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Der Gebrochene Rücken: A variation of the German case binding

Peter D Verheyen, *Syracuse University*

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SELECTEDWORKS™

Der Gebrochene Rücken: a variation of the German case binding.

By Peter D. Verheyen

I was honored to have been invited to contribute to this *festschrift* in honor of Hedi Kyle, a colleague who like few others has contributed to the growth of the book arts, everywhere. While traditionally trained as a graphic artist in Germany, Hedi became a student of Laura Young's in 1972 and began to work in the conservation field. In her work, Hedi combined traditional bookbinding and conservation treatments developing her own innovative solutions to many of the field's challenges, solutions that transcended the divide between tradition binding, conservation and preservation, and art. Her contributions to the field are many and she has been a friend, colleague, teacher, and mentor to countless numbers who have worked with her, taken her workshops, and seen her work and writings. Thank you for your generous spirit of life-long sharing.

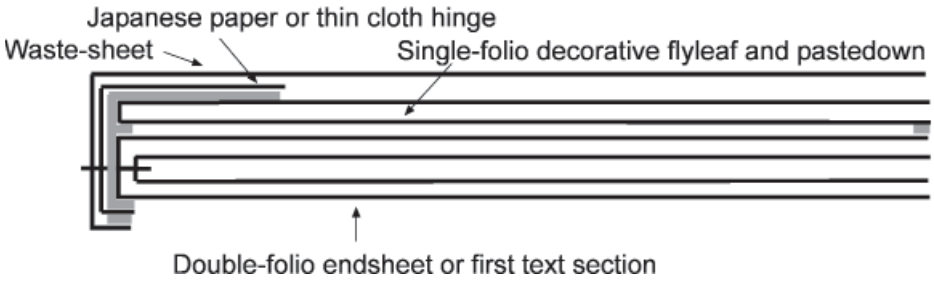
Introduction

The "gebrochene rücken" is variant of the German case "Bradel" binding, something often described as the quintessential German binding structure. It is precise and adaptive to a variety of needs and aesthetic considerations can be worked "in boards" or as a case. Its closest modern relative is the simplified binding (reliure simplifée) as demonstrated by Sün Evrard and Laura Wait. While there are structural differences (that are not as great as one would think given that one is German and the other French), what both these bindings have in common is that they allow for the use of different covering materials on the spine and boards. While both can be used on thicker books, they are at their best when used on smaller books.

In its earliest iterations the cover of the "gebrochene rücken" was made by taking a piece of thin board that wrapped around the textblock like a dust jacket and "breaking" the board at the top and bottom of the shoulder. It was then adhered to the textblock at the wastesheet. Thicker boards were then adhered to this thin board so that the thickness equaled the height of the shoulder. By setting them back, the groove was then created. The boards were then trimmed to the final size and covered.

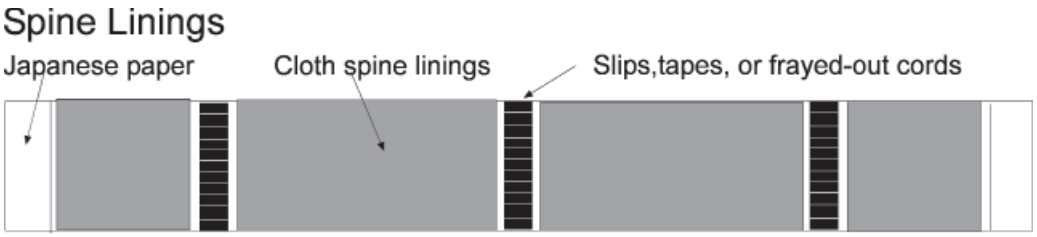
What follows is a description of the German in-boards binding style as I learned it and adapted it to my needs. It could also be constructed as a complete case with minimal modification.

The Textblock

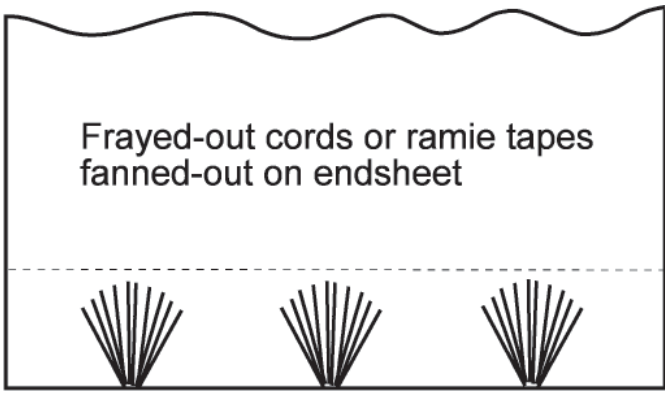


Textblock preparation is essentially the same as with the German case binding – endsheet sections based on a double folio (see diagram below); textblock sewn on tapes or frayed-out cords; rounded and backed with a 45 degree shoulder with the spine lined between tapes, and tape and kettle stitch with thin cloth or paper. Do not line between kettle stitch and book edge. PVA can be used as an adhesive for this. (See illustration on following page)

