

CORNWALL MUSEUMS PARTNERSHIP

DIGITAL RESOURCES

DIGITISATION GUIDE

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DIGITISATION

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PLANNING

WHY AM I DIGITISING?

Before you embark on a digitisation project, it is crucial to establish why you are digitising? This is important, as it can determine the method and approach of digitisation. There are many reasons for digitisation:

TO IMPROVE ACCESS

Digitisation creates the opportunity to create digital content. Firstly, these images can be attached to your museum database to allow researchers and internal staff to browse through the images. This makes collection searches more efficient and means that there is less handling. Secondly, this digital content can be used externally for a range of purposes, including:

- Online (website, social media platforms)
- Publicity material (leaflet, posters, media)
- Exhibitions (interpretation)
- Remote researchers

TO REACH NEW AUDIENCES

Once you have digital content, you are able to reach a much larger audience than simply having the physical objects. This is particularly important considering the isolated nature of many Cornish Museums. Through digitising your collection, you will be able to share it with the world.

PLANNING

WHAT AM I DIGITISING?

TO GENERATE INCOME

The creation of digital content can facilitate the creation of numerous products that can be sold either online or through your shop. Furthermore, the licensing of images for use in publications, online, and on TV can be a valuable income stream for your museum.

TO IDENTIFY

Having digitised images of your items will improve your cataloguing procedures as it will provide an additional layer of identification. This is also useful when loaning items from your collection, as you can include the digitised image on the loan form.

TO PRESERVE

Digitisation allows for the creation of a digital preservation copy, resulting in less handling of documents or objects by researchers and staff. Furthermore, the process of digitisation and the associated documentation of the item can provide a brilliant opportunity to carry out a condition report. In the future, this digital preservation copy can then be used to comparatively assess any changes to the condition of the item in the intervening period.

PLANNING

WHAT AM I DIGITISING?

Prioritise! One of the dangers of a digitisation project is to launch straight in and ploughing through the material. Set some time aside at the beginning of the project to do an audit of the material you have, and work out what is a priority to digitise. There are a few considerations when deciding what to prioritise:

PRESERVATION

If you are digitising to improve the care of your collection, then you should prioritise the material that is in the poorest condition.

INCOME GENERATION

If you are planning on sharing your digital content online, then you should devote some time during the initial planning stage in establishing what images, documents or objects are going to gain the most interest and earn you the most money. Just because you have an item or image in your collection does not mean that people will be interested. Ask your audience! Maybe get together a focus group of people within your organisation and ask them what they would be most interested in seeing. Or you could maybe use social media and get people to vote for certain types of images or items. This can be an iterative process. Once you start putting images online, see what ones are the most popular and digitise more of these.

PLANNING

WHAT AM I DIGITISING?

AUDIENCE

This is often an overlooked area of digitisation planning but is one of the most crucial. How you decide to use your digitised content can inform the methods and approaches you take at earlier stages. The best thing for you to do is to make a list of all the possible users for this digital content. After you have listed all the users, think about their specific needs and how these can best be met through different methods of digitisation. For instance, possible users for your digital content might be school groups and external publishers – these would require different resolutions, with the school groups using low-resolution images and the external publishers using high-resolution images.

SCOPE AND SCALE

Start with a discrete collection or group of items rather than planning to digitise everything. Even if you are planning to digitise your entire collection, break this material up into smaller chunks. At the end of each of these chunks, you will have an opportunity to reassess your priorities.

PLANNING

WHAT AM I DIGITISING?

COPYRIGHT

An understanding of copyright should inform your choices at the beginning of the project and may determine how you should prioritise your digitisation. There is nothing worse than getting a large way into a project for you to realise that you can't legally use any of these images.

If you are digitising purely for preservation purposes, then you are able to make a preservation copy of the material for which you do not hold the copyright. There are a few provisos:

- (1) the work must be held in the permanent collection of the archive or museum;
- (2) it would not be practical for the museum to buy a replacement copy.

If you plan to display your photographs online (including social media), to sell them or to use them as part of an exhibition, then you need to obtain the copyright or make sure that you own it. If this is the purpose of your project, then it would be worthwhile conducting a copyright audit to work out who holds the copyright of your items. One of the best ways to do this is to look at the collection that you want to be digitised and separate it into four categories:

- (1) the material that is out of copyright;
- (2) the material that you hold the copyright for;
- (3) the material that you don't hold the copyright for, but know who the copyright owner is;
- (4) the material that you don't hold the copyright for, and do not know who this belongs to.

