

How to



a r C H i v e

How do I keep track?

Help, I have bit rot!

What should I look out for?

What are bit flips?

Why have a bin day?

B e t t e r

FOR DESIGNERS AND MAKERS

Network archives design and digital Culture

Design archives provide insight into the social context of design, the position of designers, the development of their work, and new applications for techniques or materials. In short, archives provide access to the past and contain knowledge for the future – but they have to be preserved and accessible.

There are several organisations in the Netherlands that manage design heritage, and in 2021 they united as the Network for Archives of Design and Digital Culture (NADD). The network shares knowledge around archiving and makes visible existing design archives, with work being done on digital infrastructure to ensure scattered archives are centrally accessible. Through its Seeking Shelter programme, the network also draws attention to managing and preserving at-risk design archives.

NADD consists of more than 45 partners including designers, design experts, professional organisations, educational institutions, and heritage institutions of all sizes that manage archives.

netwerkadd.nl

How

HOW DO YOU TAKE CARE OF YOUR ARCHIVE?

You obviously want your archive to stay alive and intact. How do you ensure the right conditions? How do you create a workable overview? Last but not least, how does archiving become a natural and satisfying part of your practice?

archive

This guide is meant for you as a designer or maker, so feel free to write in it, work in it and, above all, use it your way. Want to reuse the worksheets again later or prefer to work digitally? You can always download and print them again at:

<https://nieuweinstituut.nl/en/pages/how-to-archive-better>

Better

FOR DESIGNERS AND MAKERS



What should I look out for?

What are bit flips?

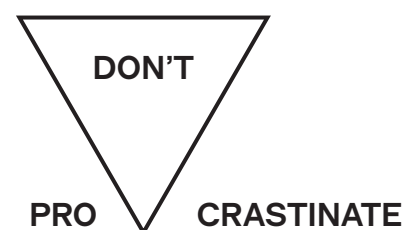
Why have a bin day?

‘I DON’T THINK ALL MATERIAL SHOULD BE KEPT – THEN THE WHOLE WORLD WOULD BE A MUSEUM.’
Borre Akkersdijk
 (textile designer)

‘WE HAVE A BIG BLACK 10 TERABYTE BOX WITH FLASHING BLUE LIGHTS. IT HAS EVERYTHING ON IT.’
Luna Maurer & Roel Wouters,
studio Moniker
 (interactive designers)

HOW DO YOU STAY ON TOP OF FILING?

Perhaps the thought of consistently filing seems scary, after all, how do you keep track, and when do you find the time? First off, keep the benefits in mind. There is nothing like a tidy archive – not only will you find what you are looking for faster, a tidy archive also takes up less physical and digital storage space. Not quite reassured yet? Perhaps these tips will ease any filing fears.



A bit of a heads-up and, at the same time, a golden tip: do not wait too long after finishing a file or a project. That way, the process is still fresh in your mind.

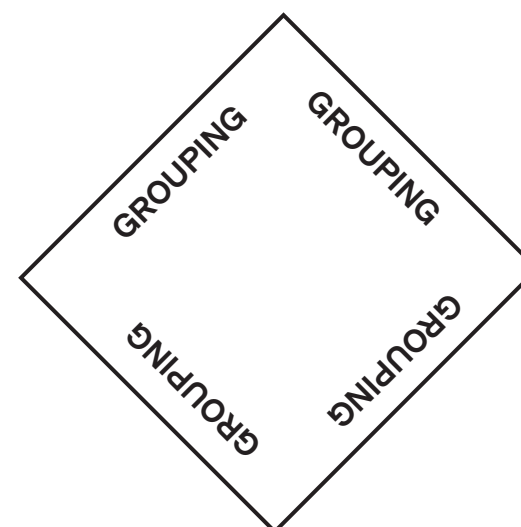


No zest, no inspiration, but still working? Trash days are guaranteed to make you feel good, but a word of warning: filing is fun and satisfying, so this may just become your favourite moment in the working week.

SAY IT WITH



Another good thing to remember is to describe your archive’s structure. A clear description helps you find things later on; just think of it as extra access to your archive in addition to the basic organisation. Describing your archive with a catalogue or inventory can make it even easier to find things.



