

**Stained Leather Bindings**  
**ARTC 812 Seminar: Annotated Bibliography**  
**Robin Canham**

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Belcheva, Malina. 2016, December. "Complexity and Simplicity in the Conservation of *The Lady of the Lake*." *Guild of Bookworkers Newsletter* 229: 8-9.

Dr. Belcheva is the Head of Rare Books and Special Collections at Sofia University Library and completed the rebacking of *The Lady of the Lake* as part of diploma work at the American Academy of Bookbinding. The calfskin cover of the book was marbled with a decorative pattern. Conservation treatment involved leather consolidation with 2% Klucel G in isopropanol, a spine replacement (with a 3-ply hollow tube addition), and extensive recreation of the marbled pattern with multiple applications of acrylics on new leather. Includes some before and after treatment photographs.

Belcheva, Malina. 2017, February. "Complexity and Simplicity in the Conservation of *The Lady of the Lake: Part II*." *Guild of Bookworkers Newsletter* 230: 16-17.

see Belcheva, 2016

Bookbinding Trade Section of the London Chamber of Commerce. 1903. *Report of Arbitration between the Bookbinding Trade Section of the London Chamber of Commerce and the London Societies of Journeymen Bookbinders*.  
[https://play.google.com/store/books/details?id=g\\_0YAAAAYAAJ](https://play.google.com/store/books/details?id=g_0YAAAAYAAJ).

On October 22<sup>nd</sup>, 1901, the Federated Societies of Journeymen Bookbinders addressed an appeal to the Employers for better working conditions. In the transcript of this meeting, there is a citation of note by J.W. Zaehnsdorf (the son and business partner of a notable London-based bookbinder). In it Zaehnsdorf remarks that "it was not an uncommon thing for me to turn out 200 tree calf books in two days, prepare them in a day and marble them the next" (247). He is also the author of *The Art of Bookbinding: A Practical Treatise* (see Zaehnsdorf, 1890).

Blakely, Julia. 2016. "Did a Cat Help Decorate this Binding?" *Unbound, Smithsonian Libraries and Archives*. <https://blog.library.si.edu/blog/2016/01/13/did-a-cat-help-decorate-this-binding/#.YYBDj57MKUL>.

Blakely, a Rare Book Catalog Librarian at Smithsonian Libraries and Archives, writes about rare books for various blogs. This article was contributed about cat's paw bindings (and includes cursory information on other styles of dyed leather

covers). Several images of cat's paw bindings held within the Smithsonian Libraries are included (with links to catalog records).

British Leather Manufacturers' Research Association (BLMRA). 1984. *The Conservation of Bookbinding Leathers*. London, England: The British Library.

Outlines the results of several analytical studies conducted by the BLMRA to better conserve intact leather bindings and produce stable binding leather. The information presented appears to be fairly outdated now, however, there are good colour photographs of different leather surfaces (treated and untreated).

Buckley, Terry. 1996. "Leather Staining, Dyeing, and Decorating." *Guild of Bookworkers Standards of Excellence Seminars, Pasadena, CA, October 1996*.  
[https://guildofbookworkers.org/sites/guildofbookworkers.org/files/standards/1996-Buckley\\_Terry.pdf](https://guildofbookworkers.org/sites/guildofbookworkers.org/files/standards/1996-Buckley_Terry.pdf).

Buckley is a master British bookbinder and Senior Lecturer at the University of the Arts, London. In this handout provided at a Guild of Bookworkers Standards of Excellence seminar, Buckley describes the method he employs for staining or dyeing calf in a Cambridge panel style. It also lists the equipment, materials, and method for calf marbling using hydrated potassium carbonate and ferrous sulphate. The instructions are brief, but they are the best found in research to date.

Burdett, Eric. 1975. *The Craft of Bookbinding: A Practical Handbook*. Vancouver, BC: David & Charles.

Written by an internationally recognized English master bookbinder and teacher, this manual (directed to novices) discusses tools and various steps necessary to make many styles of bindings. A section on leathers is included (363-368) and discusses tannages and modern skins best suited to bookbinding.

Canadian Conservation Institute (CCI). 1992. "CCI Notes 8/2: Care of Alum, Vegetable, and Mineral Tanned Leather." <https://www.canada.ca/content/dam/cci-icc/documents/services/conservation-preservation-publications/canadian-conservation-institute-notes/8-2-eng.pdf>.