Once this has been completed, you should prioritise digitising the material that is out of copyright and the material you own the copyright for. Once this stage has been finished, then you can start to seek permission for the second category.

PLANNING

TIMESCALE

One of the main problems that occur during digitisation projects is that people underestimate how long certain activities will take, or even overlook these activities entirely. Some consideration should be given to the following activities during the planning process:

PLANNING

As has previously been mentioned, you need to set aside some time at the beginning of the project to plan. This is often overlooked, people get excited about getting to the nitty-gritty of digitising and forget to adequately plan. This wastes a great amount of time in the long term, as it can lead to the wrong standards being adhered to or work having to be redone. There is also sometimes pressure from funders or trustees to produce digitised images right from the start in an attempt to keep up with targets. This is a false economy and will only lead to more problems further down the line.



PLANNING

TIMESCALE

QUALITY CHECKING

This is a vital element, particularly when volunteers are participating in your digitisation project. Catalogued records and digital images should be checked for consistency and accuracy, ensuring that the output of your project has been completed to the highest possible standard. A common problem is leaving this until towards the end of the project, by which time you don't have enough time to rectify any errors in, what could potentially be, a substantial proportion of your digitised images or records.

EVALUATION

Linked with planning, you should allow time to review and evaluate your digitisation plan. Your digitisation plan should not be a document that you create and then put in a drawer, but a working document that can be amended in response to lessons learned during the digitisation process. Evaluation is often left until the end of the project, but setting aside a bit of time throughout the project to see if the plan is working and highlight any areas of the workflow that could be refined.

PLANNING

EQUIPMENT

The main consideration when deciding what equipment to use is to think about the objects that you want to digitise. If you are going to be digitising 3D objects, then you will have to use a camera, whereas if you want to digitise 2D objects such as photographs or documents, then a scanner is the best option.

SCANNER

A scanner is the best option for 2D items. One thing to consider when choosing a scanner is whether you will want to digitise negatives (either glass plate or gelatin), as not all scanners are able to do this. Scanners that can scan negatives will often come with negative holders, which can be really useful for digitising 35mm film or slides. Alongside a scanner, you will need a computer with the corresponding software.

CAMERA

If you decide to digitise using a camera you will need additional equipment. If you are lucky enough to have a designated digitisation room, where you can completely control the lighting, you will need day lamps, a copy stand and a computer. If you don't have this, a photography tent will be able to give you more professional images without shadows.

STANDARDS

STANDARDS

Preservation copies

Surrogate copies

Metadata

Editing

One of the most confusing things about starting a digitisation project is deciding upon which standards to adhere to. One of the problems with digitisation is that it has not kept pace with the standards that exist for the care of objects within a museum or archive, and as such, there is no definitive guide. There are lots of digitisation guides available which all suggest slightly different standards, so we have collated the information from the Collections Trust, the National Archives, and the University of Exeter, and have used our practical experience in digitisation to produce a standard to be used in Cornwall.

We recommend that you produce a preservation copy; this is a high quality digitised images that is not edited and is kept as the master copy. From this, you can produce surrogate copies that are smaller in size and quality. These can be edited, and it is these copies that are disseminated or added to your catalogue. It is really important that this model is followed, as it means that if anything happens to the surrogate, you still have the master copy to go back to and removes the need for items to be re-digitised. What follows below is a guide to the specifics of the preservation copy and the surrogate copy in turn.

STANDARDS

PRESERVATION COPY

SCANNER

TYPE OF MATERIAL	RESOLUTION
Photograph	450 (small photographs) – 600 dpi (large photographs)
Document	300 dpi
Transparencies	4000 dpi

CAMERA

TYPE OF MATERIAL	ISO	FOCAL LENGTH	APERTURE
Photograph	800	50 mm	f 5.4
Book	800	55-60 mm	f 4.0
Object	100-400	50-60 mm	f 5.6-8

FILE FORMATS

It is important that you use an uncompressed file format (we recommend using TIFF) for your preservation copy. TIFFs are quite large files, so you will need to plan how you are going to store these images.

