Syracuse University
SURFACE

Libraries' and Librarians' Publications | Libraries

1-1-2004

Vellum on Boards

Peter D. Verheyen
Syracuse University

Follow this and additional works at: http://surface.syr.edu/sul

Part of the Art Practice Commons, and the Book and Paper Commons

Recommended Citation
Verheyen, Peter D., "Vellum on Boards" (2004). *Libraries' and Librarians' Publications.* Paper 16.
http://surface.syr.edu/sul/16

This Article is brought to you for free and open access by the Libraries at SURFACE. It has been accepted for inclusion in Libraries' and Librarians' Publications by an authorized administrator of SURFACE. For more information, please contact surface@syr.edu.

Vellum on Boards

By Peter D. Verheyen

Copyright © 2002

Allein ein Pergament, beschrieben und beprägt, ist ein Gespenst, vor dem sich alle scheuen. J.W. v. Goethe, Faust.

INTRODUCTION:

Vellum is arguably one of the most beautiful binding materials in use, and at the same time one of the least used in modern design bindings. While it is often used in limp bindings, its use "over hard boards" has been much more limited. A study of the bookbinding literature reveals it being covered in-depth to a larger degree in German language trade manuals than in English. This could explain their seemingly greater popularity in Germany, as evidenced by reproductions in exhibition catalogs and other publications. With a decline in traditional training opportunities, it is becoming increasing difficult to find exposure to this technique. As a material, vellum has many wonderful characteristics. It is translucent, can be made transparent, is available dyed or veiney, and exceedingly well wearing. Its major drawback is its hygroscopic nature, causing it to stretch as it absorbs water and to shrink as it dries. In dry conditions this will cause the boards to warp strongly. This, perhaps more than anything else, has discouraged binders from working with this wonderful material.

The structure described in this article is designed to address this problem of warping, and hopefully lead to an increase in the numbers of binders working in vellum. By applying the "split board" technique I learned as an apprentice in Germany, and described in Wiese, one reduces the pull of the vellum on the boards, making it much easier to control with the counter-linings applied to the inside of the case. In contrast to the technique described by James Brockman in his *New Bookbinder* article from 1993, this is a case binding, with most of the work being done off the book, something which may make it easier for some as well.

Vellum can be used either unlined or lined with this technique. When wanting to take advantage of the translucent properties of vellum, it is often easier to create the work on paper, and then to line the vellum with that. In doing so, it is important not to use too heavy a weight paper and to let the lined vellum dry between blotters and under weight until dry and stabilized. By selectively sanding, applying moisture, and pressure, the properties of translucency can be manipulated. The vellum can also be directly underpainted. Vellum can also be worked in relief. As it does not readily stretch to conform to the contours, it is important to keep these quite flat. Done well, these effects can all be very effective.

Special thanks in preparing for the presentation at the 2001 GBW Standards meeting in Alexandria, VA, and with this article go to: Donia Conn, Andrea Reithmayr, Gregory Santos and all my teachers.

ADHESIVES:

Adhesives which are used in the process of this binding style include wheat paste, 50:50 PVA/methylcellulose (or PVA/paste) mixture and straight PVA. Use of synthetic adhesives is for ease of use. On fine bindings, or if this style is adapted in the course of a conservation treatment, I will use gelatin (hide glue) for certain tasks such as backing, adhering spine linings and hollows.

Paste is used initially for pasting up the spine and is critical for proper shaping of the headcaps. This is because it extends the "open time" and provides the "slip," as well as the moisture needed to make the vellum pliable, making shaping the vellum easier. Paste should also be used when lining vellum with paper as it is less likely to

strike-through and show brush marks.

Both 50:50 mixtures may be used for wrapping the boards, adhering the vellum to the sides, and making the turn-ins.

Straight PVA is used for assembling the case. In very dry climates, it can also be used to adhere the vellum to the cover as it introduces less moisture, i.e. the material will stretch (and ultimately contract) less.

TEXTBLOCK PREPARATION:

This binding style is derived from the German (Bradel) case binding in which the case is worked off of the textblock.

