Preservation Day at the Library: A How-To Guide

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Minnesota Library Association Annual Conference
October 5-6, 2017
Why Preservation Day?

- Estimated 1.3 billion items at risk in U.S. libraries, archives, and museums
- All these things can harm our physical collections
  - Light
  - Pollution
  - Heat
  - Moisture
- You can educate your community about preservation!
Agenda

- Scanning 101
- Digital Preservation 101
- Hosting Scanning/Preservation Events
Scanning 101

Your stuff → Capture it → Store & Manage → Share
Scanning 101 - Before you Scan

- No need to reinvent the wheel.
- Ask the right questions.

Scanning 101 - Before you Scan

Ask the right questions.

- **What** will be digitized & why?
  - What is the **purpose/aim**?
  - What is the **scope**?
- Who is the intended **audience**?
- Who **owns** the items?
- Who controls the **rights**?
- **Duplication** of efforts?
- How will you **connect** audience to materials?
Scanning 101 - Before you Scan

- Atlases
- Contour maps
- Engineering maps
- Maps
- Plats (maps)
- Topographic maps
- Tourist maps
- Transportation maps
- Zoning maps
- Television programs
- Hymnals
- Sheet music
- Songbooks
- Songs (document genre)
- Oral histories
- Speeches
- Aerial photographs
- Albumen prints
- Architectural drawings (visual works)
- Cabinet photographs
- Cards
- Cartes-de-visite (card photographs)
- Color photographs
- Color transparencies
- Collodion prints
- Contact prints
- Cyanotypes
- Daguerreotypes (photographs)
- Design drawings
- Drawings (visual works)
- Gelatin silver prints
- Lantern slides
- Negatives (photographic)
- Paintings (visual works)
- Panoramas
- Photograph albums
- Postcards
- Posters
- Prints (visual works)
- Sketchbooks
- Slides (photographs)

- Black-and-white photographs
- Stereographs
- Studio portraits
- Tintypes
- Trade cards
- Accounts
- Advertisements
- Affidavits
- Announcements
- Articles
- Articles of incorporation
- Artists' statements
- Bills (legislative records)
- Books
- Booklets
- Broadsides (notices)
- Budgets
- Building permits
- Bulletins
- Business cards
- Bylaws (administrative records)
- Catalogs
- Certificates
- Checks (bank checks)
- Contracts
- Deeds
- Diaries
- Diplomas
- Examinations (documents)
- Greeting cards
- Instructional materials
- Insurance policies
- Invitations
- Invoices
- Journals (accounts)
- Labels (identifying artifacts)
- Leaflets (printed works)
- Ledgers (account books)
- Letters (correspondence)
- Licenses
- Magazines (periodicals)
- Membership cards
- Membership lists
- Memoirs
- Memorandums
- Menus
- Minutes (administrative records)
- Muster rolls
- Newsletters
- Newspapers
- Notes
- Oaths
- Pamphlets
- Pattern books
- Petitions
- Poems
- Postal cards
- Programs (documents)
- Radio scripts
- Receipts (financial records)
- Registrations (licenses)
- Reports
- Resolutions (administrative records)
- Schedules (time plans)
- Speeches
- Stationery
- Statutes
- Telegrams
- Tickets
- Wedding announcements
- Wills
- Boxes (containers)
- Canisters
- Medicine bottles
- Mortars
- Packaging
- Pennants
- Pestles
- Samples
- Sculpture (visual works)
- Trophies (objects)

NOT JUST A BUNCH OF PRETTY FACES OR...
Scanning 101 - Digital Image Basics

- **The building blocks of Scanning:**
  - Pixels
  - Resolution
  - Bit depth
  - File size
  - File formats
  - Compression
  - Calibration

Scanning 101 - Digital Image Basics

- **Pixels - the building blocks**
  - Picture element = pixel
  - Smallest unit of data in a digital image
  - Each pixel has exactly one color/tonal value
Scanning 101 - Digital Image Basics

