Similar Problems, Different Solutions: Treatments of Two Mexican Incunabula Part 1: Treatment of a *Psalterium*

ABSTRACT

Two volumes printed by Mexico's third printer, Pedro Ocharte, have recently received conservation treatment and exemplify different treatment approaches. One volume, a *graduale* printed in 1576, is held by the Library of Congress and received a "full treatment," or disbinding, washing, and rebinding. The other volume, a *psalterium* printed in 1584, is held by the Benson Latin American Collection at the University of Texas at Austin (UT) and received treatment to stabilize the binding and text block in a minimally invasive manner.

INTRODUCTION

In book conservation, a few of the guiding factors in making a decision on how to treat an object are the condition of the volume, the value and history of the text block, and the value and history associated with the binding. Treatment choices sometimes reflect a high priority on preserving the text block, which may mean the binding must be altered. However, at other times the necessity of preserving the binding places limitations on the treatment of the text block. Evaluation of a book and the determination of a treatment, given all these considerations, is one of the greatest challenges in book conservation.

I treated a *psalterium* printed by Pedro Ocharte in 1584 as part of my final semester of coursework in the Preservation and Conservation Studies Program at the University of Texas at Austin (UT). My treatment decisions were based on the findings of my research into the history of printing in Mexico, the history of religious texts, and physical evidence found in the volume itself.

Presented at the Book & Paper Group Session, AIC 31st Annual Meeting, June 5–10, 2003, Arlington, Virginia. Received for publication Fall 2003.

DESCRIPTION AND CONDITION

In 1939 the Benson Latin American Collection at the University of Texas at Austin acquired the *Psalterium*, *An[t]iphonarium Sanctorale cum Psalmis & Hymnis*, printed in 1584, as part of the collection of Joachim Icazbalceta, an avid collector of early Mexican imprints. The *Psalterium* was selected for treatment because previous paper mends were causing damage throughout the text block.

The *Psalterium* (fig. 1) is bound in reddish-brown, vegetable-tanned sheepskin over shaped, quarter-sawn oak boards with leather clasps on the fore edge. Blind-tooled lines are faintly visible on the spine around the sewing supports and the sewing supports were laced into the boards. All of the sewing supports were intact along the back joint, but most had broken along the front joint. Parchment patches between each support partially lined the spine but did not adequately cover the spine to provide optimum support. An endband channel was found on the upper board, but not the lower board, and there was no evidence of a sewn endband in the text block.

The text block is cream, handmade, antique laid paper that varies between medium- and heavyweight. No watermarks were visible. Wax was found on several pages and a few pages had a visible layer of gray specks that felt gritty, and could have been from incense (fig. 2). The text block had been severely and unevenly trimmed, sometimes eliminating page numbers. Several preferential openings



Fig. 1. Before treatment, whole volume



Fig. 2. Example of wax that had dripped onto the pages during



Fig. 3. Tear mended with glassine tape and linen sewing thread

were present throughout, probably due to the failure of the spine linings. Media present in the text block were black and red printer's ink, cochineal, iron-gall ink, and graphite.

The volume was sewn at least four times. Three of the four times, supports of alum-tawed thongs or coarse twine were utilized and the sewing was all-along. The fourth time the volume was sewn, sections of text were whipstitched together. Types of thread used differed each time and included thin linen thread, medium-weight hemp cord, and thick hemp cord.

Large quantities and several types of paper mends were present. The types of mends included sewing (with linen or green silk thread), glassine tape, or multiple layers of text-weight paper (fig. 3). In some places, the text-weight paper mends were four layers deep. Most of the mends had been applied without regard to aesthetics, but some mends had been shaped around the text. Pages were breaking at the transition point between the thick, stiff mends and thinner, flexible pages (figs. 4–5). Insertions were also found throughout the volume; some pages had one third of the page removed and a new section inserted with carefully hand-drawn staff, notes, and verse (fig. 6).



Fig. 4. Verso of title page breaking due to multiple layers of mends



Fig. 5. Close-up of title page break

After examining the volume, I examined its history. I wanted to answer the following questions: (1) What was the history of printing in Mexico? (2) Who might have used this volume? (3) Who might have bound this volume? and (4) Who mended the volume?

HISTORY OF PRINTING IN MEXICO

Printing in Mexico was established in the sixteenth century. Documentation, both legal contracts and volumes printed, is in existence which demonstrates that Juan Pablos began printing in Mexico in 1539, but some evidence exists that a press and printer were operating in Mexico City in 1534.