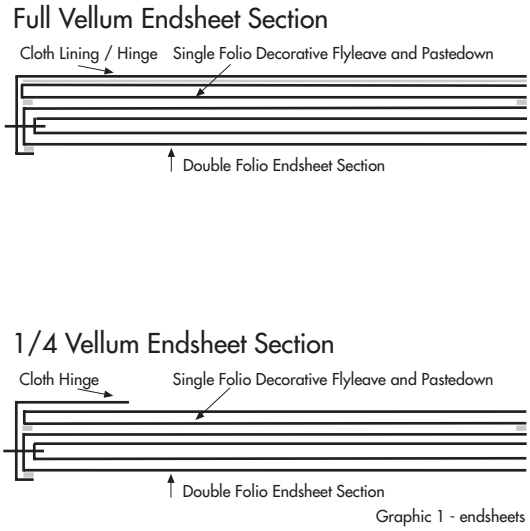
Endsheets:

Make endsheet - Depending on size, kind of endsheet paper/material, or whether it's a full vellum or ¼ vellum binding there are two different endsheet styles I like to use.

Full vellum - Double-folio with tipped-on contrast folio which is lined with a muslin or jaconette and hooked around the endsheet section. The endsheet is "made" by tipping the fore-edge down. This ensures greater flexibility.

1/4 vellum -Double-folio with tipped-on contrast folio and tipped-on cloth hinge of muslin or jaconette which is hooked around the endsheet section. The endsheet is "made" by tipping the fore-edge down with a thin bead of adhesive, ensuring greater flexibility.

Trimming/Edges - For "rough cut"edges, trim signatures in the boardshear on three sides prior to sewing. Note: if decorating edges, these will need to be trimmed in a plough or guillotine after sewing and pasting up.

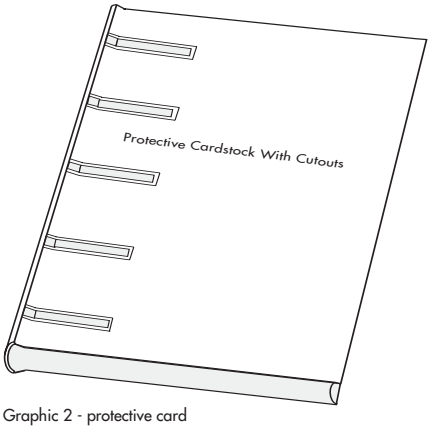


Graphic 1 - endsheets

Sewing - The book can be sewn on tapes, frayed out cords, or vellum slips. Prior to sewing, pre-stab holes with awl using a jig to make sure holes are uniformly placed. Before sewing, put a loose guard of Sekishu weight Japanese paper, which harmonizes visually with the text and ends, around the first and last "text" sections. The kettle stitch should be ca. one cm from the final head and tail trim to allow for trimming after sewing. Swell from sewing should be calculated so that when backed to 45 degrees the book has a gentle convex curvature to the spine. As always, sewing should be evenly taut.

After sewing, the loose guard is adhered to the underside of the endsheet, covering the cloth. This enables the endsheet to swing freely, and avoids the stiffness associated with tipped on endsheets. This is done with paste in order to avoid the staining and show-through associated with PVA.

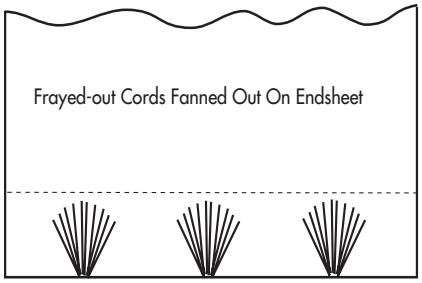
Forwarding:



Graphic 2 - protective card

Before backing, if the text was sewn on vellum slips, or tapes, cut these to an even length (about 5 cm on each side). Next, cut two pieces of card, or folder stock, the size of the textblock, and then mark and cut out corresponding slots in the card. The card should go all the way to the shoulder. Apply tape from top to hold slips in place. This will help prevent the slips from being pressed into the endsheets during backing, and protecting them from soiling. (Use a tape which will not leave a residue when removed.)

