



Niche of the Great Buddha, in the foreground the new shelters for storing the fragments

AFGHANISTAN

ICOMOS Actions in Afghanistan

As a result of funds provided by the German Foreign Office, ICOMOS was able to continue its work in Afghanistan in 2003-2004. In close co-operation with Professor Michael Jansen of the Technical University of Aachen, the national inventory of heritage places, monuments and sites, begun in 2002, could be further developed, initially on the basis of all available written sources. As practically all files of the Afghan State Conservation Office were lost during the war, the database currently being prepared is crucial for all future conservation work. Afghan colleagues, together with SPACH, are adding to this database on the spot by checking and documenting the present condition of sites. A special focus has been the documentation of earthen architecture in the Bamiyan valley, which was declared a World Heritage site in 2003.

The Babur Park project and the rehabilitation of the old quarter of Ashkan wa Arefan (*Heritage at Risk* 2002-2003, p. 16) was continued by the Aga Khan Trust for Culture, which in 2003 also took over the support of the expert originally employed by ICOMOS. Apart from the occasional expert advice on questions about stone conservation in the Babur Park, ICOMOS, under the guidance of UNESCO, has focussed of late on the Bamiyan valley.

The Second UNESCO/ICOMOS Expert Workshop on the Preservation of the Bamiyan Site (Munich, 18-20 December 2003), organised by ICOMOS Germany, reported on the progress made to date in Bamiyan (see attached Recommendations). In 2003, a complete survey recording of the topographical features close to and inside the niches of both the Great and the Small Buddha was done by engineering expert, Dr Mario Santana-Quintero, followed by a detailed survey of the rear walls of both niches undertaken by engineering and geology experts, Drs Pierre Smars (Belgium) and Michael Urvat from Cologne University. They were able to prepare a comprehensive stratigraphic mapping of the niche of the Great Buddha. In autumn 2003, preliminary consolidation began of the endangered cliff in the niche of the Small Buddha. This was based on the concept by Prof. Claudio Margottini and carried out by the Italian firm RODIO with funds from the Japan Fund in Trust of UNESCO.

Fragment Protection Mission in 2004

Only after the rear walls of the niches had been secured by steel nets in June 2004 to avoid the risk of falling stones, salvage of the decaying fragments of both statues could begin without risk to life. Thanks to funds provided by the German Foreign Office, a small ICOMOS team in co-operation with the Afghan authorities and the UNESCO office in Kabul made considerable progress between end-June and end-October 2004. At first it was most appropriate to safeguard those fragments of the Buddha Statues which show signs of original surface and to store them in a place protected from rain and snow. The restorers, Edmund Melzl and Engelbert Praxenthaler, as well as engineer Georgios Toubekis (Technical University Aachen) made the site ready and carried out the various tasks. Shelters were built in a suitable location in front of the Buddha niche to store the stone material, whilst finds of original plaster had to be secured and stored in boxes inside the mudbrick buildings near the Great Buddha, which had already been restored by ICOMOS in 2002. These buildings are now used for the local office of the Department of Historical Monuments in Bamiyan.

