

**BOOK CONSERVATION AND TREATMENT RECORD****Library of Congress – Conservation Division**

<b>Project Number &amp; Name:</b>	4531, Plato Opera		
<b>Division:</b>	RBSC	<b>Date In:</b>	September 28, 2020
<b>Division Contact:</b>	Marianna Stell	<b>Date Out:</b>	
<b>Conservator(s):</b>	Dan Paterson (supervisor) and Laura McNulty (intern)	<b>Examination Date:</b>	September 30, 2020
<b>I.D./Call number:</b>	PA4280.F43 1491 Copy 3		
<b>Title:</b>	Opera ( <i>Prohemium Marili fioni fiore in libros Platonis</i> )		
<b>Author:</b>	Plato		
<b>Imprint:</b>	Bernardus de Cremona and Simon de Luero, Venice, 1491		
<b>Alternative Format:</b>			
<b>Existing Container:</b>	CMI Box		

**Background Information: (significance, provenance, set of volumes, labels, stamps, inscription):**Historical Context

This volume is 35 of Plato's dialogues and Platonic *Letters* translated from the original ancient Greek to Latin. The translation was done by Marsilio Ficino (1433-99), an Italian priest and philosopher. In conversations with rare book curator, Marianna Stell, I learned that translations of ancient philosopher's works revived interest in their ideas and would become a cultural hallmark of the Italian Renaissance. This volume, printed in 1491, is actually the second printing of this work. The first printing was done in Florence while the second printing was done in Venice. Stell again told me that the change in location from the first to the second printing is significant because the Venetian imprint would have had a broader audience as Venice was an important mercantile hub. Today, copies of this work can be found in 180 institutions around the world, which shows the popularity of Ficino's translation (British Library 2020).

Ficino studied and translated the works of ancient philosophers. He wrote philosophical letters, treatises, and commentaries; taught in formal academies and less formal gatherings of like-minded intellectuals; and, as he did with the works of Plato, translated ancient writings from Greek into Latin. The immediate effect of his efforts was widespread as his translations were seen as the standard and were used by Western thinkers. His translations would not be reconsidered for the next 300 years following their publication. Ficino's theories, especially those about love, which he devised based on his studies were used in 16<sup>th</sup> century literature. His reputation waned in the late 17<sup>th</sup> and 18<sup>th</sup> centuries as new scientific methods and ways of thinking challenged the established ways of interpreting the ancient philosophers. Regardless of the status of his reputation, Ficino made Plato and Platonism respectable subjects of research and philosophical reflection.

References:

British Library. 2020. "Incunabula Short Title Catalogue: the international database of 15<sup>th</sup>-century European printing."  
British Library Catalog. Last Modified June 3, 2020. <https://data.cerl.org/istc/ip00772000>.

Celenza, Christopher S. 2017. "Marsilio Ficino." *Stanford Encyclopedia of Philosophy*, September 7, 2017.  
<https://plato.stanford.edu/entries/ficino/>.

Labels

Adhered to the inside of the front board are a Library of Congress sticker for the Thacher Collection and a bookplate of John

Boyd Thacher with a coat of arms.

Inscriptions

In graphite on the inside of the front board, “No 613/[157].” In graphite on the inside of the back board, “Incun Coll/Thacher/PA4280/.F43/1491/Copy 3/RBSCD” and “2016656286.”

**DESCRIPTION AND CONDITION:**

<b>Cover Dimensions:</b>	<b>Height:</b>	31.4	<b>cm</b>	<b>Width</b>	22.3	<b>cm</b>	<b>Thicknes</b>	8.3	<b>cm</b>
				:			<b>s:</b>		
<b>Textblock</b>	<b>Height:</b>	30.4	<b>cm</b>	<b>Width</b>	20.8	<b>cm</b>	<b>Thicknes</b>	6.8	<b>cm</b>
<b>Dimensions:</b>				:			<b>s:</b>		

**Collation (signatures, format, leaves, pagination, foliation, and inserts):**

See sewing diagram in Appendix I.

**General Description:**

The textblock has been rebound and the current binding is not original to the printing of the text. The strongest evidence to support this supposition is the trimmed textblock. The marginalia along the foreedge has been cut off which suggests that the textblock was trimmed to fit into a new binding. The two-on, abbreviated sewing pattern also supports this supposition.

