

Macaulay-Jane Bristow

Francis Mathew Scholarship Report 2016

for the Worshipful Company of Stationers and Newspaper Makers

Montefiascone, Italy.....	Page 2
Ascona, Switzerland.....	Page 10
Conclusion.....	Page 17

In May 2016 I was delighted to be informed that my application for a Francis Mathew Scholarship from the Stationers' Foundation had been successful. The application had been made to attend two week-long bookbinding training courses held in Europe in 2016. The first was in Montefiascone in Italy in August, and the second was in Ascona in Switzerland in November. This report summarises my experiences during the courses, which proved to be invaluable to my training and development in bookbinding

I would like to thank the Worshipful Company of Stationers and Newspaper Makers and the Stationers' Foundation Educational and Awards Advisory Committee for granting me the award, without which I would not have been able to study at these two exceptional schools.

The Montefiascone Project, Montefiascone, Italy

1st to 5th of August 2016

Montefiascone is a town in the province of Viterbo in central Italy, around sixty miles north of Rome. The town sits atop the highest peak of the Volsini Mountains, with views to Lake Bolsena below. In the middle ages the town marked the northern most edge of papal territory. The ancient pilgrim route of the Via Francigena, which runs from Canterbury to Rome, passes through the centre of Montefiascone, and is still used by pilgrims and travellers today.



Lake Bolsena at sunset viewed from the west of Montefiascone

In 1686 Marcantonio Barbarigo (1640 – 1706), a cardinal of the Roman Catholic Church, established a seminary at Montefiascone where priests could be educated. The seminary is still a working institution, with priests visiting from all over the world to be taught at the Seminario Barbarigo. The seminary is a beautiful building in the centre of Montefiascone, with frescoes and trompe l'oeil painted throughout. The seminary holds a very important early collection of theological books, but as the library has grown over several hundred years, scientific and geographical subjects have also been added.

In the mid-1980s Cheryl Porter, a book conservator, was consulted on how best to care for the Seminario Barbarigo's library collections. The part of the seminary's building housing the books was in poor condition, made worse by a flood from the floors above which had badly affected the library. The moisture had warped the shelving and had penetrated through to damage many of the books. There were severe insect infestations and uncontrollable issues with environmental conditions.

Porter brought the collection's urgent need of conservation to the attention of Nicholas Barker, former Head of Conservation at the British Library. With Barker's help Porter was able to establish an initial survey of the collections, which led to the beginnings of the Montefiascone Conservation Project. The library project's aim is to provide ongoing care and conservation to the seminary's collection, and to continue to preserve the historic collections which are important to the history of Seminario Barbarigo and to the town of Montefiascone.

In 1992 the Montefiascone Conservation Project expanded to include a summer school programme, which is close to celebrating 25 years of education in book history and bookbinding. The summer school programme at Montefiascone has become regarded as one of the most important schools for bookbinders, conservators, librarians, and bibliophiles to learn skills from masters of the bookbinding craft. In 2016 the range of subjects included classes in Andalusian Islamic, Carolingian, and English fifteenth-century binding styles, each a week long and attracting students from around the world.



Left: A view to Lake Bolsena from the entrance to the Seminario Barbarigo on Via Trento



Right: The Seminario Barbarigo

The second week of the summer school programme of 2016 was taught by Jim Bloxam and Shaun Thompson of Cambridge University Library. Their week long course focused entirely on the work of the Unicorn Binder, who was actively binding in England between 1478 and 1507. Several of the

Unicorn Binder's volumes are held in Cambridge libraries, and can be identified by the binder's use of a distinctive finishing tool of a woodland unicorn.



The blind tooled unicorn is faintly visible in this image, with the animal's horn reaching to the upper right side of the diamond

