

Insights from Conserving Six Leather Bindings from the Westzijderkerk



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In the final weeks of classes for our Masters' programme on the conservation of book and paper objects, we were tasked with treating Bibles donated from the Westzijderkerk, Zaandam. We have been picking up skills to treat books over the two years through exploring the use of different materials and techniques, and practising them on increasingly complex objects. The six of us – Luca, Alison, Clodagh, Mariska, Anastasia, and Kristin – treated one book each, which were damaged to varying extents. Treating these Bibles were a new challenge for us.

The Bibles from the perspective of book conservation

Book conservation focuses on the mechanics of the book and takes into consideration its history. Attention is paid to how the book opens, if it can be safely read, or if there are traces of use that would be important to keep. Understanding which areas of the book receive more wear and tear, and why, is important in helping us pick specific repair techniques. The Bibles were larger and heavier than most books we had encountered before, which meant we had to be more aware of how to handle them and make sure our repairs would be strong enough to bear their weight. This was also another opportunity for us to practice our skills in repairing aged leather, as it can be tricky due to its brittleness and tendency to darken under the influence of moisture.

Because of their production, the signs of their usage and their degradation, the Bibles were also interesting for us to learn about. They were bound in a neo-Gothic style – nineteenth-century books imitating the look of books made in the fifteenth-century. Historically, gothic styles were considered especially appropriate for religious monuments, which could explain the reason why this style was chosen for a binding containing both Testaments.

The style was applied to the bindings by using clasps, wooden boards, and leather as a covering material (fig. 1, 2). The leather had also been decorated (or 'tooled') in a style resembling 15th-century gothic bindings. Mainly blind-tooling was done, but traces of gold-tooling are also still visible. While many books from the 19th-century were bound with a hollow back (with a hollow gap at the spine when opened), these books were sewn with cords. This resulted in raised bands across its spine, adding to the historic look (fig. 3, 6).

What was apparent in all of the books were also its worn pages. The pages printed with psalms have loosened from being repeatedly read over the years, resulting in them sticking out from the book when viewed from the side (fig. 4). Some of the Bibles also have old leather repairs, which indicate they were heavily used but cared for in the past (fig. 5). These older repairs were meant to hold the cover of the book together, so it could continue to be used and protect the printed pages inside. The Bibles as books have a very rich history, which was interesting for us to uncover as book conservators in training.



Fig. 1. (Left) Bible with leather covering material, and blind tooling,

Fig. 2. (Right) Showing intact clasp, fastened in place on one of the books.



Fig. 3. (Left) Raised cords (going across the spine) laced-in through the wooden board.

Fig. 4. (Middle) Well-worn pages sticking out of a bible.

Fig. 5. (Right) Old leather repair on the spine. While it is also brown, it has a completely different texture.

Our conservation strategy and steps

Terms used to describe a book and its damages share a lot of similarities with describing a living being, due to the use of anatomical terms (fig. 6). This is also the case in Dutch, where *'kop'*, *'staart'* and *'rug'* are used. In English, the top of the book is referred to as the *'head'*, and the bottom as the *'tail'*. The length of the book is its *'spine'*, which is connected to the front and back covers at the *'joint'*. The two ends of the *'spine'* are known as *'end-caps'*. The sum of pages is known as a *'text-block'*. Parts of the book that move the most receive the most wear, and this was also what we observed.