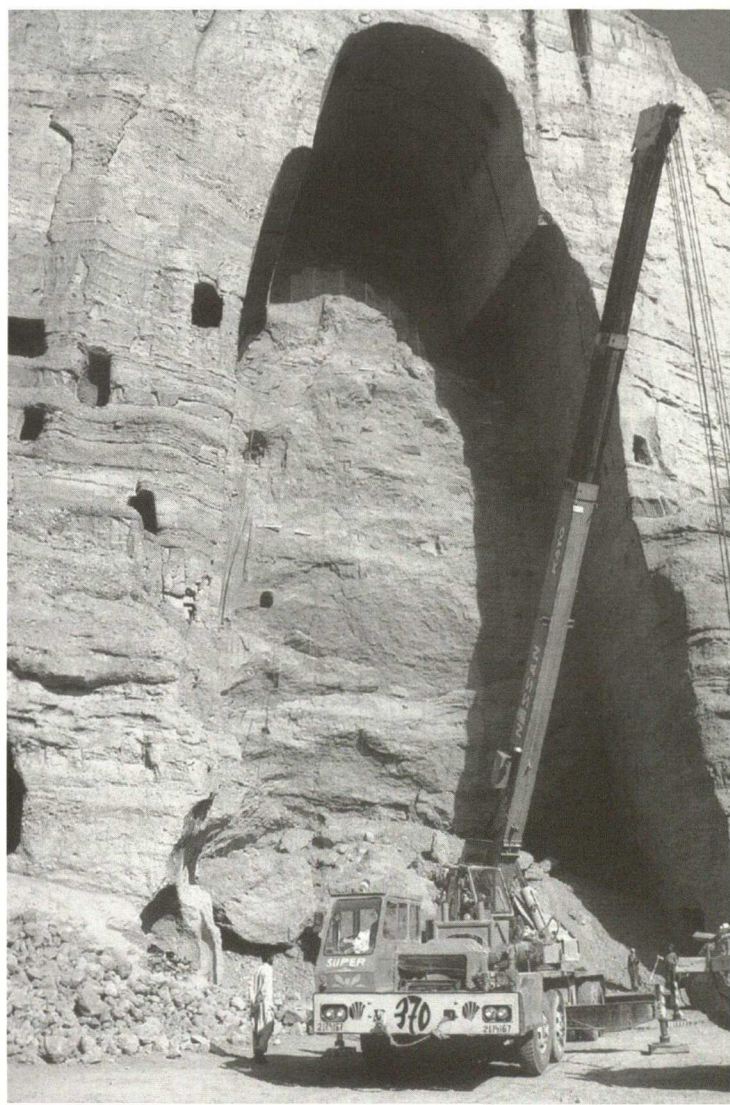
The new shelter structures consist of two rooms of 11 m x 9 m

and 35 m x 9 m, both 3.80 m high and open to the front of the Great Buddha niche. The area has been secured by a surrounding fence with an entrance gate between the two buildings, so as not to obstruct the view towards the Buddha niche. To harmonise with the reddish appearance of the overall cliff-face and the general traditional architecture of the valley the construction was done in mudbrick with stone foundations and plastered with red mud. Care was taken not to disturb any archaeological sub-surface deposits. The lightweight roof construction was designed in such a way that it can be easily removed to give full access to the individual compartments.

The work was executed entirely by a local Bamiyan company under the supervision of the experts on site. Carpenters and locksmiths from the local bazaar [market] provided excellent pieces to solve construction details. Two employees of the national Monuments Department assisted in the entire process of the project. They supervised the local workers and were acquainted with international standards in documentation and conservation.

The niche of the Great Buddha measures approximately 300 cubic metres and the pile of rubble rises to 8 m above ground level so that about 1600 cubic metres are to be moved. Sand and crum-

Salvaging fragments of the Great Buddha



bling pieces of rock have been moved by hand and shovel and placed nearby the Buddha niche. A layer was laid down separating original ground surface and the niche material so as to be able to distinguish these materials from each other in the future. All pieces were checked for signs of original surface.

Security aspects determined any activity as it was known that the area of the niches served as ammunition stockpile in the years before the destruction. Throughout the progress of the works finds of battle as well as exploded and unexploded ordnance came to light. A de-mining expert assisted the works daily to remove dangerous artefacts and to check the metal finds.

All the debris was examined shovel by shovel by the workers in the search for remains of mud plaster and then carried by wheelbarrow to the western side of the fenced area. Pieces of stone showing signs of original surface were transferred to the shelters and stored on wooden palettes. Heavy fragments of rock were moved by a fork lifter or by a 30-ton crane to the shelters. The transport and movement of stone pieces had to be carried out very carefully because of the generally delicate condition of this material. Wooden boards placed between the steel rope and the boulders successfully prevented damage to the rock surface during movement. By using a fork lifter in combination with wooden boards, medium-sized fragments of up to about 8 tons could be lifted and carried without damage.

