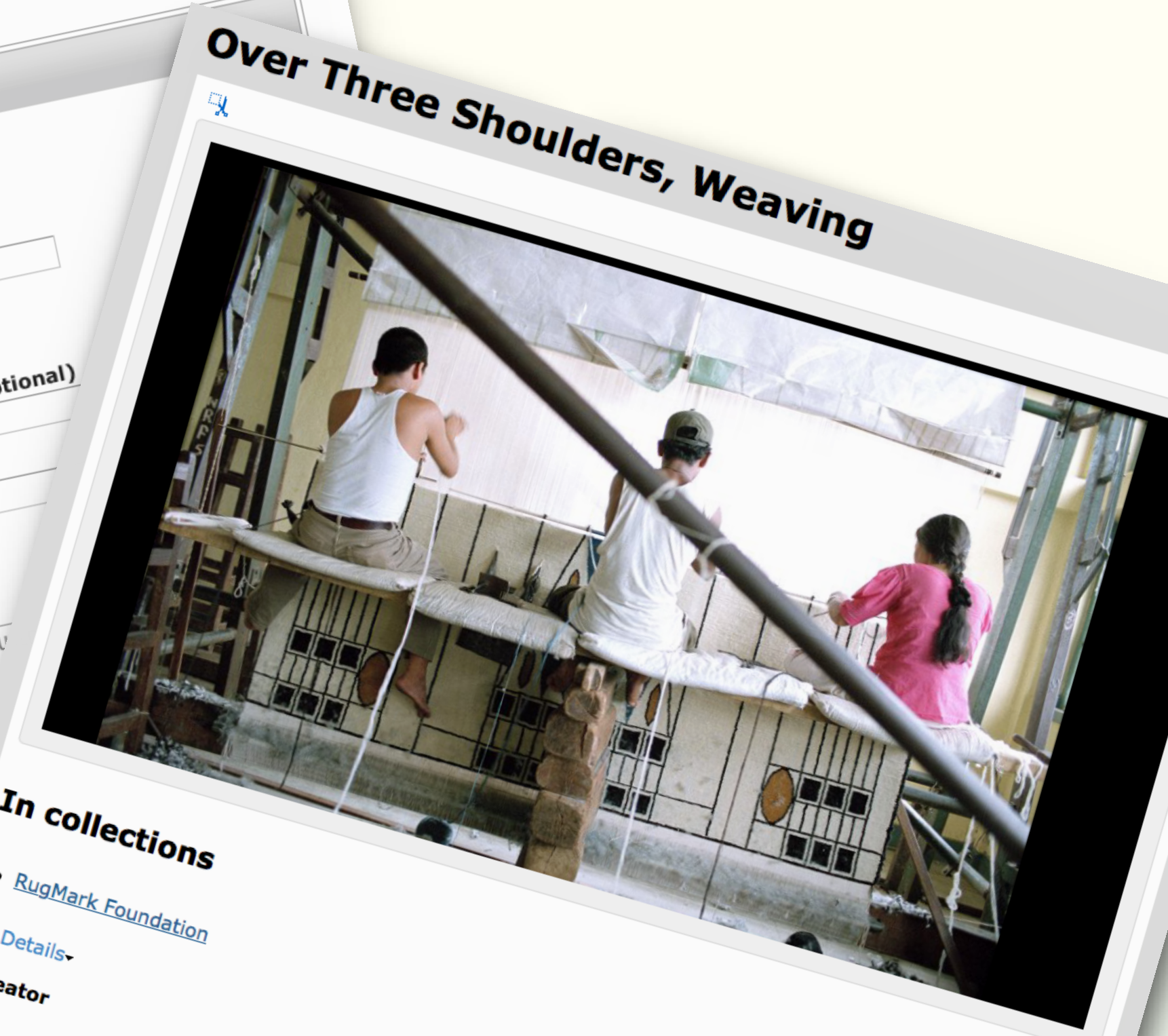
or Contributor)

om Contributor

vocabularies from LC. NOT U

Term
documentary photographs
Recommend AAT

Controlled Vocabulary Used
Art



In collections

- [RugMark Foundation](#)

[Details](#)

Creator

[Romano, U. Roberto](#)

Nearly three out of four Nepali carpet factories are certified under the RugMark Foundation inspection and monitoring program. UNICEF studies show that child labor in the rug industry has declined from 11% to 3% since RugMark launched in Nepal. (Kathmandu, Nepal, 2000)

2008-09-22

Collections Advice, Today

1. Digitize (if necessary): FIRST
2. Preserve: SECOND--Join a preservation collaborative in your state, province, or region!
3. Enhance: NOW?
4. Deliver: NEXT
5. Enhance: LATER?



Enhancement

Optical Character Recognition:
Makes page images full-text
searchable

Camps"

"Concentration Camps"

View

Download PDF

Pages

alphabetical

GO

TEXT

past one in the morning until two o'clock in the afternoon. In this space of twelve and three-quarter hours, on these records, 203 persons are reported as having died. They were assigned serial numbers running from 8390 to 8593. The names of the dead are listed. And interestingly enough the victims are all recorded as having died of the same ailment - heart trouble. The first who died was a man named Zynger, who died at two o'clock in the afternoon. At twenty minutes past two o'clock of that same afternoon, according to these records, on the 19th of March, 1945, the fatal roll-call began again and continued until half past four o'clock. We find the entries recorded in the same volume, from pages 582 through 586. There was another death book found at Camp Mauthausen. It is our Document No. 495-PS and bears the words "Death Book - Prisoners of War." And I invite the attention of the Tribunal in particular to pages 2:54 through 245. Here the entries record the names of 208 prisoners of war. apparently Russians, who at fifteen minutes past midnight on the 10th day of May 1942 were executed

Text View

An examination of the books is very revealing insofar as the routine of death is concerned, and I invite the attention of the Tribunal. These pages cover death entries made for Volume 5 from pages 568 to 582, a photostatic copy of which I passed to the Tribunal. 1945 between fifteen minutes past one in the 19th day of March. 1945 on these records. 203 persons are reported as having died. They were assigned serial numbers running from 8390 to 8598. The names of the dead are listed. And interestingly enough the victims are all recorded as having died of the same ailment - heart trouble. The first who died was a man named Ackermann, who died at two o'clock in the afternoon. At twenty minutes past two o'clock of that same afternoon, according to these records, on the 19th of March. 1945, the fatal roll-call began again and continued until half past four o'clock. In a space of two hours seventy-five more persons died, and once again they died in the same volume, from pages 582 through 586. There was another death book found at Camp Mauthausen. It is our Document No. 495-PS and bears the words "Death Book - Prisoners of War." And I invite the attention of the Tribunal in particular to pages 2:54 through 245. Here the entries record the names of 208 prisoners of war. apparently Russians, who at fifteen minutes past midnight on the 10th day of May 1942 were executed

Enhancement

Machine learning and data mining can derive metadata from documents and photos

Camps"

"Concentration Camps"

View

Download PDF

Pages

archives.ilo.uconn.edu

alphabetical

GO

TEXT

past one in the morning until two o'clock in the afternoon. In this space of twelve and three-quarter hours, on these records, 203 persons are reported as having died. They were assigned serial numbers running from 8390 to 8593. The names of the dead are listed. And interestingly enough the victims are all recorded as having died of the same ailment - heart trouble. The first who died was a man named Zynger, who died at one fifteen a.m., and the last one at twenty minutes past two o'clock in the afternoon.

