



YUNGDRUNGLING MONASTERY Conservation Project Report

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with Nyima Tsering and Uli Ulbrich



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Introduction

In 1993, André Alexander, Andrew Brannan and Pimpim de Azevedo founded a project for the study and documentation of historic Tibetan architecture. In 1996, this led to the founding of Tibet Heritage Fund, a non-profit NGO.

Tibet Heritage Fund trains Tibetans in traditional construction and modern conservation techniques, and funds, plans and implements rehabilitation of historic settlements and restoration of religious monuments.

In 1998, together with the German restorer Uli Eltgen, THF began to train two Tibetan painters in basic skills of painting conservation.

In 2001, on the invitation of one of the leading members of the Sichuan People's Political Consultative Committee, THF started to work in Tibetan areas of Sichuan province. By chance, we visited Yundrungling monastery some weeks before its roof collapsed. Over the next three years, this little-known site was restored.

In 2004, the German restorer Christine Schmaltz spent two months on site, performing excellent conservation work under very difficult working and living conditions.

THF team Yundrungling 2002-2005

André Alexander, manager of the Ganzi project 2002-2003

Pimpim de Azevedo, co-manager of the Ganzi project 2002-2005

Yutaka Hirako, Ganzi project manager 2003-2005

Ken Okuma, architect

Nyima Tsering, site management

Christine Jürgens, painting conservator

Ute Griesser, painting conservator

Marco Pulieri, painting conservator

Luigi Fieni, painting conservator

Lobsang Ngudup, assistant site manager

Pala Migmar, master mason

Olo Chunchun, mud construction expert

Chuchok, master carpenter

Pasang, carpenter

Purbu Tsering, carpenter

Dawa, painter, assistant conservator

Norbu, painter, assistant conservator

Lobsang Puntsok, mason

Lhamo, *arga* roofing expert

Sonam Chödrön, *arga* roofing consultant

Tseyang, accounting

Chökyi, logistics

The report was written by André Alexander, partly based on the painting conservation work report written in German by Christine Jürgens (at the time named Christine Schmaltz) in 2005.

All illustrations of the first part by THF, survey drawings by Yutaka Hirako, painting documentation illustrations by Christine Jürgens.

fig. 1: Ganzi County location map

1. Site introduction Yundrungling Monastery

Yundrungling is reputedly the oldest monastery in Ganzi County, located at Qukar Gongnong village 20km west of Ganzi town in Ganzi Tibetan Autonomous County in Sichuan Province, China. It is the only Bön temple in the valley, and one of only two such sites in Ganzi county. Its history is not documented. According to the tradition preserved by the caretaker, previously there has been a reincarnation lineage in charge of the monastery that ended with a lama called Gongpur Wuja.

fig. 2: View of Qukar Gongnong village with Yundrungling Monastery in the center

Until 1966 Yundrungling was a true monastery, with seven to eight monks staying in surrounding village buildings. It was then used as granary until the mid-1980s, and then stayed empty until 1996.

During the Cultural Revolution all religious images in the main building have been destroyed. The former monks quarters are now village houses. But the main building with its old mural paintings and wooden structures is preserved.

2. Start of the project

THF's first visit to Yundrungling was in May 2002, soon after the start of the Beri monastery project. During an investigation of architectural monuments in neighboring villages, the THF team consisting of André Alexander, Pimpim de Azevedo, Nyima Tsering, Lobsang Ngudup and Chökyi found here historic murals on ground and upper floor, and exquisite carvings on the timber frame. The team also noticed that the building had suffered from water-



leaks for some time, caused by the poor condition of the roof. We noticed that the ceiling rafters were decayed. We took only very photos, thinking to come back at a later time (only 30 minutes walk from our residence at Beri), but we asked Mr. Lobsang Ngudup to copy all inscriptions on the paintings. In July 2002, after a night of heavy rain, the central part of the roof collapsed, destroying parts of the upper floor's inner north wall with its wall paintings.

The next morning, caretaker monk Tsewang, who had only recently begun his term as caretaker monk here, immediately came to THF asking for help. Our team began to implement emergency measures to prevent the whole roof of collapsing. A waterproofing structure of plastic foils and supporting pillars was erected as the core of the building lay exposed. In late July 2002 monk Tsewang obtained the necessary permission letters from Ganzi county religion office and Ganzi peoples government office from the Ganzi county for the restoration of the monastery by THF (Permission file Number: Ganzi religion office (2002)10).

With the advice of the Tibetan master builders Pala Migmar and Olo Chunchun , THF prepared a conservation plan. July 2002 marks the start of the project.



fig. 3: detail of a mural in the 1st floor of the monastery



fig. 4 (bottom left): detail of the altar on the north wall on ground floor

fig. 5: interior view of the assembly hall, ground floor; of particular interest are the decorated pillar brackets

fig. 6: Upper floor plan

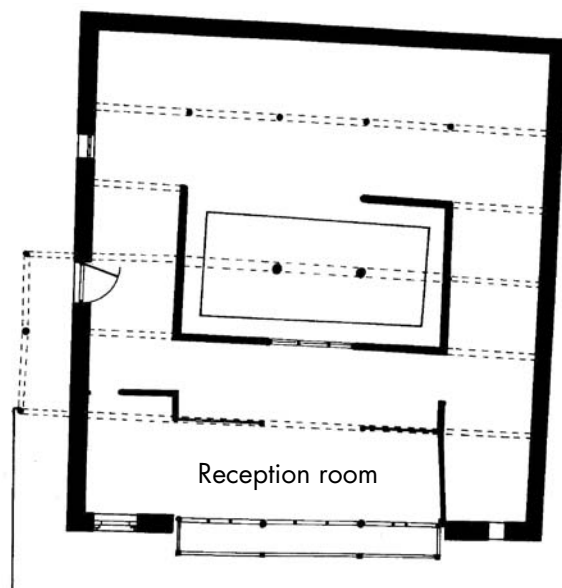
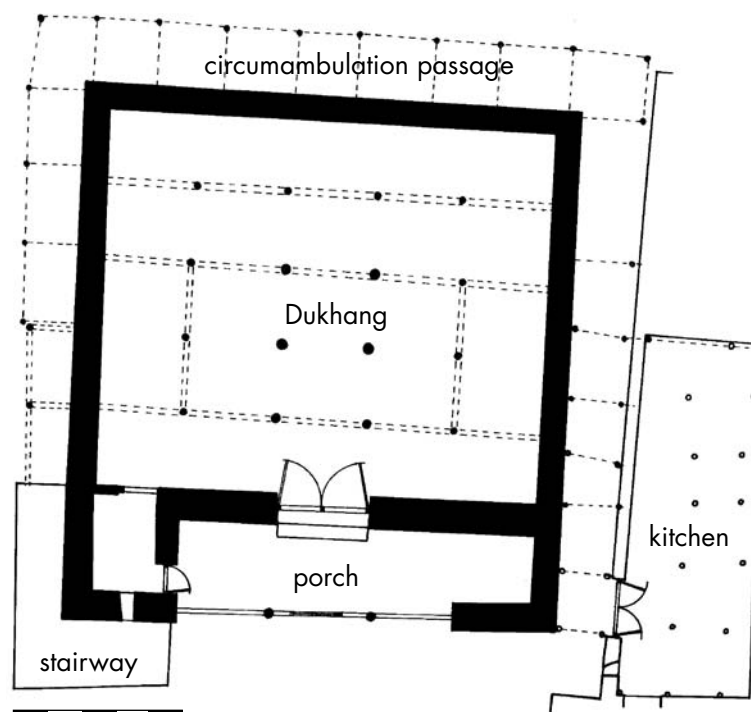


fig. 7: Ground floor plan
(all Yundrungling survey drawings:
Yutaka Hirako / THF)



3. Building analysis

The existing Yundrungling hall describes to the Tibetan building type called the *dukhang*. It is built with rubble stone masonry plinth and rammed earth to a rectangular plan. The main entrance faces east, and leads into porch (*go-ling*). The interior assembly hall has 16 wooden columns, two of which are of double height carrying the skylight. All walls have religious wall-paintings. Access to the upper floor is via an external staircase. On the upper floor, above the porch, is a reception room with three-bay wooden front walls with windows and a balcony. In the center, around the skylight, is a room consisting of thin mud brick walls with an east-facing window and an inner circumambulation passage around the central opening. These walls are all painted with religious images. The building form is standard, and virtually indistinguishable from a Buddhist temple. The architecture gives no hint regarding the age of the building, except that the interior timber frame carvings suggest a late Qing dynasty (1644-1912) date.

The THF team consisted of three master carpenters from Lhasa, Chuchok, Pasang and Purbu Tsering, who worked with local village carpenters, and mason Lobsang Puntsok.

There were two urgent main tasks: stabilizing the existing structures and closing the open roof. The ground floor assembly hall suffered comparatively little damage, but on the upper part a large section of the western wall had collapsed, destroying the paintings. Two Italian conservators on site for three weeks, Mr. Marco Pulieri and Mr. Luigi Fieni, taught the team a method of stabilizing the paintings on the other

upstairs walls with rice paper, and the carpenters then wrapped the walls in straw, cloth and plastic foil so that these thin walls could be fixed with wooden supports without further damaging the paintings. The entire operation was supervised by Norbu and Dawa from Lhasa, who had previous training in conservation techniques by the German restorer Uli Eltgen.

3.1 Porch

The wooden structure of the porch remained in reasonable condition. The wall paintings on the interior walls of the porch were already lost during the Cultural Revolution except for a few fragments. No intervention has taken place here.

