

**AN INTRODUCTION TO HOME-BASED
DIGITIZATION OF PHOTOGRAPHIC COLLECTIONS**

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Introduction to Photography Digitisation

The purpose of this workbook is to provide instructions on how to digitise your home collection of photographic materials in order to protect them from damage, decay and loss. A digital collection is not necessarily a replacement, but rather a tool to help you conserve, preserve, organise, search through and reproduce photographic originals.



This guide is created for an amateur user. It does not expect you to purchase expensive specialist equipment beyond what might be found in a regular home office. Specifically, you should be able to digitise small to medium-sized home collections of photographs, slides and negatives with a consumer-grade flatbed scanner, a desktop or laptop computer with Microsoft Office or similar and storage media such as USB flash drives or external hard drives. Every attempt to provide open-source and free solutions in this workshop will be made to reduce costs.

<pic of flatbed scanner, laptop and external storage>

Before getting started, it is important to know that digitising is a fairly slow process that should be accomplished on free time when you are not rushed. It requires care, patience and precision if it is to be done correctly. It can be a very enjoyable activity and provide peace of mind in knowing that your collection is secure.

The process of digitising a collection can be organised using the following steps:

1. Pre-planing

Why digitise?

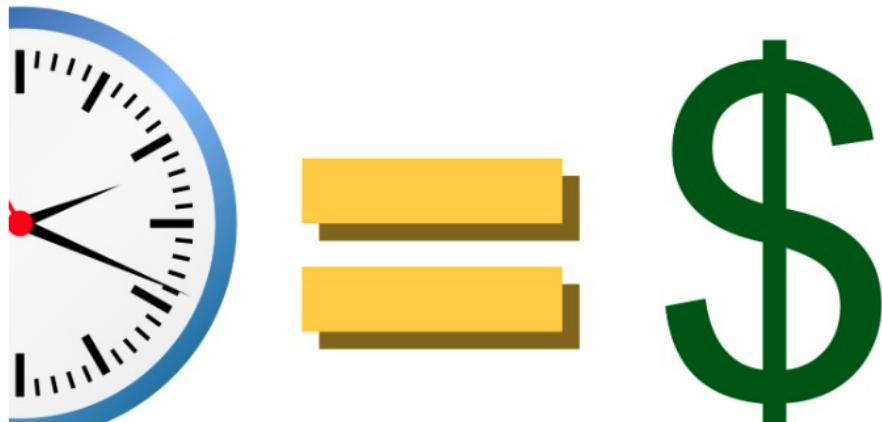
-Think about why you are digitising. The main reason is to have a digital back-up in case of damage or loss to your physical collection, but it is also important to think about how you want to use the digital files resulting from your project. Do you want digital files to look at on your electronic device? Do you want files that can be printed in high quality? Do you want images for use on the web?



What is your budget?

-Think about your budget both in terms of finances and time. Digitising can be time consuming and you need to be sure you won't be rushed doing it. It can be useful to work on it slowly over

evenings and weekends as a hobby. You should also think about whether you need to do any basic conservation to prepare photographic materials for digitisation. As for finances, you can accomplish digitisation for a reasonable price, but to an extent the process can be sped up or made easier by investing in more expensive equipment. Two financial considerations are equipment and the size and type of items in the collection itself.



-Decide what equipment you will need; as mentioned the main items will be a flatbed scanner, computer with spreadsheet software and storage media. Some other smaller items for handling might be a good idea, but are not essential if you wash your hands before handling.

-Look over the collection and prioritise what you want digitised. This can be the entire collection or parts of it, but it is important to know what you have and how you want to deal with it. You might focus on the most fragile or damaged items first or perhaps the oldest or items of a certain type like slides.



What other information is important to include?

-Think about what additional information you want to “attach” to the files/ This information is called metadata and in a basic sense it allows you to attach meaning and context to your digital photos including date, place, people but also technical information like type of file. The way you

connect information to digital photograph will be in the spreadsheet you create while digitising. This is discussed below.

How will you organise your collection?

Think about how you want to catalogue your collection. This workbook will suggest a simple solutions using a spreadsheet created in Microsoft Excel or similar program. You also need to consider the storage of the files as well. This includes both the physical storage and how much space you will need (including back-ups).

2. Equipment

Why use a scanner?

While you can create digital copies using a camera, photography scanners are in many ways a better choice for the amateur home user as some can scan photographs, slides and negatives. Camera digitisation requires a lot of extra equipment including lights, a backdrop, tripod, table and a remote shutter as well as a good understanding of photographic principals. In some cases where an original photo is extremely fragile or you want to digitise an entire page of an album rather than the individuals photos you might consider using a digital camera.

Buying a scanner

When buying a scanner for digitising photographic collections you will need to consider:

- Size of scanner. Will the “bed” or surface of the scanning plate fit the largest item you want to scan?
- Resolution of scan. Scanners advertise a higher resolution than they actually can provide. It is important to look for a “native” or “optical” resolution of at least 4000 dpi rather than paying attention to the “theoretical”, “maximum” or “interpolated” resolution that is often advertised.
- Other factors to consider include the “D-max” (density range, which will determine how well they pick up the detail in very dark negatives), “bit depth” (number of brightness levels the scan is converted in to and helps produce good digital copies of low contrast negatives) and “infrared” (this feature helps reduce the dust and scratches present on the originals in the digital copy).
- Compatibility with computer.
- Does it come with adapters for photos, negative and slides. While not essential, these adapters can save time and hassle.
- Does the scanner come with appropriate scanning software?