Stop material from ending up in loose places by using cabinets with shelves and logically labelled folders or archive boxes. If your archive material is digital, you should consider a similarly coherent folder structure.

exercise

ANALOGUE VS. DIGITAL

Analogue and digital organisation each have their own ground rules. What works best for your archive? Where is there room for improvement? Take a look at the checklist below and add to it where necessary.

MY ANALOGUE ARCHIVE:

- is structured ☐ yes ☐ no
- is chronological ☐ yes ☐ no
- is clear to me ☐ yes ☐ no
- is clear to colleagues ☐ yes ☐ no
- is pleasant to work with ☐ yes ☐ no
- is easily accessible ☐ yes ☐ no
- is up-to-date ☐ yes ☐ no
- is in a safe place ☐ yes ☐ no
- has recently been checked ☐ yes ☐ no

What improvements can you think of in the organisation of your physical archive?

MY DIGITAL ARCHIVE:

- is structured ☐ yes ☐ no
- is chronological ☐ yes ☐ no
- is clear to me ☐ yes ☐ no
- is clear to colleagues ☐ yes ☐ no
- is pleasant to work with ☐ yes ☐ no
- Is goed toegankelijk ☐ yes ☐ no
- is up-to-date ☐ yes ☐ no
- is well secured ☐ yes ☐ no

What improvements can you think of in the organisation of your digital archive?

‘THE ARCHIVE IS
A GATHERING PLACE.
IT CAN BE
A DRAWER,
AN ALBUM,
AN ATTIC,
A SHED,
A ROOM OR
A CUPBOARD.’
Heirs of Emile Truijen
(industrial designer)

‘THERE AREN’T
MANY ARCHIVES
THAT YOU CAN
SMELL AND
BREATHE AND
TOUCH.’
Jason Page
& Karen Huang
(archive
textile artist
Elma Beks)

LOCATION, LOCATION, LOCATION

You can have a nicely planned structure, but where you house your physical archive is also important, so here are some general points to help preservation. Sometimes simple interventions are enough to better preserve your archive for the future.

ONE SPOT

Try to reduce the number of storage locations and use only one space to optimise storage conditions.

PLACEMENT / FURNITURE

- Avoid unstable racks and shelves
- Prevent objects in drawers from moving when opening and closing
- Provide sufficient space between objects to allow for inspection

THEFT

Is the archive space accessible to everyone? Documents can disappear or be stolen more easily, so if archives are in your desk or workspace, it is important to lock them when you leave the room. Keep valuable documents and objects in a lockable place.

BUGS

Insects, pests and mould can irreparably affect your archive, so do not give other organisms the chance to access it.

- Do not drink or eat in your storage space
- Clean the space regularly
- Check for traces of vermin regularly
- Make sure there is plenty of fresh air – silverfish and paperfish do not like ventilated spaces
- Keep books and paper in well-sealed plastic boxes
- Seal any seams and cracks in your storage space

LIGHT

Limit the exposure to daylight and artificial light as they can both cause damage.

- Choose a spot where the least amount of daylight falls or consider using thick curtains or a window covering
- Turn artificial lights on only while you are in the space

WATER

Direct contact with water causes many forms of damage, so choose a storage area where the risk of water damage is as low as possible. Avoid basements and places where water pipes are exposed, taking into account elements that can cause water damage when designing your filing space such as:

- cracks in water pipes
- leaks in the roof
- rising ground moisture
- flooding

MOISTURE

Mildew, corrosion, shrinkage, cracking: all things you want to spare your archive from. Check the humidity in the storage space regularly, as if it is too high or too low then there can be numerous harmful consequences.

- Make sure the humidity is stable
- A humidity level between 50 and 55% is optimal

TEMPERATURE

Another culprit for archive damage is having too high or low a temperature in the storage space, causing the contents to deteriorate faster. Fluctuations in the ambient temperature can especially cause damage to archives.

- Choose a space with a stable temperature – anywhere that gets hot in summer and cools sharply in winter are not very suitable
- Ideally, the maximum temperature should always be between 18 and 20°C

FIRE

Fire is everyone’s worst nightmare, but fortunately the risk is small. However, the loss or damage that fire can do through soot or smoke can also be great, so it is always good to be aware of fire’s potential impact on your archives. Forewarned is forearmed, so here is what you should pay extra attention to.

