

Harald EHRL<sup>1</sup> and Patricia ENGEL<sup>2</sup>

*1 Custodian of the Abbey Collections*

*2 University for Continuing Education, Krems, Austria*

## **A system in which the old covers shall be documented and preserved: A contribution to the history of book restoration in Austria - Eleonore Klee**

### **Abstract**

The paper deals with a new finding of a large number of old, disposed book covers found in the monastery of St. Florian in Austria and gives an example of how such finding may be documented best. It is used as an occasion to look at the history of book conservation in Austria, in particular the work of Prof. Eleonore Klee. To give a more comprehensive picture, some notes found in Kremsmünster Abbey concerning Mrs. Klee and her conservation work are described as well. Based on this research, the paper suggests conservation concepts for both the old covers identified at the monastery and the estate of Prof. E. Klee.

**Keywords:** History of book conservation, documentation, book covers, Eleonore Klee, St. Florian, Kremsmünster

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## 1. Introduction

In the course of preparing a comprehensive survey and research on the history of book conservation in Austria and a possible contextualization of findings with the state of the art of the time, we found important and rich information in St. Florian Abbey in Upper Austria. Previous publications<sup>1</sup> reported on what had been evident in 2016, however over the years, additionally to the restored books, a rich collection of documents was brought to light, illustrating not only Eleonore Klee's personal career but also the history of book restoration in Austria.

These documents include:

1. a written documentation of the restoration work carried out by Prof. Klee for St. Florian Abbey from 6<sup>th</sup> Sept. 1944 to 19<sup>th</sup> Aug. 1991, arranged chronologically and divided according to work packages she carried out and the numbers of the manuscripts, incunabula and printed books
2. a card catalogue with photographs illustrating the written reports and also divided into these “deliveries” and numbers. The photos date from 1949 onwards (27<sup>th</sup> delivery)
3. the manuscripts restored by her
4. a collection of text fragments extracted from the manuscripts
5. a list of manuscript numbers of other monasteries, in particular Kremsmünster, Reichersberg, Admont and other institutions, which refer to restoration work executed by Mrs. Klee
6. a list of the costs of her working hours and material used
7. 165 covers removed from St. Florian manuscripts,<sup>2</sup> which were replaced by new covers and can be clearly related to the respective manuscripts even today, as well as further elements of book covers, bindings, fittings, end-bands, etc., removed from printed works and archive manuscripts.
8. some boxes designated as “bequests” (documents, correspondence, fittings, fragments of covers, capitals)
9. other artefacts restored by her, e.g., a collection of engravings, which is in the Graphics Cabinet.
10. a collection of her drafts for articles to be published, some of them in several versions (1948, 1968, 1981), showing the development of the restoration profession including the special terminology as well as her own state of knowledge<sup>3</sup>
11. a list of her publications

<sup>2</sup> The numbers of these manuscripts are: 4, 13, 19, 20, 20A, 22, 23, 28, 29, 30, 34, 35, 37, 39, 40, 41, 42, 45, 51, 56, 59, 61, 62, 67, 69, 70, 71, 72, 73, 81, 83A, 84, 85, 87, 89, 92, 92B, 93, 94, 98, 101, 102, 106, 110, 111, 113, 114, 120, 125, 131, 132, 137, 144, 146, 150, 160, 161, 164, 171, 173, 187, 223, 225, 233, 238, 240, 244, 253, 254, 259, 260, 263, 268, 269, 271, 274, 275, 276, 279, 280, 282, 283, 287, 288, 289, 301, 302, 304, 308, 314, 323, 326, 330, 336, 337, 340, 341, 354, 355, 356, 257, 358, 362, 364, 366, 368, 369, 370, 386, 397, 399, 400, 411, 422, 423, 528, 429, 431, 433, 437, 443, 463, 465, 467, 472, 478, 480, 489, 490, 492, 517, 546, 584, 586, 588, 595, 609, 610, 615, 617, 619, 626, 628, 636, 671, 692, 720. Previous to each number is a XI.

<sup>3</sup> One example of that evolution is that E. Klee uses the term “Zelluloid” in the first version of one of her texts in 1948 which is a particular transparent foil made of nitrocellulose, but was used as a colloquial expression for any transparent foil back then while she later crossed out this word and wrote “Folie” which means any transparent film in the later version of the text. Another example is the use of “Pergamynpapier”, a colloquial term for paper with short fibres and beige tone, medium pressed to achieve smooth surface, which was substituted with “Japanese paper”, which is paper with distinct range of fibres, usually no fillers and no sizing and very commonly used in the 1980s for backing and infills in lacunae. In the second case it is not only a correction in the wording but also the change of words that expresses a change in conservation technique and material used.

<sup>1</sup> Engel, (2018), pp. 227-244



12. a collection of secondary literature on Eleonore Klee and her work
13. a collection of slides which she made for her lectures, according to Dr. Buchmayer, the librarian of the Abbey.
14. equipment and some of her tools
15. letters by her and to her.

This rich material collection

- ❖ allows for a comprehensive survey and deep understanding of a particular aspect of the field of book conservation in Austria
- ❖ creates new demand for conservation action today. (In what sense will be described below)

Before we start with a closer survey of the collection of material, a short biographical note shall provide some background to understand her work strategy and make the reader acquainted with the framework in which she could act in terms of historical events, administrative structure and possible choices.

## 2. Eleonore Klee - Life and Historical Context

Prof. Eleonore Klee (1901-1994) worked as a conservator for the Monastery of St. Florian from 1944 to 1992.

Born in 1901 in Leipzig, Germany, she received education in art after primary school and was especially enthusiastic about bookbinding, studying art and literature for some semesters. Then she worked for a large bookbinding shop and finally became a self-employed professional herself, offering “works of art and craftsmanship and restorations”, as she writes in her book “Mein Lebenslauf”. In

her early days as a self-taught restorer, she particularly focused on restoring incunabula.

In 1935, after her father’s death, she took over running his printing shop. In 1938 Mrs. Klee passed the examination for the master craftsman's diploma. *Reichsgericht*, the Imperial Supreme Court, an organisation for which she had already worked when she offered handicraft work, remained her main client. In 1942 her company was shut down by the state government. The machines were taken away; other metal tools and implements were used as scrap metal. “I continued to work until the big bombing raid on 3/4 Dec. 1943” writes Mrs. Klee. With tools and materials quickly brought together she worked from then on directly at the *Reichsgericht*, as her own workshop was destroyed by bombing.

Her flat survived, however, and there was a lady living there with her as subtenant who was ordered to St Florian with the “Bruckner Choir”. During a guided tour in the monastery, this lady asked the then provisional director, Prof. Dr. Joh. Hollnsteiner, whether he needed a restorer.

