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A xvi Century Travel Diary as an Introduction to the Practices of Rescue and Recovery of Water Damaged Books

Ir a la versión en español

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ABSTRACT

This piece covers the actions taken for the care of waterlogged books in two different historical contexts. The first, found in the travel diary of friar Bartolomé De las Casas, when in the xvi century he left Salamanca (Spain) for Ciudad Real, in Chiapas (New Spain), as written by friar Tomás de la Torre. It describes in detail the trip and the rescue and recovery of the books that were shipwrecked with the Dominicans in the Bahía de Términos. The second context includes the rescue and recovery work carried out in Florence in 1966, after they suffered a great flood. The objectives and the rescue actions carried out in these two events are analyzed and compared, as well how their actions were determined by the types of bindings of the recovered books. The question of determining the historical value of De la Torre's manuscript as the first document currently known that records the steps followed for the rescue and recovery of flooded books in Mexico is established.

KEY WORDS

xvi century binding; rescue and salvage; waterlogged books; archeology of books; shipwrecks

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 n his travel chronicles from 1544, friar Tomás de la Torre¹ tells how friar Bartolomé De las Casas, already consecrated the bishop of Chiapas, organized a journey with Dominican friars with the intention of evangelizing Ciudad Real, today San Cristóbal de Las Casas, Chiapas.² A first group, headed by De las Casas, left Salamanca and traveled on foot to Seville, where they were joined by other holy men from different parts of Spain (De la Torre, 2011, p. 55). From there they would leave for the Indies, next passing through Sanlúcar, La Gomera, Santo Domingo, Campeche and Tabasco before finally settling in Chiapas (Martínez, 1983, p. 237).

In their luggage³ they included everything necessary both for their seafaring voyage and for their activities post disembarkation, as well as a dozen boxes of books owned by friar Bartolomé (De la Torre, 2011, p. 34). Although the exact titles of the books that De las Casas took are unknown, it is assumed that, in addition to them being for his personal use, they were also intended to aid him in his task of evangelizing the indigenous people and because of his love for them —in addition to his appointment as bishop of Chiapas—, a work tool and an instrument of spiritual teaching for the missionaries.

It should be noted that the books that accompanied religious men, conquistadors and civilians crossing the Atlantic were not only utilitarian; although many printed books dealt with religious themes that helped them to maintain hope and strengthen their

p. 56; Rodríguez Lorenzo, 2017). Editorial translation from the Spanish version.

¹ Father Tomás de la Torre "was a lector of philosophy in his convent in Salamanca" (Martínez, 1983, p. 236). He took the Dominican habit in the convent of San Esteban, also in Salamanca, "and it can be presumed that he young at the time [...], a sensitive and learned man, especially in the Scriptures" (Martínez, 1983, p. 236). In Guatemala he was prior, vicar provincial and first provincial of the Province of St. Vincent from 1553 to 1566. He founded several convents in Guatemala and Mexico. He died in 1567. He was entrusted as chronicler of the trip by De las Casas himself, because of his appropriate faculties to carry out this task (Martínez, 1983, p. 236). ² The travel diary from Salamanca to Ciudad Real was written in 1544-1545 by friar Tomás de la Torre, with the title Historia de la venida de los religiosos de la provincia de Chiapa (History of the coming of the religious of the province of Chiapa. Editorial translation). Francisco de Vázquez described the manuscript in 1716. The work has been partially reproduced in different sources. According to Martínez, its first complete edition is from 1945, by Frans Blom, Diario de fray Tomás de la Torre, 1544-1545. Desde Salamanca, España, hasta Ciudad Real, Chiapas: diario de viaje, 1544-1545 (Diary of Friar Tomás de la Torre, 1544-1545. From Salamanca, Spain, to Ciudad Real, Chiapas: travel diary, 1544-1545. Editorial translation), printed by Editora Central in Mexico (Martínez, 1983, p. 238). However, the title on the title page of this edition is Desde Salamanca, España, hasta Ciudad Real, Chiapa. Diarios del viaje 1544-1545; it is clarified that the prologue and notes are by Blom, and the text, by friar Tomás de la Torre. The title used in this work is De Salamanca, España, a Ciudad Real, Chiapas [1544-1546] (From Salamanca, Spain, to Ciudad Real, Chiapas [1544-1546]. Editorial translation), published in 2011 in Madrid. ³ Luggage: refers to provisions, dishes, clothes and personal items necessary for the entire trip that each passenger carried with them as supplies. (Martínez, 1983,

