Digitizing on a Dime

Digitization for Individuals and Small Genealogical Societies

Toolbox Workshop, June 15, 2019
Youngstown Historical Center of Industry and Labor

Welcome!

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DEEP GENEALOGICAL SERVICES

Overview of Concepts

- Image Capture Basics
- Image Capture Techniques
- Describing Your Images (Metadata)
- Storing Your Images
- Sharing Your Images
- Putting it all Together

Creating Quality Images

Reading Times
(Reading, Pennsylvania)
2 February 1923

Creating Quality Images

Decisions will be made based on the requirements of your own project.

Reading Times
(Reading, Pennsylvania)
2 February 1923

Image Capture Basics

Photographer, Edith Dennison Darlington Ammon/ O'Hara Darlington, ca. 1886-1887, University of Pittsburgh, Archives & Special Collections
Via Historic Pittsburgh

Image Resolution

- Images are made of up small dots (pixels) made up of different colors.
- The resolution number tells you how many dots per inch are in an image.
- Higher Resolution means better quality, but also bigger files!

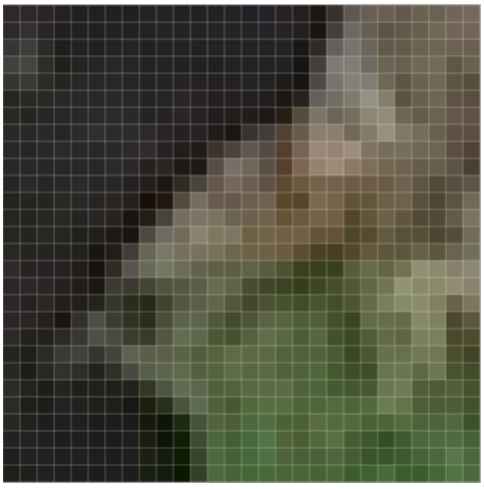
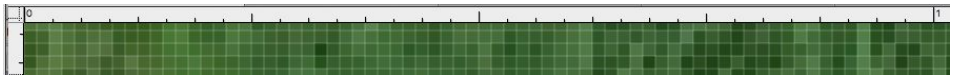
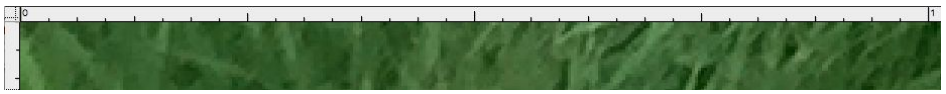


Image Resolution

Standard for web images in 72 dpi (dot per inch)



Standard for printing images is 300 dpi (dots per inch)



Scan at least 300 dpi when capturing photographs.

You can go as high as 600 dpi to capture fine details and document the object's condition.

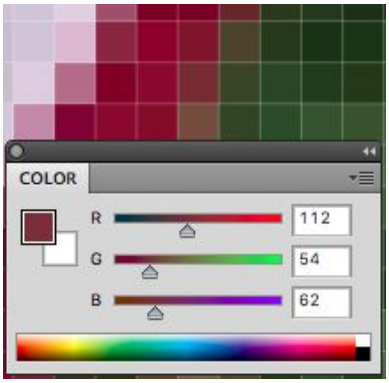
Color Space

This determines what colors make up each individual pixel in an image.

- RGB
- Grayscale
- Bitmap

RGB

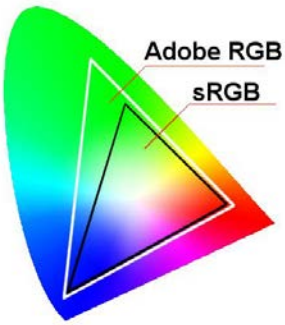
- Each pixel is made up of various shades of Red, Green, & Blue



RGB

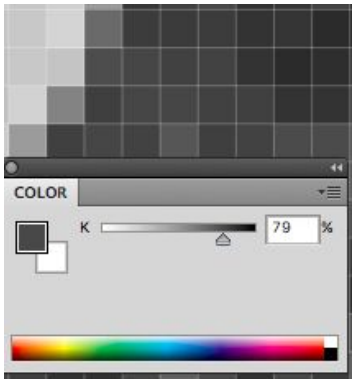
- Best for most photographs.
- Files will be slightly larger.
- Scanner software may call this: color mode or color photographs.

Common Color Profiles:
sRGB or AdobeRGB



Grayscale

Each pixel is made up of a shade of gray.