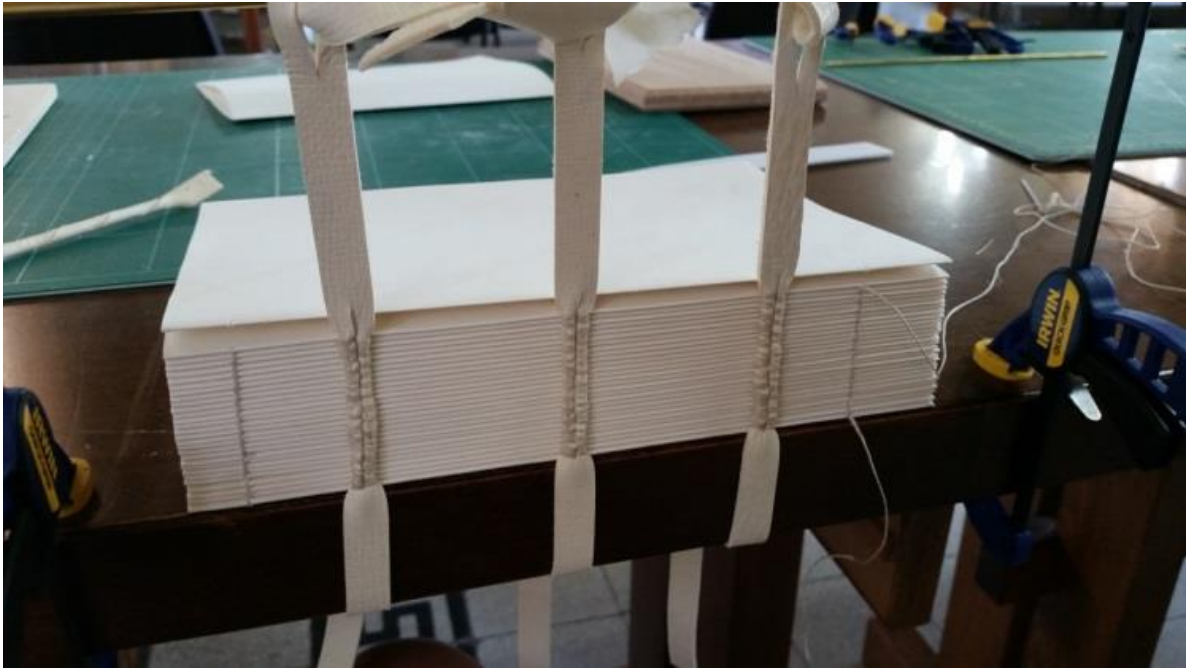
Bloxam and Thompson researched the binding methods employed by the Unicorn Binder, by closely examining the volumes held at Cambridge. Where parts of the volumes were damaged, for example if a spine had become detached, they could see beneath the leather to observe the sewing structures and materials used. They also digitised the blind tooling of the Unicorn Binder and had the patterns recreated on new brass finishing tools to produce facsimiles authentic to the original styles. With their research and professional experience, Bloxam and Thompson were able to teach students at Montefiascone to recreate a binding based on the work of the Unicorn Binder in five days.

Processes will include sewing the text-block, sewing endbands, shaping and attaching the boards and covering with leather. The covered books will be blind tooled with replica finishing tools based on the Unicorn Binder's designs and have brass fittings and fixtures applied.¹

From the course description it was clear that the week would be challenging, due to the number of techniques that were required to recreate the particular style of the Unicorn Binder. The week included working with typical binding materials, such as leather, paper, and linen thread, but oak and brass were also introduced to create the front and back boards and clasps. Working with these new materials also meant working with new tools, such as chisels and files, which added to the interest and excitement of attempting to recreate a later medieval binding.

The first step was to sew the text block. The text block had been created prior to arriving at Montefiascone to dimensions given by the tutors, but nevertheless each student's block had slightly different dimensions due to the weight and style of paper that had been chosen. The sections of the text block were pricked to accommodate the kettle stitches, and sewing stations for three slit alum-tawed thongs. The sewing action included packed sewing, which is a technique used to wind thread around the thongs to fill in gaps evenly between the sections.

¹ "Study Programme 2016". *The Montefiascone Conservation Project*. N.p., 2016. Web. 2 Jan. 2017.



The text block is prepared by sewing on to three slit alum-tawed thongs

The sewing was a lengthy process, due to the large size of the book at over 50mm in depth, and took the whole of the first day to complete. By the end of the first day the text blocks were sewn. Before the end of the first day the endband cores were made in order to give them time to dry. The cores were made by pasting out lengths of alum-tawed thongs and twisting them until they formed long rolls. These were pinned out and left to dry overnight.

The following day was spent completing work on the text block and preparing the oak boards for lacing on. The text block was ploughed to trim the fore-edge, head and tail to produce smooth and even edges. The edges of the text block were then coloured with a yellow dye, a technique employed by the Unicorn Binder.



