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The Rebacking of a Photo Album with a "Tambour" Spine

ABSTRACT

An early twentieth-century Cousis photo album in a typical Victorian carte-de-visite structure featured one of the most common problems of albums of this kind: failure of the leaf attachment and breakdown of the spine. This damage is mainly due to the fact that for the original construction sewing was eliminated and cheaper materials were used. After trying out different methods on models, the leaves were reattached using the concertina method. The album was rebacked using an innovative method—the "tambour spine." The articulated movement of this kind of spine significantly reduces the stresses caused by the sharp folds at the gutter when the album is opened and leafed through.

INTRODUCTION

Albums have existed since the sixteenth century, but at that time they were mostly used to collect prints and drawings. In the nineteenth century albums for photographic prints became popular.

This case study involves an original Cousis album dating to the early twentieth century and containing Cousis cigarette cards. The company A. G. Cousis originated in Greece but branched to Cairo in 1878 and to Malta in 1887. The factory in St. Ursula Street in Valletta, Malta, had various departments (fig. 1). It printed its own labels and made its own cardboard and tin boxes for cigarettes. It also had special rooms which contained saltpeter-free cigarette paper, lithographed labels, and other packaging material. It is not known who printed the photo cards and who made the albums. Cousis ceased to operate sometime between the two World Wars but is still remembered for its prolific output of cigarette cards (Bonnici and Cassar 1994).

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This album has a typical Victorian cartes-de-visite structure.[1] These were the first albums to be mass-produced (Rutherston 1999), specifically designed to accommodate the then very popular carte-de-visite, and were often sold blank (Horton 2000). These albums were designed to mount the photographs without the use of any adhesive. The leaves of this album, as in other carte-de-visite albums, consist of three layers. Each leaf, weighing approximately seventy-two grams, is made up of a thick

Fig. 1. Cousis factory in Valletta

inner core of stiff board with two thin facing leaves. Each face has twenty small square windows, each cut out with a slit underneath to enable easy insertion and removal of the photographs (fig. 2).

Gary Frost has noted that nineteenth-century albums were in fact not expensive (Horton 2000). Windows were cut with dies, any decoration was printed, and they were probably assembled by immigrants in sweatshops.[2]

The leaves were attached to each other by a cloth guard inserted under the facing leaf, a very common style in such albums (Rutherston 1999). The cloth used was probably of an inferior quality, and this technique, which excluded any sewing, reduced costs and speeded up production but at the expense of leaf detachment and lost spines (fig. 3).

CONDITION

This full binding was covered in red cloth with the gilded title "Album for Photographs" over laminated straw boards. It was either a case binding (Rutherston 1999) or a tight-back binding; it is quite difficult to conclude since the spine is lost. It is also probable that the title was on the spine too. The pastedowns, which are made up of an album leaf without windows cut out, are adhered to the boards and used to attach the book block to the cover.

The album, measuring 297 x 287 x 305 mm, is made up of twenty-five leaves and features one of the most common problems of albums of this kind: detached leaves and breakdown of the spine (fig. 4). This damage is caused mainly by the nature of these albums, apart from their handling and use. Binders of the time had to find ways of attaching the stiff album leaves quickly and cheaply. One of the solutions was to eliminate sewing and use cheaper materials. They came up with the idea of the cloth V-hinge. This method worked quite well at the time of construction since the stiff leaves have no flexibility. This technique allowed the leaves to pivot on their spine axis (Eldridge 2002).

Because linen, which has great tensile strength but poor folding strength, was used, the leaves became detached and the spine was lost. This material cannot withstand the stresses caused by the sharp folds at the gutter.[3] The heavy weight of each leaf did not help either (fig. 5).