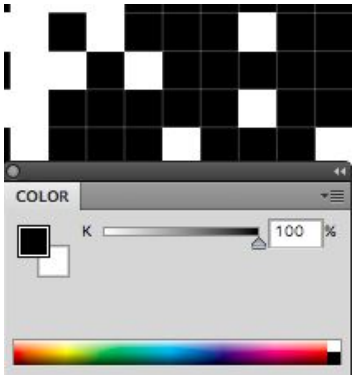


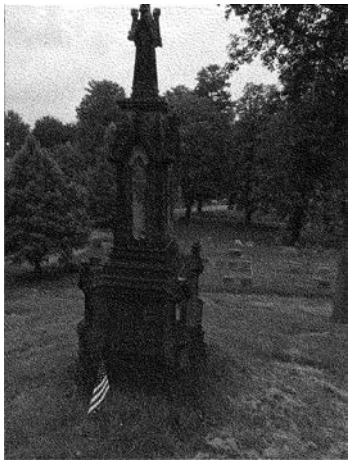
Grayscale

- Can be an option for scanning black & white photos.
- Smaller files and you don't have to worry about color corrections.
- Usually called Grayscale in scanner software.

Bitmap

- Each pixel is made up of either black or white.





Bitmap

- This is used primarily for text based documents.
- Scanner software may call the mode B&W or Line Art.
- Not recommended for photographs

File Types - TIFF

- Preferred file type for scanning master files and long term preservation
- No image compressions – image is closer to the original
- Larger file size
- Extension: .tif or .tiff

File Types - JPEG

- Preferred file type for web publishing
- Smaller files size
- Some compression occurs so images can be blurred a little if you zoom in
- Best format to use for repurposing and sharing files
- File extension: .jpg or .jpeg

File Types – Camera Raw Files

- Large files with raw color data.
- Can't be opened by most regular image viewers.
- Gives you the most flexibility in image processing, but they need to be saved in other formats (like TIFF or JPEG).
- File extension: .CR2 or .DNG

Image Capture Techniques

Photography, ca. 1950, The University of Wisconsin Collection

Flatbed Scanners

+ Easy to get high-resolution images
+ No need to worry about light source & focus
- Can be slow
- Can't capture 3D objects

Selecting a Scanner

- Determine your needs & your budget
  Just photographs or negatives also?
- You can get surprisingly good results with affordable scanners
- Entry-level scanners cost around $100 - $200
- High-end scanners are $1,000 and above

Overhead Cameras & Copystand

+ Quicker than Scanning
+ Easily capture 3D object
- Can be more expensive
- Harder to capture consistent images
- Less control of image resolution

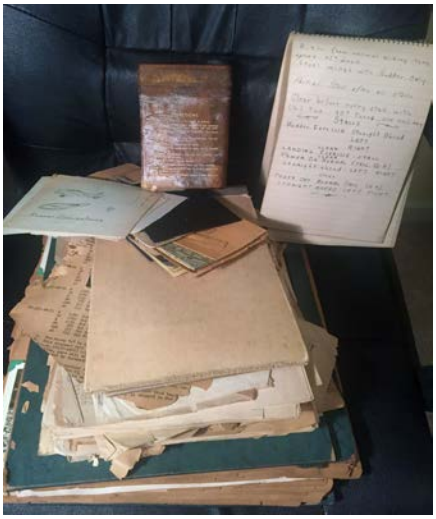
Overhead Document Scanner

+ Quicker than Scanning
+ More consistent than a traditional digital camera
+ Will automatically separate multiple documents and detect when a page is turned
- Can be more expensive
- Only can be used for documents

Fujitsu ScanSnap SV600 Contactless Scanner

Considerations by Object Type

- Photographs/Negatives
- Books
- Letters
- Documents
- Ephemera
- Objects



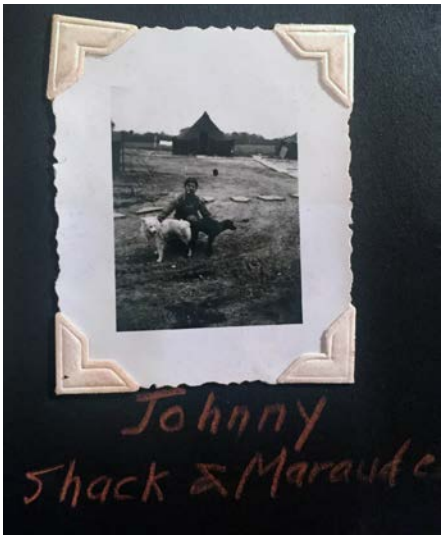
Describing Your Images

Women working in an office, Richard J. Daley Era Photographs (University of Illinois at Chicago) Via Special Collections and University Archives Department (Richard J. Daley Library)

