

Have You Seen Glass Plate Negatives?

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Glass plates were the first base for photographic negatives. In use from the 1850s through the 1920s, they were used by both amateur and professional photographers; photographers working in studios, itinerant photographers and industrial photographers; photographers employed to shoot babies and photographers employed to shoot mine workers. With appropriate and careful handling and storage these visual resources can be preserved and made accessible for generations to come.

Types of Glass Negatives

There are two types of glass negatives, wet collodion negatives and dry plate negatives. Wet collodion negatives were introduced in the United States about 1855. They are distinguished by wavy lines along the edges of plates because they were hand coated by photographers. Silver gelatin dry plate negatives replaced wet collodion negatives in the late 1880s and remained in use until the 1920s. Dry plate negatives were more convenient for photographers because they could purchase prepared plates from manufacturers in standard sizes. Determining if plates are wet collodion negatives or dry plate negatives is useful for dating the images. For the purpose of handling and storage, the two types of glass plate negatives can be managed with the same procedures.

Physical Handling

Like all photographic media, glass plate negatives are susceptible to damage from fingerprints. However, wearing gloves, particularly cotton gloves, to handle glass plates reduces the manual dexterity necessary to handle glass safely. Glass is slippery and old

glass can crack and chip easily. Some conservators recommend wearing latex gloves when working with glass plates. Others suggest washing your hands thoroughly prior to handling glass plate negatives and frequently during the course of your work. You should always hold the plates with both hands on the edges.

Enclosures

Glass plate negatives are often found stored in wooden cases, stacked in the commercial dry plate negative boxes in which photographers purchased them, or in old, acidic envelopes. None of these containers are acceptable for long term storage. The plates need to be removed from these enclosures, but frequently there is information describing the images - like dates, locations and photographers names - recorded on them. Archivists typically record this information on the new negative enclosures. Glass plate negatives must be stored individually in acid free paper enclosures. Plates that are not enclosed are in danger of the emulsion being scratched, emulsion being pulled away from the glass, and portions of the image being lost.

The best choice of enclosure for glass plates is a four flap negative envelope. These envelopes completely enclose the plates. Putting glass plates in envelopes or folders with open sides leave the plates vulnerable to slipping out. Flaking and peeling emulsion is a common problem with glass plate negatives. Pulling plates in and out of envelopes or sleeves poses the risk of catching and tugging on emulsion that is peeling away from the glass base. Four flap envelopes can be opened and plates inspected or removed without the plates rubbing against the enclosure. This style of envelope can be purchased from archival suppliers in standard sizes. When you are rehousing glass plate negatives you may find plates that are fused together. This is especially common when plates have



An image from a glass plate negative from the Ohio History Connection's collections. Photo courtesy of the Ohio History Connection.

been stacked directly on top of one another and stored in humid conditions with fluctuating temperatures. Do not attempt to pry the plates apart by applying pressure because there is great risk of cracking the plates. Consult a conservator to find out if separating the plates is possible

Boxing and Shelving

It is usually recommended that glass plate negatives stand upright in archival boxes. When plates are stacked horizontally unnecessary pressure is put on the plates at the bottom of the pile. Plates should not shift or slide in their boxes. If they do not fit the box snugly, the space can be filled with acid free boards cut the same size as the negatives. For additional support, you can also put acid free boards in between the plates. Plates should be boxed with plates that are the same size. Do not box 4x5 inch plates with 5x7 inch plates or 5x7 inch plates with 8x10 inch plates. Smaller plates housed with large plates will not fully support the surface area of the larger plates. Cracked or chipped plates should be stored horizontally in between sheets of acid free board in between the plates to provide additional support. Plates that are in multiple pieces are best stored in sunken mats that hold the pieces in place. Boxes that contain broken plates must be labeled on the outside to indicate that

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the contents are fragile and the boxes must remain horizontal. Unless plates have shattered into countless pieces, keeping broken plates is worthwhile because it is still possible to scan the plates and preserve the images.

Glass plate negatives are heavy! Do not overfill boxes with glass plate negatives. It is much better to house a glass plate collection in more small boxes, than fill a large box with glass plates. Never put glass plate negatives in boxes that are not in good condition. The weight of glass plates could easily cause the bottom to fall out of a box that is not sturdy. Archival suppliers make boxes designed specifically for glass plate storage. It is not recommended

that boxes of glass plate negatives be stored on mobile shelving. The motion of the shelves can cause the plates to shift in their boxes and increase the risk of breakage. Additionally, the height of the shelves on which boxes holding glass plates are placed should be considered. It may be awkward for staff to lift heavy boxes from the top or bottom shelves. Boxes containing glass plate negatives should never be stacked on or under other boxes.

Providing Access

It is best to minimize the need for physical handling of glass plate negatives. Fortunately, glass plate negatives have proven to be a media that

is well suited for scanning. The tonal range and incredible detail that glass plate negatives are noted for can be captured in high resolution tiff files. Be sure the scanner bed is clean and it will fully support the surface area of the negatives. Always place negatives on the scanner bed emulsion side up. Once glass plate negatives are scanned they can be printed or made available online and the original plates returned to storage.

Even in less than ideal enclosures and storage conditions, thousands of glass plate negatives have remained intact for decades. With careful handling, consistent storage procedures, and employing common sense archivists can ensure that they survive for many more. ■