- Electrical sources: overloaded plugs, electrical panels, equipment, short circuits, sources of ignition, air-conditioning, climate control systems, overheating, the failure of appliances, obsolete or dusty power cables
- Flammable material, especially when near a source of ignition
- Construction and restoration work: think welding, soldering or paint removal
- Gas leaks

Any questions about storing a specific material? Download material-specific tips [here](#).

exercise

MIND MAPPING

Close your eyes and wander through your physical archive in your mind. Where is it located? Think carefully – maybe you are forgetting somewhere. Where do you keep the odd/larger things that might not fit in a cupboard? Write down all the locations

RISK ANALYSIS

If all goes well, you have just mapped all the locations of your archive. Are there any potential risks to be identified in these locations? What improvements can you make to those storage spaces? Write this down here too.

‘DO YOU KNOW
WHAT I WOULD
LIKE TO DO IF
THERE WAS
MONEY FOR IT?
DOCUMENT
EVERYTHING,
MAP EVERYTHING
OUT.’
Luna Maurer,
studio Moniker
(interactive designer)

‘AN ARCHIVE IS
AN EVOLUTION OF
EVERYTHING; WE
PRESERVE A SYSTEM
THAT WE’VE BUILT.’
Borre Akkersdijk
(textile designer)

OVERVIEW OF YOUR ARCHIVE

Do you have a clear picture of your archive’s locations? The next step is to make a general overview of the main elements – but how do you go about making it? On this page there are some suggestions to get you started.

First of all, think about what the documents are about. When did you create them? Which projects are they part of? The idea is not to describe every single document or object – the aim is to get a general overview, not a complete inventory. Look for definable groups and focus on what the documents or objects have in common and where they differ from other groups.

—→ QUICK TIP

Take photographs of the archive locations, its boxes or folders, and the documents you find in them. Keep these together in a digital overview to save needlessly opening all the boxes and folders when you need to find something.

—→ DOWNLOAD THE OVERVIEW

Of course, the most convenient way to keep the overview is digitally. [Here](#) is an example of an Excel spreadsheet you may find helpful.

1.
NAME THE LOCATION

- For the physical archive: state the physical location
- For the digital archive: note the storage device, network, server or cloud

2.
KNOW THE SIZE

How many boxes does each main group fill? What are the dimensions of the main groups, or how much space do they occupy in digital form?

3.
DESCRIBE THE CONTENTS

Give an outline of the type of documents or objects archived and their content.

4.
NOTE THE CONDITION

What physical state are the archived records in? If it is digital, check whether you can still open the files.

exercise

INVENTORY

Start with a random box, folder or drawer from your current archive. What do you find in there?

Describe the contents.

What project(s) does it belong to?

What is the date of creation?
(this can be a time span)

What is the size and number of elements?

What is its current state – is there any damage?

You have now started your archive inventory!
Repeat this step for all your records.

exercise

DIGITAL CHECKLIST

Is your folder structure clear?

Have you recently archived your emails?

Is all your storage media still intact?

Are the file formats still readable?

What improvements can you make?

FILE FORMATS
Keep one copy of the document in its original format to retain its original properties and keep a copy as a PDF/A to retain its outward appearance. Alternatively, keep one copy of the document migrated to one of the following standard archive formats

STANDAARD ARCHIEFFORMATEN	
Text	ODF, XML, PDF/A
Image	SGV (vector), JPEG, TIFF, PNG (pixel), CGM, PDF/A (vector en pixel)
Sound	WAV, AIFF, FLAC
CAD	DXF
Video	AVI, MXF

HOW DO YOU TAKE CARE OF YOUR DIGITAL ARCHIVE?

Properly maintaining a digital archive brings its own challenges. What file formats do you use now, and will they still be readable in the future? Which storage media do you choose and is it accessible in the long term?

