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WHAT IS A PHOTOGRAPH?

Oxford English Dictionary:

A picture or image obtained by photography; (originally) a picture made using a camera in which an image is focused on to sensitive material and then made visible and permanent by chemical treatment; (later also) a picture made by focusing an image and then storing it digitally.
TYPES OF PHOTOGRAPHS

- Photoprints (Direct Positives)
  - Daguerreotype, Ambrotype, Tintype

- Photoprints (From a Negative)
  - Uncoated paper
    - Salted paper print, Platinotype, Palladiotype, Cynotype
  - Coated paper
    - Albumen print, Carbon print, Woodburytype, Collodion print, Gelatin print (silver chloride), Gelatin print (silver bromide)
**TYPES OF PHOTO NEGATIVES**

- On paper, glass, gelatin or plastic
  - Plastic:
    - Cellulose nitrate (sheet film)
    - Cellulose acetate, diacetate, triacetate, etc.
    - Polyester
A BRIEF HISTORY OF PHOTOGRAPHY

Joseph Niépce created the first permanent photograph, of the exterior of his home, around 1826.
LOUIS DAGUERRE

Boulevard du Temple, late 1838 or early 1839, was the first-ever photograph of a person.
Louis Daguerre introduced the daguerreotype in France in 1839.

Uses a technique in which the image is exposed directly onto a mirror-polished surface of silver bearing a coating of silver halide particles deposited by iodine vapor.

Always a single image, reversed. Identified by a mirror like surface. Protected by glass in a frame, and almost always in a case.

Daguerreotypes became wildly popular and their use spread quickly around the world.
An Ambrotype is a photographic process that creates a positive photographic image on a sheet of glass using a wet plate collodion process.

Always a single image, and reversed.

Protected by glass in a frame, and almost always in a case.
The tintype was an improvement to the ambrotype, replacing the glass plate of the original process with a thin piece of black-enameded, or japanned, iron.

It was very inexpensive to do and multiple copies were easily created.

Easy to identify with a magnet!

Sometimes early ones have been cased.
1830’s:

Henry Fox Talbot, England

Talbot created positive images by contact printing onto another sheet of paper.

The Footman, 1840
In 1889 George Eastman began selling the first “take it yourself” camera.

The Brownie Camera came preloaded with film – you took a snapshot, used up the film and returned the camera with the film to be developed. Anyone could do it.

Early prints were circular.
PAPER PRINT
PAPER PRINTS, 1917-18
PAPER PRINT, 1950'S
DIGITAL PICTURE
ON CARING FOR PHOTOGRAPHS

- Consider the following:
  - Nature or medium of the image
  - Temperature
  - Humidity
  - Air pollution and dirt
  - Light
  - Handling
  - Storage
  - Enclosures
Photographs are created using a chemical process.

- Daguerreotypes and ambrotypes are very unstable
- Albumen prints often yellow and fade
- Early color photos destabilize quickly – i.e., fade or lose certain colors

Causes include
- Poor processing by the photographer
- Impurities in the water
- Chemical fixer (used to “set” the photo) may not have been completely rinsed out
- Mishandling
- Environmental conditions
TEMPERATURE AND RELATIVE HUMIDITY

40%RH ± 3%

68°F ± 3°
Best conditions for storing materials, or, why you need a sweater in the library!

- It is important to maintain a stable micro and macro climate for your materials.
- Temperature should ideally be between 65 and 71 degrees Fahrenheit.
- Relative humidity between 37 and 43%
AIR POLLUTION AND DIRT
KEEPING CLEAN

- Dirt and dust will scratch photographs and negatives.
- Keep your collection away from chemical emissions such as sulfuric acid, nitric acid, and particulates are released into the air from industries and car exhaust.
- Indoor pollution can be caused by such things as:
  - tobacco smoke
  - fresh paint
  - cleaning supplies
  - Plywood
  - air fresheners
  - outgassing rubber and leather (both of which contain lots of sulfur).
  - Even cooking can disperse volatile oils into the air. Silver particles in the light-sensitive materials can tarnish and cause spots.
You don’t want the light to shine on your collection!