Metadata

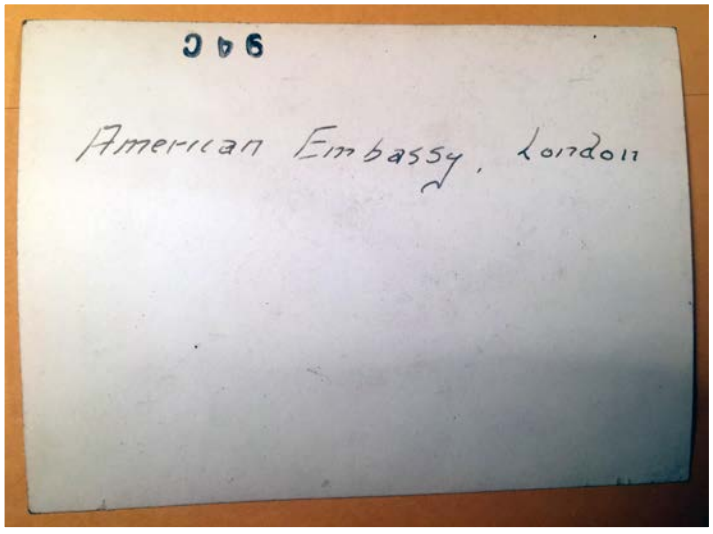
Data about Data

It's easier to access and organize your images if you know what they are.



Metadata

Metadata



Embedded Metadata

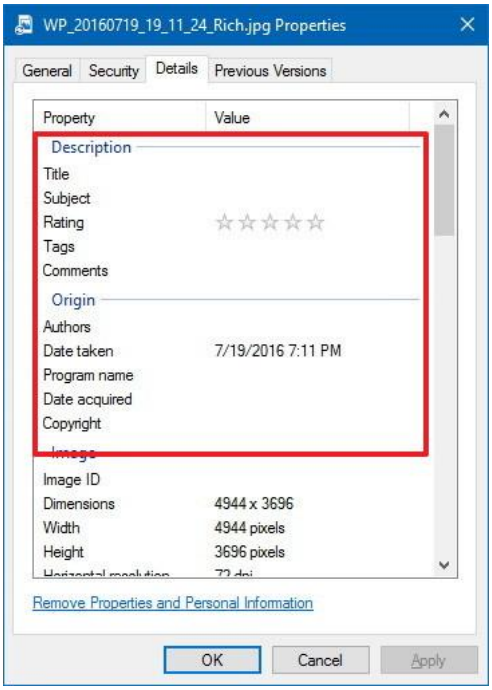
Embedded image metadata is like writing on the back of a photo for digital files.

You don't need special software to embed metadata (although it helps)

There are several standards for metadata including Dublin Core, IPTC, & VRA Core

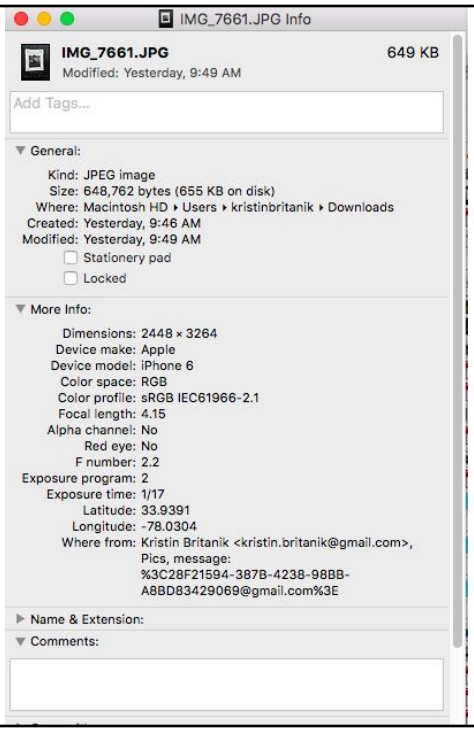
Windows

- Right Click on the Image
- Select Properties
- Can Edit:
  Title, Subject, Rating, Tags
  Comments, Authors, Program Name, Date Acquired, Copyright, Image ID



