

# BOOK CONSERVATION AND TREATMENT RECORD

## Library of Congress – Conservation Division

<b>Master Control Number:</b>	1784.008	<b>Project Number &amp; Name:</b>	1784 / Hebrew Ms. microfilming project
<b>Division:</b>	AMED	<b>Date In:</b>	
<b>Division Contact:</b>	Ann Brener	<b>Date Out:</b>	
<b>Conservator(s):</b>	Bertonaschi	<b>Examination Date:</b>	9 December 2009
<b>I.D./Call number:</b>	Hebrew MS #165		
<b>Title:</b>			
<b>Author:</b>			
<b>Imprint:</b>	Partially written in 1720-21		
<b>Alternative Format:</b>			
<b>Existing Container:</b>			

### Background Information: (significance, provenance, set of volumes, labels, stamps, inscription):

The only Judeo-Persian manuscript owned by the Library. The binding is unusual and should be well documented.

### DESCRIPTION AND CONDITION:

<b>Cover Dimensions:</b>	<b>Height:</b>	13.7	cm	<b>Width:</b>	11.6	cm	<b>Thickness:</b>	3.3	cm
<b>Textblock Dimensions:</b>	<b>Height:</b>	13.7	cm	<b>Width:</b>	11.6	cm	<b>Thickness:</b>	2.2	cm

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

23 sections, 91 leaves, collation done previously and written in graphite in upper left hand margin. The leaf between those numbered 57 and 58 is not numbered. Numbers cannot be seen on extremely deteriorated pages at front and back of the book.

### General Description:

A collection of charms, spells, folk remedies, lots, prayers, etc. Manuscript written in ink on paper. Full leather binding, sewn onto two leather thongs laced through boards. Boards appear to be a laminate of paper pulp and two layers of linen. Red accents are visible on the outer layers of linen. Elaborately woven endbands sewn over leather thongs at head and tail. Endband cores laced into boards. The leather is cut back on the spine to expose the endbands. There is a small slit in the leather turn-in at the fore edge of the upper board. The title page, which has been completely scribbled over with ink, has red pigment in the borders and center piece.

### General Condition:

This book is in very poor condition. The boards do not fit the text block, exposing the text block edges at head and tail, and allowing more than a centimeter to extend past the boards on the fore edge. The leather is very dirty and worn around the edges. Turn-ins at head and tail on the upper board have pulled away; most of the turn-in at the head is missing. Boards appear to be laminates of linen and paper. They are delaminating, and both linen and paper are extremely dirty and tattered. Paste downs have distorted along with underlying fabric. Both paste downs and the text block at front and back of the book are in terrible condition, extremely dirty and fragmentary, with many missing pieces. The last several sections are stuck together in an irregular pattern near the tail. The center portions of the text are more intact, but the edges have suffered greatly for being exposed by the shrunken boards. The leaf numbered 62 is detached with a large portion in the center of the page torn out and missing. The leaf numbered 86 has been cut in half with the lower portion missing.

**BOARD****Board:**

- ☐ missing  
☐ wood  
☐ paste-board  
☐ waterleaf / pulp  
☐ binders board  
☒ other: linen and paper pulp laminate  
☐ back cornered  
  
☐ shaped  
☐ tying-up marks

**Covering Materials:**

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

**Binding Style:**

- ☐ vellum  
☒ leather  
☐ tawed skin  
☐ calf  
☐ goat  
☐ sheep  
  
☐ pig  
  
☐ tight back  
☐ case  
☐ laced-on  
☐ laced case  
☐ tight joint  
☐ French joint  
  