The Spaniards conquered Mexico in 1522 and Cortez requested that the King of Spain send holy men to New Spain "whose lives might be a fitting commentary on their teaching" (Prescott n.d., 123–4). In answer, Juan de Zumarraga was sent to Mexico in 1528. In 1533 Zumarraga returned to Spain and was consecrated as bishop. He returned to Mexico in 1534 and evidence suggests that he took a printing press with him because he realized that converting the natives to Christianity would be easier if books were printed in their native language.

Dispute over the arrival of the first press remains though, as others have written that the first press was taken



Fig. 6. Example of one hand-drawn insertion

to Mexico by Viceroy Mendoza in 1535 when he arrived to begin his duties in New Spain. Clearly though, a press was in Mexico and in use in 1538 when Zumarraga wrote to Charles V stating, "Little progress can be made in the matter of printing on account of the scarcity of paper" (Hanson 1954, 3). Whether the press to which Zumarraga refers arrived in 1534, 1535, or another year is unclear. The only possible conclusion is that at least one press was being utilized but possibly two.

If a press did indeed exist in the city in 1535, it would have been put to use and not left idle. Substantial evidence exists that Esteban Martín, a master printer, was in Mexico in 1534 and thought to be working between 1535–38. He was made a citizen of Mexico City in 1539, which means that he must have been a resident there for several years prior to 1539. However, if he was printing from 1535–38 nothing remains of his work. His presence in Mexico City, though, may explain a puzzling fact about the agreement between Juan Pablos, the accepted first printer of Mexico, and Juan Cromberger, Pablos's employer, when establishing another press in Mexico City.

Juan Pablos was an employee of the Cromberger printing house in Seville, Spain, in the sixteenth century. Cromberger was the leading printer in Spain and decided he would open a print shop in New Spain as a branch of that in Seville. This decision was solidified when Bishop Zumarraga enlisted his aid in printing a catechism in Nahuatl, the native language of New Spain. Cromberger began the job in Seville, but realized daily contact with native speakers in New Spain would produce a better book. Therefore, he signed a ten-year contract with Juan Pablos to set up a print shop in Mexico City. Pablos began printing in Mexico City in 1539 with an edition of the booklet *Breve y Mas Compendiosa Doctrina Christiana*.

The contract between the Cromberger printing house and Juan Pablos is very detailed but presents one puzzling stipulation: that Pablos must print three thousand sheets each day. Many suggestions have been given that would account for such a high number, as documentation exists for the daily output by pressmen of that time. Daily averages ranged from 107-167 sheets for one pressman to 655–1725 sheets if two pressmen were working together. Therefore, three thousand seems an exorbitant requirement. Possible explanations include scribal error or the substitution of sheet for impression. Both seem implausible because (1) the entire document was very carefully written so one scribal error of this magnitude seems unlikely and (2) a document written by two experienced printers would not be likely to substitute two words that have vastly different connotations. One explanation does make sense. If Cromberger wanted to ensure that his press would operate at maximum capacity, it is possible that he wrote (and meant) that it should produce three thousand sheets a day because he knew of the press being operated by Martín. He may also have intended to lure the pressmen from that operation into his own.

Regardless of the answers to these questions about the history of printing in Mexico, the one thing that remains certain is that the early printers worked closely together and were reliant upon each other. Cromberger died soon after the establishment of his branch in Mexico City, but Pablos continued to operate it. In 1548 he applied for and received from the Viceroy of Mexico the exclusive privilege of printing in Mexico for the next six years. One of the original agreements with Cromberger was that any worn-out type would be melted down, not sold off, in an effort to reduce competition. (This agreement may also point to the existence of an earlier printing press in operation if competition was a consideration.) After ten years of printing the type had worn down and Pablos had to decide whether to import new type or hire a type founder. He chose the latter. Antonio de Espinosa, a type founder in Seville, was enlisted and agreed to move to Mexico City and enter the employment of Pablos. He took with him Diego de Montoya and both agreed to cut and cast type for the print shop. Espinosa returned to Spain in 1559 in hopes of securing the right to print in New Spain. He was granted this privilege and is now considered the second printer of Mexico.

Pedro Ocharte, the printer of the *Psalterium*, followed Espinosa as the third printer of Mexico. Ocharte was born in Rouen, France, in 1532 as Pierre Charte. He worked as a merchant with his father before moving to Mexico and marrying the daughter of Juan Pablos, soon after Pablos's death. The widow of Pablos rented two presses to Ocharte along with type, images, and adornments in 1563, and thus Ocharte became the third printer in Mexico.