Apart from the detached leaves and lost spine, the album was in a relatively good condition. The leaves, although slightly acidic, were stable, and the "decoration" in red ink did not seem to be giving rise to big problems (fig. 6).[4]

The cloth cover was abraded and torn at the edges and corners due to handling. This album once belonged to the

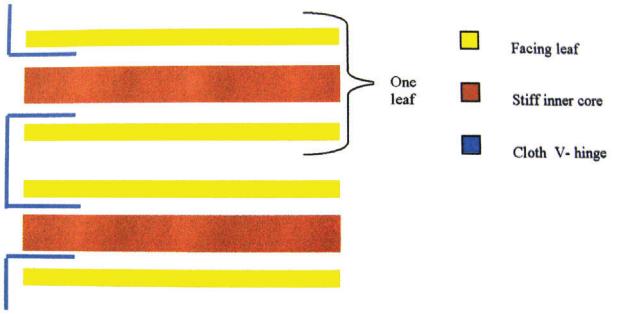

Fig. 3. Schematic diagram of leaf attachment

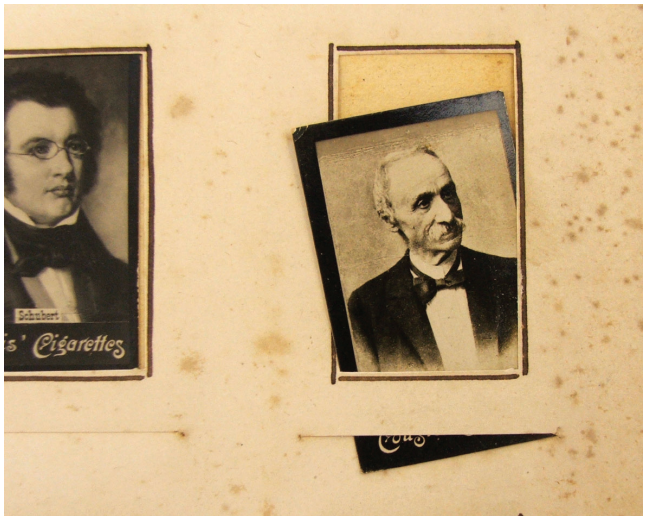

Fig. 2. Window with slit underneath

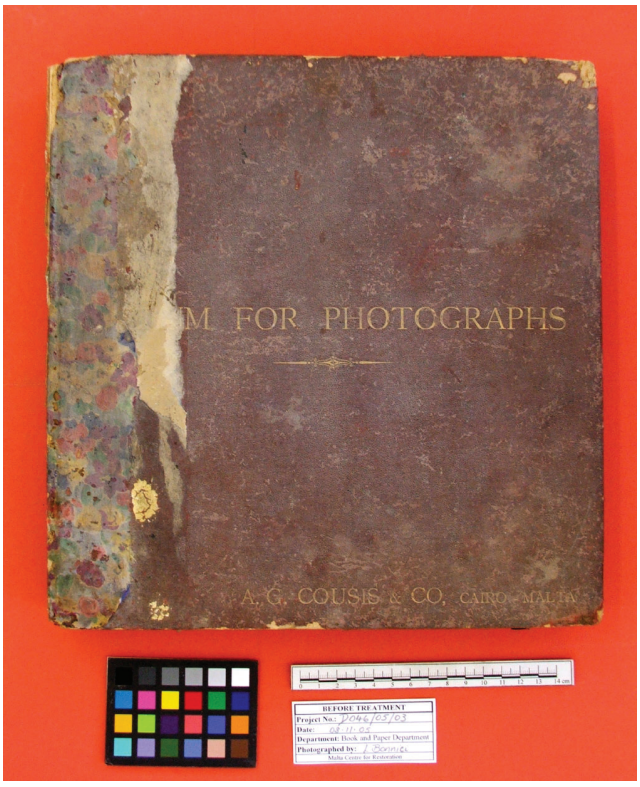

Fig. 4. Front cover of album, also showing previous repair

Fig. 5. Detail of detached leaves

Fig. 6. Detail of red ink

De La Salle College library and it must have been removed from its shelf quite often. The cloth had also lost some of its color due to continued exposure to the environment and a water stain. But the most serious damage on the cover was the result of a previous repair. The album was lined with a piece of colored cloth that was attached on top of the red cloth with what seems to be animal glue. This glue stained the album and had also become detached.