- Excessive light can cause fading, yellowing, and make photos brittle.
- Although all light is damaging, incandescent light is somewhat safer than fluorescent light, which contains ultraviolet (UV) light, a more intense form of light.
- Direct sunlight gives about 93 lumens of illumination per watt of electromagnetic power, including infrared, visible, and ultra-violet.
- Materials can fade quickly and even “cook” in direct sunlight or under household lights.
KEEPING IT CLEAN
Keep Your Hands and Work Area Clean

- Your hands contain natural oils – you don’t want to get that on your valuable objects.
- Always handle material with clean hands – use soap and water to wash up first.
- When handling photographs and negatives ear white cotton gloves when possible to protect material.
STORAGE SYSTEMS

• Photo albums
• Storage sleeves
• Envelopes
• Cabinets
• Boxes
PHOTO ALBUMS
Don’t invite pests

- Paper and film emulsion are food to many insects and animals such as silverfish, palmetto bugs, mice, etc.
- Keep your storage clean
- Do not store materials near food or yard supplies
- Use good pest control
WATER IS YOUR WORST ENEMY!

- Wet photos can become moldy, stain and/or rot.
- Photos can stick together after getting wet and then drying.
- Paper will warp and cockle.
AND MIND THOSE ADHESIVES!

- Do not use scotch tape!
- No rubber cement!
- Use archival tapes such as Filmoplast P
Remember, You Can’t Go Back!

- You can be your own worst enemy when it comes to handling and storing your collection.
- Anything you do to your collection MUST be reversible.
- Permanent repairs are too permanent!
- Use proper storage materials such as acid free boxes, papers, files, envelopes or Mylar sleeves and envelopes.
And Leave Well Enough Alone!

It is natural to want to fix things but we can do more harm then good. Benign neglect is O.K.!

If repair is needed, choose a qualified photo conservator.

He or she is trained to preserve the object in its original form, rather than alter it to look as good as new.

A conservator will have had years of training in early photo manufacturing processes, chemistry, etc., and will use techniques that are safe, appropriate, and reversible.
CARING FOR DIGITAL PHOTOGRAPHS

- Many of the previous concerns apply as well –
  - Protecting storage medium
  - Create original and copy it to work with
  - Backup, Backup, Backup
    - Onsite - on a portable drive
    - Offsite - on the Cloud, etc.
      - Flick’r
  - Keep abreast of changing technology and move with the times!
BASIC ARCHIVE PRESERVATION SUPPLIES

- white cotton gloves for handling materials
- soft bristle brushes for dusting off materials
- rustproof paper clips
- archival boxes for storing objects and files
  - ideal: pH minimum 8.5, 3% calcium carbonate buffer, one inch metal stay (federal specifications) for construction
- acid-free tissue, bond, blotting paper, folders and labels
- Uncoated polyester (chemically inert) storage sleeves and envelopes
  - photograph storage sleeves
  - newspaper envelopes
  - negative envelopes
  - CD sleeves
- pH testing pen
- Filmoplast P mending tape and hinging tape
- Denatured alcohol and cheesecloth
SUPPLIERS

The Hollinger Corporation
https://www.hollingermetaledge.com/
Acid-free paper products, folders, tissue, polypropylene, Mylar polyester film.

University Products, Inc.
https://www.universityproducts.com/
Archival and conservation materials, stamp storage, framing, and free brochures.

Light Impressions Corporation
http://www.lightimpressionsdirect.com/
Archival and conservation materials, framing, photographic storage materials, free brochures.
SOME SOURCES FOR MORE INFO

Northeast Document Conservation Center
http://www.nedcc.org/resources/leaflets.list.php

NARA
http://www.archives.gov/preservation/

Library of Congress
http://www.loc.gov/preserv/familytreasures/index.html

American Institute of Conservation