3.2 Ground floor (*dukhang* assembly)

The timber frame suffered from deformation and settlement. This had to be corrected. The roof beams were suspended with simple car hydraulics, and eight pillars around the skylight area were re-erected in correct balance. One pillar was entirely replaced. The base areas of the eight pillars had been damaged by rot, this was cut off and the pillars were placed on

flat stones. This prevents future water infiltration from the ground. The inscriptions on the wall-paintings have been mostly documented but not yet interpreted.

3.3 Upper floor

The leaking roof had already caused substantial damage to the timber frame, and was the prime cause of the collapse. Most of the remaining timber frame elements had to be replaced. The ceiling was upgraded to the *dingtri* (fish tail) style build with uniformly -shaped joists. The painted walls were successfully preserved.

3.4 Reception room

Here the original style could be retained, as sufficient local style joists remained (made out of tree branches).

3.5 Stairway

The old external stairway on the north side, built from round river stones (*chu-do*), was dilapidated and had to be rebuilt from the foundations.

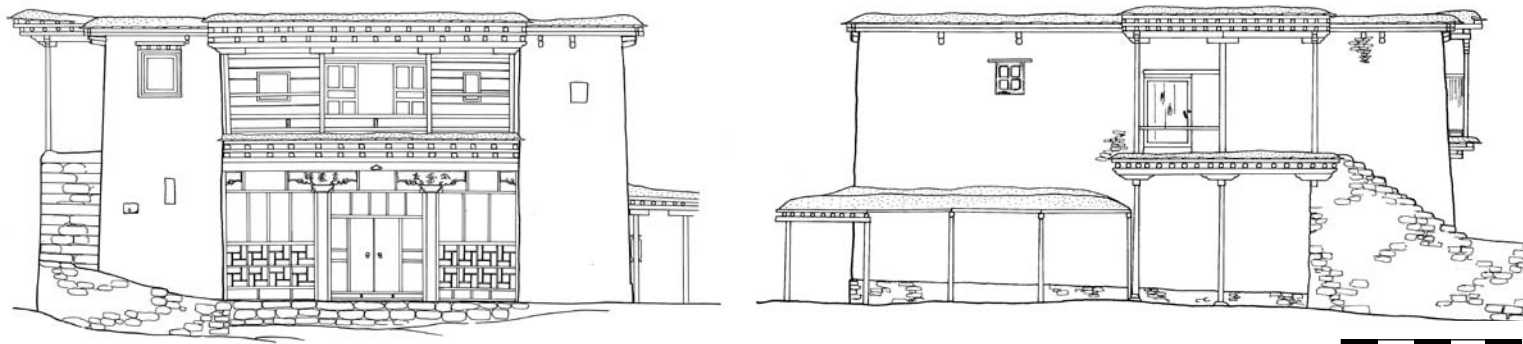


fig. 8: East elevation (left) and north elevation (right)

fig. 9: Yundrungling, sections west-east (left) and south-north (right)

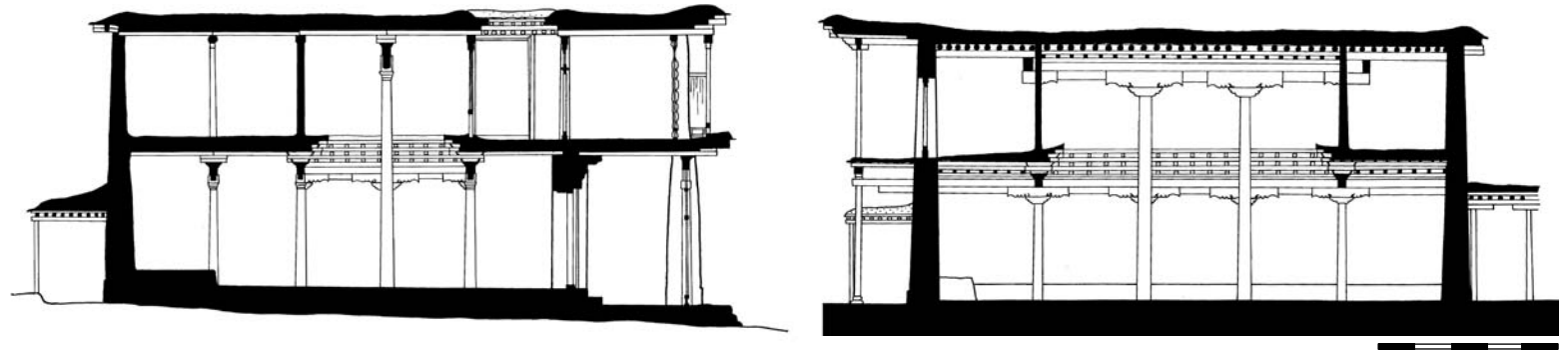


fig. 10 (left): Drawings for the reconstruction of the porch and wooden balcony

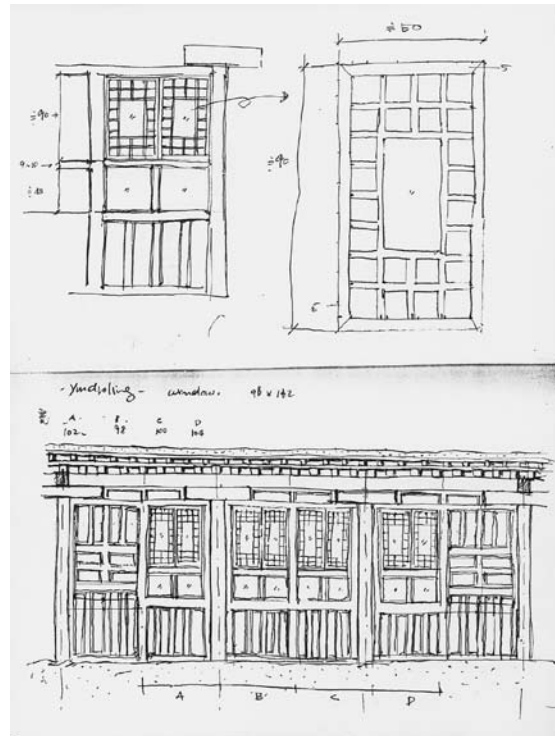


fig. 11 (right): Capital of the double-length pillar supporting the skylight.





fig. 12: Female workers taking a rest on the roof, view through the reconstructed skylight, 2004 (left); collapsed roof, July 2002 (right)



fig. 13: The reconstructed ceiling of the upper floor 2003 (left), hole in the roof after collapse, with THF emergency cover, July 2002 (right)

fig. 14: Interior of the ground floor assembly hall after the collapse (2002)



fig. 15 (right): upper floor corridor between reception room and skylight (2003)



fig. 16: work on the upper floor in progress; straw, paper and wooden props protected the walls and their paintings during the structural conservation process (2002)



fig. 17, 18 (right): original chu-do stairway in dilapidated condition (left) and reconstructed stairway (right) (2004)



fig. 19: work on the roof: dingtri joists are being placed over the ceiling rafters (front), on which are then placed gravel stones and soil; in the following year the roof was water-proofed with layers of arga (lime) coating (2003)





3.6 Circumambulation passage

The old circumambulation passage was in dilapidated condition. Since the passage is still regularly used by the villagers, it was necessary to make it structurally safe by reconstructing it. Most of the old timber elements proved to be unusable.



3.7 Roof and skylight

In the centre of the roof stood the skylight, which was built in the local Ganzi style. It was completely destroyed during the collapse. However, the caretaker monk proposed his own design for a reconstruction, which was not in the Ganzi style, but closer to central Tibetan style. This was eventually adopted.

In 2004, the roof was water-proofed with arga (lime and mud) coating.

fig. 20, 21: The skylight before collapse (top) and after reconstruction (bottom)



4. Conservation of the wall-paintings

During the process of structural restoration of Yundrungling monastery, the interior wall paintings were covered with a layer of Japanese paper, gaze and glue for protective purposes.

In summer 2004 THF brought the German restorer Christine Schmaltz to Yundrungling monastery. Her first task was to carefully remove these security layers and uncovering the old wall paintings. A detailed analysis of the paintings was the basis for further conservation treatment in a second step. Ms Schmaltz also performed cleaning and stabilizing work on the ground floor murals.

fig. 22, 23: circumambulation passage before (left) and after (right) reconstruction

fig. 24: general structure of the ground floor walls

4.1 Structure of walls and paintings

The stratigraphy of the paintings was identified macroscopically and can be defined as followed:

4.1.1 Wall construction ground floor

- 1 masonry made of river stones
- 2 mud mortar with straw
- 3 coarse plaster of mud and straw
- 4 fine plaster of clay and some Yak-hair (about 20-30mm)
- 5 fine plaster of clay (about 5mm)
- 6 gypsum (< 1mm)
- 7 paint layer
- 8 varnish