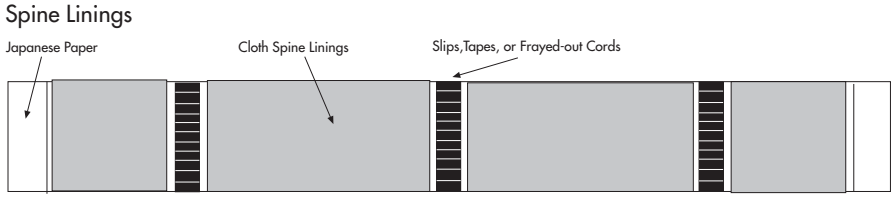
If the book was sewn on frayed out cords, cut these to about 2-3 cm in length. Next thin them out so that they can be nicely fanned out and adhered to the pastedown without leaving bumps. I do this by first using an awl or needle to separate and untwist the strands. Then I place a sheet of tin or some other thin, hard, material underneath, and using the back side of a knife, thin them out. Finally, paste out the frayed out cords and evenly fan out onto the cloth of the pastedown. Use a folder to smooth out. Let dry before backing.



Graphic 3 - frayed cords

Backing - Glue/paste up spine, square up, and let dry. After this has dried, round and back to a 45° angle in a backing press. When backing make sure that the depth of the shoulder is 2x thickness of board. Note: If decorating the fore-edge, trim just that after pasting, but before rounding and backing.

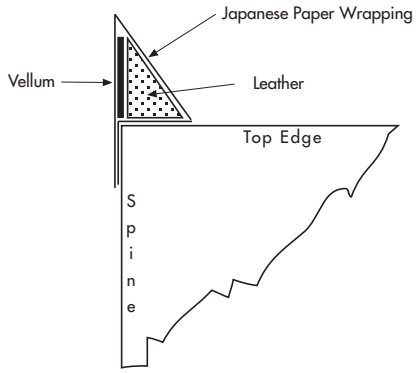
While the book is still in the backing press, line the spine with Japanese paper along the entire length with paste and let dry. Next, line the spaces between sewing supports and kettle stitches with cloth. This can be linen, cotton muslin, or book cloth. PVA can be used as an adhesive for this.



Graphic 4 - spine linings

Edge decoration - Edges can be decorated in a multitude of ways. Gilt and graphite edges work very well with vellum binding. Mitchell's book on edge decoration is an excellent guide. (See Bibliography.)

Endbands - A teacher of mine (Julie Puissant) once said, "A book without an endband is like a gentleman without a tie." I like to sew my endbands on a triangular core, a technique I learned from Frank Mowery at his Standards presentation on the *Logic of German Binding*, given in 1990 in Washington, D.C. I make my core by gluing a piece of vellum to a piece of leather. When dry, I cut out triangular strips so that the vellum will be at the back of the endband, supporting and keeping the core straight. To help support the core while sewing, wrap tightly with thin Japanese tissue, and glue to spine. (See Graphic 5.) Tie down as usual by going through the



Graphic 5 - cross-section of core

sections. There are many styles of endband to choose from. Jane Greenfield's and Jenny Hille's book is an excellent guide.

After endbands have been sewn, put protective paper over edge decoration. If all three edges were decorated, wrap entirely. Note: this will need to be removed when trimming fore-edges of case to ensure accurate squares. Rewrap afterwards.