Mac

- CTRL + Click on the Image
- Select Get Info
- Can edit Tags & Comments



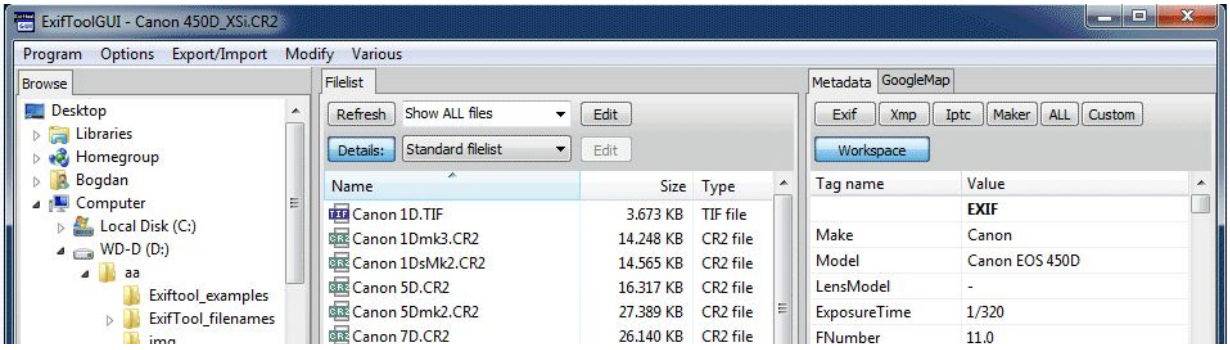
Batch Embedding Metadata

Adobe Lightroom
A program for viewing groups of images and editing metadata.

Adobe Bridge
Robust program that allows for batch photo editing, metadata embedding, and file renaming.

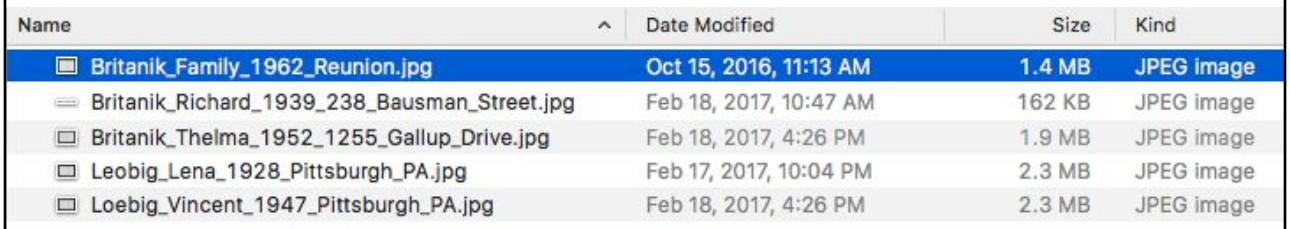
Batch Embedding Metadata

ExifToolGUI
Free robust tool for editing metadata for groups of files



http://u88.n24.queensu.ca/~bogdan/

File Naming Conventions



Name	Date Modified	Size	Kind
Britanik_Family_1962_Reunion.jpg	Oct 15, 2016, 11:13 AM	1.4 MB	JPEG image
Britanik_Richard_1939_238_Bausman_Street.jpg	Feb 18, 2017, 10:47 AM	162 KB	JPEG image
Britanik_Thelma_1952_1255_Gallup_Drive.jpg	Feb 18, 2017, 4:26 PM	1.9 MB	JPEG image
Leobig_Lena_1928_Pittsburgh_PA.jpg	Feb 17, 2017, 10:04 PM	2.3 MB	JPEG image
Loebig_Vincent_1947_Pittsburgh_PA.jpg	Feb 18, 2017, 4:26 PM	2.3 MB	JPEG image

- Descriptive files titles are an easy way to know what is in each image
- Be aware of file sorting when picking a name
- Don't use illegal characters (~ # % & * {} \ ; <> ?/+|".)

File Naming Conventions

- Come up with a code for objects with more complex descriptions (abbreviations or genealogical numbers).
- Test and record it and be consistent.