At twenty minutes past two o'clock of that same afternoon, according to these records, on the 19th of March, 1945, the fatal roll-call began again and continued until half past four o'clock. In a space of two hours seventy-five more persons died, and once again they died all from heart failure and in alphabetical order. We find the entries recorded in the same volume, from pages 582 through 586. There was another death book found at Camp Mauthausen. It is our Document No. 495-PS and bears the words "Death Book - Prisoners of War." And I invite the attention of the Tribunal in particular to pages 2:54 through 245. Here the entries record the names of 208 prisoners of war. apparently Russians, who at fifteen minutes past midnight on the 10th day of May 1942 were executed

Text View

An examination of the books is very revealing insofar as the routine of death is concerned, and I invite the attention of the Tribunal. These pages cover death entries made for Volume 5 from pages 568 to 582, a photostatic copy of which I passed to the Tribunal. 1945 between fifteen minutes past one in the 19th day of March. 1945 on these records. 203 persons are reported as having died. They were assigned serial numbers running from 8390 to 8598. The names of the dead are listed. And interestingly enough the victims are all recorded as having died of the same ailment - heart trouble. The first who died was a man named Ackermann, who died at two o'clock in the afternoon. At twenty minutes past two o'clock of that same afternoon, according to these records, on the 19th of March. 1945, the fatal roll-call began again and continued until half past four o'clock. In a space of two hours seventy-five more persons died, and once again they died in the same volume, from pages 582 through 586. There was another death book found at Camp Mauthausen. It is our Document No. 495-PS and bears the words "Death Book - Prisoners of War." And I invite the attention of the Tribunal in particular to pages 2:54 through 245. Here the entries record the names of 208 prisoners of war. apparently Russians, who at fifteen minutes past midnight on the 10th day of May 1942 were executed



Enhancement

TEI text encoding embeds structural and semantic metadata in an XML file that can be used by tools to discover and display content.

Text Encoding Initiative: <https://www.tei.org>

Tue Oct 16

collections.ctdigitalarchive.org

9

UConn

LIBRARY

ARCHIVES & SPECIAL COLLECTIONS

John Merritt, Personal Diary, August 1939 - October 1939

Handwritten diary notebook of John Merritt made during the Fall of 1939. Includes description of local, national, and international events,... [Show more](#)

Views (63)

Downloads (1)

UConn Archives Website | Reproduction Policies | Collections Overview

f

t

y

t

View

Bookmark

Pages

Details

Toggle TEI

< Page: 16 of 124 >

Page 16

8/31 <Thurs> Camps all going back to city today, making Necessary the specials and usually run for this traffic. In afn busy as usual billing out Mahkeenac express. War clouds blacker tonite with definie developments expected hourly.

9/1/39< Fri > Breakfast radio gives comments on last nites speech by Hitler to his people, which together with subsequent bombings of Warsaw practically amount to a declaration of War on Poland. Interpreter + commentator sees in Hitler's references to Italy + Russia much reason to doubt that Germany is very sure

Page 17

John Merritt Personal Diaries

Enhancement

Linked data in metadata records

Details

Creator Clifford, Thomas

Description Episode of "Ireland on the Move" featuring Bruce Morrison Appreciation Night. The event was held to honor Bruce Morrison and his work supporting Irish immigration in America. The video is of the event featuring speeches and live musical performances. Also contains scenes of Irish people, buildings and landscapes.

Date 1992-11-15

Genre moving image

Topic Irish Americans
Irish--Music
Immigration Act of 1990 (United States)
Fund raising--Political aspects

Place Worcester (county)
Massachusetts (state)

Name Morrison, Bruce A.

Identifier 1991-0021-VR10_A.mp4

Link <http://hdl.handle.net/11134/20002:860008970>

SUBJECTS (RECOMMENDED)

Topics

1 2 3 4

x x x

Term
Irish--Music

Controlled Vocabulary Used
Faceted Application of Subject Terminology

Assigned Linked ID By Controlled Vocabulary
<http://id.worldcat.org/fast/978912>

Add

Name Subjects

1

Type (Required If Recording Name)
personal

Name (Required)
Morrison, Bruce A.

Controlled Vocabulary Used (Optional)
LC Name Authority File

Assigned Linked ID By Controlled Vocabulary (Optional)
<http://id.loc.gov/authorities/names/n88679964>

Add

Recommend [Linked Authorities and Vocabularies from LC.](#)



Arrangement and Description

Annie Porritt can be in two places at once, no time turner required!



Featured Topics



Annie Porritt

Annie Porritt was well known as a journalist. This skill made her a valuable asset for several organizations in the women's suffrage movement. She was a prominent member of the Advisory Council of the Congressional Union for Woman Suffrage and she became Press Chairman of the Connecticut State Woman Suffrage Association. Additionally, she was the editor for the publishing company of the National American Woman Suffrage Association. [Show less](#)

Permanent Link: <http://hdl.handle.net/11134/750019:AnniePorritt>

Views (15)Downloads (0)

Featured Topics Home | CHI Website | Contact Us

1 to 1 of 1 Objects

ViewBookmark

Book/Journal/Folder Title

Collection



SA_RG101B13V01-0061

[Photographs of Various Groups](#)



Photographs of Various Groups

Photographs of members of Woman Suffrage Association activities in Connecticut and elsewhere, at formal and informal meetings, parades, and other... [Show more](#)

Permanent Link: <http://hdl.handle.net/11134/30002:22229593>

Views (550)Downloads (11)