LEAF ATTACHMENT

The treatment started with the mechanical removal of the previous repair. The cloth repair and glue were removed with a scalpel. The remaining adhesive on the original cover was removed with cotton wool swabs moistened with cold water.

Due to the problems envisaged in leaf-to-leaf attachment, three models were made.

Model 1

This method of leaf attachment was inspired by Betsy Palmer Eldridge's article, "A Photo Album Structure from Philadelphia, 1865," in which she describes a structure called a "flexible chain back album."[5] This type of binding was called the "checkerboard structure" by the author as "when looking down the hollow back, the spine had a checkerboard pattern, with bare areas alternating with covered areas and rows of both hinge colors"(Eldridge 2002, 38).

This checkerboard structure is really a variation of the cloth V-hinge structure. It differs in that in the V-hinge structure the leaves are attached to neighboring leaves, whereas in the checkerboard structure, the leaves are attached to alternate leaves.

1. The leaves were separated into two groups-odd-numbered and even-numbered.
2. A paper hinge was attached to the recto of each leaf at the spine edge. Slits were cut in the hinge to create equally spaced tabs.
3. Alternate tabs were then wrapped around the spine edge of the leaf. For the odd leaves, odd-numbered tabs were wrapped, i.e., 1 and 3. For even-numbered leaves, even-numbered tabs were wrapped, i.e., 2 and 4.
4. The leaves were then put in order, an odd leaf with an even leaf on top of it.
5. The odd-numbered leaves were attached to each other by the even-numbered tabs. The even-numbered leaves were attached to each other by the odd-numbered tabs. The tabs were attached to the verso of the appropriate leaf.

The result was quite satisfactory. The model album opened with flexibility to 180 degrees. However, the irregular lining of the spine, which in some places was bare, in some places single, and in others double, set us thinking.

Model 2

In this model, the leaves were attached together by a variation of the concertina guard method. Instead of leaving the concertina guard free so that the leaves can move inside it, it was adhered to the leaf. Japanese paper *Minota* (25511, 30g/m^2) and a 50:50 Evacon:sodium carboxymethylcellulose (CMC) mixture were used.

1. A strip of thick Melinex 1 cm wide was cut as a template for the concertina guard.
2. A piece of Japanese paper was cut as long as the album leaves and wide enough to be attached on all facing leaves.
3. The Japanese paper was wrapped around the first leaf leaving about 5 cm on the underside of the leaf.
4. The template was placed on top of the Japanese paper on top of the facing leaf. The Japanese paper was creased backwards on top of the template.
5. The template was removed. This concertina guard was then adhered to the sides of the spine edge and on top of the facing leaf.
6. The same procedure was repeated for all the leaves (figs. 7-8).

The spine was then lined with linen and the Evacon-CMC mixture. The model album opened with great flexibility and the spine was regularly lined. The only thing

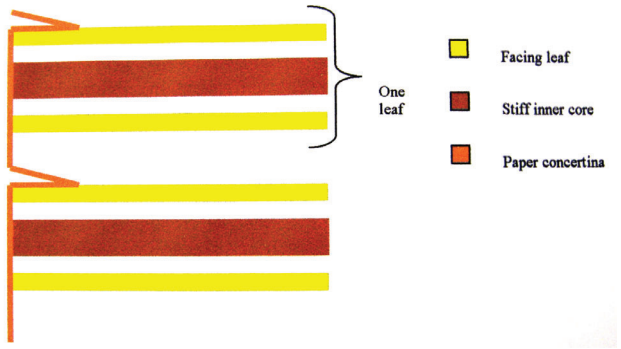

Fig. 7. Schematic diagram of concertina guard attachment

Fig. 8. Attached concertina on model

of concern was that the edges of the leaves in the gutter margin could be seen when the album was opened.

Model 3

In this model, a double "concertina" was used so that the edges of the leaves in the gutter margin would not show. This structure is similar to the cloth V-hinge in the way the leaves are attached. However, instead of attaching the hinge under both facing papers, the hinge was attached on top of the facing papers.