Basic conservation information on caring for different types of leather (not specific to books) written by conservation specialists. Proper storage environments and supports are highlighted to be the most important aspects of leather conservation.

Cloonan, Michèle. 1990. *The Whole Art of Bookbinding: 1811 English and 1824 American Editions*. New York, NY: Garland.

Cloonan, an American librarian, edited and republished this facsimile copy which comprises the English and American editions of the book. The original author remains unknown. It is a very important title because it is the first published English bookbinding manual currently known and has several recipes and instructions on how to dye leather and achieve certain effects such as marbles and sprinkles. Tree marble is also mentioned (23).

Cockerell, Douglas. 1971. *Bookbinding, and the Care of Books: A Text-Book for Bookbinders and Librarians* 5<sup>th</sup> ed. London, England: Sir Isaac Pitman and Sons.

Cockerell was a notable British bookbinder, educator, and author, born in London, England, but moved to Canada when he was 15. He returned to England later in his life and began bookbinding at the age of 23. This textbook, originally published in 1901, examines conventional aspects of British bookbinding. Chapter 14 covers leather specifically, and how to choose a “good” leather over a “bad” one. Cockerell also quotes a Royal Society of Arts committee and states “the sprinkling of leather, either for the production of ‘sprinkled’ calf or ‘tree’ calf, with ferrous sulphate (green vitriol) must be most strongly condemned, as the iron combines with and destroys the tan in the leather, and free sulphuric acid is liberated, which is still more destructive” (279).

Davenport, Cyril. 1898. “Leather as Used in Bookbinding.” *The Library* s1-X(1):15-19. <https://doi.org/10.1093/library/s1-X.1.15>.

An English bookbinder and author who wrote extensively on the history of bookbinding, Davenport gives a late 19<sup>th</sup> century account of bookbinding leather, outlining properties and uses. Morocco leather (goat) and calf are ranked most highly. However, Davenport notes that at the time, calf “does not last well” but that “it takes stains and dyes easily and is often found with tree-marbling [and] sprinkling ... the chief results of which appears to be that in a short time they ruin the leather” (17). Perhaps early evidence of leather degradation due to staining practices.

Diehl, Edith. 1980. *Bookbinding: Its Background and Technique*. New York, NY: Dover.

A mid-20<sup>th</sup> century American bookbinder, her book is deemed to be one of the best for beginner bookbinders. Leather stains are not mentioned, but there is a brief overview of bookbinding leathers. Even though Diehl writes approximately 50 years later, she agrees with Davenport that calfskins are no longer well

prepared to be used in bookbinding as they tend to dry-rot sooner than Morocco or Levant leathers.

Haines, Betty. 1977. "Deterioration in Leather Bookbindings: Our Present State of Knowledge." *The British Library Journal* 3(1): 59-70. <https://www.jstor.org/stable/42554020>.

Haines summarizes the information and studies known at the time on leather deterioration in books. In her research, Haines found that leather deterioration was noted as early as the 1850s, when the first investigation into leather rot was associated with sulfur dioxide present in the atmosphere. The mechanism of deterioration is described, and a summary of the work done to improve upon future leather tanning processes by the British Leather Manufacturers' Research Association (BLMRA) is presented.

Humphreys, Arthur. 1897. *The Private Library: What We Do Know, What We Don't Know, What We Ought to Know About Our Books*. New York, NY: J.W. Bouton.

Humphreys was a bookseller, based in London, who also published books on an occasional basis from the 1890s to the 1930s. From about 1890 he was one of the proprietors of Hatchards, however in 1924 he sold his interest and continued to publish occasionally, mostly his own writings. In this book, he notes: "If a binder should ever suggest either a padded binding, a Russia leather binding, or a tree calf binding, you may instantly leave his premises, for he cannot understand his business" (58). A reason as to why this should be the case is not given, but one could assume they are perhaps known to possess a vice, or they are simply no longer the taste of the time. See Matthews (1895) for a slightly older description.

Lama, Anne, Paula Antunes, Anthony Covington, Jeffrey Guthrie-Strachan, & Yvette Fletcher. 2015. "Use of Aluminum Alkoxide and Oxazolidine II to Treat Acid-Deteriorated Historic Leather." *Journal of the Institute of Conservation* 38(2): 172-187. <http://dx.doi.org/10.1080/19455224.2015.1071713>.