☐ laced-in  
☒ thongs: twisted leather

**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 type="checkbox"/> none	<input type="checkbox"/> none	<input checked="" type="checkbox"/> single core	<input type="checkbox"/> linen thread	
<input type="checkbox"/> parchment patches	<input checked="" type="checkbox"/> both present	<input type="checkbox"/> double core	<input type="checkbox"/> silk thread	
<input type="checkbox"/> paper	<input type="checkbox"/> one present	<input checked="" type="checkbox"/> sewn	<input type="checkbox"/> tawed	
<input checked="" type="checkbox"/> textile	<input type="checkbox"/> head	<input checked="" type="checkbox"/> # of tie downs: 4 are visible	<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 checked="" type="checkbox"/> flat/round		
	<input type="checkbox"/> cut off	<input type="checkbox"/> tawed		
		<input checked="" 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 checked="" type="checkbox"/> original	<input 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 checked="" type="checkbox"/> all-along	<input type="checkbox"/> gilt	<input type="checkbox"/> intact	
<input checked="" type="checkbox"/> tanned	<input type="checkbox"/> abbreviated	<input type="checkbox"/> speckled	<input type="checkbox"/> dis-bound	
<input type="checkbox"/> cord	<input 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 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 checked="" type="checkbox"/> manuscript	<input 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 type="checkbox"/> printed	<input type="checkbox"/> graphite	<input checked="" type="checkbox"/> tears	
<input type="checkbox"/> watermark	<input type="checkbox"/> engraving	<input type="checkbox"/> printer's ink	<input checked="" type="checkbox"/> losses	
<input checked="" type="checkbox"/> handmade	<input type="checkbox"/> etching	<input type="checkbox"/> printer's crayons	<input checked="" 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**

Endleaves:	Construction:	Board sheet:	Joint material:	Diagram(s):
<input checked="" type="checkbox"/> none	<input type="checkbox"/> hooked	<input checked="" type="checkbox"/> adhered	<input type="checkbox"/> paper	
<input type="checkbox"/> same as textblock	<input type="checkbox"/> whipstiched	<input type="checkbox"/> not adhered	<input type="checkbox"/> leather	
<input type="checkbox"/> paper	<input type="checkbox"/> sewn gathering	<input type="checkbox"/> integral endleaf	<input checked="" type="checkbox"/> cloth	
	<input type="checkbox"/> tipped on	<input type="checkbox"/> single folio	<input type="checkbox"/> other	
		<input type="checkbox"/> other		

**TREATMENT PROPOSAL:**

Document structure extensively with notes, photographs, and diagrams. Construct a model of the structure. Repair on leafcaster, rebind, retaining original binding in housing.

Photography:	Testing:	Testing Results:
<input checked="" type="checkbox"/> BT <input checked="" type="checkbox"/> AT	<input type="checkbox"/> pH	
<input checked="" type="checkbox"/> slides	<input checked="" type="checkbox"/> media	No moisture sensitivity. Fe I and II tests negative. Infra-red imaging also negative for iron-gall ink.
<input checked="" type="checkbox"/> digital	<input type="checkbox"/> phloroglucinol	
<input type="checkbox"/> transmitted	<input type="checkbox"/> ninhydrin	
<input type="checkbox"/> raking	<input type="checkbox"/> potassium iodide	
multi-spectral imaging		

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

- |  |   |
|--|---|
| <input type="checkbox"/> fixing/consolidation              |   |
| <input checked="" type="checkbox"/> drycleaning            | Grated eraser crumbs.   |
| <input checked="" type="checkbox"/> removal of attachments |   |
| <input checked="" type="checkbox"/> washing                | DI water conditioned to about pH7 with  |
| <input type="checkbox"/> bleaching/stain removal           |   |
| <input type="checkbox"/> alkalize                          |   |
| <input type="checkbox"/> size                              |   |
| <input checked="" type="checkbox"/> mend                   | Japanese papers toned with acrylics, and starch paste. Pages trimmed to size after leafcasting. Because of differing sizes of pages, an extension made from leafcast offcuts was pasted to some pages at the tail edge so that an endband could be sewn at the tail.              |
| <input checked="" type="checkbox"/> guard                  | Fides Korean handmade #1003 (2013) with starch paste.   |
| <input type="checkbox"/> line                              |   |
| <input checked="" type="checkbox"/> leaf cast              | The following pages were prepared for leafcasting - front paste down; pages 1-10, 27-31, 33, 34, 62-90; back paste down. Preparation was done by bridging detached pieces and fragile breaks with small pieces of heat-set tissue applied with ethanol and heat. See notes below. |
| <input type="checkbox"/> flattening                        |   |