Object:
Warren United Method Church, Birth, Marriage, Deaths, and Member Rolls 1852-1892
File names:
WUMC_BMDMR_1852_1892_0001.tif
WUMC_BMDMR_1852_1892_0002.tif

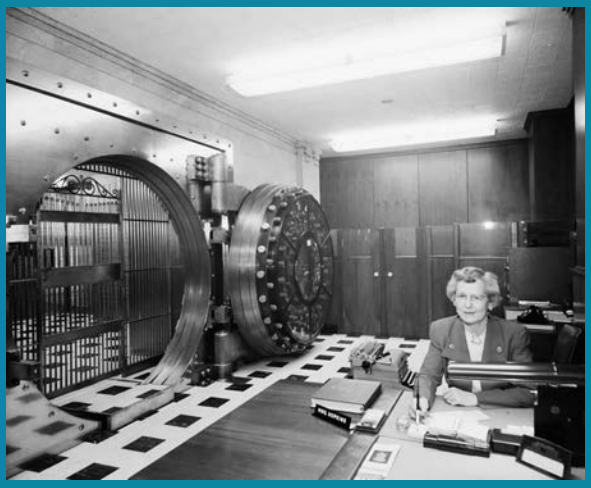
Folder Structure

- Works well with a good naming convention to easily access files.
- Be aware that if you repurpose or move images (like posting online) they will lose the associated data.

Data in a Separate Spreadsheet

	A	B	C	D	E	F
1	**File Name**	**Description**	**Location of Photo**	**Date of Photo**	**Date Scanned**	**Scanner**
2	IMG_0125.jpg	Richard and Dorothy Britanik around a Christmas Tree	Pittsburgh, Pennsylvania	25-Dec-52	20-May-17	Kristin Britanik
3	IMG_0126.jpg	Britanik children opening presents	Pittsburgh, Pennsylvania	25-Dec-52	20-May-17	Kristin Britanik
4	IMG_0127.jpg	Britanik family eating Christmas dinner	Pittsburgh, Pennsylvania	25-Dec-52	20-May-17	Kristin Britanik
5	IMG_0128.jpg	Franklin Britanik sitting at dinner table	Pittsburgh, Pennsylvania	25-Dec-52	20-May-17	Kristin Britanik
6	IMG_0129.jpg	Dorothy Britanik with James Smith	Pittsburgh, Pennsylvania	25-Dec-52	20-May-17	Kristin Britanik
7	IMG_0130.jpg	Britanik family around Christmas Tree	Pittsburgh, Pennsylvania	25-Dec-52	20-May-17	Kristin Britanik

- Include a key value, such as the file name to know what data goes with each image
- Can allow for more customized descriptions
- If the spreadsheet is lost, so is all image data



Storing Your Images

Bank safety deposit vault, Lane Brothers Commercial Photographers (Atlanta, Ga.), 1950s Georgia State University Libraries Digital Collections

Backups

The best backups are:

1. **Automatic**
   You don't have to think about
2. **Redundant**
   Many copies instead of one
3. **Stored in different locations**
   In case of a physical disaster

CDs/DVDs

+ Very inexpensive and easy for individuals
- Media quickly can become outdated
- Shelf-life of CDs and DVDs is not very long
- This method is becoming outdated and I don't recommend it for new storage. It's best to migrate old media to new formats now.

Stand-Alone Hard Drive

+ Becoming more affordable
+ Quick and easy
- Backups are harder to automate
- Can become corrupt
  Newer "Solid State" hard drives are more reliable

Cloud Based Services

+ Automatic backups
+ Files can be accessed from anywhere
-/+ Putting someone else in charge of storage
- Can be a more expensive option

Network Attached Storage

- Acts like a stand-alone hard drive that you connect to over your local network instead of a cord.
- Easy for multiple people to upload and share files.
- Great solution for Genealogical Societies that have a physical space and a local network.
- Some devices have option cloud backups for added protection.

Remember LOCKSS!

Lots
of
Copies
Keep
Stuff
Safe!

Lock, Smithsonian American Art Museum, Gift of John Gellatly.

Sharing Your Images

Two women sharing content of flask and laughing, 1886-1916, Lowcountry Digital Library

Basic Image Sharing Sites

- Quick & inexpensive way to get images online
- Paid accounts provide more storage & features

flickr SmugMug photobucket

Wordpress

- A good options for both individuals & genealogy societies.
- Can be hosted by Wordpress or on your own web server.
- A variety of “image gallery” Wordpress plugins that allow you to easily display your images and relevant metadata.

