Report of the work at Ghar Gumba, Lo Gekar, Mustang, Nepal

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Summary

- Assess the condition of wall paintings in the shrine of the temple.
- Superficial cleaning of non-original dust/dirt deposits on some prominent areas of the wall paintings.
- Filling a crack behind the main image of Guru Rinpoche in the shrine for aesthetic reasons.
- Join a broken painted stone stele panel.
- Demonstrate cleaning of some painted stone stele panels with non-original deposition of lime, dust and dirt.
- Formulate a methodology for preparation of earthen plaster mixture for relaying the roof during architectural interventions.

Introduction

The work was carried out from 23rd April to 30th April at site. Discussions were held at site with the other team members of Norbusum foundation, Kunzom Thakuri, Christian Luczanits and Thomas Schromm, on various works needed to be carried out in the temple. Even though conservation interventions on wall paintings were not planned, some work on paintings were carried out for aesthetic reasons on the request of the Norbusum Foundation.

Due to the need to exhibit the painted panels, cleaning of a few panels was also demonstrated so that further cleaning could be carried out by one of the helpers under remote supervision.

Work Carried Out

Wall Paintings

Work on wall paintings were previously carried out during 2014-2015 by the American Himalayan foundation and most of the painted surfaces were found to be in good condition. From the uncleaned patches, left as proof of their original condition by conservators, it could be observed that a considerable amount of cleaning had been carried out in the wall paintings. Some areas of detachment were also found to have been stabilized in the past. Since no report has been provided to the monastery, it is not possible to understand the quantum of work undertaken, which is also not a scope of the present work.

Streaks of dust deposited on the top portion of paintings on the east wall of the shrine, as a result of architectural work carried out on the roof of the temple, was cleaned by dry brushing and using wishab sponges.

Dirt deposits on the east wall and north wall due to the cleaning of the paintings by untrained hands possibly by wiping with cloth was minimized by cleaning with wishab sponges and moistened swabs. However, whitish deposits insoluble in water could not be cleaned and need further investigation before cleaning.

Even though detachment of renders were observed in the crack behind the main image in the shrine, the cracks were filled for aesthetic reasons. Both the edges of the cracks were masked with menthol to protect the painted layer from damage during filling. Filling of the cracks were then carried out using fill composed of local earth and sand in the ratio 2:1, both sieved using ~3 mm diameter sieve.

Since development of grouts were not planned, equipment and materials were not purchased, and it was not possible to stabilize the detached areas during this period.

The condition of the entire painted surface in the shrine was assessed and some areas of detachment that demand intervention are noted.

There are many areas of losses that need filling, and some earlier incompatible fills need to be removed and re-filled.

It was observed that some painted areas have darkened surface coating and it is not clear if this was left uncleaned or applied during the previous conservation intervention. There is dust and dirt accumulation on the painted surfaces. However, at present there is no urgent need to clean the paintings as they appear homogenous.

Summary of work needs to be carried out.

1. Development of grouts.
2. Grouting of detachment.
3. Development of fills.
4. Filling of losses.
5. Removal of incompatible fills and re-filling.
6. Cleaning of wall paintings (optional).
7. Cleaning of painted stone steles.

Time required to carry out the work – 42 man days (excluding cleaning of wall paintings).

Painted Stone Panels

Even though the scope of work included joining of 3-4 broken painted stone steles, it was found that all except one was very well joined by site manager, Sonam Dorjee Gurung, using commercially available Pidilite fevitite epoxy adhesive. The remaining one broken stele was a Padmasambhava image, the central image of one of the decorative schemes, which was taken up for work. The stele was broken horizontally into two pieces with the image of Amitabha on the top of the scheme separated.

About 1 cm of painted areas near the edges of the split were masked with menthol in order to protect the painted surface from accidental spilling of the epoxy.