Binding Style/Finishing

This volume has a tight-back, in-boards binding. Four raised bands are visible on the spine which are false. Leather covers the wooden boards in a quarter-style. When viewed under magnification, the leather is identified as sheep based on the visual characteristics. There are two gold stamped leather labels on the spine containing title, author, and publication information. The leather on the spine, boards, turn-ins, and board edges has been blind tooled.

As stated above, the boards are wood and measure 0.7cm thick.

Binding Structure:

As stated above, this book has a tight-back, in-boards binding structure with French joints. The volume opens easily. The leather at the head of the spine is pulling away from the folds of the textblock and it appears that there is no other lining material on the folds of the textblock. The leather is adhered directly to the folds of the textblock. Currently, there are no endbands on the volume.

Textblock:

The textblock has 54 gatherings, the bulk of which are comprised of four folios. Six gatherings have five folios. There are four sewing stations, the sewing is supported on 4 raised cords, and the gatherings are sewn with a two-on, abbreviated pattern (see Appendix I for sewing diagram). The textblock is slightly rounded and backed and opens easily. The textblock is made of handmade laid paper. When viewed in transmitted light, the distribution of paper fibers is uneven and there are vatman’s tears; both characteristic are commonly found in handmade paper. The paper drapes well as it retains its flexibility.

The text is printed in black printer’s ink. The printing process has produced a slightly pronounced punch in the paper. In the margins of some of the pages, there is marginalia which is written in a colored ink which has faded to a pink color, suggesting that the ink may have originally been red. There are two large inscription, likely written in iron gall ink, on the first and last pages of the text. Most of the inscription has been crossed out and is obscured. Graphite inscriptions are located on the inside of the front and back covers on the pastedowns.

The endpapers are wove and are not original to the first binding of the volume. The flyleaves at the front and back are tipped in, as is the small piece of paper at the front with the title information.

Ephemera:

Tucked into the gutter of the textblock, there are two small pieces of ephemera. The origins of the ephemera are

unknown. One is located between pages 14 and 15; the other between pages 275 and 276. The handwriting on both suggests that they may be manuscript waste.

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**General Condition:****Binding Style/Finishing:**

The leather along the front and back joints and on the spine is deteriorated and crumbling, which contributed to the detachment of the front board. The leather on the spine has thin, vertical cracks, characteristic of a tight-back binding. The leather has been abraded along the board edges, resulting in a loss of the upper layers of the leather. The wooden boards are in good condition.

**Binding Structure:**

The binding structure is no longer intact due to the detached front board. Stresses due to opening the front board has caused the leather, sewing supports, and pastedowns to break along the spine. The back board is tenuously attached and held on by the sewing supports; the inner hinge is completely broken and the leather over the back joint is mostly broken.

**Textblock:**

The sewing is intact and in good condition. The gatherings are secure to the textblock. The paper is also in overall good condition. There is discoloration along the edges of the textblock. The severity of the discoloration varies but is most severe along the head edges. There is minimal physical damage to the paper – a few corners are dog-eared, but otherwise the paper retains its flexibility. The ephemera tucked into the gutters has caused staining on the adjacent pages. The staining is minimal and near the tail edge.

The media are in good condition and remain legible.

**BOARD****Board:**

- missing  
 wood  
 paste-board  
 waterleaf / pulp  
 binders board  
 other  
 back cornered  
 shaped  
 tying-up marks

**Covering Materials:**

- full  
 half  
 quarter  
 bookcloth  
 textile  
 paper  
 cloth sides  
 vellum sides  
 paper sides/dec

**Binding Style:**

- tight back  
 case  
 laced-on  
 laced case  
 tight joint  
 French joint  
 laced-in  
 hollow back  
 baggy back  
 false bands  
 raised bands  
 cords  
 tapes  
 thongs

