CONSERVATION WORK ON THREE COPTIC MANUSCRIPTS FROM SHEIKH ABD EL-GURNA

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The three Coptic manuscripts discovered by a Polish mission in Sheikh Abd el-Gurna in 2005 (Górecki 2006: 266-272 and Figs 3, 4), two on papyrus and one on parchment, were protected provisionally on the spot[1] and transported by decision of the Supreme Council of Antiquities to the lab facilities of the National Museum in Alexandria in March 2006 fur further comprehensive treatment. The Sheikh Abd el-Gurna Book Conservation Project implemented in cooperation between the Polish Centre of Mediterranean Archaeology (University of Warsaw) and the Polish Ateliers for Conservation of Cultural Property (PPKZ S.A.) worked in two stages, first on 5 March-11 April and then on 17 August-28 September 2006.[2]

The papyrus books were disinfected first, after which the cards could be separated (except for the final three quires of the papyrus codex with stamped leather cover). The parchment block was separated into cards at once. As a result, the contents of all three books could be fully documented and identified by specialists. Fiber degradation has been stopped and the books are now in safe storage, awaiting the next phase of conservation work when they will be deacidified and consolidated, and the numerous cracks and rips mended. Work will be undertaken to clarify the text. Another task for the future is separating the papyrus scraps which were used to produce the codex covers, as these are expected to be inscribed as well.

An analysis has also been prepared concerning the final presentation of the books. Issues which need to be addressed in preparing this program include the

1 Restorers Janina Wielowiejska and Izabela Mazur from the National Library in Warsaw, specialists in restoring old books, prints, manuscripts and drawings, were rushed into the field to appraise the condition of the books and undertake provisional on-the-spot treatment.

2 Conservators Daria Kordowska (paper, parchment and papyrus; acting head of the project) and Anna Thommée-Stachoń (paper and parchment) of the PPKZ S.A. Books, Prints and Archives Conservation Atelier in Toruń carried out the conservation. The SCA was represented by Sofinez Ali Mohamed Ali and Ahmed Abdalla of the National Museum in Alexandria.

The Project is deeply indebted to Amira Abu Bakr, Director of Conservation in the Alexandria branch of the SCA, and to the staff of the National Museum in Alexandria for all-encompassing assistance in preparing proper conditions for carrying out the work. We are also grateful to Tomasz Górecki, director of the Sheikh Abd el-Gurna Archaeological Mission (PCMA) for all his efforts in starting this project. By the same, we would like to thank Dr. Zbigniew Szafrański and Dr. Grzegorz Majcherek, deputy directors of the PCMA in Cairo and Alexandria respectively, for their help, advice and patience in organizing the work of the Project.

advisability of reconstructing papyrus cards, leather of the covers, elements of sewing in order to restore the original appearance of the books. The more popular alternative is to mount particular cards between glass or plexi plates. A third possibility is making a copy or reprint of the books, which are then kept in museum storage.

STATE OF PRESERVATION AND INITIAL PROTECTION

The books as they were lifted from the ground in 2005 appeared very impressive at first sight, but they could not be opened because of the damages and degradation of the papyrus and parchment on which they were written. The first step, still in 2005, was a provisional treatment of fragments of the leather covers which were threatening to crumble. Testing of cleaning procedures for the leather covers was also undertaken. One wooden cover was removed from the parchment block and an attempt was made to prize apart the first parchment card from the block (Górecki 2007: Fig. 9). All three books were placed for protection in separate cardboard boxes with tissue separators and stored in waiting for transport to a conservation lab.

Secondary degradation due to fluctuating temperatures and humidity levels occurred even while the books remained in storage in the desert conditions of Gurna-Luxor, waiting for the conservation project to begin. Unavoidable contact with polluted air also opened the papyrus and parchment material to further degradation caused by chlorides, sulfides, ozone, and photochemical smog, increasing the threat of mold.

The facilities of the National Museum in Alexandria offered the necessary equipment and proper round-the-clock climatic conditions (60% Rh, c. 17°C) meeting the standards required for conservation treatment of papyrus and parchment.

PARCHMENT CODEX (*BOOK OF ISAIAH*)

The parchment codex held between two leather-covered boards turned out to be a destruct. One part consisted of a wooden board and adhering parchment block. The other, smaller board retained parts of the back and one card adhering to it. Both boards were distorted, the sides arched and curling up. The block adhered to the inner, convex side of one board, the single card to the concave, inner side of the other board. The block had melted parchment (resulting from high temperatures) covering it unevenly on all sides [*Fig. 1*]. This hard, black, shiny mass turned the codex into a uniform solid, making the edges of cards stick and penetrating inside in places. It also made the block adhere to the wood all over. Because of it, the exact number of cards could not be determined. After being documented in writing and photography, the block was separated by mechanical means from the board. Tests were made to choose the proper method for separating cards. Moistening the entire block from a distance was rejected as both water and alcohol caused the melted parchment to gelatinize. It was feared that moistening the block would result in the cards sticking even more, most probably permanently.

Since the black parchment has been proved to be an amorphous collagen mass

which is not restorable to the original form of a card, it was decided to remove it mechanically. This was done by pricking and removing the black deposits.

The method for separating cards required a preparation needle to be inserted in order to bring in as much air as possible between the cards. After about 48 hours of repeating this action, the amount of air between cards in a given part of the block was sufficient for a broad tool to be inserted in a noninvasive way. Levering this tool up to one side and then to the other allowed the block to be separated into two parts [*Fig. 2*]. This was repeated, each time separating the outer card. The end result were 52 cards.

