

AFGHANISTAN

Safeguarding the Buddhas of Bamiyan

ICOMOS has already reported several times on heritage at risk in Afghanistan, especially on the state of conservation of the giant Buddhas of Bamiyan and the efforts to safeguard their remains (see *Heritage at Risk 2000*, pp. 28–42, *Heritage at Risk 2001/02*, pp. 24–26, *Heritage at Risk 2002/03*, pp. 16–20, and *Heritage at Risk 2004/05*, pp. 26–31). In this short report on our activities in 2008–2010 we also wish to refer to the comprehensive report on our activities from 2002–2009 and the results achieved in cooperation with RWTH Aachen and TU Munich that can be found in the publication: Michael Petzet (ed.) *The Giant Buddhas of Bamiyan, Safeguarding the Remains* (Monuments and Sites XIX, Munich 2009), with words of greeting by His Excellency Dr. S. Makhdom Raheem, Minister of Information and Culture, and Habiba Sarabi, Governor of Bamiyan.

Since the first ICOMOS missions to Afghanistan in 2002 (where, among other things, we dealt with the Babur Garden project in cooperation with the Aga Khan Trust for Culture) the German Foreign Office has provided ICOMOS Germany with funds of about one million euros for the documentation and securing of monuments and sites of the Bamiyan Valley. Since 2004 when the back walls were secured against rock fall by means of wire nets approximately

The feet of the Western Buddha, seen from above
(photo: B. Praxenthaler, 2009)

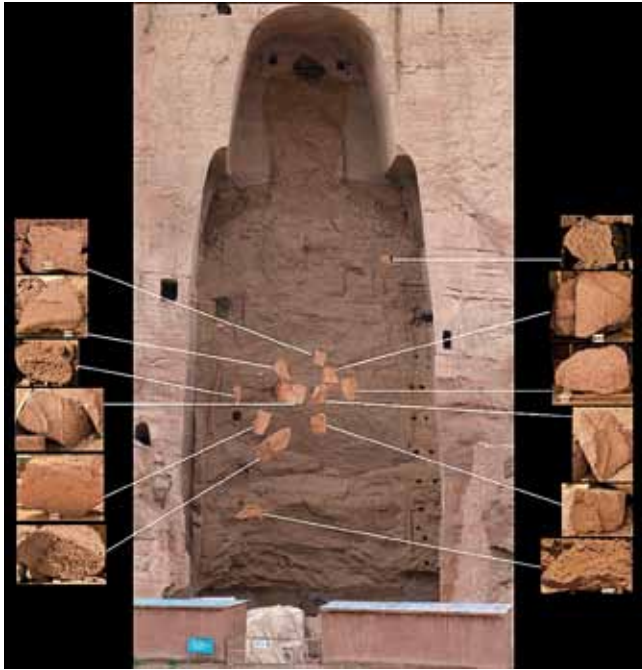


2000 cubic metres of fragments have been recovered; not only sand and hopelessly deteriorated stone fragments, as was assumed immediately after the disaster, but identifiable small and large fragments weighing up to 60 tons. In the meantime, most of the fragments are documented and stored in shelters to protect them against weathering. The giant feet of the 55-metre Great Buddha (Western Buddha) are once again visible, and the blocked caves in the backward part of both niches are again accessible. The back wall of the completely scaffolded niche of the 38-metre Small Buddha (Eastern Buddha) with original remains in situ is stabilised. This niche and the associated galleries will even be presented to the public soon as a small site museum together with an exhibition of fragments in the partly reconstructed lower caves. Besides, thousands of plaster fragments from the surfaces of both statues were recovered and from the scientific investigation of these and other remains a wealth of scientific insights was gained, helping to date the statues to the period between the mid-6th to the early 7th centuries AD.

In the year 2008, the ICOMOS activities in Bamiyan could not start before mid-August. Under these circumstances, it was not yet possible to complete the upper part of the scaffold, generously made available by the Messerschmitt Foundation, in the Small Buddha niche. Nonetheless, the scaffold proved its worth for the work of restorer Bert Praxenthaler to safeguard the remaining plaster fragments of the Small Buddha. The team of local workmen was primarily employed to salvage stone fragments from the area of the Western Buddha. A decisive progress was made by reconstructing the partition walls of the rearward caves, completely destroyed by

Removal of rock fragments near the uncovered feet of the Western Buddha
(photo: B. Praxenthaler)





Anastylosis of the Western Buddha, first considerations (B. Praxenthaler)



the explosions in 2001. Also for structural reasons this work was a necessary precondition for stabilising the back wall with its remains of the Buddha statue.