The endbands being sewn with a back bead on alum-tawed cores

The final stage of preparation of the text block was to sew the endbands at the head and tail. The endband cores were held in place and sewn around with a back-bead stitch with frequent tie-downs. This type of stitch produces a strong but flexible endband, which helps to control the opening of the book. Eventually the endbands would be covered in leather and although the work would be hidden, it was important to ensure the endbands were well anchored, strong, and secure.

Once the text blocks were completed, work began on preparing the oak that would form the front and back boards. The oak had been quarter sawn and cut to size but the edges required chamfering and the face and back needed to be sanded and shaped. The oak boards had been quarter-sawn because the tree's growth rings run perpendicular to the surface, meaning wood is less likely to warp or shrink². Shaping the boards was a slow process, as both boards needed to be shaped symmetrically. The boards were also prepared for lacing on by chiselling the lacing path for the alum-tawed thongs. The lacing paths were short but needed to be chiselled deep enough to allow the thongs to sit comfortably and flush to the surface of the oak. Holes were also drilled to allow the alum-tawed thongs to pass through. Recesses were finally cut and chiselled out to accommodate the brass fastening on the back board.



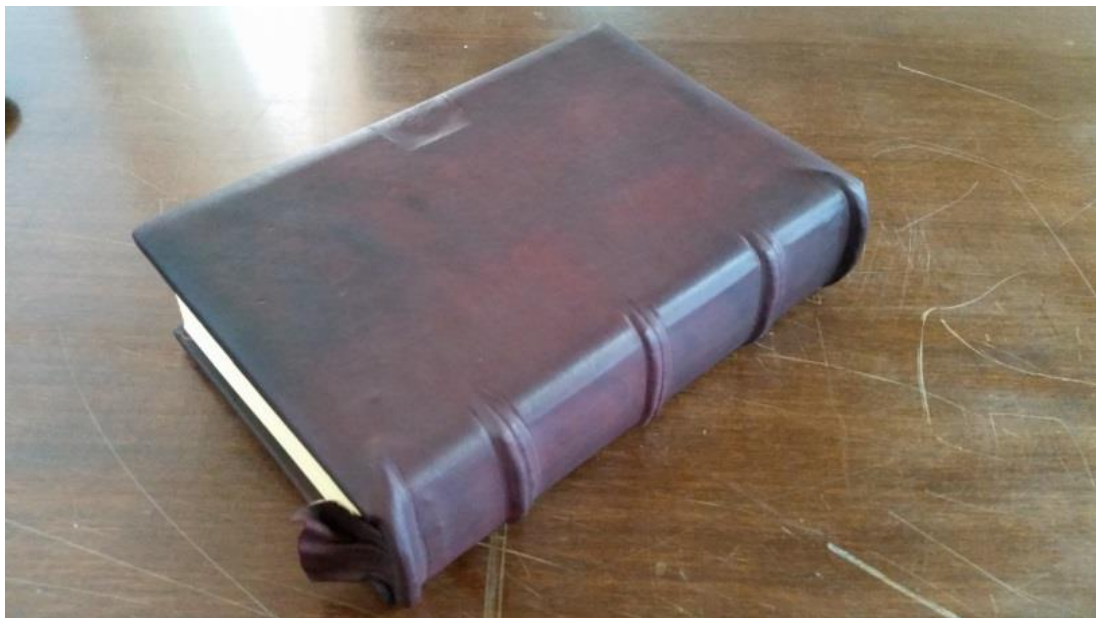
Carving the grooves for the alum-tawed thongs to be laced on to oak boards

At the start of the third day it was possible to hold the boards and text block together to begin to understand how the finished binding would feel. Before lacing on the boards the holes that had been drilled in the wood were smoothed and slightly enlarged with round files. It was important not to over file the holes as if they were excessively large the alum-tawed thongs would be too loosely held. The

² "Medieval Manuscripts". *Special Collections Conservation, Yale University Library*. N.p., 2013. Web. 23 Dec. 2017.

thongs were then passed through the front and back boards, one side at a time. The lacing paths were pasted out and the boards pulled tight to maintain the tension. Oak pegs were squeezed into the holes alongside the thongs, and then hammered down to secure the thongs and boards in place. The sharp point of the oak pegs were snipped away and smoothly cut back with a paring knife. Lacing on the boards was a particularly important stage as without the right tension between the boards and the thongs, the binding would not spring open and close properly once the brass clasps were attached.