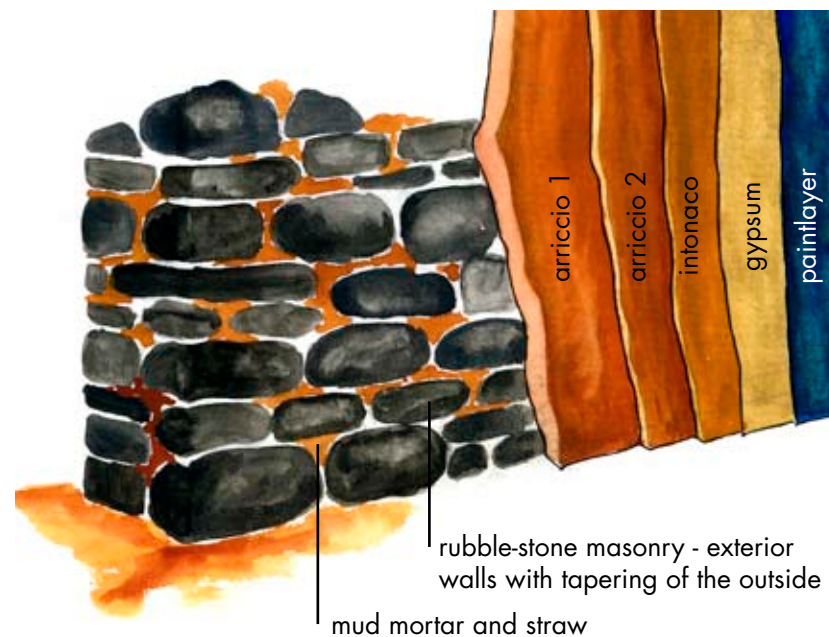
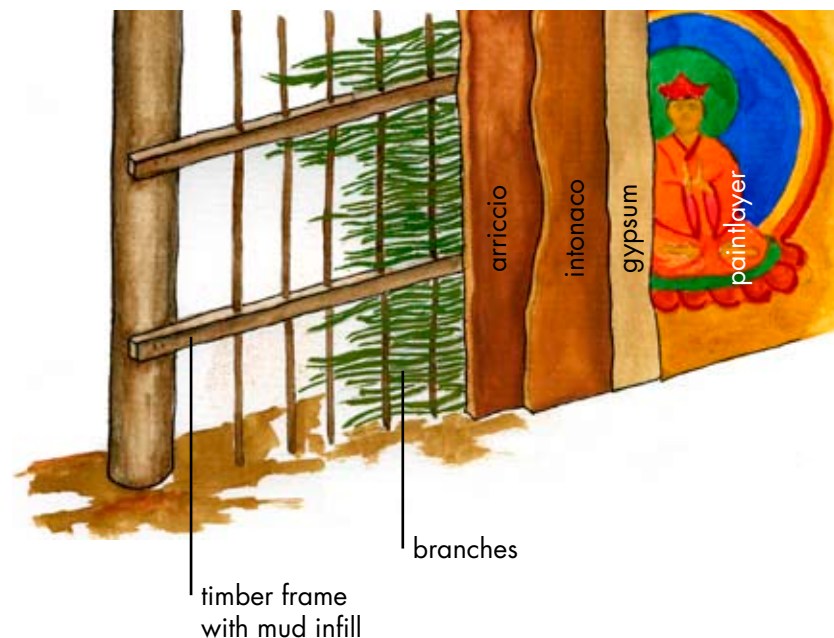


fig. 25: general structure of the upper floor walls

4.1.2 Wall construction upper floor

- 1 half-timbered wall
- 2 branches woven around vertical sticks
- 3 coarse mortar of mud and straw
- 4 fine plaster of clay (about 10mm)
- 5 gypsum
- 6 paint layer
- 7 varnish

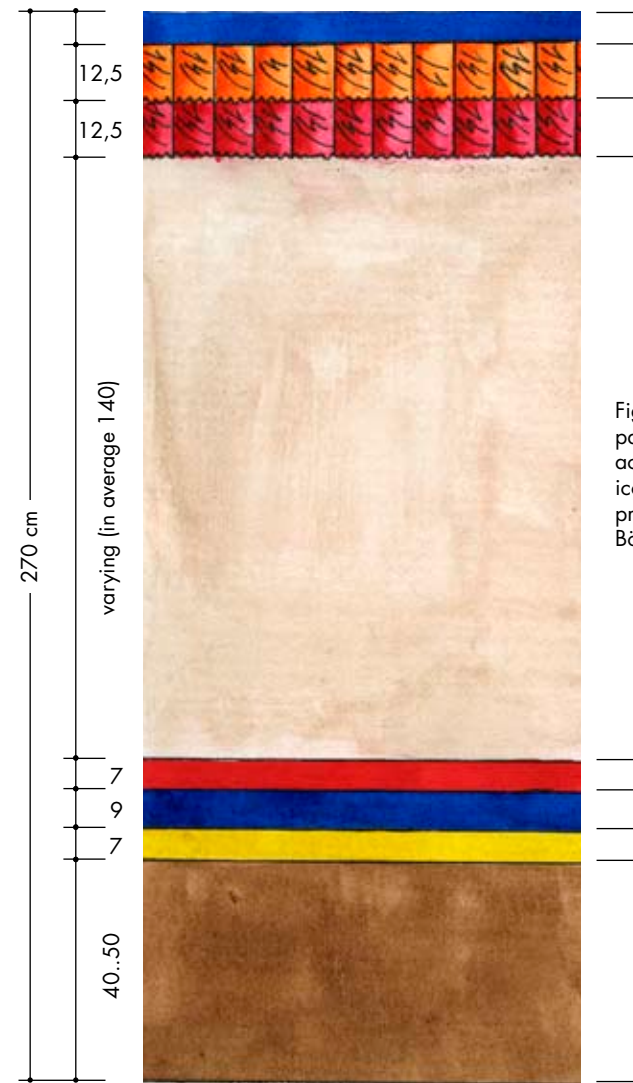
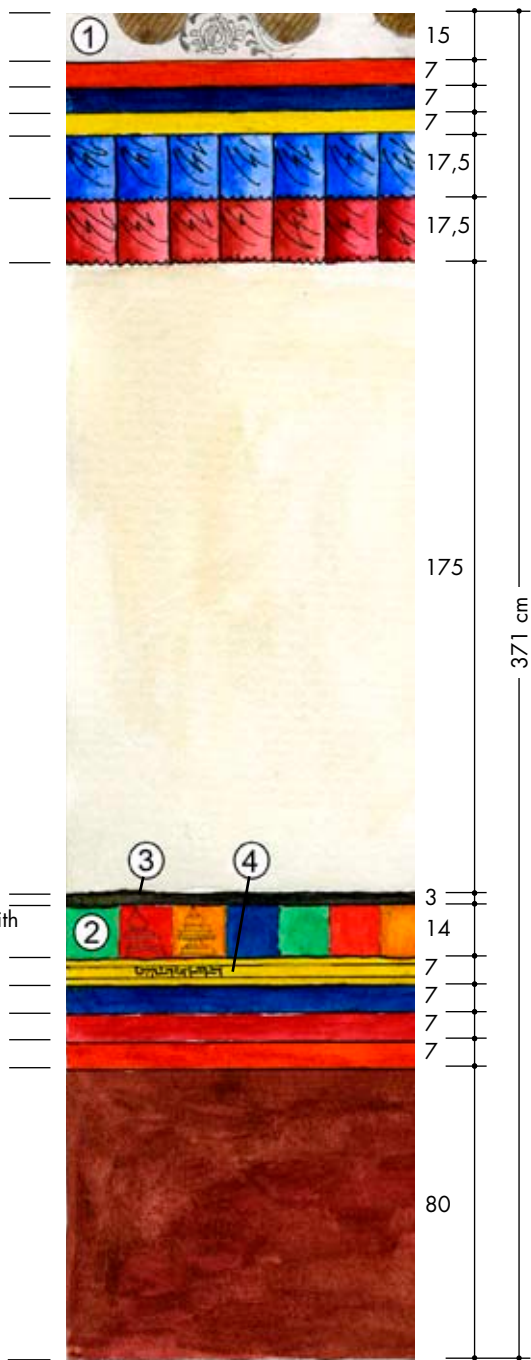


white background with
flowers (see detail 1)
orange
blue
yellow
blue
red

Figural paintings
according to
iconographic
programme of Bön
Religion

black & yellow (3)
green, red, yellow, blue with
black drawings (2)
yellow meander on black
blue
red
orange

brown



blue
orange
red

fig. 26 (left): general composition of
the wall-paintings in the ground floor
assembly hall

fig. 27 (right): general composition
of the paintings on the upper floor
room around the skylight

Figural
paintings
according to
iconographic
programme of
Bön Religion

red
blue
yellow
brown

detail 1



detail 2



detail 3



detail 4



fig. 28: details of the painting
sections on ground floor

fig. 29: example of damage: striation, dark residue of dirt, pigments and binding agent



fig. 30: example of damage: discolouration

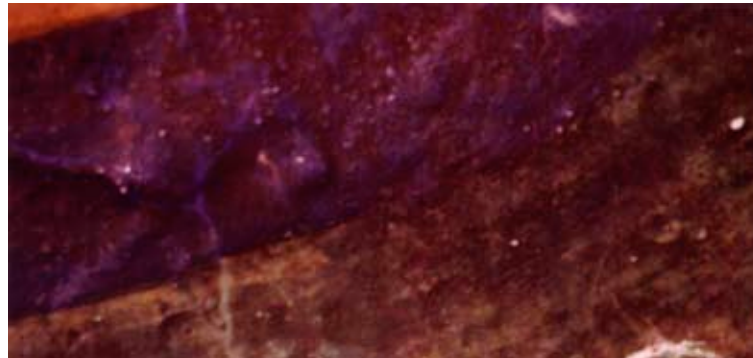


fig. 31: example of damage: losses of plaster and paintlayer



4.2 Phenomenological appearance of damages and their possible causes

Striation

Striation occurred frequently, with residue of dust, dirt pigments and binding agent carried by water running down the walls. It occurred much more often on the upper floor.

Possible causes:

- water leaking through the roof
- dust in the air settles on the walls

Discolouration

Discolourations mainly occurred in blue, green and yellow sections. They are irreversible. Blue colour sections change into green or black, green and yellow sections turn into brown.

Possible causes:

- probably because of a reaction in the binder or in the varnish or a combination of the two

Loss of surface

The lower sections (up to 150 cm height) of the ground floor display many scratches affecting the paint layer and causing losses of plaster (sizes between 20cm² and 50cm²).

Possible causes:

- use of the room as storage room during 1960s and 1970s.

Cracks

a) vertical cracks, particularly on ground floor:
One type of cracks occurring on the ground floor was up to 4mm wide, reaching deep into the mortar, partly as deep as the stone masonry. Despite the depth, because the edges were stable, there was just a small loss of the paint layer. Some of the cracks went through the entire height of the wall.