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 faith during the difficult voyage, there was also literature of chivalry and adventure, whose reading made the journey more bearable. Many books traveled as merchandise and some manuscripts were even produced on board, such as travel logs and commercial and scientific records, without discarding personal diaries (Leonard, 2006). According to Sánchez (2003, p. 154), on these voyages, the religious men participated in collective readings and "were occupied with reading, studying, praying, preaching and teaching the other people on the ship, meaning that they were always in some way busy".⁴

TYPES OF BINDINGS THAT ACCOMPANIED TRAVELERS TO THE INDIES, XVI CENTURY

The differences in the use and destiny of the books and notebooks as well as the social, political and religious status of the owner were —and still are— evidenced in the characteristics of the bindings (Pickwoad, 1991). Luxurious bindings, with hard covers of wood or board, covered in leather with embossed or gilded decorations⁵ were owned by high-ranking people, such as bishop De las Casas, who could afford the cost of these fine finishes. As an example, we can cite the binding shown in Figure 1, kept in the Biblioteca Nacional de México (BNM).⁶ Bound in full leather over wooden boards, it belonged to friar Juan de Zumárraga (Figure 1c), the first bishop of Mexico. Luxury is evident in the use of wood for the boards (Figure 1a), the elaborate stitching on four supports and the woven endband (Figure 1b) as well as in the aesthetic elements: the decorations on the leather and on the metal clasps. It is, indisputably, an expensive binding.

In the personal libraries of figures such as Zumárraga or De las Casas, books with this type of binding coexisted alongside more ordinary looking ones, books for common use, on limp, laced-case bindings of parchments, whose costs were much more accessible and were therefore, more widespread across Spain (and the rest of Europe), on ships and in New Spain (Figure 2).

⁴ Editorial translation. All quotes and description of terms where the original text is in Spanish are also editorial translations.

⁵ Embossing: dry or hot embossing, made with hand tools, such as such as wheel-barrows, carts, pallets, etc. (Bermejo, 1998, p. 137). *Gilding:* decorative technique consisting of the use of gold leaf or gold film to enhance the design (Bermejo, 1998, p. 102).

⁶ National Library of Mexico: Centro Cultural Universitario, Ciudad Universitaria, Coyoacán, C. P. 04510. Mexico City, Mexico.

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FIGURE 1. John Major (1529). *a)* Full leather binding on wooded boards, embossed decoration. *b)* Hand-woven endband. *c)* Exlibris manuscript of friar Juan de Zumárraga (Photographs: Martha Romero, 2011, BNM, [RFO 226.07 MAJ.i. 1529, ej. 2]).

FIGURE 2. Bartolomé de Ledesma (1566). (Photograph: Martha Romero, 2011, BNM, [RSM 1566 M4LED ej. 3]).



JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 Sometimes books destined for trade were transported with a temporary paper binding⁷ or even bareback, without any covering, only as sewn bookblocks (Leonard, 2006; Pickwoad, 2011); in this way, booksellers saved the cost of the covers and reduced taxes caused by the weight and volume of their shipments. When they reached their final destination, the buyer could have them bound as they pleased, according to their taste and pocket capacity (Pickwoad, 2011).