CSL Digital Collections | Contact | Website

ViewBookmarkPages

Details

Photographs of Various G

TEXT

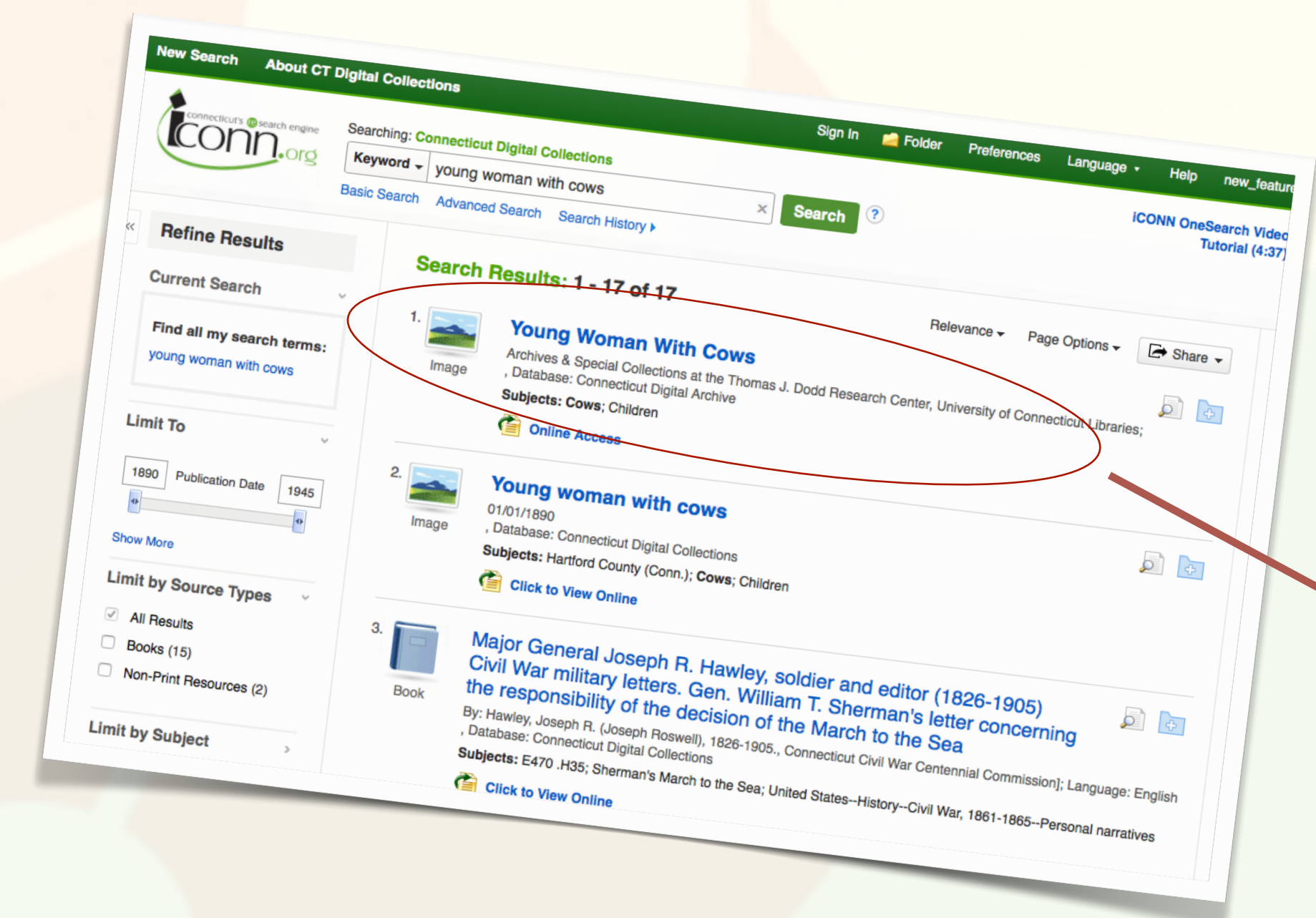
Search inside this book



Page 34 of 44

Interoperability

OAI-PMH allows metadata sharing across compatible platforms



UNCONN | UNIVERSITY OF CONNECTICUT

UNIVERSITY LIBRARIES

Archives & Special Collections at the Thomas J. Dodd Research Center

Search

Home > Digital Collections > J. B. Williams Company Records

Young Woman With Cows

View PREMIS



In collections

- J. B. Williams Company Records

DPLA DIGITAL PUBLIC LIBRARY OF AMERICA

All items > Young Woman With Cows

young woman with cows

Young Woman With Cows



View Full Item

Created Date

1890

Description

Barefoot young woman holding metal pail standing next to two cows. Third cow, trees and wooden split rail fence in background.

Partner

Contributing Institution

Subjects

Connecticut Digital Archive

Archives & Special Collections at the Thomas J. Dodd Research Center, University of Connecticut Library

Cows

Children



Interoperability: Metadata Sharing in the DPLA

The Charter Oak Story



- Charter Oak, J.E. Burkhart. The Graphics Collection, The Connecticut Historical Society, Hartford. (1859) Retrieved from Digital Public Library of America.



- Charter Oak Stove & Range Company, Catalogue no. 9. Carnegie Library of Pittsburgh. (ca. 1909) Retrieved from the Digital Public Library of America



- Charter Oak Dedication. Worthington Libraries. (1976-05-26) Retrieved from the Digital Public Library of America.



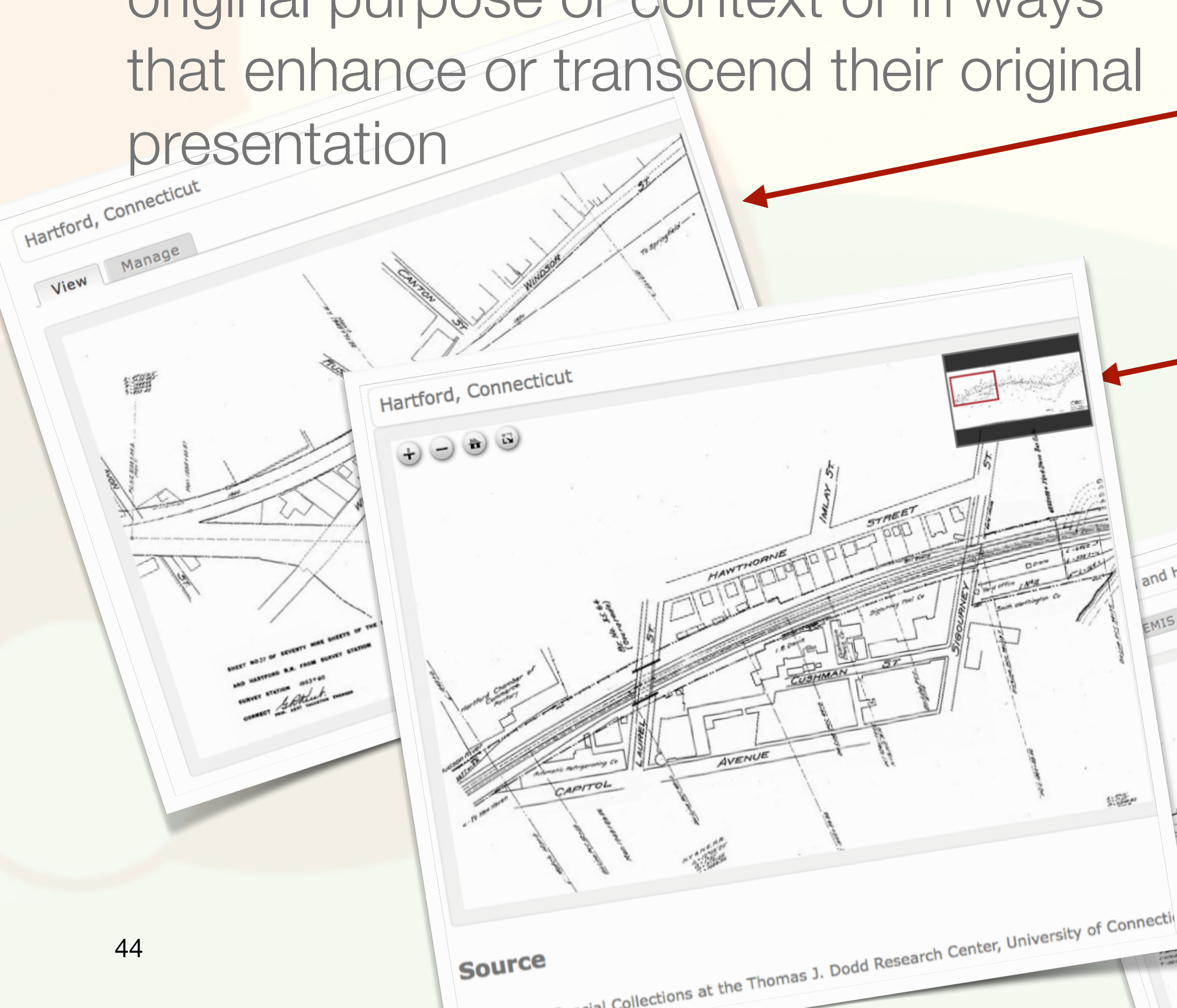
- View of the community building at Charter Oak Park. California Digital Library. (1964-01-27) Retrieved from the Digital Public Library of America.

A word cloud of the 250 most common topic terms in 100,000 CTDA records.



