The Civil War, America’s defining event of the 19th century, is exceptionally well documented in the collections of the Boston Athenæum. Of particular significance is the Confederate Imprints collection, broad in scope and rich in content, consisting of over four thousand books, documents, and prints that witness Southern experiences during the devastating war. This paper will consider three aspects of a recently completed two-year project to digitize the Confederate Imprints collection: preservation activities, particularly the leading role of the conservation staff in coordinating the imaging workflow; conservation treatment methodologies for a large collection with limited resources; and technical analysis of printed objects from this period.

The Athenæum’s record of Confederate Imprints begins in December, 1860, with the bound journals of South Carolina’s Secession Convention, and ends in the spring of 1865, with ephemera from the surrender of the Army of Northern Virginia at Appomattox. Print materials within this period were collected from every Southern state and territory, and were included in this project, in every format except newspapers. The most common were pamphlets, bound volumes in leather, cloth, and paper, sheet music, broadsides, maps, periodicals, almanacs, oversized administrative records, and handbills. Some highlights of particular rarity that illustrate the variety of formats encountered in this project are an unbound early draft of the Confederate Constitution, a rare hand-colored railroad map of the South, an illustrated manual of field surgery bound in cloth, a number of Army broadsides printed in the field, and the official voting record for secession in a district in Norfolk County, Virginia.

A Project Conservator selected objects for inclusion in the digitization workflow, performed treatment as necessary, coordinated the object’s delivery to imaging technicians (communicating handling strategies as necessary), performed quality assurance checks after imaging, and coordinated the object’s return to its long-term storage environment. In this model, an object could be selected for preservation, conservation, and imaging in a single step, which proved successful in minimizing bottlenecks and maximizing efficiencies.

Representative methods and techniques that were successfully used to stabilize and conserve the collection will be presented. These include variations on repairing torn text leaves, aqueous treatments, re-attachments of original pamphlet cover papers to texts, covers for pocket-sized cloth volumes, housings for folded maps in original covers, and book repairs for publisher’s and bespoke bindings. Technical aspects of printing and bookmaking in the Southern Confederacy will also be examined. Common paper fibers, sheet-formation quality, and some common watermarks will be described. Books bound in leather, particularly in Richmond, Virginia, will be compared by their structural and decorative differences. Patterns of bookmaking practices unique to certain large publishers will be discussed, such as wallpaper coverings from S.H. Goetzl in Alabama, and die-stamped covers repurposed for military manuals in Richmond.

INTRODUCTION

The Athenæum has among the strongest collections of print materials from the short-lived Confederate States of America. But how can interpreters of this great collection of the South reconcile that fact that it is held at a bona fide Yankee institution like the Athenæum?

A key factor is that the Athenæum was one of the boldest and most organized collecting institutions in the United States for much of the 19th century. Since its founding in 1807, the Athenæum developed collections of artistic, literary, and documentary merit with acquisitions of works by Gilbert Stuart, Goya, George Washington, and a great deal more. So in 1865, what started out as a drive to collect Southern newspapers soon became a systematic, comprehensive, and sustained mission to acquire anything printed in the South during the rebellion. In his correspondence, Librarian William
Poole repeatedly expressed progressive and inclusive motives behind the development of the collection. His stated desire was to preserve “everything printed at the South during the war that goes to illustrate the state and action of the Southern mind,” and he also wrote that “we already have a fine collection, and desire to increase it for the benefit of the future historian of this eventful period of our nation’s history.… The object we have in view is not a selfish one, but is broad and national. Whatever we collect will be at the service of the historical student […] whether he be a resident of Massachusetts or Tennessee […] and our collection now is probably the largest in the country, except that of the War Department.”

Over the ensuing 150 years, the Confederate Imprints collection at the Boston Athenæum has steadily grown with acquisitions and donations. The first bibliography of Confederate Imprints, published in 1955, was based primarily on the Athenæum’s collection. Confederate Imprints are frequently requested in our Special Collections Reading Room, and in total now number over 4500 bound and unbound objects.