The same method as for model 2 was used. However, after forming and adhering the concertina on top of the facing leaf, another concertina was formed on top of it. This was then adhered to the verso of the leaf on top (fig. 9).

The result was very disappointing, as the model album did not open well. Instead it produced a fulcrum effect. It also produced a swelling at the gutter (fig. 10).

LEAF ATTACHMENT AND LINING

Model 2 was chosen, as it was the one that worked best. The leaves of the album were attached together with the concertina guard method using Japanese paper, as in the model shown in figure 11. Japanese paper was used instead of linen, as this album is not going to be used regularly. Linen would have produced an unnecessary swelling at the

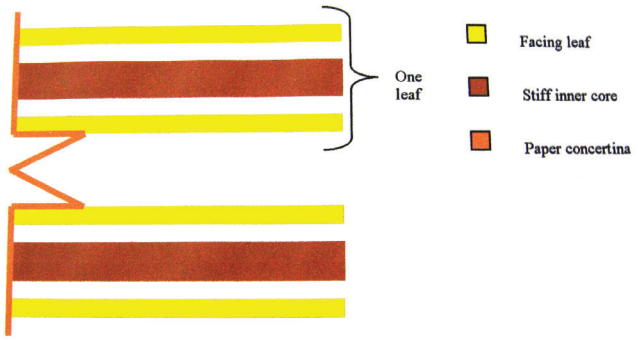

Fig. 9. Schematic diagram of double concertina attachment

gutter since the original linen under the facing papers was retained.

The album was then lined with linen as described for model 2. After drying, the album was tested. Contrary to our expectations, the album did not open well (fig. 12). However this problem was overcome by using a thinner lining of polyester, commonly used in textile conservation, so that a higher "throw up" would be obtained (figs. 13-14). This lining was considered necessary to keep the concertina guard from opening.

REBACKING MODELS

Since the original spine was lost, a further four models were tested to see what kind of spine would work best.

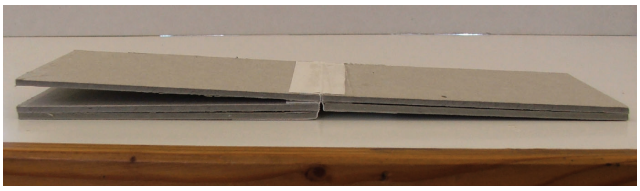

Fig. 10. Open model showing fulcrum effect

Fig. 11. Album leaves attached with the concertina guard method

Model 1

This model was given a cloth case with a stiff spine. Boards were cut out from gray board slightly larger than the leaves. A spine stiffener, the length of the boards, was cut out from millboard. The boards were then covered in cloth similar to the original cover of the album with the spine stiffener in the middle. The case was then adhered to the model by applying glue to the first and last leaves as in the original album.

The model did not open well. The stiff spine restricted the movement of the leaves and this affected the pastedowns. As the leaves tended to move upwards upon opening, they also pulled up the pastedowns with the result that these pastedowns were becoming detached from the cover (fig. 15).

Model 2

This model was given a cloth case with a flexible spine. The case was made as for model 1 but instead of using a stiffener, the spine was lined with a light Japanese paper. The spine was so soft that pieces of cord had to be inserted at the head and tail ends to enable it hold its shape.

The model opened only to about 100 degrees. This was quite surprising as there was no stiff spine to hold the movement of the leaves (fig.16).

Model 3

This model was given a tight back binding. A case was made as in the other models. However, in this model, the spine of the cover was adhered to the backbone of the model.

The model did not open well and produced some unsightly creases on the spine of the cover. The creases were a concern not only for aesthetic reasons but also because these would be the sites where the spine would later break. Also, the leaves became detached when the slightest pressure was placed upon them.