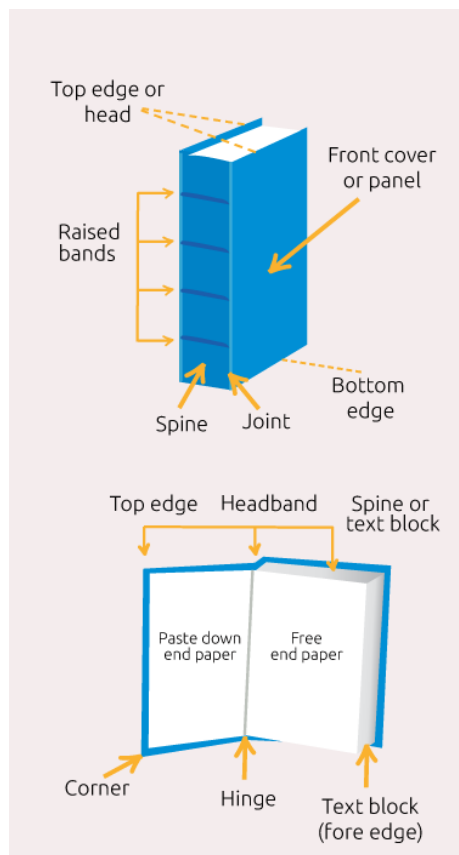


Fig. 6. Terminology for a book's construction, adapted from <https://bookprinting.com/resources/parts-of-a-book>.

As the six Bibles come from one collection, we were given the additional challenge to agree on a common treatment approach, or using the same materials and techniques for every book. Condition checking the objects is the first step of any conservation treatment. The six of us began by noting down the tears, missing, or damaged areas before discussing the advantages and disadvantages of the possible treatment options. As the goal was to stabilise the books for occasional use, our priority was to ensure that the books can be opened without further damage. As they were, tears in the pages could widen, or the leather covering material would continue to flake and detach.

After agreeing on a common approach, the books were first cleaned to remove the overall dust and dirt. A soot sponge was used on the outside of the book, along the edges of the text-block, and on the first and last few pages (fig. 7). Areas which were suspected to be mouldy were cleaned under a fume hood, which extracts air and prevents the mould spores from spreading. Removing the dust and dirt also helps the repairs we make later adhere better.



Fig. 7. (Left) Clodagh during the dry cleaning of a bible with mould.

Fig. 8. (Right) Book drying after textblock repairs by Mariska.

There were also loose, or very worn pages within the text-block. These were re-attached or reinforced with Japanese paper and wheat starch paste, an adhesive. In conservation, Japanese paper is valued and used for its strength, while repairs are made with wheat starch paste so they remain re-treatable in the future. Strips of Japanese paper which reach from head to tail were pasted where the pages hinge, to hold loose sheets in place (fig. 9). Thinner Japanese paper, which is translucent, was pasted over pages which have become too weak to handle safely. This was a quick method of mending that would still allow the text to be read.

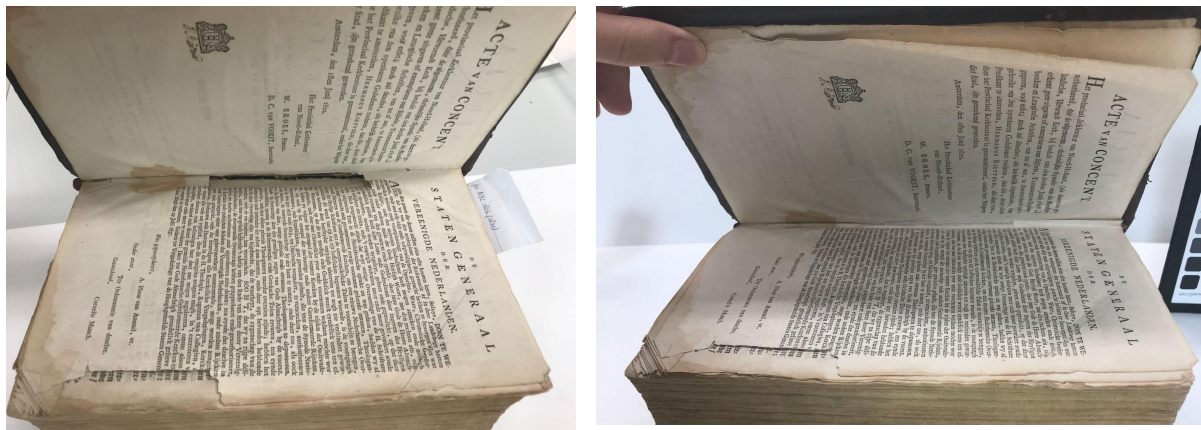


Fig. 9. Tear mending on one of the pages, by Anastasia, before (left) and after (right).