In 2009–2010, ICOMOS could continue the work thanks to a contract of June 2009 of 400,000 USD within the framework of Phase III of the Japan Fund-in-Trust project „Safeguarding the Cultural Landscape and Archaeological remains of the Bamiyan Valley”, including six tasks. *The stabilisation and conservation measures on the back wall of the Eastern Buddha niche* (task 1) were completed at the end of July 2010. The bad condition of the upper area, the state of which only became clear after the scaffold had been fully erected, led (after consultation with Prof Edwin Fecker and Prof Claudio Margottini) to a triplication of anchors and drillings compared to the original plans. At the start of the mission in April 2010 the scaffold, which for security reasons had been partly dismantled in October and November 2009, was completely reassembled and enlarged by additional temporary scaffolds. A working group, including restorer Bert Praxenthaler and Afghan stonemason Mujtabah Mirzai, backfilled small cracks, grouted gaps, placed needles and drilled anchor holes. Depending on the size of the cracks either Ledan or different mortars were used. All loose and unstable areas of the back wall were connected among each other and with the back wall. 44 anchors were driven into the rock with a total length of c. 200 m and 15.5 t of special mortar were injected into gaps and cracks. The drillings served especially to fill the great tectonic fissure 4 m behind the niche's back wall, open from below and visible in the ceilings of the rearward caves. The fragments of the head still in situ were highly unstable: Continuing to remove the loose rubble would have meant digging deeper and deeper into the remains and eventually losing most of them. For that reason, we decided to stabilise the outside sections by means of Ledan injections and afterwards backfilling them also with Ledan through drillings. Consequently, this very sensitive area could also be stabilised. *The safety and stabilisation measures for the path leading up and down the Eastern Buddha niche* (task 2) via stairs and corridors were largely completed, including the very difficult safeguarding of the

upper crossing. Not yet completed is the safeguarding of the visitor passage on the ground floor in front of the caves behind the feet of the statue. *The Conservation and documentation of rock fragments* (task 3) will continue to be an important responsibility. The documentation of the salvaged fragments in due consideration of

Niche of the Eastern Buddha with scaffolding (photo: B. Praxenthaler)





Repair of an Islamic mausoleum on the plain in front of the cliff
(photo: M. Mirzai)



View of the cultural landscape of the Bamiyan Valley,
in the foreground the old bazaar (photo: B. Praxenthaler)

the geological and rock-magnetic characteristics has not yet been completed. In the matter of the so far unsolved critical question of stabilising the stone fragments, which are extremely fragile and under the influence of humidity dissolve into sand (even simple lifting is dangerous) a breakthrough could be achieved: The only appropriate procedure for stabilising the fragments appears to be the total impregnation with silica acid ester (KSE) in a vacuum chamber, a newly developed method that has been successfully tested by the team of Prof. Erwin Emmerling. *Semi-permanent shelters for the Western Buddha fragments* (task 4) are now available after the erection of an additional hall for the salvaged fragments. *A permanent crane in the Eastern Buddha niche for maintenance/conservation access* was planned in the form of a very simple and reversible solution. Edmund Melzl, restorer in the ICOMOS team, investigated the state of the *Kakrak Buddha niche* (task 6). Finally in 2010, by request of the local inhabitants two ruinous Islamic mausoleums (Jafa Bieg and Khoschkharid Bieg) on the plain in front of the Western Buddha were restored. All these tasks were part of the step-by-step

strategy defined in the recommendations of the UNESCO/ICOMOS 8th Expert Working Group (Munich, 25/26 March 2010). One further recommendation was “that as soon as the Eastern Buddha niche has been stabilised, work should start for the consolidation of the Western Buddha as a matter of priority.” In any case, before other measures the imminent danger for visitors to the caves caused by stone fall from the not yet treated rear wall of the Western Buddha niche will need to be averted: loose stone material that is of no relevance for the entirely lost original surface on the back wall (only on the right side a fold of the Buddha’s cloak has been preserved) should be removed by climbers abseiling from the top of the cliff.

As in previous meetings the Bamiyan Working Group also discussed long-term solutions for the conservation and presentation of the two Buddha niches and recommended that “consideration be given in particular to the presentation of the remains of the two Buddha statues, including by their possible partial anastylosis”. In the case of the Bamiyan Buddhas an anastylosis in the sense of art. 15 of the Venice Charter (=reassembling the fragments) seems indeed the most obvious solution, because before the destruction in 2001 the statues had only been partly preserved due to losses in previous centuries. Consequently, a complete reconstruction of an “original” state unknown in important details (faces, hands, etc) is not possible. Besides, the remains of the Buddhas as important witnesses to Afghan history will play an important role for future tourism, even in their fragmentary condition. Under these circumstances, the concept of an anastylosis remains an appropriate solution, not least because the alternative of a museum presentation does not seem to make much sense, given the gigantic masses of stone material.