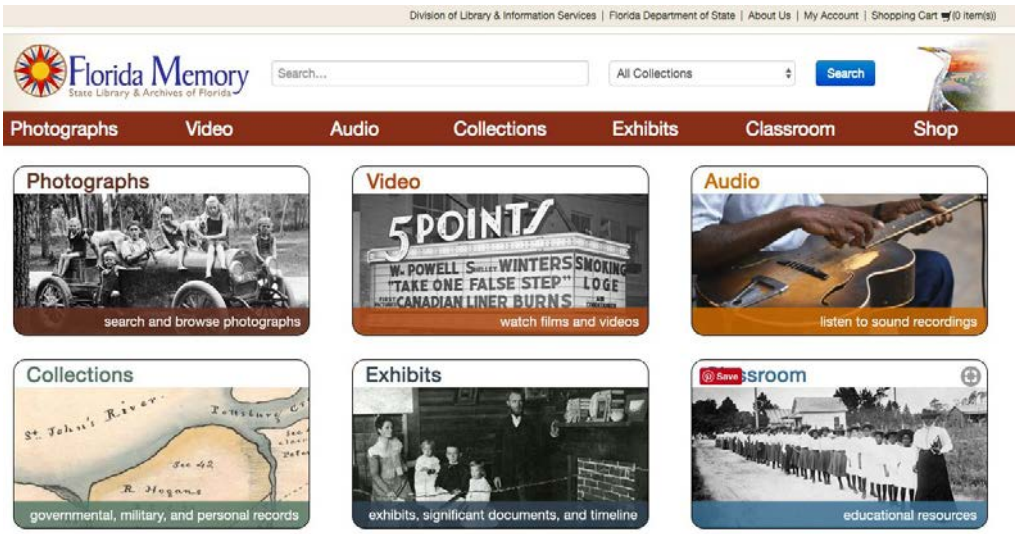
https://wordpress.org

Omeka

- A good options for genealogy societies with some IT help
- Free & open source
- Provides an easy way to upload large numbers of files and image metadata quickly

https://omeka.org

Omeka: www.floridamemory.com



More Advanced Options for Genealogical Societies

ContentDM

- Free open source image server
- A good way to connect images and metadata
- http://www.oclc.org/en/contentdm.html

Open Source Digital Collections Platforms

- Islandora https://islandora.ca/
- Samvera https://samvera.org/

Copyright Considerations

Public Domain

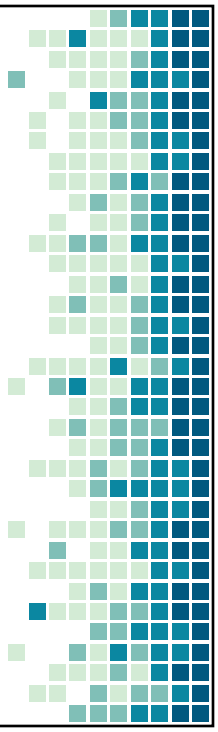
- Works created before 1924 are now considered in the Public Domain

The person or entity who created the original work retains the copyright

- Chart to help determine copyright status: https://copyright.cornell.edu/sites/default/files/2018-01/copyright_term_and_the_public_domain2018.pdf

Putting it all Together

- Define scope of the project.
- Choose digitization method.
- Choose resolution, color space, and file types to establish workflow.
- Develop a plan for describing the images.
- Acquire storage and establish backups.
- Create a plan for sharing images.



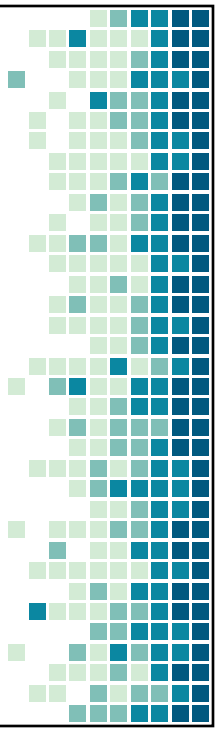
Additional Resources

Guidelines: Technical Guidelines for Digitizing Cultural Heritage Materials
http://www.digitizationguidelines.gov/guidelines/digitize-technical.html

How to Digitally Archive and Share Historical Photographs, Documents, and Audio Recordings: Appendix D. Using Copy Stands with Cameras
http://archivehistory.jeksite.org/chapters/appendixd.htm

Metadata for Cultural Heritage Materials
http://sustainableheritagenetwork.org/digital-heritage/metadata-cultural-heritage-materials

Library of Congress Cataloging & Digitizing Toolbox
https://www.loc.gov/rr/print/cataloging.html



Questions?

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