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# Mixed Media: Working with Audio and Visual Materials— Heather Fox, Assistant Editor, University of Louisville

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## History in Three-Dimensions: Processing and Preserving a Stereograph Collection

By Natalie Morath, General Motors Design Center Archives and Special Collections

In the fall of 2012, a unique collection of stereographs was discovered in the Eastern Michigan University (EMU) Archives. Prior to its discovery, the EMU Archives stereograph collection included a few commercially produced and distributed sets depicting American and European culture through iconographic buildings and landscapes. These images are hardly unique and can typically be found in most collections of historic photographs, as such stereographs were produced, sold, and collected beginning in the 1850s. Additionally, the archives had a large collection of stereoscopes, the devices used to view the cards to produce a 3-D effect, in surprisingly good condition.

The newly discovered stereograph collection proved unique for a variety of reasons. It had been boxed and stored among a vast unprocessed collection of audiovisual materials relating to the campus and school, along with negatives, photographic prints, slides, and moving images. Under normal circumstances, an unlabeled and unprocessed collection from an audiovisual cornucopia can be something of a nightmare for archivists, but this particular collection proved a valuable resource to add to the materials related to the EMU campus and history. It even provided the archives with a great opportunity to put together a small exhibit to introduce patrons to the newly processed collection.

The word *stereograph* comes from the Greek for “solid” and “picture,” which is an appropriate way to describe an image that seeks to imitate three dimensionality. Stereographs were taken by cameras with two lenses mounted side-by-side about 2½ inches apart, which is the average distance between a pair of human eyes. Like two cameras with a common back, stereo cameras produce two of the same image, taken very slightly apart at the same time. When viewed through a stereoscope, the image imitates the multidimensionality of human sight, allowing the two images to be reconciled into one image in the brain.

The most popular viewing device for stereographs was the stereoscope invented by Oliver Wendell Holmes in 1861. All stereographs printed by processes other than wet collodion negatives had their own specific viewing devices to accommodate the various sizes of the final images.

Holmes is better known as a writer and doctor, and never patented the stereoscope, but instead chose to share the design for free. He described his invention: “There was not any wholly new principle involved in its construction, but, it proved so much more convenient than any hand-instrument in use, that it gradually drove them all out of the field, in great measure.”<sup>1</sup> His device had a rack to hold the stereograph at one end of a horizontal cross. A pair of magnifying lenses was attached to the crosspiece, with a septum similar to that attached between the camera lenses to separate the images. A vertical handle made the device easy for the viewer to hold up to his or her eyes.

Stereographs continued to grow in popularity and were eventually produced and sold into the millions of dollars per year. By the 1930s, however, as motion pictures grew in popularity, interest in stereographs decreased, and eventually production of the images and the stereoscopes ended. Today, stereoscopic photography remains a niche for hobbyists and professionals interested in film photography and maintaining older processes.

During the tenure of Michigan State Normal College (MSNC, now Eastern Michigan University) president Charles McKenny (1912–1933), identical sets of stereographic cards were distributed to Michigan high schools to publicize the university, particularly its campus, facilities, and student life. The photographs were produced by the MSNC Department of Physics, and the Ypsilanti Board of Commerce was responsible for their distribution. Fortunately for the processing of these collections, they were kept together in small boxes, along with the original instructions that provide historical context as well as a starting point for additional research.

Because these stereographs had been stored in relatively stable conditions, the damage to the prints themselves was minimal, although the mounts were brittle and deteriorating. Like many early photographs created for personal collection and use, stereographs were not intended to age well, or at least that was not the primary concern of their creators as the format exploded in popularity during the late 1800s. Harmful residual hypo, adhesives, chemicals in cardboard, storage envelopes, and atmospheric gases have

contributed to the deterioration of stereographs—typical for silver image prints. Stereographs in particular require quite a bit of handling to view properly, so more damage usually results from dirt or scratching on the surface of the prints. The print surfaces were cleaned with film cleaner and cotton pads, and, to ensure the long-term preservation of the images, *both* of the images were copied, as each records the scene from a slightly different angle. The MSNC stereograph cards were very lightly dusted with cotton pads before being stored in specialized acid-free stereograph boxes, which are designed to accommodate the heavy weight of mounted photographs, as well as the unique curve to each mount.

During the course of processing, the archivist noticed an extraordinary number of copies of each stereograph, surprising in particular because the sets were widely distributed close to a century ago. As a result, she determined that stereographs from the collection would make excellent display materials, as one copy could be put in a locked exhibit case while duplicates remained in archival storage. The archivists improvised a small exhibit to fill an empty display area that was awaiting a much larger exhibit later in the semester. The collection's excellent condition allowed for a modeling of the cards "in use," and, by carefully arranging a stereoscope at eye level, patrons could actually look through the viewfinder to appreciate the 3-D effect without handling any of the artifacts. The display also included information on the history of stereographs and early photography.

### **Annotated Bibliography**

Clark, Dahl. *Laura Hayes and John Howard Wileman Exhibit of Optical Toys*. North Carolina School of Science and Mathematics, 1996. Accessed January 18, 2011, [courses.ncssm.edu/gallery/collections/toys/opticaltoys.htm](http://courses.ncssm.edu/gallery/collections/toys/opticaltoys.htm). This online exhibit features stereoscopes and similar toys and gadgets.

Eaton, G. T. *Conservation of Photographs*. Kodak Publication, no. F-40. Rochester, NY: Eastman Kodak Company, 1985. Although this publication is out of date regarding many conservation methods and includes no methodology for digitization, preservation/conservation methods for stereographs have not changed much, and the information in this volume is still helpful and relevant.

Holmes, O. W. "The Stereoscope and the Stereograph." *The Atlantic Monthly*, vol. 3, no. 20

(1859): 20. Accessed January 18, 2011. [www.theatlantic.com/magazine/archive/1859/06/the-stereoscope-and-the-stereograph/303361](http://www.theatlantic.com/magazine/archive/1859/06/the-stereoscope-and-the-stereograph/303361).

Ritzenthaler, Mary Lynn, et al. *Photographs: Archival Care and Management*. Chicago: Society of American Archivists, 2006. This is the best resource for archivists researching historic photographs and preservation methods.

Weinstein, Robert A. and Larry Booth. *Collection, Use, and Care of Historical Photographs*. Nashville: American Association for State and Local History, 1977. This is another excellent resource on historic photographs. Although the preservation methodology is somewhat outdated, it is still an excellent source for identifying photographic types and methods.

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### Notes

1. Oliver Wendell Holmes, "The Stereoscope and the Stereograph," *The Atlantic Monthly*, vol. 3, no. 20 (1859), accessed January 20, 2011, [www.theatlantic.com/magazine/archive/1859/06/the-stereoscope-and-the-stereograph/303361](http://www.theatlantic.com/magazine/archive/1859/06/the-stereoscope-and-the-stereograph/303361).