

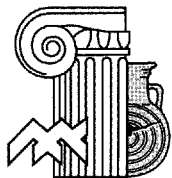
HIPPOS - SUSSITA

Eighth Season of Excavations

July 2007



**Zinman Institute of Archaeology
University of Haifa**



אוניברסיטת חיפה • המכון לארכיאולוגיה ע"ש זינמן
UNIVERSITY OF HAIFA • ZINMAN INSTITUTE OF ARCHAEOLOGY

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Eighth Season of Excavations
(July 2007)

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Conservation Work in the North-West Church Complex

In accordance with the conservation schedule prepared for the 2007 season, a variety of treatments were applied to the structures uncovered in previous years, such as condition checking, consolidation of weakened or detached plaster and mosaic fragments, protection of the edges of plasters and mosaics, cleaning and protection of polychrome plaster surfaces.

The team, supervised by Mrs. Ewa Radziejowska, was composed of Ms. Julia Burdajewicz, Ms. Hanna Siemiatkowska and Ms. Justyna Chalupka, students at the Conservation and Restoration Department of the Academy of Fine Arts in Warsaw.

1. Wall plasters

a) Remains of wall plasters in the *diakonikon* rooms

Conservation action in both rooms of the *diakonikon* was conducted in 2004 and 2005 seasons and included strengthening of the broken plaster edges with bands of lime-based mortar as well as applying a number of glue injections. However, routine condition checking in 2007 indicated that some mortar bands got weakened or even crumbled. The damaged bands were then removed and, after careful cleaning, the plaster edges were fixed and reinforced by applying bands of lime-based mortar ("Ready-Mix" mortar with an addition of marble powder).

b) Polychrome basalt blocks stored in the *diakonikon*

Condition checking of painted basalt blocks pertaining to the *martyrion* chapel which in 2005 had been transferred from the nave to the *diakonikon* revealed that it was necessary to modify their arrangement in order to ensure the painted surfaces a better protection. Conspicuous changes in the position of individual blocks that occurred since the previous season made it clear that people visiting the site throughout the year must have moved some of them, exposing polychrome plasters to destructive factors such as rain and sunshine. The state of preservation of the plasters was recorded once again, and after their condition had been checked, some painted surfaces received additional treatment such as the reinforcement of plaster edges. Then all the blocks were moved towards the walls of the room, placed there with their painted surfaces facing the wall, and covered with a light insulating textile.

c) Conservation schedule for plasters in 2008 season includes:

- Checking of the condition of plastered parts of walls treated during previous seasons and subsequent consolidation and strengthening actions on weakened or detached fragments wherever required.
- Recording and describing of any changes in the condition of the plaster that might have occurred since the end of 2007 season.
- It is recommended to plan some advanced protection of wall plasters remains in the area of North West Church because unrestricted movement of visitors to the site is clearly the cause of a number of recently occurring damages.

2. Mosaic floors

During the eighth season of fieldwork, conservation actions were focused on the mosaic floor in the northern aisle of the basilica as well as on the so-called “Antonia mosaic” in the southern portico of the atrium.

a) Northern aisle

Protective layer of sand and fabric covering the floor of the northern aisle of the church was lifted during this season in order to record condition of the mosaic and any changes that might have occurred since year 2004 when it had been covered. Its state of preservation turned out to be very satisfactory and no traces of on-going destructive processes could be detected. Basic stabilization treatments applied during the previous seasons such as securing of the mosaic edges preserved the floor from further damages. Most of the *lacunae* within the area of the northern aisle have been located in its eastern part and clearly are the result of a collapse of heavy stone elements, which impaired the floor surface during the earthquake of 749 CE. Loss of the mosaic floor on the border between the aisle and the nave is likely connected to damages that occurred in the nave probably before the earthquake and extended towards the aisle due to “domino effect” that systematically decreases floor area. Small gaps may also be seen in front of the northern apsis and are traces of placement of the altar legs. In the same area, five shallow depressions mark the places where heavy stones hit the floor (fig. 111). The whole mosaic surface in the aisle was covered by a thick layer of compact dirt and probably calcium salt incrustations; actually, it had never been properly cleaned before. Wide range of cleaning methods, including the use of mechanical and chemical means,

was applied in order to enable preparing precise documentation of the patterns (fig. 112).

