**Description:**

Virgil was a first century poet. This is a collection of virgil's works, printed in 1931. It is a facsimile of the Codex Laurentianus manuscript owned by the Italian library in Florence, the Biblioteca Medicea Laurenziana. The original Laurentianus manuscript dates to the 5th century and contains dark brown handwritten ink on parchment leaves. The 1931 facsimile is photographically printed using a combination of collotype and lithographic processes. Great care has been taken in replicating the finest details, including the replication of vellum loss by cutting out holes in the reproduction paper and is suitable as a true surrogate of the original for research purposes and bibliophiles.

**Binding**

This is a limp vellum binding with leather overbands. There is a stiff paper insert drummed on inside the covers over the leather facings.

**Textblock**

The textblock consists of oversewn gatherings of four leaves. The oversewn gatherings are sewn all along onto three cloth tapes. The textblock is cased into the vellum binding.

**Primary Support**

The textblock leaves are a thin rigid, wove cardstock with no apparent watermark.

**Medium**

This is most likely a black collotype print (as evidenced with a reticulation pattern seen under magnification) with additional photolithography printing in red. A collotype is a, “photomechanical printing process that gives accurate reproduction because no halftone screen is employed to break the images into dots. In the process, a plate (aluminum, glass, cellophane, etc.) is coated with a light-sensitive gelatin solution and exposed to light through a photographic negative. The gelatin is hardened in exposed areas and is then soaked in glycerin, which is absorbed most in the non-hardened areas. When exposed to high humidity, these areas absorb moisture and repel the greasy ink. The hardened areas accept the ink, and the plate can be used to print a few thousand copies of the positive image,” as stated by Encyclopedia Britannica.

**Attachments | Inserts**

None

**Housing**

**Condition:**

**Summary**

The binding is in fair condition and the textblock is severely damaged from oversewing that is broken.

**Binding**

Overall, the light yellow vellum has turned dark grey from dirt accumulation. The vellum is torn along the joints. Some of the leather lacing in the leather bands is lost on the upper cover near the spine.

**Textblock**

The textblock is in severe condition. The all along sewing with tapes is broken throughout. The spine linings have delaminated away from the back of the textblock.

**Primary Support**

The textblock leaves are broken at the gutter due to wear and oversewing. The rugged shaped edges of the textblock leaves are fragile and in danger of becoming lost.

**Medium**

The media is stable.
Housing

Housing Narrative
No prior housing.

Attachments | Inserts
None.

Previous Treatment
There is no evidence of previous treatment.

Materials Analysis
The dirt engrafted areas of the vellum were spot tested for wet cleaning with water dampened cotton swabs along the fore edge. The engrafted dirt was found to easily lift off, however it was decided together by the librarian and the conservator that further surface cleaning in this manner was not a relevant treatment need at this time.

TREATMENT:

Proposal
1. Remove textblock from vellum binding.
2. Surface cleaning vellum binding to remove loose dirt.
3. Repair tears in vellum binding joints.
4. Stabilize leather linings on top of leather bands.
5. Remove spine linings from textblock.
6. Remove broken all along sewing on supports from textblock.
7. Remove paper guards from folios.
8. Remove over-sewing throughout.
9. Mend perforated breaks throughout textblock leaves and guard leaves into folios.
10. Cut new endsheets as needed for rebinding.
11. Rebind textblock into original limp vellum binding.
12. House the binding into an enclosure to protect it from wear during shelving.

Housing Need
Corrugated clamshell

Factors Influencing Treatment
Compensating for the swell of the textblock during rebinding will be difficult, so careful thought during mending, and rebinding will have to be taken into consideration so the textblock is not too thin or too swollen. It is important both for the function of the book that it properly fits into the original binding.

