On-site conservation during this year’s brief campaign was limited to three textiles selected from the assemblage recovered from the graves of a cemetery being excavated on sites A and E. Priority was given to the pieces that showed the most excessive dryness and fiber degradation, as well as those that presented risk of mechanical damage. Display needs were also taken into consideration and, last but not least, the scholarly merit of particular textiles, e.g. the Arabic inscriptions that appear amidst the decoration of the tiraz textiles are particularly helpful in the dating of the pieces.\footnote{Tiraz textiles were known in Arab tradition from the times of the Omayyad caliph Abd al-Malik (AD 685-705). The first tiraz weaving workshop was established in the reign of caliph Hishaam (AD 724-743). Richly embroidered in silk, these textiles feature inscriptions in Arabic – of a religious nature or historical, mentioning the name of a caliph, his titles, the name of the person who had commissioned the piece, as well as information about where, when and by whom it had been made. The Naqlun inscriptions, which have yet to be studied, may turn out to be an interesting source, especially in view of the fact that all of the textiles come from a cemetery that is Coptic, not Muslim. Most of the Naqlun textiles come from the Fatimid period (AD 969-1171), although a few could be of Mamluk date (AD 1250-1517).}

Damage to the textiles found at Naqlun is largely dependent on the nature of the burial. In pit graves, where the bodies were buried without a coffin, textiles tend to disintegrate. Direct contact with desert dust and the products of mud brick decay has led in most cases to excessive drying and brittleness of the fibers, and subsequent gradual disintegration. Textiles from burials inside wood or palm-leaf-rib coffins stand a much better chance of surviving in satisfactory condition. Furthermore, the coloring of particular pieces has suffered from stains and discoloration due to direct contact with the products of human body decay. The fibers in these spots have been stuck together and made stiff, becoming susceptible to breaking and crumbling.

Much of the preparations for field conservation were made in Poland, i.e., pre-shrinking and dying of the doubling fabric. Structure was an important criterion of choice, with the fragile textiles being doubled on crepeline, a thin but durable silk fabric, and the thickest of the textiles on natural linen. In all cases the doubling fabric provides an intentional color contrast for the objects as the purpose of the treatment was the preservation and not reconstruction of the textiles.

The first to be treated was a textile from grave T.174, where it had been found next to the head of the deceased. In its current fragmentarily preserved form it measures 43.5 by 38.0 cm (Fig. 1) and was woven of silk and linen in plain tabby, tapestry.
Fig. 1. Piece of linen-and-silk shawl, after conservation (Nd.00075)
(Photo W. Godlewska)
weave being applied in parts of the silk decoration executed on a linen warp. The decoration consists of two bands of a golden color, one 2.3 cm and the other 5.5 cm wide, sandwiched between sets of cream, pink and black stripes. Interspaced on these bands are single and double medallions of pink, green and blue, filled with schematic representations of birds. In the case of the wider band, the medallions are framed with black bands, on which Arab inscriptions have been embroidered in cream. A side band of black wavy lines on a yellow background constitutes the border along the long edges.

Upon discovery in 2000, the textile was cleaned mechanically and with the aid of fine brushes and a mini vacuum cleaner.2) It was then moistened with distilled water, permitting the creased fabric to be stretched out on a glass pane and the spaces between the fibers to be cleaned.

In 2001, the first task was a prophylactic disinfecting of the textile with Lichenicide 264, the remains of which were then removed from the surface of the fabric with a mini vacuum cleaner. This step was required as it was decided not to immerse the piece in water. Once the disinfecting had been completed, the textile was doubled on crepeline making sure the line of the warp and weft threads matched.3) The doubling was accomplished with silk yarn using thin specialist needles at intervals of 3.0-5.0 mm under a lamp equipped with 5x magnifying glass.

The last step was to place the protected fabric on a piece of cardboard, 50 by 50 cm in size, covered with acid-free paper, the doubling material being tightened on it by pulling the edges together on the reverse with cotton thread. Acid-free Japanese tissue paper on top and an acid-free paper envelope were used to ensure stable storage conditions.