Conducted by a team of materials scientists and a conservator, a study was undertaken to develop a product that could delay aging of acid-deteriorated historic leather. The proposed formula of aluminum alkoxide and oxazolidine II showed potential, as it increased the pH and T<sub>S</sub> of the samples. Further study should be done on dyed leathers to see if the behavior of these treatments match those of the undecorated leathers used in the study.

Larsen, René. 2008. "The Chemical Degradation of Leather." CHIMA International Journal for Chemistry 62(11): 899-902. <https://doi.org/10.2533/chimia.2008.899>.

An excellent summary overview, written by a conservation scientist, that outlines the experimental methods that define leather deterioration including the determination of shrinkage temperature, basic and acidic amino acid ratios, and leather acidity. Outlines new research that shows ammonia (released by oxidation of amino acids) may also be contributing to the low pH values in acid-damaged leathers.

Ligatus Research Centre. 2021. "Language of Bindings (LoB)." <https://www.ligatus.org.uk/lob/>.

A project of the University of the Arts London, the LoB aims to provide a consistent and agreed terminology to be used by anybody working with historic books. There are many terms and definitions of leather dyed bindings that overlap, the LoB suggests preferred labels to avoid mistakes and ambiguity in descriptive terminology. For example, according to the LoB, "tree marbling" is a preferred description to "tree calf".

Lock, Margaret. 1991. *Two Centuries of Bookbinding: Materials and Techniques 1700-1900*. Toronto, ON: Canadian Bookbinders and Book Artists Guild (CBBAG).

A printmaker by trade, Lock curated this title as an exhibition catalog to a CBBAG show of the same name. A few short paragraphs on Cambridge calf (panel calf) and dyed calf marbles. There is an interesting point made about why these patterns were done, not found in other sources. It explains that the sprinkled and mottled areas did not show dirt or wear in the same way plain calf covers would.

Matthews, Brander. 1895. *Bookbindings Old and New: Notes of a Book-Lover with an Account of the Grolier Club of New York*. New York, NY: Macmillan and Co.

An American writer and educator, Matthews recounts a conversation with Marius-Michel (one of the most preeminent French bookbinders in the 19<sup>th</sup> and 20<sup>th</sup> centuries) speaking on the tree marbling process as "a diabolic invention" as it rots leather (158). Russia-leather is mentioned on this page as well, pointing out that it become brittle and cracks unless it is constantly handled. This lends support to Humphreys (1897).

Middleton, Bernard. 1996. *A History of English Craft Bookbinding Technique* 4<sup>th</sup> ed. New Castle, DE: Oak Knoll Press.

A Master English bookbinder specializing in fine book restoration, Middleton's book has become a must-read for all book conservators. This book lists one of the only referenced accounts on the history of tree-marbled calf (191-192). It also accounts a form of imitation tree marble that was done with an engraved wooden block which was printed in black on the calf.

Middleton, Bernard. 2004. *The Restoration of Leather Bindings*. New Castle, DE: Oak Knoll Press.

First published in 1972, this book has excellent written directions paired with photographs outlining practical demonstrations of various repairs done to leather bindings. There are also good photos to help identify the type of leather that was used. No information on dyed leather or deterioration and how to prevent it.

Miller, Julia. 2014. *Books Will Speak Plain: A Handbook for Identifying Historical Bindings* 2<sup>nd</sup> ed. Ann Arbor, MI: The Legacy Press.

Miller is a book historian, author, and has worked as a book conservator for over 30 years. A key text that is heavily referenced by book historians and book conservators. Includes a timeline on the evolution of books since the early codex to modern times. Includes a section on how to identify binding materials. Miller's 2018 title has specific information on leather dyeing, however, this is a good general reference and a place to begin most book history research.

Miller, Julia. 2018. "Chapter 1: Beyond Tree Calf: Bindings Decorated by Staining." In *Meeting by Accident: Selected Historical Bindings*. Ann Arbor, MI: The Legacy Press.

