

# Conservation treatment of a silver gelatin photograph

Asti Sherring and Sophie Lewincamp

On 23 January 1929, Judge Lukin of the Victorian Arbitration Court handed down a decision ordering an increase in working hours and a reduction in wages for 20,000 timber workers. This ruling was met with prompt resistance from the Timber Workers Union,<sup>1</sup> which staged a five-month strike that came to an end on 24 June. The photograph *Timber Workers Dispute Conference, Melbourne Town Hall, June 1929* may well depict the meeting at which the union decided to end its action.

The photograph, which is part of the Australian Timber Workers' Union, No. 2 Victorian Branch Collection in the University of Melbourne Archives, comprises two black-and-white photographic prints joined together to form one image, all mounted on a wooden support. Pasted horizontally across the lower

section of the photographs is a discoloured strip of poor-quality paper bearing inscriptions in pen (illustrated below).

Due to a coating on the paper support, the appearance of silver mirroring in the image and the likelihood of a gelatin binder layer, we concluded that this photograph appears to have been created using a developed-out process—where paper is exposed by projecting the image through an enlarger—and printed using a developing solution. It is probably supported on standard-sized gelatin silver bromide paper.<sup>2</sup>

The wooden support appeared to be acidic and embrittled, with structural damage such as cracking and flaking. Tears and losses to the photograph were also visible, with

curling of the edges of the primary support paper away from the wooden auxiliary support. When a binder layer is coated onto only one side of a paper support, any difference in the rate of expansion or contraction between the binder and paper will cause curling or cockling of the print.<sup>3</sup> Numerous circular tide lines on the surface of the photograph suggested that the emulsion layer had come into contact with moisture. Due to the extreme reactivity of the gelatin binder layer, there was severe cracking and flaking of the binder and emulsion layers around these tide lines (illustrated opposite, below). In addition, the non-image areas of emulsion had yellowed, possibly caused by the wooden backing. (Wood can absorb atmospheric sulphurous gases, which can cause fading and yellowing of the silver photographic image.)<sup>4</sup>



**Opposite:** *Timber Workers Dispute Conference, Melbourne Town Hall, June 1929*, two photographic prints mounted on wood, 12.0 x 40.2 x 0.2 cm. Collection of the Australian Timber Workers' Union, No. 2 Victorian Branch, 1984.0060, item OSBB/ 203, University of Melbourne Archives. Recto, before treatment

**Below:** Emulsion cracking along stains (magnification)

**Right:** The photograph after treatment. All photographs by Asti Sherring



Before commencing any treatments using moisture, we determined the solubility of the media and supports. The degree of intervention was based on the object's reaction to this solubility testing and the object's ability to withstand the physical pressure of a backing removal.

Due to the poor condition of the wooden auxiliary support and its contribution to the chemical degradation and discolouration of the primary support and emulsion layers, we decided to remove the wooden backing, which was not historically significant and did not contain any information on provenance. On the other hand, the additional primary support—although highly degraded, brittle and potentially detrimental to the photographic media layer—was retained, because it serves as an important reference for the provenance of the item, containing information and inscriptions of historical significance. Superficial dirt, foreign matter and silver mirroring on the edges and shadow areas of



the photograph were reduced by carefully cleaning the surface of the photograph. The wooden auxiliary support was slowly removed by mechanical scraping.<sup>5</sup> We chose gelatin as the best solvent for the overall consolidation of the media, due to its chemical and physical compatibility with the original gelatin binder layer. We also used gelatin to consolidate and stabilise losses and tears on the media support. Structural repair of the photograph was necessary in order to limit further damage to the emulsion layer and to restore the object's visual integrity. Methyl cellulose, which has a good adhesive strength, was used to consolidate tears on the primary support. After removing the degraded wooden support, a lining was undertaken (adhering a secondary structural support to the primary support of the photograph) to provide greater stability.<sup>6</sup>

In conclusion, in line with accepted standards for conservation treatments,<sup>7</sup> the short- and long-term risks and merits of each proposed treatment step were individually evaluated before any decision was made. At no time in treating the photograph did we attempt to modify or conceal the true nature of the object. All treatment steps are fully detectable and have been visually documented and recorded.

This unique photograph relating to the history of labour laws, working conditions and trade unionism in Victoria is now in a fit condition to be accessed and displayed and will last for many generations.

Asti Sherring gained a Masters in Cultural Heritage Conservation from the University of Melbourne in 2012 and a Postgraduate Certificate in Photographic Conservation in 2011. Previously she completed a Bachelor of Media Arts (Honours) from the University of Sydney.

Sophie Lewincamp is a paper conservator and subject coordinator at the Centre for Cultural Materials Conservation, University of Melbourne.

1 Bill Richardson, 'Labour Day: Its significance and the life and times of E.J. Holloway', 1979 Labour Day Oration, [www.reasoninrevolt.net.au/pdf/a000071.pdf](http://www.reasoninrevolt.net.au/pdf/a000071.pdf), accessed 26 May 2011.

2 Bertrand Lavédrine, *Photographs of the past: Process and preservation*, Los Angeles: Getty Conservation Institute, 2009, p. 140.

3 Lavédrine, *Photographs of the past*, p. 118.

4 T.J. Collings and F.J. Young, 'Improvements in some tests and techniques in photographic conservation', *Studies in Conservation*, vol. 21, no. 2, May 1976, pp. 79–84.

5 Walter Henry and others, 'Backing removal', Chapter 24 in *Paper conservation catalog*, Washington, DC: American Institute for Conservation, Book and Paper Group, 1994, p. 8, <http://cool.conservation-us.org/coolaic/sg/bpg/pcc/index.html>, accessed 1 May 2011.

6 Walter Henry and others, 'Lining', Chapter 29 in *Paper conservation catalog*, p. 3.

7 AICCM, *Australian Institute for Conservation of Cultural Material: Code of ethics and code of practice*, amended 11 October 2002, [www.aiccm.org.au/docs/AICCMBusinessDocs/CodePracticeEthics.pdf](http://www.aiccm.org.au/docs/AICCMBusinessDocs/CodePracticeEthics.pdf), accessed 26 October 2010.