Possible causes:

- pressure caused by settlement of the load-bearing building structure - most cracks were usually found in the vicinity of main ceiling beams



b) vertical cracks:

Other vertical cracks were mostly not more than 1-2mm wide but quite deep. They caused losses of paint layer and plaster, and expose extremely brittle plaster in the vicinity.

Possible causes:

- structural faults
- water leaking through the damaged roof

c) horizontal cracks (upper floor):

Horizontal cracks on the upper floor, often located in the direct vicinity of wooden structural elements, were mostly not more than 1-2mm wide but set deep into the mortar. They caused losses of paint layer on the surface.

Possible causes:

- structural settlement of timber frame, different thermodynamical behavior of wood and mortar can probably be excluded

d) very fine cracks:

These cracks mostly occurred in combination with the big cracks. They were not very deep and usually just affected the paint layer.



e) fine cracks showing a deformation in the shape of concave arch of the paint-layer: Those cracks could be found in open (cracked) or still closed variety.

Possible causes:

- structural pressure
- shrinkage of the mud
- movements in the plaster caused by hygro-dilatation

fig. 32: example of damage: vertical crack, revealing old retouching and old infill

fig. 33: example of damage: paintlayer showing a concave arch over thin cracks

fig. 34: example of damage:
loss of plaster, partly exposing the
internal timber frame

Losses of plaster

In addition to the man-made damages on the ground floor, many defects of the plaster could be found in combination with the cracks on the upper floor.

Possible causes:

- result of physical impact due to usage as storage room
- caused by deformation of wooden construction inside the mud wall due to structural faults

Flaking paint layer

Flaking parts of the paint layer were found at the edges of cracks and losses. But these were still held in place by the Intonaco and by the surrounding paint layer.

Possible causes:

- high tension in the paint layer due to high amount of binding media and/or to the varnish on the surface

Loose paint layer

In contrast to flaking parts, the loose parts were just held in place by the connected paint layer, but without any fixation to the Intonaco.

Possible causes:

- high tension in the paint layer due to high amount of binding media and/or to the varnish

Hollow spaces inside the plaster

This rarely found type of damage occurred in some areas below the roof and was either closed (bubble) or burst.

Possible causes:

- mixture of the Arriccio (dung in the straw)



fig. 35: example of damage:
flaking and loose paintlayer



Brittle plaster

Brittle plaster was mostly found in surroundings of losses of paint layer and mortar. The plaster had disintegrated to sand, perhaps due to inferior quality of the original mix or moisture having removed binding ingredients of the clay.

4.3 Conservation measures undertaken

4.3.1 Removal of the security layer

As first step of the conservation and restoration work, the security layers, protecting the old murals during the structural conservation, had to be removed from the walls. The different conditions and obviously different compositions of glue, paper and gaze and the wish to uncover the paintings as sensitively as possible led to several tests.

Tests made for the removal:

- a) clear water, warm, brushed on top
- b) clear water, warm, sprayed on top
- c) water/ethanol (1000ml:60ml), warm, brushed on top
- d) water/ethanol (1000ml:60ml), warm, sprayed on top
- e) strip off in dry condition

Results:

At the edges of the walls, the best results could be made by stripping off the gaze layer and then the Japanese paper in dry condition. In cases where the Japanese paper was less well fixed, a bit of water/ethanol-mixture sprayed on top was enough to loosen the fixation to enable removal by hand. A low concentration hide glue was used, apparently partly applied with only little amounts of glue. In the central areas the removal required a great deal of work. Although the gaze layer could be stripped off easily in this section too, the Japanese paper was strongly fixed to the paint layer.



fig. 36: wallpaintings with security layer



fig. 37: wallpaintings with security layer



fig. 38: detail of the security layer

fig. 39: varnish on the paintlayer
with rests of Japanese paper

As solvent, the mixture of water/ethanol showed the best results, as well as the application by spraying was the easiest and cleanest way.

Problems:

One difficulty of removing the Japanese paper was finding the right composition and amount of solvent to be used. Using just a little amount resulted in an insufficient solubility of the fixing media. Letting the solvent taking effect on the surface for a longer time by repeating the application, the Japanese paper became too soft for stripping it off contiguously. Several tests led to the decision to work with a relatively high amount of solvent and ruled out any danger of affecting the murals beneath the paper. The dissolved rests of the protecting layer were brushed off with a cleaning-brush and a glass-fibre-pen. Furthermore there were areas, where very last bits of paper appearing like a white haze on the surface had to be removed by a scalpel.



4.3.2 Cleaning

All walls were washed with a warm water/ethanol-mixture (1000ml:80ml) and a soft sponge. A high concentration of ethanol was chosen to ensure complete removal of all traces of glue and to reduce the danger of moulding. Tests assured the required resistance of the paint layer against the mixture. Areas polluted by splashes of clay and other dirt were additionally cleaned with a cleaning-brush and/or a scalpel.

Finally all walls were washed again by moistening them with a spraybottle. Because of the good and stable condition of the paint layer, the cleaning was quite easy and successful. Just a few sections and those with gilded binding media (a traditional Tibetan technique highlighting ornaments of the depicted deities) made the cleaning process more complicated and time-intensive.

4.3.3 In-fill

Due to the remote location of the monastery, the variety of compositions for the repair filling was limited. But the use of local and traditional materials was a basic prerequisite for the project. So the same components as the original were chosen and mixed to the following recipes:

arriccio (coarse mortar):

clay + fine straw (cut in 2-3cm long pieces)

intonaco (fine mortar):

clay without any additives

mortar for injections:

clay without any additives but diluted with water

clay:

The clay was taken from the hills close to the monastery in the west, where people traditionally get the material for the walls and roofs of their houses. It is a clay of very fine, pure condition with a light ochre colour.

The likeness in colour of filling material and original plaster indicates the likeliness that the same material had been used originally. That supports the idea of Tibetan tradition using preferably locally available materials that are easy to transport.

Tests in the run-up have shown only good results concerning workability, shrinking and compatibility. The repair mortar was easy in application and the mortar for injections was clean and easy to inject, as long as cracks and hollow spaces were big enough for syringes to fill it in.

Procedure for fillings:



fig. 40 (left): found condition of the crack

fig. 41 (right): step a)

- a) opening the cracks by cutting out the brittle mortar without touching the paint layer;
If necessary, removal of old retouchings (if inadequate);
- b) wetting the losses with clean water (best results with anodized water or boiled water);
filling the losses with the repair mortar;
securing the edges of the paint layer by making the fillings higher than the original level (gives safety and stabilization to the edges);

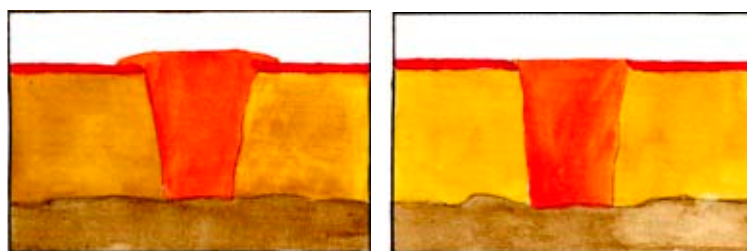


fig. 42 (left): step b)

fig. 43 (right): step c)

- c) After drying, the surplus of the repair mortar has to be removed with fine brushes or small sponges and water until in-fill and paint layer have the same level, and no painted surface is covered by plaster;
Now the edges are stabilized and fixed.

fig. 44: example of fillings, ground floor south wall



4.3.4 Injections

For the stabilization of hollow areas in the plaster, the same injection mortar (as described above) was used. The local clay is very fine-grained but nevertheless too coarse to inject it with cannulas. Extended injection points were the result of the compromise of using syringes.

To improve the rheological characteristics of the injection mortar as well as adhesion, water was injected first to moisten the hollow areas from inside.

4.3.5 Hollow spaces

Hollow spaces between plaster and paint layer were filled with injected clay. After the injection, the surface of the paint layer was softened by moistening it with a water/ethanol-mixture and then pressed down using wet paper.

Using a thin brush, water and a thin water/clay-

mixture was laid beneath the loose flakes of paint layer, in order to reactivate adhesion and to fix the flakes on the underground. To level the paint layer, it was - similar to the hollow spaces - moistened at first (water/ ethanol-mixture) and then pressed down with a wet paper.

In first tests glue was used to fix loose flakes. But after two days these flakes came up and lost their adhesion to the plaster again. Perhaps too strong tension in the paint layer might be the reason for this phenomenon.