This article orginally appeared in *A FESTSCHRIFT* honoring Hedi Kyle and her work that was published by Rutherford Witthus in conjunction with the Hybrid Book Conference in Philadelphia, June 4-6, 2009.



After rounding and backing, glue the tapes or fan the frayed out cords onto wastesheet ensuring that these are as smooth and unobtrusive as possible (see diagram below). This step is done after rounding and backing to allow for the sewing supports to be pulled tight and so as not to impress them into the textblock. The depth of the shoulder is determined by the thickness of the boards. As the reader will discover with this style, it is important to know what materials will be used to help determine the board thickness and depth of shoulder. In general, on a book with dimensions of 15 x 23 cm and with a thickness of 1.5 cm I might use 40 ~ 60 pt boards (or 1.5mm) for the thicker boards.



Edge Decoration

After completing the rounding and backing the next step will be to decorate the edge(s). In this article we will assume that only the top edge is to be decorated and the fore- and bottom-edge have been roughcut using the boardshear or left untrimmed in the case of a nice deckled edge. In terms of preparation it is initially unimportant whether one wants to create a gilt, graphite, colored, or plain edge. Edge treatments are covered in many of the traditional manuals, but I will cite John Mitchell's *A Craftsman's Guide to Edge Decoration* (Standing Press Ltd, 1993) as the best in the English language. It covers many techniques of edge decoration from colored to sprinkled to gilt. It does not cover graphite, but all the edge preparation steps are identical to that for a gilt edge. The illustrations are also quite good. The directions that follow are for a graphite edge.

Guillotine or plough the book edge, a plough giving you the best starting point, especially if the guillotine blade has flaws as most do. Starting out with the cleanest, smoothest, edge is critical. Most traditional ploughs work with a laying press… Put the book in a laying press with wastepaper/mat board on either side (I usually use 1/2" thickness on either side). The wastepaper/board must be flush with the edge of the book. If not you'll have problems at the first/last pages/signatures of the book. You need one plane surface. Areas to be careful of are the shoulder and at the fore-edge. Wastepaper/boards should follow the contour of the shoulder and extend beyond the fore-edge. The other area to watch is the bottom edge of these blocks. My boards are longer then the cheeks of the laying press I use so that they deform out under pressure. This helps prevent pressing a line into the book.

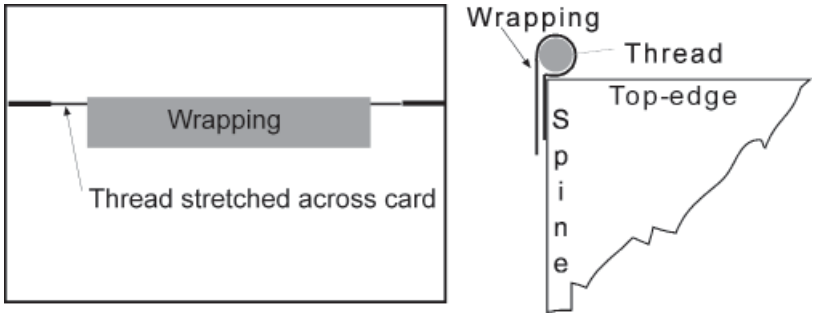
Crank down the press, tight so that the ink flows out as my Meister used to say. I then put the book into a workmate and tighten just enough to hold the book/press.

Using an edge scraper (mine is of very gently curved metal, the edge is maintained by creating a burr with a file) and fine emery cloth or sandpaper (the finer the better) you want to get your edge smooth and polished. When looking at it from a low angle you want to see reflections in a mirror-like surface. This will also show pits and other things which need to be worked out. Problem areas will be very visible. You will want to work them out as they will show later on.