The fourth day started with the application of the leather to the binding. The leather did not need to be pared as the Unicorn Binder's leather showed no signs of edge paring. The leather was first humidified by wetting out a cloth and rolling the leather up with the wet cloth. After half an hour the leather was limp and soft and ready to be pasted out. Once pasted the centre of the leather was briefly stretched to accommodate the raised bands of the spine. The leather was applied in a quick action by wrapping the leather around the spine and oak boards.

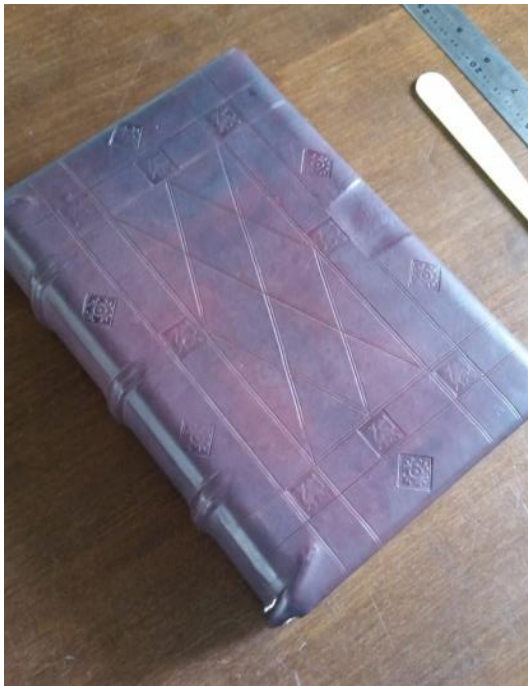


The leather applied to the boards awaiting blind tooling

The turn-ins at the corners were cut with a tongue, in the style of the period and as the Unicorn Binder had done. The leather was not turned in at the head and tail but simply cut across with a raw edge. This part of the turn-in was later saddle stitched through the endbands resulting in a very strong and sturdy structure. The covered volumes were tied up with twine as they dried, with the twine being stretched into the grooves either side of the raised bands, which emphasised their shape and helped adhere the leather in the recesses in the correct place.

As the leather was drying work started on designing the fastenings: the clasp, fastening, and catch plate all needed to be snipped, shaped and filed in brass. 15th century fastenings were often barely decorated,

and often fell into the category of hook-clasp fastenings³. Hook-clasps were made with a catch plate attached to the board's edge, with a hooked clasp riveted to a leather strap attached to the edge of the opposite board. The brass was first cut into approximate shapes with curved and straight edged snippers. The edges of the brass pieces were filed smooth and then filed again to produce a bevelled edge. Various sizes and style of file were used, many of them very small and cylindrical to achieve narrow curves of the hook-clasp. The design of the hook-clasp was kept simple, in imitation of the 15th century and Unicorn Binder's style.



Left: The leather after blind tooling had been completed

Right: Applying the brass clasps using brass pins peened into the oak through the untrimmed leather

The fifth and last day at Montefiascone was spent blind tooling the leather and applying the brass fastenings to the binding. Bloxam and Thompson encouraged an imperfect and informal approach to the tooling as the Unicorn Binder had done, with no fuss or precision. The Unicorn Binder had often applied his tools slightly askew and off centre, and fillets overran borders in several places. The tooling was completed with hand tools, using designs that had been created from digital images of original books bound by the Unicorn Binder. The three crucial properties of tooling are a combination of heat, pressure, and dwell time; conditions such as very dry or very humid environments will also affect these three aspects⁴. As the weather in Montefiascone was very warm and dry, extra pressure was needed to ensure the tools left their mark on the leather; however too much pressure would scorch the leather and leave discolouration. The tools were heated on a finishing stove and applied to the leather with

³ Szirmai, J. A. *The Archaeology Of Medieval Bookbinding*. 5th ed. Farnham, Surrey: Ashgate Publishing Limited, 1999. Print.

⁴ Lloyd, T. *How Damp is Your Bindery?* N.p., 2002. Web. 22 Dec. 2016

considerable force. Because of the weather, and as the leather was fairly thick, and the oak boards beneath were so hard, a large amount of pressure was required to transfer the pattern of the brass into the leather.

The final stage on the last day of the course was to apply the brass fastening to the front and back of the book. This was done by hammering small brass pins into the oak through the leather with a peening hammer, and carefully striking the top of the pin to flatten the brass. Applying the brass fastenings signified the end of the bookbinding process and was an immensely rewarding stage of the project; this very challenging binding had been conquered.



