

Bert Praxenthaler

Report on Safeguarding the Remains of the Buddha Statues, 2008

Eastern Buddha

The clay surfaces of the Eastern Buddha that survived the blowing-up of the statue in 2001 had been spot-bonded to the back wall in 2004 as part of an emergency stabilisation measure.¹ These works could only be carried out by abseiling with a rope, because a scaffold had not yet been put up. In 2008, it was now possible to fix these original clay plaster surfaces. For this purpose the scaffold was extended with bracket-shaped cantilevers to get close enough to the clay plaster fragments. These two fragment areas can be found on the left side under the former arm of the Buddha, at a height of 9.6 m and measuring 15 square metres, and on the right side along a fold of the gown, slightly inside the other arm, at a height of 9.0 m and measuring six square metres.

Composition of the original clay plaster

The original clay plasters on the Eastern Buddha are all made up of three layers. The lowest layer immediately on the stone, the slush coat, contains chaff and was applied to the surface very wet and then spread with the fingers. These finger traces are still clearly visible today. To improve the adhesion clay lumps were pressed into previously mortised holes (diameters of 6–8 cm) with the help of a suitable stone. The actual plaster material was applied onto this layer, a clay mixture containing chaff and animal hair, c. 2–3 cm strong. Onto this second layer a fine layer of 2–3 cm was applied, which served as support for the colour coat. In several areas only the undercoating remains.

For the 2008 stabilisation work on the clay fragments tests with various mortars were carried out in advance. Upon the advice of Prof. Emmerling (Chair of Conservation Sciences at the Technical University Munich) Ledan was used as component.² After adhesion tests a mixture of Ledan TA 1, red clay and Dralon fibre seemed suitable for back wall bonding. For fixing the edges yellow clay, Ledan TB 1 and when required Scotchlite K1 as mortar were employed.³ At appropriate spots where the mortar was particularly thick, for instance at elevations of folds, darts of V4A ribbed bars or sanded glass fibre beams were used.⁴ These darts were bonded with a mortar of Ledan and yellow clay. Whenever possible, armature bores were carried out in areas of the clay plaster that already had surface damages or holes in order not to reduce the original substance unnecessarily. The spots where the darts were placed were marked with a small nail.

In order to be able to move those clay plasters, which were very detached from the rock face, back a little to their old position and thus to avoid the mortar for the bonding and the stabilisation of the edges becoming too thick, these loose plaster layers were carefully moistened on their reverse side to make the material a little bit more malleable. By means of a splaying apparatus, which we had made by metal craftsmen at the Bamiyan bazaar, the clay plaster fragments could be repositioned millimetre by millimetre and were battered afterwards.

At first, these works were carried out partly by Bert Praxenthaler and by stone restorer Mujtabah Mirzai, together with up to five Afghan workers. In the course of the works the reverse-side bonding and the fixing of the edges were mostly executed by the Afghan workers Qurban, Eshaq, Karim, Haidar and Abdul Ali. However, drilling and needling were only done by Praxenthaler and Mirzai.⁵

Relic find

During the works on the Eastern Buddha an object was found on 3 October 2008 in a cavity about 17 m above the ground level of the niche and above the clay plaster fragments on the left. This is most likely a Buddhist relic, which apparently was deposited while the statue was erected in a 10 cm-hole together with parts of plants and then closed with a stone. This cavity is the backmost base of the hole which used to hold the beam of the Buddha's right arm. It is located below the undestroyed rock parts of the Buddha's right shoulder. Effectively, the relic was hidden at the place of the Buddha's elbow joint.

The object consists of a cloth sack measuring 4 x 6 x 3.5 cm, tied with a thread and sealed with a clay seal. The base is circular with a diameter of 3 cm. The clay seal has two different oval stamps. Some of the dried plant parts could be identified as belonging to the local plant by the name of "esfand". The find was handed over to the Governor of Bamiyan, Dr Habiba Sorabi, on Friday, 3 October by Prof. Emmerling and Bert Praxenthaler and the relic is now in the care of the provincial government of Bamiyan.

Searching for mines

In 2008, the search for unexploded materials could be accomplished without any major problems. This was due to the fact that the de-mining company ATC was present





△ △ Finger traces in the lowest clay plaster layer



▽▽ Clay lumps pressed into the holes with stones



◁ Eastern Buddha, preserved original clay plaster areas (marked in yellow); in total about 21 square metres, secured in 2008 by gluing and needling



with a considerable number of staff at the castle hill of Shar-I-Golghola. If necessary, a search expert went to the Buddha during the salvage work to search for metal pieces with a detector and demine and remove explosives. Several unexploded explosives were removed; in the central cave between the feet of the Buddha considerable quantities of anti-aircraft ammunition was removed. This ammunition, which was still usable, was collected by the local police.

For the recovery work at the Western Buddha Afghan workers with certificates from the previous years were employed. Several of them were also repeatedly employed for work at the Eastern Buddha.