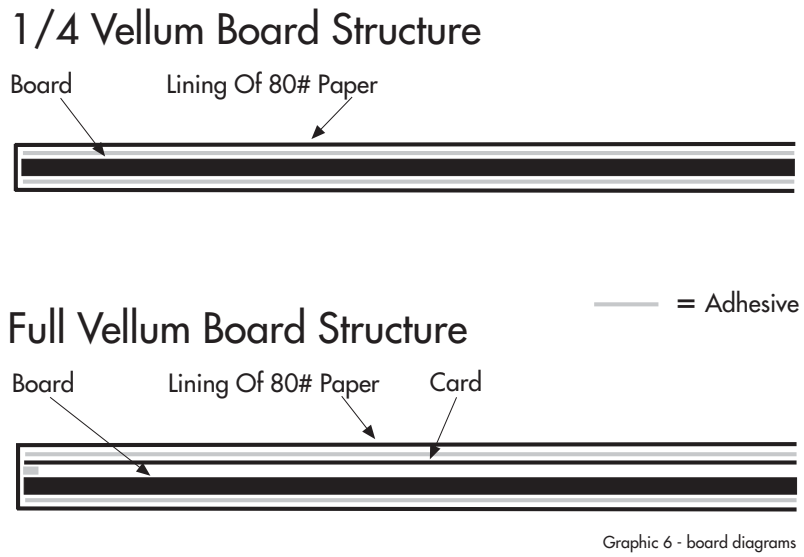
Apply Hollow - After sewing the endbands, a hollow is applied to the spine. I make a one on — two off hollow out of 80 lb text weight paper. The hollow is made off the book and then applied to the spine. Trim just below the top of the endband. The completed case will be attached to the hollow in preparation for lacing through vellum slips, and casing in.

NOTES and QUESTIONS:

THE CASE:

The essence of this binding technique is in the construction of the case. The board structure helps control warping because the vellum pulls on "weaker" cardstock, to which it is adhered, allowing counter-linings on the thicker, main board to counteract the pull more effectively. This technique is described in Wiese, and is what I learned during my apprenticeship in Germany.

Assembly Steps:



Graphic 6 - board diagrams

Make boards - Cut boards slightly higher and wider than needed in each dimension.

Narrowly tip cardstock (Stonehenge) on along spine edge.

Using paste or a PVA/methylcellulose mixture, wrap board/cardstock with 80 lb paper, turning around board only at spine edge. When making a 1/4 vellum binding, use a solid board rather than the split board. Wrap boards with 80 lb paper in the same manner as with the full binding.

Let dry.

Trim board to proper height. Ideally the size of the square of the boards should be equal to the thickness of the board.

Make Spine Piece - Measure spine and cut strip of cardstock (Stonehenge) to the exact width and slightly

longer than board height.

Cut a connecting strip of 80 lb paper (this should be same stock as that used for wrapping board) to width of spine strip + 6 cm, and slightly longer.

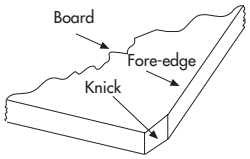
Apply PVA to spine strip and center on connecting strip.

Rub down with folder, turn over, and accentuate edge of spine strip with folder.

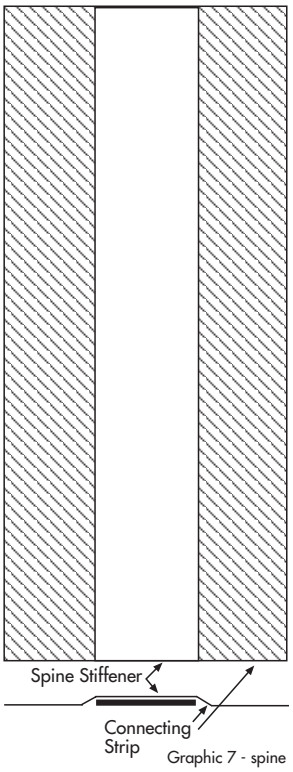
Assemble boards and spine strip/connector leaving ca. 7 mm gap (depends on thickness of material and size of book).

Round spine and fit cover to book. Spine will be rounded on the case, then case is fitted to the book. Mark the fore-edge with a pencil/knife and trim fore-edge as appropriate.

Take small nick out of corner at fore-edge. This will later hide the tab from the corner, and leave the fore-edge straight, rather than having a bump where the tab is. This would also be done for a 1/4 binding.

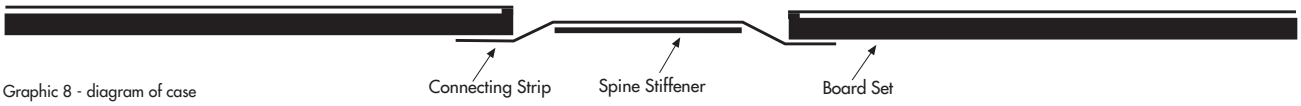


Graphic 9 - nick taken out of fore-edge corner



Graphic 7 - spine

If the vellum is unlined, color edges of boards with acrylics to match the paper used to wrap the boards, and spine.



