# RESTORATION WORK IN THE PALMYRA MUSEUM IN 2004 

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In May 2004, the authors, both accomplished artists and free-lance art restorers, worked on a number of different monuments from the storerooms of the Palmyra Mu-
seum, assisted in this by the museum staff. The reassembled statues were moved into the exhibition gallery for permanent display.

## ARCHAIC HONORIFIC STATUES FROM THE SANCTUARY OF ALLAT

Several fragments of huge standing figures (originally about 2.50 m high) in soft, yellowish limestone were found in 1975 in the foundations of a late enclosure of the sanctuary of Allat. They had been shattered already in antiquity and the pieces reused as building material. Four of the statues proved possible to reassemble. On the grounds of style, they could all be dated to the early 1 st century AD or earlier.

## STATUE A

Making up the statue were three big pieces: the torso (inv. no. 196/75), legs (inv. no. 192/75), fragment from one knee to waist (no inventory number) and a few smaller parts of hands and robes $[$ Fig. 1a]. The head was missing, the top of the torso revealing a square socket for mounting the neck.

Small amounts of tap water were used to clean particular pieces of deposits of earth. Since salt efflorescence was noted on the surface, compresses of distilled water were applied to desalinate the stone. The big elements were then joined using stainless steel or fiberglass rods ( 14 mm in diameter,
c. 25 cm long), two rods per joint, and Epidian E-5 epoxy resin with crushed lime filler. The inside surface of holes for mounting the rods was first treated with a $3 \%$ solution of Paraloid B72 in acetone. No adhesive was used to connect the break surfaces, one reason being the poor mechanical properties of limestone. The goal was also to avoid setting up barriers to free flow of humidity inside the stone. Only a few smaller fragments of hands and robes were actually stuck together. Upon reassembly the statue measured 1.96 m . The surface of the statue from the knees to the waist will require color unification at some point because of splashes of something that could not be removed with available means (water, acetone, toluene). Mechanical cleaning was not taken into consideration as being too invasive. The bigger gaps could be restored in the future to enhance the aesthetic appeal of the sculpture. It is recommended to use for this purpose a ready mortar Funcosil Restauriermörtel by Remmers, the product guaranteeing the required coloring and physico-chemical properties.

## STATUE B

The statue was recomposed of four big fragments: torso and hips (inv. no. 194/75), legs (inv. no. 8551), feet and base with inscription (inv. no. 190/75) [Fig. 1b]. The head was missing, the neck had been mounted in a round socket. The back part of the left

shoulder was also lost (here a socket for mounting a replacement).

The stone was wiped of earth and lime mortar remnants, then washed with tap water. Desalination was not considered necessary in view of the absence of any salt efflorescence on the surface. Stone fragments


Fig. 1. Archaic honorific statues $(a, b)$ from the Palmyra Museum, state after reassembly (Photo M. Gawlikowski)
were connected using rods and epoxy resin in similarity to the procedures applied for the first statue. Upon reassembly the statue attained a height of 1.85 m .

## STATUE C

Two elements were joined: legs from midcalf and torso (one inv. no. 193/75). Both head and feet on base missing. Earlier restoration attempt in the form of the top part of the left hand and robe fragment glued on.

The statue was cleaned and joined together following the same procedures as described above. The missing base was replaced with a cube of light-colored limestone, 0.45 by 0.45 m big and 0.34 m high, giving the statue an appropriate height of 1.81 m in effect.

## STATUE D

Statue of a man in armor, consisting of a single piece from knees to chest, 1.16 high, and a small fragment of robes.

The statue had been on display abroad, leaving three threaded rods of corroding iron inserted into the bottom part; a broken section of the robes had also been glued on and a yellow-resin "base" made to stabilize the statue vertically.

After cleaning the dirt and gentle washing (the statue had not been cleaned previously) the yellow resin was removed and the iron rods replaced with stainless steel ( $\phi 14 \mathrm{~mm}$ ). The preserved statue piece was mounted on rods inserted into a block of light-colored compact limestone ( $0.76 \times$ $0.60 \mathrm{~m} ; 0.50 \mathrm{~m}$ high). Total height of the piece is now 1.66 m .

## DECORATIVE LIME-GYPSUM ELEMENTS FROM HOUSE F

Polish excavations in house F in 1989/1990 yielded a rich assemblage of decorated cornices. More than 100 fragments of various size, from c. 5.00 to $100 \mathrm{~cm}^{2}$, not finding any joining fragments, were stored without opportunity for display.

The cornices executed in floating technique made use of two different kinds of lime-gypsum plaster, the lower coat with ashes as filler, the upper one with sand. The shape was the result of a pulled pattern, the decoration hand-shaped or else pressed in the wet mortar.

All the elements were first set out on tables and the dirt and soil cleaned with soft brushes. The larger pieces came from three kinds of cornices, but for the most part it proved impossible to find any connecting fragments. Despite this, two of the three forms of cornice were impressive enough to be put on display in a glass case. The fragments were arranged on a dark-colored textile. Connecting parts were glued together using a water
dispersion of acryl resin Primal AC-33. Some of the joining fragments were further reinforced with gypsum connectors. About 20\% of the cornice fragments are now on display, the rest remaining in the museum stores.

## VICTORY ON A GLOBE

The statue represented a woman in contraposition standing on a globe. The head and shoulders were missing. It was presumably positioned in a room corner, somewhere under the ceiling, hence the forward leaning stance of the figure $\{$ Fig. 2〕. Initially, it must have been part of a larger stucco composition. The statue was freely modeled in floating technique. The material was the same lime-gypsum plaster used for the cornices: the darker kind with ashes as filler used for the core and the light one, with sand as filler, as the surface layer. The height of the statue is now 0.69 m .

The statue has been the object of restoration work once already. Two fragments,
a bigger one consisting of the headless torso from the shoulders to the thighs and a smaller one, from mid-calf to the feet with globe, were then joined using gypsum. The action was purely interventional and much restoration effort was still needed before the statue could be deemed ready for display. Excess gypsum used in the previous restoration was now removed, revealing the original shape of the thighs and ankles of the figure. The position of the earlier reconstructed knees of the
goddess was now corrected. A base was made of light-colored limestone and a short stainless steel rod and back support were inserted in it. The statue was mounted on the rod, the support propping the figure in the required forward-leaning stance. The stainless steel rods were not glued into the original and can be disassembled easily. The stone base was cut to be pentagonal, thus enforcing display in a room corner, in keeping with the original composition.


Fig. 2. Victory on a globe, statue after reassembly (Photo B. Markowski)