The leather covering material was abraded and had small losses on most books. Treating degraded and aged leather requires more care as it is already weakened, and permanently darkens if it comes into contact with water. The edges of the leather and any areas that could come into contact with the adhesives were first protected by applying a layer of consolidant (fig. 10). This consolidant was also used to smooth down abraded or flaking leather.



Fig. 10. Anastasia applying consolidant onto the leather using a brush.

On the cover, the joints of the books were partially or completely broken, due to extensive use and ageing of the leather. The joints flex each time the book is opened, and the heavy weight of the wooden boards add even more pressure. As such, it was decided that the broken joints needed further reinforcement. Layers of cotton, Japanese paper, and scraps of shaved leather were built up along the outer joints to fill in the missing or torn areas of leather with flexible and strong material (fig. 11, 12). This repair was then covered in dyed Japanese paper, and finished to match the colour and gloss of the original leather (fig. 13, 14).



Fig. 11. Paper and cotton (bright white) have been adhered underneath the leather. By Kristin.



Fig. 12. Shaved leather covered in brown-coloured Japanese paper was used to fill in the gaps. By Kristin.



Fig. 13. Broken joint before (top) and after (bottom) treatment, by Kristin. The repair was made to match the leather in colour and gloss.



Fig. 14. Repair of the broken joint at the tail end, before (left) and after (right), by Mariska.

In one of the books, two of the raised cords (which connect the textblock to the cover) were broken – similar to the leather covering, these have broken from repetitive use. These broken sewing supports were extended with linen thread to provide new strength to the binding (fig. 15). Layers of paper and cotton were used to further support the weakened cords (fig. 16).



Fig. 15. (Left) Sewing support extended with new (white-coloured) linen thread. Treatment by Luca.

Fig. 16. (Right) Reinforcement of broken joint under leather. Treatment by Luca.

Parts of the end-caps were also either missing or detached, and the covers had bumped corners (missing leather). This is likely caused by the action of pulling the books off of the shelf over the years, as friction wears down the leather. The end-caps had to be reconstructed and pasted back. As they would be stored upright on shelves again, there was a risk that the damage would worsen over time if left untreated. Cord was used as a support to build up the missing areas – the ends were frayed, and inserted underneath the existing portions of the leather covering material. The choice of using cord was also influenced by the fact some of the end-caps were originally constructed with them. Layers of dyed Japanese paper and leather shavings were used to fill in the losses (fig. 18). Some repairs were also lightly retouched with watercolours, to make them less obvious (fig. 19).



Fig. 17. Alison (left) and Mariska (right) inserting the frayed cord at the tail end of the book.



Fig. 18. Reconstruction of an end-cap on the tail end by Mariska. Cord is inserted into the missing area (left), bulked with leather shavings, and covered with paper (right).



Fig. 19. Luca retouching his repairs using watercolours (left) and his results after treatment and retouching (right). The retouch on the joint follows the pattern of the blind tooling (bold dark stripes).

The start of a pest reference collection?

Another interesting find we had during treatment was the pest in Alison's book – a perfectly preserved specimen squished between the pages. While we had learnt about pests in other classes, we (fortunately) don't come across them very often. This particular one, we were told, eats silverfish. There are currently plans to preserve this in resin, and perhaps start a pest reference collection for ourselves.



Thank you!

Treating these objects gave us a chance to practice certain techniques – reconstructing end-caps using frayed cords rather than rolled paper, filling in missing areas with leather shavings, and achieving a glossy finish on paper. We had only tried these on mock-ups during class or heard about them, and the practical experience of using them on actual books is invaluable. We have included some more photographs below, showing what they look like after treatment.

We would like to thank the church again for their generous donation. We only treated six books out of the many that were donated, and the experience of treating the other books will certainly benefit the future cohorts of students.



A three-quarter view of Luca's book before (left) and after (right) treatment – detached leather, broken joint mended, lost tail cap reconstructed in leather.



Bumped corners on Anastasia's book before (left) and after (right) treatment, mended with Japanese paper and painted to match the leather in colour.