THE VOYAGE AND SHIPWRECK OF THE BOOKS OF BISHOP BARTOLOMÉ DE LAS CASAS

When they set sail, the Dominicans could hardly have imagined that they were embarking on a voyage that, for many reasons, some circumstantial some due to bad decision making, was going to be long, painful and high-risk. After surviving and overcoming the "panic before the storms [...] the accumulated miseries of: heat, drowning, thirst, hunger, filth, dizziness, lice, pestilence; the badly battered ship that was tilted and in which the friars were used as ballast" (Martínez, 1983, p. 236), and as far as friar Tomás relates in his travel log, the friars and their lord bishop arrived in Campeche, from where they would next sail leave for Tabasco.

The crossing had to be made in large canoes yet this represented a problem, because the amount of adequate boats available was sparse, the group was a large one and, to further complicate things was all the crew's stuff and the huge amounts of books they were carrying.

In treacherous conditions for navigation, as the travelers sailed north, they were taken by surprise; their boats began taking on so much water that all the merchandise on board began absorbing it thus increasing their overall weight, which in turn destabilized the boats even further. Then, a great wave lashed against the ship with such force that the boxes with the friars sitting upon them fell into the water. Friar Thomas recalls that after this devasting wave, which drowned several friars and civilians, came another one of equal ferocity that ended up overturning the vessel. The waves continued to lash the ship; some of its passengers and crew members drowned, while those who managed a good grip on the boat barely just survived (Martínez, 1983, p. 274).

⁷ Cover paper: thick and heavy paper, used as a cover in economical or temporary bindings or as a support for covers in semi-flexible bindings (Martínez de Sousa, 2004, p. 722).

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 The storm eventually withdrew leaving a toll of thirty-two drowned men in its wake, nine of whom were from the religious party; the tide carried the boat to run ashore on the Isla de Términos. The survivors

found ten or twelve boxes that the storm had tossed over towards the lagoon, their contents buried in silt on the water's banks. So, in order to recover their lost belongings, they had to wade through the river, the water level in parts reaching up to their throats [...], and they had no other viable solution but to carry thick and long sticks, to prevent themselves from sinking when they attempted to dislodge the boxes from the banks (de la Torre, 2011, p. 104).8

After recovering their lost possessions, they eagerly checked the condition of their precious books but soon realized that they were covered with mud so fine that it had penetrated between the sheets of text. They were in such a bad condition that the Dominicans thought them unusable: "The books were in such a condition that we did not think we could use them, covered with slime, and mud so fine that it got between the leaves and then dried — it was worse than paste..." (de la Torre, 2011, p. 104).

In order to understand the actions taken by the Dominican contingent to take care of the bishop's books, it is necessary to know a little bit about the features of the bindings⁹ of the works that the friars had transported in the now flooded boxes.

XVI CENTURY BINDINGS AND THEIR CONSTRUCTION SYSTEMS

The difference between the hard cover bindings and those made from limp parchment (Figure 3) is, in addition to the appearance, the time invested in the binding process: the binding process is different in both types. In the case of the ones made with limp parchment —an apparently simple binding without decoration—, is that when it is closed, the main elements of attaching the case to the bookblock are visible (Figure 4a). Upon opening it, the rest of the binding elements are revealed. Sometimes, apart from the endband-core slips and the sewing-suport slips laced through

⁸ The editors of this edition were Pedro Tomé and Andrés Fábregas.

⁹ In this work, *binding* is understood as the "Set of techniques, processes and operations that consist of the union of sheets, leaflets or booklets with covers made from various materials, in order to achieve better conservation and manageability, and that can reach the consideration of being called art when they have been so beautifully decorated" (Carpallo, 2015, p. 12).