4.3.6 Retouching

After conservation, in the next project phase of retouching, a compromise of how to treat old and new parts of the murals had to be found, as the local monk Tsewang and THF had somewhat different opinions. The organization's preferred method of simple „local retouching“ didn't agree with the monk's wish of retouching the paintings completely.



fig. 45 (left): detail, depiction of figure (lha rgyal bkra -) that was optically completed by local-retouching on dress and background

fig. 46 (center): monk Tsewang was an active participant during all stages of the work, seen here retouching the restored timber frame elements

fig. 47: (right): kitchen with new decorative wall-paintings

After some discussion involving the entire team, a compromise acceptable to both sides was reached: ornamental edging patterns (see figures 21 - 23 in chapter 4.1) were retouched completely. The band of chörten images, and the main images were retouched locally. That means one colour was chosen fitting with the surroundings, and the main lines of the paintings were retouched. So the general appearance of the image was improved optically. Some parts with very

long horizontal cracks, where it was not possible to close the painting only by a local-retouching, were retouched with more details. But a pure full-retouching was avoided, details like eyes, noses or hands have never been repainted.

painting material: local pigments
watercolours
binding media: skin glue 100%
(70g glue on 1l water)

4.4 Documentation of Paintings

fig. 48: location of the historic painting sections on upper floor

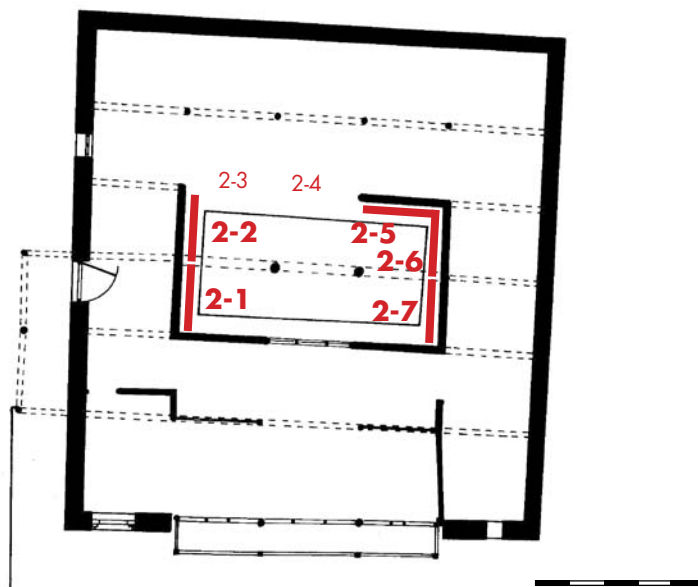
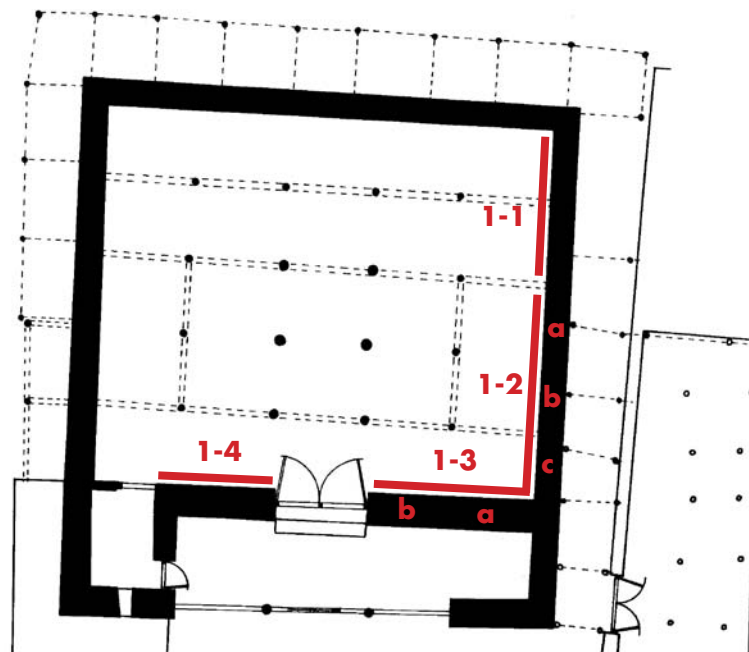










fig. 49: location of the historic painting sections on ground floor



Legend for the following analysis charts

damages (1..4)

	cracks
	microcracks
	loss of plaster
	loss of paintlayer
	flaking paintlayer
	crack between plaster & paintlayer
	cracks in plaster structure
	glue residue on surface

measures (5, 6)




	infill completion with clay
	injections with clay
	injections with glue



fig. 50: painting section 2-1 before conservation work

fig. 51: painting section 2-1, sketch
by C. Schmaltz



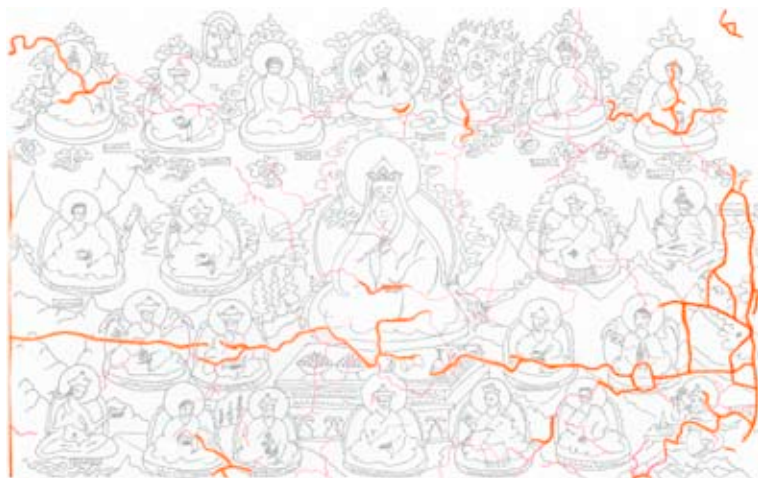


fig. 52..55: painting section 2-1 with analysis of damages

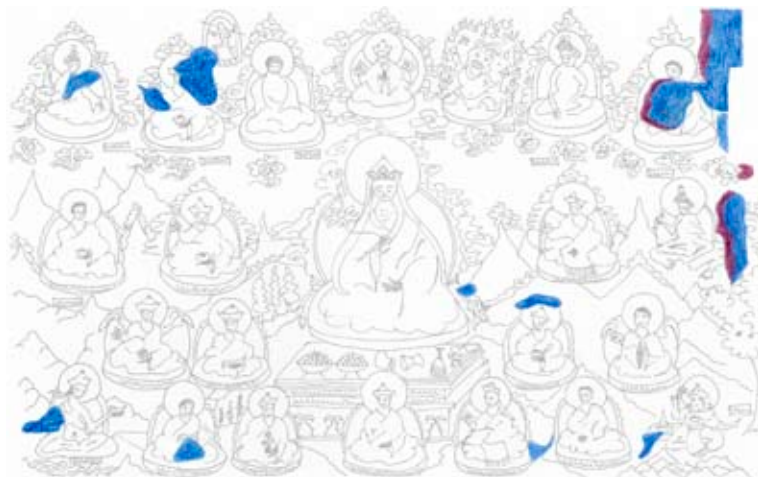


fig. 56, 57: painting section 2-1 with plan of conservation measures



fig. 58: painting section 2-2, sketch
by C. Schmaltz



grey area: infill after loss of surface



fig. 59..62: painting section 2-2 with analysis of damages



fig. 63, 64: painting section 2-2 with analysis of measures

fig. 65: ornamental edging pattern
of painting section 2-2, sketch by C.
Schmaltz