**SPINE****Spine Shape:**

- flat  
 rounded  
 uneven  
 backed  
 concave

**Upper Joint:**

- intact  
 broken  
 board loose  
 board detached

**Lower Joint:**

- intact  
 broken  
 board loose  
 board detached

**Endcaps:**

- folded  
 shaped  
 sewn  
 repaired  
 missing

**Diagram(s):****TITLE****Titling Style:**

- none  
 manuscript  
 tooled  
 label

**Medium:**

- ink  
 blind  
 gilt

**Location:**

- upper board  
 lower board  
 spine  
 edge of textblock

**Tooling Style:**

- none  
 blind  
 gilt  
 pigment  
 other

**Tooling Location:**

- upper board  
 lower board  
 board edges  
 endcaps  
 turn-ins  
 spine

Title on spine: \_\_\_\_\_

**FASTENINGS AND FURNITURE****Fastening Type:**

- none  
 clasps  
 side pin  
 textile tie  
 thongs

**Fastening Location:**

- hinges from  
 lower board  
 hinges from  
 upper board

**Type of hinge:**

- metal  
 leather strap

**Furniture:**

- none  
 corner/center pcs.  
 bosses

**Diagram(s):**

**ENDBANDS**

Spine Lining:	Endbands:	Core:	Decorative elements:	Diagram(s):
<input checked="" type="checkbox"/> none	<input checked="" type="checkbox"/> none	<input type="checkbox"/> single core	<input type="checkbox"/> linen thread	
<input type="checkbox"/> parchment patches	<input type="checkbox"/> both present	<input type="checkbox"/> double core	<input type="checkbox"/> silk thread	
<input type="checkbox"/> paper	<input type="checkbox"/> one present	<input type="checkbox"/> sewn	<input type="checkbox"/> tawed	
<input type="checkbox"/> textile	<input type="checkbox"/> head	<input type="checkbox"/> # of tie downs	<input type="checkbox"/> leather	
<input type="checkbox"/> leather	<input type="checkbox"/> tail	<input type="checkbox"/> stuck-on	<input type="checkbox"/> textile	
<input type="checkbox"/> cannot see	<input type="checkbox"/> evidence present	<input type="checkbox"/> flat/round		
	<input type="checkbox"/> cut off	<input type="checkbox"/> tawed		
		<input type="checkbox"/> tanned		
		<input type="checkbox"/> cord		
		<input type="checkbox"/> parchment	colors: _____	
		<input type="checkbox"/> paper	endband style: _____	

**SEWING**

Sewing supports:	Sewing:	Textblock edges:	Textblock:	Diagram(s):
<input type="checkbox"/> unsupported	<input type="checkbox"/> original	<input checked="" type="checkbox"/> trimmed	<input type="checkbox"/> folio	
<input checked="" type="checkbox"/> supported	<input type="checkbox"/> repaired	<input type="checkbox"/> untrimmed	<input type="checkbox"/> quarto	
<input checked="" type="checkbox"/> single	<input type="checkbox"/> resewn	<input type="checkbox"/> deckles h/t/fe	<input type="checkbox"/> octavo	
<input type="checkbox"/> double	<input type="checkbox"/> multiple sewings	<input type="checkbox"/> colored:	<input type="checkbox"/> other:	
<input type="checkbox"/> tawed	<input type="checkbox"/> all-along	<input type="checkbox"/> gilt	<input type="checkbox"/> intact	
<input type="checkbox"/> tanned	<input checked="" type="checkbox"/> abbreviated	<input type="checkbox"/> speckled	<input type="checkbox"/> dis-bound	
<input checked="" type="checkbox"/> cord	<input checked="" type="checkbox"/> sawn-in	<input type="checkbox"/> tooled		
<input type="checkbox"/> parchment	<input type="checkbox"/> notched	<input type="checkbox"/> gauffered		
<input type="checkbox"/> textile	<input checked="" type="checkbox"/> oversewn			
<input type="checkbox"/> hemp	<input type="checkbox"/> silk thread			
	<input type="checkbox"/> linen thread			
	<input type="checkbox"/> cotton thread			
	<input type="checkbox"/> other			

**TEXTBLOCK**

Textblock materials:	Method of marking:	Media:	Paper condition:	Diagram(s):
<input type="checkbox"/> parchment	<input type="checkbox"/> manuscript	<input checked="" type="checkbox"/> iron-gall ink	<input type="checkbox"/> brittle	
<input checked="" type="checkbox"/> paper	<input type="checkbox"/> woodblock	<input checked="" type="checkbox"/> other ink, color:	<input checked="" type="checkbox"/> stained	
<input type="checkbox"/> combination	<input checked="" type="checkbox"/> printed	<input checked="" type="checkbox"/> graphite	<input type="checkbox"/> tears	
<input type="checkbox"/> watermark	<input type="checkbox"/> engraving	<input checked="" type="checkbox"/> printer's ink	<input type="checkbox"/> losses	
<input checked="" type="checkbox"/> handmade	<input type="checkbox"/> etching	<input type="checkbox"/> printer's crayons	<input type="checkbox"/> accretions	
<input type="checkbox"/> machine made	<input type="checkbox"/> lithography	<input type="checkbox"/> colored ink	<input type="checkbox"/> tape	
<input checked="" type="checkbox"/> laid	<input type="checkbox"/> plate mark	<input type="checkbox"/> watercolor	<input type="checkbox"/> attachments	
<input type="checkbox"/> wove	<input type="checkbox"/> hand colored	<input type="checkbox"/> gouache	<input type="checkbox"/> lined/silked	
<input type="checkbox"/> other	<input type="checkbox"/> other	<input type="checkbox"/> other	<input type="checkbox"/> other	

