

# LAMINATES FOR MENDING SPLIT PARCHMENT JOINTS

Victoria Wong

Presented at the 47<sup>th</sup> AIC Annual Meeting 2019, BPG Tips Session, New England.

## Introduction

In 2018, I participated in a parchment workshop taught by Abigail Quandt, the Head of Book and Paper Conservation at the Walters Art Museum. This five-day workshop was held at Buffalo State University in the Art Conservation Department as part of the Mellon Foundation-funded Library and Archive Cohort Education program. During this workshop, Quandt shared historical parchment making techniques and repairs, and sewn repairs of knife-cut parchment using mock-ups (fig. 1). Quandt also shared an adaptation of a historic repair that she developed that does not require piercing holes in original parchment (fig. 2). This adaptation uses pieces of alum-tawed Goldbeater's skin adhered with gelatin mousse in an over-and-under fashion, much like historic sewn repairs.

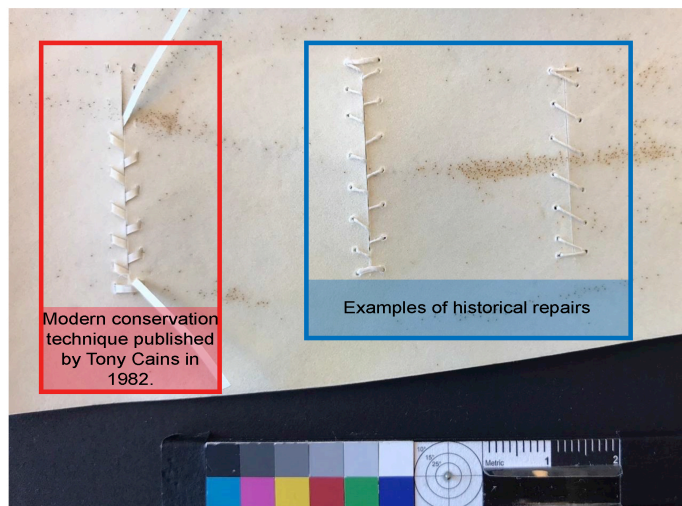


Fig. 1. Detail of mock-ups.



Fig. 2. Abigail Quandt's adaptation

## Purpose

Building off of Quandt's technique, I have been lining and laminating Goldbeater's skin with various supports and attaching them as discreet strips in an over-and-under fashion to split parchment joints. In order to strengthen the attachment of Goldbeater's skin to parchment, paper is adhered to the attachment side of the Goldbeater's skin in order to give it a tooth for better adhesion. The Goldbeater's skin must be lined on alternating sides in order to adhere strips in an over-and-under fashion to the covering. Laminating Goldbeater's skin also makes it easier to use. Strips are cross-tensioned during application so they are strong enough to withstand a point of flexion.

## Methodology

Depending on the desired layering of the final strip, the construction of these strips will vary. I have experimented with this technique at three different institutions: Winterthur Museum, Garden & Library; the University of Hong Kong; and Yale University. The following steps outline the construction of one of three types of laminates developed at Yale:

Working on a piece of Mylar over a dark background, begin by applying warm gelatin<sup>1</sup> to a strip of 1-ply Goldbeater's skin (fig. 3). Next place a piece of toned<sup>2</sup> Hollytex on top of the glued up Goldbeater's skin, smoothing it down and applying pressure through a piece of plain Hollytex. Carefully lift the laminated Goldbeater's skin, and place it in a blotter package under a piece of Plexiglas while you glue-up the next piece of Goldbeater's skin. Once glued-up, place the laminated Goldbeater's skin Hollytex-side down onto the glued up Goldbeater's skin. Lastly, glue-up pieces of tengujo with warm gelatin, and adhere to the Goldbeater's skin-Hollytex laminate on alternating long edges. Allow to dry in a blotter package underneath a piece of Plexiglas.



Fig. 3. From left to right: gluing up Goldbeater's skin, attaching toned Hollytex, smoothing down, and attaching glued-up strips of toned Tengujo paper.

Once the laminates are dry, cut out strips to the width of a microspatula, and round the strips' corners so they are less likely to catch when adhered to the outside of the covering (fig. 4). Then, with a laminate strip on a microspatula, glue it up with gelatin and use the spatula to insert the strips beneath the covering. Remove the spatula and hold the mend in place with gentle pressure until it sets. Once strips are applied in alternating directions beneath the covering, adhere them to the outside of the covering with warm gelatin.