Another consideration is the types of information you keep: think broader than just the folders containing your working documents and images. Emails and your own website can also contain valuable information worth archiving. A few rules of thumb will ensure that your digital archive is preserved more sustainably:

- Make regular integrity checks
- Use sustainable file formats
- Plan a digital bin day
- Back-up your digital archive

TIPS

LOGICAL FOLDERS

As with the physical one, you want to keep a digital archive as orderly as possible, even if it is just links to websites. Follow these rules for naming digital folders:

- Choose unique, logical file names with version numbers that make it easier to identify documents in a series
- Keep files that belong together in ordered folders. Create a clear structure that suits your own work process, but avoid too many layers in the structure

EMAILS

Emails also often contain important and useful information about a process. Keep these accessible by archiving relevant emails with the rest of your digital documents.

WEBSITES

Archiving a website can be complicated. Does your website contain lots of links to other sites? Does your website use external services like Google Maps, YouTube videos or an online photo service? Are there animated or interactive images and buttons? The extent to which your website is archivable can be measured at www.archiveready.com

You can preserve your website in several ways:

- Create a video of a browsing session
- Take screenshots of the different pages
- Make an offline copy (the most common form of website archiving)

WATCH OUT!

THE CLOUD

The cloud comes with advantages and disadvantages. Your data is obviously stored remotely so you depend on a good internet connection. Also, consider the legal impact – many cloud services are US-owned and so governed by different laws.

HARD DISKS

Treat your local data storage with caution. External hard drives are sensitive to shock, but also remember that if a drive is lost, it could end up in the wrong hands

BITROT & BIT FLIPS

Anyone who stores their archive data on hard drives or SSDs and does not look back at it for a long time may be in for a nasty surprise. The data may no longer be readable because of ‘bit rot’ or data degradation that happens when you do not use a storage device for a long time. In both hard drives and SSDs, it is possible that bit flips, a bit spontaneously changing from 0 to 1 or vice versa, can also occur.

BACK-UP

If possible, keep a back-up of all digital files on an external device, but remember that even if they are kept in a good condition, this does not guarantee that the files will remain readable. Data can disappear as a device becomes obsolete, but also hardware and software become obsolete as technology evolves.

DVD’S & CD’S

Storage media such as CDs, DVDs and external hard drives are prone to damage and wear and tear. Consider the average lifespan of a device when choosing which to use, and make sure that the necessary hardware and software will also remain available during the intended period.

- Never touch the optical layer of CDs or DVDs with your fingers. Only label them with water-soluble marker and do not put stickers on them
- Keep magnetic media away from heat sources, magnetic fields and radiation

The quotes in this guide are taken from the Archives at Risk podcast series and the videos of *Archives at Risk: Seeking Shelter*.

Listen to the podcast (mostly in Dutch) at: <https://nieuweinstituut.nl/en/pages/podcast>

Watch the videos at: <https://nieuweinstituut.nl/en/projects/nadd/seeking-shelter>

‘THE VALUE OF THE ARCHIVE IS IN ITS CLOSURE.’
Christophe Coppens
(artist, designer and opera director)

COLOPHON

PROJECT MANAGEMENT: Eline de Graaf, Brigitte Jansen
TEXT AND RESEARCH: Eva Langerak, Alexandra Onderwater
EDITOR: Alexandra Onderwater
TRANSLATION: Jack Eden
PROOFREADING: Laura Grimm, Nicole Martens
PRODUCTION: Christie Bakker
EDITORIAL AND GRAPHIC DESIGN: Meeusontwerpt
WITH CONTRIBUTIONS BY: Emily Wijns, Ashna Wiegerink
COVER IMAGE: Luc Schraauwers
PRINT PRODUCTION: Booxs

How to archive Better

How do you take better care of your archive? What can you do if your time or budget is limited? How will better archiving remain helpful in the future? This section shows, among other things, how to create an overview, how to guard against unwanted visitors or bit rot, and also offers inspiration for improving archives of digital material.

How to archive better is a short DIY guide with practical information and simple tips to help designers and makers archive their work. Soon, archiving can become a less difficult task, and even prove to be a habitual and lucrative part of your practice.

**‘EVERYTHING IN
THE ARCHIVE IS
INTERWOVEN.’**
Hella Jongerius
(industrial designer)

**‘ARCHIVING IS LIKE
ORGANISED HOARDING.’**
Jason Page & Karen Huang
(archive textile artist
Elma Beks)