**PROJECT PLANNING**

In 2011, Associate Director of Digital Programs and Preservation Jim Reid-Cunningham began planning the comprehensive digitization of these Confederate Imprints (excluding newspapers) and their dissemination on the internet. Every object would be imaged, page by page; their images and metadata uploaded to a 3rd party host, ContentDM; and then the digital surrogate would be linked directly to its listing in our online public access catalog.

The project was funded by Trustee Emeritus Caleb Loring, Jr. for three years and included my hiring in 2012 as the Project Conservator. Digitization practices, and best practices of conservation in support of digitization, were adopted from the literature where possible, including: having an experienced conservator (Jim Reid-Cunningham) involved in the project planning; estimating treatment needs and costs (in our case with a pilot program in 2011); maintaining open formal and informal communications between conservation and imaging staffs; having close proximity between conservation and imaging labs; and focusing the majority of conservation treatment time on stabilization.3,4

**CONSERVATION IN SUPPORT OF DIGITIZATION**

Systematically digitizing a library collection with unknown condition issues has its challenges. In this project, we attempted to maximize preservation impact while supporting aggressive digitization milestones through three goals of preservation action: mitigate risks associated with increased handling from the imaging process; minimize disruptions to the imaging workflow; and selectively pursue conservation treatments beyond basic stabilization, where appropriate.

These principles are commonly found in most conservation programs that support digitization. Our program departed from the others in the respect that I, as Project Conservator, was also tasked with coordinating the movement of objects throughout the entire workflow. The main intention of which was to reduce inefficiencies or slowdowns in the imaging process.

After retrieval of a selected object from storage I performed condition assessment, immediate stabilization treatment, if possible, and simple documentation, before inserting it into the imaging workflow. This approach is not common with the possible exception of the Qatar Digital Library project at the British Library; yet the approach worked well in this case. The project was completed under-time, and under-budget. However, managing my time and output was my constant concern.

**ADVANTAGES TO WORKFLOW COORDINATION**

The coordinating role in the workflow also helped develop my bench practice in a couple of key ways. One of the most important was a direct result of comprehensively approaching the collection instead of working only on a subset. I developed my “eye” or the awareness of an object’s material manufacture and its cultural meanings across time, which enhanced my conservation related interpretations, responses, and treatment planning. Another result of our workflow was the improved efficiency of treatment execution in order to keep up with the rapid pace of digitization while at the same time maintaining high standards for treatment.

For example, as my eye became more discerning, my condition assessments became much quicker. Objects that required similar treatments were batched, particularly bookwork and oversized maps or broadsides. I was able to adapt my working methods and materials for many tasks, some of which are discussed in the next section. I rarely got on a computer, except when preparing written and photographic documentation for objects of unique interest. Finally, I kept track of condition assessments and treatments by hand, which were compiled and transferred every few days to a spreadsheet I created. The end result of these practices was the elimination of impediments to the digitization process due to condition issues, without delaying, or bottlenecking, the project’s rate of digitization.

**TYPICAL CONSERVATION TREATMENTS**

The Confederate Imprints collection included various bound and unbound formats, such as pamphlets, in-boards bindings, case bindings, and unbound broadsides, maps, administrative records, and ephemera, all in various sizes. Conservation treatments obviously varied according to format, condition problems, size, and preferred storage.

The majority of the collection was unbound 12mo leaves or stab-sewn pamphlets usually housed in sub-optimal
enclosures, such as in an envelope that was way too big and without a cardstock support. Multiple leaves could sometimes be in the same envelope; and some pamphlets wouldn’t have any enclosure at all. These objects would be rehoused individually in an appropriately sized slightly buffered cardstock folder and slightly buffered envelope. Larger format flat paper objects such as broadsides and maps were typically encapsulated between inert polyester sheets and stored flat in a pH-neutral folder.