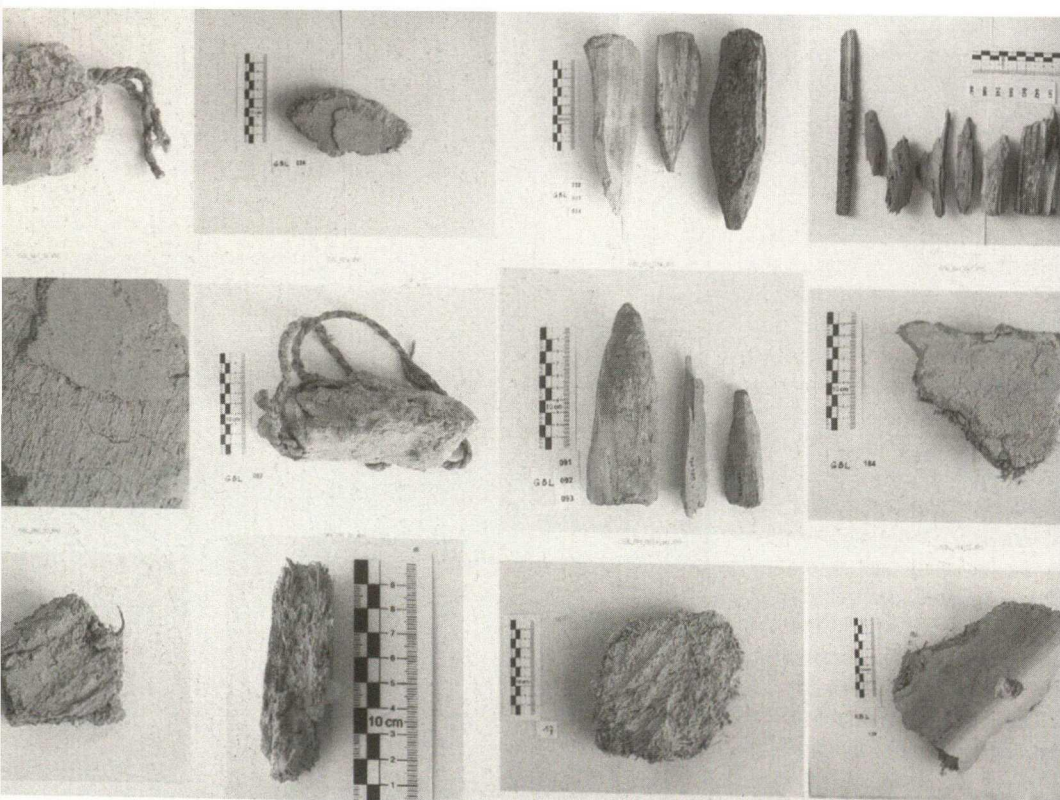
These fragments have been documented describing size, find location, surface condition, signs of carving and physical characteristics. Any original surface on smaller pieces could be identified by a change in colour whereas bigger fragments show holes of almost identical conical shape which used to hold wooden spikes anchoring the surface mud plaster.

The analysis of some mud plaster remains revealed the composition of the original plaster surface of the Buddhas. The examples found at the Small Buddha show a plaster in three layers. Organic parts such as straw, wooden sticks to reinforce the mud plaster, string and animal hair were found, which allowed Carbon14 dating. Now for the first time we have rather exact dates for both

Buddhas: for the Small Buddha 507 AD +/- 15 years, for the Great Buddha 551 AD +/- 12 years. This means an age difference between the two statues of about half a century.