△ a ▽ b



- a, d Eastern Buddha: remains of clay plaster on the left, with lapis lazuli. Photo shows condition before treatment. All fragments are slightly detached from the rock face and are only kept together by being wedged on the left and right with the “clay-stone burling”.
- b Clay plaster with greyed lapis lazuli pigment, below in the centre the bond coat with bond holes; see also the stone used for pressing the moist clay into the holes.
- c Three layers of clay plaster, partly detached from one another



△ c ▽ d

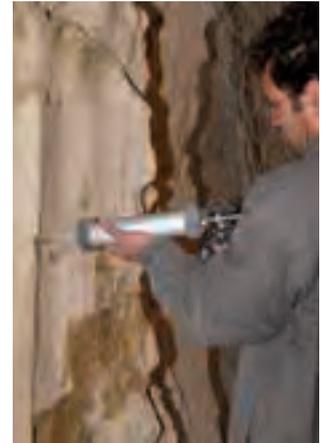


- 1 In 2004, a mixture of ochre-coloured clay and gypsum was used, mix ratio 3:1. See report Praxenthaler 2004,
- 2 Ledan® TA 1 Leit 03, Ledan® TB 1, both are binding agents on the basis of lime with aggregates of Terra pozzuoli. Purchased from Fa. Dr. Kremer.
- 3 The mixture of the bonding mortar: 1 VT Ledan TA 1 and 3 VT red clay, c. 0.3 VT Dralon fibre. Due to its better bonding adhesive power the red clay was selected. For fixing the edges 1 VT Ledan TB 1 and 3 VT yellow clay were mixed, depending on layer thickness aggregates of Scotchlite K1. Yellow clay for colour adaptation. All materials purchased from Fa. Dr. Kremer.
- 4 Ribbed bars V4A 6mm from Kummstat Stahl, Frankfurt, glass fibre beams 5 mm from Fa. Fibrolux, Hofheim.
- 5 Particularly qualified workers were integrated into the works tep by step. They were not merely made familiar with the work techniques, but also with the basics of restoration.

Original clay plaster fragments (right side of the Eastern Buddha) are carefully pressed to the rock face by means of a splaying apparatus after bond mortar had been backfilled. In most cases this apparatus was hinged to the scaffold. The surface of this apparatus was adapted to the texture of the clay plaster and was made of small wooden boards. ▷▷



Original clay plaster fragments (right side of the Eastern Buddha), preparation for the setting of anchors: Mujtabah Mirzai drilling a hole into an existing bullet hole for an anchor. ▷▷▷



Bonding of clay plaster fragments; by means of a splaying apparatus pressure is carefully put on the clay plaster fragments; on the left underneath the arm hole. ▷▷



▽ Bonded and secured clay plaster fragment underneath the arm hole.





△ Eastern Buddha, Buddhist relic found on October 3, 2008



△ Dried remains of 'esfand', found together with the relic. Until today the seeds of esfand are used for thurification. The smoke is believed to keep away evil ghosts.



△ Eastern Buddha, Buddhist relic found on October 3, 2008



△ Eastern Buddha, Buddhist relic, view from below: circular diameter, inside a coin?



△△ Eastern Buddha, rock cavity with hole in the back wall where the relic was found. The hole is the remains of the beam hole for inserting the Buddha's right arm beam



◁ Dr. Habiba Sorabi, the Governor of Bamiyan, accepting the relic

Erwin Emmerling, Bert Praxenthaler and Edwin Fecker on the scaffold of the Eastern Buddha ▷





▽ Recovery of fragments at the Western Buddha

Recovery of fragments at the Western Buddha

At the Western Buddha site the salvage work was continued by means of a wheel loader. Most of all, the cave entrances were exposed and all caves were cleared.

The rock fragments situated around the cave entrances were deposited on pallets in the back cave on the right. It was possible to let a very large rock fragment (c. 30–40 tons) lying to date on the stump of the Buddha's left foot, where it threatened to fall off, slide down between the Buddha's feet. From there, it will be possible to move it away with a crane sometime in the future.

Clay plaster finds

Once again, a great number of finds from the surface area (clay plaster, pegs, string, etc) was recovered. In the central, backmost cave many clay stucco ornaments were found. For the salvage and classification of these materials we were actively and competently supported by Mr Rasul Shojaei, an archaeologist from Yakaulang, Province of Bamiyan, who completed his archaeology studies in Iran.

◁ The team at the Western Buddha





△ Recovery of fragments at the Western Buddha



△ In front of the niche another small interim shelter for fragments, as the other storage halls in front of the niche are already full. The Buddha's feet are already recognizable.



△ Recovery of fragments at the Western Buddha



△ Careful examination of the Buddha rubble; finds are stored in zinc plate boxes

▽ View of the Western Buddha niche from above: Large, very heavy fragments weighing between 50 and 80 tons could not be moved without an adequate crane; they were wrapped up on site to protect them against moisture

▽ For the time being, the fragments are stored in a cave at the niche's entrance