Fig. 12. Linen lining being attached to album leaf

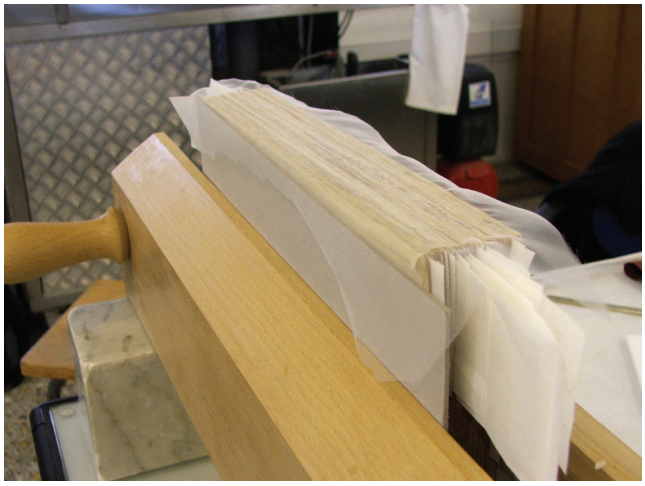

Fig. 13. Album lined with polyester

Fig. 14. Opening of album after lining with polyester

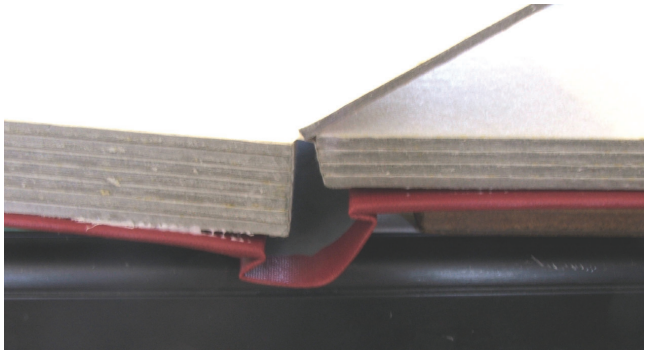

Fig. 15. Detail showing restricted opening and pastedowns becoming detached

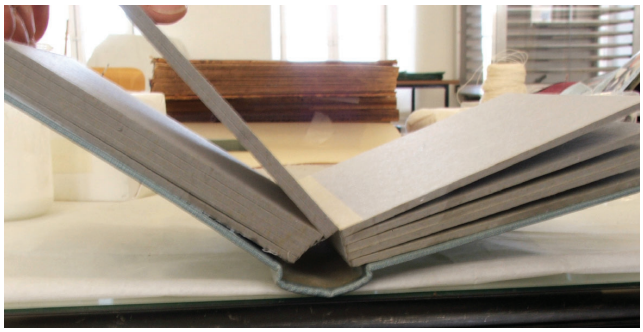

Fig. 16. Open model

Model 4

This model was inspired by a photograph in the article "A Yemenite Taj: A Case History in Cooperative Book Conservation" (Ruzicka, Downey, Kat, and Krain 1996). This photograph shows the action of the spine when the cover of the book is opened. It gives the impression that the spine is split in the middle.

This impression gave us the brilliant idea of having a split spine. The idea was not, however, a spine which is split in the middle but a spine which is split in many places—a "tambour" spine. A tambour is a flexible door or shutter made up of narrow, specially shaped strips attached to a linen or canvas backing. A common example is the cover of a roll-top desk (fig. 17).

A cloth case was made as in the other models. The tambour spine was made by cutting narrow strips out of Daler Rowney (ref. 3770) 1400 μm conservation board and pasting them on the cloth cover with a 50:50 mixture of Evacon and CMC. The spacing between the strips is the thickness of the board used (fig. 18). The case was then adhered to the book block by the first and last leaves.

The model opened perfectly. As the leaves moved upwards upon opening, the spine moved with them in an articulated manner.

The last model was obviously chosen, and the original album boards were prepared for rebacking.

BOARD PREPARATION

The pastedowns and cloth cover were lifted mechanically with a scalpel. These were lifted far enough to enable the insertion of the new cloth underneath the original cloth cover and the concertina guard with a linen strengthener underneath the pastedowns.

REBACKING

The new cloth spine was prepared. A piece of cloth was cut longer than the boards to allow for the turn-ins and wide enough to cover the backbone and to be inserted under the original cover.

The "tambour" spine was prepared next. Strips of Daler Rowney 1400 μm conservation board were cut the same length as the boards and pasted onto the centre of the new cloth spine. The cloth was then turned in on top of the strips and boards.