The complete binding with blind tooling and brass fastening

The Centro Del Bel Libro, Ascona, Switzerland

7th to 11th of November 2016

Ascona is a town in the district of Locarno on the very edge of Lake Maggiore in the south of Switzerland. Ascona can be reached by rail from neighbouring countries on a train line that skirts the edges of mountain lakes with exceptionally picturesque views. Ascona is very close to the Italian border and the language spoken locally is Italian; restaurants offering menus with traditional Italian dishes are available almost everywhere. Ascona is a popular holiday destination and tourism plays an important role in the life and industry of the town. The town can be very quiet during the winter with many shops and gelateria closing throughout the colder months.

The town has a history of attracting artistic communities and at the start of the 20th century a colony founded on the Monte Verità in Ascona drew in painters, poets, and novelists. Today galleries and art shops can be found throughout Ascona, a sign of the town's relationship with the history of the arts.



The town of Ascona at the edge of Lake Maggiore in Switzerland

The Centro Del Bel Libro is a bookbinding school and workshop close to Lake Maggiore on Via Collegio. The school's history began in 1965 when Josef Stemmler, the owner of a bookbinding company in Zurich, opened the Legatoria Artistica (Artistic Bindery) in Ascona. Stemmler's ambition was to promote, increase interest, and educate specialists in the art of beautiful books. A few years later in 1968 Stemmler's wish became a reality as the Legatoria Artistica was established as an institution; the combination of bookbinding and handmade paper studio, workshop and gallery was unique in the world at that time. In 1978 financial pressures forced Stemmler to leave and the Society of Swiss Binderies took

over the institution. The Centro Del Bel Libro has been running as a bookbinding workshop and school in its current form since 1984, when Edwin Heim, an accomplished master bookbinder, took over from the Swiss Binderies. Heim ran and continued to develop the school until his retirement in 2010.

Suzanne Schmollgruber was an apprentice of Heim early in her career, and since then had established herself as an international independent bookbinder working in countries across Europe. She returned to the Centro Del Bel Libro to become director on Heim's retirement seven years ago. Since then Schmollgruber has continued to build on and develop the Centro Del Bel Libro's reputation as one of the leading schools in the bookbinding craft. The Centro Del Bel Libro offers courses in a wide range of activities related to all aspect of the book, paper, bookbinding and design. In November 2016 a short course ran, instructed by Schmollgruber, on French style leather bindings.

A 5-day course introducing the French style quarter leather binding. The course covers the classic French binding including the deep French groove, edge finishing, leather headbands, paring leather and the leather joint.⁵

On the first day at the Centro Del Bel Libro Schmollgruber explained that the French binding style is often sought after by collectors and dealers as it is a design chosen for rare and special volumes. The style is a precise and immaculately presented; often French style bindings will be bound with a corresponding chemise or slipcase. This precision and attention to detail meant the course would be challenging in its need for consistent levels of accuracy.



A student desk in the Centro Del Bel Libro's bookbinding studio

⁵ "Course Archive". *Centro Del Bel Libro*. N.p., 2016. Web. 5 Jan. 2017.

The tools and equipment in the Centro Del Bel Libro's studio have been refined and adapted over many years to be exceptionally effective and a pleasure to work with. The tools and equipment are not necessarily the most modern or sophisticated, but they have been chosen and used because they are reliable and of fine quality. Even simple glue pots have been carefully chosen, because of their wide opening and attachment to scrape overloaded brushes against. A cup warmer, designed for use in offices to keep mugs of coffee warm, has been adapted with a jam jar to keep animal glue warm between uses. Hand tools, such as paring knives, were wonderfully well honed. Each desk was well equipped with plenty of space to enjoy the facilities offered by the Centro Del Bel Libro.

The first stage of the binding was to prepare the text block. A selection of unstitched text blocks had been brought by students to Ascona and Schmollgruber assessed which were most suitable for the binding style. A heavy thread was selected to stitch to create swell in the spine, which would later be needed to create the 90° shoulder. The thread weight would also usually depend on the number of sections, the quality of the paper, and the thickness of the sections. The cords that were used were linen thread teased out into fine strands, which were completely flattened to achieve the smooth spine. This was achieved by gluing out the spine with hot animal glue and vigorously smoothing with a rounded hammer and bone folder. After the glue had dried the spine was lightly rounded with a hammer and left under weights to dry overnight.