Graphic 8 - diagram of case

Covering

Covering the case is a three-step process. First the spine is covered, then the boards, and finally the turn-ins (ca. one cm) and headcaps are completed. Except in a very small number of instances, I have not pared, or otherwise thinned the vellum at the turn-ins. Therefore, select a skin which is not too thick, and can be easily folded and worked.

Adhering spine - Prepare a "spine insert" of thick blotter with piece of thin Reemay/Hollytex. The thickness of this spine insert needs to be greater than the thickness of board and cut to a hair less than the exact width between boards, including the groove.

Mark exact width of spine on the vellum with light pencil marks at the turn-ins. Lightly dampen vellum from grain/hair side. This will help soften the vellum, and aid in working the vellum into the spine and the groove. Dampening also reduces the chance of strike-through from the adhesive. As an adhesive, I prefer straight PVA for this step for its higher tack and because it dries quickly. Paste may be used but must be allowed to dry completely under pressure with insert in place.

Apply adhesive, using stippling motion to avoid the possibility of streaks showing through, to spine area of vellum only, lining up wastepaper with pencil marks at turn-ins. Avoid getting adhesive onto the turn-ins as it

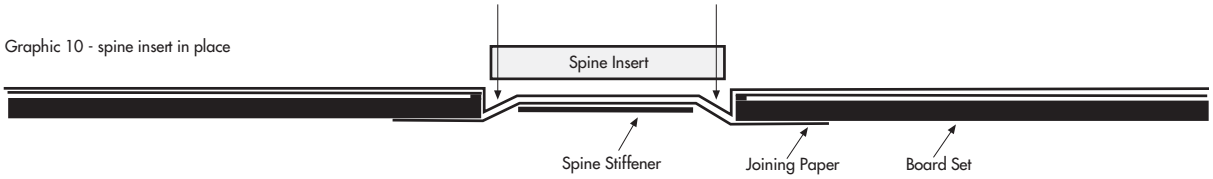
can make headcaps harder to work later on. Lay vellum on spine of case, making sure it is centered, and rub down, especially along edges of spine stiffener and board edge. Place "spine insert"(See Graphic 10.) onto spine and place into press, applying heavy pressure. Take out to check, then put back in press with insert to let dry. This will assure that the vellum is well adhered to spine strip.

If making a 1/4 binding, these steps can be combined, in which case the thickness of the spine insert should equal that of the boards. When dry apply corner pieces. Turn-ins will be handled the same way as with a full binding.

Adhering sides - When adhering the vellum to the boards, I like to use the pressing boards. James Brockman in his article in *The New Bookbinder* made his own using binders board, acrylic rods (or the appropriate thickness knitting needle for the board), and clear plastic tape. Multiple sets of these boards can be made for different thickness of board.

Lightly dampen vellum on front side (to reduce chance of strike-through from PVA), fold back on itself, put

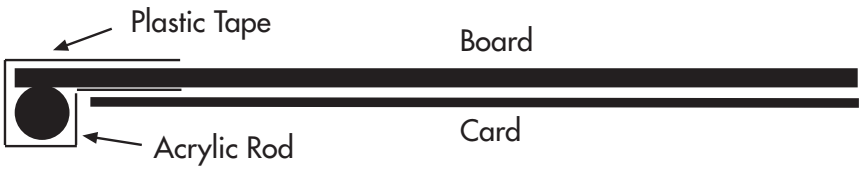
Graphic 10 - spine insert in place



waste paper underneath, and apply adhesive to sides. For this step, I'll use a 50/50 mixture of PVA and methyl-cellulose, or straight paste. Next, fold vellum back onto board ensuring that vellum is tight along the spine edge of board. Put in press using the casing-in boards to ensure crisp edge along board. Repeat on other side. Let dry under weight for as long as possible. This will help stabilize the vellum and help with warpage control later on.

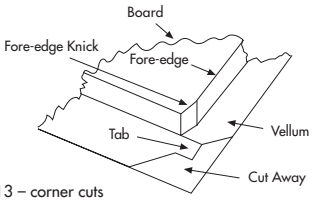
If a 1/4 binding is being done, apply corner pieces of vellum and make cuts per Graphic 13.