During the cleaning treatments it turned out that the yellow *tesserae* and some of the red ones, made of soft limestone, were severely affected by the erosion process. Most of them were successfully cleaned with a range of dental tools and afterwards protected with 1,5% solution of Paraloid B-72 resin in acetone and toluene applied by means of a small paintbrush. In some instances, however, dirt covering yellow cubes was so strongly attached to their surface that it was impossible to clean them quickly and effectively with methods available on the site, without affecting the *tesserae* themselves. Therefore, those cubes have been left with a thin layer of dirt upon them until complete and comprehensive cleaning process will be possible to conduct.

Protection of the floor in question mostly included replacing of old mortar bands to the mosaics edges with the new ones. In preparation of the mortar bands, a ready-made lime mortar ("Ready Mix") was used, with addition of a sieved sand. Larger gaps have first been protected with bands, and then entirely filled with lime-based mortar. The mortar has been applied in two layers and leveled up to the mosaic surface in order to strengthen the whole structure.

b) Southern portico of the *atrium*

Conservation works on the so-called "Antonia mosaic" in the southern portico of the *atrium* started with its discovery in 2004 season and included securing of the floor edges (especially the western edge, right above a trial pit that revealed a section of an Early Roman *temenos* wall, W157) as well as strengthening of the mosaic bedding by a series of glue injections (Primal E-330). The present condition of the mosaic can be described as stable and fairly good. However, as a result of collapse of heavy blocks during the earthquake of 749 CE, three depressions can be seen in the floor's surface. An original mortar of the mosaic has been strong enough and of rather good quality, thus the impact of falling stones didn't manage to crumble the mosaic but only pressed it into its bedding without breaking the structure. During the previous fieldwork seasons, all of the hollows were temporarily secured with bandage strips glued to the mosaic surface. In 2007, however, two spots in the mosaic floor that had been driven below its original surface were dismantled to provide a new bedding and to level the depressions. The bedding was prepared in two layers, both of them composed of a ready-made lime mortar, but with different fractions of added sand. Original *tesserae* were cleaned and

reused to restore the pattern (fig. 113). The third hollow, the largest one, was thoroughly cleaned and then reinforced with mortar bands, applied in small gaps on its edges.

c) Documentation works

All structural and surface conditions as well as results of the previous conservators' interventions have been described and recorded both as a text and as graphic documentation (fig. 111). Detailed study of patterns in the northern aisle of the basilica, which was made possible through its careful cleaning, shed light on the chronology and decoration concept of the mosaic floor. Shallow trial pits were made inside the large gaps existing in the aisle's mosaic floor in order to examine the structure of the floor and its bedding (fig. 114). It turned out that in all probability there was no earlier mosaic floor before the existing one.

d) Summary

At the end of the 2007 season insulating material had been laid on both mosaic floors (the northern aisle of the basilica and the "Antonia mosaic") and buried under a 15 cm thick layer of sand. Before covering the mosaic, no active processes of destruction had been recorded. However, all kinds of floor preservation treatments applied during this and previous seasons have only temporary character, adjusted to needs and means of archaeological fieldwork. All of them should be replaced in the future with more permanent solutions that would also involve building a shelter roof over the basilica and, at least, parts of the atrium.

It is not planned to uncover any mosaic floor during the season of 2008, except for the study of the mosaics in preparation for their final publication. Nevertheless, it will be recommended to thicken the amount of the soil covering all the mosaic floors of the North-West Church compound, due to an intensive rainfall in the autumn-winter period that can ultimately wash out the present protective layer.