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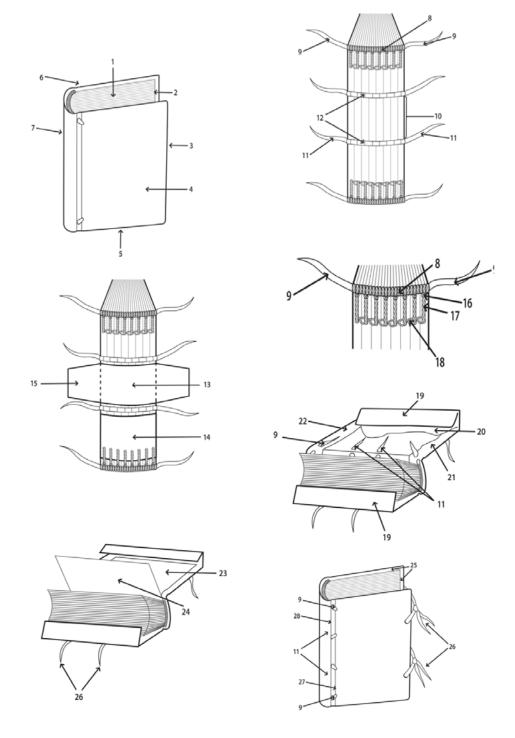


FIGURE 3. Elements of the limp, laced-case parchment binding: 1. Head edge, 2. Fore edge, 3. Front, 4. Front board, 5. Tail, 6. Head, 7. Spine, 8. Endband, 9. Endband-core slips, 10. Panel, 11. Sewing-support slips, 12. Sewing supports, 13. Spine lining, 14. Transverse spine-lining joints, 15. Panel linings, 16. Back bead, 17. Tiedown, 18. Kettlestitch (sewing), 19. Cover extensions, 20. Fore-edge turn-in, 21. Tail-edge turn-in, 22. Head-edge turn-in, 23. Pastdown, 24. Flyleave (endleaves), 25. Square, 26. Ties (fastenings), 27. Joint-crease, 28. Spine-crease (Diagram: Martha Romero, 2013, p. 442).

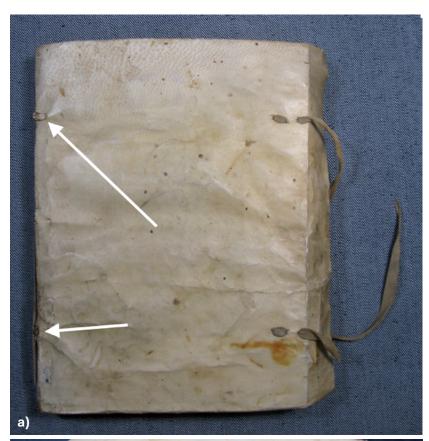
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FIGURE 4.

a) Sewing-support slips that attach the parchment cover to the bookblock.

b) Sewing-support slips at the inside of the cover. Martín de Azpilcueta (1575)
(Photographs: Martha Romero, 2011, BNM, [RFO 253 AZP.c. 1570]).

the covers (Figure 4b), there are the spine linings and the end-leaves. The attachment is entirely mechanical and it is simply reinforced by the adhesion of the other elements. These features allow the cover to be easily removed and replaced by an equal or more elaborate one. The adhesives used were made from animal origin, such as glue, or vegetable based materials, such as pastes, which could be softened with water.





In comparison, for bindings with hard covers, whether board or wood, it would be necessary to cut the boards out then: Make the lacing-holes for the lacing, make the actual binding itself, cover it, before attach the whole internal system (Figure 5). Finally, it was decorated. Hence, leather bindings were more expensive than limp parchment bindings, not only because of the cost of the material

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 but also because of the more elaborate work processes involved (Pickwoad, 1994).



FIGURE 5. Appearance and structure of a board binding, covered in leather. *a)* Decoration. *b)* Endband. *c)* Sewing support. Diego de Esteka (1579) (Photograph: Martha Romero, 2011, BNM, [RFO 242.2 EST.m. 1597]).

As for the books destined for trade, whether they were sewn or partially bound bookblocks, naked or bound, transportation in wooden barrels or crates was preferred, in order to protect them from humidity during the sea voyage and to ensure that they arrived to port in a complete and orderly condition (Leonard, 2006).