Graphic 11 - Brockman pressing in boards



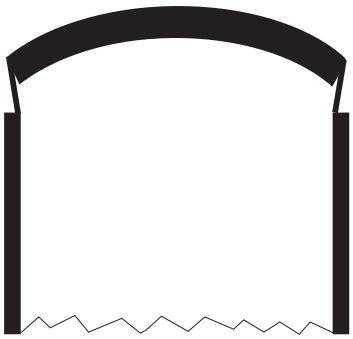
Any stamping to be done on the spine should be done at this point. After the headcaps have been formed it will no longer be possible to flatten the spine.

Turn-ins - Use a folder to pre-fold the turn-ins and make cuts for corner. This will help later on by making the turn-ins somewhat less likely to pop off while working.



Graphic 13 – corner cuts

Next, re-round spine and dampen the turn-ins, starting with the head and tail edges. Apply straight PVA along turn-ins, and then paste in the area of the headcap. This is crucial as you will need the time, and slip, to be able to shape the headcaps. Turn in along edges at top and bottom, pulling up the vellum and roughly preshaping the headcaps. Place book into cover (first wrapped in a protective cover). James Brockman, in his *New Bookbinder* article ties up the book with soft twine as an aid. As our cover is not yet attached to the textblock, tying up will also help keep the textblock in place.

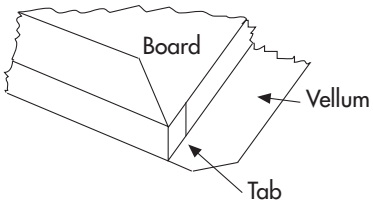


Graphic 14 - headcap

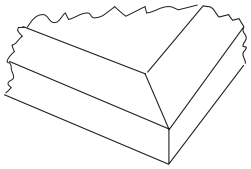
Headcaps - Begin shaping headcaps. Headcaps should be evenly wide along entire length, with the width corresponding to the thickness of the board. Avoid getting creases in the headcap. A narrow pointed folder (bone and/or metal) works great. Tuck the extra material at the ends down in a sharp motion, into groove. This is the toughest part of covering the case, and the vellum can be quite stubborn. Allow yourself time. The paste which was applied at the headcaps will give you the time. If needed, lightly dampen the headcap from the outside, but don't get the spine too damp.

Carefully remove case from text, turn in the fore-edges and make the corners. Do not attempt to "flatten case" when doing turn-ins as it can damage still damp headcaps.

Graphics 15-16 - corner sequence



Completed Corner



Final steps

Place a piece of mylar on top of endsheets to act as a moisture barrier, and let dry between casing-in boards and in press under light pressure or use weights. Be patient as parchment dries. Next, remove textblock from case, and trim out the case allowing about a one cm turn-in.

If making a 1/4 binding, fill-in the area between the vellum and corners with a piece of appropriately thick card using straight PVA as the adhesive. Then apply covering material for sides using appropriate adhesive.