The Mexican Inquisition was at its height during this time and Ocharte, who printed several religious texts, was accused of speaking out against the Pope and printing books that contained Lutheran statements against the veneration of saints. He was imprisoned for this reason from

1572–74, but managed to continue to conduct business from jail with help from his wife. The *Psalterium* was printed ten years after his release from jail, but one may imagine that Ocharte was careful to print only material that would be approved of by the Pope and religious orders in Mexico City. In fact, the whole title of the volume, *Psalterium*, *An[t]iphonarium Sanctorale, cum Psalmis, Hymnis, positis in suis locis propriis uniuscuiusque, diei sesti totius anni, nunc primo cum licentia excussum*, translates as "A Psalter, and Antiphonal with Psalms and Hymns, placed in their proper position, on the sixth day of the year, now for the first time selected with permission." There is some debate about the etymology of the word "licentia" in medieval Latin. The last phrase could then read either "selected with permission," or "boldly selected" (Prince 2003).

JESUITS IN MEXICO

Determining a specific Christian religious order to which the Antiphonal belonged was difficult. Two professors in the department of music at the University of Texas at Austin with expertise in sixteenth-century Latin American and Spanish liturgical music examined the volume. After examination of the text, they were unable to assign it to any specific order.

However, a thesis on the *Psalterium* written in the 1970s concluded that Jesuits probably commissioned such a piece. The conclusion is due to an inscription that appears at the end of the Saints' Office that ends with, "beatissime Ignatij martyris." Three Ignatii were on the Roster of the Venerable in 1584, but because the Ignatius mentioned is called a martyr, two of the Ignatii can be eliminated, and Ignacio de Azevedo is the only choice left. He was an influential Jesuit in the sixteenth century and a missionary in Brazil. Azevedo became a Jesuit martyr when a ship he was on was raided by pirates and all aboard were brutually murdered. Such brutality would have left an indelible impression on the Jesuits, so making him a martyr and printing such a dedication as is found in the *Psalterium* would have been plausible.

Another strong indication that the Jesuits may have been responsible for commissioning the *Psalterium* is that they needed religious texts for the schools they had established: the Collegial Seminary of San Pedro y San Pablo, San Ildefonso, and the Colegio Máximo. All were well established by 1582. The numbers of students eligible and enrolled in these schools increased from three hundred students in 1574 to eighteen hundred students in 1583. With such growth in schools, printing an edition of the *Psalterium* does not seem unreasonable, since the books would have been used in schools as well as churches. But, despite these arguments, the evidence substantiating Jesuit connections must remain inconclusive.

LITURGICAL BOOKS

The questions regarding who bound this volume and repaired it are still unanswered; not having an answer influenced my treatment decision. I read about books used in liturgical services and found that an antiphonal (contained in this *Psalterium*) contains the chants used for the Office, or eight daily rounds of prayers. Conversely, a gradual contains the chants used in the Proper of the Mass, or that portion of the Mass which includes Communion, the holiest portion of a service. This understanding meant that the *Psalterium* I treated was not used for Mass, or the most religious portion of a service—one possible explanation for the plain binding. If time and materials were limited, it seems plausible that they would have been spent on a text containing the Mass.

The question of who might have mended the volume still remains, but if the volume was used in a school setting, perhaps students were responsible for mending the religious texts. Or, perhaps the church or school had a set schedule for cleaning the church, mending the *Psalterium*, washing the windows, etc. This theory would certainly explain the various styles of mends, especially if those duties rotated among the members.

BOARDS AND INSERTIONS

The boards probably came from a previous binding, as not all the lacing channels line up with the sewing supports and the endband channel is present only in one board, at one end. After my treatment was complete, I had the opportunity to have the *Psalterium* scanned by a professor in the geology department at UT; I found that another set of holes exist on either side of the present clasps. These holes seems to indicate that the clasps were in a different position prior to the present location and raised another question: where are the boards from? Did early Mexican binders make their own boards, or was it possible that the Spanish government, in shipping binding supplies to Mexico, also shipped boards from old Spanish bindings to be reused?