Reusability

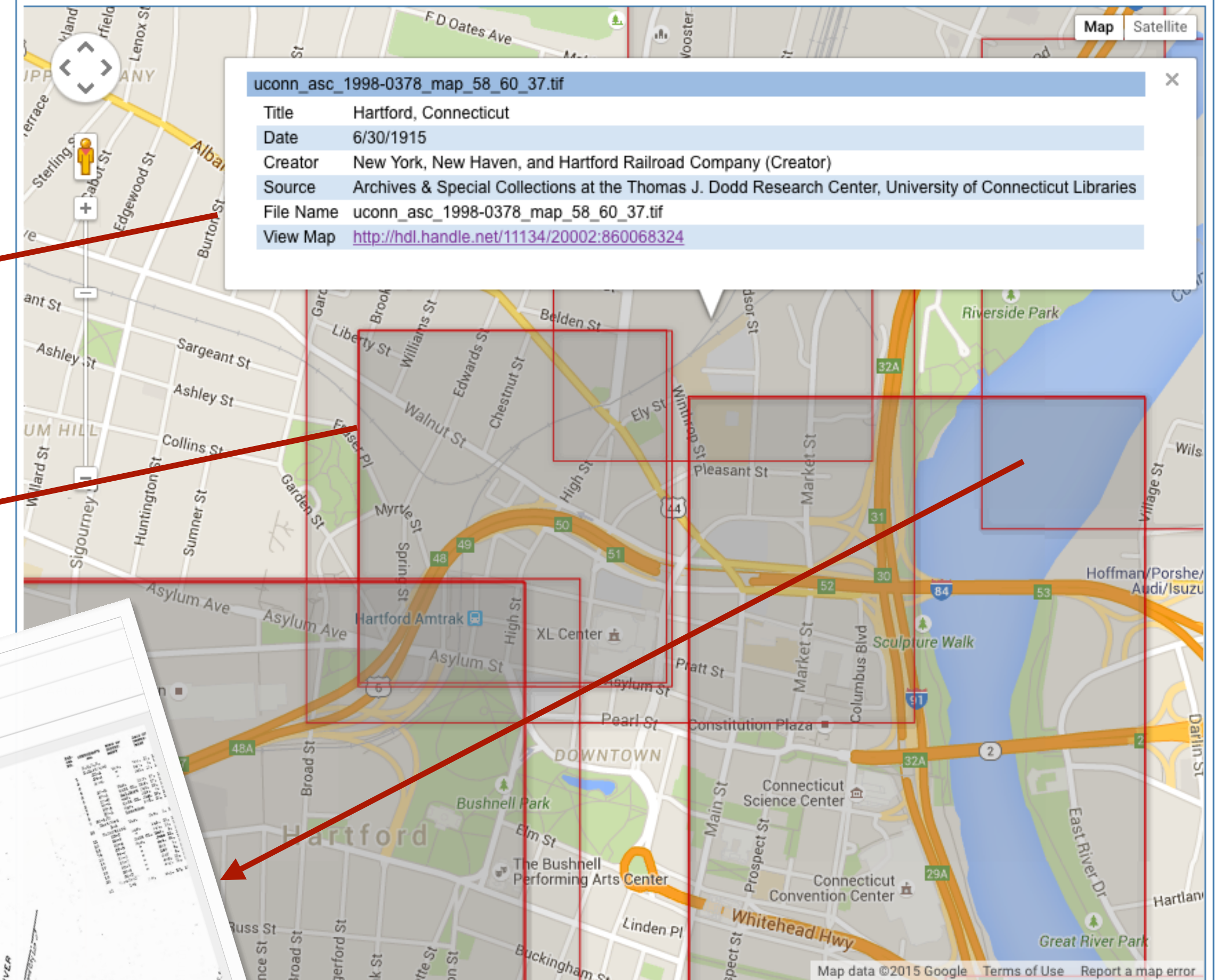
Objects (or the information they contain) can be used in ways not related to their original purpose or context or in ways that enhance or transcend their original presentation



New York, New Haven Hartford Railroad Valuation Map Index

This index includes the 1915-1916 New York, New Haven Hartford Railroad (NYNHRR) Valuation Maps. To use this index, search for an address or town, click on the red outline box and a pop-up balloon will appear. This pop-up balloon includes the file name, date, map scale, and a link to view the map within the University of Connecticut Libraries Archives and Special Collections Digital Archive. The link provides users with the ability to view each map, zoom, clip, and view additional details about the map..

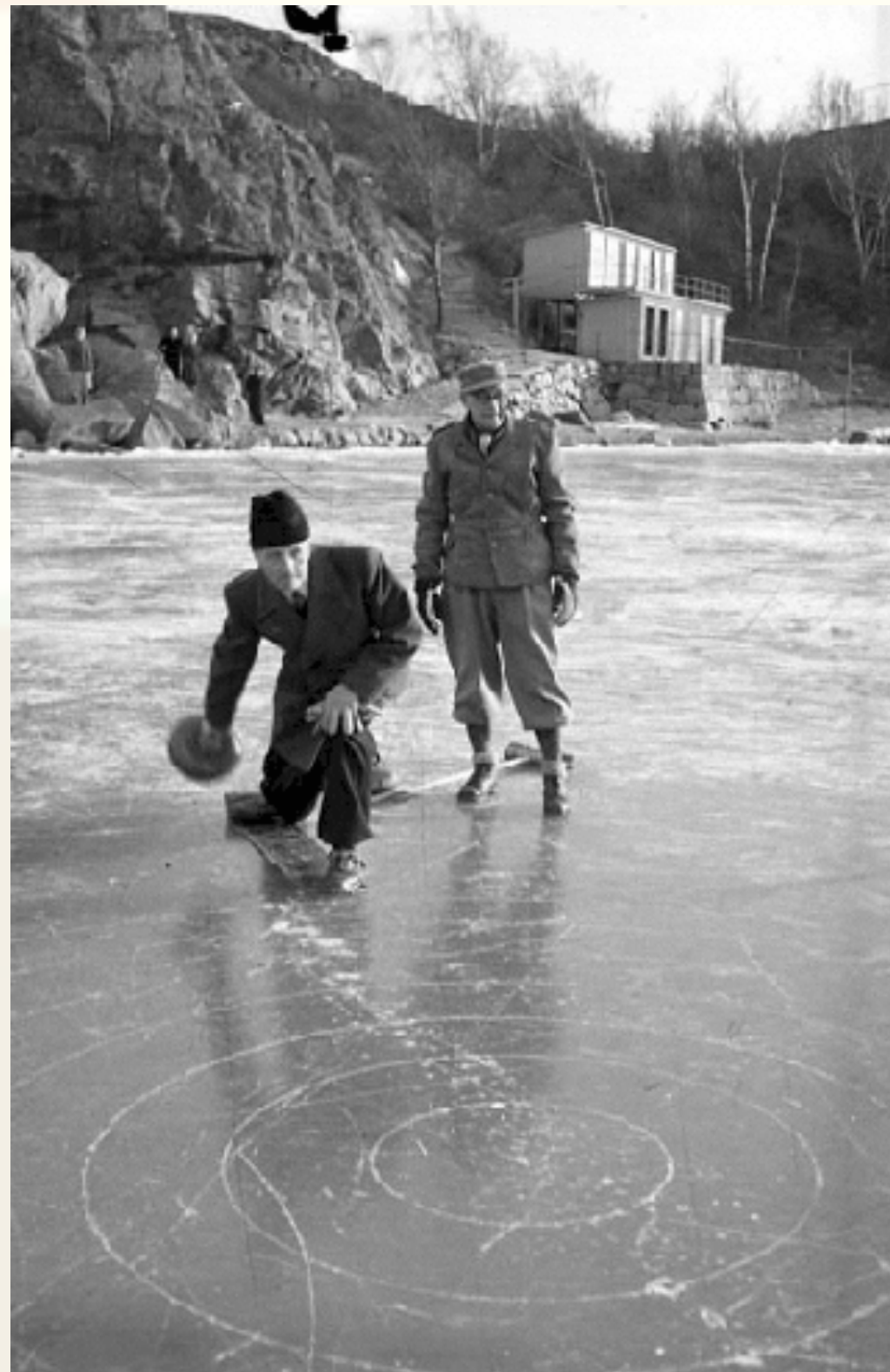
Use the search box below to locate a town or address in Connecticut.