STANDARDS

SURROGATE COPY

FILE FORMATS

For your surrogate copy, we recommend using a JPEG file format. JPEGs are much smaller than TIFF, so are ideal for attaching to your catalogue, using on social media or posting to your website. Be aware that this is a 'lossy' file format, which means that each time you edit and re-save this file; there may be a reduction in the image quality. In order to create a suitable JPEG from your preservation TIFF, you should resize the image to 1024 x 768 pixels (or 3,000 pixels along the longest edge for extra-large image). This will ensure that the resolution of the image is preserved.

METADATA

It is important that you record the metadata that is attached to the creation of these digitised images. A good way to think about this is to imagine that the digitised image is an object entering your collection – the metadata that you record is similar to the information you would record on an entry form. This metadata records the provenance of the file and allows other people to understand how the image was created.

Information that should be recorded is:

FILE NAME	DATE CREATED	DIMENSIONS
OBJECT TYPE	DATE MODIFIED	RESOLUTION
COLOUR SPACE	NAME OF DIGITISER	APPLICATION USED

STANDARDS

METADATA

If an item has been digitised using a digital camera, some of this metadata will be embedded within the image file. This can be viewed by right-clicking on the file and clicking on 'Properties', then clicking on the 'Details' tab. This information (known as EXIF data) can also be viewed through software, such as Adobe Bridge. This information includes:

APERTURE**EXPOSURE****FOCAL LENGTH****ISO****LENS****FLASH****METERING MODE****WHITE BALANCE****CAMERA**

Set your camera to Aperture Priority and let the camera select the shutter speed based on the available light.



STANDARDS

EDITING

CROPPING

When it comes to cropping digitised images, make sure that the entire document or object is included, ensuring that no details or information are lost. We would also recommend that you leave a border of roughly 1cm around the edge of the image. This is particularly the case for photographs, where there is the temptation to remove the white border around the edge of the photograph. This white border is part of the object and should not be removed.

COLOUR MANAGEMENT

The main aim is to maintain the visual appearance of the original. The process of scanning or photographing can change the tone of the image; this is particularly true of photographic documents or objects, as the colour is usually altered by the lighting in the room.

With regard to black and white photographs – these are rarely pure black and white, particularly if they are older and have started to discolour. With this in mind, make sure that you scan the image in colour rather than black and white or grayscale.

STANDARDS

CHECKLIST

☐

Identify possible uses for the digitised images and decided which are most important to the organisation

☐

Identify potential users and assess their needs

☐

Decide whether the digitised images are solely for preservation and access, or if they will be shared outside of the organisation

☐

Conduct a collections audit to identify items to be digitised

☐

Conduct a copyright audit (if applicable)

STANDARDS

GLOSSARY

APERTURE

Aperture refers to the variable opening in a camera, (or f-number), the larger the hole. Small f-numbers are best suited to photographing objects or portraits, while bigger f-numbers are best suited to landscapes.

COLOUR SPACE

Colour space, or colour model, is the combination of different component colours. You are most likely to come across RGB (Red, Green, Blue) or CMYK (Cyan, Magenta, Yellow, Black). As a general rule, RGB is best suited to online display, while CMYK is best suited to print.

DPI

Dots Per Inch. This is a means of measuring resolution (see below).

EXPOSURE

Exposure is the length of time that the shutter stays open on a camera. Exposure is measured as fractions and is also referred to as the shutter speed. A long exposure, where the shutter speed has a higher number, is used for low light conditions, whereas a slow shutter speed is used for bright conditions.

FOCAL LENGTH

Focal length is the distance between the centre of a camera lens and its focus. This is measured in millimeters.

STANDARDS

GLOSSARY

ISO

ISO measures the sensitivity of the image sensor within a digital camera. Higher ISOs mean that the image sensor is more sensitive and are used in low light environments, while lower ISOs are less sensitive and used in bright conditions.

METERING MODE

The metering mode refers to the way in which a camera determines the exposure.

RESOLUTION

Resolution is the detail an image holds. Higher resolution means that there is more detail in the image, and vice versa. Image resolution can be measured in various ways, including DPI (see above).

WHITE BALANCE

White balance refers to the colour balance of a digital image. Setting the "correct" white balance setting results in the colour of light appearing as close to neutral (white/grey in colour) as possible. On your camera, there will be different settings relating to different light sources - pick the one that is closest to the light source you are using.