“The Historical Research Institute under the direction of the Federal Office for the Protection of Monuments (Dr. v. Juraschek) had been allocated rooms in the monastery for the manuscript collections of Oberdonau which had been collected in the monastery. These holdings needed to be looked after and restored”(“Das Historische Forschungsinstitut unter der Leitung des Bundesdenkmalamtes (Dr. v. Juraschek) hatte für die im Stift zusammengezogenen Handschriftenbestände von Oberdonau Räume im Stift zugewiesen bekommen. Diese Bestände galt es für mich zu betreuen und zu

restaurieren.”), Prof. Klee writes. She brought tools and material she needed for her work from Leipzig to St. Florian and began to work at St. Florian on 15<sup>th</sup> August 1944 on the basis of a contract with the Federal Office for the Protection of Monuments. Although the institute was closed in autumn 1944, Klee was able to continue working, with the work being “handled” („abgewickelt“) by the Archives of the country (Landesarchiv) in Linz.

At the end of the World War II the manuscripts were returned to their owners, but Mrs. Klee remained in St. Florian and restored for St. Florian Abbey, but also for other abbeys and museums, namely the abbeys of Kremsmünster, Reichersberg, Admont, the State Museum and Archive in Linz and Salzburg University Library.

Eleonore Klee was an autodidact in conservation. Additionally, she took part in discussions with colleagues from Vienna and other countries, for example in teams of experts organizing first response in Florence when the Arno River flooded the Old Town in 1966. This situation, however tragic in terms of the loss, greatly accelerated the development of restoration and especially book restoration.<sup>4</sup>

Mrs. Klee got retired in 1971, but continued her restoration work for Admont until 1979 and for St. Florian Monastery until 1991. An unfinished work on manuscript number 197 is preserved in the manuscript collection. For her life's work, which amounted to restoring of more than 3056 books, for most of the manuscripts, she was awarded the professorial title.

<sup>4</sup> Personal communication of Prof. Otto Wächter with an author.

Even though Alois Riegl had developed his value system and applied systematic approach towards legal protection of cultural heritage (“Wesen und Entstehung des modernen Denkmalkultes”) as early as 1903 and even though the “K.K. Zentralkommission für die Erforschung und Erhaltung der Kunst- und historischen Denkmale”<sup>44</sup> (Austrian commission for the research and preservation of cultural heritage) included the care for archival material in the list of categories of materials to be preserved under legal protection since 1873, we must underline that Eleonore Klee, having received training in bookbinding, not only had no theoretical background in conservation but was unaware of these developments in legal thought that applied to Austria. Moreover, she started her work at St. Florian before the War had ended, when an entirely different value system was still prevalent.

Cesare Brandi's *teoria del restauro* was published only 20 years later, in 1963. It was written in some sophisticated Italian language and its application to book conservation also took some time. It is all the more astonishing, therefore, how advanced E. Klee was in her understanding of the nature of conservation work. She even recorded her conservation steps, anticipating the practice that later had become a *de facto* standard in the conservation profession.

In Vienna both scholars working at Bundesdenkmalamt (the Federal Office for the Protection of Monuments) and professors at the Academy of Fine Arts, where conservators were educated, did important work towards a new understanding of conservation as a profession in its own right. It included discussion of latest publications, elaborating

on the ideas of Athens and Venice Charters (Austria being represented by Gertrud Tripp), foundation of a number of associations for the research in conservation and dissemination of its research, such as IIC Austrian Section initiated by Manfred Koller.

Prof. Klee's close co-operation with Prof. Otto Wächter and Italian conservators starting from 1966 (Florence flood) coincided with a very important period in the development of book conservation. In England, Christopher Clarkson pioneered new approach to book conservation suggesting to only repairing what really needed repair. We can see from the correspondence between Mrs. Klee and Mr. Clarkson that they tried to understand newly detected stitching structure used in old bindings that Mrs. Klee had also found in some manuscripts in Kremsmünster. Prof. Klee was clearly very keen on seeking new knowledge and exchanging views with other conservators.

We found in her personal collection numerous letters to and from her colleagues and articles published in book binders' periodicals dealing with conservation issues<sup>5</sup> showing that she had been a pioneering figure right from the beginning of her professional life as a conservator (1940s – 1960s).

In the 1970s E. Klee worked according to the state of the art, which can be verified by her publications as well as by the author personally, who worked as a professional conservator in Vienna during this period

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<sup>5</sup> For example "Allgemeiner Anzeiger für Buchbindereien (AAFB)", Max Hettler Verlag, Stuttgart, from 1969 on Schlüterschen Verlagsanstalt und Druckerei, Hannover in which she also published herself. However, to understand the influence of these articles on E. Klee as a conservator can only be fully understood by reading the papers.



herself. The topics of Prof. Klee's articles, her guidance on how to equip a conservation workshop and make conservation work,<sup>6</sup> the change of terms in consecutive editions of her texts, the enlargement of her written documentation are clear signs showing that she took up ideas coming most probably from Vienna and was influenced by Prof. Wächter.

However – and for reasons not clear to us – in her late conservation work her "bookbinder's neatness" and tendency to make books look pretty seem to suddenly overrule all her previous balanced and "conservation first" approaches. We still don't have enough clues to understand where this change of mind came from. Only after each and every manuscript preserved by her is documented with conservation history perspective in mind can some answer be given.

To understand the change in the approach to conservation better, a careful documentation of the information available is mandatory. A method on how this can be done was developed and shall be described below.

### **3. Recent progress in conservation of Klee's professional inheritance**

Numerous letters, manuscripts and notes left by Prof. Klee are on wood pulp paper and already quite brittle; so is the so-called "secondary" literature, newspaper articles and texts cut from magazines.

The collection of covers, clasps etc. taken off the manuscripts and other books was

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<sup>6</sup> These instructions must still be evaluated in conjunction with the manuscript restoration jobs performed by E. Klee.

discovered in all sorts of boxes in random order.<sup>7</sup>

Eleonore Klee's documentation of her conservation work cannot be used systematically, because it was organized according to her workflow, which is no "logical" system per se.

Her workshop tools were found to be stored in different places in the monastery.

To get an overview, the material was brought together and described in German language.

- ❖ Proper storage for all elements of this diverse collection was developed and implemented step by step
- ❖ A concept of how to make the catalogue and correspondence accessible and usable was developed
- ❖ A concept on how to make the old covers usable was developed
- ❖ Further research on relevant information stored in other monasteries was started (Kremsmünster collection), however due to Covid 19 pandemic situation this activity had to be stopped in November 2020.<sup>8</sup>

In this contribution we focus on the description of the system in which the old covers shall be documented and preserved, and we give a short insight into the findings in Kremsmünster.

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<sup>7</sup> T. Mittermayr has already put some effort into sorting the covers (personal communication with Dr. Buchmayr), however the adhesive tapes he applied shall be taken off the old leather and parchment as soon as possible.

<sup>8</sup> Father Willibrod was librarian in Kremsmünster having a lively contact and communication with Prof. Klee of which we have a written record. More about it in chapter 4.