New York, New Haven Hartford Railroad Valuation Maps are [georeferenced](#) and available from the University of Connecticut Archives and Special Collections..



Reusability: GIF it UP



<https://giphy.com/gifitup>



Reusability: Documentary Photography Re-imagined.

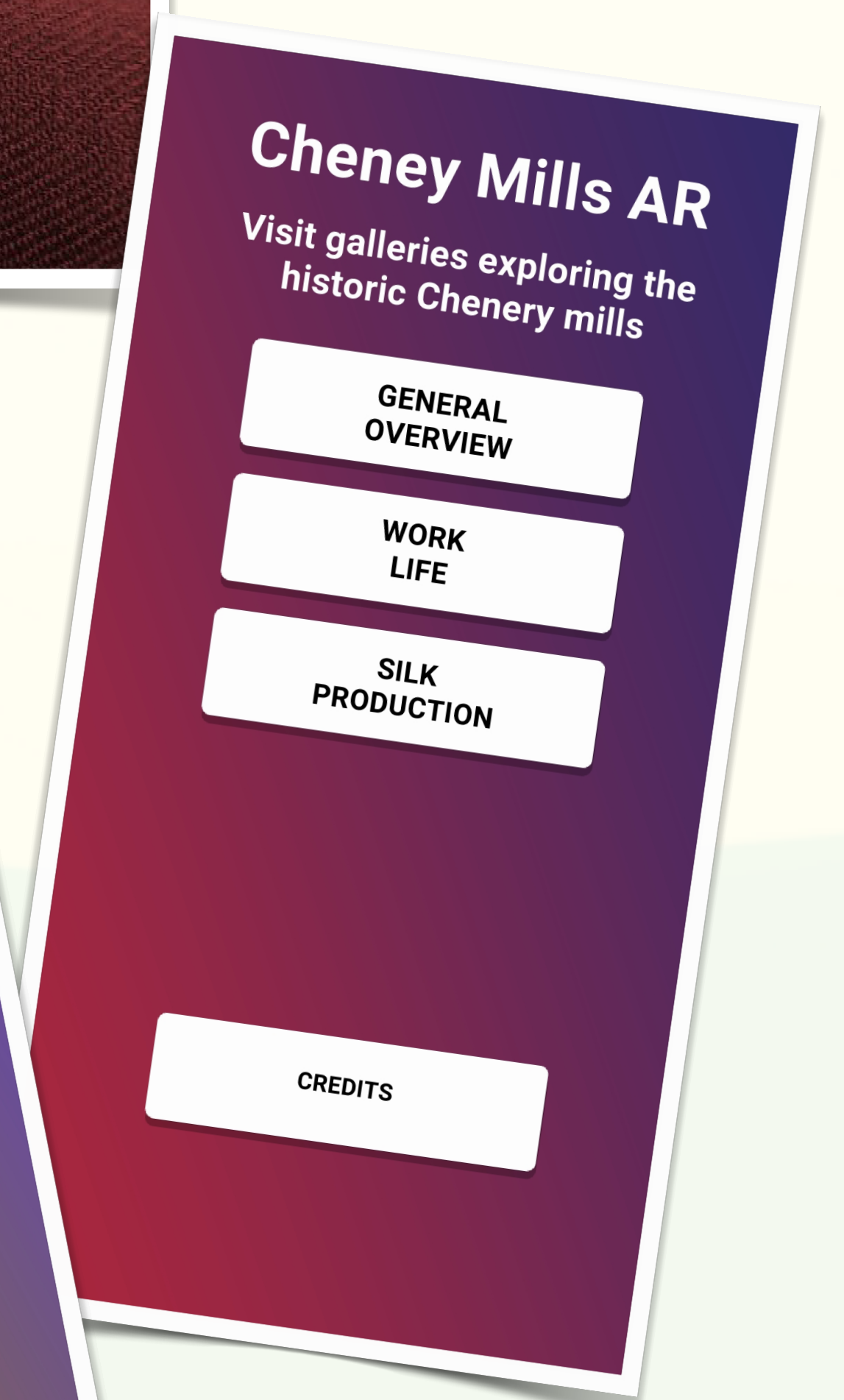


UConn students re-use documentary photography using motion graphics



Reusability

Augmented reality can create/provide context in ways that transcend the typical mediated access tools.





Reusability

Courtroom 600: A set of images and documents from the Thomas J. Dodd papers is used in a Virtual Reality educational experience examining the Nuremberg International Military Tribunal.

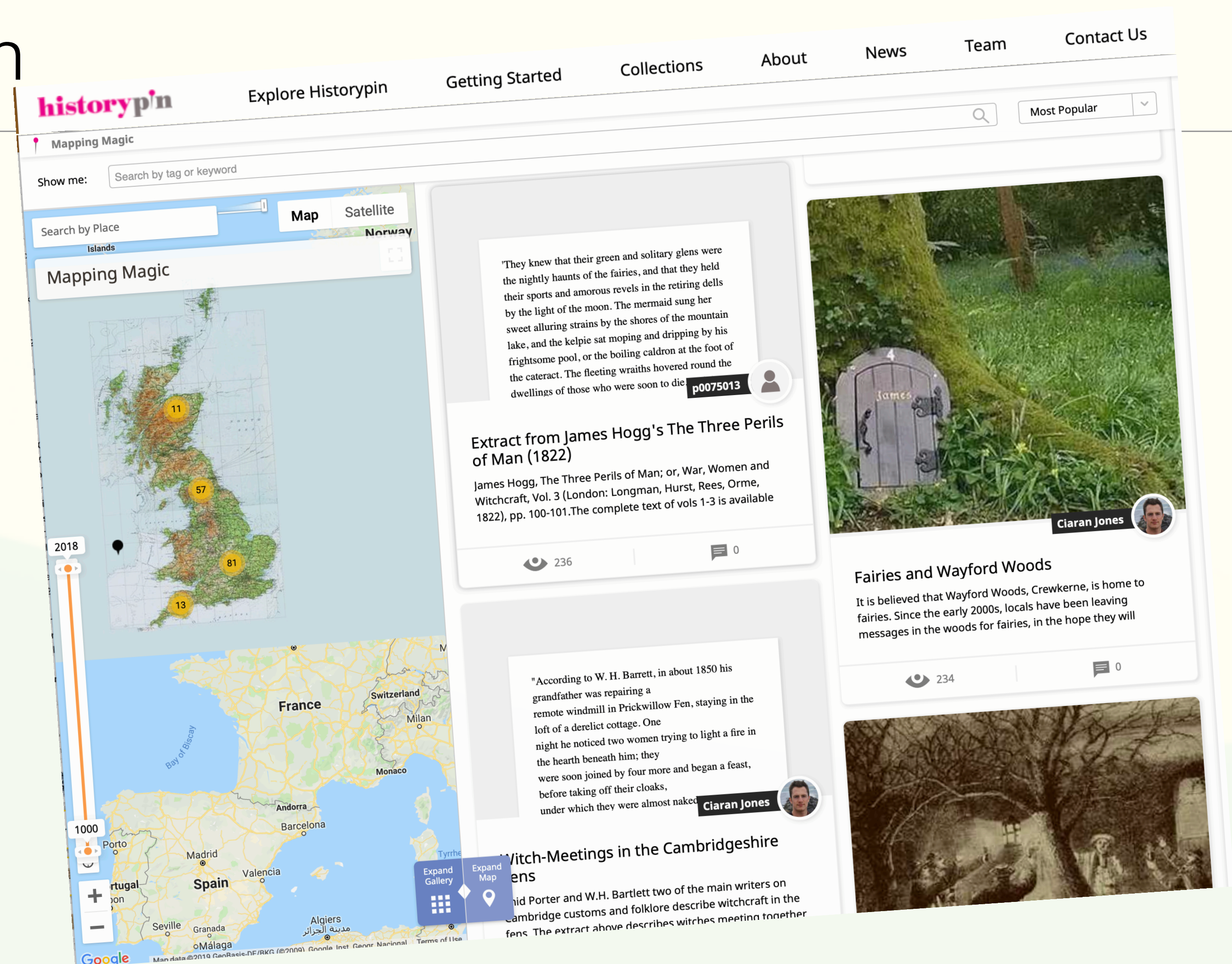
The VR designers used available data files (jpg and Dublin Core) supplied by the repository.