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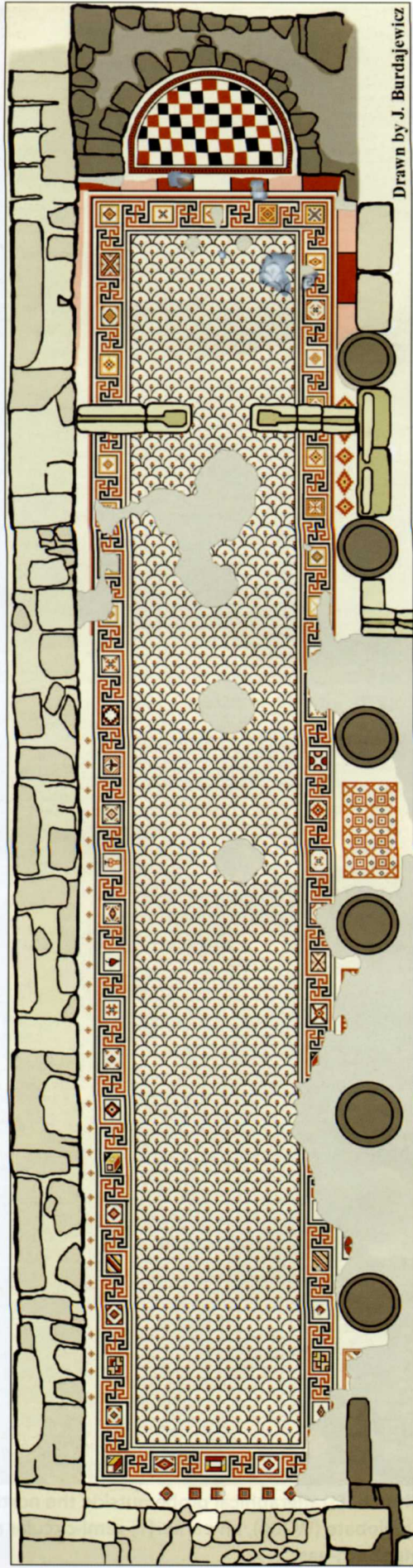


Fig. 111, Hippos 2007, North-West Church. Plan of the mosaic in the northern aisle of NWC. Gray colour shows areas of *lacunae* where basic stabilization treatments were conducted during previous seasons. Blue patches show areas of shallow depressions (down to 7 cm.) caused by impact of stones falling down during the earthquake.



Fig. 112, Hippos 2007, North-West Church. View of plain fragment of mosaic in the northern aisle during the cleaning process. Left side: before, right side: after the removal of major amount of dirt (a close-up).

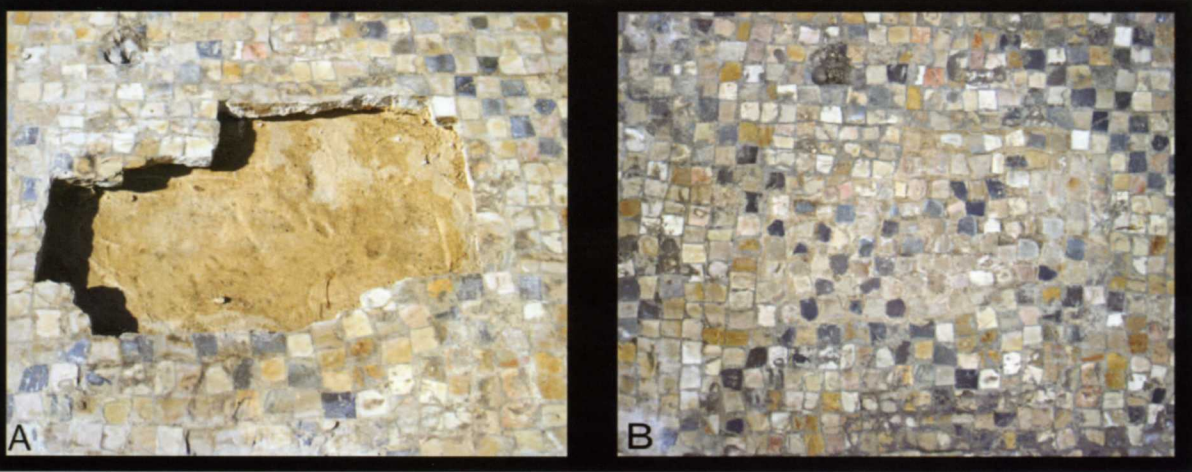


Fig. 113, Hippos 2007, North-West Church. Mosaic floor in the southern portico of the *atrium*: A. after dismantling a hollow in the mosaic and setting the first layer of a new bedding; B. the same place after restoring the decorative pattern with original *tesserae*.



Fig. 114, Hippos 2007, North-West Church. Small trial pit within big *lacunae* area reveals the stone bedding (*statumen*) of the mosaic floor in the northern aisle.