

## Treatment Tip for Mending “Sprung” Tears

### ABSTRACT

Long tears in gelatin silver prints, particularly those running in the grain direction, often fail to realign for successful mending. A technique was developed which allows alignment of the tears from the front using a concave support board. A convex surface can then be utilized to apply mending tissue to the back of the tears. This procedure has been adapted to successfully mend oversized maps and other works of art on paper.

### INTRODUCTION

During the late part of 2002, one-hundred and ten tightly rolled aerial photographs came into the document conservation lab for treatment. The double-weight gelatin silver developed-out prints measured 24 x 36 in. and larger. In order to facilitate researcher access, the prints were passively humidified through Tyvek fabric and dried under blotters and weight. Unfortunately, several dozen prints had tears measuring four inches or more. Most of these tears were “sprung” and could no longer be aligned for proper mending. The misalignment was particularly challenging because image unity is necessary for the proper use of aerial photographs and inpainting was not considered to be an appropriate option.

### ALIGNMENT PROCEDURE

After trying numerous alignment techniques, only one method ultimately gave satisfactory results. A concave support was made from corrugated plastic board, draped with polyester webbing (fig. 1). The tear was then easily aligned from the front, using pressure to adjust the degree of the

curve. The tear was gradually tacked into place with a warm gelatin solution, or when more strength was needed, with wheat starch paste.

A convex surface was made by placing a large blotter over stacked blotter strips (fig. 2). The aligned tear was then mended on the verso with Japanese tissue and wheat starch paste. Pieces of polyester webbing and blotter were held in contact with the mend during drying with the aid of small bag weights.

### RESULTS

Using only traditional alignment techniques, the tear in the photograph in figure 3 was not successfully aligned prior to mending. Further consolidation of the emulsion did not reintegrate the image along the tear. The photograph in figure 4 shows a tear that was aligned and mended using the method described above. After final consolidation of the emulsion with a gelatin solution, the tear was

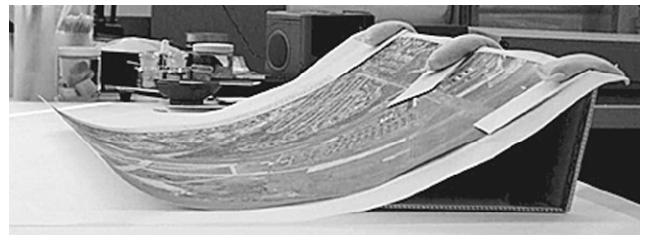


Fig. 1. Concave support board



Fig. 2. Convex support board

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Fig. 3. Improperly aligned mend



Fig. 4. Properly aligned mend just visible below the arrow

hardly visible. Again, no inpainting was done. Using this technique, the mended prints did not suffer from any local distortions as the two sides of the tear were reunited. The tears mended in this fashion were quite strong and did not fail when the photographs were flexed or held flat.

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