This new backing was attached to the album by inserting it underneath the original cloth cover. The last part of the "concertina" was inserted under the pastedowns. This was adhered by the Evacon-CMC mixture.

Two strips of linen were cut and pasted on each of the Japanese paper concertina joints. This linen hinge will act as a strengthener for the joint as each board is actually made up of two boards: the board and the pastedown, which is an album leaf.

Two strips of *Minota* (25511) 30g/m^2 were cut the same length as the album leaves and pasted on the gap joints.

The album opened with great flexibility and the articulation movement of the tambour spine helped lift the leaves, thus reducing the stresses at the gutter (figs. 19-23).

HOUSING

The album was housed in a box that turns into a book cradle. Proper and careful handling and housing seemed to be the most appropriate solution in this case (figs. 24-28).

Fig. 17. Roll-top desk found at the Bank of Valletta Museum in Sliema, Malta

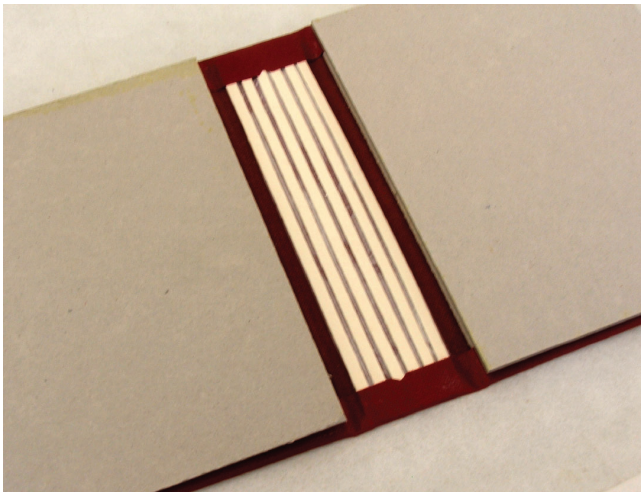

Fig. 18. Detail of "tambour" spine

CONCLUSION

The treatment of this album was complex and challenging. It demanded innovation in both the leaf-to-leaf attachment and even more in the method of rebacking as the problems in this album were inherent in its original construction. The result, particularly the rebacking treatment, was successful in helping eliminate problems common in these Victorian albums.

NOTES

1. Cartes-de-visite were small visiting card portraits patented in France by Andre Disderi in 1854 and became the first type of photograph to be mass-produced. They were small (usually 100 mm x 64 mm) and allowed the photographer to take eight photos on a single plate, thus greatly reducing costs. These were usually albumen prints mounted on cards featuring a portrait of a famous personality. It was estimated that in excess of one hundred million portraits were produced in Britain at the height of the boom in 1862. (Rutherston 1999, 13, 19; Leggat).

2. According to Horton, Frost was referring to carte-de-visite albums (Horton 2000).

3. Lack of fold endurance is also why linen was no longer used to make collars in men's shirts at the end of the nineteenth century (Eldridge 2002).

4. These red lines cannot be removed.

5. This album structure was patented on October 17, 1865, by William W. Harding, 326 Chestnut Street, Philadelphia.

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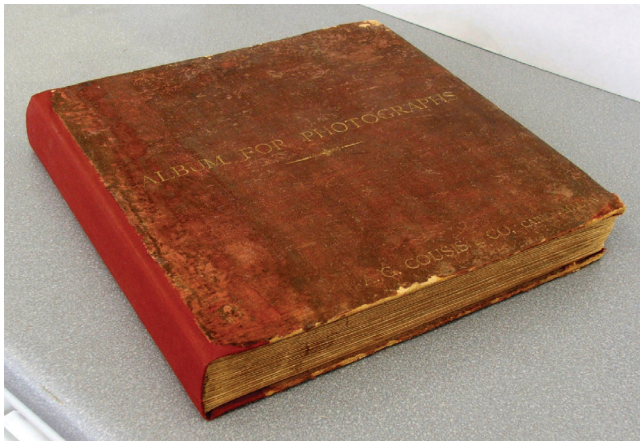