**ENDSHEETS**

<b>Endleaves:</b>	<b>Construction:</b>	<b>Material:</b>	<b>Diagram(s):</b>
<input type="checkbox"/> none	<input type="checkbox"/> hooked	<input checked="" type="checkbox"/> paper	
<input type="checkbox"/> same as textblock	<input type="checkbox"/> whipstitched	<input type="checkbox"/> leather	
<input checked="" type="checkbox"/> paper	<input type="checkbox"/> sewn gathering	<input type="checkbox"/> cloth	
	<input checked="" type="checkbox"/> tipped on	<input type="checkbox"/> other	

**TREATMENT PROPOSAL:**

The textblock will be rebound in a full leather, in-boards binding. The decision to remove the current binding was made in consultation with the curator. The deteriorated state of the leather would make reattaching the detached front board and securing the tenuously attached back board difficult, and such treatment would do little to preserve the deteriorated leather for the long term. Decisions regarding the binding structure and finishing will be made based on observations of surviving 15<sup>th</sup> century bindings in the rare book collection and in consultation with the curator.

**Steps:**

1. Complete written and photographic documentation.
2. Remove textblock from current binding. Retain current binding per curator's request.
3. Attach new cords to textblock which will be used to lace on the new boards.
4. Bound textblock in a full leather, in-boards binding.
5. Build custom housing for rebound volume, and detached boards and spine.

**RISKS OF TREATMENT:**

The greatest risk of treatment is damage to the folds of the gatherings during the removal of the current binding. The leather is adhered directly to the folds of the textblock which could be abraded during the attempts to clean the spine. Care will be taken to minimize damage to the folds during cleaning.

**Photography:**

- BT     AT  
 slides  
 digital  
 transmitted  
 raking

**Testing:**

- pH  
 media  
 phloroglucinol  
 ninhydrin  
 potassium iodide

**Testing Results:****Textblock: (identify all materials, manufacturers, and solution strengths)**

- fixing/consolidation

The spine was cleaned using a poultice of 4% w/v methylcellulose in deionized water. Several passes were required to clean the spine.

- drycleaning  
 removal of attachments  
 washing  
 bleaching/stain removal  
 alkalize  
 size  
 mend  
 guard  
 line  
 leaf cast  
 flattening

**Binding:**

- endpaper construction

New, bifolio endpapers (MacGregor papers, Cobscook/laid, 90-115 grams) were added at the front and back.

- sewing

Two new cords were added at each sewing station to support the textblock and to serve as the connections to the new boards. New sewing holes were punched to reduce the risk of damaging the existing sewing holes. All-along sewing was done in gatherings "a" through "f" and "BB" through "HH," and including the new endpapers. Size 35 thread was used for the sewing.

- textblock consolidation/spine shaping

Wheat starch paste (prepared lab stock Aytex P, purchased from Talas was applied to the cleaned spine. The textblock was then rounded and backed. A slight rounding and backing were achieved.

- endbands

Primary endbands were sewn off the book using linen thread (green and undyed thread). The core is cord slightly smaller than the cords used for the new sewing supports. The endbands were adhered to the spine using PVA.

- spine linings and adhesives

Two layers of Korean #1301 paper (Kozo fibers, 19.6 g/m<sup>2</sup>, 0.06-0.07mm thick) were adhered to the spine with wheat starch paste between the sewing stations. Linen (Irish linen, purchased from Talas) transverse linings were then applied using an approximately 50:50 mix of PVA (Jade 703) and wheat starch paste.

- board attachment and shaping

The boards were made of 3mil Tschidi Eterno (blue) board and was sanded to shape and soften the edges. Slits in the board were made and the sewing supports were laced through the slits, frayed, and adhered to the inside of the covers with PVA.

- covering

The book was fully covered with leather (goat leather dyed brown, supplied by Hewitt).