### *3.1 The old book covers taken down from manuscripts*

This work was not only a concept on how to make the covers and with them old book binding tradition and local habits accessible but also a concept of the documentation of a valuable puzzle stone of Austrian conservation history.

Therefore, a description of the covers of the manuscripts had to include *possible* information on the covers.

After a survey of each individual cover, the manuscripts and the related numbers were identified. Then all covers were photographed with the number, a measure and a colour card on the pictures. One picture showed the cover inside and one outside. If it seemed important, details were also depicted. The pictures were stored with file names holding the manuscript's number and showing the inside and, correspondingly, the outside appearance of the cover under the file name. This serves not only as a first conservation measure, but also helps document the state of the covers in 2020.

The next step is the description of the cover. This shall be done in the Ligatus database<sup>9</sup>.

The covers shall not be cleaned because recent research shows that the surface dust can also be an important source of information. They are put in envelopes in neutral paper without calcium fillers and, finally, into boxes. The boxes shall carry the manuscript number outside to avoid opening and handling them when some particular item is looked for.

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<sup>9</sup> Ligatus.org.uk

The descriptions shall be used to build a catalogue. The catalogue will indicate every manuscript's number, the description of its cover, a reference to the page number of the documentation texts by E. Klee (for which the pages were numbered) as well as the photos E. Klee made before and after treatment. A reference to the manuscript catalogue will be mandatory too.

Three examples – a full leather binding with wooden boards for a paper manuscript, the same sort of cover for a parchment manuscript and a full parchment binding with card board boards for a paper manuscript – were used to illustrate what a catalogue of these covers could look like. In two cases the sewing is kept. The covers are presented to make scholars acquainted with the rich collection they could possibly use in St. Florian.

### *3.2 Individual example one – a paper manuscript bound in tawed skin/leather*

XI 628

#### ❖ Catalogue text of the manuscript

“XI.628. Papierhandschrift des XV. Jahrh. 335 Blätter in 2°. 2 Spalten. Alter Eigentümer Stift St. Florian. Quaestiones super omnes libros Ethicorum Aristotelis. Anfang: Bonitatis et nobilitatis excellenciam etc. Schluss: Scilicet sensus vel appetitus sensitivi.”<sup>10</sup> Czerny, Albin, *Die Handschriften der Stiftsbibliothek St. Florian*, Linz 1871, Seite 214

<sup>10</sup> “XI.628. Papermanuscript of the 15<sup>th</sup> cent. 335 fol. In 2° format. 2 columns. Old owner St. Florian Abbey. Quaestiones super omnes libros Ethicorum Aristotelis. Beginning: Bonitatis et nobilitatis excellenciam etc. Schluss: Scilicet sensus vel appetitus sensitivi.” (translated to English by the authors)

Alternatively, a photo of the catalogue text could be used in this position.

- ❖ Description of the cover which was taken off the manuscript, incl. photo

The board from the manuscript XI 628, with the leather still on it, is preserved.

The dimensions are: 308 mm height, 233 mm width; portrait format. The boards are 7.5 mm thick in the thickest part. They become slightly thinner towards the fore edge and measure 7 mm there. From 8 mm towards the spine they are rounded (bevelled). All other board edges are in rectangular shape to the board surface. The wood is beech and the direction is in parallel to the back spine. Traces of tools used to cleave the wood out of the trunk can be seen in particular on the rear board (not front board).

The boards are covered with red-dyed alum tawed sheep skin which is approximately 1 mm thick. All turn-ins are irregular in shape, cutted with a knife and without the leather thinning at the margins. On the turn-in towards the front edge on the board which was at the back of the book we find scratches, which continue onto the wood. The turn-ins dimensions are between 27 mm and 47 mm.

The mirrors were most probably reused parchment. This can be assumed judging from the imprints of ink text on the upper edge turn-ins of the board which was at the back of the book as well as the shapes of frass holes and insect frass (powdery dust leftovers) which would look different in case paper was pasted there.

In the case of both boards the turn-ins of the front edge were made before the leather was turned in from head and tail. Overlapping is not wide, and thus shows an angle of close to 45 degrees.

The codex had 10 bosses, 2 clasps, a chain and a tag for a text.

Three bosses are still on. They are made of copper-containing metal, 16mm in diameter and 9 mm in height. Their centre point is positioned 21 – 28 mm from the upper and lower board edge and ca. 23 mm from the front edge of the board. The two centre bosses are in the crossing point of notional diagonals on the cover.

The chain was fixed on the back board upper edge, 110 mm from the front edge and 30 mm from the upper edge.

The two clasps close from back to front. The 27 mm-wide thick red-dyed leather straps rested in a place where the wood was taken away on the back board as to accommodate the leather. They are nailed down with four copper-containing metal nails or perhaps they are only metal sticks, because the head ends are less than 1 mm in diameter.

The rests on the front cover were positioned accordingly. The clasp closer to the tail was lost earlier: this can be concluded from the colour of the leather, which is the same as the rest of the leather cover, while the colour under the upper clasp and under the bosses is fresh red. That the leather is fresher on the back cover than on the front is a result of the storage as a chained book. This, again, accounts for the tag with the title on the front cover, from where it was taken off in the

course of restoration. This tag was not exactly in the centre between the bosses, which made it an optical centre when the codex was looked on together with its spine.

The distance from the head edge of the board was 12 mm; its height was 30 mm and its width 106 mm.

Bookblock and mirrors must have been 6 mm smaller than the boards, at least the discoloured leather turn-ins suggest this.

The stations are located at 63 mm, 125 mm, 183 mm and 243 mm from the top of the book (centre of station taken as reference point). There are 65 mm from the centre of the lowest double station to the tail edge of the board. The two end-band stations enter the boards at 5 mm at a shallow angle. The station material was alum tawed leather of which the end-bands' cores were made of twisted leather of the same sort.