Left: Rounding and backing the spine of the sewn text block



Right: Applying cloth to the spine once the boards were attached

The second day started with remoistening the spine and allowing the adhesive to relax in order to back the spine and create the 90° shoulder. Schmollgruber explained that rounding and backing stage gives

character to the book and that care should be taken not to strike the spine too hard, resulting in crushed and distorted sections. If sections are misshapen in this way it can be very hard, if not impossible, to return them to their desired shape. The combination of the angle and force of the backing hammer determine the success of the backing stage. After several attempts it was possible to begin to understand the required action, which was a gentle sideways glancing blow. Once the backing was complete the leather endbands were made. The endbands were made by rolling and gluing a heavily pared leather strip around a linen thread core. Once dry the leather endband was cut to size and adhered to the head and tail of the spine. After the application of the endbands the boards were laced on to the front and back of the volume. The cords were threaded through three holes that had been punched through the board at a slight angle. The holes were glued out and shallow lacing paths that had been cut into the board were also glued out. Once the cords were laced through they were pulled very tight, to create tensions and strength in the spine. The cords were then boned down until they were exceptionally flat; to prevent any ridges showing once the leather spine was attached.

The French style of binding was described in French by Schmollgruber as '*exigeant*', meaning demanding and challenging. The signature of the French style is the very smooth curve of the edge of the spine, making it a pleasingly tactile object to handle. Any ridges or indentations in the leather would spoil the flush and level finish of the curve. It was therefore crucial to follow the demonstrations as closely as possible to recreate the exact nature of the French style. Every stage was precisely measured and examined, with multiple layers of cloth and leather adhered to the spine and the final layer carefully sanded to achieve the smooth finish that was required.



Sanding the leather spine lining to reveal the yellow endbands

The third day started with sanding the front and back boards to create a slightly rounded shape. The angles of the outermost edges were softened and a border of around 70mm was sanded around the boards' head, tail and fore-edges. The sanding took a great deal of time as the boards were very hard, and at points a file was used to scrape away the tough outer layers of board. Once the boards were sanded the book was ready for the final few stages: the preparation of the leather spine, the application of the leather joint, and the lining of the covers and inside covers with decorative paper.

A colour of leather was chosen for the spine and joint to complement the decorative paper. The Centro Del Bel Libro holds a large stock of leathers in a full spectrum of colours. Schmollgruber suggested the use of calfskin, as this type of leather is recognised as being of a particularly fine quality and therefore suitable for the high standards of the French style binding. Three pieces of leather were needed, one for the spine piece and two narrow lengths for the leather joints. The leather needed to be pared down to 0.6mm across the whole area, and then would be pared again around the edges. Leather paring is a notoriously difficult process for beginners and took the whole of the third day of the course to complete. It can take countless attempts to gain proficiency and confidence using paring knives and paring machines. The initial paring was done with a paring machine, which was operated by hand and allowed the leather to be passed over a rotating bar beneath a sharp blade. The leather was passed through the machine multiple times to achieve a thickness of 0.6mm for the spine piece and 0.4mm for the joints. The second round of paring was done by hand using a Swiss style paring knife. The edges of all three pieces were to be pared down to zero, and needed to be so fine that daylight could be seen through the leather when held up to a window.

On the fourth day of the course work continued on preparing the leather pieces before their application to the spine and inner joints. Although they had all been pared they needed sanding to reduce any ridges and steps that had been caused by the paring. The pieces were marked out with a chinagraph pencil on the skin side, which would later help to place the leather in the correct position. The leather spine piece was glued out with wheat starch paste three times and left for a few minutes to allow the glue to penetrate the leather. The book was then lowered on to the leather using the chinagraph markings as a guide. The leather was smoothed out and the turn-ins were forced beneath the spine very carefully using small bone folders. As the leather was wet it was crucial not to make any accidental marks in it as these would be impossible to remove. It was also important to ensure there were no fold or creases beneath the turn-ins as these would create unsightly marks. As the leather on the spine was drying, string was tied tightly around the leather and forced into the grooves either side of the endbands to accentuate their shape. The book was placed between boards to dry overnight.