- finishing
- Housing

The covers and spine were decorated with blind tooled lines.

Cloth-covered (Canapetta, purchased from Talas) clamshell box constructed with Tshidi Eterno board and a number of adhesives including animal glue, PVA, wheat starch paste, and mixtures of these adhesives. Adhesives were chosen based on the functionality of the part of the box and the working properties required. Per curator's request, the old boards, spine, and endsheets were saved and a tray was built to hold the saved materials which were enclosed in mylar and a four-flap enclosure made of 10 point folder stock.

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**Titling information:**

Enclosure: Plato.

Opera. Latin.

Tr., Marsilius Ficinus.

13 Aug. 1491

Thacher 410

Object: Book spine left blank



Appendix I – Sewing Diagram

Signature Mark	Number of folios	Head Kettle	Sewing Station #1	Sewing Station #2	Sewing Station #3	Sewing Station #4	Tail Kettle
a	4	—————	— — — — —	—————	—————	—————	—————
b	4	—————		—————		—————	—————
c	4		— — — — —		—————		
d	4	— — — — —		—————		—————	—————
e	4		—————		—————		
f	4	— — — — —		—————		—————	—————
g	4		—————		—————		
h	4	— — — — —		— — — — —			— — — — —
i	4		— — — — —		— — — — —		
k	4	—————		— — — — —		—————	—————
l	4		—————		—————		
m	4	— — — — —		—————		—————	— — — — —
n	4		— — — — —		— — — — —		
o	4	—————		—————		—————	—————
p	5		—————		—————		
q	5	—————		—————		—————	—————
r	4		—————		— — — — —		
s	4	—————		— — — — —		—————	—————
t	4		— — — — —		— — — — —		
v	4	— — — — —		— — — — —		—————	—————
x	4		— — — — —		— — — — —		
y	4	— — — — —		—————			— — — — —
z	4		— — — — —		— — — — —		
A	4	— — — — —		— — — — —			— — — — —
B	4		— — — — —		— — — — —		
C	4	— — — — —		— — — — —		—————	—————
D	4		—————		— — — — —		
E	5	— — — — —		— — — — —		— — — — —	— — — — —
F	5		— — — — —		—————		
G	4	— — — — —		— — — — —		— — — — —	— — — — —
H	4		— — — — —		— — — — —		
I	4	— — — — —		— — — — —			— — — — —
K	4		— — — — —		— — — — —		
L	4	— — — — —		— — — — —			— — — — —
M	4		— — — — —		— — — — —		
N	4	— — — — —		— — — — —		—————	—————
O	4		— — — — —		— — — — —		
P	4	— — — — —		—————		— — — — —	— — — — —
Q	4		— — — — —		— — — — —		
R	4	— — — — —		— — — — —			— — — — —

S	4		— — — —		— — — —	
T	4	— — — —		— — — —		— — — —
V	4		— — — —		— — — —	
X	4	— — — —		— — — —		— — — —
Y	4		— — — —		— — — —	
Z	4	— — — —		— — — —		— — — —
AA	4		— — — —		— — — —	
BB	4	— — — —		— — — —		— — — —
CC	4		— — — —		— — — —	
DD	4	— — — —		— — — —		— — — —
EE	4		— — — —		— — — —	
FF	4	— — — —		— — — —		— — — —
GG	5		— — — —		— — — —	
HH	5	— — — —		— — — —		— — — —
Flyleaves						