Perhaps the most extensive published work to date on the history of decorated leather books by use of stains or dyes. Miller does not go into depth on the chemicals or techniques employed (as she notes much of that is subject to speculation), however, she does illustrate and comment on the many variations produced with colour photographs of exemplars. Miller gives loose categorizations to different decorative effects so those describing bindings decorated in similar fashions will have a basis of comparison. An extremely key resource for both images and styles.

Norman, Richard. n.d. "Calf Marbling." *Eden Workshops: A Bookbinders Resource*.  
[http://www.edenworkshops.com/calf\\_marbling.html](http://www.edenworkshops.com/calf_marbling.html).

Norman is a professional English bookbinder who runs a private practice in France. Miller (2018) alludes to a forthcoming publication by Norman specifically on tree-marbled book covers. The brief article on this associated website also confirms that "An Exploration of Calf Marbling" will be published by The Golden Fish Press and will even delve into the chemical analysis of marbled calf covers. As of today, the book has not yet been published, however the website gives a brief excerpt from one chapter which outlines the historical development and different styles. No references are provided.

Plenderleith, H. 1967. *The Preservation of Leather Bookbindings*. London, England: The Trustees of the British Museum.

An excellent overview on leather preservation, specifically in books, from the perspective of an art conservator. Plenderleith was the founding director of ICCROM and worked at the British Museum for a large part of the 20<sup>th</sup> century. The title was first published in 1946 and much of what is known now about leather deterioration is described.

de Récy, Georges. 1905. *The Decoration of Leather*. Translated by Maude Nathan. London, England: A. Constable & Co. <https://www.ajhw.co.uk/books/book278/book278.html>.

Not much is known about the author. This title includes brief descriptions on how to produce marbles, tree marbles, and sprinkles on leather (70), which are likely better described in Zaehnsdorf. A unique edition to this title includes interesting steps on how to remove dyes using various strong acids (71).

Roberts, Matt & Don Etherington. 1982. *Bookbinding and the Conservation of Books: A Dictionary of Descriptive Terminology*. Washington, DC: Library of Congress. <https://cool.culturalheritage.org/don/>.

Another excellent reference source, similar to the LoB, this title is available online via the Conservation OnLine (CoOL) document library provided by the Foundation for Advancement in Conservation. Provides detailed definitions although no photographs or diagrams are present.

Smart, Richard. 2003. "Tree Marbling: Challenges and Secrets." *Skin Deep: The Biannual Newsletter from J. Hewit & Sons Ltd.* 15: 2-5. <https://www.hewit.com/download/sd15.pdf>.

Smart is a third-generation bookbinder from the United Kingdom, and is now based in North Vancouver, Canada. He provides a well-documented account of his tree marbling process as well as many photos of the process and his unique tools. Additional details to help with the procedure are provided that are not listed in Middleton or Buckley.

*The Bookbinder: An Illustrated Journal for Binders, Librarians, and All Lovers of Books* Vol. 1. 1888. London, England: William Clowes and Sons.

This title, published a few years before Zaehnsdorf, describes tree marbling in detail (however no recipes are given) (98). It also claims the same cute origin for the method (a bird splashing water down from overhead) but notes that it is very hard to believe and gives specifics into why it would not be likely. This title also talks about the false marbled trees done with black ink via a wooden printing block. There are no illustrations.

University of North Carolina at Greensboro Preservation Services Department. 2019. "Restoration of a Marbled Leather Binding." <http://uncgpreservation.blogspot.com/2019/02/restoration-of-marbled-leather-binding.html>.

A short blog entry describing the basic conservation treatment of a marbled leather binding. Japanese paper hinges on the interior and spine edge were added and then toned to match the original leather. Klucel G/SC6000 was also applied to consolidate the leather and add sheen to the Japanese tissue repair. No notes on the general leather condition or if the marble had bit into the surface of the leather or not.

Zaehnsdorf, Joseph. 1890. *The Art of Bookbinding: A Practical Treatise* 2<sup>nd</sup> ed. London, England: George Bell and Sons.

Zaehnsdorf, the son of a famous Austrian-born but London-based bookbinder, was equally as important as his father in the trade. This book is an excellent resource as the entirety of chapter 22 is devoted to calf colouring. Extensive discussion and advice on how to not allow the leather to rot when using acids and dyes is presented (this has not been read elsewhere). There is also a very cute description on how marbling was first discovered and Zaehnsdorf points to Germany for its origin.