- **Resolution - how many blocks**
  - The level of spatial data captured
  - A measure of “density”
    - 300 dots per inch
    - 3000 x 4200 pixels
  - DPI – dots per inch
  - PPI – pixels per inch
  - Pixel Array – # of pixels across both dimensions
Bit Depth - how many colors

- The number of bits used to represent each pixel in an image
- The number of possible shades of gray or color (aka color depth)
- Most common bit depths:
  - 1-bit: black and white
  - 8-bit grayscale: 256 shades of gray
  - 8-bit color: 256 shades of color
  - 24-bit RGB*: ~17 million colors on three 8-bit channels

*RGB – Red, Green, Blue is the color model system used in electronic systems and photography to create colors by combining different amounts of red, green, and blue.
Scanning 101 - Digital Image Basics

- **File size**
  - File size = \( \text{height x width x bit-depth x dpi}^2 \times \frac{8}{4} \)

8,095,763 bytes
Scanning 101 - Digital Image Basics

- **Common Image File Formats**
  - TIFF - Tagged Image File Format
  - JPEG - Joint Photographic Experts Group
  - JPEG 2000 - like JPEG only better
  - GIF - Graphics Interchange Format
  - PNG - Portable Network Graphics
  - RAW - uncompressed, unprocessed
Scanning 101 - Standards/Best Practices

  - Resolution: whatever gives you **3000-5000 pixels** on longest side
  - Bit depth: b&w - **1 bit**
    - grayscale - **8 bit**
    - color - **24 bit**
  - File format: **TIFF**
  - Compression: **none or lossless**

- Specific material considerations

- Other useful resources
  - **Federal Agencies Digital Guidelines Initiative**
  - **Library of Congress Digital Preservation**

<table>
<thead>
<tr>
<th>Sample resolutions based on size:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” x 2” - 1200 dpi</td>
</tr>
<tr>
<td>3” x 5” - 720 dpi</td>
</tr>
<tr>
<td>4” x 6” and 5”x7” - 600 dpi</td>
</tr>
<tr>
<td>8” x 10” - 400 dpi</td>
</tr>
<tr>
<td>Textual documents - 400 dpi</td>
</tr>
</tbody>
</table>
Scanning 101 - Types of Equipment

- Flatbed Scanners
- Sheet-fed Scanner
- Drum Scanner
- Slide Scanner
- Handheld Scanner
- Large Format Scanner
Scanning 101 - Types of Equipment, Portable

- Epson Perfection V850 ProScanner
- Dell Latitude Laptop
- Pelican Case w/foam and lid accessory organizer, case includes handle and wheels.
- Portable Light Box for 3D items
Scanning 101 - Metadata

- **Types of Metadata**
  - Descriptive
  - Administrative
  - Technical

- **Purpose of Metadata**
  - Identify
  - Describe
  - Distinguish
Digital Preservation 101

Digitization ≠ Preservation

Graphic based on http://www.caps-project.org/cache/DigitalMediaLifeExpectancyAndCare.html
Digital Preservation 101 - Why Preserve?

Software can become obsolete

Accidental deletion
Saving over originals
Viruses

Hardware/media can become obsolete
Physical and Natural Disasters

Files can just “become” corrupt on their own

Digital Preservation 101 – Why Preserve? (Cont.)
Digital Preservation 101 - Identify

- Locate flash drives or other external hard drives, CDs, phones, camera memory cards
- Download files from email and social media that you wish to keep
- Transfer files off of your devices to one location, ideally your computer
Digital Preservation 101 - Select

- Make choices on what to keep
- Remove duplicates or near duplicates
- Remove images that are out of focus
- Remove poor images
- Keep if only image of important person / event
Folder Organization

- No one system for organizing your files, choose one that works for you, and be consistent

By Year

- 1957
- 1958
- 1959
- 1960

By Year and Month

- April
- February
- Holidays
- January
- March
- May

By Subject

- All four kids
- Carol
- Diane
- Jeff
- Rick

- Write a description of how files have been organized and save it in the same folder with the files
Digital Preservation 101 - Organize (Cont.)