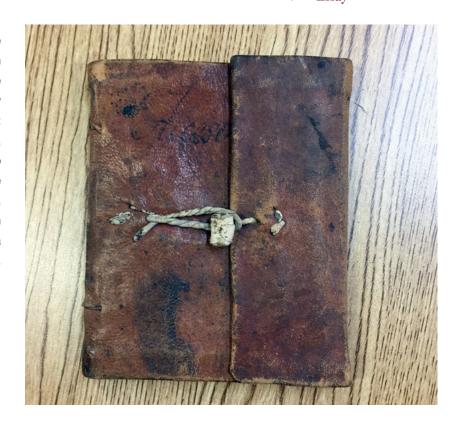
Other types of bindings found aboard the ships were note-books. They were usually limp, leather —or parchment— covered, and sometimes with ties and flaps (Figure 6). They had to be light bindings, which allowed a complete opening to write freely and comfortably, and the flexibility of their covers was very practical in adapting to the circumstances of use and transport.

INTUITIONS AND PRACTICES IN THE SALVAGE OF SHIPWRECKED BOOKS

The books found by the Dominican friars were taken in canoes to Xicalongo, six leagues¹⁰ from where they were found, to wash them

¹⁰ Six leagues equal 29 km; 1 league = 4.8 kilometers.

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 FIGURE 6. Archive
binding with
envelope-type
flap, xvIII century
(Photograph:
Martha Romero,
2018, Archivo
Histórico José
María Basagoiti,
Colegio de San
Ignacio de Loyola
Vizcaínas).



in fresh water. They invested six days of work to "save the books and wash them, remove the mud from them, unstick them [...] and thus, with everyone chipping in, most of the texts were rescued, especially those with parchment bindings that could be removed; yet they were left with a pestilential odor that couldn't be eliminated. Later we have seen that without any intervention, they begin to rot and waste away..." (Martínez, 1983, p. 227). It is here where the previous explanation of the structures of the bindings gains relevance, since, as mentioned, due to the characteristic mechanical joints, the limp parchment covers could be easily removed.

For logical reasons and hierarchies of use and value, when rescuing the books, the friars prioritized the recovery of the texts;¹¹ losing the binding was not a big concern. The decision to remove the limp parchment covers was made because doing so facilitated the process of washing the leaves. It should be mentioned that the leather and parchment used in the binding reacted quickly to any contact with water, so removing the covers prevented them from shrinking as they dried and consequently deforming the struc-

¹¹ In this text, *rescue* is understood as those first actions following a disaster to avoid major secondary damage or permanent damage to the collections (State Library of Queensland, 2021, p. 1; Dadson, 2012). And by *recovery*, conservation-restoration interventions for the physical, mechanical and chemical stabilization to put cultural property to good use, in this case, documents.

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 tures, subjecting the sewn bookblock to stresses for which they were not designed (Clarkson, 2003).

The value of the books transported were such that, after the rescue and recovery of these copies, a couple of brothers were sent to other parts of the coast in search of "the bodies of the deceased and the unaccounted texts" (Martínez, 1983, p. 227).

At that time, the salvage and recovery of goods and people during or after a shipwreck were determined by the cost and value given to each one, taking into account the purpose of the voyage or the individual traveler's mission (Pérez-Mallaína, 1996).¹² For friar Bartolomé De las Casas, the books and the Dominicans had priority: he would not let part of his patrimony or his brothers be lost.

The intuitive or, perhaps, empirical reaction that guided the salvage of the surviving books from the xvi century shipwreck in Bahía de Términos, together with the improvisation in the face of space and time restraints, are very similar to the rescue actions that took place in Florence, Italy, in 1966, after the November flood.

FLORENCE, 1966: BOOK RESCUE AND RECOVERY ACTIONS

The torrential rains caused the Arno River to overflow its banks, leaving the city buried under water and mud, and with it, a large part of its bibliographic and written heritage stored throughout its various cultural centers (Carniani & Paoletti, 1991), including the National Library of Florence.

When the water level dropped, the books were covered in sludge and even worse so — oil that had leaked from the damaged heating systems. The water softened the natural adhesives and several covers came loose from the bound bookblocks (Etherington, 2018). The leather and parchment covers shrank and warped. The stacked books had preferential openings where water had run through and mixed with the parchment to form singular congealed masses, while many others were already overrun with mold (Waters, 2018). According to Waters (2018), "xvi century books suffered less because the adhesive used on them was starch rather than glue. Books bound in limp parchment held up better than most."