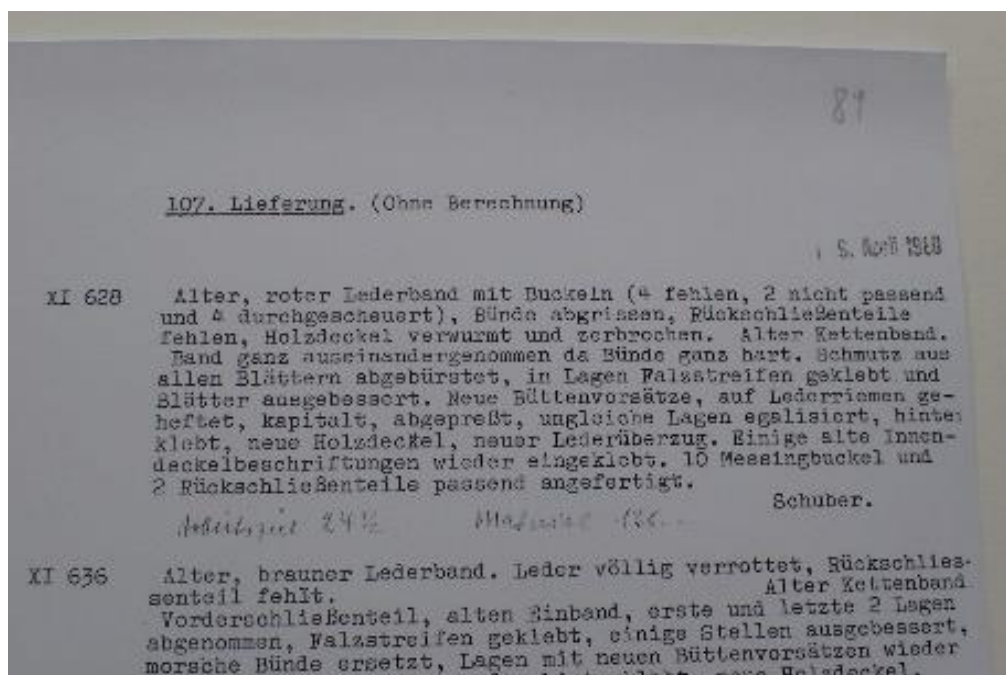
All other stations enter the boards in the area where the wood is bevelled and are fixed with two wooden pegs, at 10 mm each, and are again fixed with a single wooden nail, at 30 mm each.

Backing of the spine of the bookblock was made of parchment, which was fixed between boards and leather, i.e. on the outside of the boards, and cut free to accommodate the stations.

The double stations were trimmed down with s-twisted cords, which can be concluded from the imprints on the leather.



❖ All written and photographic testimony/evidence/documents(?) relevant



**Fig. 1:** Written documentation by Prof. Klee

Translation by the authors (Fig. 1):

*April 1980*

*XI 628 Old, red leather volume with bosses (4 are missing, 2 do not fit/suit well, 4 scratched through). Stations torn off, elements of back clasps missing, boards eaten by worms and broken. Old chain book.*

*Volume completely dismantled and deconstructed because stations were very hard. Dirt brushed out of all leaves, strips fixed to quires, sheets repaired. New hand-made paper flyleaves sewn on leather strips, new headbands, pressed, uneven quires were evened out, spine lining, new wooden boards, new leather cover. Some old instructions from the cover inside reapplied. 10 brass bosses and 2 clasp elements made properly. Book shoe. Working time 241/2 (most probably hours) Material 136,- (most probably Schillings)<sup>11</sup>.*

<sup>11</sup>In contrast to her early work, this documentation was too lapidary and the work executed according to the state of the art. It was not a pioneering work anymore, compared to what we saw at the beginning of Prof. Klee's professional life.

On the left picture the leather of the back spine is still there, we might still find it in the Monastery (Figs. 2 and 3).

E. Klee wrote on the verso: 1980, 10. Lieferung (10<sup>th</sup> load (this refers to her numbering of

workloads)), then the numbers of the two manuscripts she depicted on this photo and on the bottom in so called Gabelsberg script, a short hand writing<sup>1</sup> “vor Rest” and “nach Rest” (obviously meaning “before conservation” and “after conservation”) (Fig. 4).



**Fig. 2-4:** Photos of the photos which was the „photographic documentation of Prof. Klee’s conservation work.

During a photo documentation session some 100 photos were made in September 2020.

The following view of these photos shows the style and intention behind these photos (Fig. 5-8).



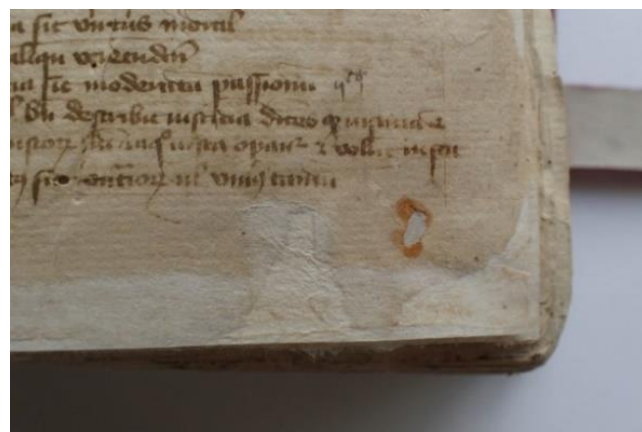
**Fig. 5:** XI 628 old covers outside.



**Fig. 6:** XI 628 Cover front, old cover taken off left and Prof. Klee’s conservation, i.e. today’s state,



**Fig. 7:** XI 628 red alum tawed sheep skin, irregular turn-in cut, edge of dyeing, scratches and cuts on leather and wood, wood beach, direction parallel to spine.

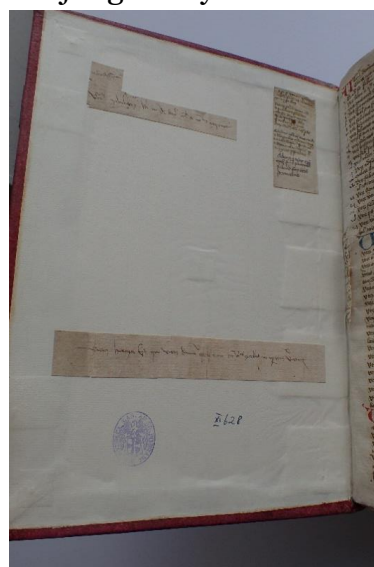


**Fig. 8:** XI 628 - Repair of lacunae in the paper and consolidation of the page edges by application of other paper.

Although Mrs. Klee's main focus was on the binding structure and covers, which is in complete accordance to her education as a book binder, she sometimes also repaired the paper of the book block. However, she never mentions work like treatment of ink or copper corrosion or other genuine conservators' work. This is also the reason why the book block, the paper and parchment etc. are not described and commented in the context of this contribution. Paragraphs like this may also be a part of database entry.

The last photo (Fig. 9) does not only show the text fragments which Mrs. Klee strived to connect directly with the codex, which is a good idea from the scientific perspective and not such a good idea from aesthetic perspective, but also shows her book binders' precision. The raking light shows the edges of the backing of the spine and some additional material in the places where the bosses are.

Whether or not such backings had been of the same shape and accuracy in the first binding cannot be judged any more.



**Fig. 9:** XI 628 - Textfragments pasted into the inside of the front cover.

### 3.3 Individual example two – a paper manuscript bound in parchment

XI 692

❖ Catalogue text of the manuscript

XI. 692. Papierhandschrift des XVII. Jahrh. 3 Bände in 2° zu 250, 409 und 356 Blättern. Früherer Eigenthümer Joh. Carl Seyringer.