**Binding:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> endpaper construction        | Falkiner Khadi paper (cotton rag) toned with acrylics. Four leaf sections sewn with text block.  |
| <input checked="" type="checkbox"/> sewing                       | All along, 25/3 linen thread onto two alum-tawed thongs slit in the middle across the spine. Sewn onto a concertina of Japanese paper.   |
| <input type="checkbox"/> textblock consolidation/spine shaping   |  |
| <input checked="" type="checkbox"/> endbands                     | 25/3 linen thread for primary, tied down every section. Secondary chevron woven with two colors of silk.   |
| <input checked="" type="checkbox"/> spine linings and adhesives  | Aero-cotton adhered with paste, slots cut to accommodate supports. Lining sewn through first and third sections and corresponding sections at the back of the book to provide a mechanical attachment.   |
| <input checked="" type="checkbox"/> board attachment and shaping | Boards made up of 2-ply card with 5 layers of Dove Gray paper on each side, not laminated, wrapped with aero-linen and paste. Slits cut with chisel, sewing and endband supports laced through and secured with paste. Cotton hinge put down with paste. See Diagrams 2 and 3. |
| <input checked="" type="checkbox"/> covering                     | Hewit goat skin. This book was covered in stages. Spine pasted out first and leather applied with book in laying press, wrapped with Ace bandage. Boards pasted out next and leather put down. Turn-ins done last.   |
| <input type="checkbox"/> finishing                               |  |
| <input checked="" type="checkbox"/> Housing                      | Custom made drop-spine box with original binding and component parts included.   |

**Titling information:**

Enclosure:

Object:

## Diagrams

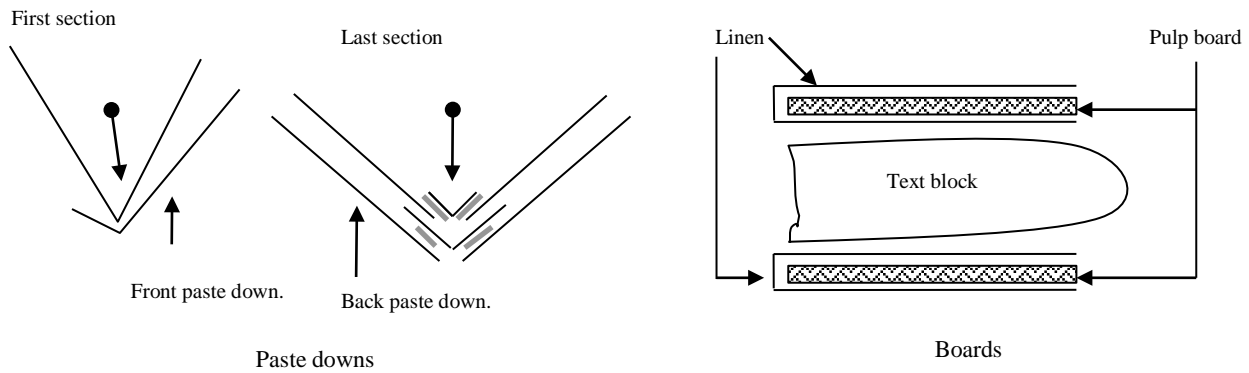


Diagram 1. Paste down configuration and board make-up of original binding.