The necessary decisions on further steps to secure and preserve the Giant Buddhas of Bamiyan lie in the hands of the Afghan government. Also in this case ICOMOS is acting as advisory body to UNESCO, can give advice within the framework of the international principles of preservation and evaluate with its experts the technical possibilities as well as make use of its experiences gathered from measures undertaken with funds from the German Foreign Office and UNESCO. The so far successful work of the ICOMOS team has only been possible thanks to the good cooperation with all our partners and friends; with our Japanese colleagues also working in the Bamiyan Valley, the team of Prof. Maeda looking after the remains of wall paintings in the countless caves; thanks to the close cooperation with the colleagues of the Afghan Conservation Department, most of all Abdul Ahad Abassi (Dept. of Historic Monuments), Wasay Feroozi (Preservation of Cultural Heritage) and Mohammad N. Rasuli (Institute of Archaeology), and last but not least thanks to the cooperation with our Afghan architect Ozod Sekandar Seradj and his team, and the many Afghan craftsmen and workers.

At the end of this short report we should not forget that a lot still needs to be done in the Bamiyan Valley, which is on the list of World Heritage in Danger. This was also rightly pointed out by Governor Habiba Sarabi in the above-mentioned preface to our publication, where she named Ghul Ghula City, the Kakrak Buddha site, Shahr-e-Zuhak and Shahr-e-Sarkhoshak etc, not to forget the historic centre of Bamiyan, including the old bazaar that could develop into a meaningful and necessary area of the World Heritage. Without totally removing the ruinous character of this bazaar with its arcades that are reminiscent of antique sites, this area could possibly be revitalised with a museum (avoiding disturbing new buildings) and with workshops for craftsmen working with traditional techniques.

(abridged version of a speech at the International Conference for the Safeguarding of Afghanistan's Cultural Heritage, Serena Hotel, Kabul, 18 October 2010)

Mès Ainak: deux défis, une solution?

Situé à une cinquantaine de kilomètres au Sud de Kaboul dans la province du Logar, Mès Ainak est une des plus grande réserve de minerai de cuivre connue à ce jour. En 2008 une concession d'exploitation a été accordée par le gouvernement afghan afin qu'une

société minière chinoise MCC puisse en entreprendre l'exploitation.

Les investissements réalisés pour ce projet sont énormes (plus de 4 milliards de \$ US) et les profits que peut en espérer l'état afghan leurs sont proportionnels. C'est l'économie afghane tout entière qui devrait bénéficier de cette manne que ce soit directement (royalties, emplois créés) ou indirectement. Cependant de nombreux obstacles restent à lever avant de voir se mettre réellement en marche cet ambitieux projet industriel. De nouvelles routes devront être créées, une ligne de chemin de fer construite, une centrale électrique installée et surtout la sécurité des biens et des personnes garanties.

D'ores et déjà le site a été sécurisé, les terrains déminés et plus de 1600 policiers en protègent les abords, la réalisation des infrastructures devrait elle prendre un peu plus de temps mais est déjà bien planifiée. Le défi industriel qu'est le projet Mès Ainak est donc en

Vue générale du site de Mès Ainak, sur la droite le camp chinois, sur la gauche la partie centrale du site archéologique (photo: DAFA)



Vue aérienne du monastère de Kafiriāt Tepe (photo: DAFA)





Bouddha en place (photo: DAFA)

Figurine en argile (photo: DAFA)



mesure d'être relevé, mais avant de vraiment entreprendre les travaux d'exploitation de la mine il reste un deuxième défi à relever : c'est celui de l'archéologie.

Le site de Mès Ainak a été signalé à l'attention des archéologues dès 1963, il est fait mention alors de la présence de maçonneries anciennes. Il faut, cependant, attendre les années 70 et les prospections menées par des géologues russes et français pour que soit repéré des traces d'une exploitation ancienne du cuivre et des constructions attestant de l'existence à cet endroit d'une agglomération importante. Pendant la guerre et même jusqu'au début des années 2000 des objets archéologiques provenant de fouilles clandestines réalisées à Mès Ainak furent signalés aux autorités afghanes, certains même purent être saisis en douane. L'examen des pièces saisies montrait que de toute évidence de très importants monastères bouddhiques pouvaient se trouver à cet endroit.

