

## The K118 Binding

A presentation of a medieval binding structure  
that has a place in modern bookbinding

Terry Buckley  
2000

---

First of all I must thank Gene Mahone, MA Cons., for introducing me to the K118 binding structure. Through his original research I have found a binding structure that has exceptional opening qualities and robust strength.

Gene Mahone decided to recreate the K118 binding structure as his major project for completion of his MA in Conservation at Camberwell College of Art. Gene contacted me at the LCP to ask if he could use our studios and seek advice in recreating this binding. There was no problem with either and the K118 was reborn. Initially, there were teething problems but these were eventually overcome with remarkable results.

I have never seen a book structure that opened so well or remained so firmly in shape. I discussed this with my students and some of them wanted to try the structure for themselves. Again the results were amazing, great stability and opening. I have now tried this structure using more modern aesthetic qualities, finer boards (laminated and shaved very thin on the edges), differing covering materials (mainly leather), and the results have always been the same. I have had several commissions for large photograph albums and the K118 has been the perfect solution, being stable and opening flat. Visitors books are also ideally suited to this structure.

Medieval bookbinders were far more astute than we give them credit for. The structures they used were much more conventional and practical than is generally thought. Why use heavy wooden boards? The average size of man was smaller than in present day and these large volumes would prove a problem to the book user today who is bigger and stronger. So, why use the heavy boards?

In medieval times there were no luxuries such as air conditioning or central heating and parchment, as we know, is very unstable. Put the parchment text in an environment which was damp and variable and you could expect an unstable product that would swell or reduce according to the atmospheric conditions. However, if you used heavy boards (wooden) stored flat, which acted like a platen press reducing any atmospheric changes, the problem would to a large extent be alleviated. So the medieval binder was thinking about the future and conserving the written word.

It was appreciated even in medieval bindings that dampness through adhesive would affect the structure. The most prolific of binding structures for this period was leather (the most commonly used covering material) covering the wooden boards which were shaped to allow for swelling, sewing on leather thongs and the leather stuck directly to the text, as little dampness as possible used in construction.

The K118 was completely atypical for this period - the swelling was used to compliment the shape, the boards shaped to the round of the text - completely different from the norm for that period. The fact that there are few examples of the K118 may oppose my theory but I believe, with the availability of modern materials, the K118 has a place in binding structures today and I hope my demonstration will convince you of this.

The K118 was, as I have previously mentioned, introduced to me by Gene Mahone during his studies for his Masters Degree in Conservation. Gene discovered the K118 whilst reading an article aimed at conservators rather than binders, which would possibly have been missed by the average bookbinder. The article, from a publication called "Conservation and Preservation of Humanities Research Collections" by Bruce Levy entitled "The K118 Binding Structure: A 500-Year-Old Experiment for Modern Day Book Conservation", describes a binding structure that has both strength and opening qualities, something he describes as "good flow".

The original bindings, dated circa 1493, were bound in Nuremberg, Germany, and are now located at the Harry Ransome Humanities Research Center (HRHRC) at the University of Texas.

### **Procedure**

Boards	Prepare boards, stabilise
Sewing	The book block can be sewn on any medium, tapes, thongs, coptic
Endpapers	Sewn on a hooked guard
Spine Preparation	Spine is glued (do not use reversible PVA)
Edge Preparation	Trimmed, coloured or gilt
Spine Shaping	Round the spine to shape
Headbands	Use a flexible core
Spine lining	Fray knot, then vellum tabs
Boards	Cut boards to size and shape, attach
Covering	Prepare leather, cover, allow to dry
Draw Sheets	Put in as many draw sheets as necessary to stabilise
Finishing	Tooling as required
Decoration	Texturing, onlays etc
Endpapers	Put endpapers down, open

December  
1999

**Regional Officers**  
**Chairman**  
Tony Ward

**Secretary**  
Kelth Clayton

**Treasurer**  
Ray Newberry

The Quarto  
is published by  
The London & South  
East Region of the  
Society of Bookbinders

**Internet**  
[www.socbkbind.com](http://www.socbkbind.com)

**e-mail**  
[bookbin@socbkbind.com](mailto:bookbin@socbkbind.com)

**Editor**  
Alan B Parker  
Birwood  
Elm Road  
Horsell, WOKING  
Surrey GU21 4DY

Contributions must be  
sent to the Editor at  
least one month before  
publication

The Society of  
Bookbinders

Charity Reg. No.  
1032108

FOR T BUCKLEY

## THE QUARTO

Newsletter of the London & South East Region  
of the Society of Bookbinders

### A MEDIEVAL BINDING STRUCTURE

#### FOR MODERN USE - K118

A Mastercraft Class at Guildford College on  
25th September 1999 by  
**TERRY BUCKLEY**

Terry Buckley was apprentice trained at Morrells before becoming a manager at J. P. Grays (Cambridge). He now teaches at the London College of Printing.