Low-investment Presentation

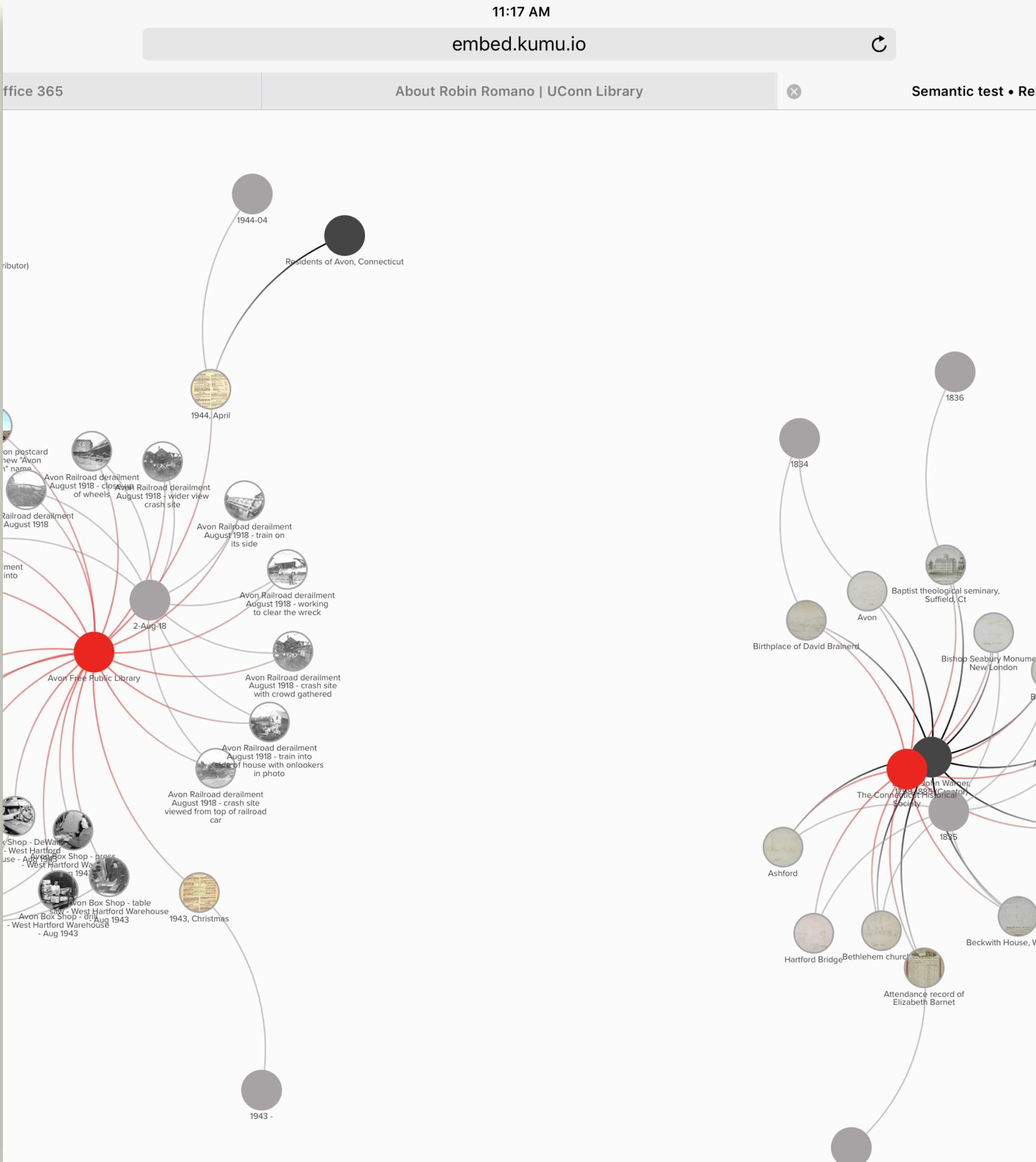
Historypin lets you tell stories with primary sources and connect them with a place and with other people creating stories. Browser based, no coding required.



By separating content management from presentation we lower the cost of trying new presentation tools.

Low-investment Presentation

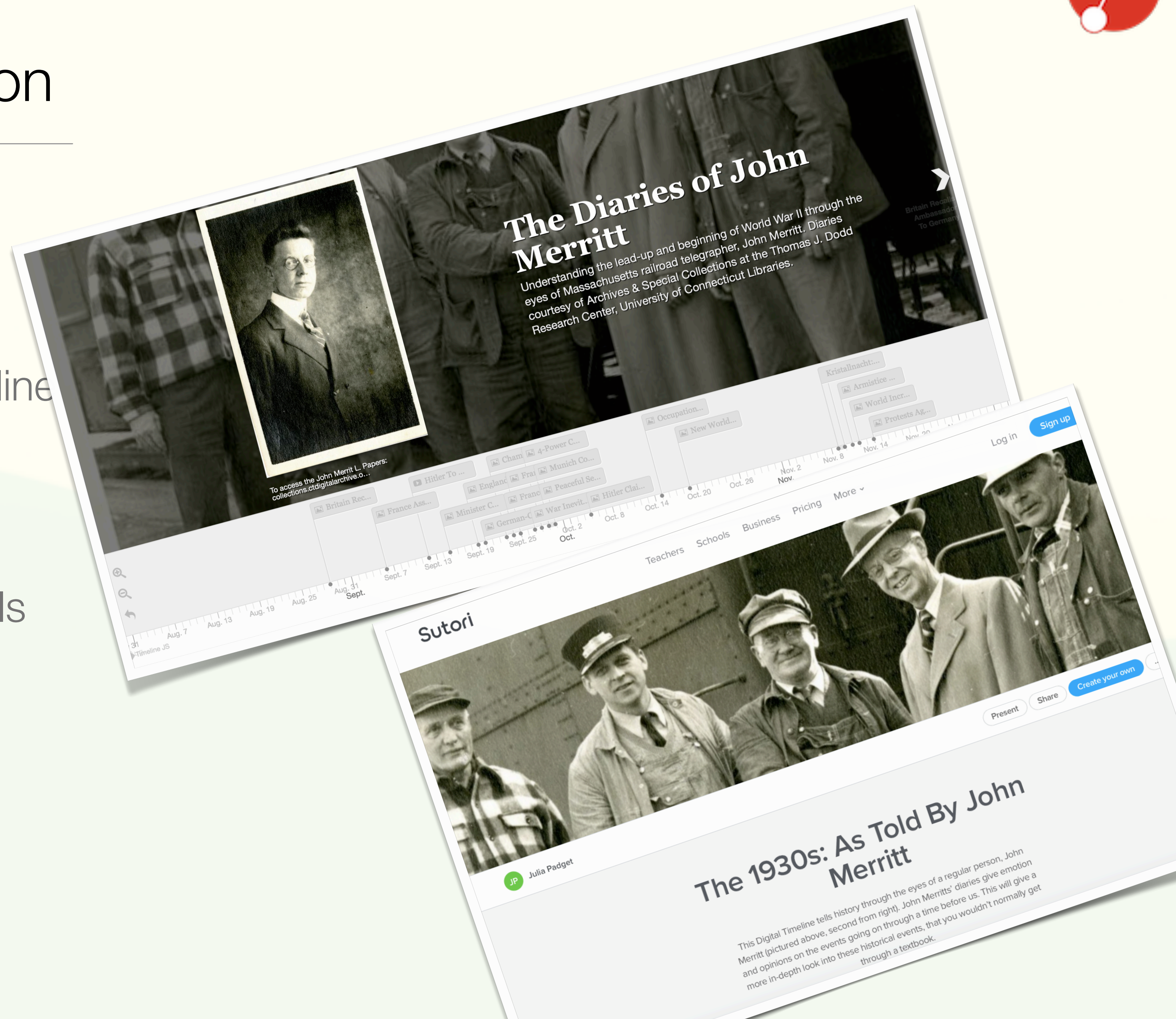
- **Google sheets** and **kumu.io** build a relationship map using MODS metadata and thumbnail jpg files.