En 2004 une visite des archéologues de l'Institut d'Archéologie Afghan permit de confirmer cette hypothèse, sans pour autant qu'il leur soit possible d'intervenir efficacement pour les faire cesser. Ce n'est qu'avec la signature de l'accord minier entre le gouvernement afghan et la compagnie minière chinoise et la sécurisation du site qu'il fut possible de mener une véritable reconnaissance archéologique des terrains.

A partir d'Avril 2009, une première campagne de fouille fut entreprise à l'intérieur de la zone où se fera l'exploitation minière, sur le site de Gol Hamid, très vite des constructions appartenant à un monastère bouddhique furent dégagées. De nombreuses statues de terre crue, des peintures murales et un abondant matériel archéologique furent dégagés, confirmant l'importance de cette zone.

En 2010, la fouille repris sur le site de Kafiriat tepe, près du village de Baba wali, à 900 mètres au nord de Gol Hamid. La fouille commencée en mai se poursuit actuellement. Un monastère bouddhique de plan sub-rectangulaire a été dégagé, il couvre environ 4000 m². Ses maçonneries sont conservées, par endroit, sur plus de quatre mètres et bien qu'il ait été pillé il a livré une très abondante décoration constituée de statues de terre crues, de peintures murales et de quelques statues en pierre. Une première analyse du mobilier suggère qu'il a été fréquenté du II^{ème} au VII^{ème} siècle de notre ère au moins.

A la suite de ces travaux il a été réalisé, à la demande de la Banque mondiale, une évaluation archéologique de l'ensemble du site de Mès Ainak afin de confronter les résultats obtenus avec les projets d'exploitation élaborés par la compagnie MCC.

A l'issue de cette étude 19 zones archéologiques ont été identifiées, couvrant une superficie supérieure à 400 000 m², avec par endroit des dépôts archéologiques observables sur une épaisseur de 15 m. Les zones les plus importantes et les plus denses, archéologiquement parlant, correspondent aux secteurs qui seront complètement terrassés lors de l'exploitation de la mine. Il faut donc envisager de trouver une solution archéologique acceptable pour ce site exceptionnel.

D'ores et déjà il a été établi que certaines zones archéologiques seront peu ou pas touchées par le projet minier, on peut envisager qu'elles soient protégées par des enceintes grillagées permettant en outre de visualiser clairement leur localisation.

Les zones archéologiques situées à l'emplacement des zones exploitées par la compagnie minières seront fouillées en totalité sur une période de temps de trois ans. L'essentiel des vestiges archéologiques seront démontés et une présentation en sera faite sur un grand espace d'une superficie de 10 ha où seront construits, en outre, des bâtiments de stockage pour le matériel archéologique et un musée. L'ampleur du terrain devrait permettre de reproduire à l'échelle le monastère de Kafiriat Tepe. D'ores et déjà des tech-

niques de représentation en trois dimensions des principaux monuments ont été testées. Elles permettront d'avoir une documentation très précise et des images très fidèles des objets trouvés en cour de fouilles, mais aussi des architectures dégagées ainsi que de la topographie primitive du site.

Prévues pour débuter dans les tout prochains les opérations de fouille devraient être menées, au moins dans un premier temps, par des équipes afghanes assistées de spécialistes et de techniciens venus d'autres pays, d'ores et déjà une participation chinoise est envisagée. A terme cette opération devrait être entièrement afghane le chantier de Mès Ainak pouvant être un formidable terrain d'entraînement pour les jeunes archéologues afghans.

Au-delà de la fouille et de la levée de l'hypothèque archéologique sur les terrains qui devraient être exploités par la compagnie minière, se pose la question de l'exploitation scientifique des données recueillies et de la conservation du matériel archéologique, et en particulier des nombreuses statues de terre crues qui ont été dégagées et dont on peut penser que le nombre ne cessera d'augmenter avec le développement de la fouille.

Pour faire face au premier de ces problèmes, il a été suggéré la constitution d'un comité scientifique dirigé par le Ministère de la Culture Afghan: il aura pour tâche de veiller à la bonne conduite des fouilles, à l'exploitation et à la publication de ses résultats.

La bonne conservation du matériel archéologique sera garantie par la mise en place dès le début de l'opération d'une équipe de restaurateurs afghans assistés par des spécialistes étrangers qui dès leur découverte prendront en charge les objets les plus fragiles et mettront en œuvre les traitements nécessaires depuis le terrain jusqu'au transfert définitif de ces pièces dans un musée où des dépôts spécialement prévus pour cet usage.