- Rename files with descriptive names
  - Use names and dates

- Be aware of sorting order
  - Year vs. month, alphabetical?

- Avoid spaces, punctuation or symbols
  - # $ % ! . * " "
  - Use camel case, hyphens, and underscores instead
Digital Preservation 101 - Metadata

Who?
James Krahn; Delores Krahn

What?
World War II

Where?
Eau Claire, Wisconsin

When?
1939-1945
Who? James Krahn; Delores Krahn
What? World War II
Where? Eau Claire, Wisconsin
When? 1939-1945
<table>
<thead>
<tr>
<th>File Name</th>
<th>Date Created</th>
<th>Title</th>
<th>Creator / Author</th>
<th>Text or Image?</th>
<th>Format</th>
<th>Subjects</th>
<th>Address/City</th>
<th>County</th>
<th>State</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>KrahnSlides_002</td>
<td>1970</td>
<td>Man in overalls and fedora</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>Minneapolis</td>
<td>Hennepin</td>
<td>Minnesota</td>
<td>Minnesota</td>
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<tr>
<td>KrahnSlides_003</td>
<td>1970</td>
<td>on brick sidewalk</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>Minneapolis</td>
<td>Hennepin</td>
<td>Minnesota</td>
<td>Minnesota</td>
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<tr>
<td>KrahnSlides_004</td>
<td>1970</td>
<td>Man with Schwinn and hat</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
<td></td>
</tr>
<tr>
<td>KrahnSlides_005</td>
<td>1970</td>
<td>Man with Schwinn and hat removed</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
<td></td>
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<tr>
<td>KrahnSlides_006</td>
<td>1970</td>
<td>Mother and child on ferris wheel</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
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<tr>
<td>KrahnSlides_007</td>
<td>1970</td>
<td>Two kids in carnival ride</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
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<tr>
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<td>1970</td>
<td>Men with fiddle and accordion</td>
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<td>Black and white photograph</td>
<td>St. Cloud</td>
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<td>Deer on truck of car</td>
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<td>Black and white photograph</td>
<td>St. Cloud</td>
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<tr>
<td>KrahnSlides_010</td>
<td>1970</td>
<td>Man on bench having a cigarette</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
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</tr>
<tr>
<td>KrahnSlides_011</td>
<td>1970</td>
<td>Four people in sedan</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
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<tr>
<td>KrahnSlides_012</td>
<td>1970</td>
<td>Boy kissing lizard</td>
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<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
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<tr>
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<td>1970</td>
<td>Male youth with bottle</td>
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<td>Black and white photograph</td>
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<td>Minnesota</td>
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<tr>
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<td>1970</td>
<td>Youth group outside store</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>Minneapolis</td>
<td>Hennepin</td>
<td>Minnesota</td>
<td>Minnesota</td>
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<tr>
<td>KrahnSlides_015</td>
<td>1970</td>
<td>Girl and a gumball machine</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
<td></td>
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<tr>
<td>KrahnSlides_017</td>
<td>1970</td>
<td>Bath tub Marx</td>
<td>Krahn, James E.</td>
<td>Image</td>
<td>Black and white photograph</td>
<td>St. Cloud</td>
<td>Stearns</td>
<td>Minnesota</td>
<td>Minnesota</td>
<td></td>
</tr>
</tbody>
</table>
Characteristics of good preservation file formats

- Public and open documentation
- Non-proprietary
- Widespread adoption
- Can be opened, read, and accessed using readily-available tools

Use Cases

- TIFF vs JPEG
- Microsoft Word (.doc, .docx) → PDF (.pdf)
Digital Preservation 101 - Store & Protect

- Back Up your Files
  - 3-2-1 Rule: Three copies, stored on two different media, and one copy located off-site
    - Copy 1: stored on your computer
    - Copy 2: stored on CD or external hard drive
    - Copy 3: stored in Google Drive/Dropbox or through some other cloud storage service