Next, make a sizing out of very dilute wheat-paste. I mix it up in a small glass bowl to a consistency of thin cream. Rub that into your book edge. I use paper towel, or a soft rag for this step. Daub the damp rag into the graphite powder and rub onto the edge evenly. Repeat as needed. You'll see the edge getting darker. Repeat until the edge is evenly dark. At this stage you can also sprinkle a little bit of dry graphite powder onto the edge, and rub in. You have to be very careful not to have clumps of the graphite on the edge. When you burnish and/or open the book they will pop off, and it'll show. If you do get clumps, use a cloth rag or paper towel lightly dipped in the pastewash and rub over the edge, removing it and start over. Next using a very dry soft rag, rub the edge with increasing pressure to polish. Some will want to stop at this point. For a highly polished edge, take out an agate burnisher and very carefully, starting at one end, move the burnisher back and forth PERPENDICULAR to the edge down the whole length. When satisfied, take out of the press and carefully twist the textblock so as to "loosen" the pages. There will be surface disturbances. Gently wipe these off the edge with a very soft cloth. At this stage I will make a cap for the edge out of paper and held in place lightly with tape on the wastesheet.

Endbands

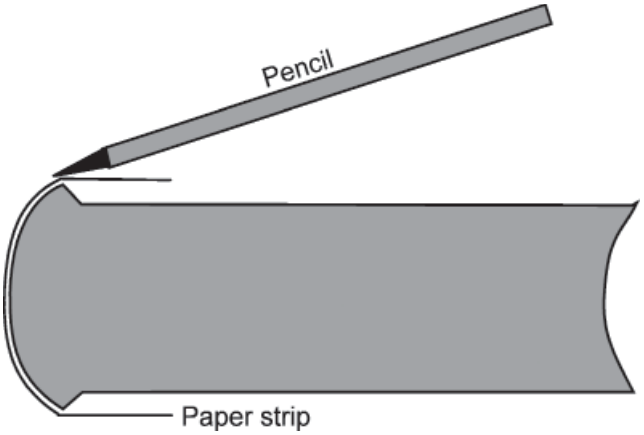
Endbands can be either self-made stuck-ons of leather- or paper-wrapped thin cord selected to match the squares of the book and board thickness. Alternatively, they could also be hand-sewn, a simple bead on the front being the most common. Below is a diagram showing how a simple wrapped cord endband can be made. For smaller books,



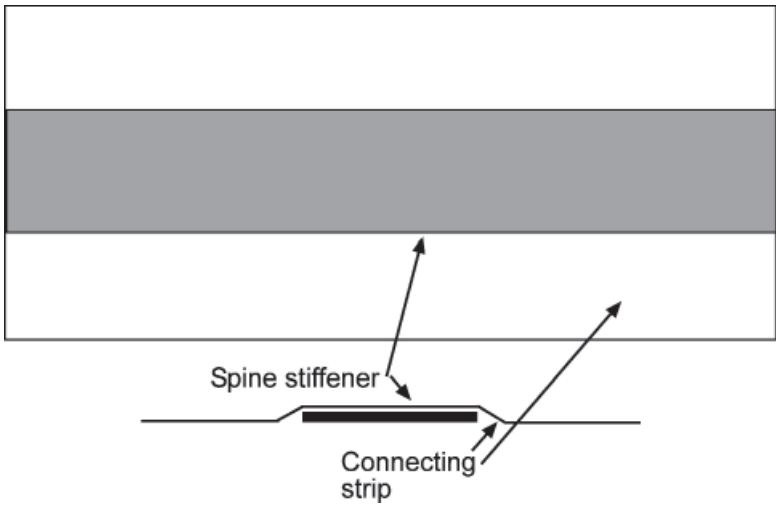
18/3 thread with paper or leather can look very elegant. Position so core of the endband sits on the top-edge of the book. Finally, line the spine with an 80lb paper a touch longer than the height of the textblock.