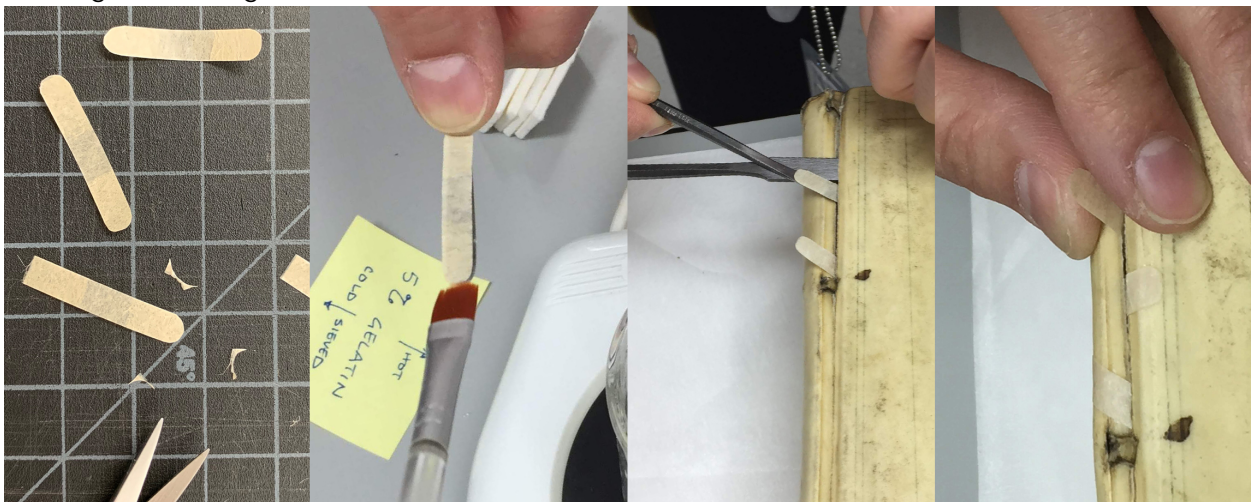


Fig. 4. From left to right: cut and rounded strips, applying gelatin to strip, attaching strip to underside of covering, and holding mend in place while gelatin sets

<sup>1</sup> 5% 275 bloom bovine gelatin

<sup>2</sup> Hollytex and tengujo paper were toned with liquid acrylic paints.

## Laminates Developed

At Winterthur Museum, Garden & Library, I used Goldbeater's skin lined with lens tissue and gelatin, and placed strips roughly a half an inch apart from one another. At the University of Hong Kong, I used Goldbeater's skin lined with natural-dyed kozo paper. However, this method was adapted by my supervisor and Head of the University of Hong Kong Libraries Preservation Centre, Jody Beenk, and associate librarian Lesley Liu, as a result of the Goldbeater's skin splitting. The mends split down the joints, likely as a result of the sub-tropical environment of Hong Kong, so Lesley and Jody adhered strips more closely together, and also reinforced the joint at the head with a piece of Hollytex beneath the covering. At Yale, I used Goldbeater's skin reinforced with toned Hollytex, and lined with tengujo paper that had been toned with liquid acrylic paints. Also at Yale, I experimented with different adhesives, using cold sieved and hot bovine gelatin, and hot isinglass, and placed strips roughly an eighth of an inch apart from each other.

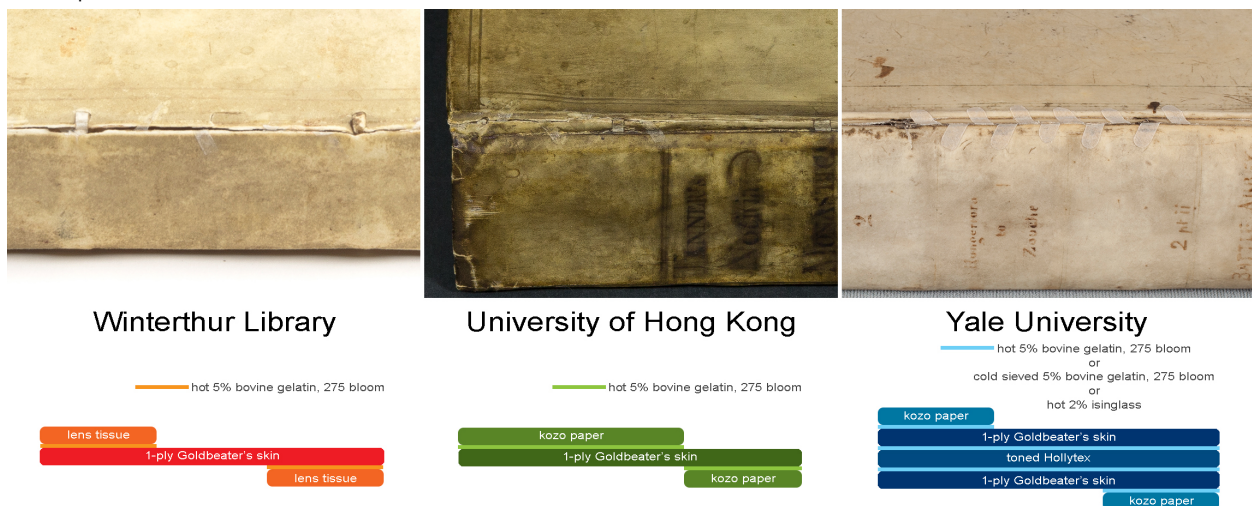


Fig. 5. Images of items treated with Goldbeater's laminates at each institution and their cross-sections diagrammed.

## Observations and Conclusions

Overall, I have found that lining Goldbeater's skin with only toned kozo paper results in the best combination of translucency and strength of attachment. Toned Hollytex noticeably opacified and thickened the Goldbeater's skin. Warm isinglass or bovine gelatin worked better than cold sieved gelatin, because a heated adhesive saturates the materials, resulting in greater translucency. Cold sieved gelatin resulted in delamination of the strips. Placing the strips within an eighth of an inch from each other created a stronger overall mend, which may or may not be necessary depending on factors related to the condition of original parchment, and its storage, display and anticipated handling.