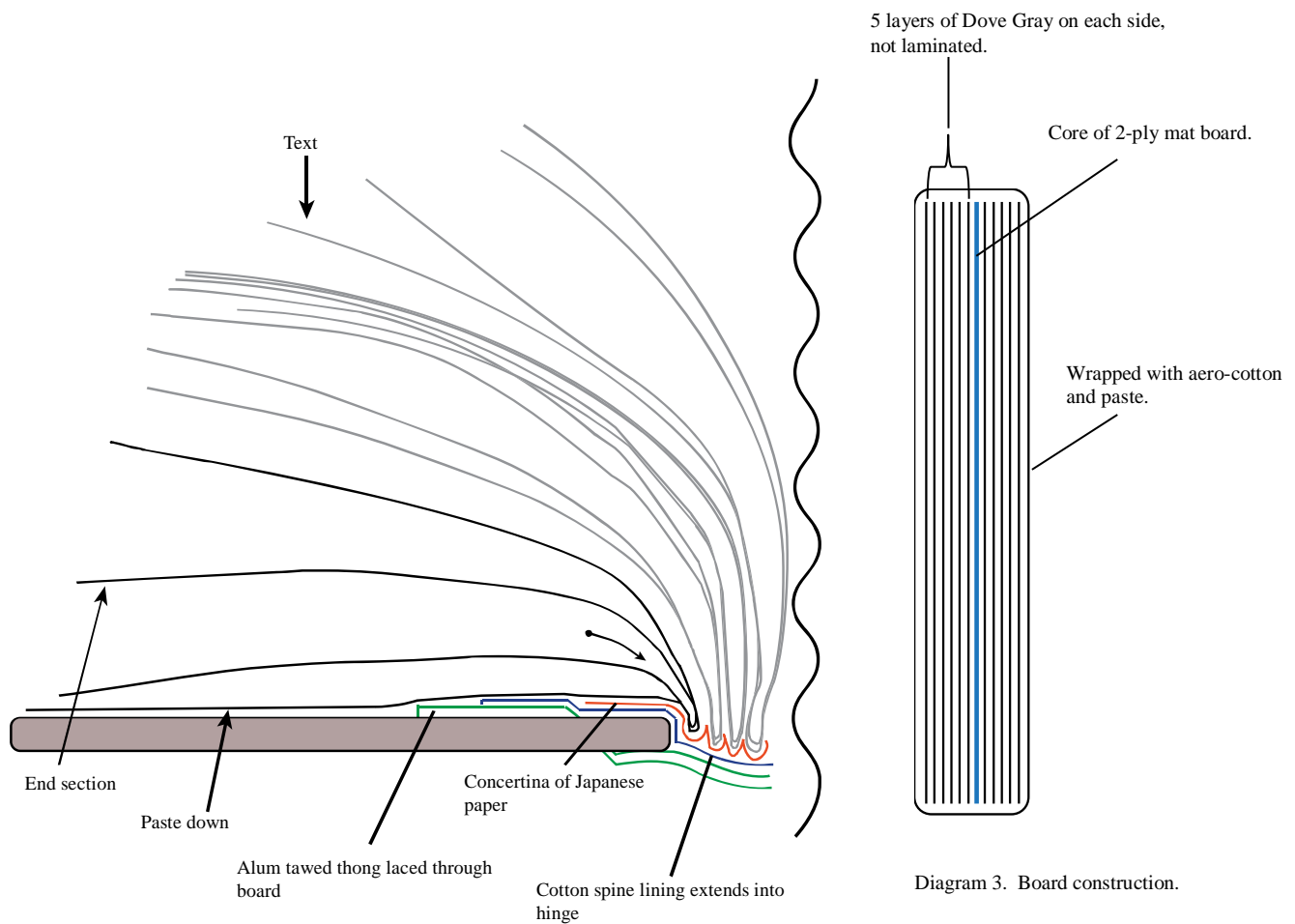


Diagram 2. Structure of new binding.

### Notes on leafcasting

#### Fiber mix

3-10, 27-34, 62-87: 3 parts Mittel II (GMW – Gabi Kleindorfer, Germany); 2 parts brown kraft (soaked in DI water conditioned to pH8 with  $\text{Ca}(\text{OH})_2$ ).

Two casts each consisting of nine bifolia and three single leaves.

Mask size  $95 \times 68 = 6460\text{cm}^2$

Document size  $74.2 \times 40.2 = 2982.8\text{cm}^2$

Margin =  $3477.2\text{cm}^2$

Document thickness = 0.0048"

Processed a total of 38.25g fiber – 22.95g Mittel II, 15.3g brown kraft - in 12.75L @ 3g/L. Concentration 0.0036".



Cast 1.  $5592\text{ml} + 10\% = 6150\text{ml}$ .



Cast 2.  $5755\text{ml} + 10\% = 6330\text{ml}$ .



Cast 3. Pages 1-2, 88 and 89.



Cast 4. Paste downs and fly leaf.

Casts 3 and 4 required differently toned fiber and a small deckle box.

Cast 3: Mask size  $30 \times 40 = 1200\text{cm}^2$

Document size  $23.0 \times 26.8 = 616.4\text{cm}^2$

Margin =  $583.6\text{cm}^2$

Document thickness = 0.005"

Fiber mix 3 parts Mittel II; 2 parts brown kraft

Concentration 0.0042"; calculation  $878\text{ml} + 10\% = 965.8\text{ml}$ .

Cast 4: Mask size  $30 \times 40 = 1200\text{cm}^2$

Document size  $23.0 \times 26.8 = 616.4\text{cm}^2$

Margin =  $583.6\text{cm}^2$

Document thickness = 0.006"

Fiber mix 2 parts MacGregor Tested Conservation; 2 parts brown kraft; 1 part cotton #1

Concentration 0.0044"; calculation  $1085\text{ml} + 10\% = 1193.5\text{ml}$ . Used 1200ml.

Cockling caused by brown kraft in the fiber mix.