¹² For example, during the voyage of conquest (1527), faced with the threat of sinking due to bad weather at Cabo de Santa Cruz, Cuba, Álvar Núñez Cabeza de Vaca, in his capacity as treasurer and alguacil mayor, instructed the pilots to save "the people and the horses" (Frossman, 2016, p. 5). In the case of the six ships wrecked in the Yucatán Peninsula (1614), the governor clearly ordered that, firstly, the "azogues and His Majesty's bulls should be saved; then the clothes, wine and other property; and in third place all the Spaniards and any other people" (Pérez-Mallaína, 2006, p. 37).

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 Etherington¹³ (2018), who participated in the recovery of the books narrates that, upon the arrival of the English contingent in Florence, led by Peter Waters,¹⁴ the restorative actions had already begun. Inexpert decisions had caused more harm than good: some wet or damp books had already been sent to the tobacco and grain drying ovens; while this did cause them to dry, they also suffered burns on the edges and the leather and papers from dehydration. Others were placed vertically to dry in front of heaters, causing the water and gelatin in the parchment to run off, which resulted in the latter to concentrate between the folds of the spine of the gatherings to stick together or weakened them. The leather bindings and covers that were originally attached to the spine were taken off in a desperate rather than careful manner, pulling the sewing threads which in turn, tore the gatherings at the spine-fold (Waters, 2018).

In general, the books that went through a drying process, were wrapped —even the most deformed ones— and then stored. On the instructions of the director in charge of the group of volunteers and students, the books had to be cleaned before drying; when the mud was dry, it was removed with a spatula or similar instrument and, if they still contained moisture, this was removed with damp sponges. It was essential however, to open the books before they reached the drying stations (Waters, 2018).

Gathered in Florence, bookbinding specialists from different nations who had expertise in book restoration came to the conclusion, after several discussions, that it was necessary to take a different form of action. Faced with the magnitude of the problem and the sheer number of books to be treated, Peter Waters devised a system for serial care, consisting of a line of work that, according to Sheila Waters (2018) and Christopher Clarkson (2003), included:

1. Cleaning and separate gatherings.¹⁵ Dry mud was to continue being removed by spatula or scalpel. The covers and gatherings were separated by cutting out the sewing and sewing

¹³ Don Etherington: Conservator "nationally and internationally recognized for his innovative design and implementation of conservation procedures, including phased preservation programs for libraries and institutions [...] He holds the position of Honorary Fellow in both the American Institute for Conservation and the International Conservation Institute" (Ecs Conservation, 2021).

¹⁴ Peter Waters: british bookbinder and conservator. He is considered the father of preventive conservation in libraries, for the development of "phased conservation" programs, elaborated as a consequence of the Florence flood in 1966. He was the first conservator hired for the area of restoration at the Library of Congress of the United States (Martin, 2003).

 $^{^{15}}$ In book preservation, the term *separate gatherings* refers to the process of detaching the bookblock from the cover and separating the sheets or gathering that formed the bookblock.

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 supports. The sheets were interspersed with moisture-resistant papers so that they could be washed. The colored images were fixed with 3% nylon in alcohol solution.

- 2. Washing and drying. The sheets were placed on boards that were floating in water with Topano. They were then drained and pressed to remove any excess water. During this step, bleaching, deacidification and re-sizing were carried out as and when was necessary. Drying was carried out by hanging the sheets on clotheslines made of polyester thread and exposed to hot air from heaters or placed on drying racks. Once they were dry, a librarian would then put the works back in order.
- 3. Reinforcement of tears and lacunae. Japanese paper and an adhesive were used to keep the fibers together and flexible at the joints (the exact type of adhesive is not mentioned).
- 4. Rebinding or wrapping. Small books were bound in limp parchment using the structure developed by Christopher Clarkson,¹⁶ based on early Italian bindings of that type. Those that required a more elaborate binding process, or that were to be rebound in their original covers, were wrapped in paper (their characteristics are not described) and stored in that manner pending their subsequent binding.