Allerhand Abschiedt und Paejudicia. Dieselben beziehen sich auf oberösterreichische Retshändel. Der erste Band fehlt. Die Sammlung ist 1670 gemacht worden und scheint nach Inscription im 4. Bde Bl. 1 einem Georg Const. Gschandtner gehört zu haben.<sup>12</sup>

❖ Description of the cover which was taken off the manuscript, incl. photo

This full parchment bound book with boards made of cardboard (Figs. 10 and 11) is 314 mm high, 210 mm wide and the back is 62 mm wide; portrait format. The parchment is from sheep or goat skin and not coloured, but has a primer. The board is made of layers, not couched, and is about 2 mm thick. On the front edge a lip (an overarching part of the board and parchment which is bent 90 degrees towards the book block's front edge).

We have the typical green ribbons to tighten the book. They were 11 mm from the front edge of the board and 8 mm from the head and the tail edge of the board (measured to the

centre of the ribbon). The slit that takes in the ribbons is 10 mm long.

On the back we find an inscription written with iron gall ink. On the front cover, a crossed out “91” and a “27” next to it, both quite faint, can be seen.

All turn-ins are cut straight. First the ones from head and tail were made, then the ones from the front edges. On the four corners the parchment only slightly overlaps at about 45 degrees. The width of the turn-ins ranges between 24 mm and 15mm. Two layers of paper were used as a mirror, one of them imprinted. The distance from the edge of the mirror to the edge of the cover is 2 to 5 mm. The fold is 2.5 mm wide.

The cover was not only chosen for this article, because it serves as a good example for a parchment binding as well as a binding with cardboard and not wood, but also to illustrate how to describe a sewing. In this case the sewing is attached to the cover.

Although cut open, the 4 double stations made of hemp cords which were frayed at each end can be seen clearly. Measured from the upper edge they are positioned at 63 mm, 126 mm, 192 mm and 256 mm. The lowest station is 60 mm from the tail edge. The thread was not stitched between the two cords but around both of them at once, i.e., if the bookbinder worked from head to tail: he first went down, then around the station material and then back into the hole of the particular station. Both the material of the station and the thread are s-twisted and both are of the natural colour, i.e., not dyed. The headband, however, seems to have been of two colours, but the colours largely faded. The headbands are

<sup>12</sup> XI. 692. Paper manuscript of the 17<sup>th</sup> cent. 3 Volumes in 2° with 250, 409 and 356 fols.. previous owner Joh. Carl Seyringer. All sorts of farewells and prejudicia. They refer to Upper Austrian court cases. First volume missing. It seems that the collection was brought together in 1670 and, according to an inscription in the 4<sup>th</sup> vol. fol 1, was owned by Georg Const. Gschandtner.



stitched around parchment strips. This strip is 31 mm wide for the head end-band and 28 mm is the strip of the end-band at tail. The parchment strips were glued (not pasted) down to the book block. There were three more parchment strips as backing of the bookblock of which the uppermost was 21 mm wide, the one in the centre 17 mm and the one closest to the tail, 25 mm. All these parchment strips are reused book pages with old text on them. On them we do not only find imprints of the quires but also of the fizzstations. The lower of the fizzstations was 12 mm from the tail end and the upper fizzstation, 18 mm from the head end. The imprints of the backings under the mirror show that they were fixed at irregular distances; with 30 mm they measure the widest distance at the end-bends.

On the front mirror there was an exlibris or some other piece of paper pasted. To detach it, it had been made wet, which caused a characteristic margin stain. A small piece which was not detached completely indicates the sort of paper used there.

Mrs. Klee turned this full parchment binding into a half leather binding (Figs. 12-15). At the moment, we do not fully understand her reason for doing that.

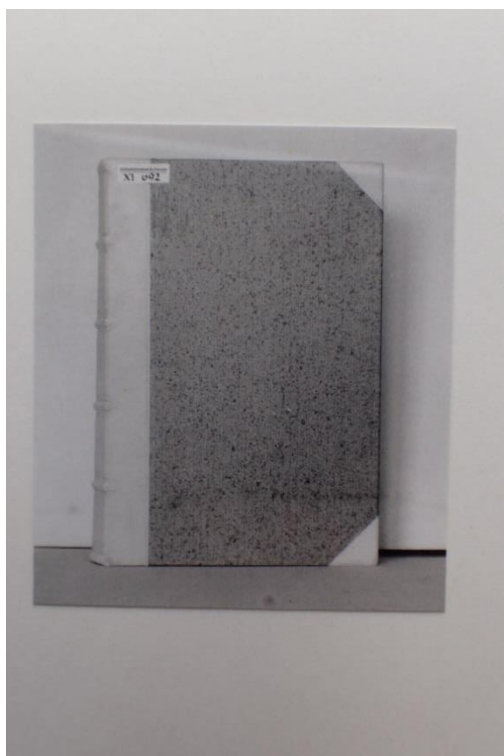
❖ All written and photographic testimony/evidence/documents(?) relevant



**Fig. 10:** XI 692 - Outside of the cover taken off the manuscript by E. Klee.



**Fig. 11:** XI 692 - Inside of the cover taken off the manuscript by E. Klee.



**Fig. 12-13:** XI 692 - Documentation photos made by E. Klee: before conservation (left) and after conservation (right).



**Fig. 14:** XI 692 - Front cover of the codex in its current state (right) and the old front cover kept in the collection of covers (left).



**Fig. 15:** XI 692 – Back of the codex in its current state (right) and the old back kept in the collection of covers (left).

In this case E. Klee interpreted the full parchment binding by a half leather binding. The original sewing is also preserved (Fig. 16):



**Fig. 16:** XI 692 - Station and sewing cut out of the manuscript and preserved in the collection of covers.

Klee writes as a documentation text

25

Aug. 1988

XI 692

Completely worm-eaten parchment-bound volume with boards from cardboard. Bookblock slid out towards front. [small sketch not visible in the photocopy]

Cover was removed and book dismantled completely. All double folios cleaned from sand etc. Quires strongly pressed. Fold strips adhered and tears repaired, quires again brought to good shape with the bone folder. New front leaves with handmade paper. Sewn-on cords; new leather back and leather corners. As paper cover a sprinkled marble paper. Bookshoe.<sup>13</sup> Material 93.-Sch. [Schilling] work time 12 “Std” [for hours]

<sup>13</sup> Some of the book shoes are made of low-quality cardboard. It must be checked if they must be exchanged for better quality book shoes today.



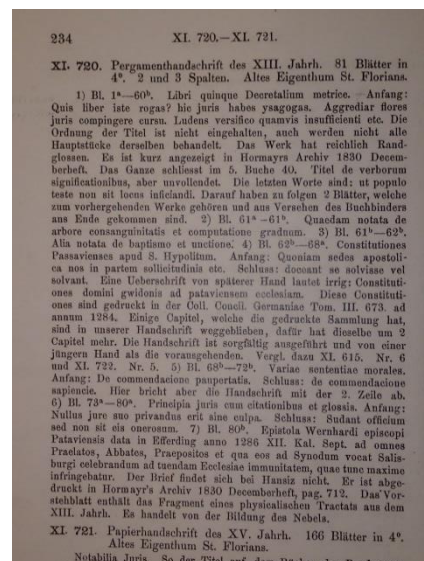
E. Klee obviously repeats the old sewing technique, but it might have later appeared to her “book-binder’s mind” that this did not match with the back made of parchment, which was indeed a strange and technically imperfect combination. Nevertheless, she had not taken up this book with half leather binding, and her choice of white leather had not been explained by her.