A useful scanner buying guide can be found at:

<https://www.bhphotovideo.com/explora/photography/buying-guide/film-scanners>

For a very technical guide to photo scanners go here:

<https://www.filmscanner.info/en/>

3. The Scanning Process

Other Equipment

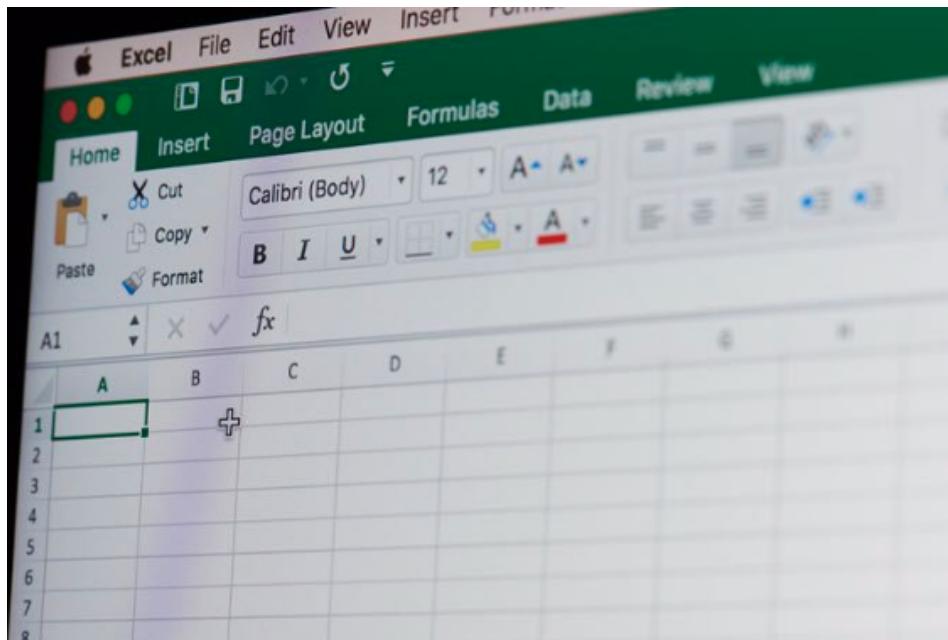
- cotton gloves (if not ensure very clean hands)

- pencil (for notes, don't use ink)
- brush or microfibre cloth (either will do)
- dust blower (optional)

<pic of other equipment>

Scanning Workflow

1. create a spreadsheet in MS Excel or other similar program
 - create a photo number column, digital number column (more on this below)



2. prepare items for scanning by cleaning scanner and items of dust and oils

<pic of open scanner>

3. scan (including settings)

TYPE

- reflective (photograph + colour or black and white)
- transparent (positive or negative + colour or black and white)

FILENAME

-you choose how you want the files named, for example photo0001, negative0001 or bwphoto0001, etc. In some cases a file name could combine many aspects such as date, image name, photographer and file number, for example “1992_PondInlet_JaneSmith_001”.

DPI

- photographs : 600dpi
- negatives and slides: 2400 dpi

BIT DEPTH

- highest setting, “48 bit RGB” if possible, “24 bit RGB” at minimum for color and “8 bit greyscale” for black and white.

DUST and SCRATCH REDUCTION

-this is effective, but drastically increases scan times, good cleaning can be as effective and quicker

4. name/label

-record the original number of the photo and the file number on the spreadsheet. You can add an original number to the back or photos, margins of slides or enveloped holding negatives if you want. This helps connect the original with the digital copy. Do this in pencil.

5. edit digital images (if necessary)

-colour correct, crop, align, etc.

6. add additional data to spreadsheet (helps searching of digital images later)

-title, date, place, people, photographer etc.

-resolution, bit depth, d-max, file type, etc. (much of this is kept in the digital file properties)

7. save (save it in two different formats, meaning two different images for each item)

-high resolution (see above) uncompressed (or LZW) TIFF (good for prints and maintains original detail)

-low resolution compressed JPG (useful for thumbnails and on websites)

Note: this is not a fixed workflow and some steps can be combined (3 and 6) while others might not be necessary (5).

4. Storage

How large the final files will be will vary, but on average a good quality TIFF file for printing at 8 x 10 inches will be about 25MB.

As mentioned, you should also save each TIFF as a JPG file type as well. This can be done at the end if you have software that can accomplish this by bulk converting all TIFFs to JPGs, once scanning is complete and you are happy with the final images. If you don't have software for this, you should save TIFFs and JPGs at the same time during the scanning process.

Invest in two good quality hard drives of sufficient capacity and store these in two locations to prevent them being damaged at the same time (one at home and one at work, for example). Consider "cloud-based" storage options such as Google Drive, Dropbox, OneDrive, etc.