**TEXTILE ND.00197**

Found in three pieces, this linen textile comes from grave T.179 (excavated in 2000). It represents a plain tabby weave with silk decoration executed in tapestry weave technique (Fig. 2). The design consists of two bands, each 4.6 cm wide, separated by a linen plain tabby section, which is 1.1 m wide. Each of the bands is filled with medallions containing bird motifs in cream against a pink ground, surrounded with a cream circle setting off the representation from the blue or green color of the medallion itself. An Arab inscription runs above the medallions.

The poor condition of the textile precluded full immersion in water, hence it was only slightly moistened and stretched on a glass plate, after which it was disinfected with a Lichenicide solution. The textile was doubled on crepeline, care being taken to judge, which side is the right side up. The Arab inscription was

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2) Washing in water is not always recommended due to the fragile condition of some textiles, which could disintegrate completely in consequence. The brittleness of two of the textiles treated this year precluded their complete submersion in water. However, as always in the case of newly excavated textiles, the fabric needed to be cleaned and straightened out. This is possible only once the fabric has been moistened gently.

3) Damaged places of the textile were protected with a laid stitch used to protect damaged places of the doubled textile, either by couching (parallel threads attached to the ground at intervals) or by attaching with thread the edges of holes and tacking down any damaged or separate parts.
Fig. 2. Linen textile after conservation (Nd.00197) (Photo W. Godlewska)
Fig. 3. “Pillow” textile, after conservation (Nd.99409)
(Photo W. Godlewski)
The last to be treated this year was a "pillow" that had been excavated from burial T.127 in 1999 (Fig. 3). The three pieces of linen and silk were folded and laid on top of some branches under the head of the deceased. The pillow was presumably made of two fairly identical pieces that had been sown together, but its original dimensions can no longer be reconstructed. The silk tapestry weave decoration consists of a row of antithetically composed hares in intertwining medallions, sandwiched between two rows of palms and further still, another row of medallions with animal representations and wavy and geometric ornaments. Rows of inscriptions in Arabic run amidst this decoration.

The plain parts of the fabric were executed in plain tabby weave. The textile is largely discolored, but to judge by a single preserved piece, it once featured rich saturated colors – red, yellow, black, green, blue, white and cream. In 1999, it was provisionally cleaned of sand and dirt, using fine squirrel-tail brushes and a mini vacuum cleaner. It was then washed, using a fabric softener, Pretepon G, which is also useful in removing any remaining dirt. Once rinsed in distilled water, it was spread out on a glass pane and dried flat after dabbing away excess with tampons.

This year the textile was treated with Lichenicide and doubled onto frame-mounted, pre-shrunk linen cloth of natural beige-gray color. The seams with which particular fragments of the pillow had been joined together were now removed to eliminate creasing and the additional harmful pressure on the warp and weft threads. The threads used for seaming were preserved in the conservation documentation. Once the textile had been couched with laid stitch using silk yarn as before, it was taken off the frame and transferred to a 70 x 100 cm piece of cardboard lined with acid-free paper.

Appropriate storage space in the form of a wooden cupboard with shelves 90 cm deep was prepared for the treated textiles in the expedition's storeroom at the monastery of Deir el-Malak Ghubrail.

Both work

One of the most striking textiles to be found in the Naqlun cemetery – shroud fragment Nd.993115) – was subjected to preventive disinfecting in order to counteract any damaging microbiological processes that may have begun. Since its discovery, the textile had developed spots of white deposits and discoloration. Lichenicide was sprayed on the entire surface of the object and covered with acid-free paper.

4) Cf. B. Czaja-Szewczak, "Textiles from Naqlun, 1999", PAM XI, Reports 1999 (2000), 137-138, Fig. 3 (detail, before conservation) and cover.
Melinex to help it penetrate deeper into the fibers. After four hours the Melinex was removed and the shroud allowed to dry, after which the crystallized particles of Lichenicide were removed with the help of a mini vacuum cleaner.

One other textile was subjected to washing with Pretepon G fabric softener and preventively treated with Lichenicide. It is N.93016, a relatively small piece consisting of two fragments, decorated with a color ornament and an excellently preserved Arab inscription inside a cartouche. Washing brought out the colors and the tapestry weave technique used in its execution.