The pared leather glued to the spine of the book, with turn-ins visible around the endband

The leather joints were secured to the inside front and back joints on the last day of the course. Before they could be adhered, the book, with its new leather spine, needed to be opened for the first time. A small amount of water was applied carefully with a paintbrush to the inside of the spine to allow the leather to relax as it was slowly eased open. If opened too quickly, the leather could fracture. Once the spine was opened for the first time it was possible to examine how well the hinge was working and to begin to appreciate the aesthetic of the French style binding.

The joints were the final stage of leather work to be completed for the binding. The joints were adhered using wheat starch paste, and glued out three times in the same way the spine had been. They were carefully applied to the joints and eased in to the ridge between the front board and the first page of the text block. It was important that the book be left open as they the joints were allowed to dry fully; if the book was closed before the joints were dry, they could crack the leather. After the joints were dried they were moistened with a small amount of water to relax the leather to ease the closing of the book for the first time, as had been done with the spine. The joints made a creaking sound as they closed, indicating they were dry and extremely secure.

The next step was to glue the decorative papers to the covers and the pastedown to the front and rear inner boards. As the text block was blank it was possible to select a decorative paper of any palette or pattern, provided it complemented the colour of the leather. A marbled paper, handmade by Jemma Lewis in Wiltshire, was chosen for its original colours and design. A corresponding blue laid paper was selected for the pastedowns on the front and rear boards. The leather spine strip was first scored to

equal widths on both sides to indicate where the paper would overlap to. The paper was cut to size and glued out with a 50/50 mix of wheat starch paste and EVA (ethylene-vinyl acetate). The back board was glued first, and the paper offered up to the scored line on the leather and quickly smoothed out to prevent air bubbles forming. The overhanging edges were carefully folded over and cut with a very sharp scalpel to form a mitred joint; the same process was carried out on the front board. The blue laid paper linings were cut and adhered to the inner boards, creating an even finish to the inside covers. The dimensions of these pastedowns were important as Schmollgruber explained it is unsightly if these are visible above the edges of the text block; the pastedowns should not be visible in the square when the book was closed. The final stage of the course was to glue the flyleaf to the first page of the book. The same blue laid paper was used to glue the flyleaf bifolios to the first and last pages. Great care was taken on this final simple task, to ensure the meticulous approach of the French style binding was followed to the end.



The complete binding with marbled paper and tan calf leather spine

Conclusion

The experiences I gained in both Montefiascone and Ascona were invaluable to my training in bookbinding. The Francis Mathew Scholarship gave me a wonderful chance to study bookbinding outside of the UK, which I had not done before. I was curious to see how bookbinding methods may compare to the experiences I had during my initial training in England. In Montefiascone students had come from all over the world to study: from the United States, Ukraine, Sweden, and Canada. My fellow student in Ascona was from Germany, and the tutor was a Swiss national but spoke fluent German and French, and gave instructions in a mixture of languages. From both courses I have been able to learn new terminology in the language of bookbinding. I have been able to talk to fellow students from all over the world about their own experiences in bookbinding, and to learn about binding styles particular to their countries.

The courses led me to discover new tools and methods I had not encountered before. In Montefiascone I worked with brass and oak, which were both new to me, and now feel able to work with chisels and files. I also now feel more confident with leather work, and leather paring in particular. I was keen to try leather paring in Ascona with a Swiss style paring knife for the first time, and found it to be easier to control than the English style. I have also gained practical advice in seating position and posture when paring, which has helped my technique enormously. Before attending the courses I had not sewn an endband before and was delighted to attempt this in Montefiascone. Since returning to the UK I have continued to practice and have now grasped endbands with both front and back beads, and in two colours in silk, I hope to eventually progress to double-core endbands.

Thanks to the knowledge and patience of my tutors, both courses gave me great practical skills, but I was surprised at how different the courses proved to be. There were many variations, not only because of the type of bindings that were taught, but also with the approach that was taken to achieve them. In Montefiascone the goal of the course was to recreate a late 15th century binding, using the tools and crafts that had been employed by the Unicorn Binder at the time. In Ascona the aim was to bind in the tradition of the French style, working with precision methods to create a new binding with an immaculate finish. The Montefiascone tutors encouraged students to not be too preoccupied with creating a flawless binding and to focus on understanding the 15th century craft, whereas in Ascona the emphasis was on working to the most exacting standards possible. My understanding of the diverse history of bookbinding has been hugely enriched by attending these two courses. However, there is so much more to discover and I feel encouraged and confident to further my learning and understanding of the craft of bookbinding.