Le projet qui se met en place à Mès Ainak est nouveau pour l'Afghanistan. Il l'est de manière générale pour ce qui est de l'archéologie de sauvetage par son ampleur, par le nombre des partenaires qui y sont impliqués et par les incidences considérables qu'il pourrait avoir pour l'Afghanistan. L'avenir nous dira ce qu'il en est.

Philippe Marquis
DAFA

See also the following article on this topic in *Science Magazine*:

A decade after the Taliban destroyed the famous Bamiyan Buddhas – two massive statues that have stood sentry in an Afghan valley for 1500 years – archaeologists are warning that Afghan antiquities are again at risk. This time the threat comes from a venture blessed by the Western-backed Afghan government. A Chinese company intends to blow up an ancient Buddhist monastery south of Kabul to make way for a massive copper mine. The plan has sparked outrage among Afghan and French archaeologists, who have recently uncovered more than 100 statues within a large religious complex that includes seven stupas, or tombs built to house the relics of saints.

In their first public talk on the finds at a recent meeting here, excavation leaders called for an international meeting to galvanize support for the site. And French officials intended to raise concerns about the impending demolition at a meeting of foreign ministers

Statues de terre crues dégagées (photos: M. Jansen)

Constructions du monastère bouddhique (photos: M. Jansen)



from around the world in Kabul last week. The controversy pits Afghanistan's desperate need for revenue against its ancient heritage as an Asian crossroads. "This will have to be decided by [Afghan President Hamid] Karzai," says Philippe Marquis, head of the French archaeological mission to Afghanistan.

Marquis says plans to dynamite the monastery in April were postponed but have not been cancelled. The United States and its allies are pushing for increased foreign investment in Afghanistan, and a 14 June report issued by the U. S. Defense Department estimated that \$1 trillion of minerals such as copper, iron, cobalt, and lithium lie under eastern Afghanistan alone. Some geologists think Mes Aynak holds the world's second largest deposit of copper, and the \$3 billion contract with Beijing's China Metallurgical Group Corp. to mine it is the most lucrative in Afghanistan's history.

Located in a mountainous region 40 kilometers southeast of the capital, Mes Aynak is a hill topped by a 4500-square-meter monastery. Although the site was spotted by archaeologists in the 1960s, it was never excavated. During the late 1990s, the hill was home to an al-Qaida training camp, according to the 2004 report by the National Commission on Terrorist Attacks Upon the United States. In recent years, looters have damaged much of the monastery complex in the search for antiquities, says Nader Rassouli, director of Afghanistan's National Institute of Archaeology in Kabul, which is also participating in the current excavations.

"The site is huge, and we have amazing remains," he said at the meeting. The monastery flourished from as early as the 2nd century B. C. E. until at least the 6th century C. E., although it may have continued as a settlement until as late as the 9th century C. E., says Marquis. The joint Afghan-French team began salvage work last summer, halting in November due to the severe winter at the 2400-meter altitude. Among the finds are three dozen clay statues, including a reclining Buddha 5 meters long, as well as dozens of

wooden and stone Buddhas. Rassouli estimates that the site covers 100 to 400 hectares, including two areas yet to be excavated. As the archaeologists work, Chinese engineers are busy building a railroad, housing, and a power plant nearby, in preparation for mining, according to Afghan government statements on the project.

Two millennia ago, this region served as a critical conduit in the spread of Buddhism to Central Asia and China, says T. Richard Blurton, an archaeologist and curator at London's British Museum who has excavated in Afghanistan. He says Mes Aynak could provide new data on both the origin and demise of the religion here. Researchers now believe that as late as the 7th century C. E., when Islam arrived in the area, Buddhism was still making inroads as far west as Iran and as far north as Turkmenistan. "It's quite tantalizing to consider how Buddhism coexisted with the new religion," Blurton says. There are also Hindu deities from that late period at Tepe Sardar, a large monastery located in the eastern Afghan city of Ghazni. Further evidence from Mes Aynak could help provide a new picture of religious blending at an important historical juncture, says Blurton.

The ancient monks of Mes Aynak apparently knew they were sitting on a large copper deposit, because there are signs of mining throughout the monastery's long history, says Marquis. Soviet geological surveys in the 1970s rediscovered the mineral deposit, but the outbreak of war in 1979 prevented its development. In May 2008, the state-owned China Metallurgical Group signed a contract to begin extracting copper. (...)

Andrew Lawler

"Copper Mine Threatens Ancient Monastery in Afghanistan",
in: Science Magazine, vol. 329
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