### 3.4 Individual example three – a parchment manuscript bound in tawed skin (leather)

XI 720

#### ❖ Catalogue text of the manuscript

We need not retype the catalogue entry, as a photo can quite serve the purpose (Fig. 17).



**Fig. 17:** Catalogue entry for XI 720.

#### ❖ Description of the cover which was taken off the manuscript, incl. photo

While the previous two manuscripts were paper manuscripts, the bookblock of XI 720 is made of parchment (Fig. 18).

The surviving cover has wooden boards and an alum tawed undyed blind-tooled sheep leather cover with a clasp at its front edge and a chain. The cover was 233 mm high, 140 mm wide and 32 mm thick; which is a rather small portrait format.

The two beech wood boards run parallel to the back spine and are slightly rounded at all edges, towards the back spine strongly. The back board is intact; the front board is slightly weakened by insect frass.

The leather is decorated with three parallel blind-tooled lines. They run around the margin of the codex and in diagonals to form an “Andrew’s cross”. Back and front are decorated equally. The tools were single rolls or fixed tools to print lines. The distance between the single lines varies and lies between 4 mm and 7 mm.

The leather turn-ins are trimmed with a knife, which can be seen from the shape of the edge, however, they are not straight with the exception of the fore edge turn-in of the back cover. At the corners, a sort of tongue is cut, which was shaped tightly on the boards while the leather was wet. The width of the turn-ins varies and measures 10 mm to 301 mm.

The hole for the chain is 10 mm from the head edge of the board and is positioned a bit towards the back spine of the codex, which, spine included, makes it appear at the centre. Traces of rust on the leather make us estimate a cross-shaped fixing plate. A counter plate inside the board left a round imprint. It seems as if this plate was positioned between leather turn-in and mirror.

The mirrors left imprints both on the leather and on the wood. It clearly shows that the mirrors were of parchment sheets that carried some text. It is certain that backing material for the spine was also taken off. These fragments were not found in the fragments collection of the monastery. Nevertheless, they should be found in any case, as the fragments are another important element of information. In the case at hand the strips have different dimension and are of extraordinarily fine parchment. The widest is the second strip from tail, it is 42 mm wide, and the narrowest is the strip on top, which is as narrow as 14 mm on the front cover. The parchment reaches differently far onto the cover and were applied on the inside of the wooden boards; 45 mm is the measure if reaching onto the board.

The leather was pasted firmly to the back of the quires, which is the reason why the parchment strips are fixed firmly to the leather and show the imprints of the quire-pattern towards inside.

The sewing, which must have been intact, was cut open. There had been 3 stations and 3 headband-stations. The internal station material is slit alum tawed leather with slits exactly the length needed for sewing. The leather strips are 10 mm wide. The sewing thread is light in colour, very soft and z-twisted and is stitched in such a way that is goes between the two parts of the leather strip. The stations enter the wood from outside at ca. 13 mm and are fixed with round wooden pegs of ca. 8 mm diameter at 25 mm. The two end band stations are stitched over two intertwined alum tawed strips of leather each and anchored in the fizz stations. These threads are also uncoloured and also z-twisted; however, it appears a bit more robust



than the sewing thread. The thread is stitched down at every other winding. The inlays of the headband-stations do not imprint; therefore, it is not possible to see if, and if so where, they might be fixed.

The leather is cut straight. Due to pulling the leather over the boards a v-shaped opening appeared at the folds, i.e., between back and board.

In the centre of the back board there is a boss, which holds the leather strip of the clasp. The leather is 4 mm thick and rests in a particular recess in the wood, the leather of the cover is thin in this area and covers it and on top there are rivet and boss.

The latter is round, with a diameter of ca. 10 mm and made of copper-containing metal. How high it was is difficult to say, because it is pushed inwards today. The metal appears to be quite thin. On the front board the hole of

the counter plate still exists, it is 50 mm from the board's fore edge.

In the upper area of the front cover there are traces of adhesive which had held a label. It had been 14 mm from the upper edge and minimum 77 mm wide and minimum 18 mm high.

On the back spine there is a label (34 mm high) made of paper and a text written in iron gall ink immediately under the end bend station. Immediately above the lower end bend station there are traces of an inscription directly on the leather.

- ❖ All written and photographic testimony/evidence/documents(?) relevant



**Fig. 18:** XI 720 - How it appears today (right) and the old cover taken off and given to the collection of covers left.



**Fig. 19:** Documentation photo by E. Klee showing XI 720 before conservation

The manuscript in question is the rightmost of the three depicted codices – it is difficult to see (Fig. 19).

#### **4. More Findings about Prof. Klees' conservation work**

Documenting Prof. Klee's work is just one mosaic stone in a vast task of writing the history of conservation. This article focuses on book conservation; however, the findings and first-hand memory still alive in the monastery are of additional value.

There is much work still to be done, such as close observation and description of each and every manuscript she restored, preferably following the pattern we suggest here as best practice. Furthermore, her letters should be read, sorted, properly stored and edited. The same holds true for the photo collection she left: these photos captured the state of a particular item and may serve as a valuable

source for understanding its speed of decay. In general, all items Eleonore Klee left for us should be brought together in such a way that researchers can use them.

In the following part we only focus on a few elements:

##### ❖ Publications

Among her publications, the one dealing with “Kremsmünsterer Knotenheftung” is of particular interest from today's perspective. Of course, it already attracted interest of the community of book conservators in the 1970s, which is reflected – among other details – in the correspondence about it with Chris Clarkson in England in June/July 1979, which can be found in her letters.<sup>14</sup>

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<sup>14</sup> E. Klee also had exchanged letters with Dr. Müller, Jena and Prof. Otto Wächter and his team in Vienna National Library.

### ❖ Correspondence

The letters illustrate the point of view of Mrs. Klee, the evolution of her ideas and the overall “fashion” prevalent in conservation in the particular periods. One example is her communication with P. Willibroad OSB, who was a librarian at Kremsmünster. Their correspondence related to a particular issue: whether or not a folio should be taken out of Codex Millenarius Major for the purpose of an exhibition. Mrs. Klee firmly advises against this – a position which is valid still today.

### ❖ Covers

The fact that the old, even in some cases medieval book covers still exist at the monastery cannot be overestimated. From the survey done so far, we found that all the covers kept there were taken off after 1980. So, it might be that the new perspective in conservation developed in Italy in the 1950s might have reached St. Florian via Vienna by then. Another option would be that E. Klee had kept the covers as a source of material. End leaves taken out of old books had been made into paper pulp for leaf casting in Vienna as a regular practice until the 1980s and Tarquin Mittermayr mentions in his diploma thesis written at University of Surrey Roehampton in 2000 that Mrs. Klee was extremely careful in the use of resources, which might confirm the latter hypothesis that she re-used the material of the old covers.

However, she clearly did not re-use what did not appear “beautiful” enough to her. Original bosses and clasps were left back on the covers she had taken off the manuscript, which is confirmed by her written documentation texts, where she tells us that the bosses are

“scrubbed through” (durchgescheuert) (Fig.20).<sup>15</sup>

### ❖ Clasps and other elements

Apart from the book covers, another valuable collection is that of clasps, cut off end-bands, boards, etc.

E. Klee clearly used some of these elements as patterns for her new book elements (Fig. 21).

Shape and size, but even the patterns of some clasps were copied onto paper, which may have served as model to cut the shape of the clasp out of a metal plate. It still needs more time and attention to sort all these elements and connect them with particular conservation actions.

Other fragments were limp covers of archival material (Fig. 22).

Or cut off endbands (Fig. 23).

These two examples are only given to demonstrate the outstanding value of this collection.

### ❖ Manuscripts

Finally, it is worthwhile to closely describe the conservation work done on any manuscript by Prof. Klee, even if there is no cover left.

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<sup>15</sup> One other reason why E. Klee’s texts need editing is that she sometimes uses unusual terms, such as “morsch” to describe the state of leather (normally used for wood affected by microorganisms) or “kapitalt”, which obviously means that she made new endbands.

XI 628 Alter, roter Lederband mit Buckeln (4 fehlen, 2 nicht passend und 4 durchgescheuert), Bünde abgrissen, Rückschließenteile fehlen. Holzdeckel verwurmt und zerbrochen. Alter Kettenband.

**Fig. 20:** E. Klee's documentation where she says that the bosses were "scrubbed through".



**Fig. 21:** A taken off clasp together with a close copy of it in cardboard.



**Fig. 22:** Limp binding taken off the bookblock.



**Fig. 23:** Cut off endband.

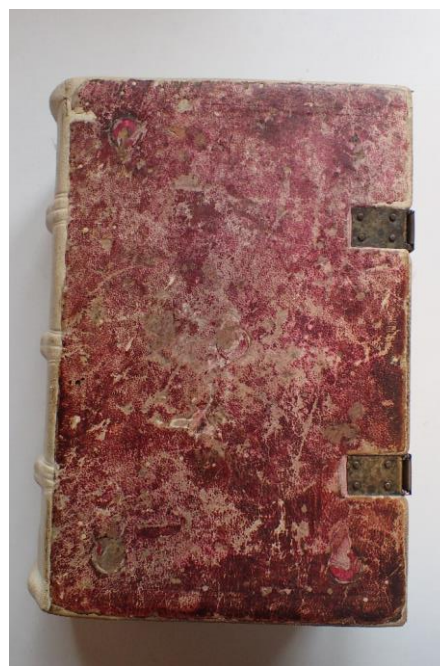
## ❖ Kremsmünster

Among the notes by E. Klee in St. Florian monastery we found evidence of particular numbers of manuscripts Mrs. Klee restored for other collections. Our first step was to visit Kremsmünster Abbey and see the collection there.

Soon it became clear that Prof. Klee restored many more manuscripts for Kremsmünster than the list she had left in St. Florian indicates.

It had already been clear from notes on the end leaves of codices in Kremsmünster that Prof. Klee had restored some of these manuscripts. Texts in green ink written by P. Willibroad were – as we found out now – copies of E. Klee’s written documentation provided to Kremsmünster. This practice of P. Willibroad was later taken up by other librarians. In some cases, her texts had been cut out and pasted into the manuscripts on the backboards’ inside.<sup>16</sup>

Details on that work shall be published at some later moment, but one aspect should be mentioned here already: The fact that we could not find any covers taken off before the 1980s might be due to the fact that E. Klee reused the covers at least in parts and re-applied them onto manuscripts. An example illustrating that would be CC 8 of Kremsmünster (Fig. 24), from the 14<sup>th</sup> century, which was restored by Mrs. Klee in 1963.



**Fig. 24:** CC8 - Old leather was re-used during conservation.

From the codex itself, which is shown in the picture, we can see that the old leather is applied on both front and back cover.

Im Kremsmünster Abbey we find

- ❖ Prof. Klees written documentation
- ❖ Delivery notes
- ❖ Invoices, and
- ❖ A few letters

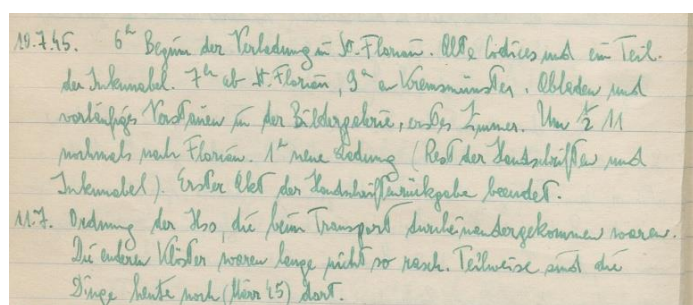
All these items must be sorted, connected with the individual codex and edited.

Of particular interest is the diary by P. Willibroad OSB, which starts on 25<sup>th</sup> June 1945.

From this text, we learn that the delivering manuscripts from St. Florian, where the Nazis had accumulated a vast amount of treasures from all over the country, back to Kremsmünster started at 6 in the morning of 10<sup>th</sup> July 1945. We learn that one way took them 2 hours and that they had two transports

<sup>16</sup> This part of the survey had been done in the frame work of DITAH project.

on this day (diary page 4). P. Willibrod (Fig. 25) left us a detailed description not only about the transport, the manuscripts and all the circumstances, but also about his thoughts on where to put the manuscripts in Kremsmünster Abbey. The diary gives us a vital picture of the time.



**Fig. 25:** Diary of P. Willibrod, p. 4.

Further details about Eleonore Klee's work in Kremsmünster shall be reserved for next publication.

Only one thing should be mentioned: the fact that the leather of CC 8 was taken off the cover (Fig. 26) that E. Klee found when she received the codex for conservation was confirmed when we found the boards of CC 8 in Kremsmünster without leather.



**Fig. 26:** CC8 – The old boards outside.

St. Florian Abbey holds a rich and precious collection of covers and fragments taken off manuscripts, such as single clasps, end-bands, etc. Furthermore, both St. Florian Abbey and Kremsmünster Abbey possess numerous written documents by and about the conservator Eleonore Klee.

All the evidence of E. Klee's conservation activity, both at St. Florian and at Kremsmünster are of considerable value. They present a clear view of the state of book conservation from the 1940s onward. They also provide a detailed picture of older bookbinding tradition, as the old covers are "open books" to the experts of today, and the fact that we still have them is by no means usual.

It is not clear whether these fragments were collected intentionally by Mrs. Klee or were forgotten to be disposed of, whether they were used as templates to make new clasps and covers or a source of material used by her as book conservator. There is no reliable information to clarify this point, and surely not all book covers are available or have been found to date. We can provisionally conclude

that E. Klee kept the covers intentionally based on the fact that she gave the old covers back to Kremsmünster Abbey after she had restored their codices.

Eleonore Klee is one of many conservators who worked in book conservation in Austria, but she is also one of the conservators who had a strong impact on the profession because of

- Her long professional service
- Her focus on conservation as her own life's work
- Her publications

From the material studied so far, we could get a comprehensive insight into Prof. Klee's work as a conservator as well as into the history of book conservation in Austria.

Eleonore Klee was clearly a pioneering spirit at the beginning of her career as a conservator. However, we must also stress that her conservation action focused on sewing and binding. Severe threats such as ink and copper corrosion were not dealt with, although from the 1980s on this kind of corrosion was the research topic most hotly discussed by Viennese conservators. (Prof. Wolfgang Wächter from Leipzig was even invited to Vienna to speak about his paper splitting method that was used, among other methods, to preserve ink-corroded manuscripts).

As a child of her time and given that book conservation was still a young discipline, Prof. Klee wrote guidance books on how to preserve a codex and how to set up a book conservation workshop.<sup>17</sup>

<sup>17</sup> We found also some photos showing her own workshop at St. Florian Abbey.



E. Klee took steps to further advance her own education. She collected articles on book conservation and exchanged opinions with other experts in the field. She had excellent craftsmans' skills and competence, which can be seen in every cover she made.

While E. Klee actively wrote her own papers and published even at the Vienna Academy of Sciences (her finding of "Knotenheftung" in Kremsmünster in 1944 and her advice to not take apart the manuscript "Major" given in a communication with P. Willibroad, which was ahead her time). Later, while in Kremsmünster, she enriched the texts of her documentation, but, on the other hand, "fell back" into the state of the art and still later, towards the end of her time, she even seems to have fallen back behind that. This point, however, must still be documented in detail.

Prof. Klee was a book binder *par excellence* and approached the task of conservation with a bookbinder's neatness that did not completely agree with the advanced conservation philosophy of her day. Her scientific *œuvre*, too, is more often concerned with technical questions rather than conservation theory, which is well illustrated by her notes.

## 5. Conclusion

This contribution greatly gained from the fact that Harald Ehrl knew E. Klee personally and Patricia Engel was involved in conservation in Vienna from 1979 on and knows many details about the evolution of the profession from her own experience with people E. Klee had personal communication with.<sup>18</sup> It also

<sup>18</sup> This is also the reason why the authors started documenting and surveying the Viennese conservation methods using, O.

suggests a way forward for this particular collection that can be followed by anyone interested in the topic and a best practice that can be applied to similar collections. Specific measure of each element of the book and a proper description help reveal certain workshops' or bookbinders' traditions. An ideal arrangement would be that the results of such surveys are fed directly into Ligatus<sup>19</sup> database, which would allow for comparisons of data with a large number of other data concerning bound books.

The next step will be to create a catalogue of the covers and fragments held at St. Florian Abbey. This catalogue will result from a comprehensive description of the collection. It will indicate:

1. The number of the manuscript
2. The catalogue entry of the manuscripts or a link to it
3. The description of the cover and other elements taken off the manuscript and photos of the elements
4. All written and photographic documents of the past which are related to the manuscript and its conservation
5. Evidence of fragments possibly taken out of the manuscript in the course of the conservation activity
6. A description of the conservation measures taken by E. Klee
7. Further relevant information

Due to Covid 19 pandemic we had to discontinue the work, leaving it unfinished. After a close survey of the material at Kremsmünster, other abbeys such as Admont, will also be addressed for permission to see their manuscripts.

It has already been mentioned that all manuscripts at St. Florian will be documented in the way suggested in this contribution. Furthermore, the covers must be stored appropriately: they should be kept in individual boxes, or boxes of uniform size with the space between book cover and box edges stuffed with paper. The monastery has already found a space where the climate conditions are appropriate and users can access the covers if needed. The boxes will be labelled outside, so that the individual cover can be found easily.

All elements of book binding will be surveyed and, whenever possible, the relevant codices or books or archival bundles found.

Editing all the written material is another time-consuming task ahead. In the meantime, all these documents also need proper storage, because most of them are written on wood pulp paper and are already brittle today.

Next steps will be to present an equally thorough view of the work of other Austrian book conservators, as elements and “building blocks” of a realistic and comprehensive picture of the history of book conservation in Austria.

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Wächter's book (Wächter (1982) and started her own work on the history of book conservation from 2014 on. The latest Strukturmittelprojekt DITAH – “Digitale Transformation der österreichischen Geisteswissenschaften“ Donau-Universität Krems, DBU, Zentrum für Kulturgüterschutz, European Research Centre for Book and Paper Conservation-Restoration she is involved in gives another good opportunity for going further on into this topic.

<sup>19</sup> Ligatus database is a tool for documenting bookbinding features in a standardized way.





## Acknowledgement

We thank father Petrus, OSB librarian at Kremsmünster Abbey for his help in finding texts about the conservation of the manuscripts and the permission to survey the manuscripts themselves, and Oleg Philippov for his help with the English language.

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## **Authors CVs and contacts:**

### **Harald R. Ehrl**

1960-03-13 born in Perg, Upper Austria

1978 entry into the monastery of St. Florian

1979 - 1989 Philosophical, theological studies and organ studies in Salzburg

1990 ordination to the priesthood

Various pastoral positions

1997 - 2005 Novice master

2005 - 2016 Priest of the Abbey

Since 2018 Custodian of the Abbey Collections

**Patricia Engel** is a senior researcher at the University for Continuing Education, Krems, Austria. She graduated from the conservation class of the University of Fine Arts Vienna in 1984 and holds a doctorate and a habilitation degree in conservation of the University of Fine Arts Warsaw. P. Engel finished her habilitation in 2014. She worked at the National Library in Vienna, the State Library Prussian Heritage in Berlin and later as free lance conservator in Germany and Austria (amongst others cooperation with ICCROM and the Austrian federal department of cultural heritage) and taught in the Centro del bel libro in Switzerland. From 2000 on she installed the new chair of Book and Paper Conservation at the University of Applied Sciences and Arts in Hildesheim/Holzminden/Göttingen, Germany and was head of it until 2008. P. Engel headed international research projects in conservation of cultural heritage, organised international conferences, founded the European Research Centre for Book and Paper Conservation-Restoration, taught in numerous European universities and in Indonesia, Sri Lanka and Armenia and is author of numerous international publications in the field. She works for international organisations such as ICOM – CC and IPH (International Paper Historians). In 2017 she was granted to Austrian awards for her scientific work (Life Science and Liese Prokop).