The cards were deformed and had very brittle edges. A special Gore-tex chamber was prepared to moisten and straighten each card, following a standard procedure of moistening from a distance, which was determined to be appropriate and effective in this case. The objective was to relax parchment fibers and thus straighten the deformed and folded card surfaces [*Fig. 3*]. Upon removing from the chamber, each card was immediately cleaned of the remains of sticky melted parchment. The moistened card was placed on a thin acidless cardboard, delicately stretched with Filmoplast P and left to dry freely.

Fig. 1. Parchment block after detaching from wooden board (Photo D. Kordowska)

Fig. 2. Parchment block during separation of particular cards (Photo D. Kordowska)

Fig. 3. Separated parchment cards during the moistening process (Photo D. Kordowska)

This action was repeated twice. In the end effect, the surfaces of cards, which had been very deformed, were partly and in a few cases completely straightened out.

PAPYRUS BOOKS

A first examination of the papyrus books in Alexandria revealed beige-white discoloration on the leather covers, either in places or over larger sections of the surface. They were for the most part of fluffy structure, evidently standing out from the surface, which indicated the growth of microorganisms. This phenomeon was especially obvious on the backs of the books and the underside. A 10% solution of parachlorometakresol in ethanol was used for immediate disinfection.

Both books can be described as deformed monoliths. Most of the structural elements have been preserved, but they no longer work properly. The edges of the blocks are weakened and brittle, strongly deformed and pressed together. The pages could not be opened. The book covers preserved remnants of the leather lining, in one case stamped, in the other painted. A wooden pointer was attached to the book with painted leather cover.

PAPYRUS BOOK
CANONS OF PSEUDO-BASIL

The first step with regard to the book in stamped leather cover [*Fig. 4*] was to separate the cover from the papyrus block. The front cover proved to be made of a layer of papyrus scraps, large quantities of papyrus fiber imparting shape onto the cover, and a layer of leather (one large fragment preserved). The leather was cleaned with cattle gall, oiled and elasticized with dressing treatment and doubled on Chinese paper. The papyrus fibers were collected and labeled for storage. The part with papyrus scraps was left in a specially fitted box.

The leather of the back cover was fragmented into a loose irregular mass. It was collected for storage. The papyrus scraps were protected in the same way as already described for the front cover.

The block was analyzed for quires and each was subsequently separated mechanically. A total of nine quires of different thickness was thus obtained. The quires with the back not preserved were mechanically separated into individual sheets [*Fig. 5*]. Those with even a minimal part of the back were moistened from a distance in the Gore-tex chamber in order to separate the cards while preserving the back.

PAPYRUS BOOK
ENKOMION OF ST PISENTHIUS

In the case of the book with painted leather cover [*Fig. 6*], the procedure started with separating the front cover from the block. This cover consisted of papyrus waste and a piece of leather, unfortunately in very bad condition. All the leather remains were doubled on the face side with Japanese tissue paper and removed. The papyrus scraps were stored until later in the conservation process.

The back cover has not been preserved. All the loose dry fragments of fibers were collected and put into storage. An analysis of the block identified particular quires. The first five were removed and separated into individual cards [*Fig. 7*]. The remaining monolithic part of the book requires more work on separating quires and cards.

In the case of both books, all the elements of sewing, covers and fragments of leather were placed in specially designed and made passe-partout boxes. Particular

cards were placed between acidless cardboard. For each of the books and the parchment codex, a separate wooden box was designed and made. The objects are now in air-conditioned storage in the Museum, closed in a metal chest between disinfecting layers introduced for prophylactic purposes.

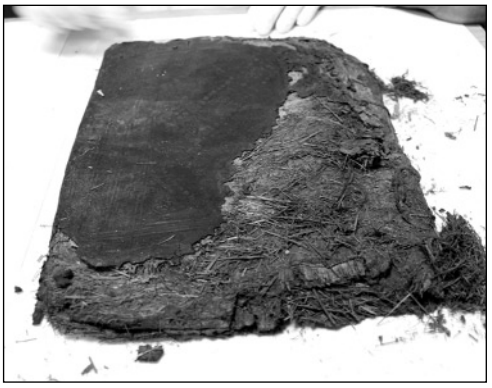

Fig. 4. Papyrus book with stamped leather cover (Canons of Pseudo-Basil) before conservation (Photo D. Kordowska)

Fig. 6. Papyrus book in stamped leather cover (Enkomion of St Pisenthius) during conservation (Photo D. Kordowska)

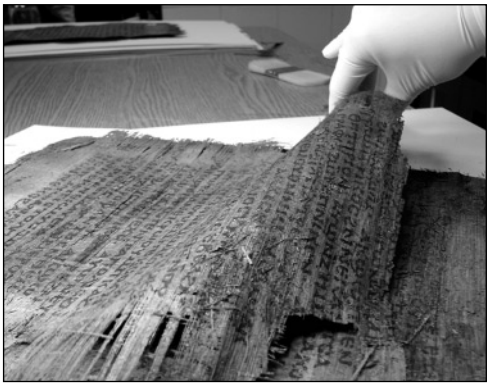

Fig. 5. Separating the papyrus cards (Photo A. Thommée-Stachoń)

Fig. 7. Separating the papyrus book quires (Photo A. Thommée-Stachoń)

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