# MOSAIC CONSERVATION AT KOM EL-DIKKA IN ALEXANDRIA IN 2002 

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The transfer of a mosaic floor was the chief objective of the 2002-2003 season at Kom el-Dikka. ${ }^{1)}$ The pavement in question was a geometric mosaic from trench M XV, discovered in 1993 near the theatre, already in a layer underlying its foundations. It featured a panel with the Greek inscription KA $\Lambda \Omega \Sigma$ HKEI $\Sigma$ and an emblema in opus vermiculatum on a ceramic tray, representing Dionysus-Bacchus. The geometric ornament was done in the opus tesselatum technique, while the border frame in opus sectile. ${ }^{2)}$

Found at the bottom of a deep trench, the mosaic floor was constantly in danger of flooding by ground water and rainfall. Two-thirds of the floor was sunken relative to the third which lay superimposed on a stone block that constituted the threshold. This condition naturally caused crosswise cracking and loss of cohesiveness between the tesserae. About $60 \%$ of the emblema has survived. The round ceramic tray had cracked, presumably under impact. The missing parts had been repaired in antiquity with lime-mortar.

The first step in the conservation process was to remove the protective layers of earth, sand and cloth that had been applied upon discovery (Fig. 1). Photo-
graphic documentation of the condition of the floor before and during conservation was regularly made. The surface was cleared of loose dirt and salt efflorescence. Wet sponges were then used to clean the surface and the losses were filled with lime mortar. Water with ammonia and acetone was then used to clean and degrease the surface. Following some testing of adhesives for the layer protecting the top face of the mosaic, PVA (WINAVIL) of Egyptian production was used. Cotton gauze was applied on the edges of the cracking.

For the transfer the pavement was divided into three major sections, two smaller ones and the tondo (Fig. 2). The natural crack was taken advantage of as one of the division lines, while the others were traced across the floor. The three major sections measured $210-212 \mathrm{~cm}$ in length by from 56 to 90 in width. The smaller ones around the tondo were 54 by 37 cm and 46 by 15 cm respectively. The tondo was 64 cm in diameter. The opus sectile border frame was left in place. The face of the mosaic was protected with two layers of cotton gauze and a layer of thicker cloth. The next step was to cut away the surface layer of the mosaic section by section,

[^0]drying each cut part with electric heaters. Once this was completed, each section was placed between wooden supports, separated from them with a layer of foam. The wooden supports were wired together and pulled out from the 8 -meter trench on lines.

In an on-site field conservation lab, the mosaic sections were laid face down and the remnants of the bedding, consisting of lime mortar and original floor substructure, were removed (Fig. 3). Cubes that had stuck loosely and had been displaced along the line of the crack were removed, cleaned and secured back in place. The cleaned back of the mosaic sections was then sprayed with an impregnating $7 \%$ solution of Primal AC 33 of Italian manufacture. Everything was prepared for introducing a new lime bedding, consol-
idating the separate parts, securing the tesserae along the division lines and placing the reconstructed floor in its new place of exposition.

The last step of the work in the trench was to cut out the emblema with the figural representation. The surface was cleaned mechanically and with a $5 \%$ ammonia-water solution. The face of the mosaic was stuck with cotton gauze using Glutofix 600 methylcellulose adhesive of Italian manufacture. The ceramic tray supporting the emblema was cut away from the bedding. It turned out that the layer of tesserae in mortar bedding no longer adhered to the ceramic support, which subsequently broke into smaller pieces. The coherent emblema was laid face down and protected with foam and pieces


Fig. 1. Mosaic floor after preliminary cleaning of the surface (Photo J. Lis)


Fig. 2. Mosaic floor divided into sections in preparation for lifting (Photo J. Lis)


Fig. 3. Back of the mosaic floor after cleaning
(Photo J. Lis)
of laminated wood cut to size. It was then carried out of the trench. The back was cleaned of the remains of disintegrated lime mortar and pieces of ceramic tray. A new lime mortar with marble filler was introduced, followed by another layer of
the same but with marble and ceramic filler plus 1\% Primal AC 33. Fragments of the ceramic tray were desalinated in water baths and by applying water compresses. After drying, the fragments were ready for impregnation and recomposition.

## OTHER WORKS

The surface of the mosaic pavement in the portico, at the entrance to the baths, was cleaned. The same was done for the floor in House FB. Losses of the surface in both mosaics were filled in. The old disintegrated lime binder and the disintegrated protective bands around the edges were replaced with
new ones and fragments of the pavement restored, using lime mortar with $1 \%$ Primal AC 33 and a lime-and-whitecement mortar with 1\% Primal AC 33 (for the bands). The entire surface of the pavements was disinfected with a $40 \%$ solution of formaldehyde in water.


[^0]:    1) The project was carried out by the author in October and November 2002.
    2) The part of the pavement with the threshold inscription had already come to light in 1993, cf. G. Majcherek, "Excavations in Alexandria, 1992-93", PAM V, Reports 1993 (1994), 11-20; for the discovery of the rest of the floor with the emblema, see the Alexandria report by G. Majcherek in this volume.