Spine Stiffener

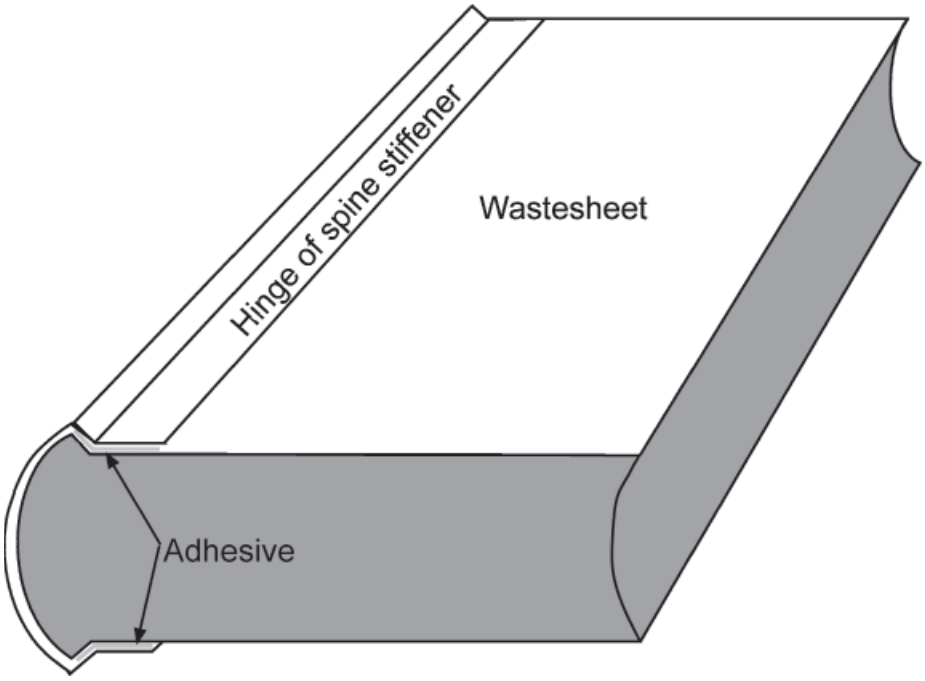
Next measure the width of the spine from shoulder edge to shoulder edge as shown in the diagram below. Then cut the spine stiffener out of a strip of piece of card (ca. 10 pt) such as "Stonehenge" to the width of the spine and desired height.



Glue the spine stiffener centered onto a strip of sturdy 80lb paper that has the height of the spine piece and is 8 cm wider than the spine. Rub down and accentuate the edges of the spine stiffener per the diagram below.



As we are creating the in-boards variant (mit angesetzten Deckeln) the next step will be to attach the completed spine stiffener to the textblock. Pre-round the spine stiffener so that it fits the shape of the spine of the textblock. Next, glue out the wastesheet in the area of the spine from the shoulder edge to the width of the "hinges/flaps" and then position the complete spine stiffener so that it is centered properly on the spine of the book. Make sure to rub down firmly along from the spine edge outwards. As in casing-in, this part is critical to a sound binding. The spine stiffener should sit tight to the spine of the textblock with crisp folds at the top and base of the shoulder. (See illustration on following page)



Covering the Spine

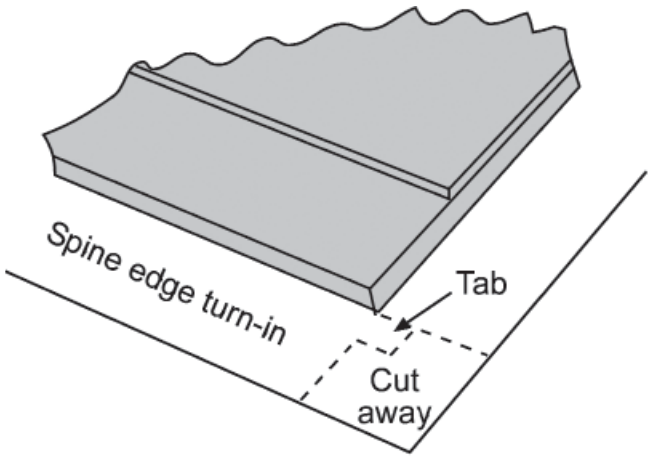
The spine can be covered in any material - contrasting papers, fabric, leather, vellum. Keep in mind that the overall thickness of the spine covering material will contribute to the thickness of the boards. For this reason I like to use thinner materials and, if leather, pare thinly, especially along the edges and turn-ins so as not to add bulk. Width of the piece should equal the width of the spine stiffener. In addition, to reduce bulk and contribute to a cleaner aesthetic, I spare out material from the board so that the spine edge of the board and the covered hinge are recessed and form a plan surface with the remainder of the board. More on that later.

The spine covering material should be adhered with the appropriate adhesive. Glue or paste out and center the covering material on the spine and then work down the shoulder and onto the wastesheet. To make the turn-ins, carefully slit the head and tail of the wastesheet at the shoulder. Slit should be a touch longer than the turn-in itself. Laying the bookblock spine down on the bench carefully open at the center to create an arch in the spine. Turn in material. If leather is being used I like to make a delicate headcap. When dry, trim the covered spine stiffener so that hinge "flaps" are equally wide and the edge is parallel to the spine. Allow for a groove appropriate to the thickness of material and 2cm of hinge material in the board.