Fig. 19. Album after rebacking

Fig. 20. Detail of the articulation movement of the "tambour" spine

Fig. 21. Detail of the articulation movement of the "tambour" spine

Fig. 22. Detail of the articulation movement of the "tambour" spine

Fig. 23. Detail of the articulation movement of the "tambour" spine

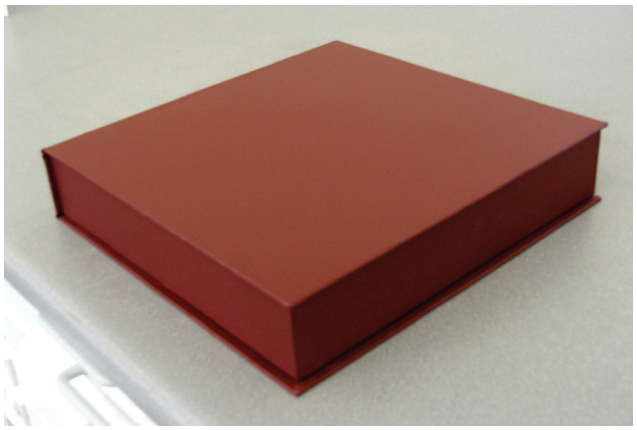

Fig. 24. Closed box

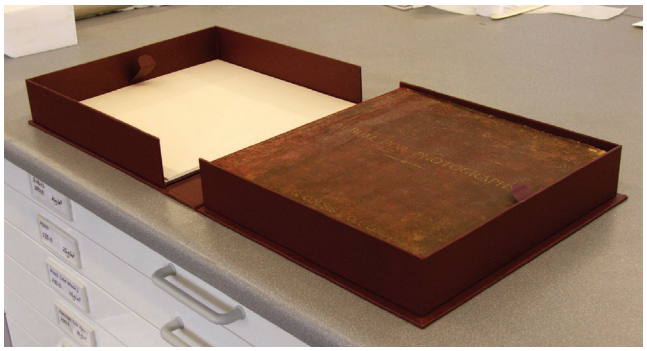

Fig. 25. Open box with album inside

Fig. 27. Album on cradle in box

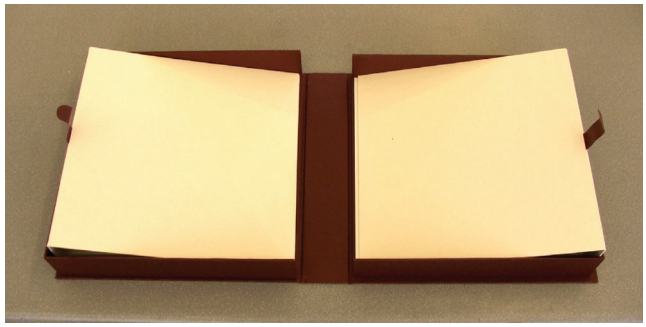

Fig. 26. Open box with cradle

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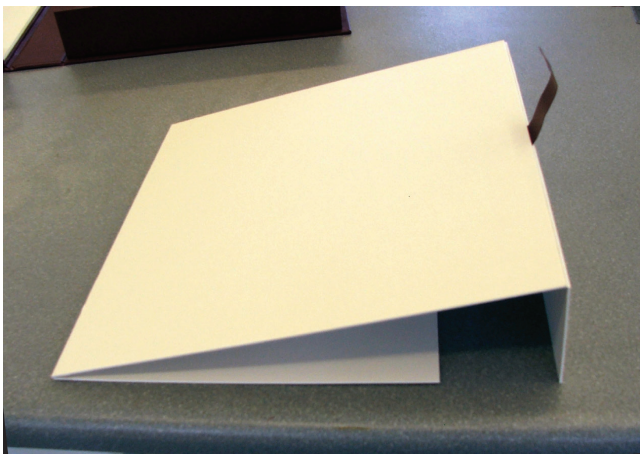

Fig. 28. Detail of cradle

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