ARCHIVE TO NARRATIVE

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AN INTRODUCTION TO DIGITAL ARCHIVING

Preparing photographs, maps and posters for safe capture

A practical introduction to scanning, overhead photography, Photoshop workflows, file formats and quality control.

Who this is for?

Students, interns, volunteers and new staff who need a reliable, preservation-focused workflow for digitising still-image materials.

In this booklet

- How to prepare originals safely
- When to scan vs photograph
- Recommended resolutions and file formats
- A step-by-step Photoshop workflow

Core principle

- Create one high-quality master file
- Keep editing minimal and documented
- Never overwrite the master
- Make access copies separately

1. Before you digitise: understand the goal

Archival digitisation is not the same as making quick reference images. The aim is to create a faithful, well-documented digital surrogate that can support access while reducing handling of the original object. A beginner-friendly rule is simple: capture once at high quality, save a preservation master, then make separate working or access copies.

Prepare	Capture	Check	Edit	Store
Clean workspace, check condition	Scan or photograph at master quality	Review focus, colour, cropping	Do minimal edits; never overwrite	Save master, backup, record metadata

2. Preparing material for capture

2.1 Safe handling essentials

- Work on a clean, dry, uncluttered surface with enough room to support the full object.
- Wash and dry hands before handling paper materials; use nitrile gloves for photographs only if your institution requires them and they do not reduce control.
- Remove loose dust with a soft anti-static brush or blower. Do not use household cleaners, tissues or abrasive cloths on originals.
- Keep food, drinks, pens and pressure-sensitive tape away from the work area.
- If an item is torn, brittle, stuck down, mouldy or curled tightly, stop and ask a conservator or supervisor before scanning.

2.2 Preparing photographs

- Check for dirt, fingerprints, annotations, mounts and curled corners before placing the photo on the scanner.
- If the print is in a sleeve or frame, digitise only after confirming it can be removed safely.
- Place the photograph square to the scanner edge to minimise skew and cropping corrections later.

- Clean the scanner glass and scanner lid with a lint-free cloth lightly dampened with water; do not spray liquid directly onto the scanner glass.

2.3 Preparing maps and posters

- Oversize or fragile materials are usually better photographed with an overhead camera or planetary scanner than forced onto a flatbed.
- Support the item fully. Do not let edges hang off a table.
- Gently flatten with safe weights outside the image area if permitted; never tape corners down.
- Check for folds, rolled edges and tears that could cast shadows or distort the image.

3. Choosing the right capture method

Use the method that fits the object, not the other way around. Flatbeds work well for loose photographs and small flat documents. Overhead capture is safer for large, delicate or mounted items such as maps, posters, albums and tightly curled material.

Equipment	Best for	Notes	Recommended?
Flatbed scanner	Loose photographs, small documents	Good entry-level choice for reflective material. Avoid compressing thick or fragile items under the lid.	**Yes**
Film scanner	Negatives, slides	Best for transmissive material; not needed for ordinary prints.	**Yes**
Planetary/ overhead scanner	Bound volumes, maps, posters, fragile items	Captures from above and reduces handling stress.	**Yes**
Camera on copy stand	Oversize maps, posters, textured works	Excellent when properly lit and aligned; requires careful setup.	**Yes**
Sheet feeder/ office MFP	Routine office copies	Can damage archival material and usually gives lower-quality masters.	**No**

4. Resolution, colour and file formats

Resolution should match the size of the object and the level of detail you need. As a beginner, use the ranges below unless your institution already has a house standard. Think in ppi (pixels per inch) for scanning and effective ppi for camera capture.

Material	Colour mode	Typical master resolution	Master file format	Access / working copy
Photographic prints	24-bit Adobe RGB (1998)	300–600 ppi	TIFF (uncompressed)	JPEG or smaller TIFF
Small photos with fine detail or damage	24-bit Adobe RGB (1998)	600 ppi	TIFF (uncompressed)	JPEG (uncompressed)
Maps and posters	24-bit Adobe RGB (1998)	300–400 ppi at full size	TIFF (uncompressed)	JPEG or PDF for access
Black-and-white text pages	8-bit grayscale or bitonal if policy allows	300–400 ppi	TIFF or PDF/A workflow	PDF/JPEG (uncompressed)
Negatives or slides	24-bit Adobe RGB (1998) / grayscale	Higher than print scanning; institution-specific	TIFF (uncompressed)	JPEG (uncompressed)

Quick guide only. FADGI notes that appropriate resolution depends on object size, detail and intended use; Library of Congress guidance commonly points beginners to TIFF masters and 300–600 ppi ranges for reflective photographs.

Best beginner default

For a loose photo print, scan at 600 ppi, 24-bit RGB, save the preservation master as TIFF, then make a JPEG access copy.

5. Step-by-step: scanning a photograph

1. **Prepare the work area** Clean the scanner glass and lid. Check the photograph for dust, loose debris and damage. Confirm the photo can lie flat safely.
2. **Place the photograph** Lay the photograph face down and square on the scanner bed. Close the lid gently or cover with clean black card if the photo is smaller than the bed and the lid causes reflections.
3. **Open scanner software** Choose a mode that allows manual control. Turn off automatic enhancements such as auto-sharpen, dust reduction, colour restoration or descreen unless your institution specifically requires them.
4. **Set capture options** Select 24-bit colour (RGB) for colour prints, or grayscale for monochrome prints if your policy allows. Set resolution to 600 ppi for a preservation master. Choose TIFF as the output format.
5. **Preview and crop** Run a preview scan. Crop just outside the edges of the photograph so no image area is clipped. Keep a narrow border only if your institution wants full object capture.
6. **Scan** Create the final scan and save it with a clear file name, for example: collectionID_itemID_master.tif.
7. **Quality check** Open the scan at 100% view. Check focus, dust, clipping, colour cast, skew and missing edges. If it is wrong, re-scan rather than trying to rescue a poor master later.