Besides, the larger plaster fragments from the clothing of the Small Buddha, which are still *in situ* on the rear wall of the niche, have been provisionally consolidated by Engelbert Praxenthaler, a safeguarding action at the last minute, because the precious plaster fragments were severely threatened. In 2004 only about a third of the fragments could be saved from the niche of the Great Buddha. Provided that similar funds will be available, ICOMOS hopes to complete the safeguarding of the fragments of both Buddhas in the year 2005. The consolidation of the rear walls, so far only provisionally secured by means of steel nets, is also extremely urgent. The recommendations of the Third Expert Working Group on the Preservation of the Bamiyan Site (Tokyo 18–20 December 2004) have encouraged ICOMOS to continue its concept:

1. In 2005, the securing of fragments by the ICOMOS team should be continued at both niches. As soon as all the fragments are identified, documented and stored accordingly, the next steps should be decided by the Afghan authorities, assisted by international experts.
2. The ICOMOS conservation concept, in accordance with the relevant international guidelines (Charter of Venice etc), should be implemented. All fragments, sculptured and non-sculptured, should be preserved.
3. ICOMOS is encouraged to propose appropriate ways to conserve and to present the fragments. The technical possibilities of an anastylosis should be considered.
4. The Ministry of Information and Culture should reinforce cooperation with ICOMOS in the implementation of the conservation measures, also with regards to the facilitation of local administrative procedures.
5. ICOMOS should continue the important C14 analysis to date the plaster surface of the statues.



Rescued fragments of the Great and Small Buddhas, used for Carbon 14 dating (plaster fragments with string, pegs)



Salvaging fragments of the Great Buddha



Salvaging fragments of the Great Buddha

Second UNESCO/ICOMOS Expert Working Group on the Preservation of the Bamiyan site

Munich/Germany, 18-20 December 2003

Recommendations

I. General

1. In view of the complexity of the safeguarding requirements of the Bamiyan site, an interdisciplinary approach should be pursued and a coordinated working schedule of the experts involved in the different aspects of the Bamiyan project should be drafted;
2. Reports on the safeguarding of the Bamiyan site and information on the history of restoration should be compiled and made available to the Afghan authorities and to experts involved in the Bamiyan project;
3. A tourist brochure on the site should be prepared;
4. The next Expert Working Group on the Preservation of the Bamiyan Site is expected to be held in November/December 2004 in Tokyo.

II. Consolidation of the cliffs and niches

1. General

- a) In view of the presence of anti-personnel mines at the Bamiyan site, further demining should be an integral part of all consolidation efforts and be included in future budgets;
- b) Information now available on the destructive effects of seismic hazards at the Bamiyan site should be included in future consolidation plans;
- c) Investigations should be completed in areas that are not yet accessible, in particular in the lower eastern part of the Small Buddha, and in the lower western part of the Large Buddha. In addition, isostatic maps should be developed and tests on the effectiveness of grouting and anchoring, as well as on the compatibility of old and new materials and further rock mechanic laboratory tests, should be carried out;
- d) A long-term monitoring system of the cliffs and weather conditions should be installed in 2004. It is essential to include capacity building programmes for the local community in the installation and maintenance of this monitoring system. It would also be desirable to install a basic earthquake monitoring unit and to carry out a study on the effect of the 1956 earthquake;
- e) The Archaeological Survey of India will be consulted in order to obtain information on consolidation work carried out in Bamiyan in the 1970s.

2. Small Buddha niche

- a) Plans for the preservation of the Buddha silhouette should be developed and emergency conservation measures started;
- b) The final consolidation of the Small Buddha niche should be carried out, notably through stabilizing the remaining upper eastern part of the niche;

- c) It is recommended that consolidation work start on the upper western part.

3. Large Buddha niche

- a) Plans for the preservation of the Buddha silhouette should be developed and emergency conservation measures started;
- b) Water infiltration should be limited.