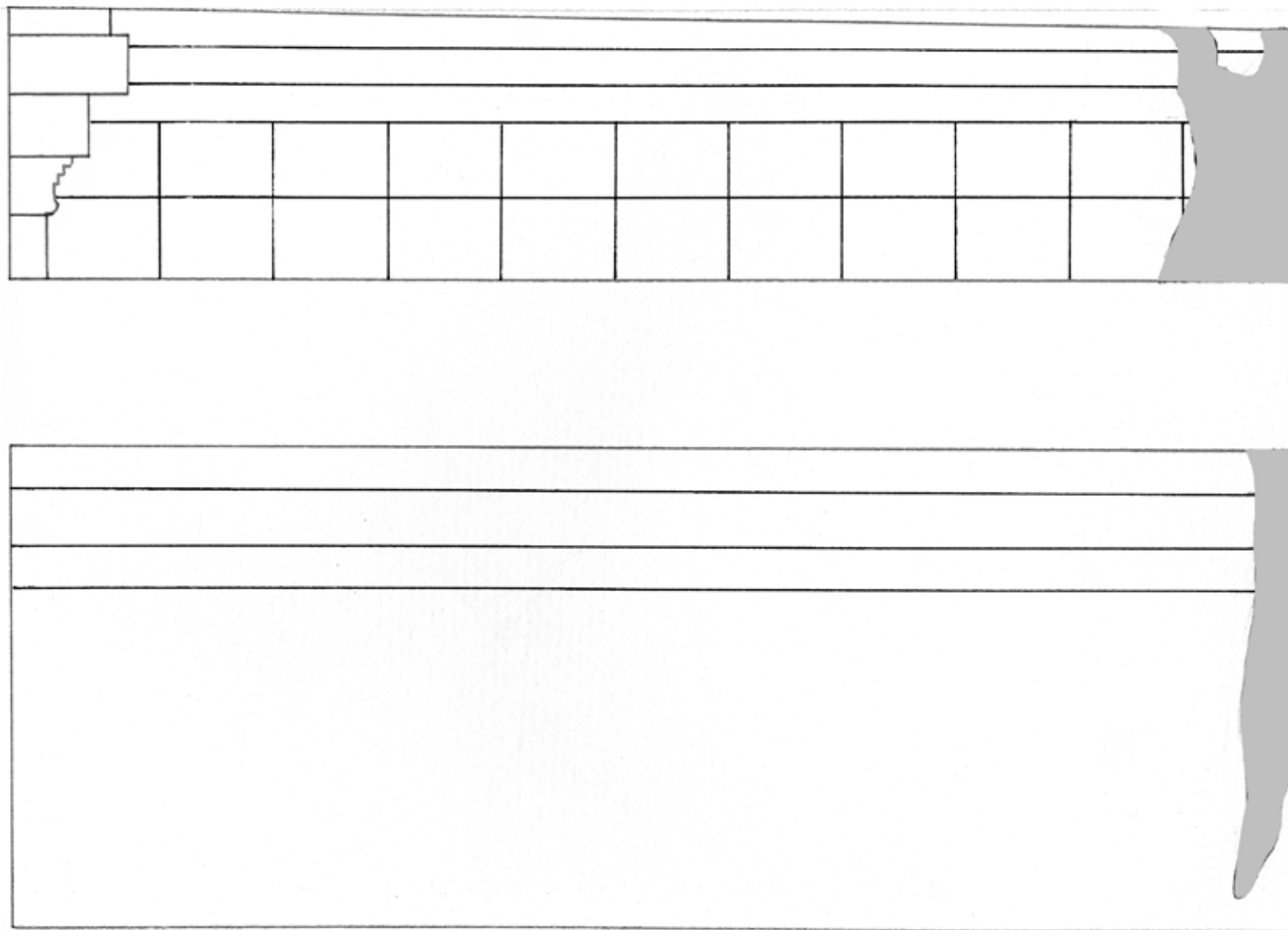




fig. 66..69: boundary parts of painting section 2-2 with analysis of damages

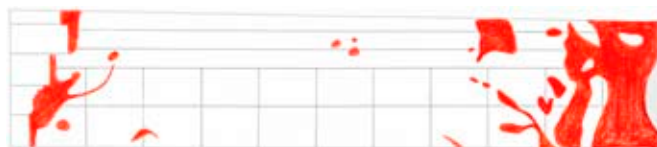
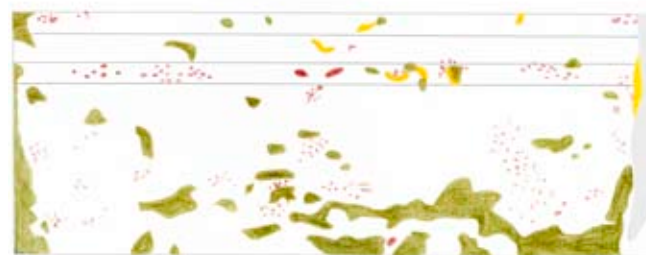
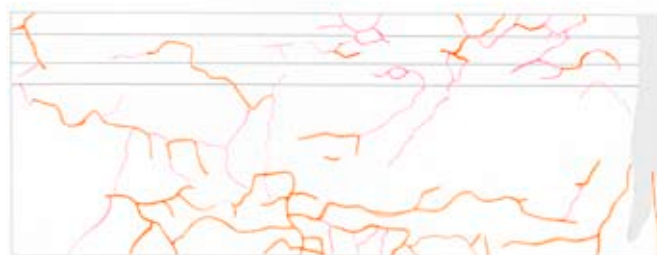


fig. 70, 71: boundary parts of painting section 2-2 with plan of conservation measures

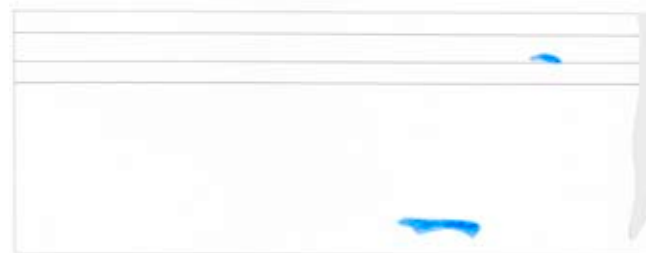
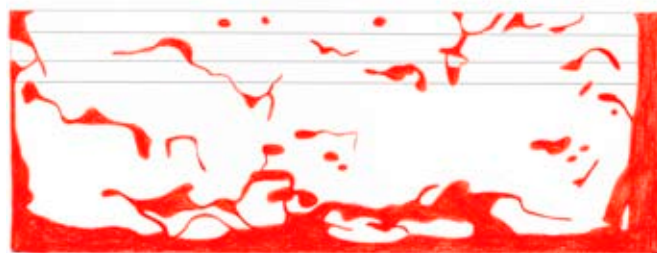