As can be seen in the Florentine case, as was the case with the books of De las Casas, the limp parchment covers were easier to remove. The bookblocks without cover were also washed in clean water, to remove the mud and to detach and separate the sheets, just as the religious travelers had done centuries before. In both tragedies, washing and removing the mud was a priority, as well as drying both the covers and the bookblock themselves, to avoid the development of microorganisms that could endanger the materials and potentially the people themselves (Carniani & Paoletti, 1991).

Although in both the cases of the Dominicans and in Florence, the decisions taken for the care of the books was very similar, yet the objectives behind the actions taken were different. The former sought to save the books that, in addition to being of great value because they belonged to the bishop and were practically impos-

¹⁶ Christopher Clarkson: noted conservator of historic books, bindings and manuscripts on paper and parchment. He was a recognized member of the Conservation Institute. He participated in the rescue of books flooded in the Florence flood of 1966 and developed an adhesive-free structure for binding on limp parchment for the conservation of books. It was he who coined the term *book conservation* and laid the theoretical, methodological and technical foundations for the training of new specialists in the field (Clarkson, 2017).

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 sible to return, were also fundamental for their mission in Chiapas. In the second case however, the restorative actions were aimed at rescuing Italy's, and to some degree —the world's— bibliographic heritage, knowledge that in many cases was impossible to replace. In the case of the events that occurred in the xvi century, books were rescued for their use; whereas with the example explained from the xx century, it was done due to their significance and heritage value.

Another major difference in the intentions behind the salvation efforts made in each case, was that in Florence, the historical, technical and material evidence of the books was seriously considered in the decision-making process. Written and photographic records were made, and binding elements that were removed, either for restoration or because water had dislodged them from their original books, were placed in envelopes that were stored with the particular book they had originally belonged to (Etherington, 2018).

Despite the recurring idea that books are fragile due to their material nature, in both incidents, which occurred 400 years apart, several of the flooded books withstood the aggressive transit through dirty or salty waters, followed by wet and then dried hardened mud, and finally, the rescue procedures in baths of clean water or, as mentioned by friar Tomás de la Torre, sweet water (2011), and subsequent drying.

CENTRALITY OF MATERIAL RESISTANCE AND TECHNIQUES IN BOOK RESCUE AND RECOVERY

The resistance of the materials and techniques used in bookbinding and, therefore, in the production of books, has been a determining factor in the processes of rescue and recovery of these informative goods. In addition to the previous cases, another proof for the resistance of the constituent materials of books, at least of those manufactured with papers made from rags, leather and parchment produced before the Industrial Revolution, is the leather coverings of bindings that must have been luxurious, that carried King Charles I of England's coat of gold tooled (1600-1649), recovered from the wreck of a Dutch ship, near the Isle of Tessel.¹⁷ The tooling on the binding, along with the richness of the other salvaged pieces, might indicate that at least part of the cargo was owned by the Stuarts, the royal family of England at the time

¹⁷ The largest of the Frisian islands of what is now the Netherlands.

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 (Forssmann, 2016). The piece is displayed in the virtual exhibition of the Kaap Skil Museum (Netherlands), where it is explained that, in addition to that particular leather cover, others were found, also made of leather —some with metal clasps—, all of which were still in a good condition (Forssmann, 2016). Unfortunately, no further information on the rescue and recovery process is given.

A further case for the surprising material strength of the book's components, is a piece of printed paper from a copy recovered from the XVIII century wreck of the Queen Anne's Revenge, a ship owned by Blackbeard. The note in the English newspaper *The Guardian* states that "16 fragments, covered by a layer of wet mud, were found inside a cannon chamber" (Flood, 2018). The text belonged to Captain Edward Cooke's *A voyage to the South Sea and round the world*, printed in 1712.¹⁹ Regardless of whether the work was used to keep the gunpowder in place inside the cannon, those fragments provide evidence that books were aboard the pirate ship and withstood both the passage of time underwater and the subsequent recovery processes. In this case, there is also no information on the salvage processes used in the recovery.