Low-investment Presentation

- **Timeline.js** and **google sheets** create a sophisticated looking timeline with no overhead or coding knowledge required.
- **Sutori** (sutori.com) is a suite of tools aimed at teachers and businesses, including timelines and interactive features. Again no coding required.

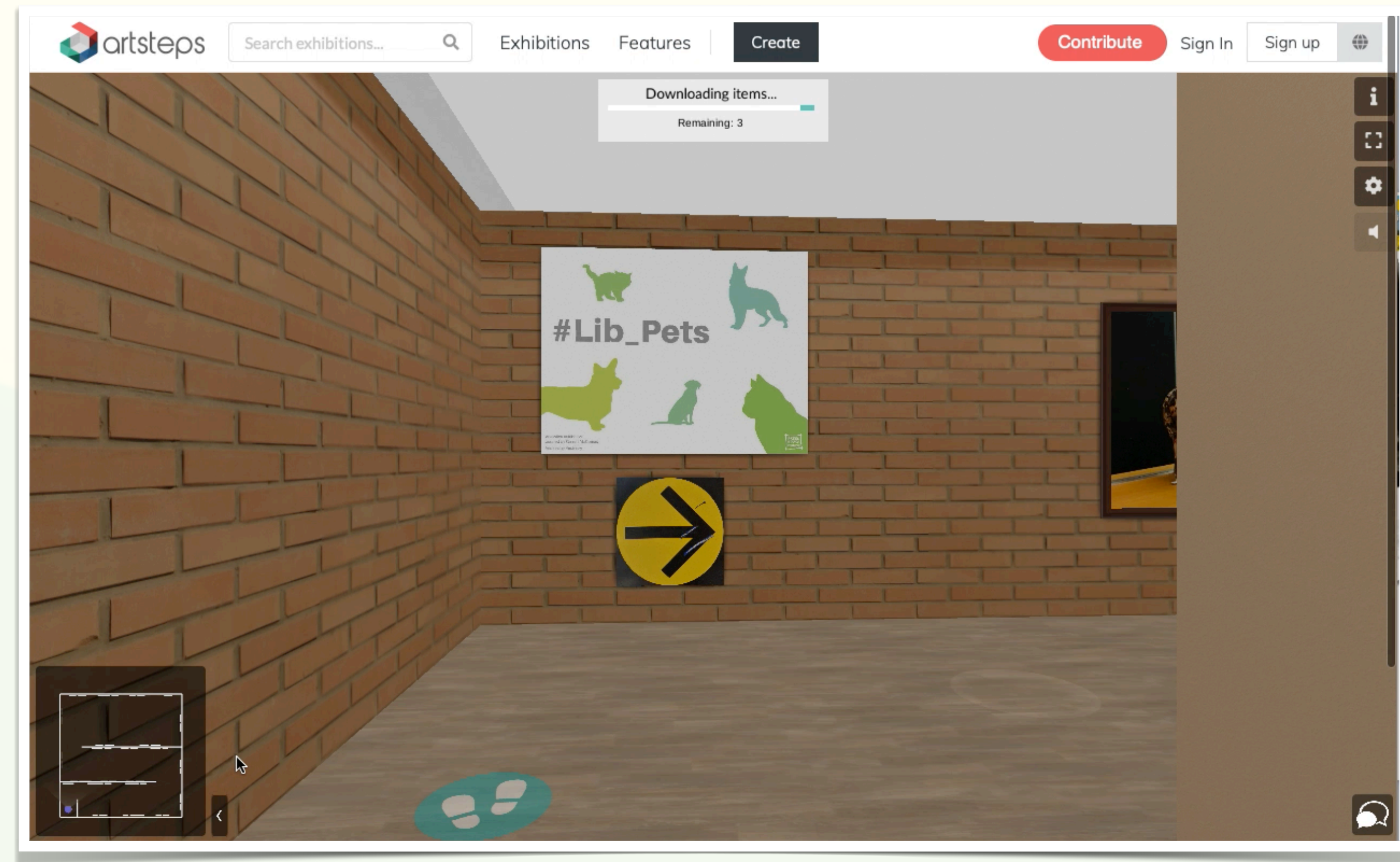




Low-investment presentation

Artsteps lets you create your own virtual gallery, no code required.