- Move your digital content to a new storage device every five years
Scanning + Digital Preservation = Events
Hosting Events - Purpose

- Community engagement/relationship building
- Public education
- All-ages programming (but especially for older adults)
- Materials collection – possibly
Hosting Events - Hardware

- Scanners
- Laptops
- Lightbox
- Camera
- Flash drives
- Rulers
- Pencils
- Paper forms

Hosting Events - Our Equipment

- Epson Perfection V850 ProScanner
- Dell Latitude Laptop
- Pelican Case w/foam and lid accessory organizer, case includes handle and wheels.
- Portable Light Box for 3D items
<table>
<thead>
<tr>
<th><strong>Location/Organization(s)</strong></th>
<th>Community Scanning Event – [Date]</th>
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</thead>
<tbody>
<tr>
<td><strong>GENERAL INFORMATION:</strong></td>
<td></td>
</tr>
<tr>
<td>Your Name:</td>
<td></td>
</tr>
<tr>
<td>Date of Creation (Date of photograph or the date an item was published):</td>
<td></td>
</tr>
<tr>
<td>Title:</td>
<td></td>
</tr>
<tr>
<td>Creator (author, photographer, etc.):</td>
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<tr>
<td>Dimensions (in cm):</td>
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<tr>
<td><strong>FORMAT INFORMATION: What is the item’s physical format?</strong></td>
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<tr>
<td>IMAGE – PHOTOGRAPH (Circle one):</td>
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<tr>
<td>Photograph - Black and White</td>
<td>Photograph - Color</td>
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<tr>
<td>Studio Portrait (photograph take at a professional studio)</td>
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<tr>
<td>Negative – black and white</td>
<td>Negative – color</td>
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<tr>
<td>Postcard</td>
<td>35 mm slide</td>
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<tr>
<td>Other:</td>
<td>Other:</td>
</tr>
<tr>
<td>TEXT – DOCUMENT (Circle one):</td>
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</tr>
<tr>
<td>Letter</td>
<td>Certificate</td>
</tr>
<tr>
<td>Booklet/Pamphlet</td>
<td>Recipe</td>
</tr>
<tr>
<td>Greeting card</td>
<td>Diploma</td>
</tr>
<tr>
<td>Permit/License</td>
<td>Other:</td>
</tr>
<tr>
<td>Other:</td>
<td>Other:</td>
</tr>
<tr>
<td>Was this image professionally produced? (Example: Studio portrait or commercial postcard) (Circle One: Yes or No):</td>
<td>Was this document published? (Circle One: Yes or No):</td>
</tr>
<tr>
<td>Name of Publisher/Photography Studio:</td>
<td>Name of Publisher:</td>
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<tr>
<td>Place of Publication/Photography Studio:</td>
<td>Place of Publication:</td>
</tr>
<tr>
<td><strong>SUBJECT INFORMATION: What is depicted, shown or discussed?</strong></td>
<td></td>
</tr>
<tr>
<td>People:</td>
<td>People:</td>
</tr>
<tr>
<td>Businesses, Buildings, Organizations:</td>
<td>Businesses, Buildings, Organizations:</td>
</tr>
<tr>
<td>City:</td>
<td>City:</td>
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<td>County:</td>
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<td>State:</td>
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<tr>
<td>Natural Features:</td>
<td>Natural Features:</td>
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<tr>
<td>Historic Event:</td>
<td>Historic Event:</td>
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</table>

**WRITE A BRIEF DESCRIPTION:**
Hosting Events - Metadata

- Collection techniques/best practices (e.g. Mariah Carver Smith, not Grandma)
- Focus on the stories - this will help tease out information
- Occasions might recall locations

Hosting Events - Collaborations

- Libraries
- Historical societies
- Local museums
- Genealogy/ancestry groups

Hosting Events - Education Topics

- Family history is very popular
- Local history
- Genealogical research
- Preservation – physical and/or digital
Thank You!

Contact Us

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