**Key:** — — — — Visible thread  
 - - - - Thread is not visible

Appendix II: Photo Documentation

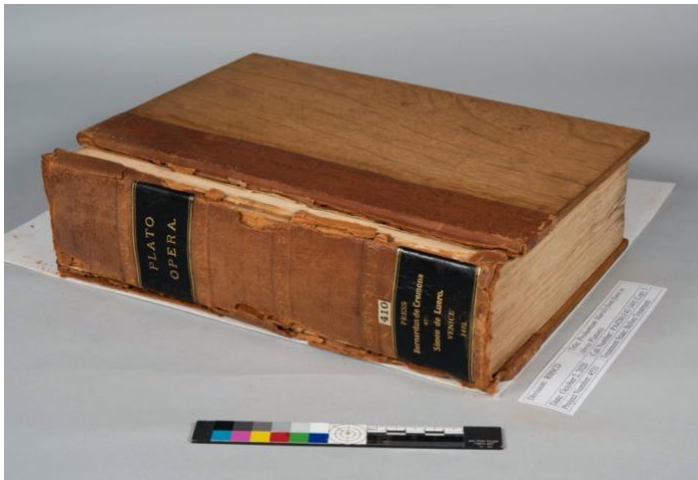


Image 1: Before Treatment, 3/4 view, Normal Light



Image 2: Before Treatment, 3/4 view, Normal Light

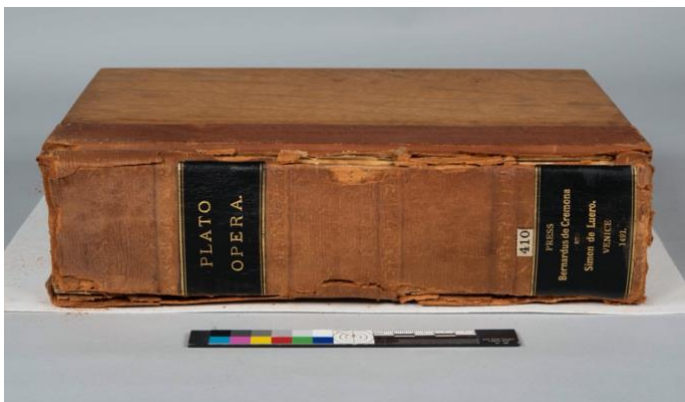


Image 3: Before Treatment, Spine, Normal Light



Image 4: Before Treatment, Opening viewed at tail edge, Normal Light



Image 5: Before Treatment, Overhead view of detached front board, Normal Light



Image 6: Before Treatment, Location of ephemera in textblock, Normal Light

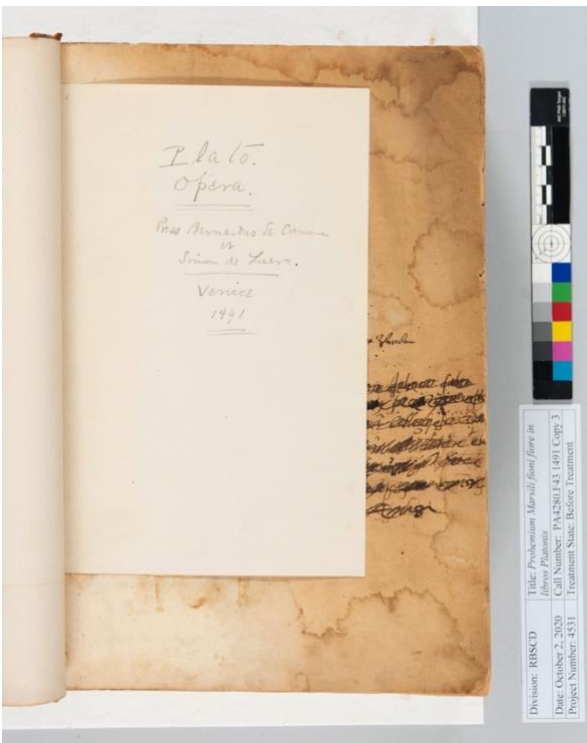


Image 7: Before Treatment, Binder's note tipped to title page, Normal Light