Making the Boards

Next we prepare the boards. These will be built up from a thicker and thinner layers. Boards will start out oversized and then be trimmed down. In the case of this book we will assume the goal is a 60 pt board. This means that the thick board will be 40 pt and the thin board 20 pt. Label the thick board as front or back with an arrow indicating up. This is helpful to avoid confusion when attaching the boards later. Position the textblock on the 40 pt board so that it is set back the appropriate amount from the shoulder to allow for easy opening. 7 mm is good for cloth, but adjust as needed, a thicker material needs a wider groove for good opening. Mark where the flaps end with a sharp pencil or a knife. Next, glue out the thin board and position on the thick board so that is set back and lines up with the marks made. Place in press and allow to dry under restraint.

Next we will trim the boards to the correct size. Place textblock on board so that the flaps sit properly in the recessed area. Mark the head and tail squares using the spine as a guide on one of the boards. Trim both boards to the same height. Next place the textblock back on the board and position. Mark the fore-edge squares for each board individually so that they are equal to the head and tail squares. Trim. "Transfer" front/back marks to the inside of the board.



We will now cover the boards using a nice decorated paper. I like papers with an 80lb text weight. If the paper has a design, make sure this flows between front and back covers, but be aware that you will "lose" about 4 cm total where the paper turns-in along the spine edges. Cut paper so that it is ca 2 cm larger in all dimensions. Glue out paper and position carefully. Making cuts as indicated in the diagram at left, turn in at spine edge only. The small tab covers the corner of the board. If the covering material is more than an 80lb paper, very lightly remove some material from the edge of the board in that area. Put aside between boards and let dry under restraint. If the boards are to be stamped do it at this stage, before they are attached to the textblock.

Attaching the Boards

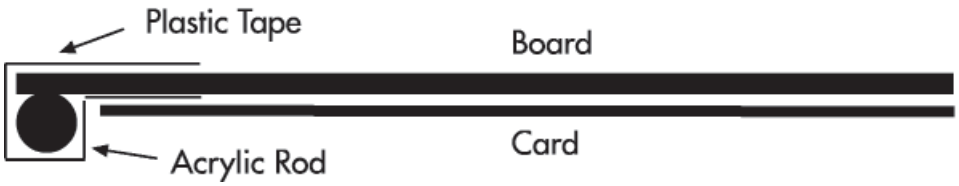
When dry, adhere the boards to the hinge flaps. First slip a piece of waste card larger than the boards under the flap. Apply PVA to the recessed area of the board making sure that the amount is sufficient to hold but will not ooze. Position the board on the flap, press down, and give a quick nip in the press. Repeat with other board and let dry.

The diagram above shows how the boards are positioned next to the extensions of the spine stiffener. The head and tail turn-ins will cover these extensions where they are attached to the board, next complete the remaining turn-ins of the covering material.

Final Steps

When dry, trim out on the inside so that the turn-ins are even. Cut a piece of fill-in paper that will fit snuggly between the turn-ins. Width of the fill should go from the fore-edge turn-in to the edge of the board, covering the flaps from the spine stiffener. When dry, a little sanding may be necessary to smooth out the the area over where the hinge was adhered.

Finally, glue out the endsheet and allow the cover to fall into place. Press down and place a piece of clean card between the pastedown and flyleaf. Repeat and put into the press. "Casing-in" boards like those shown below or with brass edges will ensure a tight bond at the groove.

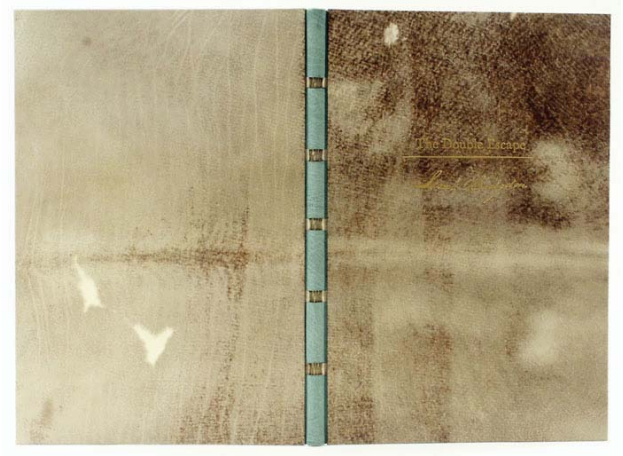


Allow to dry under light weight and label as appropriate.