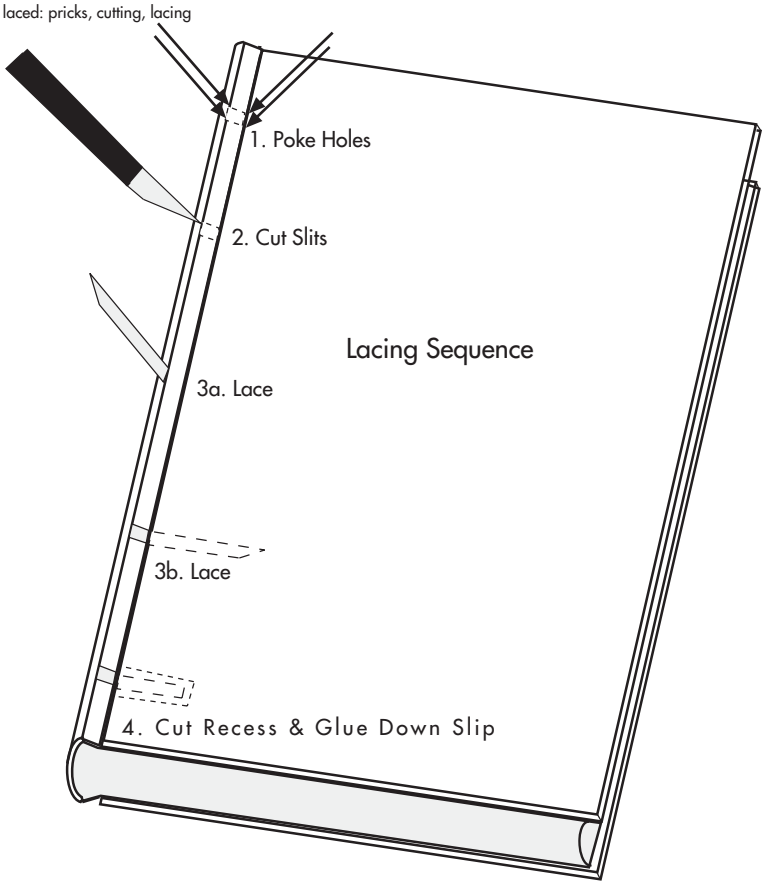
Casing-in - Apply straight PVA adhesive to hollow and fit book in snugly. Place in press with casing-in boards or plexi-rods to make sure case is tight around spine. Let dry thoroughly. This is important. Examine boards to determine amount of counter-linings needed. Remember, the pastedown will pull the boards inward as well. Patience is critical.

If book was sewn on frayed out cords - Fill-in/counter-line covers, allow to dry completely so that boards are flat. Finally, case-in using casing-in boards.

If book was sewn on tapes - Remove protective card sheets and trim tapes evenly to length, cut recesses for tapes into cover and adhere, fill-in/counter-line covers, and allow to dry completely so that boards are flat. Next, sand to smooth out bumps left by tapes, and case-in using casing-in boards.

If book was sewn on vellum slips - Now is the time to lace these through. Remove card holding slips and cut slips to a point. This will help with lacing through. Holding the book with boards open so that when looking at it from the fore-edge, all you see is the edge of the board with a clear line of sight to the slips. Using an awl, prick holes at sides of the slips at the edge of the spine. Insert card to protect endsheets and vellum slits, and then using a scalpel, cut slots using pricks as start and end point. From outside, insert awl to "open" slots, and lace through slips. Next repeat process at board edge. Cut slips to uniform length, and recess into cover, adhering with glue. Make sure slips are pulled taut. Finally counter-line covers and allow to dry fully. Next, sand to smooth out bumps left by tapes, and case-in using casing-in boards.

Graphic 17 - slips being laced: pricks, cutting, lacing



Vellum Binding Flow-chart: For full vellum, adaptable to quarter vellum

	Covering in Boards	True "Bradel"	Case Binding
Forwarding Textblock	Please Note: Steps in flow-chart are simplified and for general guidance only. Directions in article are for case binding	1. Prepare endsheets 2. Sew 3. Round & back 4. Trim edges 5. Decorate edges 6. Sew endbands	
Making Cover	7. Cut component parts for cover to size 8. Attach boards to text-block and trim fore-edge square to size	8. Attach spine piece to hollow, attach boards, and trim fore-edge square to size 9. Cut vellum to size and prepare	8. Assemble case, round, fit to book, mark and trim fore-edge square to size
Covering		10. Attach vellum to spine; work into groove and onto boards 11. Shape groove with casing-in boards 12. Complete turn-ins 13. Shape headcaps	10. Attach vellum to case (15.) Stamp / tool spine* 11. Make corner cuts, re-round cover, begin turn-ins, insert text into cover, shape headcaps, complete turn-ins and corners 12. Remove case from textblock (16.) Trim out * 13. Attach case to hollow, shape groove with casing-in boards
Casing-in / Finishing		14. Set joint, lace through vellum slips 15. Stamp and tool cover 16. Trim-out, counter-line / fill-in 17. Put down endsheets / case in 18. Final check	* When working case off of book, tool spine before completing turn-ins. Tool board before casing-in

Flow-chart after Wiese, Der Bucheinband, p. 267

Selected Bibliography

Binding With Vellum

Brockman, James. *A Vellum Over Boards Binding*. London: Designer Bookbinders, The New Bookbinder, Vol. 13, 1993, pp. 43-53.

