

## APPENDIX 1

OLD DONGOLA 2006:  
CONSERVATION REPORT

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One of the chief tasks of the conservation team working this season in the monastery on Kom H (for previous conservation reports, cf. Jakobielski 2001: 278; Jakobielski 2003: 228-229; Jakobielski 2005: 272) was to put together the mural depicting the *Massacre of the Innocents* from the tumbled southern part of the vault in Room 6 of the Southwestern Annex. The original vault had been constructed of mud brick, coated with mud plaster and white-washed with kaolin clay. The difficulty lay in the fragmentation of the remains, many being preserved on single bricks or as loose pieces of plaster, which had additionally been twice removed from their original position, further breaking any connections which may have remained after the first exploration of the vault. Closer observation of the material also indicated that part of the plaster had been distorted and the painting layer washed out by rain sometime in the distant past.

Considering the short season this year, the decision was taken to salvage all the bigger pieces, which were easier to identify and replace in position. Smaller loose fragments and parts of the background have been protected by placing them in sand in flat boxes and storing them for further work.

The painted surface of fragments of murals still adhering to loose bricks was cleaned mechanically and consolidated with a 2% solution of PARALOID B72 in toluene. Once the solvent had evaporated, the surface was protected with several layers of Japanese tissue paper attached with KLUCEL G (c. two big spoons of dry adhesive per half a liter of water). The painted layer was cut away from the bricks [*Fig. 1*]. It was then placed face down and the back side was reinforced by daubing it delicately (so as not to dissolve it) with a water dispersion of PRIMAL AC33 (1:10). Putties made of fine sand, clay from crushed mud brick with a few percent of polyvinyl acetate added were used to fill the losses. The Japanese tissue was then removed from the face by soaking and the elements were arranged on a 2 mm mesh screen, attached to it with the same plaster used for the putties.

Bigger parts with identifiable elements of the composition were reintroduced on the south wall of Room 6, below the non-existent vault from where they had come. This was done using an appropriate ATLAS adhesive instead of the regular building material, in this case mud mortar, which takes too long to set and is too weak for immuring a large and heavy element. The

mural would have been softened and deformed before the mortar had set.<sup>1</sup>

The screens with attached fragments of murals were fixed to the walls and shored up for the duration of the setting process. The excess margins of the mesh screen were cut to size and the edges of the murals protected with mud mortar.

The same procedure was applied to a fragment of plaster with scratched graffito from the collapsed arch of the entrance arcade between SW.6 and SW.1. In this case a sand-lime mortar was used to set the

fragment in the wall because of the relatively small size of this piece (c. 0.25 m<sup>2</sup>) and hence low weight.

The effectiveness of this experimental method of fixing larger fragments on walls will be observed closely before it is used on a larger scale.

Another important conservation effort this season was to protect the murals newly discovered in the Central Building (H-CB), among others, a depiction of an angel on the north wall of Room CB.2 (cf. above, *Fig. 16* on page 340).



*Fig. 1. Work on the murals in a makeshift conservation atelier at the site (Photo M. Martens-Czarnecka)*

<sup>1</sup> Murals painted on clay or mud ground or plaster containing a large addition of silty elements are not resistant to water. Caution is recommended, since excessively long action with liquids causes intensive softening and deformation.

The first step was to clean the surface with glass fiber brushes. The painting surface was covered with 3% KLUCEL G in alcohol. To make the plaster stronger and in order to make the loosened part of the plaster re-adhere to the wall, injections were made of PRIMAL AC33 with VINA-VIL NPC (1:1) in water (1:6). The outer edges of the plaster were reinforced and the surface plaster losses filled with a lime putty (one part lime to four parts sand with PRIMAL E330 and VINA-VIL NPC added), used in conformity with the original lime coating of the wall.

The same processes in treatment were applied also to the remnants of paintings on the east wall in Room CB.2. There, however, the painted layer of lime plaster was found under a coating of mud, which had to be removed first with scalpels and glass fiber brushes.

The state of preservation of previously treated paintings was checked and conservation intervention undertaken wherever needed. The mural of a King (P 18/NW 12S) in Room 12, North-western Annex, required cleaning of the dust from the painting surface. This was accomplished with brushes and revealed a yellowish tone, which is probably the effect of earlier conservation. Tests made in order to establish the safest method for clearing this substance demonstrated that pure alcohol compresses gave the best results. It was decided, however, not to

remove this protective layer for the time being, as it serves its purpose, safeguarding the original painting layer. Cracks have been observed in some parts of murals, apparently due to the subsidence of the building. These were filled in with mortar of the same composition as the original plaster, that is, one part of clay to two parts of sand with PRIMAL E330 mixed in.

The mural of the Archangel Raphael taming a unicorn (P 14/SW3 E) on the east wall of Room 3 was also cleaned of dust, the plaster coating was strengthened and loosened parts fixed to the wall with injections made of a mixture of PRIMAL AC33 with VINA-VIL NPC (1:1) in water (one part glue to six parts of water). The outer edges of plaster were reinforced with a putty composed of clay and sand (1:2) with PRIMAL E330 added in.

The same methods were applied in treating two other paintings found in Room 4 of the Southwestern Annex, depicting St Epiphanius (P 22 SW4.S) and Christ in a medallion (P 20/SW4.W). In the latter case, the surface of this painting is covered in many places with a layer of clay that adheres to the painting layer much more strongly than the paint to the plaster. To protect the painting layer, it was decided to impregnate it instead with 3% KLUCEL G in alcohol which does not change the original colors and is rather mild and easily removable, but not waterproof.

## REFERENCES

Jakobielski, S.

- 2001 Old Dongola. Excavations, season 2000, *PAM XII [=Reports 2000]*, 265-279
- 2003 Old Dongola. Fieldwork in 2002, *PAM XIV [=Reports 2002]*, 211-229
- 2005 Old Dongola. Fieldwork in 2004, *PAM XVI [=Reports 2004]*, 259-272