The insertions were intriguing, due to the care taken in blending them in stylistically. Perhaps they were nothing more than a cheap method of creating cancels for the text block. The normal method of printing cancels and inserting them may have been too costly and this method may have proved more expedient. Or, perhaps different parishes inserted their own individual prayers for local saints and martyrs, and could not have had them printed individually. Regardless of the answer, the insertions provide an integral part of the history of the volume.

My research yielded an appreciation for the *Psalterium* in its current condition. As I sifted through the history of printing in Mexico, Ocharte's life and imprisonment, and the history of treatment of the volume, I decided that a

minimally invasive treatment would benefit both the volume and future researchers.

TREATMENT

I decided to treat only those sections of the *Psalterium* that were under the most stress, specifically those at the beginning and end of the text. My decision was based on the following: (1) the mends provide documentation of the history of the book's use over time; some of the mends were now integral parts of the text—namely those that had been inserted to replace text originally cut out and containing hand-drawn portions in the style of that printed; (2) the mends in the middle of the text were not placed under the same strain; if the spine were relined in such a manner as to support the opening, those mends would cause less damage; (3) if middle sections were removed and conserved, treatment might have interfered with the interlocking nature of the volume—any change in the page dimension might result in damage to the edges or change the action of the opening; and (4) the curator at the Benson wanted to retain the history and current "look" of

I had considered replacing the binding because the present binding was not contemporary with the printing. However, I did not know conclusively when the text was put into its present binding. The cover was protecting the text block adequately and contained important history itself regarding early binding in Mexico. Another liturgical work by Ocharte owned by the University of Texas at Austin, the *Psalterium de Tempore* printed in 1589, was compared with the *Psalterium* from 1584. The wooden-board binding styles were similar, as were the type of page repairs in the 1584 and 1589 volumes. I decided to preserve this lineage, although it is still unknown who the binder was. Based on these reasons, I decided to repair and retain the binding.

I mechanically released the leather on the spine and cleaned the spine with 2.5% methyl cellulose. I removed the first two and the last four gatherings of the text block whose mends were under the most stress. The mends were softened in a Gore-Tex humidification pack, then removed mechanically with a microspatula (fig. 7). The gatherings were reconstructed to the size of the text block. The inner portion of each folio was guarded with kizukishi and the outer portion of each folio was guarded with kozo hiromi heavyweight. The adhesive used to guard was a 50:50 mix of 2.5% methyl cellulose and wheat starch paste. Tears in the pages were mended with lens tissue and wheat starch paste prepared 4:1 water to starch. The tears in areas where stress would continue to be present when pages were turned were mended in an "over/under" fashion that allows the page to flex in the same place without further breaking.



Fig. 7. Mends removed

Inner stays were made for each section that was to be resewn from Twinrocker handmade, laid, linen rag paper. An overhanging lining of *kizukishi* was adhered with wheat starch paste and covered the entire spine including the supports. The first and last gatherings were resewn to the text block through this overhanging lining, using unsized 18/3 linen thread. The overhanging areas of *kizukishi* were then folded over and adhered to the spine with wheat starch paste. An overhanging spine lining of airplane linen was adhered only between the supports using a 50:50 mix of PVA and methyl cellulose over the fully dried Japanese paper release layer and allowed to dry. The linings were anchored to the spine by sewing through them in three different gatherings using 18/3 unsized linen thread using pamphlet stitches.

Mini hollow tubes were constructed for each panel of the spine using heavy, handmade 100% kozo paper (100% kozo, Hiromi HM-10). The hollow tubes for the head and tail were shortened so as not to cover the turn-ins from the leather covering. The tubes were adhered one on/one off with 50:50 methyl cellulose and wheat starch paste and were allowed to dry overnight. The overhanging linen lining was adhered to the inner face of the front and back boards (underneath the pastedowns) with wheat starch paste. The patches of linen were sculpted around the existing supports in order to allow the historical evidence to be



Fig. 8. Before treatment: last page stuck to back flyleaves



Fig. 9. During treatment: last page released from back flyleaves

clearly visible. The pastedowns were not readhered so that the multiple, previous historical lacing patterns could be easily viewed. Heavyweight 100% *kozo* Japanese paper (Hiromi HM-10) was toned and used to fill in the loss and support the two sides of a tear in the leather cover. Areas of delamination on the cover were readhered to the cover with wheat starch paste. A phase box was constructed with text block supports for the final housing.

The result of this treatment procedure was that the most harmful mends were replaced in the text block (figs. 8–10). By cleaning and relining the spine, the throw-up of the gutter, or the point of flexing, was moved beyond the mends remaining in the gutter (figs. 11–12). The historical evidence of the text was thus retained, while making the volume safer to use by researchers in the future.