Performed Treatment
1. The textblock was mechanically separated from the binding. The pastedowns and spine lining flanges attached to the inside covers were mechanically lifted with a spatula. The cloth spine lining flanges adhered beneath the pastedowns were carefully peeled off the upper and lower pastedown paper. Since the cloth spine lining adhesive had delaminated from the back of the textblock, the lining was fully removed from the textblock back by pulling the lining away mechanically. The all along sewing and cloth tape supports remained attached to the cloth and paper linings. [AS 2 hrs]
2. The sewing tapes and spine linings were encapsulated to aid future scholars in understanding the original binding’s structure in combination with the photographic documentation. The fragment was encapsulated between polyester film using an ultrasonic welder. [AS 0.15]
3. The vellum binding was surface cleaned with smoke sponges and vinyl eraser crumbs to remove loose dirt. [AS 0.75 hrs]
4. Tears in vellum binding joints were repaired with kozo fibered Uso Mino tissue toned with Golden Acrylics, and wheat starch paste. The repairs were then further inpainted with Schmincke watercolors to give them a dirty appearance to aesthetically integrate them into the binding. [AS 1 hr]
5. The loose leather linings on top of leather bands were stabilized by adhering them down with Zen Shofu wheat starch paste. [AS 0.15 hrs]
6. The perforated breaks caused by the over-sewing throughout the textblock were mended simultaneously as the folios were guarded into their original gatherings, consisting of two folios. The folios were mended on the inside and outside with either silk tissue or Tengujo kozo tissue, both of which were toned with Golden Acrylics. The guards were adhered with wheat starch paste using a guard-o-matic. The mends/guards were dried in between pressing stacks of blotter, Remay, and corrugated board under light weight. As soon as the guards were dry, small groups of folios were nipped in the press for overnight to reduce swelling. [PS 0.5, CV 5.5 hrs, DJ 2.75]
6.5, AS 13.0 hrs]
7. The losses and tears in title page were mended with an acrylic toned kozo tissue and wheat starch paste. [0.5 hrs]
8. A laid Ingres paper was selected to match the original endsheets to add additional endsheets needed for rebinding. It was cut and folded along the grain. [AS 0.15 hrs]

9. After mending, textblock sewing was attempted. The textblock was sewn onto three cloth tape sewing supports to replicate the original all along supported sewing. Despite all efforts of reducing possible swelling of the textblock, it became clear after sewing nearly half of the binding that no matter what size thread was used, the textblock would not fit back into the original binding after sewing. In addition, the thinner thread was causing tears in the thin repair tissue and needed constant repair work. [AS 4 hrs]
10. At this point, it was evident that either the textblock would have to be treated differently in order to be cased back into the original binding and prevent the repairs from damage, or it would have to be re-sewn with free guards into a new binding. Since such care had been taken to mend every page with kozo tissue and wheat starch paste to prevent swelling of the textblock, the textblock still fit well within the limp vellum cover. Therefore, options were pursued to case the textblock within its original binding. Because each leaf was mended/guarded with kozo tissue and wheat starch paste, these guards act as a reversible layer to any subsequent lining on the back of the textblock. Therefore, the textblock was double-fan adhesive bound with a linen cloth lining. Afterwards, the new Ingres endsheet folios were sewn onto the textblock, through the cloth lining (one folio per side). The purpose of adding new endsheets was to add additional swell, and to create upper and lower tongues/flanges to help case-in the textblock, similar to a library splitboard binding. [AS 0.5 hrs]

To create the tongues, the new endsheets were trimmed to the height of the textblock. The flanges of the linen cloth lining were trimmed to be 2 inches longer on both sides of the shoulder. They were then adhered to the endsheets with a 1:1 mixture of PVA and methyl cellulose. The endsheets were then trimmed to be 4 inches long. The endsheets were folded halfway at the edge of the cloth and adhered on top of the linen with the PVA mixture. Once dry, the tongues were trimmed at a 45 degree angle. Slits were then cut in the tongue by cutting horizontally along the tongues 1.5 inches from the top and boom of the textblock.
11. The textblock was cased into original limp vellum binding, first by sliding the middle section of the tongues behind the original laced on paper insert and adhering with the 1:1 mixture of PVA and methyl cellulose, and adhering the top and bottom section of the tongue on top of the laced on paper insert (see during treatment image). Next, the following new endsheets were pasted down to the covers using the PVA mixture. Once those were dry, the original pastedowns were adhered on top of the new pastedowns to preserve the original visual integrity. [AS 0.25 hrs]
12. Once cased, friable edges of leaves that protruded out of the text block that were in danger of breaking became obvious. These areas were mended with Tengojo kozo tissue and wheat starch paste. [AS 0.5 hrs]
13. A corrugated clamshell with a wedge insert was constructed to protect the book during shelving [AS 0.5 hrs]

**Housing Provided**

Corrugated clamshell

**Housing Narrative**

A corrugated wedge insert was constructed to fit inside the box to compensate for the thickness of the spine in comparison to the thinner fore edge.

**Storage Recommendations and Handling notes**

To protect the original parchment binding, open the book at an acute angle and rest the book on a foam cradle.

**TOTAL Treatment Time**

39.75 hrs