Acute edge damage, as well as more isolated tearing, was typical of unbound leaves and pamphlets (fig. 1). After surface cleaning, my initial approach was to open folds and creases by applying a thin line of dry-ish paste on the verso of the fold or crease and let it open a bit before flattening under pressure. The paste has a slight pull against crushed fibers which helps the crease open up. All the chamfered or overlapping tears were stabilized with an application of dry-ish paste on each edge of the overlapping tears, followed by pressure. Tears requiring further stabilization were repaired with one of four types of supporting tissue: 3 gram per square meter (gsm) Tengujo, 5 gsm Tengujo, 9 gsm Usu Mino, or 12 gsm Usu Mino. (fig. 2) The thinnest 3 gram Kozo was my consistent favorite for a discreet and light repair, but all of these are strong and tend to blend in very beautifully. This entire process can be executed quickly and elegantly but it is essential to work with a relatively dry wheat starch paste; and in my experience it is faster than with working with pre-coated materials.

Pamphlet cover-papers were often detached from the text block (fig. 3) and repaired with untoned 9 gsm or 12 gsm Usu Mino guards. (figs. 4–5) Significant losses in the cover-papers were typically filled with toned tissues, and smaller edge damage would be stabilized with untoned tissues. Perhaps surprisingly, pamphlet leaves in this collection did not show much damage from their stab-sewings. Text leaves usually had nice drape with good leaf action so there was not much associated damage, except some tearing of the first and last few leaves at the stabbed holes. These would be repaired in situ by working a Usu Mino tissue repair around and under the thread. For broken threads in pamphlets, I would resew them through the original sewing holes, after reinforcement, with toned linen thread, sometimes leaving a little slack.

In addition to leaf repairs, bound texts would occasionally require further mechanical or adhesive consolidation. If there was no spine access, mechanical consolidation would be performed by inserting new toned thread through the recessed channels of loose sections that would be hitched to stable nearby sections.

In-boards bindings in the collection were for the most part intact and functioning; although a small number of them were degraded to a point that required rebacking or more minimal board-to-text reattachments. Tentuous and partially broken hinges were not uncommon either, and often stabilized with 12 gsm Usu Mino reinforcement (which, in my experience, is an ideal tissue for this repair). Case bindings were often worn, requiring consolidation of the covering material, often with broken joints or a loose spine piece, both of which were typically repaired with toned Hanji tissue or airplane cotton. (figs. 6–7)

Tape removal and backing removals were not particularly common, nor were aqueous treatments, but when they were carried out we typically blotter washed so as not to agitate brittle and fragile materials (there were a few instances of immersion).

In total, 3337 objects were assessed by the Project Conservator; 1566 (47%) objects were rehoused; 1365 (40%) required leaf repair or guarding; 549 (16%) objects had folds opened and creases flattened; 360 (11%) pamphlet cover-papers were repaired or reattached; 305 (9%) sewing, forwarding, or binding repairs; 117 (3.5%) objects required tape-removal or backing-removal; 14 (0.4%) were treated aqueously. All but three objects were safely imaged, two of which were bound volumes in good condition with unopened pages; and the third had significant mold-damage and was set aside for leaf casting sometime down the road.

Figs. 4–5. After treatment. P&W 3035.


Fig. 7. After treatment. P&W 7696.
SELECTED ASPECTS OF SOUTHERN PRINT CULTURE

TRADE BINDINGS FROM RICHMOND, CHARLESTON, AND BEYOND

In addition to pamphlets and publisher’s bindings, there are a lot of books in trade bindings that follow some patterns that I will attempt to identify. Some covering materials, especially decorated papers, can be associated with particular printers or cities. For example, the blue Spanish-wave marble with yellow and red veins (fig. 8) is common all over America in the 19th century. But in our collection they are only found on books printed in Richmond. Charleston covering papers are different, and tend to be a splattered pattern; (fig. 9) and books from North Carolina are associated with a thick, unfinished greenish-blue cloth at their spine.