Variant and titling

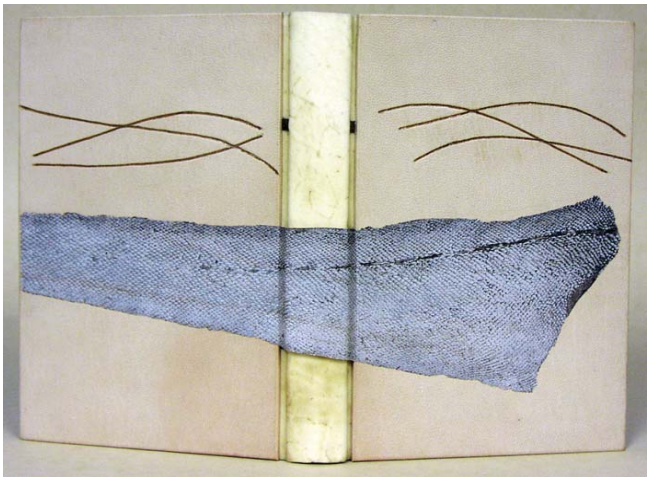
Once understood, this structure can be modified in many ways or completed as a case, rather than "in-boards." If the spine is to be titled, this can be done by covering the still flat spine stiffener, stamping, rounding, and then attaching to the textblock to complete the turn-ins… It may be necessary to lightly dampen the spine to facilitate rounding. Make sure to place a "fence" of waste card top and bottom of the textblock (under the wastesheet) so that the hinge does not impress itself into textblock.

Bindings using the technique by the author

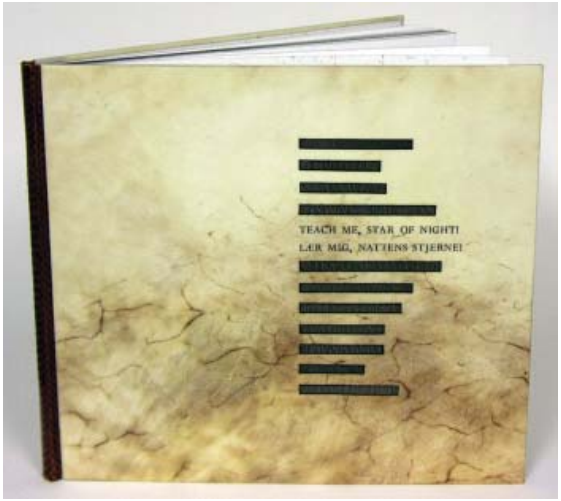


David Hodgdon, *The Double Escape*. Laureate Press, 2005. Bradel binding; endpapers of white Ingres; sewn using link stich on five vellum slips; top edge in graphite and burnished; sewn silk endbands; spine covered in teal goatskin with cutouts to reveal vellum slips. Boards covered in natural deer vellum; title stamped in gold on front cover. 38 x 26 x 1.5 cm. Bound 2007.

The Guild of Book Workers 100th Anniversary Exhibition Catalog, 2006. Bradel binding; plain endpapers; sewn link-stitch on 4 black vellum slips; slips and thread died black; burnished graphite top edge; pastepaper stuck-on endband; spine covered in dark grey oasis goat with cutouts for slips; boards covered in pastepaper with terracotta leather onlays on both boards; title stamped in anthracite foil. 28 x 22 x 1.5 cm. Bound 2007.



The Book of Origins – Le Livre des Origines, André Ricard, 2004. Set book binding exhibition organized by ARA-Canada. Bradel binding; textblock sewn on three slips of Cave Paper brown walnut dyed paper; endpapers of Cave Paper brown walnut dyed paper; gilt top edge; sewn silk endbands; Bradel case with 1/4 veined calf vellum spine and undyed goatskin sides; slips laced through at joint; decor of codfish leather onlay and blind tooling. 22.5 x 14.5 x 2.5 cm. Bound 2005.



Teach Me, Star of Night! / Laer Mig, Nattens Stjerne!, Bird Press, 2000. Bradel binding; sewn on 3 tapes; endpapers of Cave Paper "Alphabet"; graphite top edge; handsewn silk endbands; spine covered in snakesekin with boards covered in veiney calf vellum. Title stamped in graphite foil with grey leather onlays reflecting the typography of the poetry. Dimensions: 24 x 27.5 x 1.5 cm. Bound 2004.