CONCLUSIONS

Since ancient times books have served as the faithful companions of travelers. Their company has made long journeys more bearable, especially in the past, when a trip could last for months. The journeys of objects have also been due to the various uses and functions they have been given throughout history. In the cases of the exposed shipwrecks, the bishop De las Casas took them, together with the Dominican friars, as a work tool and perhaps for the evangelization of the natives of Chiapas, while in the two remaining

¹⁸ The Cape Skil Museum (in English), is located on Tessel Island: https://www.kaapskil.nl/. The mentioned leather cover can be viewed at the following link: https://historia.nationalgeographic.com.es/a/recuperan-fondo-marino-vestido-intacto-siglo-xvii_10332

¹⁹ Cooke, E. (1712). A voyage to the South Sea, and round the world, perform'd in the years 1708, 1709, 1710, and 1711: "Containing a journal of all memorable transactions during the said Voyage; the Winds, Currents, and Variation of the Compass; the taking of the Towns of Puna and Guayaquil, and several Prizes, one of which a rich Aeapulco Ship. A Description of the American Coasts, from Tierra del Fuego in the South, to California in the North (from the Coasting-Pilot, a Spanish Manuscript.) An Historical Account of all those Countries from the best Authors. With a new map and description of the mighty River of the Amazons. Wherein an account is given of Mr. Alexander Selkirk, his Manner of living and taming some wild Beasts during the four Years and four Months he liv'd upon the uninhabited Island of Juan Fernandes. Illustrated with cuts and maps". Londres: printed by H.M. for B. Linot and R. Gosling in Fleet-Street, A. Bettesworth on London-Bridge, and W. Innys in St. Paul's Church-Yard.

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 cases, the books were part of the goods found in sunken ships, property of defined owners, for specific personal use.

The diverse circumstances in which the books and the remains discussed in this article were found, as well as the violent shipwreck conditions to which they were subjected, and from which they were mostly all recovered, demonstrate that their constituent materials and structures were resistant and durable. In spite of the fact that the historical moments in which the events and the cited findings took place cover European books from the xvi to the xx centuries, the characteristics of quality and resistance of the materials and the constructive techniques of the books, are similar. Both situations allow a valid comparison for the behavior of the materials under flooding, rescue and recovery conditions.

The Florence flood of 1966 and the procedures carried out for the rescue and recovery of the affected documentary heritage, whose course was set through the exchange of ideas and expertise from a large number of multi-national restorers who worked on the rescue, marked the emergence of the specialty of book conservation within the discipline of conservation-restoration. From that tragic moment on, the training of conservator-restorers specialized in books, with knowledge of both materials and binding structures, began. Like with any other specialty, this one is in constant research and generation of knowledge for the best treatment and conservation of bibliographic works and, of course, of their bindings.

Notwithstanding the theoretical and practical advances in the area, the first reaction rescue practice for some cases of waterlogged books —even more so if they involved salt water or mud— is still, where possible, washing them with clean fresh water. Surely there were advances in book care from the xvi to the xx century, as evidenced by Douglas Cockerell's book printed in 1901, *Bookbinding. The Classic Arts and Crafts Manual*, in which he includes a section on the care of bound books and another on the preservation of antique bindings; yet, it was not until 1966, because of the Florentine experience, that the theoretical and ethical principles of book conservation were established. This event also opened up several avenues of research and development for book conservation and for the training of professional conservators of bibliographic material.

Florence laid the foundations for the archaeology of books, which has also led to new approaches for the study and interpretation of the binding as an integral element of the book it protects. In this sense, the task of locating the waterlogged and rescued books

JULIO-DICIEMBRE 2021 JULY-DECEMBER 2021 of De las Casas for their study and analysis, is still pending, from which we will obtain new information on the history of bookbinding and book conservation in Mexico.

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