Richmond bindings, cased or in-boards, are almost always sewn three-on over four sewing supports that are pasted to the insides of their boards. (fig. 10) Books from Charleston and Columbia, South Carolina, whether cased or in-boards, are almost always two-on over three sewing supports, also pasted to the insides of their boards. (fig. 11) While in North Carolina we usually only see two-on sewing over two supports.

There are two decorative tools for leather that I found repeatedly. A lozenge shaped tool is associated with the printer Evans & Cogswell in Charleston, (and later, Columbia) South Carolina. (fig. 12) A vine with a leaf and dimpled flower, found on a number of volumes from Richmond, is
associated with the printer William Ritchie and possibly the publisher and bookseller J.W. Randolph. (fig. 13)

The size of the volume mattered a great deal. The following describes 16mo books and smaller. (fig. 14) They are usually stab-sewn, with plain single folio endpapers tipped-on, and a flat spine. Occasionally they would be sewn through the fold over sewing supports. (fig. 15) Boards were then slapped onto the text block, set off from the shoulder—up to 5 mm—at front and back. The boards were very thin, approximately 1 mm thick, and were sometimes made from printed waste or used stationery. The volume would typically be covered in full paper, full cloth, or more often, ¼ cloth; tight-back without linings, and then the text edges cut flush along with the boards. In other words, no squares, the boards are flush with the text with their edges exposed, and no turn-ins. Finally, a paper label is adhered on the front cover or at spine. These books are are simply bound, but they don’t lack charm, and it should be noted that small pocket volumes are almost always about military topics.

Volumes 12mo and bigger (fig. 16) would be forwarded with abbreviated sewing over cords that are pasted onto the insides of their boards, according to the regional pattern described earlier (figs. 10–11, 15). The endpapers are plain and sewn all-along with the thread exposed in the hinge. There are never any spine linings or head bands, and usually the text-blocks are moderately rounded and backed. The text edges are guillotined or chopped (not ploughed) before being put in-boards. There is no gap in the joint and boards ranged from approximately 2.5 mm thick to 3.6 mm (as the War progressed, the boards are noticeably less dense). Volumes were covered in ¼ cloth or ¼ leather. Endcaps are simple and unrefined. Over the course of the War, there is greater prevalence for cloth at the spine.

If the books were from Richmond and had paper sides, 12mo (or larger) trade bindings, had extra covering material at their corner turn-ins. (fig. 17) I am unsure if there is an existing name for this type of corner but I call it a
doubled-over corner because the paper at the corner would be creased where it might otherwise be trimmed. Then the head or tail edge is turned-in, and the doubled-over corner made by folding that extra material back, over the turned-in edge. And then the fore edge would be turned-in.⁶

**PAPER**

The common narrative for Southern paper during the War is that it initially was of decent quality, and as the War progressed it degraded further and further so that by the end most papers were brown, clumpy, full of debris and shive, unfilled, unsized and unfinished. That’s not entirely untrue but from my experience there are many exceptions. There are papers from Richmond as late as 1865 that are white, filled, sized, and finished, and on the other hand there are degraded sheets from 1861 and 1862. Papers were wove only, and could be coated, sized, pigmented, or calendared. Over time, the formation became increasingly cloudy, and indeed there is more shive and debris, likely from cotton, hemp, straw. Shortages of bleaching agents and papermaker’s alum also make it common to find brown sheets.