fig. 72: layout of painting section
2-5, sketch by C. Schmalz



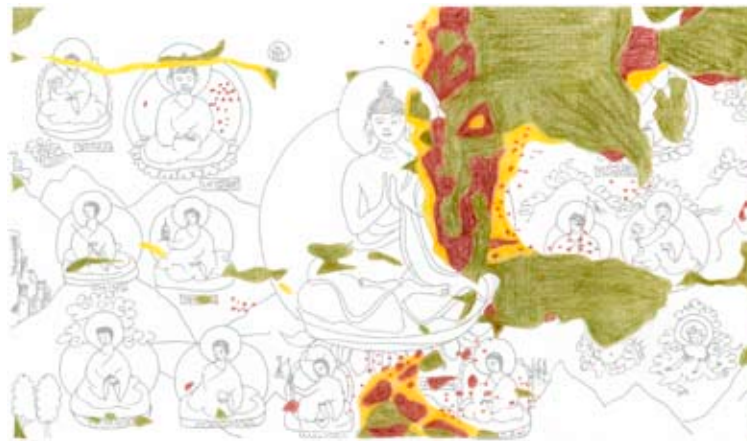


fig. 73..76: painting section 2-5 with analysis of damages

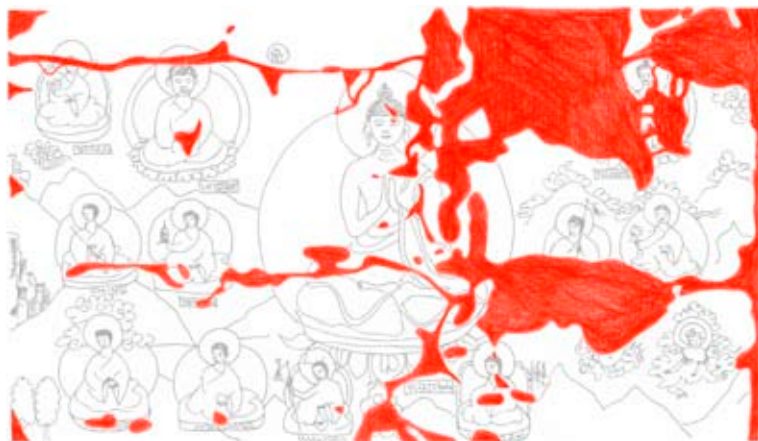


fig. 77, 78: painting section 2-5 with plan of measures to be undertaken

fig. 79: painting section 2-6 in a sketch by restorer Christine Schmaltz

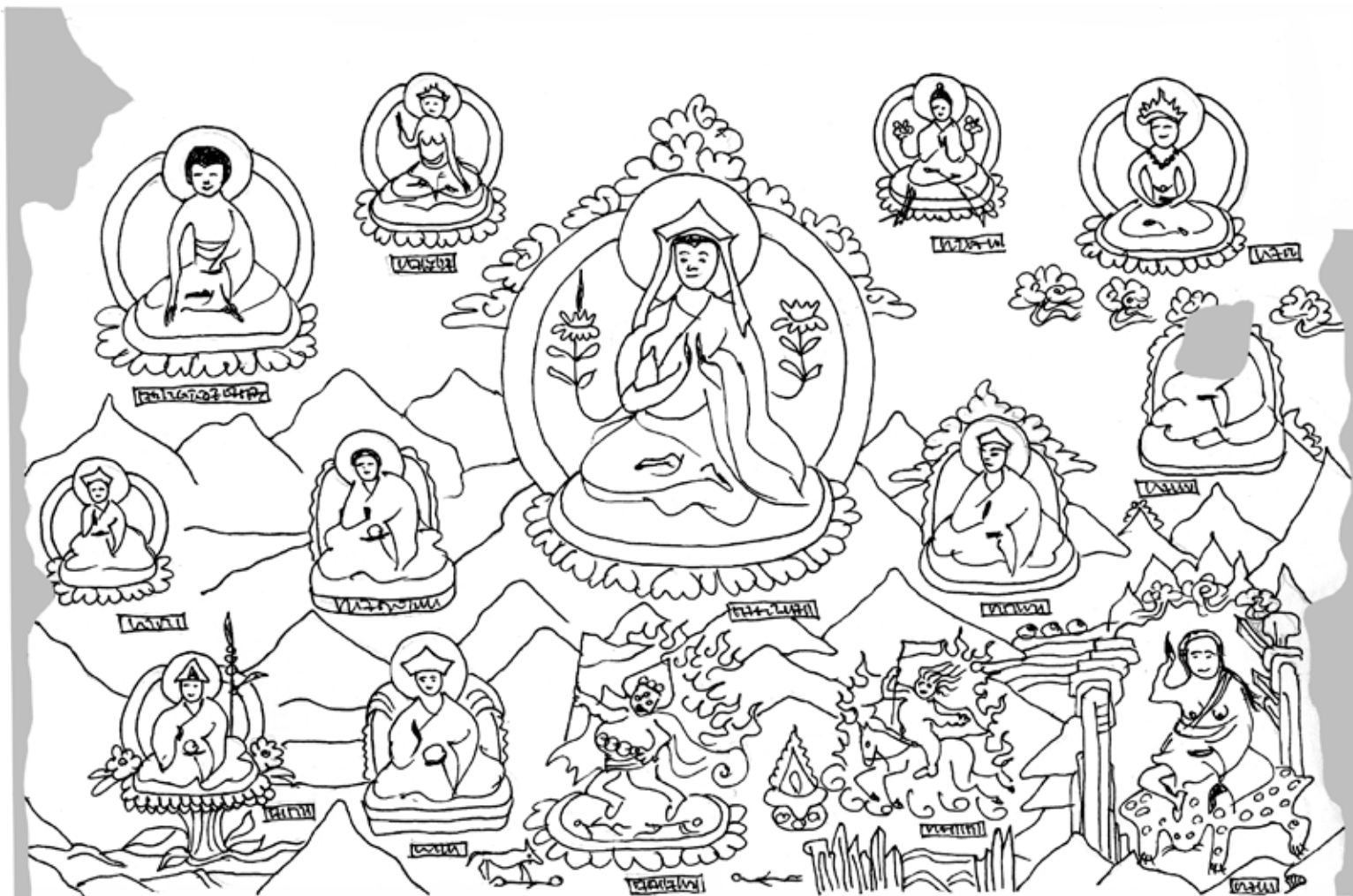




fig. 80..83: painting section 2-6 with analysis of damages



fig. 84, 85: painting section 2-6 with plan of measures to be undertaken

fig. 86: scetch drawing by restorer
Christine Schmalz





fig. 87..90: painting section 2-7 with analysis of damages

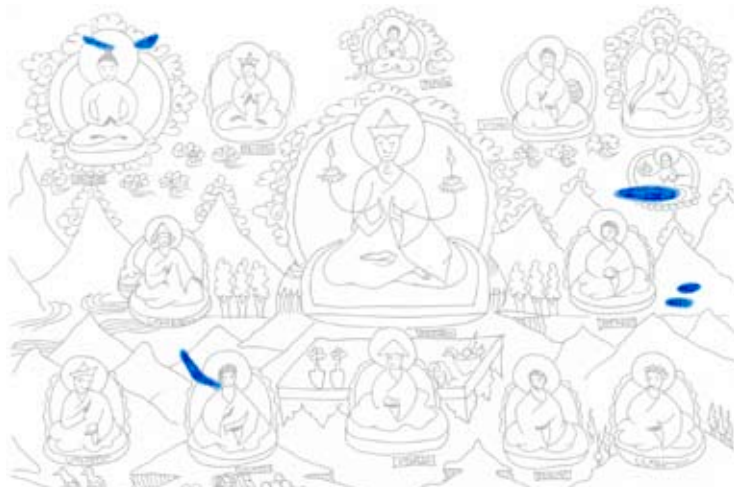


fig. 91, 92: painting section 2-7 with plan of measures to be undertaken

4.5 Photo documentation

fig. 93 (left): wallsection 2-1 with security layer



fig. 94 (right): condition of wallsection 2-1 after removing the security layer and after cleaning with a water-ethanol-mixture





fig. 95 (left): condition of wallsection 2-1 after completion of conservation work, not retouched yet



fig. 96 (right): final condition of wallsection 2-1 after retouching to fulfil local religious demands

fig. 97: wallsection 2-1





fig. 98, 99: detail, figures to the left and right of the main image on wallsection 2-1

fig. 100: wallsection 2-2





fig. 101: detail of lower part of wallsection 2-2, with the Bön version of Palden Lhamo (Sri Devi)

fig. 102: main figure of wallsection
2-5





fig. 103: wallsection 2-6

fig. 104: wallsection 2-7





fig. 105: detail, central image of wallsection 2-7

fig. 106 (left): remains of the Japanese paper used for emergency stabilization after the first cleaning

fig. 107 (right): final condition after removing the paper traces with a glass fibre pen

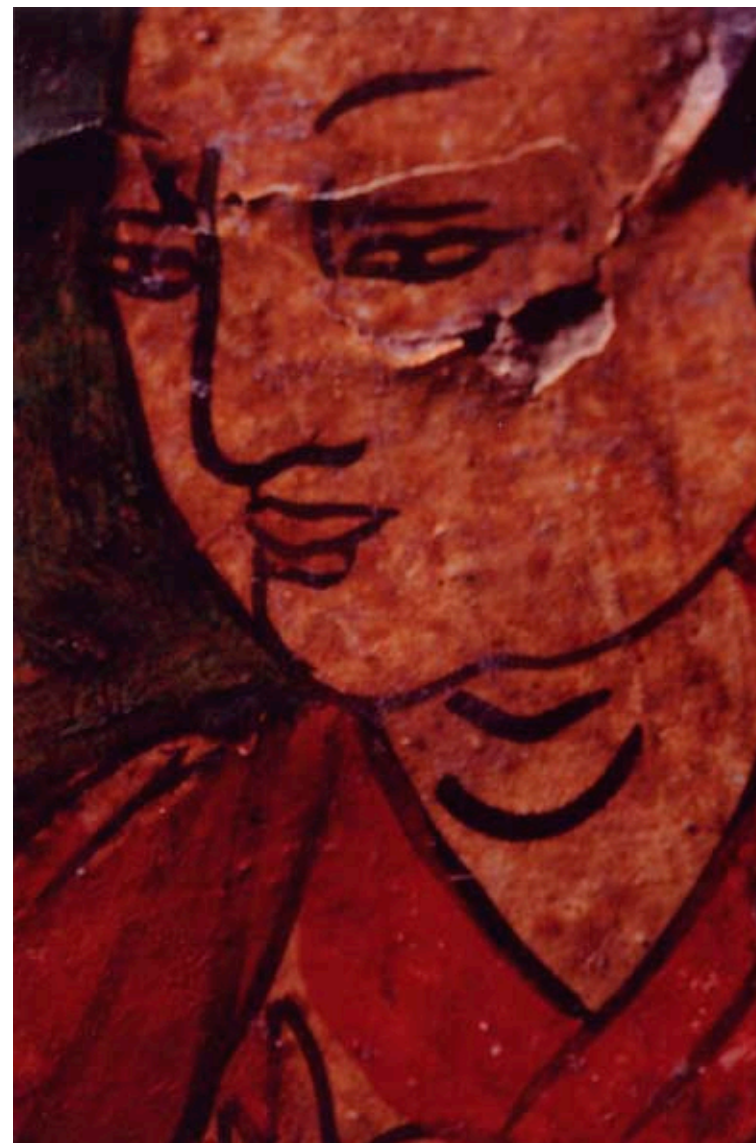




fig. 108 (left): old retouching on an old filling, which was subsequently removed