Henningsen, Thorwald. *Das Handbuch für den Buchbinder*. Stuttgart: Max Hettler Verlag. pp. 151 - 156.

Johnson, Arthur W. *The Thames and Hudson Manual of Bookbinding.* London: Thames and Hudson, 1978, pp. 144-149.

Kersten, Paul. *Der Exakte Bucheinband*. Halle: Wilhelm Knapp, 1923. pp. 126 - 128.

Kersten, Paul. *L. Brade's Illustriertes Buchbinderbuch*. Halle: Wilhelm Knapp, 1921. pp. 127 - 129.

Lüers, Heinrich. *Das Fachwissen des Buchbinders*. Stuttgart: Max Hettler Verlag, 1943. pp. 210 – 222.

Middleton, Bernard C. *A History of English Craft Bookbinding Technique*. New Castle, DE: Oak Knoll Press, 1996, pp. 139-144.

Moessner, Gustav. *Die Täglichen Buchbinder Arbeiten*. Stuttgart: Max Hettler Verlag, 1969, pp. 165-168.

Smith, Shelagh. *Covering Hard Board Vellum Notes from Sonnefriede Scholl's Demonstration*. Toronto: Canadian Bookbinders and Book Artists Guild, Canadian Bookbinders and Book Artists Guild Newsletter, Vol. 10, No. 1, Spring 1992, pp. 9-12.

Wiese, Fritz. *Der Bucheinband*. Hannover: Schlütersche Verlagsanstalt und Druckerei, 1983, 264-284.

Young, Laura S. *Bookbinding & Conservation by Hand: A Working Guide*. New Castle, DE: Oak Knoll Press, 1995, pp.205-209.

Zahn, Gerhard. *Grundwissen Für Buchbinder*. Itzehoe: Verlag Beruf + Schule, 1990, pp. 197-199.

German Case Binding

Roberts, Dr. Brian A. *Herstellung der Einbanddecke (German-style case construction)*. Toronto: Canadian Bookbinders and Book Artists Guild, Canadian Bookbinders and Book Artists Guild Newsletter, Vol. 10, No. 2, Summer 1992, pp. 10-14.

Zeier, Franz. *Books, Boxes, and Portfolios*. New York, NY : Design Press, 1990. Pp. 250-283.

See also the titles mentioned in "Binding With Vellum" section.

Endbands / Edge Decoration

Greenfield, Jane and Hille, Jenny. *Headbands: How to work them.* New Castle, Delaware: Oak Knoll Books, 1990.

Mitchell, John. *A Craftsman's Guide to Edge Decoration.* Sussex, UK: Standing Press Ltd., 1993.

See also the titles mentioned in "Binding With Vellum" section.

Vellum (General)

Cavasin, Rick. *Parchment vs. Vellum: What's the Difference?* Toronto: Canadian Bookbinders and Book Artists Guild, Canadian Bookbinders and Book Artists Guild Newsletter, Vol. 14, No. 2, Summer 1996, pp. 11-13.

Cavasin, Rick. *Parchment Making.* Toronto: Canadian Bookbinders and Book Artists Guild, Canadian Bookbinders and Book Artists Guild Newsletter, Vol. 14, No. 4, Winter 1996, pp. 24-27.

Granville, H. *A New Method of Decoration for Bound Books - The "Vellucent" Process*. London: The Studio, Vol. 20, No. 125, August 1903, pp. 169-176.

Mowery, J. Franklin. *Parchment: Its Manufacture, History, Treatment, and Conservation*. New York: The Guild of Book Workers, Guild of Book Workers Journal, Vol. XXXII, No. 2, pp. 13-73.

Sobota, Jan. *Transparent Vellum in Fine Bookbinding*. New York: The Guild of Book Workers, Guild of Book Workers Journal, Vol. XXIV, No. 1, pp. 3-12.

NOTES and QUESTIONS: