
**A 'BOOK COVER' MADE OF GILDED COPPER.
OBSERVATIONS REGARDING ITS HISTORY,
ARTISTIC AND ICONOGRAPHIC INTERPRETATION,
WORKING TECHNIQUE AND CONSERVATION**

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(Received 2 June 2006)

Abstract

The paper presents the artistic study, iconography, working technique and conservation of an object registered as 'Book cover', belonging to the Brukenthal National Museum in Sibiu. The 'book cover' was made of a copper sheet, gilded only on the upper side and was worked by hammering. The scene represents the Jesus Christ's Station of the Cross. The 'book cover' was part of a great exhibition, named '800 Years of the Germans Church History in Transylvania'. Gathering all data that have been studied or discovered regarding the establishing of the diagnosis and the conservation treatments needed, we expressed the hypothesis of the reconstruction of the work technique as well as the reevaluation of the function, from the 'book cover' in that of an 'icon'.

Keywords: book cover, icon, Cross station, conservation

1. History, iconography and artistic technique

The 'book cover' presented in this paper may be taken as a model for an interdisciplinary approach to the fields of history, art history, religion, conservation and restoration. I would like to emphasize the importance of such an approach for an accurate and scientific 'deciphering' of the historic, spiritual and aesthetic message conveyed by a valuable object (belonging to the cultural heritage) to the present and future generations.

The 'book cover' is 180 mm length and 135 mm width, and is recorded in the Collection of Medieval Art at National Brukenthal Museum in Sibiu, under the inventory number T – 106 (previously, inventory number 1237, see Figure 1). It was displayed in a large exhibition organised by the museum – '800 Years of the Germans Church History in Transylvania', which was presented abroad as well.

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Figure 1. 'Book cover', front view.

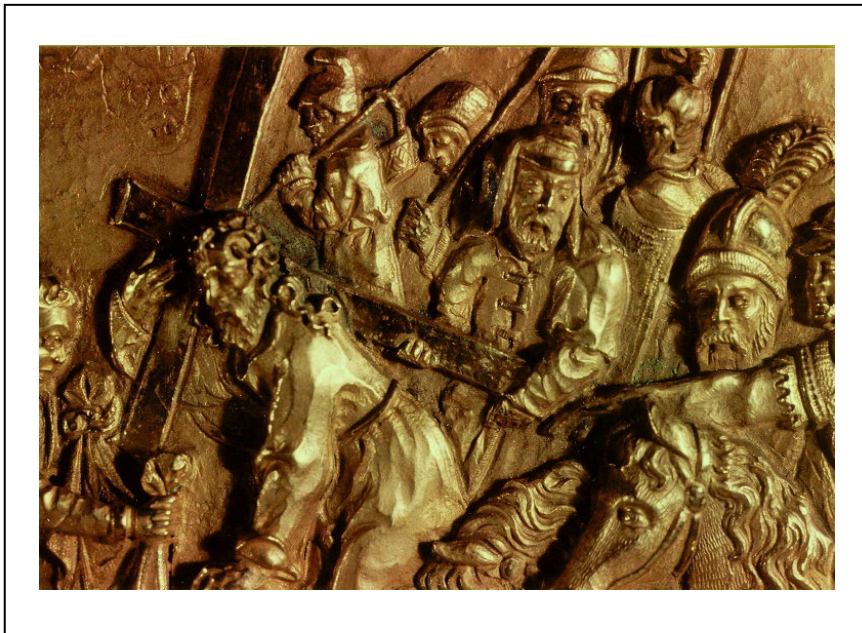


Figure 2. 'Book cover', front view, detail presenting the art and technique of the author.

On the 'book cover' there is a scene belonging to the Stations of the Cross biblical theme, traditionally rendered in 14 stations (in Catholic churches). The main scene on this artefact is the 6th station, but without the image of the Virgin Mary, which appears only in the 12th station.

According to the data from the inventory catalogue of the collections belonging to the National Brukenthal Museum, the 'book cover' was bought on July 4th, 1883 for 50 Rfl from a jeweller named Resch from Braşov. In the same catalogue there is a note made by the museologist Mauritius Kimakovicz, who was the curator of the museum and conducted the first complete inventory of the Brukenthal collections after the opening of the museum in 1817. The note states that the gilding of the plate was renewed 15 years before it was bought, namely in 1868. Furthermore, it records the fact that Resch found that in 1642 a certain Martin Schoppel was mentioned in the older records kept by the goldsmiths' guild from Braşov. (Nach einer Bemerkung im Geschäfts Protokoll, wurde die Vergoldung der Platte vor cca. 15 Jahren, demnach um 1868 aufgefrischt. In der Registern der früheren Krönstädter Goldschmiedezunft fand Resch im das Jahr '1642' einen Goldarbeiter 'Martin Schoppel'). [Müller's 16. Zett Kat.] Therefore, we may presume that the date 1642 and initials M.S. engraved on the lower part of the cover could represent the dating and the name of its author. However, the debate concerning the dating and the author of this artefact is still open.

The art historian Victor Roth from Sibiu mentions that at the moment of its acquisition there were 35 more copies for sale [1]. Victor Roth also discovered that the scene on this 'book cover' was inspired by a stove tile (unglazed) belonging to the Silesian Museum of Decorative Arts and Antiquities in Breslau (Wroclaw) [V(o) von Schornkunsterzeugnissen aus Ton und Glas, Leipzig-Prague, 1888, 62]. Apparently, the version of the Cross Stations from the stove tile had its origin in a carved wooden panel from the 14th century.

The composition of the scene comprises several groups of characters and is artfully conceived (at least in our opinion) which is typical for a goldsmith artist. The technical and artistic quality of the engraving is emphasized especially by the fine details of the characters' physiognomies.

The stylistic, iconographic and artistic study, as well as that of the working technique used for the 'book cover', revealed information leading to the hypothesis that the artefact was typical of the relationship between the German art and the art of the Transylvanian Saxons (Figure 2). "This relationship was established long before the time when the cover was made, and it has never been interrupted or lost" [1].

The scene on this 'book cover' has been changed by the introduction of the group of characters on the lower right side, which has the Virgin Mary in the centre (Figure 3). The dramatic character of Christ's ordeal is emphasized by the image of the Virgin Mary. The position of her body suggests that she is about to faint and her face shows deep sorrow. The empty space resulted from the recomposition of the scene was completed by the artist with two children that were not present on the original stove tile.



Figure 3. 'Book cover', front view, detail presenting the new group of characters.

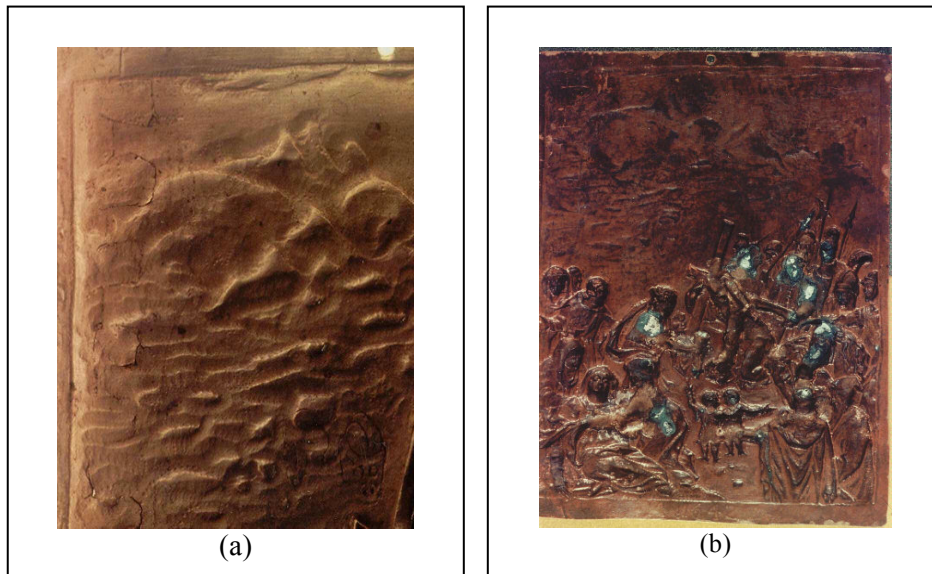


Figure 4. 'Book cover': (a) front view, the 'dents de scie' (cog comb) technique; (b) back view, before conservation. The attack of the corrosion products can be noticed, as well as the fact that the gold leaf was rolled inside the aperture and over the edge of the copper sheet (on the upper part and on the left side).

These changes in the composition led also to a series of technical difficulties. The artist had to resize the initial copper sheet prepared for the work and then to give up the original background of the stove tile. Instead of a row of characters disappearing in the background, he improvised a hilly landscape using a clumsier working technique compared to the artistic quality of the rest of the scene (Figure 4a).

According to the methodology used in Romanian museums, the conservation condition of an artefact must be assessed before it is displayed. In this case, the experts (museologists and restorers) noticed that the artefact was in a good conservation condition, without any major problems for being exhibited in the museum. However, there were some corrosion traces as micro-sores on the backside of the 'book cover' and a series of mechanic degradations, which required some treatment in the restoration laboratory (Figure 4b).

2. The diagnosis of conservation condition and reconstructing the working technique

The measurements taken, as well as the visual and stereomicroscope observations of the 'book cover' showed the following results:

- The copper sheet is about 0.6–0.7 mm thick. It is quite thick for this kind of work since during the manufacturing process the material must be soft enough to be worked.
- The front side of the sheet is gilded, using a 23-carat gold leaf. The quality of the gold leaf (in carats) was established with the help of the technique used by jewellers. That means comparing the traces left by rubbing the gilded surface against the haematite stone with those left by the standard gold 'keys'.

These observations, together with the study of relevant bibliography regarding the metal decoration and manufacturing techniques in medieval time, helped us make an attempt to reconstruct the technique used for this artefact [2]. Thus, we believe that the Transylvanian artist followed these steps:

1. The scene on the stove tile was redrawn and recomposed by adding a new group of characters.
2. Thus, the final scene required new dimensions for the initial copper sheet. Therefore, a strip of copper sheet was added to the right side. The joining of the two parts was done using the technique known as 'dents de scie' (cog comb) [3], and then cold striking until the joining became almost invisible (Figure 4a). The sheet had to be levelled and was then laminated (probably through rolling out).
3. To 'imprint the cover' the artist had to make a mould of a hard material so that it could be used for a series of artefacts. First, the mould was mechanically engraved on a piece of soft iron, and then it was tempered to make it harder.

4. The 'book cover' had several stages of manufacturing. A first attempt could be noticed at the centre of the scene, where the heads of two soldiers were drawn, and other elements of the composition marked by points. However, that attempt was abandoned (for reasons yet unknown). After that, the copper sheet was laminated again, fact proved by the flattening of the drawing representing the heads of the two soldiers.
5. Back-striking the copper sheet with special hammers made the 'imprinting' of the cover. The medieval documents about the techniques used by goldsmiths mentioned that, in order not to leave hammer marks on the metal sheet, the striking was indirect, i.e. on a lead thin leaf applied on the metal sheet. Because cold striking was probably used in this case (without any treatments to soften the metal), the copper sheet broke in several places (where the pattern was more in relief).
6. After the 'imprinting' the artist finished off the scene by engraving on the front of the cover, especially where the finest details had to be emphasized. Where the copper sheet broke, it was filled with a copper alloy and consolidated with small strips of copper sheet. The hilly landscape in the background was probably done at this stage by direct striking on the front of the cover (Figure 4a). A hole was made near the upper edge of the cover.
7. In the end, the front of 'book cover' was 'ennobled' with a gold leaf. The gold leaf was applied using a *mixture* glue, probably made of a mixture of natural resins. The fact that the gold leaf was rolled inside the aperture indicated that had previously been made.

In order to establish the diagnosis of the conservation condition, microchemical analyses were carried out and the following data were obtained:

- On the back of the copper sheet there was a superficial and even layer of copper sulphide and cuprite (Figure 4b).
- Where the copper sheet broke, there was an intense corrosion process, although it affected only a small area. Copper chloride and basic carbonate were the corrosion products identified. It was interesting to note that the physical degradation (the copper sheet broke) favoured the chemical attack and the developing of the most dangerous copper corrosion products (Figure 4b).
- X-ray radiography was performed in order to point out the 'repairs' carried out, their scale and the technique used for the new dimensions of the copper sheet (Figure 5a).
- Small scratches and strokes could also be noticed.

3. Conservation treatments

As we have mentioned above, the conservation state of the 'book cover' did not imply ample conservation works, but local treatments. These treatments consisted of:

1. Only the back of the 'cover' was cleaned by wadding with Complexon III (dinatrium salt of ethylenediaminetetraacetic acid) 10% water solution, with buffer solution, having a pH of 10.
2. Neutralisation with distilled water and quick drying with acetone.
3. For protection, a layer of Paraloid B72 acrylic lacquer 5% in a mixture of solvents (equal parts of acetone/toluene/benzene) was applied only on the back of the 'book cover'.

After cleaning, the consolidation 'repairs' made after the manufacturing of the 'book cover' were emphasized on the back.



Figure 5. 'Book cover': (a) front view, the 'dents de scie' (cog comb) technique; (b) back view, before conservation. The attack of the corrosion products can be noticed, as well as the fact that the gold leaf was rolled inside the aperture and over the edge of the copper sheet (on the upper part and on the left side).

4. Conclusions

The correlation of the history, artistic and iconographic data, as well as of the working technique used have led to the hypothesis according to which the so-called 'book cover' belonging to the National Brukenthal Museum – Sibiu was incorrectly appreciated even since it was bought, as far as its function was concerned. The following arguments made us to presume that it was used as an icon from the beginning:

- The image on the 'cover' was obtained by combining two scenes from the 14 Stations of the Cross, namely the 6th and the 12th. This combination may symbolize in a broad interpretation a synthesis of the passions of Christ the Saviour.
- The manufacturing of a series of similar artefacts (the mentioning of the 35 items for sale).
- The hole near the upper edge was made with a view to hang it as an icon, fact also proved by the fact that the gold leaf was rolled inside the aperture (from the front of the 'book cover').
- To the above-mentioned arguments, we may also add the good artistic quality of the work (even though sometimes unequal) and the usage of copper as material 'ennobled' by gilding. Thus, we may state that the artefact was designed as an icon from the beginning and intended to be sold especially to the middle class. Therefore, we consider that the typology as a 'book cover' should be changed in that of an icon.

Acknowledgement

The author wishes to thank Cecilia Hărăstășan (physician expert), for the X-ray radiography, Natalia Deac for the chemical analyses and Alexandru Olănescu for the photographs, all from the Restoration and Conservation Laboratory, National Brukenthal Museum – Sibiu.

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