6. Step-by-step: photographing maps and posters

Large items are often safest when photographed from above. The goal is to keep the object flat, evenly lit and perfectly parallel to the camera sensor.

- Use a copy stand, repro stand or stable overhead rig. The camera should point straight down.
- Light both sides evenly with diffuse lights placed symmetrically to reduce glare and shadows.
- Align the object so the edges are parallel to the frame; include a colour target and scale if your workflow requires them.
- Focus manually, use a low ISO, and capture in RAW if possible; if not, use the highest-quality camera setting available.
- Check that all corners are sharp and that no part of the object is cropped or distorted.
- Process the RAW file to a neutral, faithful image and save a master TIFF; keep the RAW file as your unaltered capture.

When to scan	When to photograph
• Loose prints • Small flat items • When you need a fast, stable reflective workflow	• Maps and posters • Bound, mounted or fragile items • Objects too large for a flatbed or risky to press

7. Working in Adobe Photoshop

Photoshop is useful for inspection, minimal tonal correction, cropping and export. It is not a substitute for a good capture. Keep one rule in mind: never save over the original master file.

7.1 Recommended Photoshop workflow for a scanned photograph

- Open Photoshop and choose File > Open. Select your scanned TIFF master.
- Immediately create a working copy: File > Save As, then add _wrk or _edit to the filename.
- Inspect at 100% view. Check dust, skew, clipped edges and obvious colour problems.
- If needed, rotate very slightly to straighten. Crop only if your policy does not require full object borders.
- Use Image > Adjustments sparingly. For archival masters, avoid heavy retouching. If your institution allows adjustment, keep it limited to faithful tonal correction such as modest Levels or Curves.
- Do not remove marks, stains or annotations from the master unless there is a documented policy for restoration derivatives.
- Save the working master as TIFF with lossless compression such as LZW if file size reduction is needed.
- Export a separate access copy as JPEG for web, email or reference use.

7.2 Which file format should you save?

Format	Use	Why
TIFF	Preservation master / edited archival copy	Widely supported, lossless and standard for preservation workflows.
JPEG	Access copy	Smaller and easy to share, but lossy; not ideal as the only archival file.
PSD	Complex editing only	Useful when layers matter, but not usually the long-term archival master.
RAW / DNG	Camera originals	Keeps original sensor data; useful when photographing maps and posters.

Adobe documentation confirms support for TIFF, JPEG, PSD and DNG/RAW-related workflows; LZW compression in TIFF is lossless.

8. Quality control checklist

Image quality	File and documentation
• Full object captured with no clipped edges • Sharp focus from edge to edge • Even lighting and no unwanted shadows • Correct orientation • No obvious colour cast • No scanner dust or hair	• File named consistently • Master saved separately from derivatives • Correct format selected (usually TIFF master) • Metadata recorded • Backup created • Re-scan or re-shoot noted if needed

9. File naming, metadata and storage

Good files become unusable quickly if they are poorly named or stored. Use simple, consistent names and save enough information for someone else to understand what the file is and how it was created.

- Keep filenames short, unique and machine-friendly, for example: MS001_00045_master.tif
- Record basic metadata: collection, item number, title/description, date digitised, operator, device, resolution, colour mode and notes on condition.
- Store master files in a read-only or controlled location. Keep access copies in a separate folder.
- Follow the 3-2-1 rule where possible: three copies, on two media types, with one copy stored off-site or in trusted cloud storage.

10. Common beginner mistakes

- Scanning too low and trying to enlarge later.
- Using JPEG as the only master file.
- Relying on auto-enhance settings without checking the result.
- Cropping too tightly and cutting off edges or annotations.
- Saving edited files over the original scan.
- Digitising damaged items without support or advice.

11. Quick reference: best-practice starter settings

Loose photograph	Oversize map or poster
Capture method: flatbed scanner Resolution: 600 ppi Colour mode: 24-bit Adobe RGB (1998) Master format: TIFF (uncompressed) Derivative: JPEG (uncompressed) Software: scanner software + Photoshop	Capture method: overhead scanner or copy-stand camera Resolution: aim for 300–400 ppi at full size Colour mode: 24-bit RGB Master format: TIFF (+ RAW if camera-based) Derivative: JPEG or PDF Software: camera/RAW software + Photoshop

12. References for further reading

- Adobe Help. Image file formats supported in Photoshop; File compression in Photoshop.
- Federal Agencies Digital Guidelines Initiative (FADGI). Technical Guidelines for Digitizing Cultural Heritage Materials, 3rd ed., 2023.
- Library of Congress. Personal Digital Archiving: The Basics of Scanning, 2014.
- Library of Congress. You Say You Want a Resolution: How Much DPI/PPI Is Too Much?, 2013.
- National Archives and Records Administration (NARA). Technical Guidelines for Digitizing Archival Materials for Electronic Access.

A PROJECT FROM ARCHIVE TO NARRATIVE

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