ACKNOWLEDGMENTS

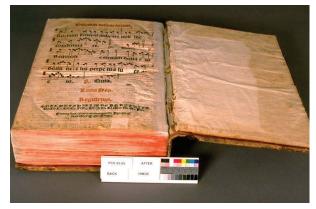


Fig. 10. After treatment: last page resewn to text block

I would like to thank Chela Metzger for her guidance; Drs. Rebecca Baltzer and Frank Candelaria for their musical expertise; Martha Romeo for answering questions about Mexican bindings; Drs. Timothy Rowe, Matthew W. Colbert, and Richard A. Ketcham for scanning the *Psalterium*; Michael Hironymous for allowing me to treat the *Psalterium*; and Mary Wootton for working with me on the AIC presentation.

REFERENCES

Brown, Michelle P. 1995. *Understanding illuminated manuscripts: A guide to technical terms*. Los Angeles: Getty Publications.

Callaway, Carol Hamill. 1969. An aesthetic analysis of sixteenth century Mexican printed books. Master's thesis, Tulane University.

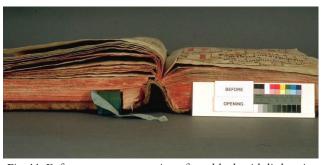


Fig. 11. Before treatment: opening of text block with little spine support and harmful mends



Fig. 12. After treatment: opening of text block with spine relined and supported

- Colonial printing in Mexico: Catalog of an exhibition held at the Library of Congress in 1939 commemorating the four hundredth anniversary of printing in the New World. 1939. Washington: United States Government Printing Office
- Council of Trent. *Catholic encyclopedia*. http://www.newadvent.org/cathen/15030c.htm (accessed November 5, 2001).
- De Hamel, Christopher. 1994. A history of illuminated manuscripts. London: Phaidon Press.
- Duncan, Mary Elizabeth. 1975. A sixteenth-century Mexican chant book: Pedro Ocharte's *Psalterium*, *An[t]iphonarium Sanctorale cum Psalmis & Hymnis*, 1584. PhD diss., University of Washington.
- Hanson, Joel T. 1954. Sixteenth-century Mexican printing. Master's thesis, State College, St. Cloud, MN.
- Harper, John. 1991. *The forms and orders of western liturgy*. Oxford: Clarendon Press.
- History of the Jesuits before the 1773 Suppression. *Catholic encyclopedia*. http://www.newadvent.org/cathen/14086a .htm (accessed November 5, 2001).
- McMurtrie, Douglas C., ed. 1942. A preliminary check list of published materials relating to the history of printing in Mexico. Chicago: Committee on Invention of Printing, Chicago Club of Printing House Craftsmen.
- Nixon, Howard M. 1971. Sixteenth-century gold-tooled bookbindings in the Pierpont Morgan Library. New York: Pierpont Morgan Library.
- Prescott, William H. n.d. *History of the conquest of Mexico*. New York: Modern Library.
- Prince, Brian D. (Latin teacher, Houston, TX). 2003. Personal communication regarding Medieval Latin translation, May 2003.
- Stillwell, Margaret Bingham. 1931. *Incunabula and Americana, 1450-1800: A key to bibliographical study.* New York: Columbia University Press.
- The Inquisition in Spain. *Catholic encylopedia*. www.newadvent.org/cathen/14096a.htm (accessed November 5, 2001).
- The suppression of the Jesuits (1750-1773). *Catholic ency-clopedia*. http://www.newadvent.org/cathen/14096a .htm (accessed November 5, 2001).
- Thompson, Lawrence S. 1927. *The first typefounding in Mexico*. London: Bibliographical Society.
- Thompson, Lawrence S. 1976. *Printing in colonial Spanish America*. Albany: Whitston Publishing Company, Inc.
- Wagner, Henry R. 1939. Sixteenth-century Mexcian imprints: Mexican imprints, 1544–1600, in the Huntington Library: An exhibition prepared and described by Henry R. Wagner. San Marino: Henry E. Huntington Library and Art Gallery.

APRIL P. SMITH
Assistant Paper Conservator
Harry Ransom Humanities Research Center
The University of Texas at Austin
apsm@mail.utexas.edu
and
Conservator in Private Practice
Books & Manuscripts
Austin, Texas
apsmith@texas.net