fig. 109 (right): loss of paintlayer and plaster

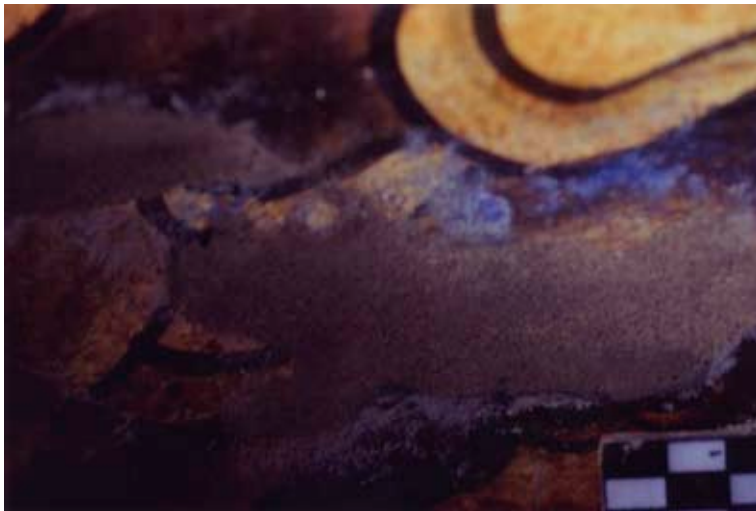


fig. 110 (left): in-fill, first phase

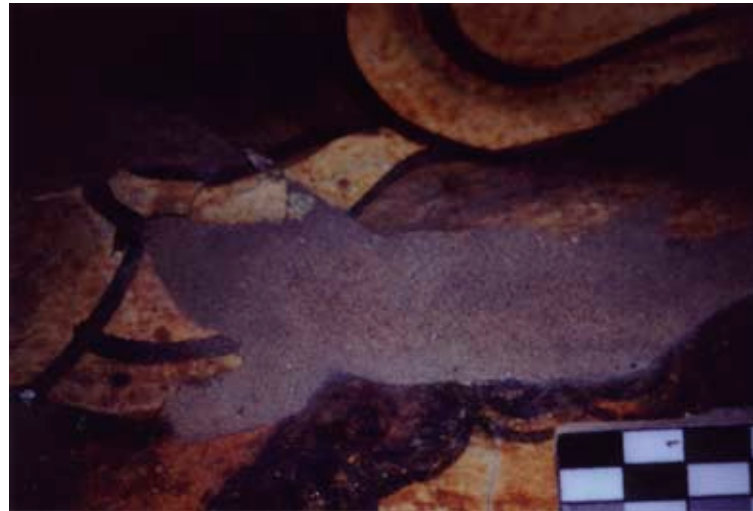


fig. 111 (right): in-fill after cleaning - final condition

fig. 112 (left): loss of plaster



fig. 113 (right): in-fill

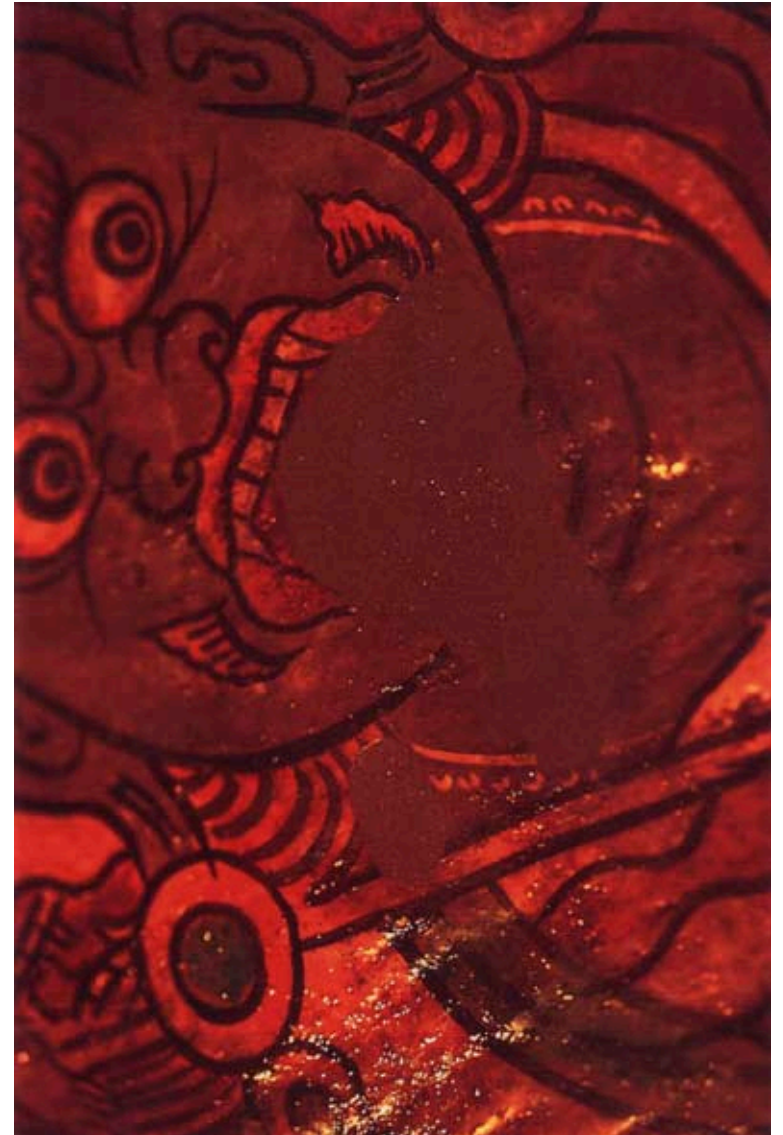




fig. 1114 (left): flaking and loose paintlayer



fig. 115 (right): refixed paintlayer, losses are closed with plaster

fig. 116 (left): THF's proposal of "local retouching" - fill colours and basic lines repainted

fig. 117 (right): same detail after the compromise with caretaker monk Tsewang had been reached, according to which more „lost“ lines have been repainted.

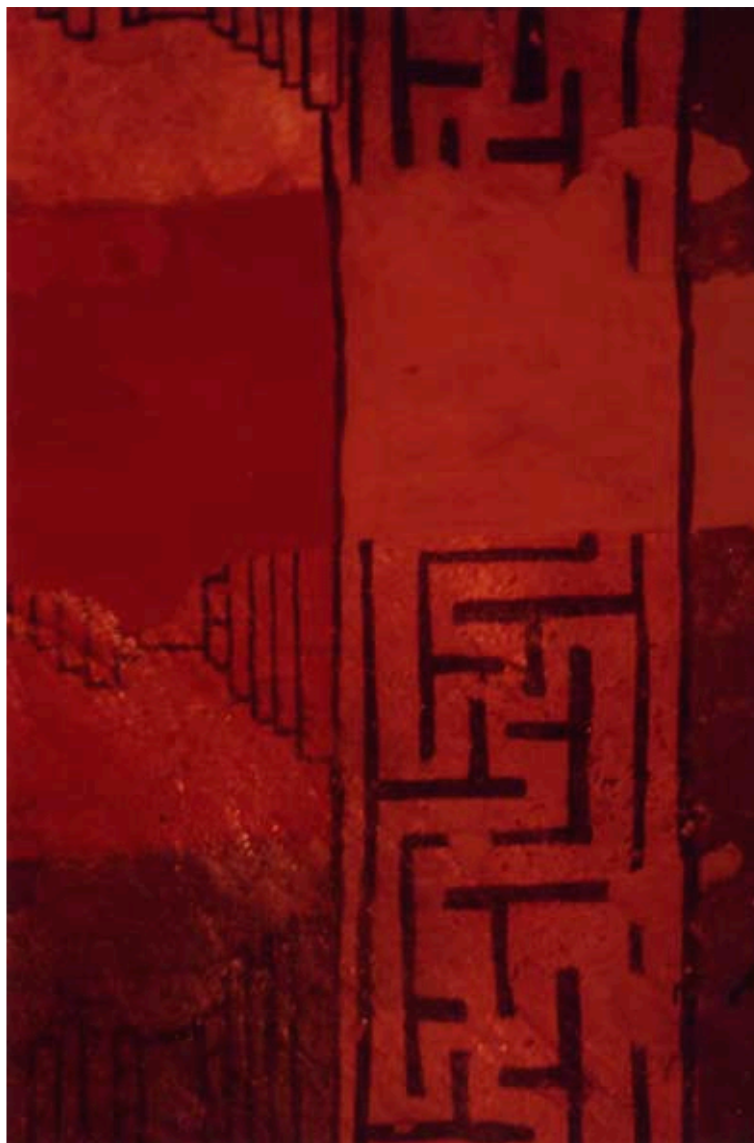




fig. 118 (left): „local retouching“, fill colours and some basic lines strongly repainted due to the long horizontal cracks - this is necessary so that the image becomes iconographically complete.

fig. 119 (right): detail of fig. 74

*fig. 120: Yundrungling monastery
before intervention*

*fig. 121: the monastery at the end of
2003*





fig. 122: Yundrungling Monastery in August 2005

fig. 123: members of the conservation project team at Yundrungling Monastery, from left: Dawa, Lobsang Puntsok, Pasang, Tseyang, two villagers, Ms Chökyi (with red bag), local villagers, in the back (behind the man with baseball cap) Nyima Tsering.



5. Appendix - inscriptions copied by Lobsang Ngudup

དགའ་བ་འཛིན།	— ཆོས་རྒྱལ་ལྷ་དགའ།
རྒྱལ་སྤྱུ་གཏོང་བ་འབྲུམ་སྤྱུ།	ཆོ་དབག་མེད།
ལེ་གཤེན་གཙུག་།	དཀྱུན་དུ་བཟང་པོ།
ཁྱི་གཙུག་རྒྱལ།	དགྲ་ངས་མཛོགས་རི་ཁོད།
དུང་ཕྱོད་རྒྱལ།	བྱ་རྒྱལ་བ་རིན་པོ་ཆེ།
དུག་ཁྱི་ཉམ་པ་ཤེས་ཞོན་མོངས་དུག་སྤྱེགས།	རྒྱ་བཅོན་གར་རྒྱ་དབྱ་རྒྱ།
དཔལ་ལྷན་མཆོག།	འབྲོང་མགོན་ལྷོ་ཕྱོས།
ཆོངས་པ་གཙུགས།	ལེ་ར་ཉ་པ།
མཁས་གྲུབ་རིན་ལོ།	མི་ཤེས་རྡོ་རྗེ་ལ་ན་མོ།
རིགས་འཛིགས་ཆོད་ལྷེམས།	དམ་པ་ལྷོ་ཕྱོས་རྒྱལ་མཆོན།
པརྒྱ་འབྲུང་གནས།	ཉམས་གྲུང་ཉི་མ་རྒྱལ་མཆོན།
ཆོད་རིག་འཛིན།	སངས་རྒྱས་གཉིས་པ།
ཁྱི་པ་ལྷན་པ་ཆོས་རྒྱལ་སྤྱེགས་ལ་ན་མོ།	རྒྱལ་ཆོབ་གངས་བྱང་དབང་པོ།
ཤེ་རབ་རྒྱལ་མཆོན་ལ་ན་མོ།	གར་པ་རྒྱལ་འབྲོར།
ཨ་གསེར་ཕྱོགས་བཅན།	གཡུང་དུང་འཕྱན་འཛིན།

ཉོན་པའི་དུང་དུ་གཙུག་ཤེན་རྒྱལ།
 ཀྱན་ཉོན་དཔལ་མཆོས།
 བཙུན་འཛིན་གྲགས་པ།
 བཙུན་འཛིན་ཚུལ་ཁྱིམས་གྲགས་པ།
 ངག་བོན་བསྐྱོམ་པ་གཞོན་ཅུ།
 ཀྱན་ཞོགས་རྒྱལ་བ་དབང་གྲགས།
 མོན་རྒྱལ་ཉོན་པ་དབང་རྒྱལ།
 མདོ་ཁམས་མཛད་དུ་གཡུང་དུང་ཡེ་ཤེས།
 རྒྱལ་སྤྱུ་པད་མ་རྒྱལ་པོ།
 ལུ་ཤེས་ཆོ་དབང་བསོད་ནམས་ཉམ་རྒྱལ།
 ཉོབས་ཆེན་བདུལ་ཅལ།
 གཡུང་རྒྱལ་རྡོ་རྗེ་འཆང།
 རང་བྱུང་གཡུང་དུང་རྡོ་རྗེ།
 དམ་གཤེན་ལྷན་གྲུབ་ཉམ་འཛིན་དབང་རྒྱལ།
 དཔལ་ལྷན་དམར་བོར་རྒྱལ་མོ།

ཀུན་ཞོགས་རྒྱལ་བ་དབང་གྲགས།
 མོན་སྤུལ་མོན་པ་དབང་རྒྱལ།
 མདོ་ཁམས་སྤང་བྱ་གཡུང་བྱང་ཡེ་ཤེས།
 རྒྱལ་སྤྱོད་པ་མ་རྒྱལ་པོ།
 ལྷ་ཤེས་ཆོ་དབང་བསོད་ནམས་ལྷན་རྒྱལ།
 ལྷོ་བས་ཆེན་བདུལ་ཅལ།
 གསུང་རྒྱལ་རྡོ་རྗེ་འཆང།
 རང་བྱུང་གཡུང་བྱང་རྡོ་རྗེ།
 དལ་གཤེན་ལྷན་སྤྱོད་ལྷན་འཛིན་དབང་རྒྱལ།
 དཔལ་ལྷན་དམར་ཟོར་རྒྱལ་མོ།
 གཤེན་ལྷ་གཡེར་དཀར།
 སངས་རྒྱལ་རིན་ཆེན་དཔལ་བཟང།
 ལྷན་པ་སྤང་བ་རང་བྱུང་ཐུགས་རྗེ་ཅན།
 ཆོ་ལོ་འབྲུམ་མཛིན་དཀར་ལ་པ་བརྩུ་རྟ།



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