A discussion of the Confederacy’s paper, or even the products of a single paper mill, could be presentations or papers on their own, so I will leave that to later scholarship. However, I must point out recent technical studies of Confederate Stamps in which various local fillers used in the production of Southern papers were characterized and identified, including a locally-sourced White Georgia Clay. Additionally, 7 varieties of ink formulations used in South Carolina and Richmond were characterized and identified, and it is pointed out that certain absorbance signatures can be removed in washing.⁷

It’s interesting to see impressions in paper from the stitching of the wire mesh used in their manufacture. (figs. 18–19) Cylinder or Fourdrinier papermaking machines required significant attention to remain functioning—parts had to be imported through a blockade, or repaired locally like some of the haphazard patches we can occasionally see from the impressions they have left. I think perhaps we could eventually attribute stitching patterns to their particular manufacturers, considering there were probably fewer than 15 paper mills in the South during the war, but again, I leave that to later scholarship.⁸

**REPURPOSED CASES**

In 19th century American case bindings it is not uncommon to see a stamping die repeated across multiple titles. We see this in the Confederate Imprints collection every now and then, however, there is an additional aspect here of recycling in evidence that is quite unusual in my experience. There are a number of cases that were removed from one published volume and then repurposed, updated with a new label, to cover a completely unrelated text.

For most instances in this collection, original blind titling on the spine was covered up with covered up with a glossy black paper label with metallic powder printing; and original paste-downs remain underneath newer ones. Local notes for each of the volumes indicate the original cases were taken from books published in Richmond before 1861. In Figure
Maps in Wraps

There were about a dozen maps in the collection that remained folded within their original boards or cover, including two photographic reproductions. (fig. 22) Most of these boards are covered in a similar glossy black or dark blue paper, with metallic powder printing, that we have just used for labels.

The folds of the maps were typically flattened mechanically, or with humidification if necessary, followed by repair and encapsulation. However, many of the covers did not open easily. (fig. 23) Instead of looking into removing the map from the cover, this piece and a few others were encapsulated with an
opening that left the cover free to open and close. This method worked fine, but it is probably only necessary for objects from this era whose boards do not open without cracking.

WALLPAPER PAMPHLETS OF S.H. GOETZEL, PUBLISHER
Wallpaper covers from the Confederacy are most often associated with a single publisher out of Mobile Alabama, S.H. Goetzel, who published them from 1863 to 1865. Of the twenty titles we have in wallpaper, the one in Figures 24–26, from 1865, is probably among Goetzel’s last. Like the nearly all the others, they are stab sewn without endpapers and the wallpaper cover is adhered at the spine and slightly over the shoulder. The wallpaper pattern is on the verso of the cover-paper at front and back.

Figures 27–29 show a title printed in four parts in late 1864. Figure 30 shows two copies of a title also printed in 1864. Many folks point to Goetzel’s wallpaper books as examples of the deprivations in the South during the War, and while I’m sure that’s true to some extent, it appears that this style was deliberately chosen again and again, predictably, for over two years by a single publishing house for books of literary fiction, not those in different genres.

There are some exceptions from 1863 which I think could be Goetzel’s first attempts at using decorated papers for literary fiction. The cover-paper decoration of Figure 31 is a simple brushed pattern that is a paste paper, not wallpaper, and it is lined on verso with a stiff brown card stock. In Figure 32, the cover-paper is lined with the same card stock.
The movements of the later 19th century to specialize collections and to more publicly share “culture” led to the very fast and expansive growth of competing Public Libraries, Museums, and University Special Collections.

Each institution has its own process for digitization, preservation, and preservation in support of digitization. As such, case studies are among the most useful resources to consult when researching “best practices” in the field. A good place to start is at Archives Conservation Discussion Group. 2011. (115–127)

“Fit for purpose” is a term in favor at the British Library and elsewhere that is used to guide conservation treatment planning. For example, in digitization projects, the “purpose” of treatment to support the digitization process, i.e., to mitigate risks in from handling and stabilize acute condition issues, such that any treatment action beyond those specific goals would not “fit” the purpose.


A video how these corners might have been made is available on the BPG Wiki at http://www.conservation-wiki.com/wiki/User:Ev-knight.


For more information, see Baker, Cathleen A. 2004.; Cheape, Kathleen Sophia Hambrough. 1960.; and Snowden, Yates. [1903].

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EVAN KNIGHT
Associate Conservator
Boston Athenæum
Boston, MA
knight@bostonathenæum.org