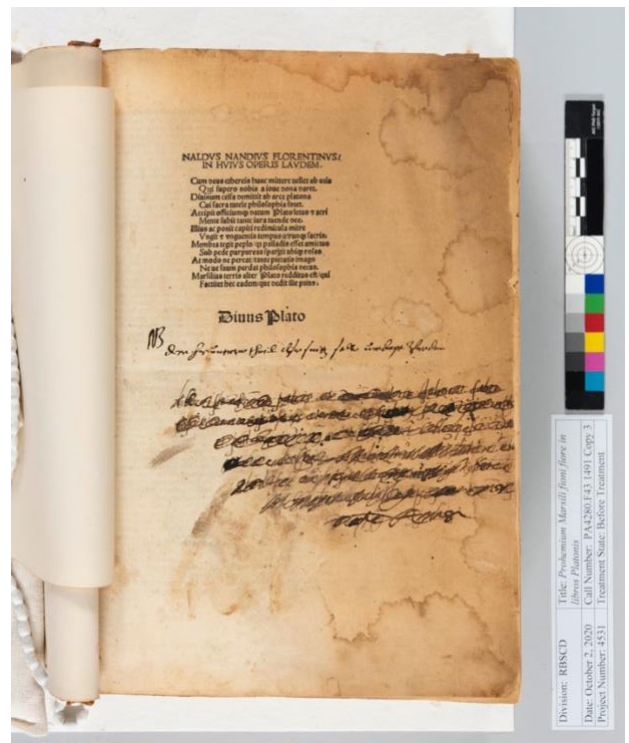


Image 8: Before Treatment, Title page with obscured inscription, Normal Light

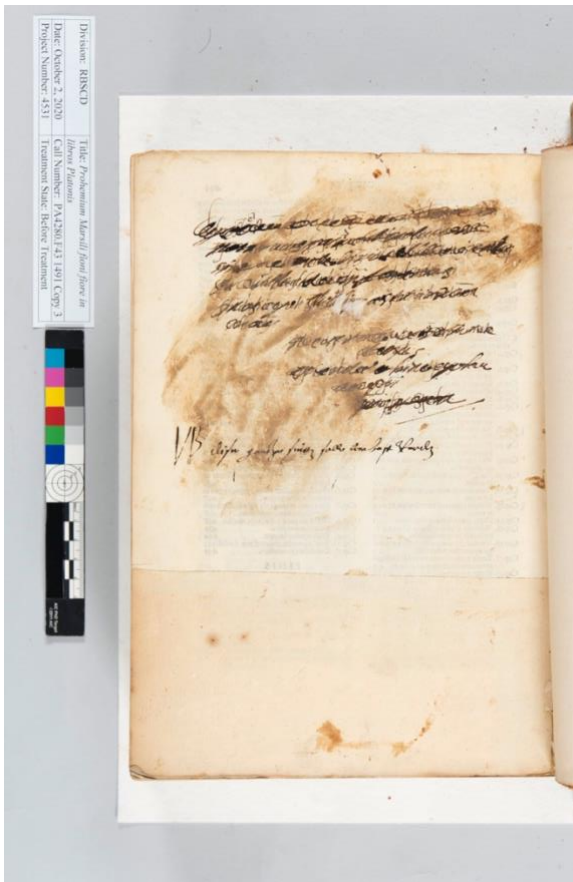


Image 9: Before Treatment, Obscured inscription on last page, Normal Light



Image 10: After Treatment, 3/4 view, Normal light



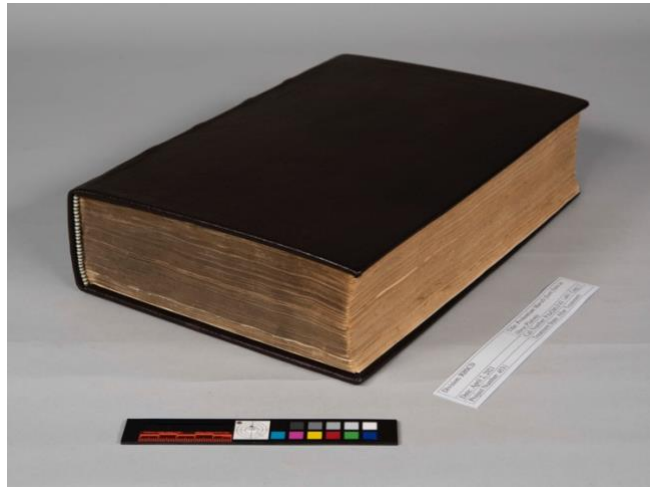


Image 11: After Treatment, 3/4 view, Normal light



Image 12: After Treatment, Overhead view, Raking light

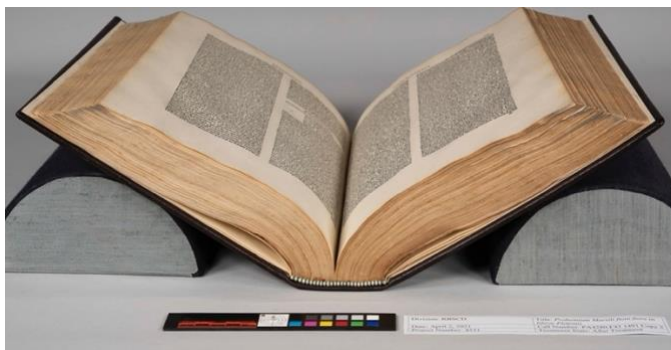


Image 12: After Treatment, Opening viewed at tail edge, Normal light



Image 13: After Treatment, 3/4 view of enclosure constructed



Image 13: After Treatment, View of inside of enclosure