Gene Mahon was an MA student at the LCP when he researched an old binding structure as part of his thesis. Terry Buckley was as equally impressed as Gene, when it was found that the structure had qualities which gave it a modern application. It could be bound reasonably quickly and attractively, to give a very robust binding which opened fully. This was suitable for music, or a book for signatures in reception, or similar applications. In this mastercraft class, Terry produced a finished volume and used it almost as a football to show how really robust it was!

The structure has been described by Gene Mahon in an article in the 1998 'Bookbinder' and this should be referred to for some details. The reconstruction of the binding at the LCP gave procedural problems which were finally overcome. The following

account is mainly to expand on refinements in binding procedure as it is now practised by Terry Buckley.

First, the history - the binding structure was thought to be interesting when the only examples still extant (2 vols.), were brought in to Bruce Levy in the U.S.A for restoration. Levy contributed an article on his work for a small book on conservation and his praising comments were noted by Gene Mahon. The volumes had been identified by the tooling on the covers as having been bound in the workshop of Anton Koburger who operated in Nuremburg between 1478 and 1515. A very large number of bindings from this region were categorised by Ernst Kyriss and this particular workshop was coded K118 in the Kyriss lists. Our present rediscovery is therefore that of a K118 structure, there may have been other structures used by K118, but for the moment it is the famous one. Its features are one of the permutations in the gothic style detailed by John Szirmai in Chapter 9 of his recent book. (See current National Newsletter review). A

perusal of that chapter can put K118 into full context.

The robustness of this structure is mainly due to the extra board attachment provided by the vellum lining on the spine. The lining extends into vellum tabs glued onto both inner and outer surfaces of the boards. Vellum is the ideal material to provide this extra feature without interfering in the opening.

The original sewing probably used thongs for supports and normally these would now be replaced by cord. Terry demonstrated an interesting modern replacement. Pliester linen tape acts as a tape on the spine but can be frayed out like a cord in the slips. It is more flexible than cord. It is archival material produced in Germany and sold at Shepherds in widths from 5-20mm. The 5mm was used in this demonstration. (Note- Shepherds can supply the 5mm in single or double thickness, depending on the strength required.). Terry now uses it generally, in place of cord. End papers are a simple sewn double fold.

The back is glued with reversible pva. It was rounded

simply by Terry using fingers and a hammer, and it is not backed. He sews flexible end bands on a single round core of twine (stiffened a little with pva); and lines the spine with linen between the bands. A full lining of kraft is applied. The vellum linings are cut to size, off the book. They fix between the bands and their shape is easier to understand by referring to the 'Bookbinder' article. The end linings are cut to cover the end band. When cutting vellum, it is safer to cut on the rough side - it is dangerously slippery on the smooth side. Glueing the vellum is not easy - vellum can be unfriendly. But patience to allow the pva to become tacky, just a little moisture to soften the vellum, and plenty of boning down will eventually succeed. As soon as the vellum has been persuaded to stay down on the spine, all the tabs are placed inside the boards without glue and the book returned to the finishing press, boned again and left in the press to dry.

The boards were originally of wood, the modern replacement is a laminate of mill or grey

board, some 5mm thick. The sequence of attaching the boards is important. First, the boards are located accurately on the text with the flaps and slips inside and the book in the finishing press. The outer spine edge of each board is then profiled to follow the curvature of the spine, using a spokeshave. He does not back corner. The boards are marked for the slip positions, holes hammered through, then shallow 'V' cuts made in the outer surface as usual. The boards are accurately located with the vellum tabs inside, and the slips, (having been frayed and pointed), are inserted with paste and hammered flat in the usual fashion. The vellum tabs are then relocated properly inside and out, still unglued, and the book, with tins inside, pressed for 20 minutes. The best results are achieved if the outer tabs are recessed flush by knifing out their shapes on the boards before any tabs are glued. Terry glues the inner tabs first, bones well down and gives 30 minutes press before he slightly dampens the outer tabs and glues them down in a similar way. He prefers to let

mature for a day before covering and finishing. Note that it is a tight back so the leather cover needs paring at head and tail for the turn in. Otherwise the covering is simple; the leather is edge pared only and there is no need to set the boards. Finishing with blind tooling is very effective on this binding. Finally, the end papers are laid down.

We owe a lot to Gene Mahon for his thesis, and especially to Terry Buckley for this demonstration - it was very persuasive.

A.P