Art Conservation and history's fragile images

No image may better epitomize the sorrowful fate of the American Indian than the photograph titled "Vanishing Race – Navaho." Taken in 1904 by photographer Edward S. Curtis (1868-1952) and later included in the first volume of his epic, multi-volume collection called "The North American Indian," the image shows a

small group of Navahos on horseback riding away from the photographer. Curtis wrote about the image: "The thought which this picture is meant to convey is that the Indians as a race, already shorn in their tribal strength and stripped of their primitive dress, are passing in the darkness of an unknown future."

When a platinum print of this famous image recently came to Greta Glaser as a treatment project, the second year Winterthur/University of Delaware Program in Art Conservation (WUDPAC) Fellow began by assessing the photograph's condition. Greta, who works under the direction of photograph conservator and WUDPAC Associate Director Jae Gutierrez, determined that the most significant concern was loss of original image material as a result of insect damage around the edges of the print. She also determined that while insects had eaten through the image material, the paper on which the platinum rests was intact.

To repair the damage and make the image whole again, Greta first applied a barrier layer of methylcellulose over the exposed paper to ensure that her treatment would be reversible in the future, and then inpainted the missing areas with watercolors. Before completing her study of the image, Greta also confirmed the

presence of a bluish haze visible around the edges. Known as "mirroring," it was first noticed by archivists at the University of Pennsylvania Museum of Archaeology and Anthropology, which owns the print. Mirroring is a condition often seen in silver gelatin prints, where it indicates that the binder is swelling in humid conditions and allowing small particles of silver in the image to migrate to the binder's surface. It is rare to find mirroring on a platinum print, which contains no medium other than metal and paper, and the cause is not known. Greta studied the print using X-Ray Florescence and learned that it was developed with mercury. Further analysis will be required to fully understand this form of image deterioration. It is possible that Greta will pursue this research topic during her third-year internship at the Library of Congress and the Smithsonian Archives next year.







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The University of Delaware Art Conservation Department educates and trains professional conservators in the treatment, analysis, documentation, and preventive conservation of individual artifacts and entire collections. Our students are powerful public spokespersons for cultural heritage and its preservation. For more news about our students and other department activities, visit us at http://www.artcons.udel.edu

Top: Second-year Winterthur/ University of Delaware Program in Art Conservation Fellow Greta Glazer inpainting an area of loss on the Curtis platinum print; Above: Examining the print's condition using a stereo microscope; Left: Areas of loss visible in the Curtis print before conservation treatment and a detail of the print after treatment.