Epoxy, EPO 150 and hardener K 151 provided by CTS India, was mixed in the ratio 1:4 as per manufacturer TDS. It was then applied along the broken edges of both the pieces and joined together with painting face up and left to set overnight. The two broken pieces were found to have been joined, but considering the points of joint is not satisfactory, it was decided to apply epoxy (mixed with fine saw dust to provide bulking) from the verso as well. Filling was done from the front that will also prevent percolation of epoxy when applied from verso. Stone stele was placed face down by providing sufficient padding with cotton and epoxy mixed with fine saw dust was applied on the areas around the crack that

lacked contact. Filling of the crack was then carried out both in front and verso and the fills were toned down by camel artist's water colours.

Some treatments were required on other joint stone panels. One of the panels had hard and darkened non-original deposits on the painted surfaces next to the broken edges from an earlier intervention. This was removed with acetone within a 2-minute contact duration. Another joint panel was fragile in bottom left corner with losses in the stone, which was strengthened with mixture of epoxy, EPO 150, and saw dust.

The joint edges of all the pieces were filled and toned down to reduce the distraction of the separation along the joint.

Most of the panels were found to have have non-original deposits in the form of dust, dirt and lime, which was cleaned by wishab sponges and/or vulcunazed rubber latex art sponge provided by CTS.

Fig 1 : A broken painted stone stele after joining with epoxy, cleaning, filling and toning down the losses.

Fig 2 : A panel before (left), during (centre) and after (right) cleaning.

Fig 3 : Darkened deposits along the crack (left) and the panel after removal of the darkened deposits and cleaning (right).

Developing Earthen Plaster

Due to the cracks developing in the roof plaster used, there was a requirement to formulate earthen plaster for the newly laid roof.

The suggested materials available on the site were three types of clay of different grades and colours, gathered from three different locations, Lo Gekar and Lo Manthang. One type was very fine clay, locally known as Markalak. Irrespective of the possibility of some sand type ingredient in one type of clay, it

was decided that there is a need of adding a filler to the clay binder in order to prevent development of cracks.

Two types of earth (type 1- dark grey obtained from Lo Manthang and type 2 – yellowish obtained from Lo Gekar) and sand were sieved with a 3 mm diameter sieve available at site. Two mixtures were tried initially.

Mixture 1 – Type 1 earth and sand in 2:1 ratio by volume (2 earth and 1 sand). This mixture was left for drying in two ways, one left exposed on the clay roof and the other inside a wooden box. The surface of the mixture was moistened every two hours in order to let the top surface dry slowly thereby preventing cracks.

Mixture 2 – earth, type 1 and type 2, and sand in the ratio 1:1:1. This was left for drying in a wooden box.

Water was added in quantities that were required to make the mix tacky. Excess water might cause cracks in the plaster while drying.

A day after complete drying of the plaster mixtures, none of them was found to have developed cracks. The mixture 1 was also used for filling the cracks in the plaster in the shrine of the temple.

However, the binding strength of the mixtures were not found to be good enough and it was suggested to do trials by incorporating Markalak that will improve the binding properties. A larger sieve may be used for the first plaster layers followed by finer plaster layers for the top layers.

Fixing the Detached Seal of the Sculpture of Ngadak Puntsok Rigdzin

A round wooden panel originally attached with cloth pieces to the bottom portion of the hollow sculpture had detached exposing the offerings sealed with a cloth behind it. The cloth used for holding the offerings had holes and tears, which were fixed with mulmul and Fevicol SH (Poly Vinyl Acetate emulsion).[1] Fixing of the wooden panel was important to avoid the loss of offering materials as well as to protect the hollow sculpture from insect activity. The gaps around the edges of the round panel were filled with mulmul cloth saturated with Fevicol SH (Poly Vinyl Acetate emulsion). The wooden panel was then adhered to the inner edges of the sculpture with cotton gauzes using Fevicol SH as the adhesive.

[1] This work was not planned and the materials available at site were improvised to be used for the conservation treatment.

Fig 4 : Mending of torn cloth used to store the offerings within the sculpture with mulmul cloth and fevicol. Before (left) and after (right)

Fig 5. Flling of the gap between the wooden panel and the interior of the sculpture with mulmul cloth.

Fig 6 : Fixing of the wooden panel to the sculpture with gauze and fevicol.