<https://www.artsteps.com/view/5eac1b8177b4156f9ba54bc6>





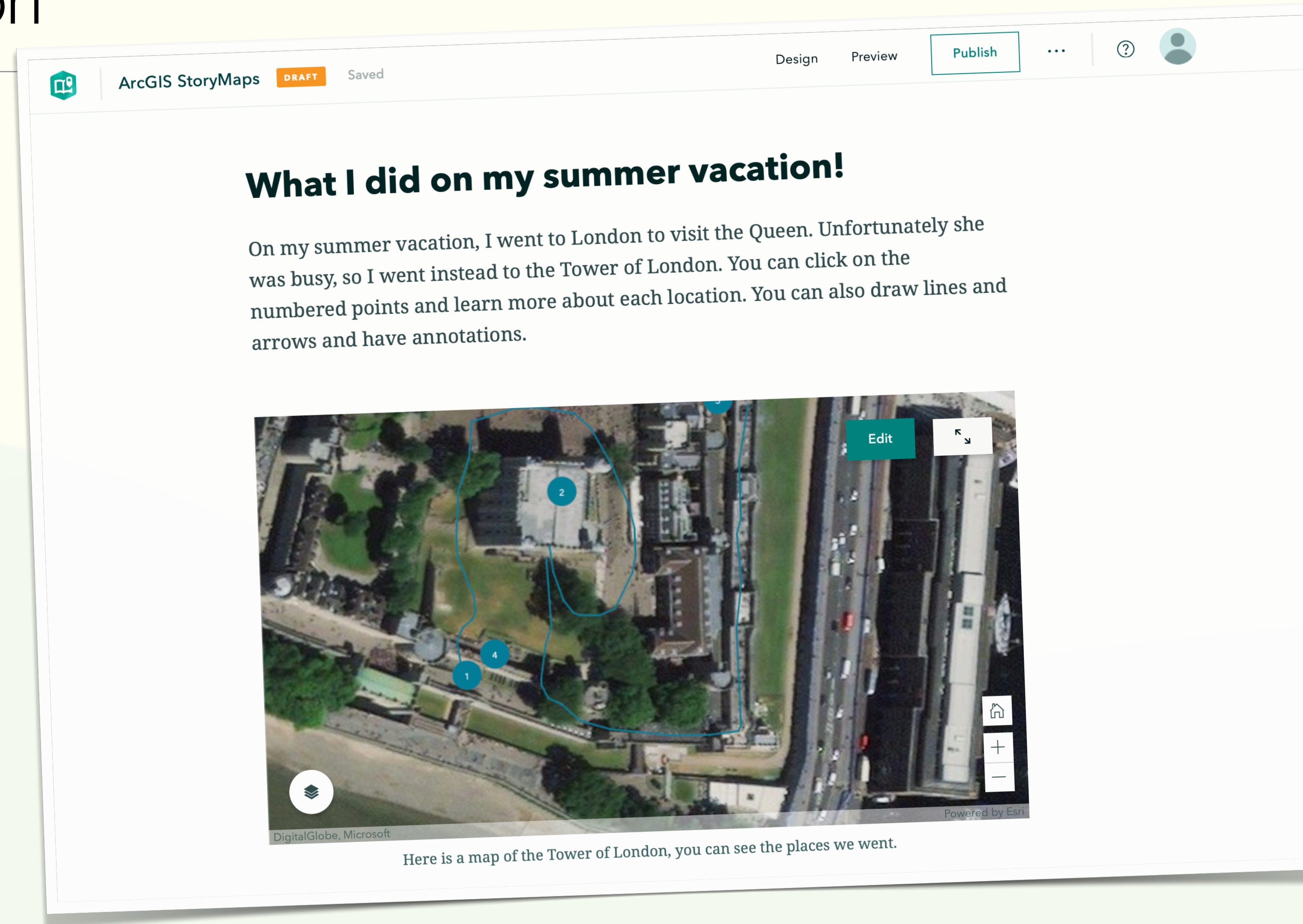
Low-investment Presentation

ArcGIS StoryMaps tell a story with maps and documents

No coding knowledge required.

No server administration

No software installation





All These and More

- WeVideo: <https://www.wevideo.com>
- Canva: <https://www.canva.com>
- Omeka: <https://omeka.org>, <https://omeka.net>
- Neatline: <https://neatline.org>
- Curatescape: <https://curatescape.org>
- PiktoChart: <https://piktochart.com>
- Sutori: <http://sutori.com>
- Voyant Tools: <https://voyant-tools.org/>
- Timetoast: <https://www.timetoast.co>
- HistoryPin: <https://www.historypin.org/en/>
- ArcGis Storymaps: <https://www.esri.com/en-us/arcgis/products/arcgis-storymaps/overview>
- Knightlabs: <https://knightlab.northwestern.edu>
- Kumu: <https://kumu.io>
- Artsteps <https://www.artsteps.com/>
- Text Encoding Initiative: <https://www.tei.org>



Take Aways

Preservation is the preservation of access

Doing something is better than doing nothing

Find your level of comfort and investment

Management decisions affect access opportunities

Separate content from tools

Make connections possible

Bus leaving Hartford for the March on Washington, 1963
Hartford Public Library





What We Know ... Once Again ...

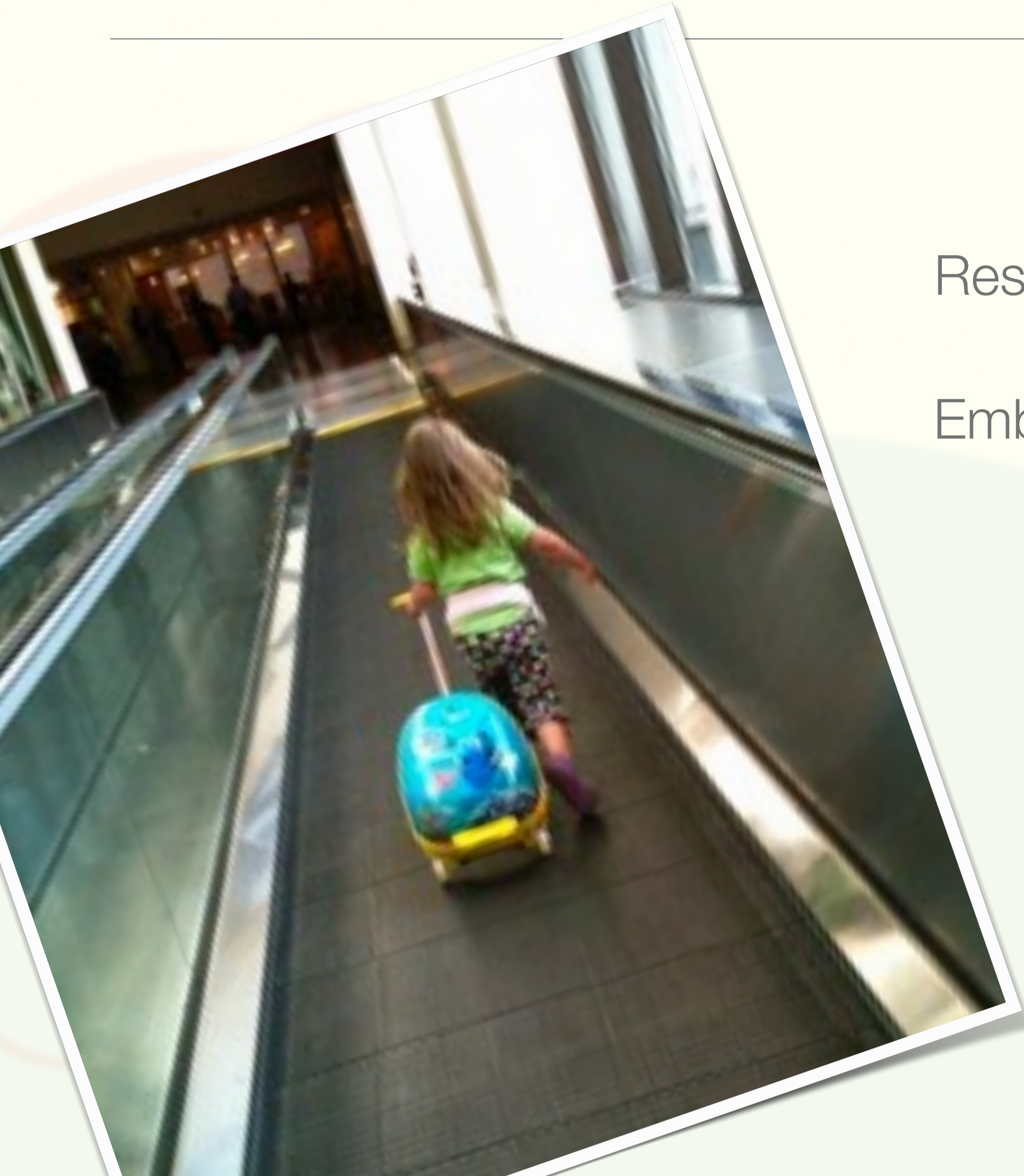
Managing digital collections is the **same** as managing physical collections **except** when it is **different**





The More Things Change, the More They Remain the Same

Respect the traditions of
the profession
Embrace the potential of
the future



Online Training Conference

DIGITAL DIRECTIONS

**Fundamentals of Creating and
Managing Digital Collections**

PRESENTED BY NEDCC

Thank you!

Please complete the online evaluation form.

A link was sent to your email address.

You can edit your responses until you click submit.