III. Conservation of the fragments of the statues of the Buddha

1. The fragments of the statues should be covered during winter 2003/2004 in order to protect them from deterioration. ICOMOS will provide funds for this purpose to the Afghan Ministry of Information and Culture;
2. The safeguarding and conservation of the fragments will be a priority in 2004. Appropriate techniques for moving the fragments out of the niches should be studied, taking into account their fragility and their weight. The fragments should be protected by a temporary roof;
3. The fragments should be placed outside the niches under shelter. At the Small Buddha site, an appropriate location (possibly below the slope) will be determined in which to place them;
4. Detailed geological analysis of the back of the niches and the fragments should be carried out in order to determine the original position of the fragments. For this purpose, the 3-D documentation successfully carried out by the Japanese firm PASCO should be complemented by studies by ICOMOS in cooperation with the Universities of Aachen and Cologne. The Geological Department of the University of Kabul will be invited to cooperate. Training and capacity building for Afghan students should be included;
5. The appropriate conservation, notably the stabilization of this particular kind of rock, should be further studied by ICOMOS stone restorers;
6. Further studies of the presentation of the fragments *in situ* should be initiated.

IV. Preservation of the mural paintings

1. Conservation work on the mural paintings initiated in 2003 should be continued;
2. The remains of the structure of cave G should be preserved;
3. The remaining mural paintings still *in situ* should be consolidated in 2004, notably by fixing their edges;
4. The fragments of mural paintings collected should be further studied and an appropriate method for their conservation determined;
5. It is strongly recommended that international mural paintings experts be involved in the future National Centre for the Conservation of Mural Paintings in Bamiyan, whose establishment is planned by the National Federation of UNESCO Associations in Japan. This project should be discussed during the next Plenary Session of the *International Coordination Committee for the Safeguarding of Afghanistan's Cultural Heritage*;
6. Climatic conditions in the storage room used for fragments of mural paintings and archaeological objects at the local office of the Ministry of Information and Culture should be studied and enhanced if required.

V. General Master Plan

1. The development of a General Master Plan for the safeguarding of the site, presently being developed by the National Research Institute for Cultural Properties (NRICP), Tokyo, is of great importance and should be made available as soon as possible. Once UNESCO receives the preliminary General Master Plan drawn up by NRICP, it should be dispatched to international experts involved in the project in order to receive their comments and ensure coordination of efforts. A coordination meeting to discuss the preliminary General Master Plan should be held in Kabul;
2. The preliminary General Master Plan should be discussed in 2004 with the Afghan Ministry of Information and Culture. Local authorities to be involved in these discussions should be addressed through representatives of the Government of Afghanistan;
3. The development of the 3-D model and map successfully initiated by PASCO should be completed in 2004, and the data made available to the Afghan authorities and the experts involved in the Bamiyan project;

VI. Archaeological activities

1. The definition of the archaeological zones in the Bamiyan valley is a priority in view of ensuring its protection in the future. To this end, Professor Tarzi is ready to put his experience at the disposal of the experts of the National Research Institute for Cultural Properties (NRICP), Japan, and UNESCO, in order to jointly develop a historical map of the Bamiyan valley;
2. To ensure a coordinated effort in obtaining further knowledge of the archaeological remains of the Bamiyan valley, the Délégation Archéologique Française en Afghanistan (DAFA) and NRICP will cooperate. UNESCO will continue to play its role in coordinating archaeological activities in Bamiyan, in close cooperation with the Afghan National Institute of Archaeology, and it should therefore be informed by all institutions of ongoing and planned activities;
3. Historical photographs of the DAFA archives should be made available to all experts involved in the Bamiyan project;
4. General archaeological explorations should be continued by NRICP and DAFA in 2004. In areas where positive results have been achieved, detailed investigations should be carried out. In addition, test trenches could be excavated in order to complement results obtained by investigation;



Provisional fixing of plaster fragments on the back wall of the niche of the Small Buddha, carried out by restorer E. Praxenthaler

5. Cooperation between experts from NRICP and ICOMOS should be initiated in order to obtain the maximum results for an archaeological survey of the Bamiyan valley;
6. It would be desirable to explore all the archaeological sites in the Bamiyan valley.